

TOYOBO REPORT 2024

Toyobo group Integrated Report
for the fiscal year ended March 31, 2024

TOYOBO



Realizing Prosperity:
The Strength of Toyobo



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COVER STORY



The cover image represents Toyobo group's vision for a prosperous society achieved through innovation. The butterfly, symbolizing reincarnation, revival, and longevity, is depicted as the black swallowtail, *Sasakia charonda*, which was designated Japan's national butterfly by The Entomological Society of Japan in 1957. This choice reflects the group's aspiration to recover its earning power and strive for further growth, leveraging its 140-year history. Through the butterfly's themes of "revival" and "longevity," we aim to convey our value creation story.

Using this report (PDF)

Category tabs and navigation buttons at the top of every page make it easy to navigate between pages. Clicking a link button in the text will take you directly to the relevant website or page within this report.

Navigation buttons

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Link buttons

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Editorial policy

The Toyobo group Integrated Report was created with the aim of deepening the understanding of the group's value creation among shareholders, investors, and other stakeholders. It also seeks to foster dialogue both within and outside the company, thereby contributing to the enhancement of corporate value.

For the 2024 edition, we focused on Sustainable Vision 2030 and the 2025 Mid-Term Management Plan formulated by working backward from this vision. We included discussions centered on top management's perspectives and the commercialization of our unique technologies, as well as efforts supporting the advancement of our corporate and business strategies. We have strived to explain the source of Toyobo's strength in realizing prosperity. Editorial and production work referenced frameworks such as the International Integrated Reporting Framework, recommended by the IFRS Foundation, and the Guidance for Collaborative Value Creation by the Ministry of Economy, Trade and Industry. This was carried out under a cross-departmental cooperation system led by the Corporate Sustainability Department.

Report boundary	Unless otherwise stated, this report refers to Toyobo group. Financial information is presented on a consolidated basis.
Reporting period	April 2023 to March 2024 (Certain information from after April 2024 is also included where relevant.)
Published	October 2024 Next scheduled publication: August 2025
Reference guidelines	<ul style="list-style-type: none"> • GRI Standards (Japanese version) • IFRS Foundation's International Integrated Reporting Framework • Task Force on Climate-related Financial Disclosures (TCFD) recommendations • Ministry of the Environment's Environmental Reporting Guidelines 2018 • Ministry of Economy, Trade and Industry's Guidance for Collaborative Value Creation

Disclosure of information



TOYOBO REPORT [☞](#)
(Integrated Report)

Investor Relations section on our website [☞](#)

Here, we bring together investor relations (IR) materials such as the Financial Report, the Annual Securities Report, and business results presentations for the benefit of shareholders and investors. We also present an overview of the company's current financial status and business performance, stock information, an IR calendar, and FAQs, among other relevant information.

Annual Securities Report [☞](#)

Prepared in accordance with the requirements of Paragraph (1), Article 24, of the Financial Instruments and Exchange Act, the Annual Securities Report presents a summary of the company's current situation, details of its business areas, the current state of its facilities, its operational status, and its financial statements, among other relevant information.

Fact Book [☞](#)

The Fact Book presents 11 years of key financial data and five years of non-financial data for the company as a whole, as well as for individual segments.

Sustainability section on our website [☞](#)

Here, we present information concerning Toyobo group's sustainability-related initiatives, along with relevant data.

[Sustainability ESG performance data](#) [☞](#)

Sustainability Report [☞](#)

Compiled in November each year, this is a PDF version of the sustainability-related information posted on the company's website.

Corporate Governance Report [☞](#)

This report presents information about Toyobo group's approaches and systems, in accordance with Japan's Corporate Governance Code.

Financial information

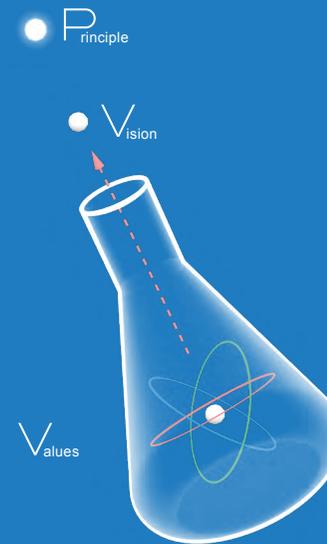
Sustainability information

Corporate philosophy framework

Toyobo's Declaration

Toyobo's strength to realize prosperity

Leveraging Toyobo's strengths in materials and science, we create solutions needed by people and the planet, contributing to the realization of a prosperous society.



TOYOBO
PVVS

Principle

Jun-Ri-Soku-Yu

Adhering to reason leads to prosperity

Vision

We will continue to create the solutions needed by people and the planet through our materials and science.

Values

We welcome change, enjoy change, and create change.

Sustainable Vision 2030

“Jun-Ri-Soku-Yu”—adhering to reason leads to prosperity

Ideals we seek to realize	Innovation We aim to be a group that continually creates materials and science that become solutions for people and the planet.				
Social change and trends in 2030	Standardization in handling safety, human rights, and social justice issues	Increased and diversified needs concerning access to medical care/health promotion	Demographic changes, human-centric innovation, accelerated urbanization	Decarbonization, resource circulation, limited natural resources	
Social issues to be solved through commitment	People			Planet	
	 Employee well-being and human rights in the supply chain	 A healthy lifestyle and healthcare	 Smart communities and comfortable spaces	 A decarbonized and circular society	 Quality water areas, air, and soil, and the preservation of biodiversity
Goals for the future	<ul style="list-style-type: none"> • People First: employee safety, company pride, and rewarding work • Respecting human rights across the entire supply chain 	<ul style="list-style-type: none"> • Contributing to the field of epidemiology • Contributing to improving quality of life 	<ul style="list-style-type: none"> • Contributing to the realization of a human-centric digital society • Creating comfortable spaces 	<ul style="list-style-type: none"> • Contributing to carbon neutrality • Establishing an ecosystem for circulating resources 	<ul style="list-style-type: none"> • Improving the environment through solutions • Reducing food loss
Where we'd like to be by 2030	Prosperity Ushering in both a prosperous society where people can live with peace of mind and the enhancement of corporate value				

CEO message

Regain our earnings capability and bring prosperity to people and the planet

“Jun-Ri-Soku-Yu,” the corporate philosophy at the core of our management

Toyobo group has adopted “Jun-Ri-Soku-Yu” (Adhering to reason leads to prosperity), a guiding principle of our founder Eiichi Shibusawa, as our corporate philosophy for more than 140 years. Since becoming president in 2021, I have made this philosophy the foundation of our management approach. In 2022, our 140th anniversary year, we unveiled Sustainable Vision 2030, which embodies this corporate philosophy and outlines our aspiration to be a group that continues to create the solutions needed by people and the earth with our materials and science.

This vision aims to transform the group into a company that tackles solving social issues with cutting-edge products and technologies, earns unwavering trust and expectations for growth, and foster a workplace where employees can work with pride and a sense of purpose. We have structured our vision into two distinct phases: the first phase, from fiscal 2023 to fiscal 2026, focuses on rebuilding and preparation, while the second phase, from fiscal 2027 to fiscal 2031, will drive growth.

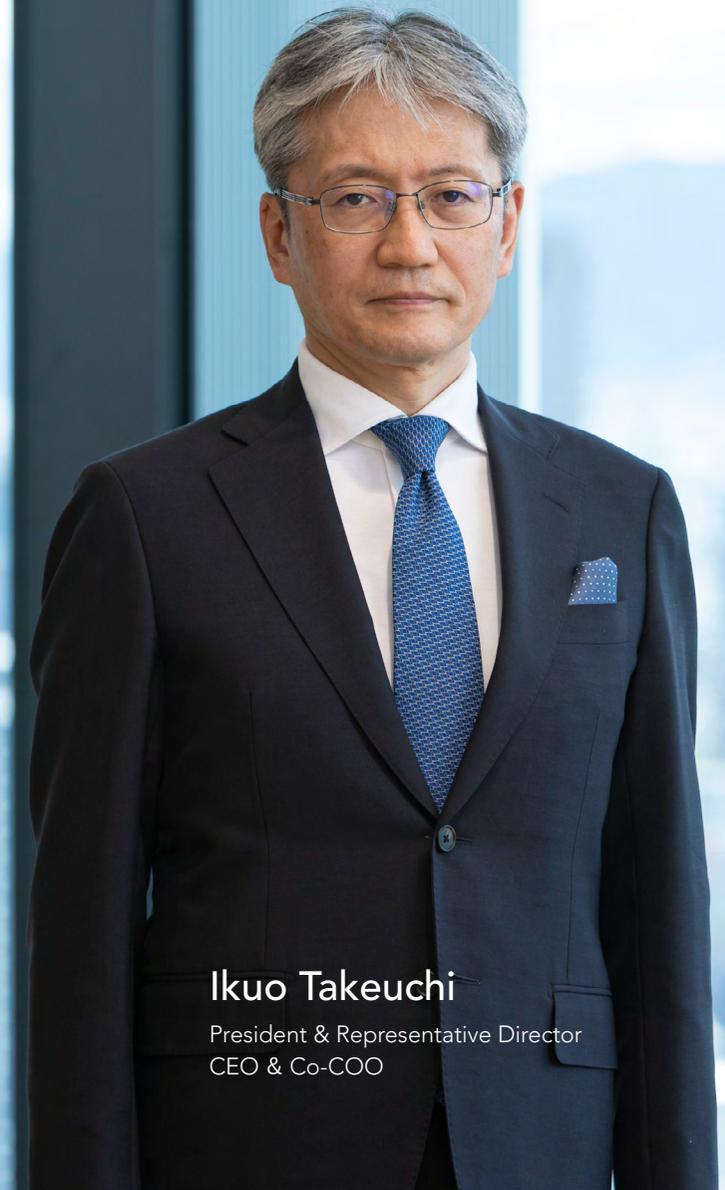
Upon taking on my role, I faced a challenging landscape. The group had faced two major fires over the previous three

years and encountered quality issues in two business areas, damaging our reputation as a manufacturing leader. Although our financial position had improved, growth remained stagnant, with the exception of our industrial film sector. Thus, we designated the first stage as a period for rebuilding trust and making strategic investments to drive growth.

The 2025 Medium-Term Management Plan (2025 MTP) is a crucial step toward realizing Sustainable Vision 2030, with fiscal 2024 marking its second year. Last year, we committed to restoring our earnings capability. However, due to a slower-than-expected recovery in demand in key areas, this goal has been delayed by two years, impacting the results we anticipated.

Despite these setbacks, we have laid a solid foundation for rebuilding and are making notable progress in risk management. By fostering trust and addressing social issues, we aim to generate positive cash flow, drive prosperity for both society and the group, and continue to build momentum in our efforts.

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Ikuo Takeuchi

President & Representative Director
CEO & Co-COO

Challenges highlighted by fiscal 2024 performance

The past year has highlighted several key challenges: persistently high raw material prices due to yen depreciation, increasing geopolitical risks, a shift from globalization to an era of division, and the impact of China's economic slowdown on the global economy.

Although revenues increased, operating profit declined. While sales of polarizer protective films for LCD TVs, in which we hold a global market share of about 60%, performed strongly, profits from packaging films dropped significantly. This decline followed the reduction in demand for PCR test reagents after the peak of COVID-19 pandemic. Efforts to improve margins through price adjustments for packaging films—primarily used for food packaging in Japan—were hampered by the lingering effects of inventory accumulated during the pandemic and the slower-than-expected recovery in demand. Meanwhile, recovery in demand for functional polymers and industrial films, especially for electronics-related products, has been sluggish, with China's market recovery lagging.

For the period, operating profit for the period was ¥9 billion, falling short of the initial plan of ¥15 billion, while net profit was ¥2.5 billion, compared with the target of ¥4 billion. This significant deviation from our initial projections is a serious concern. Despite active investments in growth and upgrades leading to increased capital expenditures, the decline in operating profit and cash flow has resulted in higher borrowing and a deterioration in our financial position.

Our immediate challenge is to restore our earnings capability by rehabilitating underperforming businesses, such as the packaging films sector, and ensuring a solid return on growth investments. We also need to reassess the scale of our investments and restore financial stability by reducing capital outlays.

“

By cultivating unwavering trust and addressing social issues, we aim to create cash flow and drive prosperity for both society and the group. Our progress continues to advance and gain momentum.

”



Steady progress in the 2025 MTP

Although the progress of the 2025 MTP may not be immediately apparent from performance metrics, we are advancing various measures. The first, to ensure thorough safety, disaster prevention, and quality assurance, is being driven through investments as well as structural and non-structural system improvements. Efforts to foster a culture of safety and quality include issuing executive messages, engaging in dialogues, and conducting training. For quality assurance, we are following a roadmap to rebuild the management structure, which includes rigorous product liability and quality assurance assessments, developing core personnel in quality, and translating quality assurance manuals into multiple languages. We also regained our ISO 9001 certification in May 2024, which had been revoked in 2021. We are strongly focused on enhancing awareness to prevent quality issues from recurring, transforming our organizational culture, and strengthening our quality management system.

For the second measure, reorganization of the business portfolio, we have identified the underperforming packaging film and nonwoven materials businesses as needing restructuring. The increase in low-margin businesses that do not cover their Weighted Average Cost of Capital (WACC) has led to a decline in overall asset efficiency across the group. However, since the formulation of the 2025 MTP, the textiles sector, initially categorized as requiring improvement, has been reorganized. This reorganization has resulted in factory consolidation and a turnaround in profitability. In addition, losses in the contract manufacturing sectors of pharmaceuticals and airbag fabrics

have been reduced, and these sectors are on track to achieve profitability.

We will focus on improving profitability and asset efficiency through asset reduction. At the same time, we are actively investing in key growth areas such as industrial films and life science. This fiscal year, new production lines will commence operations in promising markets, including mold releasing films for ceramic capacitors, hollow fiber membranes for dialysis, and diagnostic reagent enzymes.

For environmental and functional materials, considered a stable profit business, we are advancing portfolio reforms at TOYOBO MC Corporation, established in April 2023. By refining the strategic positioning of each business and implementing expansion plans for high-growth potential areas while addressing underperformance in nonwoven materials, we aim to boost profitability and asset efficiency.

For the third measure—preparations for the future—we are focusing on refining our key areas for innovation into three strategic domains. We have established development themes that integrate polymer technology and biomedical technology. We have also initiated open innovation by investing in domestic and international venture companies and collaborating with universities.

For digital transformation (DX), our goal extends beyond digitization to harnessing digital technologies to transform the company and our operations. Specifically, we are making steady progress in developing IT environments that ensure secure and immediate internal and external communication, as well as authentication and authorization. These advancements are also being applied to innovation activities, including resin design through materials informatics and the implementation of smart factories.

In addition, we have launched a company-wide project to review operations and enhance labor productivity. The group has been recognized for meeting the Ministry of Economy, Trade and Industry's standards for DX initiatives and was awarded the DX-Certified Business designation in February 2024.

In terms of environmental initiatives, we have obtained Science-Based Targets (SBT) certification for our goal of reducing greenhouse gas (GHG) emissions by 46%* by 2030 compared with fiscal 2014 levels. This certification confirms that our target is based on scientific evidence. We are already forecasting a reduction of more than 30% through our efforts to promote energy transition. The fourth measure, rebuilding our foundation, covers a broad range of components critical for our corporate activities. This includes not just the people and teams driving our operations, but also both structural and non-structural infrastructure, our organizational culture, and the governance systems that underpin the company.

For our personnel, we are selecting and training future leaders, implementing a manufacturing site leadership development program, and promoting our corporate philosophy. In addition to revising the TOYOBO Group Human Rights Policy, we have established the new TOYOBO Group Diversity Promotion Policy to create a workplace where diverse talent can thrive with pride and a sense of purpose.

In group governance, we are strengthening risk management worldwide. However, we recognize that further improvements are needed in areas such as safety, disaster prevention, quality, and compliance.

* SBT certification verifies our target of a 27% reduction in Scope 1 and 2 emissions by fiscal 2031 compared with fiscal 2021 levels, which equates to a reduction of 46% or more compared with fiscal 2014 levels.

Regain earnings capability over the next two years

Our primary goal is to enhance profitability and achieve the operating profit target of ¥20 billion. Addressing issues in businesses identified as needing restructuring is crucial. A company-wide effort will be dedicated to the reconstruction of the packaging films sector, with strategies adjusted based on market trends and the group's core strengths. To achieve this, we will prioritize boosting our profitability by increasing the proportion of high-value-added products, such as green films and high-performance films that minimize environmental impact. We will also focus on reducing fixed costs through the reorganization of production lines.

We must also address the recent increase in selling, general, and administrative expenses from both strategic and defensive perspectives. Company-wide initiatives will focus on reinforcing the competitiveness of business sites and factories by reallocating production facilities and reviewing indirect costs, including those for headquarters and other administrative functions. Efforts will include reducing indirect material costs and improving operational efficiency and productivity by raising business quality while cutting costs. Furthermore, we will ensure that our capital investments deliver solid returns and drive increased profitability. In parallel, to strengthen our financial position, we will emphasize asset efficiency and optimize utilized capital. We will work on improving the profitability of underperforming businesses and reduce utilized capital by selling non-core assets. As such, our initial plan, which allocated ¥240 billion for capital investments over four years as part of the 2025 MTP, has been significantly revised.

We will now focus on investments that meet hurdle rates (return on utilized capital) and defer growth investments in the packaging films sector. As a result, our investment plan has been reduced by ¥60 billion, to ¥180 billion.

Recognize risks while viewing them as opportunities

As we advance these measures, it is essential to acknowledge both the business opportunities and risks involved. For example, the transition toward a resource-circulating society, which includes reducing plastic waste, represents both a risk and an opportunity for the group with our focus on films and resins. To capitalize on this transition as a business opportunity rather than viewing it solely as a risk, we are advancing technologies and initiatives in areas such as biomass and recycled materials, volume reduction, and mono-materials. Regulations in the EU are tightening, with a focus on reducing total plastic volume and increasing the use of mono-materials to facilitate post-consumer recycling. In the food packaging films sector, we have leveraged our unique technological expertise to develop thin films that boost recyclability through mono-material solutions. Since the start of sample shipments, these films have garnered significant interest and adoption, particularly among European brand owners. Given the global food shortage, we expect sustained demand for packaging films due to their role in reducing food waste. In the Chinese market, despite a cautious economic outlook, we identify opportunities for the group. Demand remains robust for EV-related components, such as lithium-ion batteries, as well as environmental solutions, including wastewater and exhaust treatment. In addition, the aging population and rising health consciousness are driving steady demand in the medical sector.

For further growth: Achieving results with TOYOBO MC Corporation

To reach the next growth stage, we will execute growth strategies for our film, life science, and environmental and

functional materials businesses while improving management practices to foster innovation. A key component of this strategy is TOYOBO MC Corporation, established in 2023. This new entity aims for significant growth in the environmental and functional materials sector by combining the group's technological expertise with Mitsubishi Corporation's global network and business management capabilities. TOYOBO MC is leveraging the strengths and growth potential of each business by reorganizing them into distinct business layers and reallocating resources accordingly. Moving away from the traditional integrated business unit model, which combines sales, production, and development, TOYOBO MC is shifting to a function-based approach. This involves reassessing market-driven marketing functions, factory operations, and resource allocation for development themes. Emerging opportunities in the environmental sector are particularly promising. We are exploring developments in several key areas: developing membranes for efficiently recovering and recycling valuable materials such as lithium from used batteries, including those from automobiles; high-performance fibers for floating offshore wind power; and volatile organic compound (VOC) recovery equipment for lithium-ion battery separator factories. In April 2024, we established the Mobility Business Strategy

Unit that spans both sales and development. The goal is to strengthen our marketing capabilities, enhancing our value proposition by transitioning from a product-based sales model to a solution-oriented business model that offers comprehensive solutions from materials to end-products. This initiative is also seen as an opportunity to foster a new corporate culture that links out-of-the-box thinking with the development of new solutions.

Continuing the long-term challenge for innovation

Looking beyond Sustainable Vision 2030 toward 2050, we will continue to pursue challenges and drive innovation. Guided by our corporate philosophy, we aim to create new breakthroughs by combining our core strengths in polymer technology and biomedical technology. Our focus is on three key areas: New Circular Plastics, which involves developing 100% renewable polymers; Environmental Active Clean, which aims to advance technologies for the separation and recovery of natural resources such as water and

air to enhance their preservation; and Well-Being, which seeks to improve health and quality of life, including for those with pre-disease conditions. We will prioritize research, technology development, and the creation of comprehensive solutions in these areas.

Our drive for innovation is fueled by our people. Since becoming president, I have championed a "people first" approach, emphasizing open dialogue from young employees to executives. Monthly discussions on serious issues, fostering individual autonomy, and promoting collaboration are key to generating new business opportunities. In an era with no clear answers, we must create an organization where free thinking and innovation flourish, often through collaboration with external parties. My role is to boost motivation within individuals and teams, foster a spirit of taking on challenges, ensure psychological safety, and encourage each person to take ownership and act accordingly.

To our stakeholders

Toyobo group is currently undergoing a transitional phase focused on regaining our earnings capability and rebuilding to become a thriving company by 2030. My mission as a leader is to sustainably enhance corporate value through our business activities, based on our corporate philosophy. I will concentrate on improving stock price and managing the cost of capital by driving business portfolio reforms, enhancing overall profitability, and boosting asset efficiency to increase return on equity (ROE) and shareholder value. Our goal is to elevate growth expectations for the group, aiming to raise our stock price and achieve a price-to-book (P/B) ratio above 1 as soon as possible. We appreciate your continued support as we implement reforms to transform our group into a high-value business entity over the long term.



Our vision is to create innovation by integrating our strengths in polymer technology and biomedical technology, while keeping our corporate philosophy as the foundation.

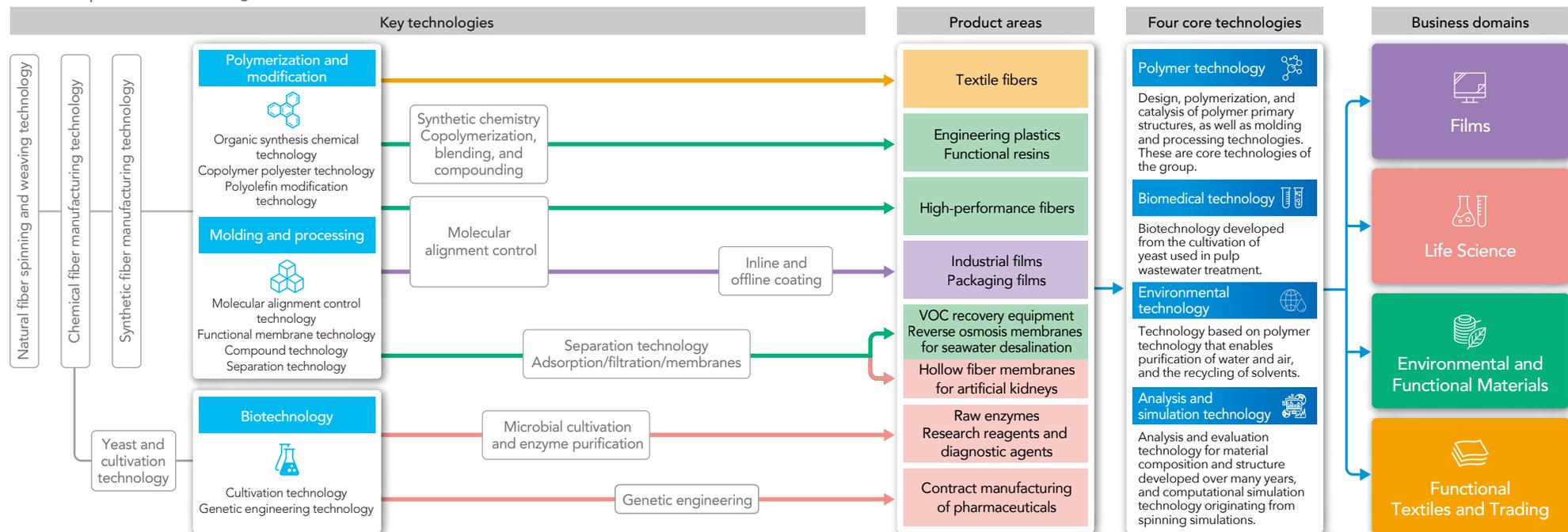


The evolution and progress of Toyobo's technology

Meeting social needs and challenges through technology to advance our business

Since its founding, Toyobo group has prioritized technology development, resulting in the evolution of four core technologies. We will continue to leverage these technologies to create solutions that meet the needs of people and the planet.

Relationship between Technologies and Products



Business evolution

1882 Osaka Boseki established
Commencement of the
spinning business

1886 Mie Boseki established

1914 Toyobo born from the merger
between Osaka Boseki and
Mie Boseki

1927 Entered the rayon business

1956 Entered the acrylic business

1963 Entered the film business

1970 Entered the plastics business

1972 Entered the diagnostic reagents and raw materials market

1978 Entered the functional membranes business

1979 Entered the medical business

1982 Entered the life sciences reagents field

1991 Entered the super fibers business

1993 Entered the contract pharmaceutical manufacturing business

2002 Non-fiber businesses surpassed fiber
businesses in consolidated sales

2009 Entered the cosmetic
ingredients field

Market needs and social issues

Development of Japanese industry

- Expansion in light industries such as spinning and silk production

Postwar reconstruction
and rapid economic growth

- Improved quality of clothing, food, and housing

Stable growth period

- Increasing pollution issues due to air contamination
- Rise in traffic accidents due to motorization

Advancement in information technology and globalization

- Pursuit of comfort in clothing

- Increase in lifestyle-related diseases

- Water scarcity issues recognized worldwide

Rising environmental awareness and evolution of digital technology

- Proliferation of LCD televisions

- Spread of the COVID-19 pandemic

- Growing attention to food waste
- Widespread adoption of smartphones

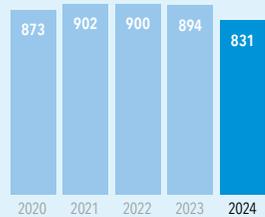
At a glance

As of March 31, 2024

Planet

CO₂ emissions (Scope 1 and 2)

831

 thousand t-CO₂


Biodiversity conservation activities

Toyobo Aya-no-Mori registered in the international database as an OECM (Other Effective area-based Conservation Measure) Certified as a "Natural Symbiosis Site"



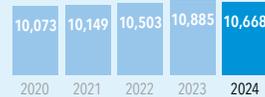
Participating in the 30by30 Alliance for Biodiversity



People

Number of employees (global)

10,668



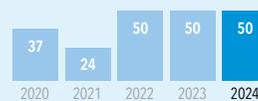
Ratio of women managerial staff

5.5

 %


Training investment per employee

¥50

 thousand


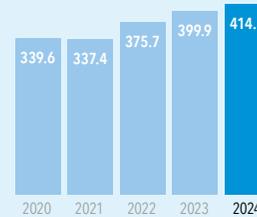
External evaluations



Prosperity

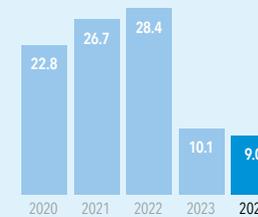
Consolidated net sales

¥414.3

 billion


Consolidated operating profit

¥9.0

 billion


Market share

Polarizer protective films for LCD TVs

60

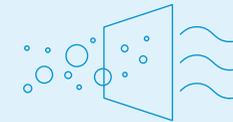
 %


Market share in the LCD TV market (Toyobo estimation)

Product share

VOC treatment equipment for solvent recovery

No. 1



Top share for adsorption and recovery equipment using fiber activated carbon (Toyobo estimation)

External evaluations

FTSE
4.1

MSCI
AA

CDP
A-
(climate change and water)

EcoVadis
Silver medal
(top 15%)

As of June 2024

Innovation

Core technologies

Polymer technology



Biomedical technology



Environmental technology



Analysis and simulation technology



R&D expenses

¥15.3

 billion

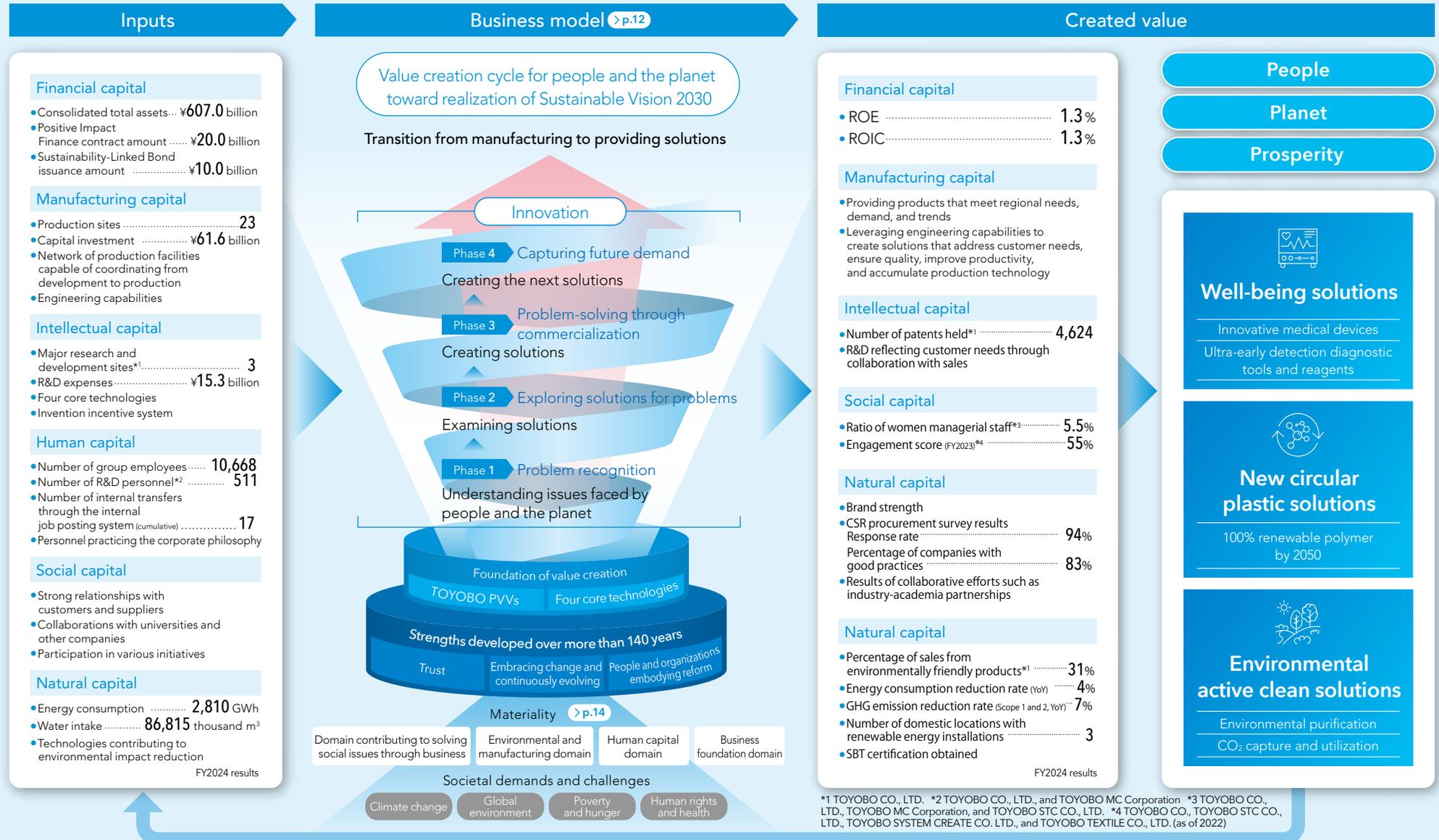

Number of patents held

4,624



Value creation process

Corporate philosophy: *Jun-Ri-Soku-Yu*



Toyobo's strengths

Toyobo group creates value based on three strengths and four core technologies developed over its more than 140-year history. To achieve sustainable growth, we will accelerate the value creation cycle by continuously enhancing our strengths and technologies.

Four core technologies

Polymer technology

Overview

This core technology of Toyobo group has been developed since the introduction of synthetic fibers. It encompasses a wide range of technologies, including the design, polymerization, and catalysis of polymer primary structures, as well as molding and processing technologies, to deliver advanced products.

Strengths

We possess expertise in controlling molecular orientation and advanced processing techniques, developed through our work with fibers and films. In addition, we leverage our polymerization and modification technologies to develop a diverse range of high-performance resins.

Main product examples

- Super retarder film
- Transparent recycled PET film for labels
- Ultra-high-strength polyethylene fiber
- Polyester-based adhesive resins
- Thermoplastic polyester elastomer

Biomedical technology

Overview

This technology evolved from the cultivation of yeast used in pulp waste treatment. Through the advanced application of both biotechnology and polymer technology, we provide medical materials with high biocompatibility.

Strengths

We can develop and manufacture research and diagnostic reagents comprehensively, from raw materials to final products. Our CTA hollow fiber membranes for dialysis are highly acclaimed in the global market.

Main product examples

- Diagnostic enzymes
- Genetic testing equipment and reagents
- Hollow fiber membranes for artificial kidneys

Environmental technology

Overview

Based on polymer technology, this technology enables the purification of water and air, as well as the recycling of solvents. It achieves the purification of air (gas) and water (liquid) by combining filtration techniques with adsorption and desorption technologies.

Strengths

Our seawater desalination membranes have a long history of use in the Gulf countries, with an estimated market share of around 20%. In addition, we were the first to industrialize activated carbon fiber adsorbents and currently hold a leading share in VOC adsorption and recovery systems.

Main product examples

- Reverse osmosis membranes for seawater desalination
- Activated carbon fiber filter
- VOC concentration equipment

Analysis and simulation technology

Overview

We have developed analytical evaluation technology for material composition and structure over many years, along with computer simulation technology that originated from yarn spinning simulations.

Strengths

Our sales, manufacturing, and development departments work together to advance analysis and simulation efforts. We propose solutions based on qualitative and quantitative results grounded in scientific evidence to address challenges effectively.

Main product examples

- Elucidation of product performance mechanisms
- Analysis of product defects and proposals for improvement strategies
- Evaluation of equipment specifications to achieve design performance
- Examination of molding and processing conditions

Three strengths cultivated over more than 140 years

Trust earned from society over many years

For more than 140 years since its founding, the group has consistently earned and maintained strong trust from stakeholders, including customers, through dedicated efforts in safety and disaster prevention, quality assurance, and compliance.

Safety and disaster prevention > p.45

Quality > p.46 Compliance > p.54

Continuous business evolution through adaptation to environmental changes

We continuously enhance our technological capabilities in manufacturing, processing, and research and development to respond to all customer demands and adapt to shifts in the business environment, driving innovation and creating new business opportunities.

Innovation strategy > pp.29-30

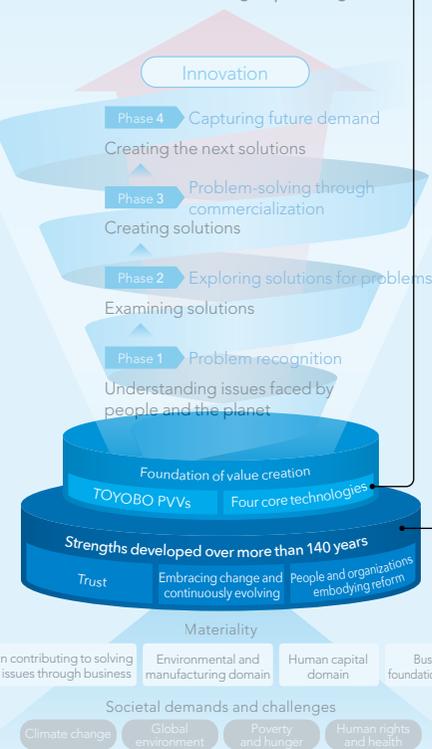
People and organizations carrying out corporate activities and reforms

To sincerely address stakeholder demands, we have cultivated a workforce and organizational culture that fosters flexible thinking.

Human Resource strategy > pp.22-28

Value creation cycle for people and the planet toward realization of Sustainable Vision 2030

Transition from manufacturing to providing solutions



Contributing to solving issues through business

Environmental and manufacturing domain

Human capital domain

Business foundation

Societal demands and challenges

Climate change

Global environment

Poverty and hunger

Human rights and health

The evolution and progress of Toyobo's technology

At a glance

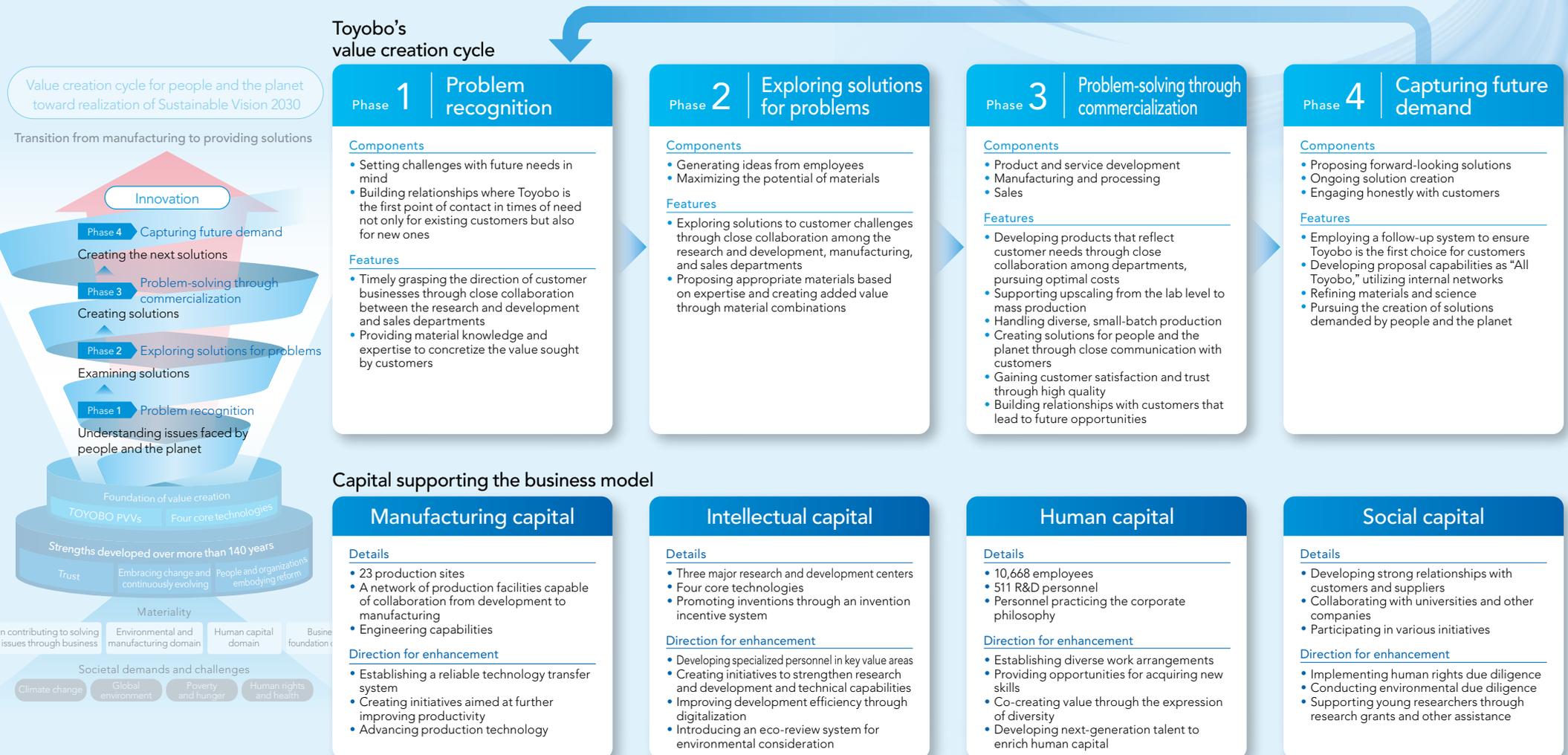
Value creation process

Toyobo's strengths

Capital and business model

Capital and business model

Toyobo group enhances the various types of capital that support its business model while driving a value creation cycle for people and the planet, providing advanced manufacturing that maximizes material potential and offering next-generation solutions.



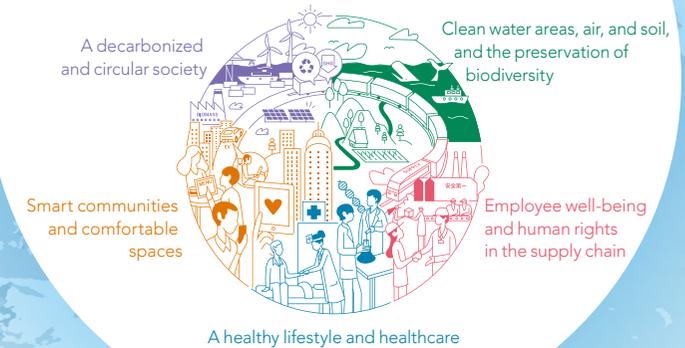
Toyobo group vision

Road map to realize our vision

To achieve the goals set forth in Sustainable Vision 2030, we will drive sustainable growth by advancing the four strategies outlined in the 2025 Medium-Term Management Plan, thereby contributing to the realization of a prosperous society.

Realizing sustainable growth

We create solutions needed by people and the planet through materials and science, contributing to the realization of a prosperous society



Green strategy

[Green strategy](#) > p.33

Innovation strategy

[Innovation strategy](#) > p.29

Human resource strategy

[Human resource strategy](#) > p.22

2018-2021 Medium-Term Management Plan

Themes

- Try again to achieve operating profit of ¥30 billion
- Continuously reform the business portfolio

Results

Net sales: **¥375.7** billion

Operating profit: **¥28.4** billion

GHG emission reduction rate
(Scope 1 and 2 / Compared with FY2014) **25.9%**

2022-2025 Medium-Term Management Plan

Themes

- Transform to sustainable growth
- Four years to rebuild and prepare

Targets

Net sales: **¥450** billion

Operating profit: **¥25** billion

Results (FY2024)

GHG emission reduction rate
(Scope 1 and 2 / Compared with FY2014) **31.6%**

[Overview of the 2025
Medium-Term Management Plan](#) > p.17

Sustainable Vision 2030

Where we'd like to be

Ushering in both a prosperous society where people can live with peace of mind and the enhancement of corporate value

Targets

Net sales: **¥600** billion

Operating profit margin: **8.3%** or higher

GHG emission reduction rate
(Scope 1 and 2 / Compared with FY2014) **46%** or higher

[Sustainable Vision 2030](#)

Materiality

To meet the demands and expectations of our stakeholders and realize our aim to be “a group that continues to create the solutions needed by people and the Planet,” Toyobo group identifies material issues and implements initiatives through its business activities.

Toyobo group's materiality

The materiality of the group was initially identified in May 2020 and has since been reviewed considering our Sustainable Vision 2030, leading to the current framework.

By assessing both the impact on stakeholders and the group, we have clarified high-priority goals and organized them into four key areas: contributing to the solving of social issues through business, human capital, environment and manufacturing, and business foundations (see diagram below).

Process of identifying material issues

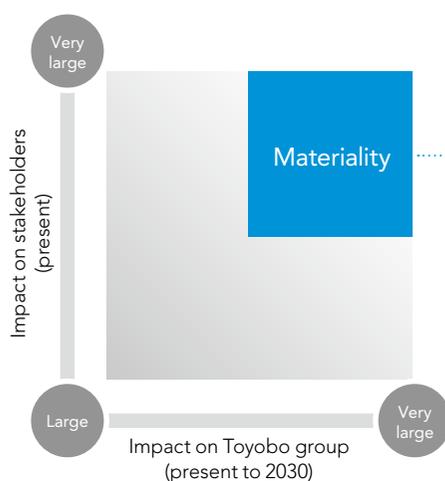
We reviewed external initiatives and 12 international guidelines, including the GRI Standards, to select candidate items. The positive and negative impacts of these issues were assessed through internal questionnaires and interviews. After considering feedback from external parties, such as institutional investors, we finalized our material issues with the approval of the Board of Directors.

Given the group's situation in fiscal 2023 and fiscal 2024, we decided to make quality independent of compliance and added chemical substance management.

Management of materiality KPIs (PDCA)

To ensure steady progress on our materiality initiatives, we have assigned officers to each materiality and established corresponding targets and Key Performance Indicators (KPIs). We report and share KPI progress twice a year within the Sustainability Committee and, based on this progress, review and adjust targets and KPIs to continuously enhance our efforts. In addition, the discussions within the Sustainability Committee are reported to the Board of Directors as appropriate.

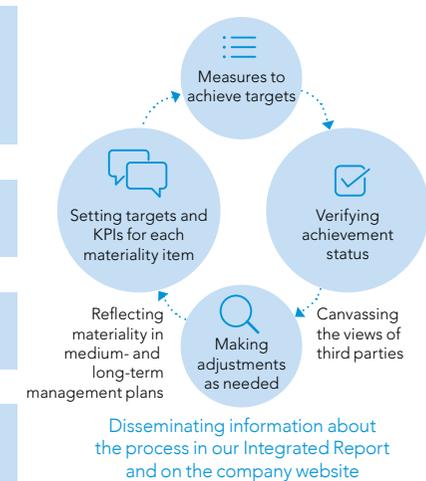
Materiality map



Identification process



KPI management (PDCA)



Risks, opportunities, and materiality in achieving the vision



Materiality KPIs

April 1, 2024

Category	Major items	Risks	Opportunities	KPIs				
				Themes	Targets from FY2025 onward	Officer in charge	FY2024 targets	FY2024 results
Domain contributing to solving social issues through business	A decarbonized and circular society	Short, medium, and long term • Greenhouse gas (GHG) reduction efforts • Increase in environmental impact costs • Losses due to environmental pollution	Short, medium, and long term Growth and expansion of products and businesses contributing to the following: • A decarbonized society • A resource-circulating society • People's well-being • Comfortable living	1. Expansion of ECO-PARTNER SYSTEM® products and services that contribute to the environment 2. Greening of the film business	1. Sales ratio of 40%*3 2. Green ratio of 60%*3	Taichi Sakai Senior Managing Executive Officer Head, Safety and Disaster Management Division, and Controlling Supervisor of Production Technology Division and Procurement and Logistics Department Muneo Hirooka Managing Executive Officer Head, Films Division	1. Sales ratio of 40%*3 2. Green ratio of 60%*3	1. 31% 2. 13%
	A healthy lifestyle and healthcare			1. Number of tests through the provision of infectious disease diagnostic reagents 2. Number of dialysis patients served with dialysis membranes	1. 10 million times per year*3 2. 250,000 patients per year*3	Takahito Sagara Managing Executive Officer Head, Life Science Division	1. 10 million times per year*3 2. 250,000 patients per year*3	1. 4 million times per year*3 2. 250,000 patients per year*3
	Smart communities and comfortable spaces			1. Expansion of sales volume for products supporting DX: 1.5 times FY2021	1. 1.5 times FY2021*3	Muneo Hirooka	1. 1.5 times FY2021*3	1. 1.51 times
Human capital domain	Employee well-being (diversity, equity, and inclusion, health and productivity management, occupational health and safety)	Short and medium term • Human rights violations in the supply chain • Productivity decline due to mental health issues and dissatisfaction • Losses and business impact from occupational accidents	Medium and long term • Work-style reforms emphasizing diversity • Talent development and creating a supportive workplace • Retaining top talent through health and productivity management	1. Ratio of overworked employees 2. Number of core overseas personnel undergoing training in Japan 3. Training investment per employee and training time 4. Ratio of women managerial staff 5. Employment ratio of people with disabilities 6. Ratio of annual paid leave taken per year 7. Reduction in annual time worked outside statutory working hours (number of employees working more than 360 hours of overtime per year / total number of eligible employees) 8. Ratio of men employees taking childcare leave 9. Certification as a "White 500" enterprise with Outstanding Health and Productivity Management 10. Improvement in how positive employees feel about their work, based on employee engagement surveys a. Percentage of respondents agreeing with the statement that they do not feel that their day-to-day work is difficult to perform b. Percentage of respondents agreeing with the statement that the company respects the diverse views and ideas of each individual employee	1. Improvement compared with the previous fiscal year (ratio) 2. 15 people per year*1 3. ¥50,000 per year, 21 hours*1 4. 5.0% or more*1 5. 2.7%*2 6. 75%*1 7. — 8. At least 80% of eligible employees*1 9. Maintained 10. Improvement in positive response rate	Takehiko Inada Managing Executive Officer Controlling Supervisor of HR, Administration and Legal Division	1. — 2. 15 people per year*1 3. ¥50,000 per year, 21 hours*1 4. 5.0% or more*1 5. 2.7%*2 6. 75%*1 7. 2.0% or less (20% reduction from FY2020)*1 8. At least 80% of eligible employees*1 9. Maintained 10. Establish a system for annual implementation	1. — 2. 7 people per year 3. ¥50,000 per year, 18.22 hours 4. 5.5% 5. 2.29% 6. 83.2% 7. 4.3% 8. 97.7% 9. Maintained 10. Not implemented
	Human capital							
	Human rights (Toyobo group)				1. Implementation of human rights education and training	1. Holding human rights study sessions and training for group employees 10 times or more per year	Taichi Sakai	1. 4 times or more
Environmental and manufacturing domain	Safety and disaster prevention	Short and medium term • Recurrence of similar disasters or troubles • Loss of social credibility due to accidents or scandals	Short, medium, and long term • Cultivating a safety culture • Accumulating know-how in preventive maintenance	1. Number of major accidents* 2. Frequency rate of workplace accidents resulting in lost workdays 3. Number of fires or explosions 4. Number of spills * Set internal standards based on definitions stipulated by the Ministry of Health, Labour and Welfare Note: Items 1–4 are aggregated from January to December	1. 0 incidents per year 2. 0.25 or less 3. 0 incidents per year 4. 0 incidents per year	Taichi Sakai	1. 0 incidents per year 2. 0.25 or less 3. 0 incidents per year 4. 0 incidents per year Note: Items 1–4 are aggregated from January to December	1. 0 incidents 2. 1.15 3. 0 incidents 4. 1 incident
	Quality	Short, medium, and long term • Loss of social credibility due to inaccurate data handling or inappropriate product shipments	Short, medium, and long term • Improving customer satisfaction and social credibility	1. Number of incidents related to products* 2. Implementation of product safety and quality assurance training * Set internal standards based on definitions stipulated by the Ministry of Economy, Trade and Industry	1. 0 incidents per year 2. 100%	Masakazu Iwasaki Executive Officer Head, Quality Assurance Division General Manager, Quality Assurance Management Department	1. 0 incidents per year 2. 100%	1. 0 2. 100%
	Chemical substances management	Short, medium, and long term • Loss of business opportunities due to non-compliance with chemical substance regulations	Short, medium, and long term • Strengthening business profitability through compliance with laws and regulations • Improving customer satisfaction and social credibility	1. Major disasters (Level IV) 2. Number of environmental accidents (Level III) 3. Environmental law violations (Level III): Pollution control laws, Poisonous and Deleterious Substances Control Act, Waste Management and Public Cleansing Law	1. 0 incidents 2. 0 incidents 3. 0 incidents	Taichi Sakai	—	—
	A decarbonized and circular society (reducing environmental impact)	Short, medium, and long term • Increased risk of extreme weather and natural disasters due to climate change • Environmental impact from waste and emissions • Water resource shortages or depletion	Short, medium, and long term • Expanding demand for products contributing to climate change mitigation (resource conservation, energy saving, low carbon) • Reducing energy costs through improved production efficiency • Lowering environmental conservation costs	1. GHG emissions Scope 1 and 2 (consolidated) 2. VOC emissions (domestic total) 3. Discharge of hazardous substances into water bodies (domestic total) 4. Amount of waste emissions (consolidated) 5. Final disposal (landfill disposal) rate (domestic total)	1. At least 46% reduction compared with FY2014*4 2. 60% reduction compared with FY2015*3 3. 80% reduction compared with FY2015*3 4. 15% reduction compared with FY2016*3 5. Less than 1% per year	Taichi Sakai	1. At least 46% reduction compared with FY2014*4 2. 60% reduction compared with FY2015*3 3. 80% reduction compared with FY2015*3 4. 15% reduction compared with FY2016*3 5. Less than 1% per year	1. 31.6% reduction (831 thousand t-CO ₂) 2. 77% reduction 3. 73% reduction 4. 3% increase 5. 0.52%

Risks, opportunities, and materiality in achieving the vision



Materiality KPIs

April 1, 2024

Category	Major items	Risks	Opportunities	KPIs				
				Themes	Targets from FY2025 onward	Officer in charge	FY2024 targets	FY2024 results
Business foundation domain	Governance	<ul style="list-style-type: none"> Medium and long term Compliance with laws and regulations, and responding to system changes Social demands for strengthening corporate governance 	<ul style="list-style-type: none"> Medium and long term Practicing sustainability management aimed at enhancing corporate value 	<ol style="list-style-type: none"> Number of meetings of the Board of Directors/Nomination and Compensation Advisory Committee Attendance rate of officers at meetings in 1. above Effectiveness evaluation of the Board of Directors, content disclosure 	<ol style="list-style-type: none"> Disclosure of results Disclosure of results Disclosure of details of effectiveness evaluation 	Takehiko Inada	<ol style="list-style-type: none"> Disclosure of results Disclosure of results Disclosure of details of effectiveness evaluation 	<ol style="list-style-type: none"> 22 times Attendance by directors and corporate auditors at meetings ⁽¹⁾ Evaluation of the effectiveness of the Board of Directors ⁽²⁾
	Innovation	<ul style="list-style-type: none"> Medium and long term Delays in creating new products and new businesses due to decreased competitiveness in R&D Decline in product demand due to changes in customer needs 	<ul style="list-style-type: none"> Medium and long term Creating new markets by developing new products and businesses that address social issues Early response to changes in customer needs and strengthened regulations 	<ol style="list-style-type: none"> Promotion of development in the three key themes Number of new inventors Number of intellectual property education sessions for Toyobo and group companies Percentage of research themes contributing to the achievement of Sustainable Vision 2030 Direct investments in open innovation (e.g., proof of concept for commercialization with invested companies, joint development) Number of intellectual property information analyses Number of business suspensions due to patent infringement Number of intellectual property training sessions for employees (Toyobo and group companies) Number of comprehensive industry-academia-government collaborations 	<ol style="list-style-type: none"> At least 75% At least 30 people 20 times per year 	Katsuya Ito Executive Officer Controlling Supervisor of Innovation Division	<ol style="list-style-type: none"> – – 19 times 90% or more*1 4 cases or more per year 20 cases per year 0 cases per year 2 cases 	<ol style="list-style-type: none"> – – 20 times 90% 4 cases 32 cases 0 cases 2 cases
	Partnerships (supply chain)	<ul style="list-style-type: none"> Short, medium, and long term Negative impact on business activities due to illegal actions or compliance violations by suppliers 	<ul style="list-style-type: none"> Short, medium, and long term Securing social sustainability and long-term competitive advantage 	<ol style="list-style-type: none"> Ratio of CSR procurement surveys returned Ratio of reduction in CO₂ emissions (intensity) related to logistics (sales) 	<ol style="list-style-type: none"> Ratio of surveys returned, or engagement with business partners with room for improvement Reduction of 0.5% year on year 	Taichi Sakai	<ol style="list-style-type: none"> 90% or more Reduction of 0.5% year on year 	<ol style="list-style-type: none"> 94% Reduction of 0.53%
	Partnerships (stakeholder engagement)	<ul style="list-style-type: none"> Short, medium, and long term Failure to fulfill accountability leading to unestablished trust with stakeholders Reputational risk 	<ul style="list-style-type: none"> Short, medium, and long term Building strong trust relationships with diverse stakeholders 	<ol style="list-style-type: none"> Number of press releases Number of interviews with investors Number of meetings with employees and labor unions Frequency of engagement with stakeholders 	<ol style="list-style-type: none"> At least 75 per year At least 150 per year At least 60 times per year 3 times 	Takehiko Inada	<ol style="list-style-type: none"> At least 75 per year At least 150 per year At least 60 times per year 3 times 	<ol style="list-style-type: none"> 84 cases 113 cases 60 times 3 times
	Data security, privacy	<ul style="list-style-type: none"> Short, medium, and long term Information leaks, system failures, or stoppages due to cyberattacks Loss of customer trust, deterioration of relationships with business partners, and decreased competitiveness 	<ul style="list-style-type: none"> Short, medium, and long term Gaining customer trust, maintaining good relationships with business partners, and improving competitiveness 	<ol style="list-style-type: none"> Promotion of information security measures <ul style="list-style-type: none"> Renewal of network security infrastructure Renewal of computer security infrastructure Number of information security training sessions Number of incidents (e.g., information leaks, service outages) Completion of activities centered on the Information Security Sub-committee 	<ol style="list-style-type: none"> 50% completion of renewal (FY2025–FY2026) 15 sessions per year* 0 incidents per year <p>* The standard for the number of sessions has been changed due to a modification in the format of the events.</p>	Ichiro Takai Senior Managing Executive Officer Controlling Supervisor of Corporate Planning Division	<ol style="list-style-type: none"> – 60 times per year 0 cases per year Completion of activities 	<ol style="list-style-type: none"> – 97 times per year 0 cases per year Completion of activities
	Compliance	<ul style="list-style-type: none"> Short, medium, and long term Business activity stagnation, loss of social credibility, and damage to corporate value 	<ul style="list-style-type: none"> Short, medium, and long term Establishing a stable management foundation Strengthening risk management systems Fostering a culture of compliance awareness 	<ol style="list-style-type: none"> Enhancement of compliance awareness Awareness and utilization of the Compliance Consultation Desks Number of serious legal violations 	<ol style="list-style-type: none"> Improvement in compliance questionnaire responses <ol style="list-style-type: none"> Does the company emphasize compliance? Awareness of case study reports, expansion of compliance study sessions and other training Frequency of compliance study sessions (managerial staff) and other training Improvement in compliance questionnaire responses <ol style="list-style-type: none"> Awareness of Compliance Consultation Desks Ease of use of Compliance Consultation Desks 0 cases 	Takehiko Inada	<ol style="list-style-type: none"> Improvement in compliance questionnaire responses <ol style="list-style-type: none"> Does the company emphasize compliance? Awareness of case study reports, expansion of compliance study sessions and other training Frequency of compliance study sessions (managerial staff) and other training Improvement in compliance questionnaire responses <ol style="list-style-type: none"> Awareness of Compliance Consultation Desks Ease of use of Compliance Consultation Desks 0 cases 	<ol style="list-style-type: none"> I feel that it does, or by and large I feel that it does: 78% I read every issue, or I sometimes read it, or I read those articles that are of interest to me: 77% Compliance study sessions: 22 times + video streaming to all employees Other training: 40 times <ol style="list-style-type: none"> 89% 83% <ol style="list-style-type: none"> 102 cases 0 cases
	Compliance (R&D, intellectual property)			<ol style="list-style-type: none"> Achievement rate of education and anti-fraud activities related to R&D Implementation of audits related to compliance with intellectual property regulations Number of product safety or quality assurance violations in the R&D quality assurance system Number of serious rule violations related to guidelines from ministries and funding allocation agency rules Number of serious rule violations related to the handling of research data Number of orders for corrective actions regarding labeling 	<ol style="list-style-type: none"> 100% 100% 	Katsuya Ito	<ol style="list-style-type: none"> – – 0 cases per year 0 cases per year 0 cases per year 0 cases per year 	<ol style="list-style-type: none"> – – 0 violations 0 violations 0 violations 0 violations

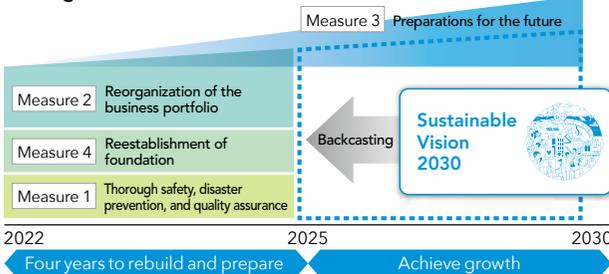
Items in blue are newly established for FY2025.
*1 FY2026 target *2 FY2027 target *3 FY2031 target

Overview of the 2025 Medium-Term Management Plan

Ideal we seek to realize and strategy

Guided by the basic policy of shifting from a survival mindset to a sustainable growth orientation, the 2025 Medium-Term Management Plan sets out the four measures outlined below.

Change to Sustainable Growth



Targets and past performance

The financial targets outlined in the table on the right were initially set. However, due to a decline in earning power and deterioration in financial stability caused by large-scale up-front investments, the outlook for fiscal 2026 has been revised.

Nevertheless, progress is being made in safety, disaster prevention, and quality assurance, preparing for the future, and reestablishing the foundation, and these efforts will continue.

	FY2022 results	FY2023 results	FY2024 results	FY2026 initial target	FY2026 outlook
Net sales (¥bn)	375.7	399.9	414.3	450	450
Operating profit (¥bn)	28.4	10.1	9.0	35	25
Operating profit margin (%)	7.6	2.5	2.2	7.8	5.6
EBITDA (¥bn)*1	48.5	29.1	28.8	63	51
Net profit (¥bn)	12.9	▲ 0.7	2.5	15	9
ROE (%)*2	6.8	-	1.3	≧7.0	≧4.5
ROIC (%)*3	5.1	1.7	1.3	≧5.0	≧4.0
D/E ratio	0.98	1.21	1.26	<1.20	<1.40
Net debt/EBITDA ratio**4	3.4	5.8	7.5	<5.0	<5.0
Capital investment (FY2023 to FY2025 cumulative total) (¥bn)				240	180

*1 Operating profit + depreciation (includes goodwill)

*2 Profit / Average shareholders' equity at the beginning and end of period

*3 NOPAT / (Interest-bearing debt + Net assets)

*4 (Interest-bearing debt - Cash and deposits) <Period-end> / EBITDA

Key measures for FY2024

The status of the four measures is as follows:

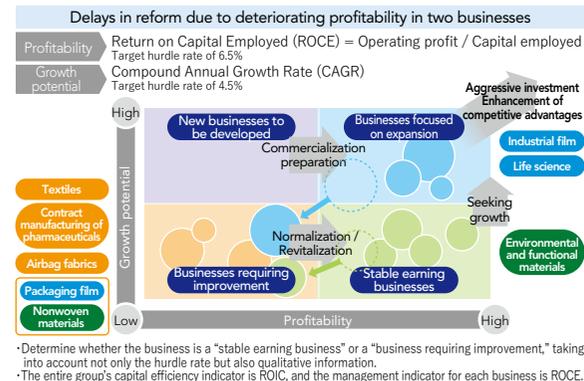
Measures 1, 3, and 4 are on track, whereas Measure 2, which involves reorganizing the portfolio, has been delayed. We will address that issue this fiscal year.

Progress of the four measures

○ On schedule △ Some delays ▲ Significant delays

Measure	Measure	Progress
Measure 1	Thorough safety, disaster prevention, and quality assurance	○ Zero major incidents in fiscal 2024 (▲ Increase in number of work-related accidents year on year) ○ Development of quality assurance structure in contract manufacturing of pharmaceuticals and engineering plastics ○ Establishment and operation of three defense lines
Measure 2	Reorganization of the business portfolio	▲ Business focused on expansion: Decline in performance of packaging films (○ Growth investments in films and life science) △ Stable earning businesses: Start of TOYOBO MC Corporation Strategic and resource shift based on business label Deterioration in performance of nonwoven materials ○ Businesses requiring improvement: Achieved profitability in textiles (business reorganization, suspension and consolidation of two plants) Contract manufacturing of pharmaceuticals and airbag fabrics narrowed their losses and were on track to return to profitability
Measure 3	Preparations for the future	○ Setting three areas of innovation creation and priority themes (Innovation Creation Vision) ○ Legacy systems update in progress; company-wide project to reform operations ○ Acquisition of SBT approval, third-party verification of environmental data, and participation in GX League
Measure 4	Reestablishment of foundation	○ Selection of next-generation personnel; promotion of diversity and human rights due diligence ○ Development of training for onsite leaders and other engineers ○ Development of and renewal of business sites and plant infrastructure △ Strengthening the group governance structure ○ Instillation of the "TOYOBO PWs" corporate philosophy framework

Changes in business portfolio positioning



Actions to enhance corporate value by addressing outstanding issues

To put reorganization of the business portfolio (Measure 2) on track and improve corporate value, we will broadly focus on three major actions this fiscal year: recover earning power, reduce capital employed, and progress to the next growth stage.



Overview of the 2025 Medium-Term Management Plan

Action to prepare for FY2026 onward

Action 1 Recover earning power

To recover earning power, we will implement measures based on four fundamental policies: ensuring pricing commensurate with value, taking measures for businesses requiring improvement, narrowing down expenses and cost reduction, and steadily recovering growth investments. By doing so, we will secure capital for the next phase of growth. Specifically, in measures for businesses requiring improvement, we will analyze the factors causing performance deterioration and implement countermeasures. To drive the steady recovery of growth investments, we will establish a road map and execute it diligently.

Basic policy

1 Ensuring pricing commensurate with value	<ul style="list-style-type: none"> Follow up on the execution of pricing by management: Shift price setting from cost based to value based
2 Taking measures for businesses requiring improvement	<ul style="list-style-type: none"> Packaging film: Production system revision, early expansion of eco-conscious products, sales expansion for overseas Nonwoven materials: Reorganization of domestic business, production system revision Airbag fabrics, contract manufacturing of pharmaceuticals: Execution of the road map to profitability Textiles: Returned to profitability in FY2024 → Pursue capital efficiency improvement
3 Narrowing down expenses and cost reduction	<ul style="list-style-type: none"> Enhance the cost competitiveness of business sites and plants (review of common departmental costs, business reallocation) Reduce the cost of indirect materials and services Improve operational efficiency and productivity (enhancing business quality while reducing costs)
4 Steadily recovering growth investments	<ul style="list-style-type: none"> Profit increase by realizing the effects of growth investments and development investments

Taking measures for businesses requiring improvement

	Factors in deterioration of operating results	Measures
Packaging film	<ul style="list-style-type: none"> High prices for raw materials and fuel Delayed and insufficient price increase 	<ul style="list-style-type: none"> Accelerated shift to eco-conscious products Accelerated rollout of ultra-high rigidity OPP film
	<ul style="list-style-type: none"> Prolonged distribution inventory adjustment (partially affected by imported products) Change in consumer behavior Delay in new equipment launch (start-up cost recorded) 	<ul style="list-style-type: none"> Thorough revision of product pricing Marketing reforms (including strengthening overseas sales) Early full-fledged operation of new equipment Review of the production system, optimize investments
Nonwoven materials	<ul style="list-style-type: none"> Competition with overseas products Commoditization 	<ul style="list-style-type: none"> Strengthening and promotion of development Revision of domestic production system Expansion of production outsourcing

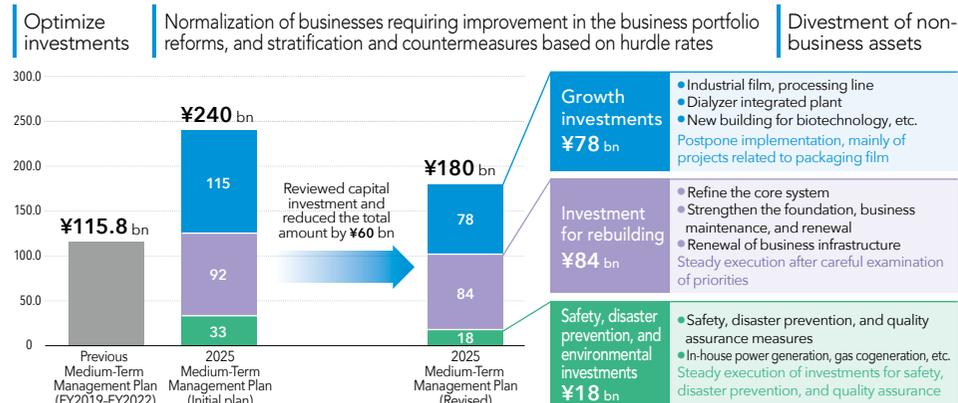
Road map toward the steady recovery of growth investments

Segment	Details	Investment amount (¥bn, round number)	Time to realize investment results (FY)			
			2024	2025	2026	2027
Films	OPP film equipment (Inuyama)	7.0				
	Processing equipment for Unit 2 of mold releasing film for MLCC (Tsuruga)	6.0 ^{*1}				
	Equipment of mold releasing film for MLCC (Utsunomiya)	20.0				
Life Science	Equipment for raw enzymes for biochemical diagnosis (Tsuruga)	7.0				
	Equipment for reagents for PCR testing and genetic diagnostic reagents (Tsuruga)	6.5				
	Integrated production plant for artificial kidney hollow fiber (Akita)	5.0				
Environmental and Functional Materials	Equipment for high-performance resins (Takasago)	8.0 ^{*2}				
	Equipment for high-performance resins (Iwakuni)					

*1 Total with Unit 1 *2 Total investment amount of joint venture

Action 2 Reduce capital employed

Focusing on capital efficiency, we will implement the following initiatives to optimize capital employed.



Action 3 Progress to the next growth stage

As part of the next growth strategy, we will implement the following measures in each area.

Focus area	Action details
Films	<ul style="list-style-type: none"> Increased production and expansion of highly functional film, including polarizer protective films for LCDs, COSMOSHINE SRF[®], and mold releasing film for MLCC Development of new highly functional film
Life Science	<ul style="list-style-type: none"> Enhancement of production capacity in the biotechnology business Increased production of artificial kidney hollow fiber in the medical materials business and expansion of applications for acute blood purification membranes and process membranes
Environmental and Functional Materials	<ul style="list-style-type: none"> EV response and expansion of OEM for overseas companies in resin and chemicals business, etc. Expansion of VOC recovery equipment, water treatment membranes, and high-performance fibers in the environment and fiber business
Innovation Creation	<ul style="list-style-type: none"> Strengthening of the company-wide innovation system through collaboration between corporate research and divisional development Launch of the Mobility Business Strategy unit (TOYOBO MC Corporation)
Three Areas of Innovation Creation	<ul style="list-style-type: none"> New Circulation Plastics Solution: Conversion to renewable polymer Environmental Active Clean Solution: Providing new eco-conscious materials and services Well-Being Solutions: Medical materials and devices that satisfy unmet medical needs; Providing value to next-generation medicine Cross-domains: Providing petroleum-free and sustainable materials through biomanufacturing

CFO message



Taizo Ono

Executive Officer
Chief Financial Officer (CFO)
Controlling Supervisor of Management
and Administration Division

Enhancing profitability and asset efficiency to recover earning power

Aspirations upon assuming the role of CFO

Although I have only recently assumed the role of CFO this April, I am already finding great fulfillment and excitement in having more opportunities to engage directly with the capital markets and experience external perspectives firsthand. A key responsibility as CFO is to accurately assess risks and opportunities, and I am committed to distinguishing between when to apply the brakes to avoid risks and when to step on the accelerator to seize valuable growth opportunities, all while carefully monitoring the business environment. Furthermore, since the volume of information is crucial for making sound decisions, I will always remain attuned to external developments, staying informed of changes in the external environment and market trends via various sources. Internally, I will deepen

close collaboration with the Sales and Marketing Division and the Corporate Planning Division to accurately understand the company's situation and make objective, sometimes even cold, decisions. As someone working in a manufacturing company, I also value the pride in the worth generated by research, development, and manufacturing, and I am determined to create a framework that effectively translates this value into profitability.

Reflecting on fiscal 2024

In fiscal 2024, the group's earning power declined, leading us to revise our initial earnings forecast downward twice. We recognize that this has eroded the trust of our stakeholders. Reflecting on our insufficient grasp of the earnings outlook, we will enhance our internal information gathering and analysis, and implement proper cost management. Over the past few years, selling, general, and

administrative expenses have increased by more than ¥10.0 billion. Although these expenses were necessary for the company's sustainable growth and foundational improvements, they were excessive given our current performance.

In addition, we have seen a significant increase in capital demand due to large-scale investments in business growth areas and environmental initiatives, essential for achieving sustainable growth. To address this, we have reviewed our funding strategy with a long-term perspective, implementing Positive Impact Finance and a Sustainability-Linked Bond as part of our approach. As a result, our D/E ratio exceeded 1.2x at the end of fiscal 2024, falling short of the initial target of less than 1.2x set in our 2025 Medium-Term Management Plan (2025 MTP). Moving forward, we will carefully manage our cash flow to ensure stable funding and take measures to strengthen our financial structure.

Looking ahead to the latter half of the 2025 MTP

The two years starting from fiscal 2025 will mark the latter half of the 2025 MTP. To recover earning power, we will implement four key management measures: ensuring pricing commensurate with value, taking measures in businesses requiring improvement, narrowing down expenses and reducing costs, and ensuring steady returns on growth investment.

Regarding measures for businesses requiring improvement, we evaluate the position of each business in our portfolio based on a hurdle rate of 6.5% for Return on Capital Employed (ROCE) as a profitability indicator, taking into account both quantitative and qualitative information. In addition to our businesses related to textiles, contract manufacturing of pharmaceuticals, and airbag fabrics, we have classified the packaging film and nonwoven materials businesses, where profitability has declined due to changes in the business environment, as areas requiring improvement. We are currently making company-wide efforts to normalize these businesses.

To ensure the steady recovery of growth investment, we are now entering the stage of recouping the large-scale capital investments made over the past two years in the films and life science businesses. The urgent task at hand is to swiftly and reliably bring the new facilities under construction online and monetize them. In addition, in the environment and functional materials business, we aim to expand by capitalizing on business opportunities driven by megatrends such as the shift to electric vehicles (EVs). We will also maintain our R&D investments, aimed at creating future growth opportunities, at a level of 3.6% to 3.8% of sales.

To generate the necessary cash, the Sales and Marketing Division will ensure pricing commensurate with value. We will closely monitor progress and, if needed, consider and implement early actions. Furthermore, as part of efforts to narrow down expenses and reduce costs, we will meticulously manage expenses such as selling, general, and administrative costs by prioritizing and applying a focused approach within our limited resources. Through these initiatives, we will control performance to achieve our targets.

Over the four years of the 2025 MTP, we will reduce capital investments by ¥60 billion from the initial plan due to resource constraints. While we will ensure that investments in safety, disaster prevention, and quality assurance, and areas focused on expansion are executed as planned, we have decided to postpone investments related to the packaging film business, which has been reclassified as a business requiring improvement. In the meantime, we will aim to carefully control the Net Debt/EBITDA ratio with a target between 4 and 5, monitoring the balance between cash inflows and outflows.

Toward enhancing corporate value

From the perspective of improving the P/B ratio, recovering earning power and enhancing ROE are our top priorities. We are taking seriously the fact that the P/B ratio has significantly declined over the past few years, falling below 1.0. We will steadily advance



the reorganization of our business portfolio and work to improve profitability and asset efficiency. As CFO, I will provide strong support to the Sales and Marketing Division. By uniting staff divisions with the Sales and Marketing Division, we will ensure that various measures are effectively translated into profits. At the same time, we will strive for greater transparency in our disclosures to enhance reliability and expectations. We will provide more detailed explanations regarding the progress of efforts to reorganize the business portfolio; the road map for ensuring thorough safety, disaster prevention, and quality assurance; and the progress of addressing human capital and foundational improvements as we reestablish our foundation. In addition, we will advance information disclosures that clearly convey how the new materials developed by the group will transform people's lives and society, and demonstrate their future potential and growth. Through these efforts, we aim to enhance corporate value. To restore our ability to expand returns to shareholders, we recognize that recovering earning power is the most direct approach. Although we have been somewhat delayed in returning to a growth trajectory and appreciate the patience of our stakeholders, we will continue our efforts to build trust in the market. We ask for your continued support as we work toward this goal.

Measures for businesses requiring improvement

In the reorganization of our business portfolio, the businesses requiring improvement now include not only the original textiles, contract manufacturing of pharmaceuticals, and airbag fabrics businesses but also the packaging film and nonwoven materials businesses. We aim to normalize and return all these businesses to profitability by fiscal 2026.

Performance in the first half of the 2025 MTP

Textiles Achieved profitability in fiscal 2024

- Integration and reorganization of group companies through the establishment of TOYOBO TEXTILE CO., LTD. (April 2022)
- Completed consolidation of the three sites at the Toyoma Production Center (March 2024)
- Withdrawal from unprofitable products
- Revision of product prices

Contract manufacturing of pharmaceuticals

- Warning Letter from the U.S. Food and Drug Administration (FDA) lifted (July 2023)

Airbag fabrics

- Commercial production commenced at the new factory for airbag yarns in Thailand (fiscal 2024)

Actions for the second half of the 2025 MTP

Textiles

- Pursuit of asset efficiency

Contract manufacturing of pharmaceuticals

- Continued efforts toward normalizing the business

Airbag fabrics

- Continued efforts toward normalizing the business

Packaging film

- Thorough revision of product prices
- Review of the production system
- Acceleration of shift toward environmentally friendly products, where we have a competitive edge
- Strengthening of international expansion

Nonwoven materials

- Review of domestic production system
- Expansion of external production outsourcing
- Enhancement of development products

Financial and capital strategy

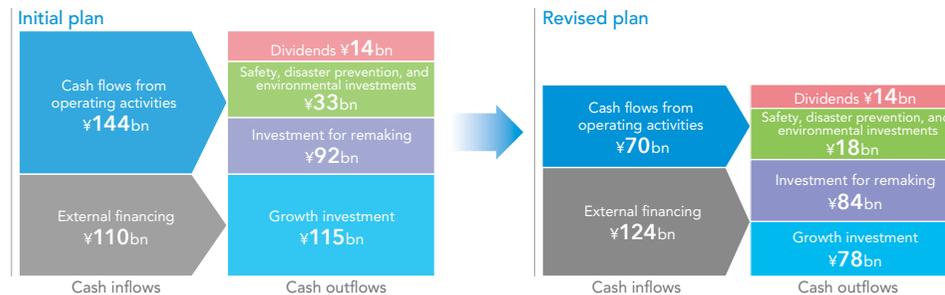
Financial Strategy

In the 2025 Medium-Term Management Plan (2025 MTP), we aim to implement forward-looking investments to ensure future growth without missing opportunities. Our policy is to control the balance between cash generation and interest-bearing debt, targeting a D/E ratio of less than 1.2 and a Net Debt / EBITDA ratio between 4 and 5, thereby managing our financial condition stably.

However, due to a decrease in cash flows from operating activities, increased cash flows from investing activities related to large-scale investments in growth businesses such as films and life science, and a rise in interest-bearing debt due to increased capital employed from delays in business portfolio reorganization, we have reviewed our cash flow allocation.

In terms of capital investment, we will ensure the reliable implementation of investments in safety, disaster prevention, and quality assurance. We will prioritize and execute investment for remaking as needed. Growth investment, particularly in the packaging film business will be postponed.

Cash flow allocation (FY2023–2026)



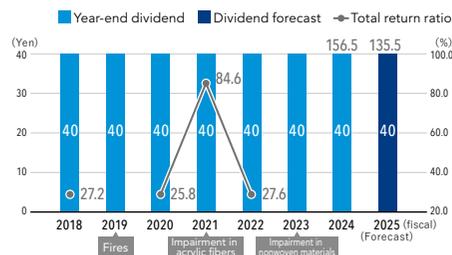
Sustainable finance

As a strategic external financing method, we executed two sustainable finance transactions in fiscal 2024.

Positive Impact Finance	A type of financing for businesses with unspecified use of funds.
Sustainability-Linked Bond	Issue amount: ¥10.0 bn Maturity: 5 years

Policy on shareholder returns

During the 2025 MTP, our policy is to aim for a total return ratio of 30% (including share buybacks as an option), while continually providing a stable dividend. This approach takes into account sustainable profit levels, retention of earnings for future investments, and improvement of our financial position.

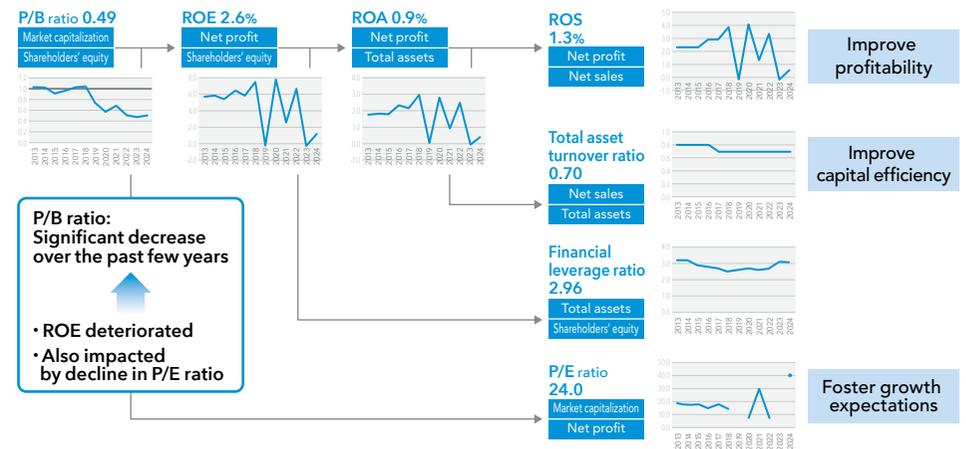


Management focused on cost of capital and stock price

Current situation

Toyobo group is advancing management with a focus on the cost of capital, incorporating key financial indicators such as ROE and ROIC into the 2025 MTP. We are taking the current situation, where the price-to-book (P/B) ratio is below 1.0, seriously and recognize that improving ROE and ROIC is a critical challenge.

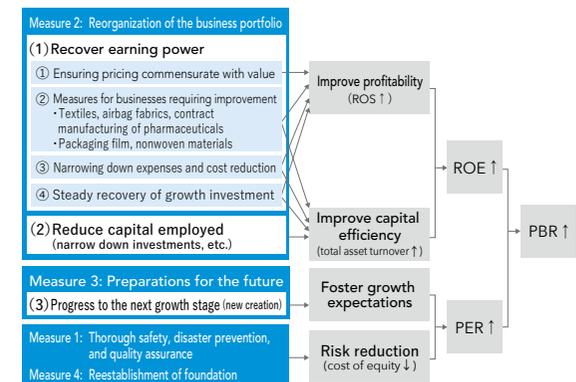
Note: Figures in bold represent the three-year averages for fiscal 2022 through fiscal 2024.



Policy to improve ROE and ROIC

By effectively implementing the four measures outlined in the 2025 MTP, we aim to enhance the group's asset efficiency and profitability, thereby improving ROE.

In addition to demonstrating specific strategies and results for growth to boost growth expectations through preparations for the future, we will work on improving the P/B ratio by reducing risks through thorough safety, disaster prevention, and quality assurance, and reestablishment of foundation.

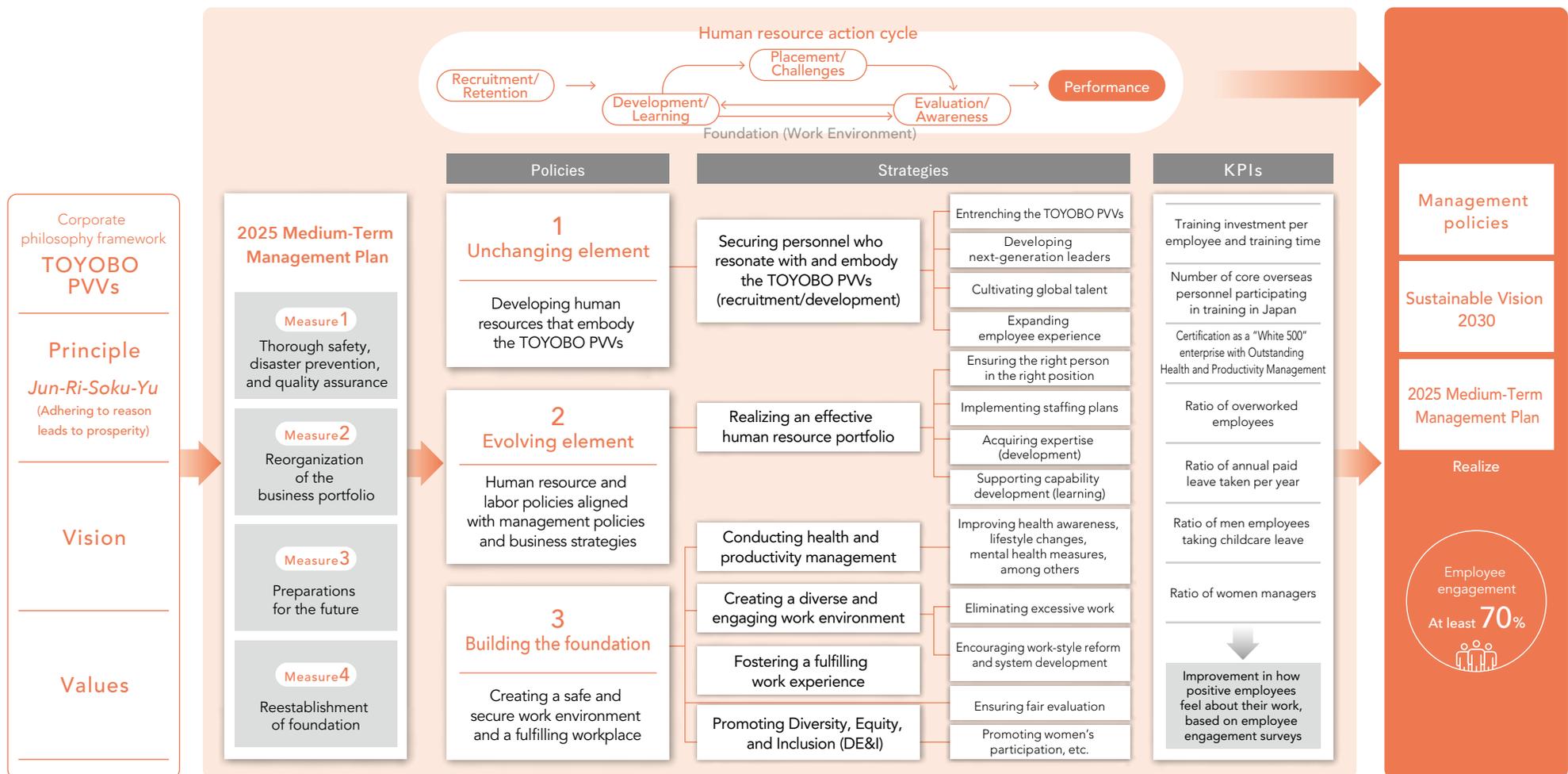


Human resource strategy

Human resource management policy

To achieve our management policies and business strategies based on the TOYOBO PVVs* corporate philosophy framework, it is crucial to recognize that people are our most valuable management asset. We are committed to creating a human resource management system that enables our employees to take pride and find fulfillment in their work. Specifically, we will establish a foundation based on the unchanging principle of embodying the TOYOBO PVVs, while continually evolving capabilities and expertise to adapt to changes in management policies and business strategies, thereby realizing a dynamic talent development cycle. At the same time, we will build a solid foundation for a work environment where employees can feel secure. We are confident that achieving these goals will lead to employee satisfaction and the sustainable growth of the group.

* Abbreviated term for Toyobo's Principle, Vision, and Values



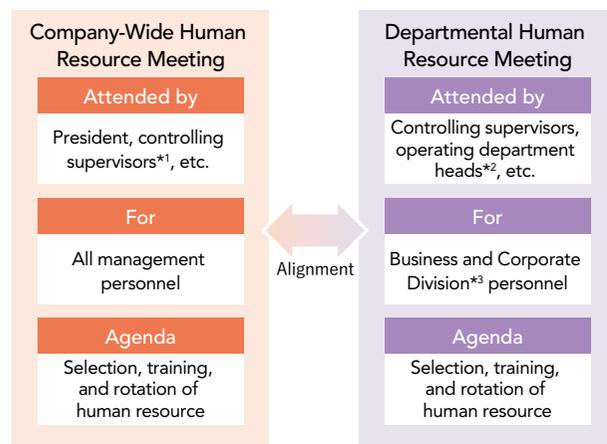
Human resource strategy

Human resource development

Human resource management

Cultivating the next generation of management

For Toyobo group's initiative to develop the next generation of management, we plan to provide selected personnel with internal and external executive development training. To further broaden their experience, we will also offer them opportunities to undertake business operations and management duties to refine their management skills, supporting our succession plan. The group operates the Human Resource Conference to discuss measures for developing next-generation management talent. This is further divided into two conferences: the Company-Wide Human Resource Meeting, which focuses on successors for management positions, and the Departmental Human Resource Meeting, which addresses successors for highly specialized roles. We implement actions including policy support for the development of successor candidates, as well as the selection and rotation of personnel. By coordinating these two conferences, we aim to uncover and develop next-generation management talent and enhance their effectiveness.



*1 Oversees each division and administration division

*2 Oversees specific fields across multiple business divisions

*3 Corporate divisions including corporate planning, management and administration, and human resources

Developing global human resource

Toyobo implements a short-term overseas business training program, sending around 10 employees from Japan abroad each year in two separate groups (first and second half of the year) for the objectives outlined below. To date, 72 employees have participated in this program. This initiative motivates younger and mid-career employees to engage in Toyobo's global business and represents a significant opportunity for them to advance their career.

Objectives

- Secure and systematically train personnel capable of developing overseas markets
- Unlike traditional language training, provide practical overseas training opportunities tied to current job missions, thereby expanding the pool of future overseas personnel

We also conduct a training program for local management candidates from our overseas group companies. These candidates come to Japan for training, and to date, 128 individuals have participated in the program.

Objectives

- Deepen an understanding of the group's corporate philosophy and management policies, while acquiring the necessary knowledge for managerial staff
- Enhance an understanding of the group and foster exchanges with employees from Japan and overseas through participation in internal training and visits to various business sites

Fostering self-reliant personnel

To reinforce the expected behaviors among employees so that they embody the TOYOBO PVVs, we encourage proactive skill development through a variety of training programs, including elective and open seminars, e-learning, and correspondence courses. We also support career growth aimed at cultivating self-reliant talent by offering training for management, during promotions, and for new hires and career advancement.

Human resource development achievements (FY2024)

Training hours per employee*	KPI	18.22 hours
Training investment per employee*	KPI	¥50,000
Total number of participants*		2,709
Total training hours*		43,340 hours
Training participation rate for career and skills*		62%
Number of core overseas personnel participating in training in Japan	KPI	7

* Boundary: TOYOBO CO., LTD., TOYOBO MC Corporation, and TOYOBO STC CO., LTD.

COLUMN

Employee Roundtable Discussion > p.24

Cultivating talent to embody the corporate philosophy

The corporate culture Toyobo group aspires to is expressed through the TOYOBO PVVs corporate philosophy framework. We aim to develop individuals and organizations that resonate with the philosophy of "Jun-Ri-Soku-Yu" (Adhering to reason leads to prosperity) and proactively pursue this enrichment. Our Values emphasize welcoming change, enjoying change, and creating change. Since its inception, the group has continuously adapted its business to meet evolving times and customer needs. We aim to foster individuals and organizations that anticipate societal and environmental changes and drive change proactively. To support this, we have established the TOYOBO Spirit: Nine Commitments, emphasizing Challenge, Reliability, and Collaboration as daily behavioral guidelines, integrating them into performance evaluations and internal recognition systems. To ensure these efforts are effective, the KAERU Department leads the initiative to promote the TOYOBO PVVs among employees. By providing platforms for two-way communication across departments and levels and enhancing relationships through dialogue, we focus on cultivating talent that can embody our corporate philosophy.

TOYOBO Spirit: Nine Commitments

Human resource strategy

Employee roundtable discussion

Perceptions of Sustainable Vision 2030 and specific actions being taken

Employees from various departments supporting Toyobo group gathered to discuss their perceptions of the corporate philosophy and vision. They shared their actions in alignment with these principles and their vision for the future as they work toward achieving the goals of Sustainable Vision 2030.

Q How do you perceive the vision and connect it to your daily activities?

Tajima I appreciate the concept of building a flourishing society with Toyobo's corporate philosophy framework, the TOYOBO PVVs.

Fujimoto Toyobo group has set an ambitious goal of achieving consolidated net sales of ¥600 billion under Sustainable Vision 2030. I understand that the key to realizing this goal lies in consistently overcoming the challenges we encounter.

Toyama As someone working in research and development, I place significant emphasis on the vision of continuously creating

solutions. As materials are a means to achieve these solutions, I always ensure that our development efforts begin with a clear understanding of the solutions our customers are seeking. This perspective is crucial for me as a researcher in a manufacturing company.

Iwasaki With its long history, Toyobo group is well-positioned to move forward into the future. I believe our vision reflects an approach of enriching the world through innovative thinking that transcends conventional ideas, and I deeply resonate with this mindset.

Yamanaka I continuously reflect on how I can contribute to achieving a prosperous future. Although there are major challenges such as water and food shortages, I concentrate on making small contributions to enhance the lives of our immediate customers and those beyond them. The vision acts as a guiding principle for these efforts.

Q What initiatives are being undertaken in each workplace to achieve the vision?

Yamanaka Toyobo group contributes to society by using packaging film technology to deliver fresh food over long distances, thereby helping to reduce food waste. Our pouches are designed to be easy to collect and recycle, extend shelf life with freshness-preserving barrier films, and be microwaveable. We are particularly focusing on expanding sales in overseas markets, including Southeast Asia and India.

Tajima The medical materials business brings smiles to patients by improving symptoms and aiding in recovery through our products. We developed hollow fiber membranes for artificial kidneys to make dialysis treatment more comfortable for patients.

Fujimoto Toyobo's BREATHAIR® supports healthy living and healthcare. To contribute to a circular economy, we have also started material recycling for collected products.

Toyama In my team, we are focused on developing technologies to address two of the five social issues outlined in Sustainable



Takatsugu Tajima

Medical Materials Operating Department,
Life Science Division

Mayu Fujimoto

Environment and Fiber Sales Domain,
Sales Division, TOYOBO MC Corporation

Kinuka Toyama

Research Center,
Innovation Division

Kana Iwasaki

KAERU Department,
HR and Administration Division

Yoshiyuki Yamanaka

Packaging Operating Department,
Films Division

Human resource strategy

Employee roundtable discussion



Vision 2030: achieving healthy living and realizing a decarbonized society.

Iwasaki Since being assigned to the KAERU Department*1 in November of last year, I have been working with my team to improve work efficiency and working methods, centered on the principles of the TOYOBO PVVs.

Tajima For the past two years, until April of this year, I served concurrently in the KAERU Department with Ms. Iwasaki and in the

Life Science Division. I plan to apply the experience gained from the KAERU activities, particularly the practice of setting and sharing deadlines for decision-making processes, to improve efficiency in my current workplace.

Fujimoto Until last year, I also worked concurrently in the KAERU Department. Being surrounded by many individuals with a mindset focused on driving change was truly inspiring. This experience heightened my awareness of improving the workplace, and I'm grateful for the opportunity to have participated in the KAERU activities.

Yamanaka The KAERU activities promote effective meeting procedures (Meeting Ways*2) and paperless operations, contributing to improved work efficiency.

Toyama I feel that creating many opportunities for interaction with people from different fields has improved communication across the company. By participating in the Mirai Human Resources

Training Program and the interdisciplinary exchange event, TOYOBO Mirai Creation Community (MCC), I have had the opportunity to meet individuals outside of my usual daily work, which has broadened my perspective.

Iwasaki In the KAERU Department, we aim to enhance internal communication opportunities that were reduced during the COVID-19 pandemic and to promote the diffusion of the TOYOBO PVVs, supporting the realization of our vision.



Describe the atmosphere of your workplace. Also, in what situations do you feel a sense of fulfillment in your work?

Yamanaka At Toyobo group, there is a strong mindset focused on achieving something. Effective conversations are crucial for bringing ideas to fruition. For instance, when we aimed to sell our films internationally, I got the idea from a senior colleague of mine to start with a global company in Japan, which is a customer of ours, and then expand it to the world. This idea emerged from everyday conversation.

Tajima With the "people first" principle in mind, I demonstrated the Nerbridge® nerve regeneration conduit at our dialysis membrane factory at the Iwakuni Production Center last fiscal year. By showcasing technologies that support next-generation medical advancements, it also improves the engagement of factory staff. This fiscal year, we plan to highlight our corporate research.

Fujimoto In my workplace, everyone has a strong commitment to BREATHAIR®, creating a sense of unity. I find fulfillment in the feedback we receive from customers every day.

Toyama The atmosphere in my team is characterized by a sense of openness, where researchers can easily consult with each other and take on challenges without fear of failure. This freedom contributes to our development speed. I felt a great sense of fulfillment when I learned that customers were interested in the results of our collaborative research with universities.

Iwasaki The KAERU Department has an open and communicative environment where feedback and expressions of gratitude are exchanged regularly. The ability to have close discussions with direct managers contributes to a comfortable work environment. By drawing out each individual's strengths, the department fosters a sense of fulfillment and increases motivation.



What kind of company would you like to create in the future as you work toward realizing the vision?

Yamanaka I focus on avoiding simple, obvious questions and answers, aiming instead for a unique perspective. This approach fosters competitiveness, value, and prosperity. As a mid-career professional, I want to bridge the gap between different generations and contribute to advancing new technologies and markets.

Fujimoto Ideally, I would like to be able to confidently recommend Toyobo as a great place to work to those searching for employment.

Toyama My goal is to build a company where hard work is rewarded. I want everyone to share the company's vision and make steady progress toward their individual goals and achievements, all while approaching their daily tasks with dedication and sincerity.

Iwasaki Through the KAERU activities, I aim to create a company where various internal opinions are respected and employees can work in a lively and enjoyable environment. This approach will naturally lead to people advocating for continuous improvement and positive change.

Tajima The establishment of the new Medical Research Laboratory and the hollow fiber membrane factory in Odate City, Akita Prefecture, reflect the company's growing expectations. To advance our operations effectively, it is crucial for all employees to take ownership of their roles. I believe that embracing responsibility in both work and life promotes personal growth. Ultimately, I aspire to achieve something that my children can be proud of.



*1 KAERU Department: Established in 2018 as the KAERU Project Department, with the mission of transforming the workplace so that every individual can work confidently and energetically, and where the company continuously evolves while charting a growth trajectory. The department was renamed to its current title in April 2022.

*2 Meeting Ways: Guidelines established internally for conducting meetings. Aimed at maximizing meeting outcomes, these guidelines focus on three key points: making effective use of time, enhancing the quality of discussions, and achieving results. The KAERU activities promote the implementation of these practices.

Human resource strategy

Promotion of DE&I

Diversity, equity, and inclusion Promoting women's empowerment

Materiality KPIs Items, targets, and fiscal 2024 results for employee well-being (DE&I, health and productivity management, occupational health and safety) > p.15

Basic approach

Toyobo group believes that personal and organizational growth is achieved through recognizing diverse values and respecting differing opinions among people with various work styles, careers, genders, nationalities, races, and beliefs, and through cooperation to achieve our shared objectives.

As stated in the TOYOBO Group Diversity Promotion Policy, Toyobo group believes that the happiness of its employees and the sustainable growth of the group stem from diverse employees being able to fully participate in the organization and society with pride and fulfillment. The group is committed to the promotion of diversity based on the following three elements: diversity, equity, and inclusion.

Promoting women's empowerment

Toyobo group established the Diversity & Inclusion Group within the Human Resources Department, dedicated to promoting women's empowerment. This organization holds events such as presentations, seminars for managers, women leader development seminars, and women's empowerment projects on a continuous basis at each business site, all aimed at fostering a shift in employee awareness.

We have also opened a Toyobo Nursery School within the Research Center in Otsu, Shiga Prefecture, to support childcare. This initiative facilitates an early and planned return to work from childcare leave and helps create an environment where employees can approach childbirth with peace of mind.

In recognition of our efforts, such as meeting the prescribed standards in areas like recruitment, continuous employment, work style including working hours, and diverse career paths, we received the Eruboshi Certification (Level 2) from the Minister of Health, Labour and Welfare in December 2021 for actively promoting women's participation and advancement. Beyond fostering an environment and organizational culture where women can thrive, we have also revised our policies to encourage men employees to

take childcare leave, which includes making five days of the leave paid. As a result, the childcare leave uptake rate exceeded 80% in fiscal 2021 and has remained high ever since.

In addition, in June 2023, we were certified as Platinum Kurumin in recognition of our various initiatives.

We will continue to implement various measures centered on these initiatives to ensure that employees can work with peace of mind.



Eruboshi Certification

Platinum Kurumin

Promoting employment of persons with disabilities

To raise the employment rate of persons with disabilities, it is crucial to implement initiatives at a company-wide level. We therefore share information on the employment status and actively encourage the recruitment of persons with disabilities during the quarterly meetings of the General Administration Department managers from each business site.

As part of efforts to improve working environments, we have made the offices at the Tsuruga Research and Production Center and the Inuyama Plant barrier-free. We are also progressively renovating other business sites to ensure that they are barrier-free.

To meet the rising statutory employment rate in the future, we are actively recruiting. Alongside recruitment, we are taking steps to prevent turnover. This involves gradually assigning tasks from various workplaces to help new employees adapt to the environment and ensuring they are placed in positions suited to their skills and abilities.

Promoting employment of senior employees

After reaching the retirement age of 60, re-employed senior employees set goals and achieve results just like regular employees. They also play an active role in developing younger staff and passing on skills and knowledge.

LGBTQ+ initiatives

To foster a work environment where diverse talents, including gender minorities, can thrive, we have implemented the following initiatives.

Actions implemented	Details
Consultation desk	Toyobo has established an LGBTQ+ consultation desk. To ensure a worry-free experience, we guarantee strict privacy protection, including confidentiality of individuals seeking consultations. We also assure that there will be no repercussions for employees who seek advice or report issues, and we accept anonymous consultation requests.
Furthering use of preferred names	Starting from fiscal 2025, we have introduced a system that allows the use of preferred names based on gender identity. This enables individuals to use their chosen names that align with their gender identity.
Training for operational staff	We provided LGBTQ+ training to all operational staff, including those in the Human Resources Department, deepening their understanding of sexual minorities and the prohibition of outing, creating a supportive environment where they can engage in their work with a sense of security.
Unisex uniforms	In fiscal 2023, we made all standard uniforms worn in manufacturing sites unisex.
Gender-neutral restrooms	We have completed the installation of restrooms that can be used regardless of gender across all sites (excluding certain tenant-occupied locations).
In-house awareness activities	In addition to addressing this theme in relevant training sessions, we regularly post information on our internal portal to deepen the understanding of LGBTQ+ issues. We are also working to foster an LGBTQ+-friendly culture within the group.

DE&I related achievements

(FY2024 results)

Ratio of women managerial staff	KPI	5.5%
Rate of paternity leave uptake by men	KPI	97.7%
Employment ratio of persons with disabilities*	KPI	2.29%

Boundary: TOYOBO CO., LTD., TOYOBO MC Corporation, and TOYOBO STC CO.
* Boundary: TOYOBO CO., LTD.

Human resource strategy

Feature

Harnessing diversity and creating value

New insights gained through integration with different cultures

Toyobo group has experienced integration with different cultures through numerous M&As, continuously evolving by embracing new insights and diverse perspectives. In this section, we will introduce a case of value co-creation through an M&A in the film business conducted five years ago.

Integration from the perspective of the Human Resources Department

Toyobo was established through the merger of Osaka Boseki and Mie Boseki and has since experienced several major mergers, including with Osaka Godo Boseki and Kureha Boseki. In recent years, we have carried out M&As with Shinko Sangyo Ltd. and Toyo Kasei Kogyo Co., Ltd., leading up to the merger in the film business that we will introduce here. Thus, the history of the group reflects a continuous integration of diverse business cultures. Among these integrations, the merger with Teijin Film Solutions Limited (TFS) and P.T. Indonesia Teijin Film Solutions (ITFS) has represented a significant milestone for our film business. We have had numerous presidents, directors, and executives who were not originally from Toyobo, and there are no factions or academic cliques within the company. As a result, we take pride in ensuring fairness

in the human resources domain for the approximately 500 individuals (including those based overseas) who have been transferred through the merger.

Integration with Teijin's film business

In 2019, with the goal of combining the distinctive technologies and product lineups of our film business with those of Teijin Limited to establish a unified and efficient system for providing highly functional film products to our customers, we made TFS and ITFS

wholly owned subsidiaries. Subsequently, in 2021, we absorbed TFS through a merger.

Efforts toward creating new value through the mutual learning of technologies

A notable difference between the technologies of both companies was the coating technology for mold releasing film for MLCC. Toyobo's strength lies in its fine-tuning technology for high-end applications, which enables the production of thin and highly smooth films.

Conversely, TFS excels in mass production technology for middle- to low-end applications. Recognizing these differences in target applications and approaches to technology development was essential. This recognition marked the beginning of our efforts toward value co-creation through the integration of different cultures.

Achieving sustainable value co-creation

Toyobo group believes that embracing diverse values and perspectives, and collaborating to achieve common goals, fosters growth for both individuals and the organization. As demonstrated by the case presented, which reflects DE&I principles, we strive to enhance corporate value through sustainable value co-creation by harnessing and integrating individual strengths to mutually uplift one another.

Post-integration progress and synergy realization

Runa Nakamura

General Manager, Katata Films Technology Center

Career Joined Toyobo four years ago as a mid-career recruit and is engaged in film research and development

I believe this integration has been a significant step toward future innovations by allowing us to learn from each other's technologies. Each company uses different technologies to achieve the same goal of developing films with coating applications, and I am hopeful that this integration will uncover new added value. Initially, there were challenges due to cultural differences, but we addressed these by clearly articulating our thoughts, acknowledging each other's strengths and weaknesses, and engaging in discussions, as needed. I now feel that the integration with TFS is no longer a challenge, and interacting with another company's culture and perspectives has provided an opportunity to view our own company objectively. By embracing diverse opinions, we can move forward in a better direction.

Kento Shigeno

Katata Films Technology Center

Career Joined Toyobo as a new graduate and is engaged in film research and development

In the beginning, I was confused by the differences in technical terminology. However, by adapting to both sets of terms as needed and maintaining ongoing communication, we managed to overcome this challenge. We also encountered differences in work methods and approaches. To address these, we focused on understanding the differences, discussing each other's strengths and weaknesses, and then deciding on a course of action. We further collected data and reevaluated what we each considered "standard," leading to valuable new insights. Rather than conforming to a single culture, the mutual understanding and collaborative development of a new, enhanced culture truly showcase the synergy we achieved.

Shinji Yano

Group Leader, Katata Films Technology Center

Career Transferred from TFS to Toyobo and is engaged in film research and development

Initially, I was unsettled by the differences in the scope of research and development roles between the two companies. For example, at Toyobo, it is rare for development personnel to interact directly with customers, whereas at TFS, where individual roles were broader, such interactions were frequent. While direct contact with customers has the advantage of timely understanding of their needs, it also has the disadvantage of preventing a focus solely on development tasks. In contrast, at Toyobo, manufacturing, sales, and development each specialize in their respective areas while maintaining strong coordination. This approach has provided me with a new perspective on how to efficiently create high-quality products by entrusting tasks to specialists in different areas rather than covering all roles alone.



Human resource strategy

Improving the working environment

📄 Safety and disaster prevention 📄 Health and productivity management 📄 Human resource management

Safe and secure workplace

1 Strengthening occupational health and safety

Toyobo group adopts the slogan, “Protect yourself. Protect your colleagues. If you notice something, speak out.” We are dedicated to prioritizing safety across all aspects, environmental safety occupational health, product safety, and equipment safety. To realize this commitment, we focus on two main policies: fostering a culture of safety and fortifying our safety infrastructure. To foster a culture of safety, we implement safety dialogues, conduct safety awareness surveys, and hold tiered workshops. To fortify safety infrastructure, we promote the 3S (Sort, Set in Order, and Shine) principles in the workplace and have established disaster prevention training facilities where employees can experience the impact of disasters through simulation equipment. These facilities are used for training both within the company and for external participants.

Safety and disaster prevention related achievements (2023 results)

Number of major accidents	KPI	0
Work-related injury absenteeism rate	KPI	1.15
Number of fires and explosions	KPI	0

Boundary: Total of TOYOBO CO., LTD., and its domestic consolidated subsidiaries

2 Promoting health and productivity management

Toyobo group believes that investing in employee health and fostering a vibrant workplace where employees can work energetically drive the company's long-term growth. Therefore, we strategically implement health management from a managerial perspective, focusing on enhancing both the physical and mental well-being of our employees to boost health and productivity.

Initiatives

- Support for employees based on health checkup results, including encouraging follow-up examinations, health guidance from health staff, and health consultations
- Health and productivity management support for expatriates
- Mental healthcare efforts, including training for managerial staff and return-to-work support
- Awareness activities through seminars and other means for employees
- Measures to reduce long working hours
- Recognized as a “White 500” enterprise for Outstanding Health and Productivity Management for two consecutive years



3 Achieving work satisfaction

We believe that aligning organizational goals with individual growth is crucial, viewing the company and employees as equal partners. Since 2021, we have conducted the organizational culture and job satisfaction survey for all officers and employees. This survey allows us to regularly assess employee engagement and foster an environment where employees can take pride in their work and proactively contribute to their roles. In addition, to enhance engagement, we aim to achieve an employee engagement score of at least 70% by 2030 through the following initiatives.

Initiatives

- Establish a system to align overall policies and strategies with individual goals
- Implement job inventory caravans through KAERU activities
- Visualize and understand individual careers and work satisfaction
- Develop a system for conducting annual engagement surveys starting from 2024

Work environment related achievements

Improvement in employees' affirmative responses about work based on the engagement survey

(Results are from FY2023; there was no survey in FY2024, but one is planned for FY2025)

Percentage of respondents who do not feel that their day-to-day work is difficult to perform*	KPI	38% +5% YoY
Percentage of respondents who respect the diverse views and ideas of each person*	KPI	50% +8% YoY

* Boundary (as of FY2023): TOYOBO CO., LTD., TOYOBO STC CO., LTD., TOYOBO INFORMATION SYSTEM CREATE CO., LTD., and TOYOBO TEXTILE CO., LTD.

Certification as a “White 500” enterprise with Outstanding Health and Productivity Management	KPI	Certification as a Health and Productivity Management Outstanding Organization 2024 (large enterprise category) Attained “White 500” certification (FY2024 results)
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COLUMN

Implementation of a new personnel system

To enhance talent management, we have introduced a new personnel system alongside revised HR policies. This system consolidates several previously separate HR systems into one, with full-scale operation starting in June 2024. This integration aims to support talent management both functionally and operationally, boosting our adaptability and responsiveness over the long term.

We will specifically enhance talent management by improving capabilities in areas such as talent information visualization and succession planning. Plans include exploring global and cross-group initiatives. In addition, we have updated our methods for managing working hours and revised some HR policies to enable employees to work more autonomously and efficiently. We will continue to refine the working environment to foster safer, more autonomous, and diverse working practices.

Innovation strategy

Message from the Controlling Supervisor of the Innovation Division —Toyobo's unique innovation—

Katsuya Ito

Executive Officer
Controlling Supervisor
of the Innovation Division



Solving social challenges through the integration of diverse sciences

Toyobo group's business began with natural fibers and developed into chemical fibers and synthetic fibers. It then evolved into films, environmental and functional materials, and life science. This progression aligns with our group's vision to continuously create the solutions needed by people and the planet through materials and science. Here, "science" refers to a body of knowledge acquired through scientific methods, encompassing not only natural sciences but also social sciences and humanities. In other words, "materials and science" represents our philosophy of addressing social challenges by integrating all the knowledge and wisdom that the group possesses into our products (materials). By bringing together the expertise of not only engineers but also various specialists within and outside the company, we can develop new added value and solutions.

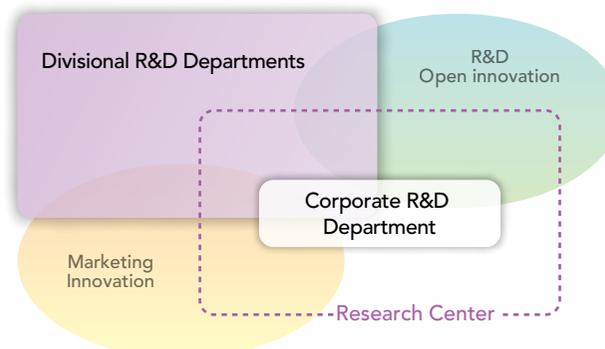
Promoting company-wide collaboration to drive innovation

The Innovation Division plays a central role in the company-wide activities for driving innovation. One of the foundations of Toyobo group's innovation creation is our research and

development efforts, which are undertaken by the Divisional R&D Departments and the Corporate R&D Department. While the Corporate R&D Department focuses on core technology research, aiming to acquire fundamental and advanced technologies for the future, as well as developing new products and businesses across divisions, the Divisional R&D Departments are responsible for developing products that reflect the current and future needs of our customers. Despite their different roles, they share the common goal of creating innovations based on science to propose technologies, products, and services that benefit our customers.

In both corporate and divisional R&D, we emphasize company-wide collaboration in our operations. Through the Innovation

Company-wide innovation system through collaboration between Corporate and Divisional R&D



Promotion Council, where representatives from both departments gather, we share not only the overall status and progress of each department's innovation activities but also how we are addressing ever-changing societal demands. In addition, we provide opportunities for discussing the selection of themes, development processes, and commercialization. Development leaders from each department participate in reporting sessions, primarily led by the Corporate Research Center, where they engage in discussions on delivering new added value and solutions.

Importance of fundamental research

Many of the R&D departments in the group are staffed by engineers with expertise in natural sciences. Therefore, I encourage them to delve deeply into technology while fully understanding the group's vision. Deepening expertise is crucial for talent development, and a solid foundation will enhance one's ability to grasp and apply new technologies, even if it requires time. From past experiences, I have learned that inadequate scientific backing is a contributing factor to quality issues and product defects. With a science-based intuition, ethical standards, and a strong philosophy, one can exercise self-discipline to avoid deviations from fundamental principles, make accurate decisions, and progress effectively.

At the Corporate Research Center, we continuously explore new development opportunities alongside our ongoing development

Innovation strategy

Message from the controlling supervisor of the Innovation Division –Innovation the Toyobo way–

activities. We stay abreast of both internal and external technological information and social environments, constantly examining new possibilities. We also share information with the business divisions from the early stages of development, ensuring that our activities are always aligned with market needs, ultimately leading to effective solutions.

A recent example of our collaboration with universities is the development of Vitrimer, a resin with dynamic covalent bonds and an associative bond exchange mechanism. By leveraging the unique properties of vitrimers, which can respond to pressure and heat like thermoplastic resins while maintaining the cross-linked state of polymers, we have successfully created an eco-friendly, high-heat-resistant adhesive sheet that is solvent-free and can be transported and stored at ambient temperatures. This achievement represents a successful integration of university technology with the group's core resin technology and is now in the product evaluation stage with customers.

We also support fundamental research outside of the company. The TOYOBO POLYMER SCIENCE Award, established in 2021, is a public research grant system that supports young researchers by utilizing the research funding framework operated by Leave a Nest Co., Ltd. While there is a current trend toward supporting applied research, Toyobo group focuses on fundamental and general research in polymer science as the theme for our grants. We aim to highlight and support fundamental research that, even if initially unknown, is essential for the evolution of materials that can potentially change the world. This research is essential for pursuing the fundamental functions necessary for such transformative advancements.

Toyobo's strength in nurturing accumulated expertise

While it is important to develop with a goal in mind, Toyobo group has often succeeded by valuing and nurturing accumulated expertise. For example, the film business, which I have been involved with for many years, began in 1963. Initially, it started with films for food packaging and processing technologies, followed by base films for magnetic tapes. This led to the development of industrial films such as COSMOSHINE® and eventually the advanced super retarder film COSMOSHINE SRF®. The evolution of these highly functional materials has been made possible by the continuous accumulation of knowledge, including raw material resins and film-forming technologies, as well as ongoing interactions with customers. This ability to significantly grow accumulated expertise is a key strength of the group. However, recognizing opportunities for solutions is also crucial. In talent development, we emphasize the importance of providing hands-on experiences, including learning from failures, and creating opportunities for insights daily.

Co-creating innovation with our customers

To accelerate innovation, there are valuable lessons to be learned from how global companies operate. For example, Tesla applies its approach of releasing products early and then iterating and upgrading them when an issue emerges, even in the realm of hardware such as automobiles. We often think that products must be close to 100% complete before they can be commercialized, but this is an area where we should reconsider our approach. In addition, there are U.S. start-ups that have achieved rapid growth

“

The fusion of diverse expertise and perspectives across the company leads to new added value and solutions.

”

by selling water in “cool” packaging at a premium price. If we can align with innovative perspectives on marketing, branding, and other aspects, we too can add new value to something as conventional as water, breaking away from traditional norms. The group also possesses materials developed beyond conventional norms. For example, IZANAS®, an ultra-high-strength polyethylene fiber, is made from the same polyethylene as supermarket checkout bags. However, through the group's technology, we have enhanced its strength to be comparable to steel, and it is now used for tanker mooring ropes. Recently, it has been employed in offshore wind power demonstration projects. Even commonplace materials can evolve into high-performance materials when pushed to their limits.

In the examples of global companies mentioned earlier, innovation is not only about offering unique technologies or ideas but also about uncovering potential customer needs and co-creating value with customers. Similarly, we will leverage our established technologies based on the concept of “materials and science” and incorporate new ideas generated from diverse perspectives both within and outside the company. This approach will enable us to create innovations that transcend conventional thinking. While there are instances where a single genius, like Edison, can drive innovation, in a corporate setting, diverse perspectives and talents across different functions and roles contribute to the creation of varied innovations. I believe that the fusion and accumulation of these diverse strengths can lead to the emergence of unexpected solutions and added value. With this mindset, I am committed to driving innovation in Toyobo group.

Innovation strategy

Utilization of intellectual property

 About intellectual property

Materiality KPIs Items, targets, and fiscal 2024 results for innovation and compliance (R&D and intellectual property) > p.16

Policy and vision

Toyobo group aims to continue creating solutions required by people and the planet through materials and science. By creating innovations based on our four core technologies of polymer technology, biomedical technology, environmental technology, and analysis and simulation technology, we contribute to resolving social issues.

In addition, we align our intellectual property activities with our business strategy and research and development strategy, and ensure the superiority of our products by building a high-quality patent portfolio, including both core and peripheral patents.

Targets and KPIs

Effective utilization of intellectual property is key to ensuring the superiority of our products. Therefore, we set KPIs and manage them appropriately. In fiscal 2024, the initiatives for which KPIs were set included the number of intellectual property analyses conducted, the number of business terminations due to patent infringement, the number of intellectual property training sessions for employees, and the number of orders issued for corrective measures on displayed materials.

Initiatives

1 Establishing a framework

- The progress of KPIs is reported twice a year at the Sustainability Committee, where we ensure alignment with Toyobo's overall policies and advance our intellectual property activities.
- In collaboration with the business departments and the research and development departments, we assign intellectual property liaisons to each department to enhance the effectiveness of our intellectual property activities.

2 Formulating policies for patent management

- By actively securing and utilizing our innovations as intellectual property rights, such as patents, we aim to stabilize our business and achieve high profitability, thereby contributing to the sustainable growth of the group.
- We strengthen our own patents while respecting the patents of others through patent review meetings and patent reviews linked to design reviews.
- We actively pursue international patent applications in line with our business plans.

3 Use of intellectual property information

We actively analyze patent and non-patent information to derive insights into technological and market trends, which we then apply to our business and R&D strategies.

4 Use of digital technology

We will introduce an AI system to enhance the efficiency and accuracy of the screening process during freedom-to-operate analyses in patent reviews. This process ensures that newly developed products or technologies do not infringe on other companies' patent rights during research and development.

5 Invention incentive system

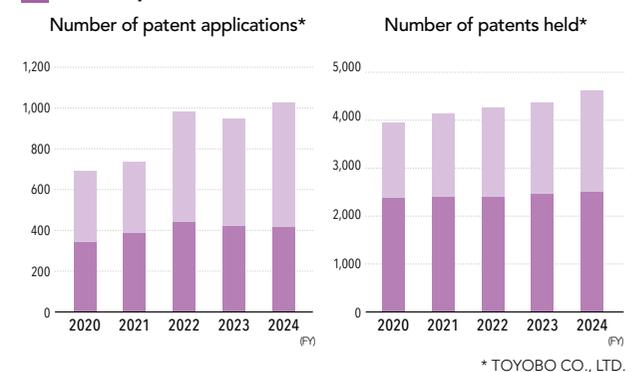
To enhance employees' innovation mindset, we have established an invention incentive system.* If a patent application is filed, inventors will receive an incentive payment as reasonable compensation for their work-related inventions. In addition, if a patented invention is implemented, inventors will receive a reward payment.

* In June 2024, we revised the invention incentive system. Previously, rewards were based on the contribution of patents to the company's profits. The updated system now provides a uniform reward payment for the implementation of patented inventions, regardless of the profit amount. Moreover, greater emphasis will be placed on incentive payments at the time of patent application. This revision is expected to enhance the motivation for creating new inventions.

6 Implementation of intellectual property education

- We conduct systematic intellectual property education tailored to job categories and functions.
- We hold practical patent seminars for engineering-related employees during their first three years of employment to enable them to learn about patents. We also offer specialized education focused on patent searches and the preparation of patent application documents, including practical, hands-on training.
- Sales personnel also receive education on the intellectual property knowledge necessary for their roles.

7 Patent performance



For fiscal 2024, the number of patent applications was 1,029, with 615 of these being international. The total number of patents held was 4,624, with 2,109 of these being international.

Toyobo ranked first in the total patent ranking for polymer film-related technologies, as announced by Patent Result Co., Ltd., on May 7, 2024.*

* This ranking focuses on polymer film-related technologies and is based on Patent Result's evaluation of patent scores (assessing the degree of attention given to individual patents) in four major countries and regions: Japan, the United States, Europe, and China.

Innovation strategy

Digital transformation

Policy and vision

Toyobo group aims to continue creating solutions required by people and the planet. We address both current and future challenges by driving business innovation and striving to accelerate transformative changes within our operations.

Digital transformation (DX) is crucial for advancing and accelerating business innovation, and understanding its contribution to business expansion is key. By establishing IT infrastructure and developing a robust DX promotion structure, the group is advancing human resources and organizational transformation to enable business co-creation. We are committed to pursuing our 2030 objectives: contributing to solving issues facing people and the planet, being a company where employees work with pride and satisfaction, and achieving sustainable growth.

Initiatives to advance DX

In fiscal 2024, we completed preparations for achieving DX in line with the DX road map formulated in fiscal 2023. These preparations included the overhaul of our information security infrastructure, the initiation of the open systemization of core systems such as sales, and the reorganization of the digital promotion department, which involved the absorption and merger of our information subsidiary (TOYOBO INFORMATION SYSTEM CREATE CO., LTD.).

As a result, Toyobo group was recognized for meeting the Ministry of Economy, Trade and Industry's certification standards for DX initiatives and was selected as a DX-certified operator in February 2024. In fiscal 2025, we will expand our efforts group-wide with the perspectives of transforming to achieve agile responses through simplicity and streamlining, and pursuing thorough efficiency through standardization, thereby accelerating our DX initiatives. In addition, to prepare for further expansion of digital technology applications in business operations, such as AI, we will focus on measures centered on building a cycle for accumulating and creating data assets.

Focus Area 1

IT infrastructure development

Toyobo group is advancing investments in updating legacy systems. In fiscal 2024, we began pilot implementation of a new core online system, with plans to complete cloud computing and security enhancements by fiscal 2027.

We will also progress with the renovation of peripheral systems associated with the new IT infrastructure, building a secure and flexible IT foundation that enables data utilization and collaboration not only within departments and the group but also with external partners.

After completing the system updates, we will expand investments in DX projects that contribute to business growth, for example. By fiscal 2031, we aim to establish an IT environment capable of securely sharing information with any future partners with immediacy.

Focus Area 2

Governance and organizational strengthening

In fiscal 2024, as we shift from IT utilization to the DX era, we leveraged our organizational strength in system development and operations to focus on strengthening non-manufacturing organizational functions. This included co-creation theme development with business divisions and external partners aimed at business expansion, and shifting from localized optimization to holistic thinking. We will enhance our framework to optimize IT investments through planning and budget management and continuously reduce IT costs through cost management. To contribute effectively to business expansion, we will focus on human resource development, fostering a culture where each employee can independently plan their career, set goals, and engage in their work with a sense of purpose, as well as undertake organizational reforms.

Focus Area 3

Promotion of business co-creation

In the Sales and Marketing Division and the Innovation Division, our activity policy is to advance digital and IT themes that contribute to business expansion and promote digital transformation through business process reforms. Alongside infrastructure development directly related to manufacturing as a manufacturer, we set priorities for resource allocation based on business impact while overseeing the entire Sales and Marketing Division and strive for its overall optimization. Discussions that were previously conducted individually by field personnel are now addressed in regular meetings led by top management in this division to achieve overall optimization.

In addition, addressing environmental issues such as carbon neutrality and chemical substance management, as well as human capital, is a theme that the company should tackle. The IT and DX Planning Department will lead the company-wide efforts in setting goals and building systems, ensuring steady progress in these areas.

Green strategy

Creating environmental value through business

 News release

Provision and development of materials for next-generation mobility

Mobility Business Strategy Unit, TOYOBO MC Corporation



Akio Tange
Group Manager,
Advanced Development Group



Keisuke Taniguchi
Advanced Development Group



Hiroki Okajima
Advanced Development Group



Kengo Takimoto
Pre-Sales Group



Shinnosuke Minamoto
Pre-Sales Group

Environmental issues to address

In the automotive industry today, there is demand for reducing emissions, electrifying vehicles, and using renewable materials to lower environmental impact.

As a group, we aim to develop and provide high-value-added products that contribute to solving the environmental challenges faced by our customers.

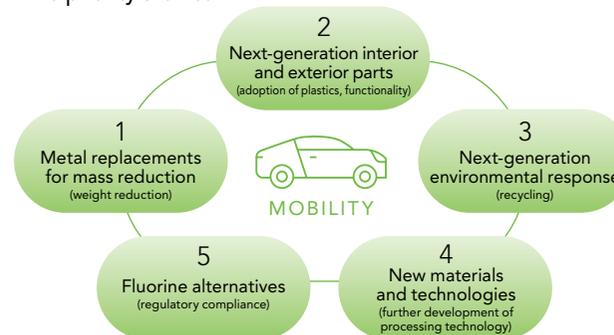
Background and objectives of establishing the Mobility Business Strategy Unit

TOYOBO MC Corporation (TMC) established a new organization, the Mobility Business Strategy Unit, in April 2024 to directly approach and collaborate with original equipment manufacturers (OEMs) on joint development projects. The mobility industry is experiencing rapid technological innovation and dramatic changes in its business environment, with new entrants from various industries and emerging manufacturers. TMC's mission is to never stop transforming, and this bold shift in thinking is also required for the mobility industry. The new unit aims to grasp the needs of OEMs from the early stages of development and work closely together to bring high-value-added products to the global market.

Five priority themes

The Mobility Business Strategy Unit has established five priority themes. Each of these themes serves to comply with increasingly stringent regulations, such as fuel efficiency standards and recycling ratio mandates, and forms the foundation of TMC's competitive advantage. Furthermore, achieving these themes not only contributes to solving environmental issues but also serves as a testament to its technological capabilities, directly enhancing its market value.

Five priority themes

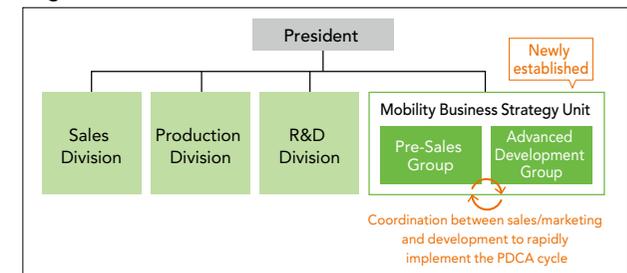


Operating structure

The Mobility Business Strategy Unit is a unified organization for sales and development, reporting directly to the president, and is

composed of specialists. This structure allows for swift decision-making and execution, enabling the unit to quickly leverage its accumulated technological expertise in response to the rapidly changing economic environment and global markets. In the mobility business domain of the TMC group, the unit has set a sales target of ¥100 billion by fiscal 2031.

Organization structure



Enhancing corporate value for both OEMs and Toyobo

In the past, there was a tendency to complete product development within the group. However, by moving away from this approach and collaborating with OEMs and other companies, we can create synergies that elevate the corporate value of both parties. Through these joint efforts, Toyobo group and OEMs aim to promote the development and widespread adoption of next-generation mobility solutions.

Green strategy

Creating environmental value through business

Expansion of biosurfactant MEL

News release

Environmental issues to address

In response to environmental challenges such as reducing greenhouse gas (GHG) emissions and the use of fossil resource materials, there is a growing need for new, sustainable manufacturing technologies that differ from traditional chemical production processes based on fossil resources. These technologies involve using genetic modification techniques to produce useful substances from cells of microorganisms, plants, and animals. One such example is Toyobo's mannosylerythritol lipids (MEL), which has been adopted under the Bio Manufacturing Revolution Promotion Project by the New Energy and Industrial Technology Development Organization (NEDO).

Development background of MEL and the impact of NEDO adoption

Development of MEL began around 20 years ago as a raw material for functional cosmetics using biotechnology. Toyobo discovered that ceramides, lipid components that protect skin moisture, have a structure similar to MEL, a naturally derived component produced by microorganisms (yeast). This similarity has highlighted MEL as a promising sustainable surfactant in the cosmetics industry. The adoption of MEL in the fiscal 2024 NEDO project has accelerated research, expanding its potential applications beyond cosmetic ingredients. This development significantly enhances the possibility of contributing to a decarbonized and circular society.



Biosurfactant, mannosylerythritol lipids (MEL)



Atsushi Sogabe

Head of Biotechnology
Operating Department,
Life Science Division



Takumi Arakawa

General Manager,
Biotechnology Development
Department

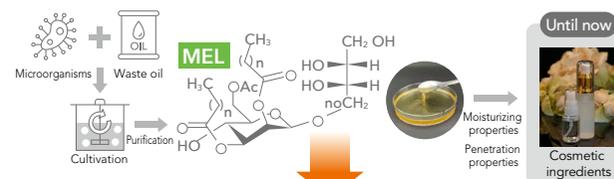


Chikako Yamashita

Biotechnology Development
Department

Features and strengths of MEL

MEL is commercialized as a moisturizing ingredient in cosmetics, but it also possesses excellent surfactant properties even at low concentrations. It is naturally derived, ensuring advanced safety and biodegradability. Moving forward, we aim to develop a revolutionary production system to reduce production costs. By around 2025, we plan to introduce MEL in high-value applications such as pesticide adjuvants that reduce chemical pesticide usage, feed additives that lower methane emissions from cattle, and coatings for hygiene products, thereby contributing to its broader societal implementation.



From now

Examples of alternatives to synthetic surfactants and other applications



Pesticide adjuvants



Feed additives



Coatings for
hygiene products

Social impact and enhancement of corporate value

Surfactants are used in a variety of products, including pharmaceuticals and processed foods such as fish paste, emulsifiers, and surface treatment agents. While many commercially available surfactants are derived from fossil fuels such as petroleum, providing naturally derived surfactants through biotechnology is expected to contribute to the realization of a decarbonized and circular society. Toyobo holds several patents for MEL, and we anticipate that improvements in productivity will significantly expand our business scope into areas such as agriculture, pharmaceuticals, and film processing.

Enhancing Toyobo's corporate value

Toyobo has recently initiated an eight-year plan for MEL, which has been in research and development for about 20 years. Beginning in February 2024, this new development plan will focus on establishing a high-precision continuous cultivation system. While we are currently trailing behind Europe and the United States globally in this field, we view it as a vital endeavor for generating value for Toyobo and Japan's future.

Business strategy

Roundtable discussion with Division Heads and the Controlling Supervisor of the Innovation Division

Value co-creation through innovation practice

The leaders of three business divisions and the Controlling Supervisor of the Innovation Division discussed how to co-create value through various collaborations aimed at commercializing Toyobo group's unique technologies.



Muneo Hirooka
Managing Executive Officer
Head, Films Division

Takahito Sagara
Managing Executive Officer
Head, Life Science Division

Chikao Morishige
Co-COO
Head, Environmental and Functional Materials Division
President & Representative Director, CEO, TOYOBO MC Corporation

Katsuya Ito
Executive Officer
Controlling Supervisor of
Innovation Division

Addressing social issues targeted by each division

Hirooka In the Films Division, which handles plastic products, reducing environmental impact on the Earth is a critical issue. While advancing efforts to reduce the use of fossil fuel-derived materials and greenhouse gas (GHG) emissions, we aim to achieve a 60% green film ratio in 2030 through increasing the use of recycled materials and utilizing bio-based materials. For example, food packaging films contribute to reducing food waste, and we are developing significantly thinner films that maintain performance, thereby leading to a reduction in plastic usage.

Sagara The Life Science Division's business is directly related to human health and well-being. With two main areas—diagnostic reagents and medical devices—there is a growing global demand for enzyme materials used in diagnostic reagents that simplify diagnostics. To address supply shortages, we are enhancing our production facilities. For hollow fiber membranes used in blood dialysis and blood purification medical devices, we are

building an integrated production system in collaboration with our pharmaceutical partner, NIPRO CORPORATION, to improve precision and provide products at appropriate prices.

Morishige The products handled by the Environmental and Functional Materials Division cover a wide range of areas including mobility, high-speed communications such as 4G and 5G, environmental sectors like air and water, and renewable energy. All of these contribute to solving societal issues. For example, membranes used for desalinating seawater not only help reduce wastewater by effectively utilizing concentrated seawater but also contribute to recycling by extracting and recovering valuable metals. Devices that capture volatile organic compounds (VOCs) from factory exhausts also help reduce environmental impact. In the field of renewable energy, we are also involved in developing super fibers suitable for floating offshore wind turbines.

Ito While these business divisions are advancing development in areas with high certainty, my role overseeing the Innovation Division is to create technologies, products, and business models in areas that will drive future revenue and span across different divisions. There are two main streams of development: one that started more than 140 years ago with natural fibers and

progressed through chemical fibers, synthetic fibers, plastics, and environmental and functional materials, and another that evolved from enzyme technology into life sciences. By promoting the evolution and expansion of each technology and integrating both technologies, we aim to create new business opportunities.

Co-creating value across divisions

Morishige At TOYOBO MC Corporation (TMC), we are advancing material development for film applications in mobility coatings in collaboration with the Films Division. We are also focusing on development that incorporates recycling technologies and biomass materials.

Hirooka In creating unique added value such as reducing film thickness and enhancing material strength, collaboration with the Innovation Division is essential. For example, when business divisions express the need for high-strength PET materials or ultra-clean raw materials, we discuss these requirements with the Innovation

Business strategy

Roundtable discussion with Division Heads and the Controlling Supervisor of the Innovation Division



Division, which then evaluates them. The results are tested and assessed by the business divisions, ensuring close coordination.

Sagara In the field of life sciences, we also accelerate development by complementing research through the exchange of research members and collaboration with the Innovation Division on topics such as biocompatible polymers.

Ito As the Innovation Division, we ensure that our research and development align with market needs by sharing the concerns of each business division and customer feedback. We also integrate information and insights from universities and specific ventures to set relevant challenges.

Open innovation beyond company boundaries

Morishige At TMC, we are advancing the development of new polymer materials by leveraging academic insights and technologies. Accurately understanding user needs is crucial for subsequent monetization efforts.

Ito I also believe that monetization should be a key consideration. In the Innovation Division, we are careful not to fall into the mistaken belief that research and development, being future-oriented, doesn't need to consider monetization. We always focus on how the group's core technologies can ultimately benefit our customers, ensuring that our efforts align with the overall direction and strategies of the group.

Hirooka Challenges such as recycling cannot be fully addressed by our group alone, so we are also collaborating with other companies. For example, we participated in the establishment of R Plus Japan, Ltd., a company focused on recycling used plastics, which was jointly funded by 12 companies* across different industries. In addition, we are involved in a resource circulation project with pharmaceutical and printing companies to horizontally recycle label mounts, further advancing our efforts.

Sagara We are also advancing research and development in collaboration with external partners to supply products with high precision, speed, and at a low cost. To meet the growing global demand, we jointly established an integrated production plant for dialysis devices with NIPRO CORPORATION, which began operations in April 2024.

* As of the establishment of R Plus Japan, Ltd., in 2020.

Toward creating social and environmental value

Hirooka Most of the products from the Films Division relate to everyday environments, such as food, electronic components, and mobility. Our vision is to create sustainable living environments by mastering materials and introducing new innovations and ideas, bringing smiles and inspiration to people worldwide.

Sagara The Life Science Division also focuses on bringing

smiles to people and continuously delivering unexpected value by providing innovative experiences beyond their aspirations. We emphasize developing our people, as offering opportunities is crucial for growth. As part of this effort, we have initiated projects that encourage turning crazy ideas into business ventures using biotechnology.

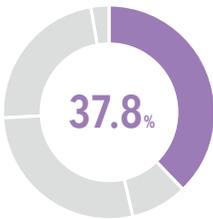
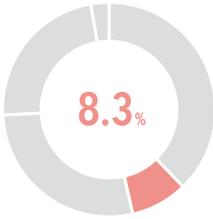
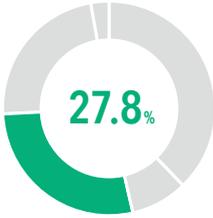
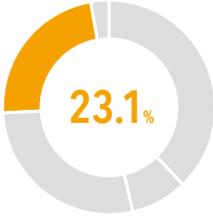
Morishige Human resources are truly invaluable assets. At TMC, we prioritize dialogue within the organization, including between management and employees, and focus on developing talent capable of driving self-transformation. We adhere to the TOYOBO PVs and have set our vision as solving global challenges with highly functional materials. As the chemical industry undergoes restructuring upstream, we aim to establish our value as a key intermediate materials manufacturer, ensuring that when customers face challenges in this field, we are their first point of contact.

Ito Although large-scale initiatives can signal the creation of new value, I believe that the seeds of innovation are often right in front of us. The key is in how we nurture these opportunities. The trial-and-error processes in development, discussions within and beyond the company, and ongoing experiments with customers are all crucial in sparking innovation. I want to emphasize the importance of recognizing and cultivating these moments to ensure we don't overlook any potential opportunities.

Business strategy

Overview by segment

 Contribution through business

		Consolidated net sales composition ratio	Net sales and operating profit (¥bn)	Main applications	Examples of products
 <p>Films</p>	<p>In the industrial film business, sales of polarizer protective films for LCDs increased significantly, while sales of mold releasing film for multilayer ceramic capacitors (MLCC) struggled as a full-fledged recovery in demand failed to materialize, affected by inventory adjustments. In the packaging film business, while we worked on product price revisions, we faced increased challenges due to soaring raw material and fuel prices, delays in demand recovery, and the start-up costs for new production equipment.</p>	 <p>37.8%</p>	<p>Net sales 156.5</p> <p>Operating profit 2.7</p>	<ul style="list-style-type: none"> • Industrial films • Packaging films 	
 <p>Life Science</p>	<p>In the biotechnology business, demand for reagents for PCR testing declined significantly. In the medical products business, sales of artificial kidney hollow fibers performed strongly. In the contract manufacturing business of pharmaceuticals, profitability improved due to a decrease in costs for responding to good manufacturing practices (GMP), including manufacturing and quality control standards for pharmaceuticals, following the lifting of the Warning Letter by the U.S. Food and Drug Administration (FDA).</p>	 <p>8.3%</p>	<p>Net sales 34.6</p> <p>Operating profit 4.4</p>	<ul style="list-style-type: none"> • Bio-related products • Cosmetic ingredients • Medical separation membranes and modules • Medical equipment • Pharmaceutical-related products 	
 <p>Environmental and Functional Materials</p>	<p>In the resin and chemicals business, engineering plastics sales increased with the recovery in automobile production. Sales of industrial adhesives declined for electronic materials applications in the Chinese market. In the environment and fiber business, sales of VOC recovery equipment used in the manufacturing process for lithium-ion battery separators increased. In the high-performance fibers business, sales for fishing line applications were weak. Nonwoven materials were affected by both reduced sales for hygiene products and civil engineering and building materials, as well as soaring raw material and fuel prices.</p>	 <p>27.8%</p>	<p>Net sales 115.3</p> <p>Operating profit 4.7</p>	<ul style="list-style-type: none"> • Adhesion and coating agents • Engineering plastics • Elastomers • Seawater desalination membranes and modules • Environmental solution equipment and filters • High-performance fibers • Lifestyle materials 	
 <p>Functional Textiles and Trading</p>	<p>In the textile business, profitability improved due to progress in price pass-throughs, in addition to reforms of business structure such as the consolidation of production bases in Japan and discontinuing unprofitable products. In the airbag fabric business, profitability also improved because of product price revisions and increased sales volume with the recovery of automobile production.</p>	 <p>23.1%</p>	<p>Net sales 95.7</p> <p>Operating profit ▲1.0</p>	<ul style="list-style-type: none"> • Airbag fabrics and yarn • Sports, inner wear, uniforms, and other apparel 	

Business strategy

Films

Muneo Hirooka

Managing Executive Officer
Head of Films Division



Realizing a decarbonized and circular society through comprehensive strength and organizational capability



Business overview and market environment

The films business is composed of two areas: industrial films and packaging films, both of which hold top-class market shares domestically.

The industrial film sector covers a wide range of applications, including display, electronic components, automotive, and labels. Notably, COSMOSHINE SRF® stands out for its superior water resistance compared to other materials and holds a significant market share as a polarizer protective films for LCDs. In addition, mold releasing film for multilayer ceramic capacitors (MLCC) leverage the strength of integrated film production and processing, and ongoing equipment investments have bolstered supply capabilities, supporting market growth. The packaging film sector primarily focuses on food packaging and contributes to solving customer challenges through its diverse range of resins, film production and processing technologies, and development capabilities. Being a pioneer in introducing biomass and recycled films to the industry has been highly regarded in the market.

Despite ongoing changes in the business environment, such as increasing societal demands for reducing plastic waste, rising



Polarizer protective film,
COSMOSHINE SRF®



Coating equipment for mold releasing film
for MLCC
Tsuruga Films Plant Coater Building

raw material costs, and the yen's depreciation, we view the growth of the market for environmentally friendly films (green films) aimed at a circular economy and carbon neutrality, as well as the expansion of the functional film market driven by advancements in the digital society, as significant opportunities.

Business features and strengths

This business is equipped with the technology to handle a wide range of materials and to carry out integrated development and production processes, from raw materials to film production and subsequent processing, such as coating and vapor deposition. By maintaining close connections with both domestic and international customers, we tackle the challenges and issues they present. This involves the collaborative efforts of our sales, development, and manufacturing teams to create new added value.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

For the final year of the 2025 MTP, fiscal 2026, we are targeting ¥170 billion in net sales and ¥10 billion in operating profit. For fiscal 2031, the targets are ¥220 billion in net sales and ¥18 billion in operating profit. To achieve the 2025 MTP goals, specific measures include 1) Increasing production and expanding sales of highly functional films; 2) Expanding environmentally friendly films; 3) Developing and launching new films; and 4) Implementing appropriate pricing strategies. Although capital investment and the market introduction of new products are progressing generally as planned, due to the surge in raw material prices and exchange rate impacts

fiscal 2024 results were limited to net sales of ¥156.5 billion and operating profit of ¥2.7 billion.

By steadily implementing the aforementioned measures, we will regain our earning power.

In the long term, we aim to significantly increase sales of environmentally friendly films and challenge ourselves to provide solutions beyond material sales, thereby contributing to sustainable living environments.

Initiatives to achieve prosperity

People	<p>Efforts toward employee well-being and human rights in the supply chain</p> <ul style="list-style-type: none"> ● Fostering employee safety and job satisfaction ● Achieving zero accidents and disaster prevention (recognized as the most critical issue for our business foundation)
Planet	<p>Efforts toward quality water, air, and soil, and the preservation of biodiversity</p> <ul style="list-style-type: none"> ● Contributing to the reduction of food loss through highly functional packaging films that maintain food freshness <p>Efforts toward resource circulation</p> <ul style="list-style-type: none"> ● Developing a recycling system for mold releasing films for MLCC, involving collaboration with electrical and electronic manufacturers ● Actively participating in cross-industry resource circulation efforts, including a resource circulation project for horizontal recycling of label liners using KAMISHINE NEO® mold releasing film, in collaboration with pharmaceutical companies and the printing industry.
Prosperity	<p>Contributing to business growth by widely supplying highly functional and environmentally friendly films, while supporting the advancement of the digital society and the realization of a decarbonized and circular society</p>

Business strategy

Life Science

Takahito Sagara

Managing Executive Officer
Head of Life Science Division



Aiming to bring smiles to everyday life and deliver unexpected value across the globe through our business

Business overview and market environment

The life science business is divided into three areas: biotechnology, medical materials, and contract manufacturing of pharmaceuticals. The biotechnology segment focuses on raw enzymes and diagnostic reagents and systems related to clinical testing. The medical materials segment deals with materials for treatments, such as dialysis membranes. The contract manufacturing of pharmaceuticals segment involves the production of pharmaceuticals under contract from pharmaceutical companies. Specifically, the business includes high-value-added products with unique technologies, such as a diagnostic system that reduces PCR test processing time by half and hollow fiber membranes for artificial kidneys. In the raw enzyme business for biochemical diagnostic reagents, such as those used for measuring triglycerides and cholesterol, we hold a significant market share. The market is steadily growing due to economic growth in emerging countries, prompting us to make planned investments to meet the rising demand for raw materials. Moreover, with the number of dialysis patients worldwide exceeding four million and increasing annually at a rate of 6%, we established a new facility in Odate, in collaboration with NIPRO CORPORATION, in April 2024. This facility can conduct the production of dialysis membranes for artificial kidneys, from processing to commercialization. We aim to enhance productivity to support our membranes in regions expected to see an increase in dialysis patients, particularly in developing countries.



Artificial kidney hollow fiber membranes

Business features and strengths

This business operates under the highest levels of production systems (QMS and GMP*) in the medical and pharmaceutical fields, aiming to bring smiles to everyday life and deliver unexpected value across the globe. We focus on two core technologies to meet customer needs at various stages of health:

advanced protein production technology in the biotechnology sector and membrane production technology in the medical materials sector, continuously honing our strengths in these areas.

* Quality Management System (QMS) and Good Manufacturing Practices (GMP)

Biotechnology business: Technology for producing high-performance proteins such as enzymes and antibodies

By leveraging our advanced microbial culture and protein purification technologies, along with genetic recombination technology, we achieve large-scale production of high-purity enzymes and the development and manufacturing of high-performance diagnostic reagents using these enzymes. This business aims to capture end-user needs and strive for the development of even better enzymes and antibodies, as well as diagnostic and research reagents utilizing these technologies.

Medical products business: Membrane production technology

This business develops and manufactures high-performance dialysis membranes using membrane structure control technology gained from developing hollow fiber membranes for artificial kidneys. In addition to creating superior dialysis membranes that meet the treatment needs of patients and facilities both in Japan and abroad, it aims to develop separation materials for other applications, such as pharmaceutical processes requiring specific separation and purification.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

For the final year of the 2025 MTP, fiscal 2026, we are targeting ¥40 billion in net sales and ¥4 billion in operating profit. For fiscal 2031, the targets are ¥80 billion in net sales and ¥12 billion in operating profit. To achieve these goals, we will implement the following initiatives.

Manufacturing

As part of our policy to enhance production capacity, improve production efficiency, reduce risks through dual-site operations, and outsource production (for medical devices), we are implementing the following initiatives:

- **October 2023:** Launched a diagnostic reagent for simultaneous measurement of SARS-CoV-2 and co-infecting viruses (Influenza A/B, RSV)
- **April 2024:** Commenced operations in the new cultivation and purification building
- **February 2025 (planned):** Start-up of manufacturing equipment for PCR test reagents and genetic diagnostic reagents

Sales	Implement fair pricing, strengthen sales locations, and share knowledge across the three business sectors
Development	<p>As part of our policy to establish a new research facility, collaborate with the Corporate R&D Department, and develop new products in the biotechnology and medical material fields, we are implementing the following initiatives:</p> <ul style="list-style-type: none"> ● June 2023: Obtained regulatory approval for continuous renal replacement therapy (CRRT) products ● September 2023: Mannosyl erythritol lipid (MEL) selected for NEDO's* Bio Manufacturing Revolution Promotion Project ● April 2024: Completed the Medical Research Laboratory  <p>Opening ceremony for the Medical Research Laboratory</p>
Strengthening business foundations	Diversifying and developing talent, and promoting DX initiatives, etc.

* NEDO: New Energy and Industrial Technology Development Organization

Initiatives to achieve prosperity

People	<ul style="list-style-type: none"> ● Providing diagnostic services through biotechnology that offer faster, more accurate, and accessible health checks ● Offering technologies for the regeneration and replacement of human functions to extend healthy life spans ● Providing rapid and accurate infection testing services to prevent and control the spread of infectious diseases ● Aiming to eradicate infectious diseases, including hepatitis, waterborne infections, and other diseases, by 2030
Planet	<ul style="list-style-type: none"> ● Providing sustainable and petroleum-free materials through bio-manufacturing
Prosperity	<ul style="list-style-type: none"> ● Collaborating with partner companies to focus on specific areas and new functions for the development of new pharmaceuticals ● Developing cell recruitment materials for applications beyond nerves and bones

Business strategy

Environmental and Functional Materials

Chikao Morishige

Co-CEO
Head, Environmental and Functional Materials Division
President & Representative Director,
CEO of TOYOBO MC Corporation



Leveraging core technologies to reduce environmental impact



Business overview and market environment

The environmental and functional materials business is primarily handled by TOYOBO MC Corporation (TMC), a joint venture with Mitsubishi Corporation. This business is divided into two main areas: the resin and chemicals business and the environment and fiber business. Key products driving our core businesses include VYLON®, HARDLEN®, photo functional materials, and environmental solutions.

VYLON® and HARDLEN®

VYLON® is a copolyester resin that enables high-speed transmission for electronic devices. It excels in adhesion and durability, contributing to the proliferation of 5G and 6G technologies. Anticipated to grow in the mobility sector, it plays a central role in the new Mobility Business Strategy Unit established this year.

Photo functional materials

The following optical functional materials have been performing well in China and Asia: Printight®, a photosensitive water-wash nylon resin relief printing plate; Cosmolight®, a photosensitive water-wash flexo printing plate that balances water development with resistance to water-based inks.

Environmental solutions system

VOC recovery equipment: adsorbs and removes volatile organic compounds (VOCs) contained in factory exhaust gases. It reduces the concentration of VOCs released into the atmosphere and allows for the desorption and cooling of the adsorbed VOCs, which can then be recovered and reused as a liquid.



VOC recovery equipment

In terms of the business environment, on the procurement front, rising exchange rates and raw material prices are directly impacting production costs, so price adjustments will be made as necessary. On the sales front, due to the sluggish recovery of Chinese economies, prompt countermeasures are essential. We will also closely monitor and address potential geopolitical risks related to the Russia-Ukraine conflict, the Israel-Palestine situation, and election outcomes in various countries.

Business features and strengths

TMC leverages its core technologies in organic synthesis, polymer modification, copolymerization, adsorption and separation, fiber production, and simulation. Although positioned in the midstream of the industry, we utilize Mitsubishi Corporation's information network to develop products tailored to the needs of end-users. By capitalizing on these strengths, we aim to advance the market adoption of next-generation forward osmosis (FO) membranes for seawater desalination processes.

In addition, we will promote the use of our proprietary brine concentration (BC) membranes (OARO*1 membranes) in salt production and industrial wastewater treatment processes, which achieve high efficiency and energy savings. This will support capturing demand in regions with stricter industrial wastewater regulations and advancing new applications such as lithium recovery.

In November 2023, in collaboration with Toyobo, we developed an environmentally friendly polyester-based high-heat-resistant adhesive sheet called Vitrimer*2 for electronic materials.

This innovation significantly reduces greenhouse gas (GHG) emissions by cutting the conventional thermal processing time to one-50th.



BC membrane

*1 OARO: Osmotically Assisted Reverse Osmosis

*2 A high-performance polymer with properties such as re-shapability, self-adhesion, and self-repair. "Vitrimer" is a registered trademark of FONDS ESPCI PARIS.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

The targets for fiscal 2026, the final year of MTP 2025, are set at ¥145 billion in net sales and ¥12.5 billion in operating profit. For fiscal 2021, the targets are ¥250 billion in net sales and ¥20 billion

in operating profit. To achieve these goals, we will implement the following initiatives. Strategic labels such as "Growth," "Profit Enhancement," and "Business Reform" have been assigned to all businesses, and a portfolio strategy is being implemented to shift resources toward growth businesses.

In addition, we have transitioned from a divisional structure to a functional headquarters system. In our sales divisions, we are strengthening cross-departmental connections to enhance the efficiency of sales activities through better information sharing. In our development departments, we are fostering cross-sectional collaboration, where members from different teams pool their expertise to generate themes for new product development.

Initiatives to achieve prosperity

- | | |
|------------|--|
| People | <ul style="list-style-type: none"> Developed talent development guidelines (career path initiatives) for mid-career and younger employees, mandating at least two cross-category transfers (e.g., across divisions, products) within their first 15 years of employment Began shifting personnel toward growth areas and implementing more targeted performance evaluations |
| Planet | <ul style="list-style-type: none"> Advancing the development of engineering plastics that contribute to vehicle weight reduction and environmental solution devices that lower VOC emissions into the atmosphere, focusing on enhancing products that contribute to reducing environmental impact, in response to the progress of EV adoption Promoting environmental impact reduction by further enhancing the functionality and efficiency of key products, such as water treatment membrane, which helps address global water shortages, and BREATHAIR®, a comfortable and hygienic cushioning material |
| Prosperity | <ul style="list-style-type: none"> Aiming to contribute to the renewable energy sector in the future, particularly in applications such as floating offshore wind power using super fibers Focusing on creating comfortable mobility spaces as the first step toward realizing smart communities and improving living environments |

Business strategy

Functional Textiles and Trading

Eiichi Shimizu

Managing Executive Officer
Head, Functional Textiles and Trading Division

Bringing a touch of comfort to everyday life through textile technology



Business overview and market environment

The functional textiles and trading business comprises airbags, functional textiles, apparel fabrics, and trading company functions (TOYOBO STC CO., LTD.). The airbag segment employs more than 500 people in Thailand, China, and the United States, while the textile segment has more than 3,000 employees across Southeast Asia and Central America. The trading company functions are globally represented with bases in Thailand, China, and India. In fiscal 2024, the textile segment (TOYOBO TEXTILE CO., LTD.) benefited from the post-COVID market revitalization, resulting in strong domestic and international sales growth, leading to increased revenue and profit. The business also achieved profitability for the first time in four years, driven by the withdrawal from unprofitable operations and the streamlining of domestic factories.

The airbag business, however, faced significant challenges. Despite an increase in airbag fabric sales due to the recovery in automobile production, it remained unprofitable, hindered by the delayed improvement in the profit structure following a fire at a yarn factory. In addition, the rapid surge in demand led to increased production costs, resulting in the tough financial performance.

Business features and strengths

The textile business features a product lineup that is both human- and eco-friendly, supported by polymerization and modification technologies developed as a synthetic fiber manufacturer. The growing demand for environmentally friendly materials presents an opportunity to expand sales.

However, there are significant concerns, such as rising costs due to the surge in raw material and fuel prices, the accelerated closure

of domestic sewing partner factories, and labor shortages in factories.

In the airbag business, the nylon filament technology developed over many years has been transferred to Toyobo Indorama Advanced Fibers Co., Ltd. (TIAF), a joint venture with Indorama Polyester Industries PCL, which began commercial production of airbag yarn in October 2022.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

Under its vision of bringing a touch of comfort to everyday life through textile technology, we are committed to developing and commercializing specialized technologies that enhance everyday living. To achieve an optimal business portfolio and secure appropriate profitability across each business sector, we prioritize initiatives such as withdrawing from unprofitable businesses and products, optimizing production scale and the workforce, and passing on cost increases through price adjustments. The following initiatives are being undertaken by the respective business segments.

Airbags

- Maintaining a strong market share in non-coated fabrics, contributing to environmental protection
- Developing bio-based polyester fabrics to help reduce greenhouse gas (GHG) emissions
- Preparing for increased demand by improving profitability through base price adjustments and reducing manufacturing costs by consolidating product lines, aiming for an early return to profitability
- Accelerating the ramp-up of operations at the new yarn factory in Thailand (TIAF)



TIAF factory

Functional textiles	<ul style="list-style-type: none"> ● Consolidating domestic factory operations into the Shogawa Plant starting in April 2024 ● Expanding production at TOYOBO TEXTILE (MALAYSIA) SDN.BHD. (TTM)
Apparel textiles	<ul style="list-style-type: none"> ● Consolidating domestic factories and integrating operations with overseas bases led to TOYOBO TEXTILE CO., LTD., achieving profitability and revenue recovery in fiscal 2024 ● Enhancing technical capabilities while strategically selecting and focusing on key business areas to ensure stable management of the textile business
Acrylic fibers	<ul style="list-style-type: none"> ● Japan Exlan Co., Ltd., differentiates its high-value-added products focused on functional materials using proprietary technologies ● Streamlining production processes through OEM production of acrylic staple fibers ● Implementing sales strategies and sales expansion plans, including collaborations with external partners, with the goal of achieving profitability
Trading	TOYOBO STC CO., LTD., focuses on expanding new commercial channels within Toyobo group and increasing the range of products featuring proprietary technologies

Initiatives to achieve prosperity

People	Enhancing employee well-being and ensuring favorable treatment of foreign technical interns, etc.
Planet	Developing waterproof sheets that do not use adhesives, contributing to the prevention of health hazards and the reduction of environmental impact
Prosperity	<p>TOYOBO TEXTILE CO., LTD., focuses on upcycling apparel to create a market for high-quality and attractive recycled products domestically</p> 

Upcycled apparel products

Sustainability management

Approach and policy

Contributing to the realization of a sustainable society is integral to achieving Toyobo group's vision: "We will continue to create the solutions needed by people and the planet with our materials and science." We have committed to integrating sustainability into our core management strategy, as reflected in our Sustainable Vision 2030 announced in May 2022. This vision is subtitled "Realizing sustainable growth."

We have declared both internally and externally our shift from a survival mindset, developed during a long-term period of structural reform, which focused on short-term results, to a sustainable growth orientation. The term "Sustainable growth" encompasses two meanings: first, that Toyobo group itself will be a sustainable and enduring entity, and second, that we are committed to enhancing societal sustainability. Our goal is to contribute to societal sustainability while maintaining our own sustainability.

We aim to contribute to solving social issues through our business, based on "Innovation" and the three Ps—People, Planet, and Prosperity—and to realize a prosperous society as outlined in our corporate philosophy, driving the continuous enhancement of corporate value in an upward spiral.



Ichiro Takai
Senior Managing Executive Officer
Controlling Supervisor of Corporate Planning Division

Policy

- 1 Management that takes the sustainability of society into consideration, and thus management that increases the sustainability of our company
- 2 Sustainability that builds a solid management foundation: the axis of our management foundation (ESG)
- 3 Sustainability that strengthens our competitiveness and drives growth: the axis of our business (CSV*)

* Creating Shared Value

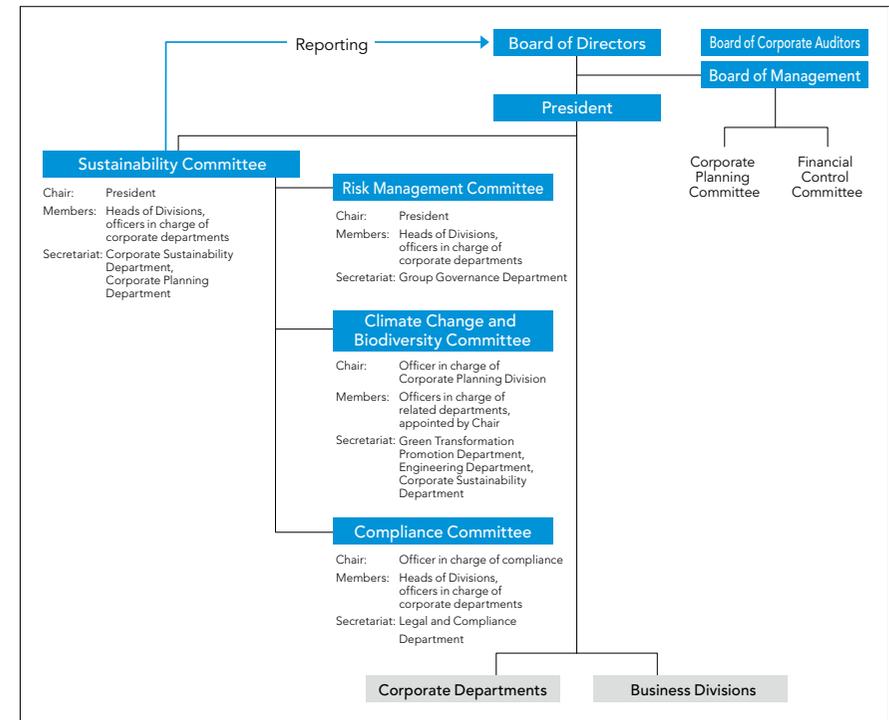
Conceptual clarification: Sustainability/CSV/ESG



Organizational structure

Toyobo group has established the Sustainability Committee, with the President serving as chairperson. Committee meetings were held six times in fiscal 2024 to review the progress of the group's sustainability activities, with deliberations covering themes including 1) Participation in the GX League, 2) Sharing the value creation story, 3) Group-wide risk management, and 4) Efforts to respect human rights within the group and across the supply chain. In addition, under this committee, we have established the Risk Management Committee, the Climate Change and Biodiversity Committee, and the Compliance Committee to facilitate cross-company discussions.

Sustainability promotion structure (as of April 1, 2024)



Sustainability management



Efforts in sustainability activities

Since its founding, the group has embraced the philosophy of “*Jun-Ri-Soku-Yu*” (Adhering to reason leads to prosperity)—one of the guiding principles of our founder, Eiichi Shibusawa. This philosophy underpins our belief that by enriching society, we can also grow our own business. In doing so, we have anticipated and implemented modern CSV (Creating Shared Value) principles.

Since fiscal 2021, we have advanced with a full-fledged sustainability management approach. Our efforts are particularly focused on carbon neutrality, the circular economy, human rights, human capital, and biodiversity. We have formulated strategies and set specific milestones for these areas.

In September 2023, Toyobo signed the group’s first Positive Impact Finance loan agreement with Sumitomo Mitsui Trust Bank, Limited. This type of financing, which is unrestricted in terms of use, is aimed at non-financial companies. The funds will be used to advance the themes outlined in our Sustainable Vision 2030.

In addition, in December 2023, we issued our second round of a Sustainability-Linked Bond, following the first issuance in March of the same year. We will continue to leverage sustainable finance and other financing methods to accelerate our contributions to a sustainable society through our business activities and aim to achieve our long-term vision.

Date	Key initiatives (FY2024)
April 2023	<ul style="list-style-type: none"> Restructured the Sustainability Committee
June 2023	<ul style="list-style-type: none"> Participated in the Ministry of Economy, Trade and Industry’s GX League Signed a comprehensive cooperation agreement with Aya-cho, Higashimorokata District, Miyazaki Prefecture Obtained Platinum Kurumin certification
July 2023	<ul style="list-style-type: none"> Selected as a constituent of five ESG investment indices adopted by the Government Pension Investment Fund (GPIF) Selected for the first time as an Asia-Pacific Climate Leader 2023
September 2023	<ul style="list-style-type: none"> The Resource Recycling Project won the Excellence Award at the 6th EcoPro Awards Selected as a planning participant in the Bio-Manufacturing Revolution Promotion Project of the New Energy and Industrial Technology Development Organization (NEDO) Signed the group’s first Positive Impact Finance agreement with Sumitomo Mitsui Trust Bank, Limited
October 2023	<ul style="list-style-type: none"> Converted fuel at the on-site power plant of the Iwakuni Production Center The company-owned forest, Toyobo Aya-no-Mori, was certified as a “site coexisting with nature” by the Ministry of the Environment
December 2023	<ul style="list-style-type: none"> Issued the second round of a Sustainability-Linked Bond
January 2024	<ul style="list-style-type: none"> Joined the industry-government-academia consortium, Circular Partners

Initiatives for personalizing sustainability

To promote personal ownership of sustainability among employees, we have conducted various internal awareness activities on different themes.

In fiscal 2024, we organized study sessions and lectures for executives and employees on topics such as business and human rights, sustainability disclosure, and initiatives by leading sustainability companies.

We also held events focused on learning about sustainability, distributed sustainability information and human rights e-learning via the intranet, and conducted biodiversity surveys around our Research Center, among other activities.

TOPIC

Hosting sustainability events

Since fiscal 2022, we have hosted an event called Sustainability Week, aimed at immersing employees in sustainability and fostering personal ownership. In fiscal 2024, we held five events over two weeks, including lectures and games, with approximately 500 participants. The lectures featured Minako Yoshikawa, Senior General Manager of the Sustainability Division at ASICS Corporation, who discussed the company’s sustainability initiatives. The games included a board game format designed to teach about the group’s sustainability efforts and a quiz on the carbon footprint. Participants were highly engaged with the games and appreciated the opportunity to learn about sustainability in an enjoyable way.



A lecture in progress



Participants engaging in the board game

Safety and disaster prevention

[Safety, disaster prevention](#)

[ESG performance data \(Social\)](#)

[Materiality KPIs](#)

[Items, targets, and fiscal 2024 results for safety and disaster prevention](#) > p.15

Basic approach

At Toyobo group, we believe that ensuring health and safety is a fundamental prerequisite to corporate activity and have established the TOYOBO Group Basic Policy on Health & Safety. This policy, applicable to our employees and partner companies, is part of our ongoing efforts to create a safe workplace environment. Our slogan for fiscal 2024 was “Protect yourself. Protect your colleagues. If you notice something, speak out,” and it remains the same in fiscal 2025.

Toyobo group designates September as “Disaster Preparedness Month” and September 6 as “Toyobo group Disaster Preparedness Day,” when we conduct awareness-raising activities related to preparedness for fires and other disasters.

Organizational structure

To ensure steady progress in safety and disaster prevention initiatives, which are among our most important management issues, we have established the Safety and Disaster Management Division. This division reports directly to the President. The Head of this division, who is also a Representative Director and Senior Managing Executive Officer, leads the Safety and Disaster Management Conference. This conference includes experts from various fields as its members. During these meetings,

the members evaluate the effectiveness of safety and disaster management activities and draft company-wide policies, which are then finalized by the Sustainability Committee. The conference also reports on progress to the Board of Directors as appropriate. Under the Safety and Disaster Management Division, the Environment, Safety and Disaster Management Department convenes the Safety and Disaster Management Promotion Conference, which is composed of representatives from each department. This conference handles discussions, decision-making, and progress on specific matters based on established policies. It also organizes teams of members and a chairperson to visit the company’s business sites, factories, and group companies to conduct safety and environmental assessments and to inspect local activities. To specifically address fire and explosion risks, we perform periodic on-site management inspections through third-party experts.

Targets and KPIs

To establish clear safety fundamentals across the entire group, rigorously enforce them, and work toward preventing disasters and accidents, we have set and appropriately manage KPIs. Our key initiatives focus on building a strong culture of safety and preventing work-related accidents by ensuring the safety of personnel, operations, and equipment, and promoting security and disaster prevention.

Initiatives

▶ Safety initiatives

We identify significant hazards and implement measures to prevent serious accidents. Through risk assessments and workplace research, we evaluate on-site risks, enhance facilities and work processes, and provide education on these topics. To promote security and disaster prevention, all employees participate in disaster prevention drills at least once a year to reinforce their responses to fires, earthquakes, and other disasters.

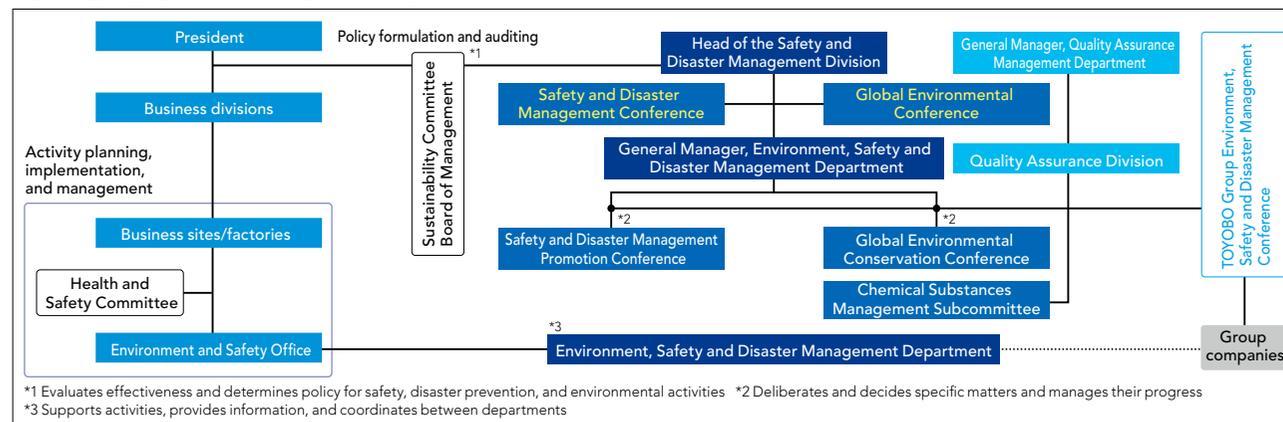
▶ Acquisition of occupational health and safety management system certification (ISO 45001)

To reduce risks in the work environment, the group is working toward acquiring ISO 45001 certification for occupational health and safety management systems. As of March 31, 2024, the Tsuruga Research and Production Center, the Iwakuni Production Center, and the Utsunomiya Plant have already been certified.

▶ Initiatives to prevent recurrence of fire accidents

Following the fire incidents at the Tsuruga Research and Production Center No. 2 in September 2018 and at the Inuyama Plant in September 2020, we have been working to prevent recurrences from two perspectives: nurturing a culture of safety and enhancing safety infrastructure. Since fiscal 2023, we have conducted safety workshops for newly appointed officers and group company presidents. We are also developing a disaster prevention management system under the Disaster Management Project. In fiscal 2024, initiatives focused on the key issues of deploying safety and disaster prevention activities with full employee participation, enhancing hierarchy-specific training, and reducing fire and explosion risks. For fiscal 2025, we have added “eliminating recurring work-related accidents” as a key issue. While continuing the same efforts as last fiscal year, we are also working to improve the organization’s culture of safety.

Toyobo group system for safety, disaster prevention, and the environment



Quality



ESG performance data (Social)

Materiality KPIs Items, targets, and fiscal 2024 results for quality > p.15

Basic approach

In compliance with laws and regulations, as well as consideration of the safety of our products and services and the environment, and to gain customer satisfaction and trust through advanced quality, Toyobo group has established the TOYOBO Group Basic Policy on Product Safety and Quality Assurance. Based on this policy, we have created a management system that ensures the quality and safety of our products and services. We follow proper procedures for quality inspections and work diligently to manage data and other relevant information appropriately. Furthermore, under the belief that providing exceptional quality enhances corporate value, we have formulated the Product Safety and Quality Assurance Principle. We will strengthen our efforts by focusing on both nurturing a culture of quality and enhancing quality infrastructure.

Organizational structure

The group has established the Quality Assurance Division Conference to oversee product liability (PL) and quality assurance (QA). This body meets monthly and consists of executives responsible for quality, the General Manager of the Quality Assurance Department in charge of business divisions, and members of the Quality Assurance Management Department. The PL/QA Promotion Committee, made up of General Managers from various business divisions, held six meetings in fiscal 2024.

In terms of organizational structure, we have established the Quality Assurance Division, which encompasses the Quality Assurance Management Department and the Quality Assurance



Departments, responsible for the business divisions. To establish an effective quality management system and enhance our governance, we have granted the Quality Assurance Management Department the authority to direct or halt development, production, and sales operations at the company or any group company in matters related to product safety and quality assurance.

Toward our envisioned ideal

By nurturing a culture of quality and improving quality infrastructure, we aim to improve productivity in quality assurance and utilize digital systems to streamline processes to handle essential tasks with a minimal, well-suited workforce.

Nurturing a culture of quality

- Executives and employees share a unified commitment to prioritizing quality.
- There is a structured education system ensuring that quality assurance personnel and general employees have the necessary foundational knowledge.
- Psychological safety is ensured, allowing open and candid communication without concerns of repercussions.
- Communication among quality assurance team members is robust, leading to improved engagement.

Enhancing quality infrastructure

- An independent quality assurance system has been established.
- Quality assurance processes are fully in place, with up-to-date conditions visible and monitored.
- Manual data entry is minimized, ensuring that the integrity and accuracy of quality data are objectively maintained.
- Information for regulatory compliance is thoroughly collected, and awareness and response statuses are visible.

Targets and KPIs

Our goal is to enhance customer satisfaction through quality management and ensuring trust in quality across the entire supply chain. We focus on stable supply, solving customer issues, meeting customer needs, and ensuring product safety and quality. We have set the following KPIs for appropriate management: 1) Number of product incidents and 2) Status of product safety and quality assurance training.

Initiatives

Strengthening the quality-related risk management system

In response to improper quality incidents revealed in 2020, the group established the Three-Line System. This system, consisting of three components, is designed to detect and prevent irregularities through multiple layers: Line 1 (business divisions and production sites), Line 2 (administrative department), and Line 3 (internal audit department). Since its implementation, we have enhanced our systems by establishing a Risk Management Audit Team, conducting Line 1 audits in collaboration with the Quality Assurance Division, and implementing measures to control human error.



Reacquisition of the ISO 9001 certification for engineering plastics products

In 2021, the ISO 9001 certification for the Engineering Plastics Operations Department (at that time) was partially revoked due to issues related to the quality of our polybutylene terephthalate (PBT) resin, PLANAC®. However, we reacquired the certification on May 3, 2024.

Lifting of the FDA Warning Letter at the Otsu Pharmaceuticals Plant

In 2021, Toyobo received a Warning Letter from the U.S. Food and Drug Administration (FDA) regarding the quality management procedures for pharmaceutical manufacturing processes at the Otsu Pharmaceuticals Plant. However, on July 5, 2023, we received a Close-out Letter from the FDA, confirming that the issues raised in the Warning Letter have been resolved.

Environment

Disclosure of financial information related to climate change (based on the TCFD recommendations)

 Climate change

 ESG performance data (Environment)

 Materiality KPIs

Items, targets, and fiscal 2024 results for a decarbonized and circular society > p.15

In January 2020, Toyobo group endorsed the Task Force on Climate-related Financial Disclosure (TCFD) recommendations and has been advancing the disclosure of our initiatives in line with these recommendations.

Governance

We have established the Sustainability Committee, chaired by the President and Chief Executive Officer, who has the highest seniority regarding issues related to climate change. The committee deliberates on setting high-level policies and targets for addressing these issues. The Board of Directors regularly receives reports from the committee, approves important items such as high-level policies and targets, and monitors the progress of related activities.

Strategy

In Sustainable Vision 2030, Toyobo group has designated the achievement of a decarbonized and circular society as a key sustainability goal. Consistent with the TCFD recommendations, we have analyzed and organized future risks and business opportunities based on climate change scenarios aligned with the Paris Agreement. By identifying the financial impacts of these risks and opportunities, we aim to strengthen the resilience of our business strategy through the development of targeted countermeasures and the establishment of relevant indicators and goals.

▶ Scenario analysis

Given the increasing severity of climate change impacts and advancements in countermeasures, various scenarios are conceivable. We referred to the scenarios shown in the diagram at right as typical examples.

Risk management

Based on the results of a company-wide risk assessment, we manage natural disaster risks, including those exacerbated by climate change such as severe flooding and storm surges, as key risks for Toyobo group.

Overview of the scenario analysis

Set scenarios	1.5°C scenario	4°C scenario
Social context	Ambitious policies and technological innovations are implemented to limit the average global temperature increase to 1.5°C by the end of the century and achieve sustainable development in society. The transition to a decarbonized society is expected to bring significant social changes that will likely affect business operations. Examples: <ul style="list-style-type: none"> Introduction of carbon taxes and rising carbon prices Shift to electric vehicles and expansion of renewable energy 	Policies based on the Paris Agreement, including draft commitments from various countries, have been implemented. However, the average global temperature is expected to rise up to 4°C by the end of the century. This scenario would create a society where climate changes, such as temperature increases, are highly likely to impact business operations. Examples: <ul style="list-style-type: none"> Increased flooding damage from heavy rainfall
Reference scenarios	<ul style="list-style-type: none"> NZE (IEA WEO2023) SDS (IEA WEO2021/ETP2020) RCP2.6 (IPCC AR5) 	<ul style="list-style-type: none"> APS (IEA WEO2023) SSP1-1.9 (IPCC AR6) Global Ambition scenario (OECD Global Plastics Outlook)
Trends in risks and opportunities	Transition risks and opportunities, including social changes such as strengthened regulations, are more likely to become apparent.	Physical risks and opportunities, such as changes in weather patterns, are more likely to become apparent.

Risks, opportunities, and mitigation measures by scenario

Social changes and their impact	Risks and opportunities			Measures taken by Toyobo group
	Category	Period	Details	
Impacts of transitioning to a decarbonized society Changes in policies, regulations, technology, and markets on a broad scale, etc.	Transition risks	Short term	Introduction of carbon pricing	<ul style="list-style-type: none"> Promotion of GHG emission-reduction plans (including energy conservation, production efficiency enhancements, fuel conversion, and adoption of renewable energy) Use of internal carbon pricing systems
		Medium to long term	Increases in raw materials and fuel prices (e.g., carbon price pass-through)	<ul style="list-style-type: none"> Shift to non-petroleum-based resources Engagement and collaboration with suppliers (e.g., development of low-carbon raw materials) Diversification of raw material procurement methods (expanding multiple sourcing and local procurement)
	Transition opportunities		Medium term	Increased costs associated with energy efficiency initiatives and high-efficiency equipment, etc.
		Increased costs due to low-carbon/decarbonization requirements in product manufacturing		<ul style="list-style-type: none"> Expansion of renewable energy adoption and procurement Enhancement of production process efficiency, promotion of energy conservation, and cost pass-through to product prices
Impacts of climate change progression	Physical risks	Short to medium term	Increasing calls for reduction or substitution of petroleum-based resources	<ul style="list-style-type: none"> Acceleration of the shift to recycled and biomass-derived raw materials Review of general-purpose material businesses reliant on petroleum-based resources
			Expansion of demand for products contributing to greenhouse gas (GHG) emission reduction	<ul style="list-style-type: none"> Acceleration of the shift to recycled and biomass-derived raw materials Innovation in production processes for bio-businesses using microorganisms such as yeast for bio-manufacturing Addressing procurement challenges related to raw materials (recycled and biomass-derived) due to material scarcity Promotion of product development and planning with low-carbon and decarbonized materials Acceleration of the development of innovative low-carbon and decarbonized materials Strengthening of production and quality management systems for low-carbon and decarbonized products
	Physical opportunities	Medium term	Growth in renewable energy and battery storage markets	<ul style="list-style-type: none"> Collaboration within the supply chain, including customers, from the perspective of contributing to emission reduction Acceleration of product development and planning* that contributes to emission reduction through replacement of conventional technologies *Examples include energy-efficient seawater desalination membranes, VOC recovery equipment that enables reuse by avoiding solvent combustion treatment, water-developed flexo plates that contribute to reducing GHG emissions from wastewater treatment, and coating replacement films that substitute for high-GHG-emission coating processes. Strengthening of product development and planning for renewable energy and storage battery-related businesses* Enhancement of capabilities in anticipating mega-trends, expanding overseas, and providing solutions through the establishment of the joint venture TOYOBO MC Corporation by Toyobo and Mitsubishi Corporation. *Examples include osmotic power generation membranes, super fibers and films for floating offshore wind power, VOC recovery equipment for lithium-ion secondary battery factories, and materials related to hydrogen generation systems.
Long term			Increased demand for civil engineering projects	<ul style="list-style-type: none"> Expansion of products used in disaster mitigation and restoration work* *Examples include sand-proofing sheets, concrete delamination prevention sheets, and soft roadbed improvement materials.
Physical opportunities	Medium term	Increased need for desalination due to water shortages and droughts	<ul style="list-style-type: none"> Expansion of sales for seawater desalination membranes such as RO/FO membranes^{*1} Development of energy-efficient and durable RO/FO membranes, etc.^{*1} System development for high-efficiency concentration membranes (BC membranes)^{*2} Strengthening of production and quality control systems for RO/FO/BC membranes, etc. Enhancement of sales capabilities through TOYOBO MC Corporation leveraging Mitsubishi Corporation's overseas network *1 RO/FO: Reverse Osmosis, Forward Osmosis *2 BC: Brine Concentration 	
		Long term	Increased demand for infection control measures (prevention and treatment) due to rising temperatures	<ul style="list-style-type: none"> Expansion of sales of food packaging-related products in response to increasing demand for food hygiene Promotion of research and development for infectious disease-related products and technologies

Environment

Disclosure of financial information related to climate change (based on the TCFD recommendations)

 Climate change

 ESG performance data (Environment)

 Materiality KPIs

Items, targets, and fiscal 2024 results for a decarbonized and circular society > p.15

Indicators and goals

Toyobo group has set goals for climate change and is advancing various initiatives to address them.

Key risks and opportunities	Financial impact		
	Summary	Impact amount	Mitigation costs
Key risk 1 Risk of damage to buildings and equipment due to water-related disasters (e.g., floods, storm surges)	Our main facilities (Tsuruga, Iwakuni, and Inuyama) are exposed to water-related risks, which are expected to increase due to climate change. An estimate has been made of the potential loss of assets at these facilities due to water damage.	Time frame: 2030s Estimated asset loss: Up to approx. ¥60 billion* * Estimated based on the book value of the facility and the damage ratio from water-related disasters (as published by the Ministry of Land, Infrastructure, Transport and Tourism).	FY2023–26 cumulative total: ¥18 billion (total investment in safety, disaster prevention, and environmental measures)
Key risk 2 Introduction of carbon pricing	Assuming a carbon price of ¥15,000 per tonne of CO ₂ for fiscal 2031, we compare the carbon tax burden under two scenarios: one without additional GHG emission-reduction measures (BAU scenario) and one with implemented measures (transition scenario).	Time frame: FY2031 Cost reduction: Approx. ¥10 billion* * Difference in the carbon tax burden between the BAU scenario and the transition scenario. • BAU scenario: ¥20 billion (carbon price for approximately 1.3 million tonnes of CO ₂ emissions) • Transition scenario: ¥10 billion (carbon price for approximately 655,000 tonnes of CO ₂ emissions)	
Key risk 3 Increasing calls for reduction or substitution of petroleum-based resources	In anticipation of increasing societal demands, including from customers, for the reduction and substitution of petroleum-based resources as part of future decarbonization efforts, we estimate the revenue from low-carbon and decarbonized materials and products in the film business for fiscal 2031.	Time frame: FY2031 Revenue from opportunities: Approx. ¥130 billion* * Estimated as 60% of the target revenue for FY2031 (¥220 billion) from low-carbon and decarbonized materials and products	
Key opportunity 1 Growing demand for low-carbon and decarbonized materials and products			
Key opportunity 2 Rising demand for advanced water treatment due to the scarcity of water resources	Given advancing climate change and societal shifts toward decarbonization, we anticipate increased demand for products and services* that contribute to GHG reduction for customers and water treatment membranes. We estimate the revenue for fiscal 2031 in the Environmental and Functional Materials segment, which encompasses many of these materials and products. * Examples include energy-efficient seawater desalination membranes, VOC recovery equipment that enables reuse by avoiding solvent combustion treatment, water-processed flexo plates that contribute to reducing GHG emissions from wastewater treatment, renewable energy and storage battery-related materials and products, and EV-related materials and products.	Time frame: FY2031 Revenue for the Environmental and Functional Materials segment: Approx. ¥250 billion* * Includes not only water treatment membranes and VOC recovery equipment but also mooring lines for floating offshore wind power, engineering plastics for EVs, and storage battery-related materials.	Part of the ¥4.1 billion R&D expenditure for the Film segment in FY2024
Key opportunity 3 Expansion of demand for products contributing to greenhouse gas (GHG) emission reduction			

Category	Indicator	Target	Main initiatives	FY2024 performance
GHG	GHG emissions	Scope 1, 2 FY2031: 27% reduction (SBT) (Base year: FY2021) Note: Equivalent to a 46% reduction compared with FY2014	<ul style="list-style-type: none"> Improved energy conservation, enhanced production efficiency, fuel conversion, adoption of renewable energy, among others 	8% reduction compared with FY2021 (831 thousand t-CO ₂)
		Scope 3 (Categories 1 and 11) FY2031: 12.5% reduction (SBT) (Base year: FY2021)	<ul style="list-style-type: none"> Adoption of carbon-free fuels, renewable energy procurement, production process innovation, among others 	The electricity generated from renewable energy in FY2024 was 896 MWh
	Environmental investment	<ul style="list-style-type: none"> Plan: ¥18 billion cumulative for FY2023–2026 (total investment in safety, disaster prevention, and environmental measures) Initiatives: Low carbonization of in-house power generation facilities, introduction of renewable energy equipment, and water damage countermeasures for production and power equipment (such as relocation and raising of facilities) FY2024 performance: Low-carbonization and water damage countermeasures for the in-house thermal power plant at the Iwakuni Production Center, installation of solar power systems at the Inuyama Plant, the Utsunomiya Plant, and the Research Center 		
Internal carbon pricing	<ul style="list-style-type: none"> The internal carbon pricing system was introduced in FY2023 and is still in operation: ¥10,000 per tonne of CO₂ Expansion of decision-making on capital investment and investment in development facilities, considering variations in CO₂ emissions 			
Compensation	To enhance the effectiveness of GHG emission reductions, executive compensation incentives linked to reduction performance will be applied starting from the July 2025 compensation period.			
Climate-related opportunities	Indicator: Green ratio of film products (Set as a measure to also address transition risks)	FY2031: 60%	<ul style="list-style-type: none"> Key measures include promotion of material and chemical recycling, development and increased adoption of biomass raw materials, reduction of film thickness, among others 	13%
	Seawater desalination with membranes	FY2031: Equivalent to tap water volume for 10 million people	<ul style="list-style-type: none"> Expansion of sales of membranes for seawater desalination such as RO/FO membranes Development of energy-efficient and high-durability RO/FO membranes, among others Strengthening of production and quality control systems for RO/FO membranes, etc. Enhancement of sales structure through the joint venture TOYOBO MC Corporation 	Tap water volume for 5.2 million people
	Air volume treated by VOC recovery equipment for lithium-ion battery separators*	FY2031: 7 billion Nm ³ per year * Air volume treated by devices that have been sold and are currently in operation	<ul style="list-style-type: none"> Strengthening of sales activities focused on GHG reduction contributions from customers (collaborating with customers) Enhancement of sales structure through the joint venture TOYOBO MC Corporation Strengthening of sales in areas beyond the manufacturing process of separators for EV lithium batteries 	6 billion Nm ³ per year

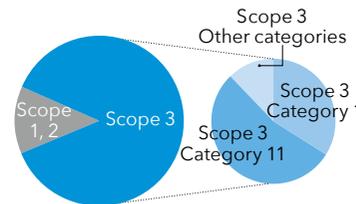
Environment

[Climate change](#)
[ESG performance data \(Environment\)](#)
[Materiality KPIs](#)
[Items, targets, and fiscal 2024 results for a decarbonized and circular society > p.15](#)

Reduction of GHG emissions

Initiatives

To reduce Scope 1 and 2 emissions, we are following a road map for carbon neutrality. Our efforts include energy conservation, energy reduction, fuel conversion (moving away from coal), and the introduction of renewable energy sources. For Scope 3 emissions, we are concentrating on reducing emissions from the most impactful categories, Category 1 and Category 11. We are also striving to enhance our overall reduction efforts and implementing energy-saving initiatives in logistics.

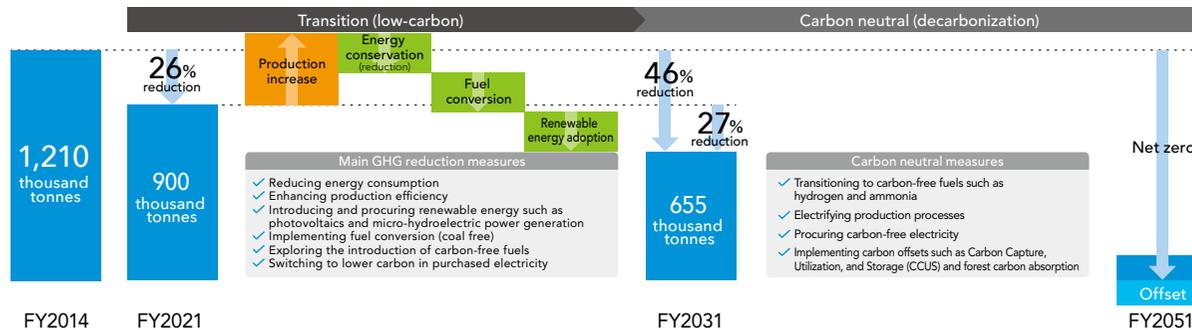


SBT-certified GHG emission reduction targets

Scope 1 and 2
Reduce GHG emissions by 27.0% by FY2031 compared with FY2021

Scope 3
Reduce GHG emissions by 12.5% by FY2031 compared with FY2021

Road map for carbon neutrality



Results

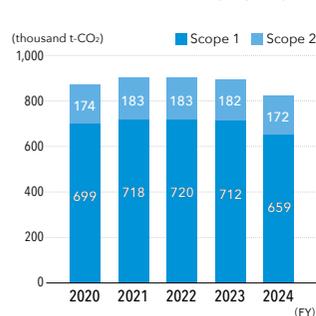
Approximately 70% of the GHG emissions (Scope 1 and 2) from the group's business activities come from three sites: the Tsuruga Research and Production Center, the Iwakuni Production Center, and the Inuyama Plant. In October 2023, we upgraded the in-house power plant at the Iwakuni Production Center, leading to a significant reduction in Scope 1 emissions.

GHG emissions (Scope 1 and 2, Consolidated)

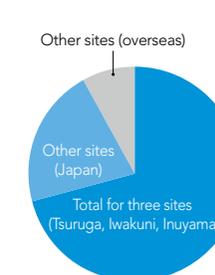
FY2031 target
Reduction of **46% or higher**
(compared with FY2014)

FY2024 result
Reduction of **31.6%**
(831 thousand t-CO₂)

GHG emissions



Scope 1 and 2 ratios by emission source



TOPIC 1

Fuel conversion at the Iwakuni Production Center

[News release](#)

Due to aging facilities, the Iwakuni Production Center (Iwakuni City, Yamaguchi Prefecture) has renewed its in-house thermal power plant. The fuel has been switched from coal to liquefied natural gas and solid fuel RPF^{*1}, which is primarily made from wastepaper and plastic. This change is expected to reduce the plant's annual GHG emissions by approximately 80 thousand tonnes^{*2}, equivalent to at least 40% of the previous emissions.



In addition, we anticipate other benefits, including the reduction of sulfur oxides (SOx), decreased regulatory and tax risks, and the ability to meet customers' low-carbon needs.

^{*1} Refuse-derived paper and plastics densified fuel

^{*2} GHG emission reduction is calculated based on adjusted emissions under the Act on Promotion of Global Warming Countermeasures, using 2013 as the baseline.

TOPIC 2

Installation of solar power generation facilities at an overseas group company (Thailand)

At TSSW*, which manufactures fabric for airbags, solar power generation equipment is being installed on the factory's roof, with operations set to begin in fiscal 2025. This initiative is expected to replace approximately 15% of the energy used in the factory with renewable energy.



* TSSW: Toyobo Saha Safety Weave Co., Ltd.

Environment

Plastic resource circulation

Water resources

Biodiversity

Chemical substance management and reducing environmental impact

ESG performance data (Environment)

Materiality KPIs

Items, targets, and fiscal 2024 results for a decarbonized and circular society > p.15

Initiatives to realize a circular economy

Targets and results

We are working together with our customers toward our fiscal 2031 target.

Greening ratio of films*	
FY2031 target	FY2024 result
60%	13%

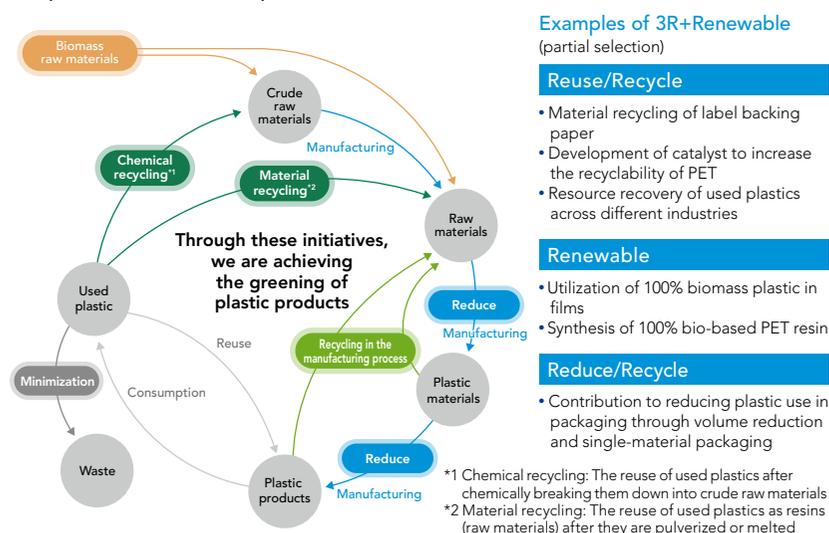
*Volume ratio

Initiatives

Since the 1990s, Toyobo group has been engaged in recycling and utilizing biomass materials, accumulating various technologies and expertise. While plastics are essential in modern society, they pose challenges such as waste management issues, depletion of natural resources, and impacts on climate change. As such, promoting the resource circulation of plastics is becoming increasingly important. We aim to contribute to the realization of the circular economy through a wide range of initiatives, and by fulfilling our responsibility to future generations, we are aiming to realize sustainable growth.

The "greening" mentioned in our goals refers to replacing products with those incorporating the following perspective.

Group-wide efforts for the plastic life cycle and resource circulation



Initiatives to conserve water resources

As part of our risk-reduction initiatives, we focus on water resource management, implementing water reuse and recycling, and collaborating with local communities. To expand opportunities, we manufacture reverse osmosis (RO) membrane modules, known as HOLLOWSEP®, which contribute to seawater desalination and help provide water to many people.

Initiatives in biodiversity conservation

We are reducing risks and expanding opportunities through the following initiatives.

- Environmental impact assessment during product development (Eco Review System)
- Contributions through the environmental solution business
- Participation in cleanup activities for biodiversity conservation in the Seto Inland Sea
- Sponsorship of the "Lake Biwa Challenge: 100 sites eDNA survey," co-hosted by Ryukoku University and Shiga Prefecture among others

Initiatives in chemical substance management

To ensure the proper management of chemicals aimed at environmental conservation, the group has established a management system that includes our business sites. We have created regulations and are engaged in employee education and training initiatives.

TOPIC 1

Press release

Resource recycling project

Toyobo is working with various industries on a resource recycling project, which involves replacing label backing paper with film (KAMISHINE NEO® releasing film) and recycling used label backing paper. The number of participating companies is growing, and the project completed the construction of the NEION Film Coating Corporation's Mie RP Factory as a recycling hub in April 2024 and is now operational for mass production. The project has received external recognition, including the Excellent Award at the 51st Minister of the Environment Awards and the Outstanding Award at the 6th EcoPro Awards.



TOPIC 2

Press release

Certified as a site coexisting with nature

The group's company-owned forest, Toyobo Aya-no-Mori, in Aya-cho, Miyazaki Prefecture, was certified as a "site coexisting with nature" by the Ministry of the Environment for its biodiversity conservation efforts through private initiatives. It has also been registered in the World Database on Other Effective area-based Conservation Measures (OECM).



Respect for human rights

[Respect for human rights](#) [Supply chain management](#)

[ESG performance data \(Social\)](#)

[Materiality KPIs](#) [Items, targets, and fiscal 2024 results for human rights](#) > p.15

Basic approach

We believe that respect for human rights is essential for Toyobo group to fulfill our responsibilities as a member of society and to remain a trusted company. The TOYOBO Group Human Rights Policy was formulated in October 2020 and revised in February 2024.

The group upholds and respects international norms regarding human rights, such as those described in the International Bill of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the Children's Rights and Business Principles, and the Guiding Principles on Business and Human Rights.

For the supply chain, we clearly state in the CSR Procurement Guidelines that human rights-related matters* must be considered in transactions and have communicated this to our business partners, including suppliers.

* The prohibition of child labor, forced labor, and discrimination against people based on any attributes, including LGBTQ+ status

Organizational structure

Toyobo group aims to actively and systematically address respect for human rights, with the Corporate Sustainability Department leading these efforts. For employee-related matters, the Human Resources Department is responsible, while the Procurement and Logistics Department handles issues related to the supply chain. We are deepening our understanding of international human rights issues and advancing human rights due diligence. Oversight and responsibility for human rights matters are under the Controlling Supervisor of the Corporate Planning Division, who is a Senior Managing Executive Officer.

Targets and KPIs

The group is committed to respecting fundamental human rights and diversity throughout the organization, and we aim to promote this commitment among employees through training and other initiatives. To strive toward being a fair and trusted company through this initiative, we set and appropriately manage KPIs. Key focus areas include avoiding human rights violations, prohibiting child labor and forced labor, complying with human rights-related regulations such as the Modern Slavery Act, and ensuring equal and balanced treatment in employment practices.

Initiatives

▶ Human rights considerations from a global perspective

The countries and regions where the group operates have various human rights-related issues associated with political, economic, and social conditions. To understand the human rights issues that require our attention, we participate in the Human Rights Subcommittee of the Global Compact Network Japan. In addition, in fiscal 2025, we are participating in the Business & Human Rights Accelerator (Japan Edition) to gather information on international human rights issues and other matters that companies should be aware of. We will deepen our understanding of human rights challenges and work toward identifying relevant human rights issues at our business locations.

▶ Survey on labor and human rights administered

In fiscal 2024, we conducted a Labor and Human Rights survey at our domestic business sites regarding issues such as child labor, employment equality, and health and safety. The survey confirmed that there were no violations of human rights laws and regulations. In addition, we conducted interviews and on-site checks with trainees using the Technical Intern Training Program at our business sites and group companies, ensuring that human rights are upheld at all locations without issues.

▶ Respect for workers' rights

The group respects the rights to freedom of association and collective bargaining. Our employees have established a labor union, which is recognized under a labor agreement mutually agreed upon by labor and management (as of the end of fiscal 2024, 84.9% of all employees were union members*). Annual labor-management dialogues are conducted between the labor union and the company.

* Boundary: TOYOBO CO., LTD., TOYOBO MC Corporation, and TOYOBO STC CO., LTD.

▶ Establishment of a grievance handling and internal whistleblowing system [Compliance](#) > p.54

We accept human rights-related consultations and reports through the Grievance Committee and Compliance Consultation Desks, which are part of our internal whistleblowing system. In addition, we strive for early detection and resolution of human rights issues through compliance surveys.

▶ Internal dissemination

The group has produced an English-language edition of the TOYOBO Group Charter of Corporate Behavior so that employees all over the world share the same vision. We use our TOYOBO Group Compliance Manual (editions in eight languages) to familiarize employees with rules and case studies concerning respect for human rights, the prohibition of discrimination, prohibition of child labor and forced labor, and the protection of personal information.

From fiscal 2024, the Corporate Sustainability Department, the Human Resources Department, and the Procurement and Logistics Department jointly began business and human rights training for all employees. This training provides opportunities to deepen understanding of human rights due diligence, with 2,767 employees having completed the training. In addition to seminars and training sessions, we have introduced e-learning on business and human rights to allow employees to voluntarily participate. This initiative aims to cultivate a greater awareness of human rights.

Supply chain management

☑ Supply chain management

☑ ESG performance data (Social)

Materiality KPIs

Items, targets, and fiscal 2024 results for partnerships (supply chain) > p.16

Basic approach

Toyobo group supports the development of a sustainable society throughout our supply chain. We have established appropriate transaction policies and execute responsible procurement and logistics to contribute to achieving the Sustainable Development Goals (SDGs).

In keeping with the TOYOBO Group Charter of Corporate Behavior, we engage in fair competition and transactions, and conduct responsible procurement and distribution, thereby maintaining a healthy relationship with society.

We also established our CSR Procurement Guidelines to address issues including legal compliance, fair transactions, environmental considerations, and respect for human rights, as well as our Green Procurement Guidelines to address environmental considerations. In September 2022, the CSR Procurement Guidelines were revised to reflect recent global issues.

Organizational structure

Having established a proper basic policy on transactions, we have also built systems for responsible procurement and logistics. In addition, we have created our CSR Procurement Guidelines and Green Procurement Guidelines, and we conduct CSR procurement surveys with all our major suppliers, seeking their understanding and cooperation in our proactive initiatives.

Targets and KPIs

Throughout our supply chain, we ensure consideration for social and environmental aspects, fair and honest transactions, and procurement and logistics that respect human rights. In addition, we promote green logistics, such as modal shifts and improving loading efficiency, and set KPIs to properly manage and reduce CO₂ emissions. Key initiatives include achieving sustainable and responsible procurement and logistics, fair transactions, transactions that respect human rights, and the development of a low-carbon society.

Initiatives

▶ Toyobo group CSR procurement briefing

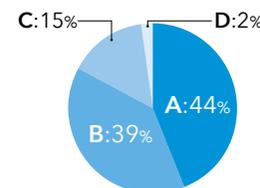
In October 2023, we distributed a video of the briefing to approximately 500 major suppliers worldwide. The briefing covered our sustainability initiatives, including climate change, respect for human rights, and CSR procurement policies, and requested compliance with the CSR Procurement Guidelines. In addition, we expressed our commitment to collaborate with our suppliers to contribute to the development of a sustainable society throughout the supply chain.

▶ CSR procurement survey

We inform our major suppliers worldwide about the CSR Procurement Guidelines, conduct surveys based on these guidelines, and engage in follow-up dialogues with our business partners based on the survey results, completing a supplier engagement cycle every two years. The results of the fiscal 2024 survey follow. The response rate for the fiscal 2024 survey was 94%, and the evaluation results are as follows.

Assessment	Points band	Number of companies	Share of total	Content and response
A	90 points or higher	195	44%	Initiatives deemed excellent → Feedback on survey results
B	61–89 points	176	39%	Initiatives deemed good → Feedback on survey results
C	Total 60 or under with no significant risk items (human rights)	66	15%	Progress is being made in initiatives and human right risks are low → Feedback on survey results
D	Total 60 or under with low scores for significant risk items (human rights)	11	2%	For human right risks, we request initiatives for improvement individually
–	Total	448	–	–

Evaluation results of the CSR procurement survey



Evaluation scores



▶ Education for sustainable procurement

We ensure that all personnel with responsibilities for procurement and logistics are thoroughly informed about the CSR Procurement Guidelines on an annual basis. We incorporate goals related to contribution to sustainable procurement (stable procurement) into the personnel performance evaluations of procurement and logistics staff, and manage their progress as part of their guidance and training. We also solicit improvement proposals related to sustainable procurement activities and award outstanding suggestions.

▶ Addressing conflict minerals

In our CSR Procurement Guidelines, the group advocates for responsible procurement practices regarding conflict minerals regulations. We use specific Chemical Substances Data Sheets to investigate the use of conflict minerals such as tin, tantalum, tungsten, and gold in our raw materials. In fiscal 2023, we conducted investigations into the presence of conflict minerals in our raw materials. We also prepared an internal survey and response system to enable us to provide prompt and appropriate responses to survey requests from customers regarding conflict minerals.

▶ Addressing social issues in logistics

To resolve social issues in logistics, we are advancing efforts to reduce environmental impact and realize sustainable logistics. To reduce our environmental impacts, we are making modal shifts to ships and railroads, working to shorten transport distances by utilizing the ports closest to our business sites, and enhancing loading efficiency through vehicle allocation simulations using logistics systems. In addition, we submitted a voluntary action declaration in support of the White Logistics Movement advocated by Japan's Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Economy, Trade and Industry; and Ministry of Agriculture, Forestry and Fisheries. In 2023, we joined the Chemicals Working group, a subcommittee of the Physical Internet Realization Conference advocated by the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Economy, Trade and Industry. Through this group, we developed a voluntary action plan to respond to amendments to two logistics-related laws. The main objectives include reducing waiting and handling times (within two hours per operation) and promoting palletization, aiming to alleviate driver burdens and enhance logistics efficiency.

Risk management

 Risk management

 ESG performance data (Social)

Materiality KPIs Items, targets, and fiscal 2024 results for digital transformation > p.16

Basic approach

Toyobo group has established the Risk Management Basic Policy, which outlines our fundamental stance on risk management activities. We identify various types of risks that could pose threats across our entire range of business activities and manage these risks appropriately according to their characteristics. In an emergency, we promptly set up a task force under the direction of the relevant corporate officer and work to bring the crisis under control through a swift response. By implementing these systems and initiatives, we strive to earn the trust of our customers, the local community, shareholders, and other stakeholders.

Organizational structure

To centrally manage risks across the entire group, we have established the Risk Management Committee chaired by the President. The committee is composed of Board of Management members and others appointed by the

chairperson. In fiscal 2024, the committee met twice. The committee oversees risk management activities (identification, analysis, assessment, and response) and formulates group-wide risk management policies. By aiming to build and operate effective and sustainable organizational structures and systems, the committee works to strengthen the risk management framework.

Business Continuity Management (BCM)

Policy and approach

The group aims to build Business Continuity Management (BCM) to prepare for various risks that could disrupt business continuity, such as natural disasters, accidents, and pandemics. Prioritizing the preservation of human life, we strive to quickly restore operations and fulfill our supply responsibilities. In fiscal 2025, we will develop BCM under the leadership of the President as the overall responsible officer within the activities of the Sustainability Committee, focusing on enhancing our Business Continuity Plan (BCP).

Data and security

Policy and approach

As stated in our TOYOBO Group Charter of Corporate Behavior, each employee must recognize the importance of information security, handle it appropriately, and prevent any issues related to information security. This is essential for the group to contribute to society and remain a trustworthy company. Our basic Information Security Policy includes a declaration of five essentials: management system, legal compliance and in-house regulations, education and training, information systems operation, and incident response.

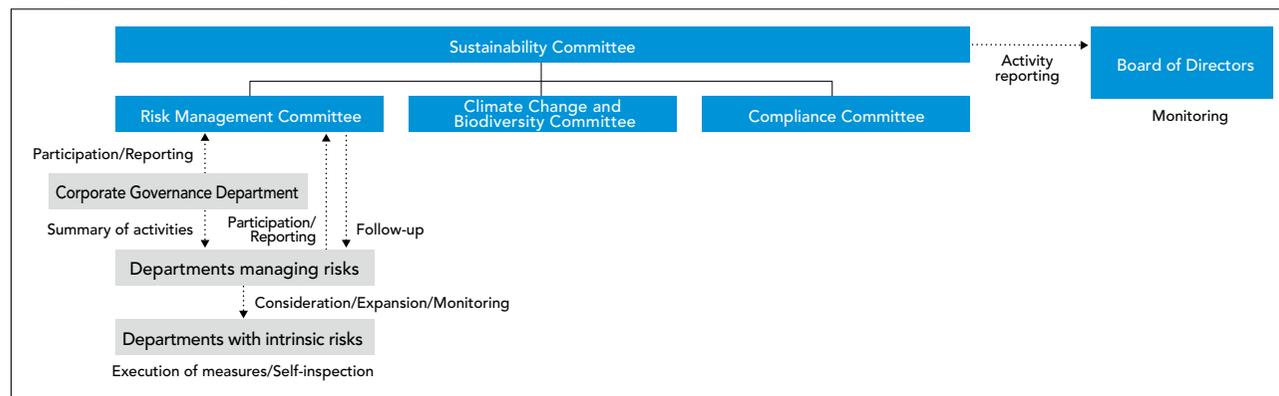
Organizational structure

We have established the Information Security Sub-committee (TOYOBO-CSIRT), led by the Chief Information Security Officer (CISO) appointed by top management, to promote information security measures and activities. TOYOBO-CSIRT assesses the status of information security across the company, formulates basic policies, maintains management systems, and implements and supervises specific measures.

Information security measures

Cyberattacks are intensifying each year, often targeting overseas sites and group companies. In response, we are working to elevate the information security measures of our domestic and international affiliates to match those of our headquarters and to strengthen information security across the group. Specific measures include supporting the communication and improvement of policies and regulations, facilitating the introduction of education for employees and managers, conducting targeted e-mail attack drills, deploying and inspecting IT reinforcement measures, and continuously enhancing our contact system for security and incident response.

Management structure and processes



Compliance

Basic approach

Based on our corporate philosophy of “*Jun-Ri-Soku-Yu*,” the core of Toyobo group’s compliance activities center on “doing what should be done” and “not doing what should not be done.” In addition, in line with the principles declared in the TOYOBO Group Charter of Corporate Behavior, we have created the TOYOBO Group Compliance Manual. This manual presents the rules employees should follow in clear and straightforward terms, aiming to promote understanding and ensure thorough awareness of the rules among all group employees.

Organizational structure

The Compliance Committee, composed of Board of Management members, promotes compliance across the entire group from a management perspective. Under this committee, the Compliance Promotion Committee is established to consider specific initiatives, while the Legal and Compliance Department drives regulatory compliance throughout the group as a whole.

Targets and KPIs

We have set KPIs and manage them appropriately to foster an ethical corporate climate and culture where every employee adheres to laws, regulations, and rules, and responds appropriately and transparently. Key focus areas include improving compliance awareness, increasing recognition and utilization of the Compliance Consultation Desks, and monitoring the number of serious legal and regulatory violations.

Initiatives

▶ Compliance promotion activities

In fiscal 2024, the Compliance Committee convened twice and the Compliance Promotion Committee convened four times. Working with

the theme of “acting with integrity,” efforts were made to enhance the effectiveness of preventive measures with training.

▶ Compliance Consultation Desks

The group has established various Compliance Consultation Desks (internal reporting desks) for all employees. These desks receive reports and requests for consultation regarding legal violations and misconduct, corruption, bribery, embezzlement and other corrupt practices, and violations of competition law such as bid-rigging and cartels, as well as bullying, harassment, and other issues occurring in the workplace.

We strive for early detection, correction, and prevention of these issues. To ensure worry-free use of these consultation desks, we guarantee protection of privacy, including the names of people who seek consultations, ensure that there will be no disadvantage for employees who consult or report, and accept anonymous requests for consultation.

We are making efforts to raise awareness of these consultation desks through means including the distribution of stickers with information on the desks’ usage and the publication of a monthly Compliance Mini Study for learning about compliance through case studies.

Number of consultations for compliance consultation desks

FY2020	FY2021	FY2022	FY2023	FY2024
35	37	62	78	102

Details of consultations (FY2024)

Details of consultations	Number of consultations
Communication, personal relations, harassment	39
Personnel, labor relations (e.g., attendance, treatment)	20
Misconduct, violations, and breaches of work rules, and similar concerns	11
Workplace issues concerning the company as a whole (e.g., systems, policies)	10
Work attitude	3
Others	19
Total	102

▶ Education and awareness-raising activities

To promote understanding among all group employees and ensure thorough familiarization with the rules, we have produced the TOYOBO Group Compliance Manual. Every year, we revise and distribute the Manual during Compliance Enforcement Month, while overseas sites create local versions with additional edits. We ensure that all employees are familiar with the TOYOBO Group Charter of Corporate Behavior and TOYOBO Group Employee Conduct Standards through training sessions that include readings of the Manual.

In fiscal 2024, we conducted 22 compliance training sessions for managerial staff across all our business sites and affiliate companies and 40 sessions of various training types, categorized by rank and job type.

▶ Compliance risk assessment

Every year, we conduct a compliance awareness survey and assess workplace compliance risks. In fiscal 2024, 7,564 employees participated in the survey. We disclose the results to all employees and share the information with relevant departments in a way that ensures the anonymity of respondents. This process helps improve conditions and prevent issues.

▶ Initiatives to prevent corruption

The group not only prioritizes the prevention of corruption, bribery, and other corrupt practices but also considers preventing bid-rigging, cartels, unfair competition, and fraudulent accounting as critical compliance issues. Every year, we report to the Board of Directors on the status of our corruption prevention efforts and other compliance activities to ensure effective oversight. To foster fair and sound business relationships with our partners, we decline gifts or entertainment that exceed socially accepted norms and have implemented a system for reporting any received gifts or entertainment.

Social contribution

 ESG performance data (Social)

 Social contribution

Basic approach

In the TOYOBO Group Charter of Corporate Behavior, we declare that “We will actively participate in society as a good corporate citizen and contribute to its development.” We believe that fulfilling our responsibilities as a good corporate citizen and investing in the future is one way to practice our corporate philosophy of “*Jun-Ri-Soku-Yu*.”

In fiscal 2023, we established the TOYOBO Group Social Contribution Policy, identifying four key areas for social contribution: promoting science and technology, fostering the next generation, environmental preservation, and community engagement. We will promote active participation by employees and engage in activities that contribute to a sustainable society and the sustainable development of the group.

Initiatives

1 Lake Biwa Challenge: 100 sites eDNA survey

The group supports the Lake Biwa Challenge: 100 sites eDNA survey conducted by the Center for Biodiversity Science at Ryukoku University, including a day challenge to collect water and discover what kind of fish live there.

Our Research Center in Otsu City, Shiga Prefecture, is located on the shores of Lake Biwa, home to many endemic species. To preserve the biodiversity of Lake Biwa, we have participated in regional environmental activities and conducted our own cleanup initiatives. In



2022, we began participating in the Lake Biwa Challenge: 100 sites eDNA survey. Once a year, volunteer groups and local companies sample water from 100 locations around Lake Biwa. The Center for Biodiversity Science at Ryukoku University analyzes the environmental DNA in these samples to obtain essential data on species distribution and the spread of invasive species to conserve biodiversity. Toyobo participates in water sampling and conducts regular water sampling on our premises to collect temporal data. We will continue to strive to co-create value with diverse partners such as universities and local governments.

2 BREATHAIR® contributing to the health of brown bears

A mattress made with the 3D network structured fiber material BREATHAIR®, manufactured and sold by TOYOBO MC Corporation (TMC), has been utilized to prevent bedsores in Rokuji, a Hokkaido brown bear at the Kobe Oji Zoo.

Around April 2022, Rokuji began to stagger, developed paralysis in his lower body, and gradually had difficulty walking. In addition, because he spent a lot of time lying down, bedsores developed on protruding areas such as his hips, sometimes becoming so severe that bones were visible.

Various treatments were administered at the zoo, but no improvement was seen, leading to the cessation of public viewing on July 8, 2023, to focus on his treatment.

TMC's BREATHAIR® mattress has a track record of preventing bedsores in kangaroos and sheep. Based on these cases, Kobe Oji Zoo started using the BREATHAIR® mattress, and thanks to the dedicated efforts of the zookeepers and veterinarians, Rokuji's bedsores steadily improved, allowing the zoo to resume public viewing in October of the same year.

TMC's vision is “Solving global issues with high-performance materials.” While BREATHAIR® has been used in pet care mats, it has now been found to also improve the quality of life for large



animals such as the Hokkaido brown bear. TMC will continue to strive to develop and provide high-performance materials to help both humans and animals live more comfortable and better lives.

TOPIC

Support for areas affected by the Noto Peninsula Earthquake

Toyobo group provided support to the areas affected by the Noto Peninsula Earthquake that struck in January 2024 by donating ¥10 million via the Japanese Red Cross Society and approximately 300 cold-weather emergency sleeping bags using BREATHAIR® manufactured and sold by TOYOBO MC Corporation. In addition, emergency toilet sets named “Nioi Bye-Bye Bags” using our next-generation polyester film Olyester® were supplied as relief materials through the nonprofit organization Peace Winds Japan. We will continue to provide appropriate support in collaboration with government bodies and industry organizations according to the circumstances of the disaster.



Distributing relief supplies
(photo provided by Peace Winds Japan)

Roundtable discussion with Outside Directors

Demanding the pursuit of new challenges and commitment to growth

Features and challenges of the Board of Directors

Harima At Toyobo's Board of Directors' meetings, while there are active discussions on various proposals, occasionally there isn't enough time for important individual proposals.

Takase One of the features of the board is the ability to freely and openly express opinions based on individual expertise.

Fukushi The chairperson is adept at effectively summarizing the numerous opinions presented during meetings, contributing to a generally positive atmosphere for discussions. However, a challenge faced by traditional Japanese companies is that internal directors often speak from the perspective of their own departments. It would be beneficial if Toyobo's internal directors could consider all stakeholders and provide input from a company-wide perspective. Given their earnest nature, they are likely to develop this capability through continued discussions.

Harima Adding a question about whether directors speak from a company-wide perspective to the board's effectiveness evaluation survey could provide a valuable opportunity for individuals to reflect on their own approach.

Takase To achieve sustainable growth and continue pursuing challenges, we need to better understand Toyobo's position

globally, within Japan, and within the industry, and to increase discussions about Toyobo's desired future direction.

Evaluation of Toyobo and challenges for sustainable growth

Fukushi Toyobo possesses a strong corporate DNA. The corporate philosophy "Jun-Ri-Soku-Yu" is deeply ingrained in the company, and the approach to solving social issues feels like a foundational element of Toyobo's DNA.

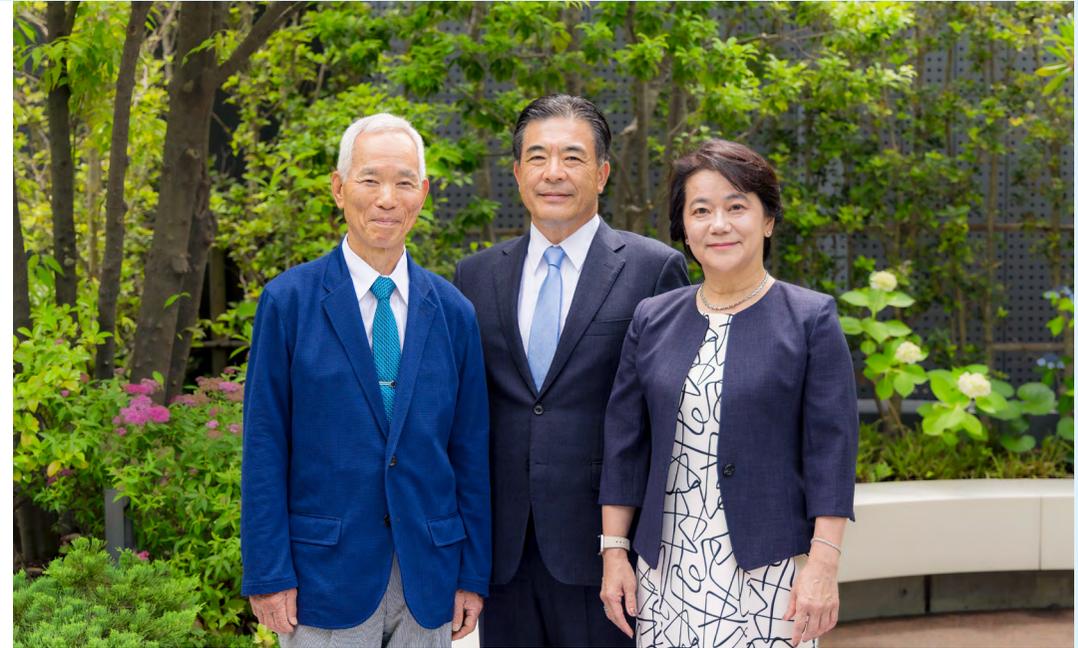
Takase There is reassurance in the serious and sincere discussions about what Toyobo can do based on the idea of enriching society and customers. Essential topics for building trust, such as compliance, human rights, and diversity, are frequently addressed, and the results are gradually taking

shape. In addition, while Toyobo's commitment to safety, disaster prevention, and mobilizing all resources in case of issues is very strong, there is a sense of inadequacy regarding the pursuit of new challenges and a strong commitment to growth.

Harima I also share the sentiment that the commitment to growth is somewhat lacking.

Takase I hope that Toyobo will utilize its strengths—technical expertise, seriousness, integrity, and the ability to collaborate effectively in challenging situations—not just to recover earning power, a goal stated in the management policy for this fiscal year, but also to develop new strategic initiatives.

Fukushi "Challenge" is one aspect of the TOYOBO Spirit, and the corporate philosophy framework, TOYOBO PVVs, reflects the president's belief that change should be embraced and even enjoyed. However, there appears to be a lack of initiative to break



Masaaki
Harima
Outside Director

Hiroshi
Fukushi
Outside Director

Shoko
Takase
Outside Director

out of traditional silos of business and functions. At this stage, it is crucial to focus on generating profits by embracing various challenges. The old methods are no longer sufficient. When these limitations are overcome, new strengths are likely to emerge.

Takase In daily communications, there are many discussions about what is good or what will definitely sell. While having numerous growth opportunities is essential for a commitment to growth, it seems that there is still some weakness in Toyobo's dedication to achieving goals and taking on challenges. Thinking about what can be done as "One Toyobo," beyond the boundaries of business divisions, could further strengthen the company. It seems a waste not to fully utilize the existing technical expertise and enthusiasm.

Fukushi At TOYOBO MC Corporation, there are bold initiatives that could lay the groundwork for future success. I hope that similar challenges will spread throughout the entire group.

Harima Indeed, a focus on numbers is essential for growth, but it seems to be lacking at Toyobo. Also, I believe that one of the measures in the 2025 Medium-Term Management Plan, "thorough safety, disaster prevention, and quality assurance," is also crucial for building a solid foundation and driving growth. Last year, there were numerous discussions about quality assurance. While the management team has been diligently investigating and fostering the right culture, efforts are ongoing and there are challenges to address.

Takase It is clear that a transformation in the internal atmosphere and culture is necessary.

Fukushi The key to rapidly transforming the corporate culture lies in human resources. The current human resource rotation system, which primarily focuses on transfers within business units, tends to reinforce a monocultural mindset and does not encourage breaking through the silos of each

division. Without breaking through these silos, the corporate culture will not change.

Harima You are absolutely right. Often, operations become more personalized and difficult to replace, but I believe that implementing a three- to five-year human resource rotation system could significantly improve the quality management system as well.

Expectations for the future of Toyobo

Takase My foremost wish is for each employee to focus on growth and results that are true to Toyobo's values. I hope that a culture of excitement and willingness to embrace various challenges will become established. I also aim to leverage my own experience not only to track progress toward goals but also to discuss how to navigate current situations and what actions can be taken to achieve results, thereby fostering as much growth as possible.

Harima In addition to recovering earning power from existing resources, I hope to see the creation of new ideas from different perspectives that contribute to Toyobo's development. I am committed to supporting such forward-looking management. Furthermore, I will provide robust support from a legal standpoint for efforts related to the "reestablishment of foundation" and "thorough safety, disaster prevention, and quality assurance."

Fukushi Under the strong leadership of the president and the management team, I hope to see Toyobo unite and break through its limitations to transform into a sustainable company. Drawing on my own experience with corporate reform, I am wholly committed to supporting Toyobo's challenge toward transformation.



Roundtable discussion with Outside Directors

Management team

Directors and Corporate Auditors attendance at meetings and skills

Independence and diversity of the Board of Directors

Evaluation of the effectiveness of the Board of Directors

Election and dismissal of Officers

Officer compensation system

Cross-shareholdings

Management team

Directors



Seiji Narahara

Chair of the Board and Director

January 1988 Joined the company
 April 2010 Executive Officer
 June 2011 Director and Executive Officer
 April 2014 President & Representative Director, CEO & Co-COO
 April 2021 Chair of the Board and Director (to present)
 June 2023 Outside Director, SCREEN Holdings Co., Ltd. (to present)



Ikuo Takeuchi

President & Representative Director, CEO & Co-COO
 Controlling Supervisor of Internal Audit Department

April 1985 Joined the company
 October 2015 Deputy Director, General Manager, Corporate Planning Office
 April 2018 Executive Officer
 April 2020 Managing Executive Officer
 June 2020 Director and Managing Executive Officer
 April 2021 President & Representative Director (CEO & Co-COO) (to present)



Taichi Sakai

Representative Director
 Senior Managing Executive Officer, Head of Safety and Disaster Management Division, and Controlling Supervisor of the Production Technology Division and Procurement and Logistics Division

April 1986 Joined the company
 March 2012 General Manager, Production Technology Division, and Member, Corporate Planning Office (special project under President)
 April 2016 Deputy Director, Production Technology Supervisory Division Head, and Member, Global Promotion Department
 December 2020 Executive Officer
 April 2023 Managing Executive Officer
 June 2023 Director and Managing Executive Officer
 April 2024 Representative Director and Senior Managing Executive Officer (to present)



Takahito Sagara

Director, Managing Executive Officer, and Head of Life Science Division

April 1990 Joined the company
 October 2019 Deputy Director, General Manager of Medical Membrane Department, Membrane Operating Department, and Member, Corporate Planning Office (special project under President)
 April 2020 Deputy Director, Senior General Manager of Medical Materials Operating Department, General Manager of Medical Membrane Department, Technology Innovation Department Officer, and Corporate Planning Officer (special project under President)
 April 2021 Executive Officer
 April 2023 Managing Executive Officer
 June 2024 Director and Managing Executive Officer (to present)



Takehiko Inada

Director, Managing Executive Officer, and Controlling Supervisor of HR, Administration, and Legal Division

April 1988 Joined the company
 April 2019 Deputy Director, General Manager of Human Resources Department, and KAERU Project Officer
 April 2020 Deputy Director, General Manager of Finance Department, and KAERU Project Officer
 April 2022 Deputy Director and General Manager of Corporate Planning Department in charge of the Board of Directors
 April 2023 Executive Officer
 April 2024 Managing Executive Officer
 June 2024 Director and Managing Executive Officer (to present)



Takafumi Isogai

Outside Director

January 1987 Associate Professor, Department of Education, Osaka University
 April 1996 Associate Professor, Graduate School of Engineering Science, Osaka University
 April 2002 Professor, Faculty of Merchant Marine, Kobe University of Mercantile Marine
 October 2003 Professor, Faculty of Maritime Sciences, Kobe University
 April 2013 Professor, Faculty of Commerce, University of Marketing and Distribution Sciences
 April 2018 Part-time lecturer, University of Marketing and Distribution Sciences
 June 2018 Outside Director of the company (to present)



Kimie Sakuragi

Outside Director

March 1981 Fukutake Publishing Co., Ltd. (currently Benesse Holdings Inc.)
 April 1995 General Manager, Book Business Department, Publishing Department, Benesse Holdings
 November 1998 Section Manager, Business Ethics Committee
 January 2003 General Manager, Corporate Ethics and Compliance Office
 June 2003 Full-time Corporate Auditor (retired in June 2019)
 April 2007 Specially Appointed Professor, University of Aizu Graduate School (to present)
 June 2019 Outside Director of the company (to present)
 June 2021 Outside Director, Isuzu Motors Limited (Audit and Supervisory Committee member) (to present)
 June 2021 Outside Director, Kumagai Gumi Co., Ltd. (to present)



Masaaki Harima

Outside Director

April 1977 Assistant Judge, Osaka District Court
 May 1981 Registered as attorney at law (Osaka Bar Association)
 September 1987 Established Harima Law Offices (now Fushimicho Law Offices)
 April 2010 Chairperson, Osaka Fairness Review Board
 June 2011 Outside Corporate Auditor, Ishihara Sangyo Kaisha, Ltd.
 June 2014 Member, Independent Committee of the company
 June 2020 Outside Director of the company (to present)
 April 2021 Chairperson, Pollution Control Board, Osaka Prefecture (to present)



Hiroshi Fukushi

Outside Director

April 1984 Joined Ajinomoto Co., Inc.
 June 2011 Executive Officer
 June 2013 Director & Managing Executive Officer, and General Manager, Bio-Fine Business Division
 June 2015 Director, Corporate Senior Vice President
 June 2019 Director, Vice President & Executive Officer, and Chief Digital Officer
 June 2021 Director, Representative Director & Vice President
 June 2022 Special Advisor (to present)
 June 2022 Outside Director of the company (to present), and Outside Director, MEGMILK SNOW BRAND Co., Ltd. (to present)



Shoko Takase

Outside Director

April 1987 Joined IBM Japan Ltd.
 January 2005 Seconded to IBM Corporation (IBM U.S. head office)
 July 2015 Manager, Growth Strategy, Mobile Strategy, IBM Japan Ltd.
 July 2016 General Manager, Global Technology Services Business, and General Manager, Resiliency Services Division
 July 2018 Director, General Manager, Cloud Solution Center
 April 2019 Senior Managing Executive Officer & Head, Enterprise Business, Cisco Systems G.K.
 July 2021 Consultant, TechnoPro Holdings, Inc.
 September 2021 Outside Director (to present)
 June 2023 Outside Director of the company (to present)
 June 2023 Outside Director, GLOBERID, Inc. (to present)

Corporate Auditors



Takayuki Tabo



Yasuo Ohta



Akihiko Irie
(Outside)



Wakyu Shinmen
(Outside)

CEO & Co-COO

Ikuo Takeuchi

Co-COO

Chikao Morishige

Senior Managing Executive Officers

Taichi Sakai
 Ichiro Takai

Managing Executive Officers

Takahito Sagara
 Eiichi Shimizu
 Muneo Hirooka
 Takehiko Inada

Executive Officers

Taizo Ono
 Nobuyuki Hoshino
 Katsuya Ito

Tetsuro Yabuki
 Masanao Kudo
 Hisashi Arimoto

Seiji Yamazoe
 Atsushi Sogabe
 Kazuhito Ikeda

Yoshihiro Nomi
 Tadao Kuroki
 Katsuya Toita

Kazuyuki Kawata
 Masakazu Iwasaki

Kenji Fujihashi
 Sonoko Ishimaru

Roundtable discussion with Outside Directors

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 Corporate governance

 ESG performance data (Governance)
  Materiality KPIs
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Attendance rate based on fiscal 2024 results as of June 25, 2024

	Outside	Independent	Age	Gender	Nomination and Compensation Advisory Committee	Committee chairpersons	Attendance status (rate)			Of the skills and experiences we seek, those that can be put to particularly effective use							Years in office	Reasons for election
							Board of Directors	Board of Corporate Auditors	Nomination and Compensation Advisory Committee	Corporate management	Production, technology, and development	Marketing and sales	Finance and accounting	Environment and society	Governance, risk management, and compliance	IT/DX		
Director	Seiji Narahara		67	Man	○	Board of Directors	17/17 sessions (100%)		5/5 sessions (100%)	○		○	○	○		13	Based on his deep knowledge of finance, accounting, and other areas, Mr. Narahara has supported the long-term reform of the company's business portfolio, and, acting as President and Representative Director since April 2014, has led the management of the group, including the reworking of our corporate philosophy structure and the expansion of the film business, committed to the improvement of corporate value. He assumed the post of Chairman of the Board and Director in April 2021, and in that position, plays an appropriate role in decision-making on key matters and in the oversight of business execution.	
	Ikuo Takeuchi		61	Man		Board of Management	17/17 sessions (100%)			○	○		○	○		4	After serving in key positions in corporate planning and overseas business sites of the company, Mr. Takeuchi was appointed as Head of the Functional Membranes and Environment Division, a position from which he set a concrete path toward growth of the business. Since April 2021, he has undertaken formulation of the 2025 Medium-Term Management Plan as President and Representative Director, demonstrating strong leadership and steering the sustainable growth of the group.	
	Taichi Sakai		61	Man			13/13 sessions (100%)				○		○	○		1	Mr. Sakai has held key positions in the company's Production Technology Division and core manufacturing sites and, drawing on his abundant experience and expertise in the field of production technology, has been contributing to initiatives aimed at technological innovation and, safety, and disaster prevention as Director since June 2023.	
	Takahito Sagara (New appointment)		57	Man							○	○		○	○	0	Mr. Sagara has held key positions in the medical materials business within the Life Science Division of the company. Leveraging his expertise in the field of research and development and extensive experience in the field of marketing and sales, he has contributed to business development.	
	Takehiko Inada (New appointment)		59	Man						○		○	○			0	Mr. Inada has held key positions in the staffing sector, including the Human Resources Department, Finance Department, and Corporate Planning Department of the company. He has contributed to developing human resources and transforming human resource systems as well as strengthening the corporate governance of the group.	
	Takafumi Isogai	○	○	75	Man			17/17 sessions (100%)				○		○		6	Leveraging specialized knowledge and wide-ranging insights gained as an academic expert versed in the field of quality control, Mr. Isogai made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management in areas including technology and R&D.	
	Kimie Sakuragi	○	○	65	Woman	○		17/17 sessions (100%)		5/5 sessions (100%)		○		○	○	5	Leveraging her abundant experience and wide-ranging insights in fields including corporate ethics, compliance, and sustainability, Ms. Sakuragi made proactive statements from an independent standpoint at meetings of the Board of Directors. She appropriately fulfills roles expected of her by the company, including those of supervising management through vital decision-making and providing counsel to management, serving as a member of the Nomination and Compensation Advisory Committee.	
	Masaaki Harima	○	○	73	Man			17/17 sessions (100%)						○	○	4	Leveraging specialized knowledge and wide-ranging insights gained as an attorney, Mr. Harima made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management with the aim of strengthening risk management and governance.	
	Hiroshi Fukushi	○	○	66	Man	○ (Chairperson)		17/17 sessions (100%)		3/3 sessions (100%)	○	○	○		○	2	Leveraging his abundant experience and wide-ranging insights gained as a business manager, Mr. Fukushi made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management in the bio and digital fields.	
Shoko Takase	○	○	59	Woman			13/13 sessions (100%)				○	○		○	1	Leveraging her abundant experience and wide-ranging insights gained as a business manager, Ms. Takase made proactive statements from an independent standpoint at meetings of the Board of Directors. She appropriately fulfills roles expected of her by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management in the IT and digital fields.		
Corporate Auditor	Takayuki Tabo		63	Man			17/17 sessions (100%)	15/15 sessions (100%)		○	○	○		○	3	Mr. Tabo has a long involvement in the accounting and control department of the company, possesses considerable knowledge of finance and accounting, and has a deep understanding of the management and business operations of the group.		
	Yasuo Ohta		64	Man			13/13 sessions (100%)	10/10 sessions (100%)		○	○	○	○		1	Mr. Ohta has a long involvement in the field of research and development, and, after serving as head of the Research Center, has held key positions in the biochemical business and in corporate planning, contributing to new business development and global expansion. He possesses abundant experience and a record of performance as a manager in charge of various departments and has a deep understanding of the management and business operations of the group.		
	Akihiko Irie	○	○	67	Man		17/17 sessions (100%)	15/15 sessions (100%)		○	○		○	○	3	Mr. Irie possesses abundant experience in auditing and has served as a corporate auditor at listed companies.		
	Wakyu Shinmen	○	○	67	Man	Observer	13/13 sessions (100%)	10/10 sessions (100%)	3/3 sessions (100%)			○		○	1	Mr. Shinmen possesses abundant experience in auditing as a certified public accountant.		

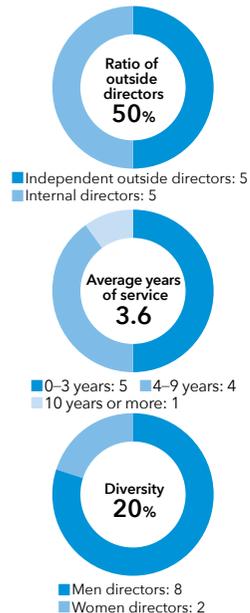
Independence and diversity of the Board of Directors

Basic approach

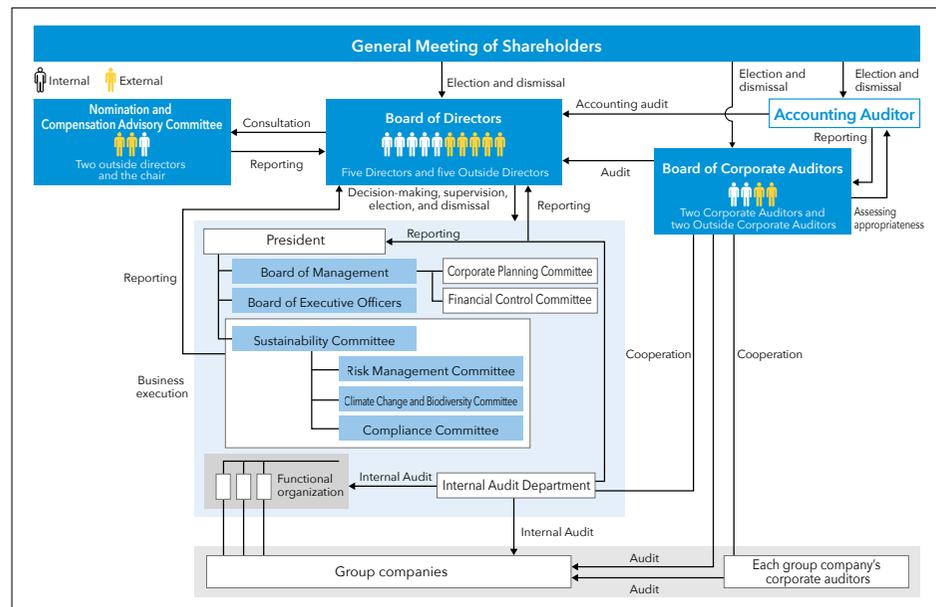
Under our corporate philosophy of “Jun-Ri-Soku-Yu,” we at Toyobo believe that discerning social issues from a long-term perspective and helping solve them with our own unique technologies is our purpose for being.

To respond to changing times and continually improve our corporate value, we will do our utmost to collaborate appropriately with all our stakeholders, beginning with our shareholders, based on how we think about ensuring prompt, accurate decision-making; ensuring transparency of management; and placing importance on fairness. We will also fulfill our fiduciary and accountability duties to ensure the effectiveness of our corporate governance and will strive to make continual improvements.

Board of Directors' composition



Corporate governance structure



Organizational structure

As a company that has a Board of Corporate Auditors, we have adopted an executive officer system. Our Articles of Incorporation stipulate this system, by which the Board of Directors supervises the execution of business operations by executive officers. We have thus built a structure of governance that enables prompt decision-making and effective business execution by making a clear separation between the decision-making and oversight functions of the Board of Directors and the business execution functions of the executive officers.

Targets and KPIs

Targets

We have set KPIs and manage them appropriately to ensure a fair and transparent governance structure through compliance with the Corporate Governance Code and proactive information disclosure, among other measures. Key initiatives involve the strengthening of corporate governance and information disclosure.

Conference and committee overview

(Numbers of persons as of June 2024)

	Number of meetings in fiscal 2024	Constituent members
Board of Directors	17	Ten members, composed of the chair who presides over its deliberations, five independent outside directors, and directors who serve concurrently as executive officers. It is stipulated that the number of Board of Directors members cannot exceed 14, the term of office is one year, and the ratio of outside directors must be one-third or greater.
Board of Corporate Auditors	15	Four members, including two independent outside corporate auditors.
Nomination and Compensation Advisory Committee	5	Three members, consisting of two independent outside directors and the chair, with an outside director chairing the meeting. One outside corporate auditor also attends as an observer.
Board of Managing Executive Officers and Controlling Supervisors*	32	Twelve members, including those serving concurrently as directors. The chair and two internal corporate auditors can also participate and express opinions.
Sustainability Committee	6	Thirteen members, primarily consisting of members of the Board of Managing Executive Officers and Controlling Supervisors*, with the president serving as chairperson. Two internal corporate auditors can also participate and express opinions.
Corporate Planning Committee	12 (including written deliberations, etc.)	Nineteen members, selected from their respective areas of expertise and business departments. The officer in charge of planning serves as chairperson.
Financial Control Committee	19	One chairperson and four permanent members.

* Renamed the Board of Management in fiscal 2025.

Evaluation of the effectiveness of the Board of Directors | Election and dismissal of Officers

Evaluation of the effectiveness of the Board of Directors

To further enhance the functions of the Board of Directors, Toyobo carried out an overall analysis and evaluation of the effectiveness of the Board of Directors in fiscal 2024 with the support of an external organization. An outline of this evaluation follows.

Implementation method	Outline of analysis and evaluation results	Issues and future initiatives
<p>1 Eligible persons All directors and corporate auditors</p> <p>2 Method A survey (roughly 50 questions) was conducted, and responses were made directly to the external organization to which the operations were outsourced.</p> <p>3 Analysis and evaluation The analysis and evaluation were carried out by the Board of Directors based on the aggregate results reported by the external organization.</p>	<p>1 The results of the evaluation indicated that the number of members of the Board of Directors, the frequency of meetings, the ratio of inside and outside Directors, and management of the Board of Directors meetings by the Chairperson were largely appropriate. In addition, highly positive evaluation was given to the level of constructive deliberations and exchanges of opinion carried out.</p> <p>2 It was confirmed that certain results and improvements were achieved as a result of addressing the five issues identified in the previous report: (i) risk management measures for safety and disaster-management measures, quality assurance, etc.; (ii) efforts to review the business portfolio; (iii) enhancement of group governance; (iv) initiatives for the succession plan and election procedures for CEO; and (v) initiatives for other medium- to long-term themes, although there were certain comments that some improvements were insufficient.</p> <p>3 The above items (ii), (iii), and (iv) were rated relatively low and are issues to be addressed, together with “examination of policies, etc., for understanding and improving the cost of capital and capital profitability,” which was newly identified in this round. The above item (i) also remains an issue to be further improved through ongoing efforts.</p>	<p>Through the following initiatives, the Board of Directors will strive to improve its overall effectiveness.</p> <p>1 Risk management measures for safety and disaster management, and quality assurance, among others Further enhance the group-wide risk management system, including supervision of efforts toward important targets and KPIs.</p> <p>2 Examination of policies, etc., for understanding and improving the cost of capital and capital profitability Examine and oversee the initiatives aimed at understanding and improving the cost of capital and capital profitability of the company.</p> <p>3 Efforts to review the business portfolio Examine and oversee the initiatives for understanding and reviewing the current state of the business portfolio and the important issues.</p> <p>4 Initiatives for the succession plan and election procedures for CEO Further ensure transparency and fairness by enhancing activity reports from the Nomination and Compensation Advisory Committee.</p> <p>5 Enhancement of group governance</p> <ul style="list-style-type: none"> Receive reports on risk management and other matters concerning group companies from the Corporate Business Management Department, and get involved as appropriate. Ensure the effectiveness of the internal audit function and enhance group governance by receiving reports on audit plans and results from the Internal Audit Department.

Election and dismissal of officers

▶ Policy

In selecting and dismissing senior management (executive officers who serve concurrently as directors), and in nominating director and corporate auditor candidates, consideration is given to whether the person excels in the character and insight appropriate to the respective duties as a basis for consideration with respect to our criteria for nominating officers and corporate auditors. The decisions are made by the Board of Directors after deliberation by the Nomination and Compensation Advisory Committee.

▶ Procedures for nomination and compensation, etc.

To ensure fairness and transparency, the Nomination and Compensation Advisory Committee has been established as an

advisory body for the Board of Directors, with outside directors making up a majority of its members. An outside director serves as chairperson of the Nomination and Compensation Advisory Committee.

The Nomination and Compensation Advisory Committee reports to the Board of Directors upon deliberating basic policies and criteria such as officer nominations, succession planning, and other matters based on proposals from the president.

▶ Policy and procedures for dismissal

In the event of any conduct suspected of being unfair, unjust, or constituting a breach of trust, or any other cause of unfitness for service as an officer, the Board of Directors will make a decision

regarding dismissal upon deliberation by the Nomination and Compensation Advisory Committee.

▶ Training programs for officers

For our newly appointed directors and corporate auditors, we provide an orientation concerning their roles and duties, and they undergo an external training program upon their appointment to acquire the necessary knowledge. After their appointment, they are also encouraged to continue participating in external training programs and lectures to continuously build on their managerial literacy.

In addition, newly appointed outside directors and outside corporate auditors attend orientations regarding the company's operations, finances, and organization, and more.

Officer compensation system

Basic policy

We have designed our system for officer compensation in accordance with the following policy items, within the scope of the compensation amounts approved by the General Meeting of Shareholders.

- ① It must incentivize the motivation to increase the sustained growth of the group and a medium- to long-term increase in corporate value.
 - ② It must facilitate the securing of excellent management personnel.
 - ③ It must have a highly objective, transparent decision-making procedure.
- We will review the composition and levels of compensation with reference to our management environment, employee salary levels, and current compensation levels at other companies, according to surveys conducted by external expert organizations.

Monetary compensation (including performance-linked component)

1 Composition of monetary compensation

Monetary compensation for directors (excluding outside directors) and executive officers consists of fixed monthly compensation comprising the following two components.

- ① Base compensation
- ② Short-term incentive compensation

2 Short-term incentive compensation

- ① Short-term incentive compensation reflects evaluations of company-wide performance and the performance of the department one is responsible for, in accordance with position.
 - Representative Director and Executive Director: Company-wide performance only
 - Director: Company-wide performance 2; performance of department one is responsible for 1
 - Executive Officer (full-time): Company-wide performance 1; performance of department one is responsible for 2
- ② Individual compensation is calculated to reflect company-wide performance and the performance of the department one is responsible for, and is decided by the Board of Directors.

- ③ The major management indicator EBITDA is used as a KPI for company-wide performance. It varies between 0% and 200%, according to the degree of achievement with respect to the target value.
- ④ With regard to specific target values, the Nomination and Compensation Advisory Committee is consulted. Based on its reports, the Board of Directors makes decisions.
- ⑤ Performance of the department under management is evaluated on a 5-point scale that takes into account the degree of operating income achieved, the degree of improvement in ROA, EBITDA, and other factors in the department one is responsible for. It varies between 50% and 200%.

Stock compensation

To strengthen incentives for a sustained increase in corporate value and to promote even greater value-sharing with shareholders, we offer a certain percentage of compensation in the non-monetary form of restricted stock (non-performance-linked and pre-delivery type) once a year.

Ratio of compensation

The ratio is designed to allow incentives for enhancement of corporate value to function appropriately. For base compensation,

short-term incentive compensation, and non-monetary compensation, a ratio of 6:3:1 is set as a guideline (when KPI achievement is 100%).

Other

- ① Compensation for outside directors consists only of a fixed amount of monetary compensation, given their role and independence.
- ② Compensation for corporate auditors consists only of a fixed amount of monetary compensation according to the duties and responsibilities of each auditor, and given their role and independence, is determined in consultation with the auditors.
- ③ To ensure transparency and objectivity in the determination of compensation, the Nomination and Compensation Advisory Committee has been established as an advisory body for the Board of Directors, with outside directors making up a majority of its members. The committee is consulted by the Board of Directors and deliberates on the structure, levels, and methods of calculation of officer compensation, as well as the target amounts for company-wide performance evaluations that are a component of the compensation for each position. The Board of Directors makes final decisions on individual compensation amounts with reference to reports from the Nomination and Compensation Advisory Committee.

Details of officer compensation (FY2024)

* Including officers newly appointed and retired during the term

Category	Total compensation Millions of yen	Total compensation, etc., by type			Number of eligible officers*
		Base compensation Millions of yen	Performance-linked compensation Millions of yen	Non-monetary compensation (restricted stock compensation) Millions of yen	
Directors (including outside directors)	308 (53)	245 (53)	30 (—)	32 (—)	12 (6)
Corporate Auditors (including outside corporate auditors)	71 (18)	71 (18)	— (—)	— (—)	6 (3)
Total (including outside officers)	379(71)	316 (71)	30(—)	32 (—)	18 (9)

Officer compensation system | Cross-shareholdings

Revision of officer compensation system

The Board of Directors partially revised the system of officer compensation in April 2024 in light of considerations of social trends related to compensation and appropriate incentives for improved business performance. Effective from July 2024, the key content of the revision is shown below.

1 Composition of short-term incentive compensation

Pre-change

Representative Directors and Executive Directors	Company results only
Directors	Company performance : Performance of the department one is responsible for = 2 : 1
Executive Officers (full-time)	Company performance : Performance of the department one is responsible for = 1 : 2

Post-change

Chair of the Board	Company results only
Representative Directors (who also serve as executive officers)	Company performance : Individual performance = 2 : 1
Directors (who also serve as executive officers)	Company performance : Individual performance = 1 : 1
Executive Officers (full-time)	Company performance : Individual performance = 1 : 2

2 Evaluation criteria for short-term incentive compensation

- There will be a shift from “Performance of the department one is responsible for” to “Individual performance.” Individual performance will include setting new personal objectives in addition to the performance of the department one is responsible for and evaluating the degree of achievement.
- Sustainability indicators will be added to the evaluation criteria, set as common goals based on the annual management policy, and evaluated based on the degree of achievement.

In June 2023, the Board of Directors decided to incorporate sustainability indices such as Environment, Society, and Governance (ESG) into the executive compensation system, starting from July 2024. Key Performance Indicators (KPIs) related to safety and disaster prevention, human capital, and climate-change response will be established annually. These KPIs will be reflected in short-term incentive compensation, and their achievement levels evaluated. The indicators for safety and disaster prevention, as well as human capital, have been applied to compensation from July 2024, based on fiscal 2024 results. The indicator for climate-change response will be applied from July 2025, based on fiscal 2025 results.

Sustainability indicator achievement coefficient

Sustainability indicator	KPI	Reflection method
Safety and disaster prevention-related indicators	Number of major disasters: 0 per year	An additional 5% of the total short-term incentive compensation base amount* will be added if all items are achieved.
	Work-related injury absenteeism rate: 0.25 or below	
	Number of fires and explosions: 0 per year	
	Number of accidents (leaks): 0 per year	
Human capital-related indicator	Results of engagement surveys +5% compared to the previous survey	An additional 5% of the total short-term incentive compensation base amount*
Climate change response-related indicator	Reduction in GHG emissions (Scope 1 and 2) Down 2.9% year on year	An additional 5% of the total short-term incentive compensation base amount*

* The base amount is set at 100% of the short-term incentive compensation.

Cross-shareholdings

Policy and approach

Toyobo periodically reviews cross-shareholdings from various perspectives, such as their impact on improving medium- to long-term corporate value and economic rationality, and sells any stock that is no longer meaningful, as appropriate.

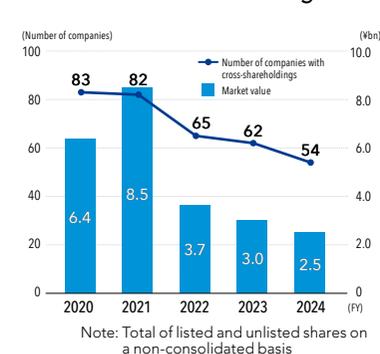
On the other hand, we enter into cross-shareholdings with key business partners when we judge that maintaining and strengthening stable relationships with them will contribute to sustainable growth and enhancement of medium- to long-term corporate value.

The Board of Directors reviews cross-shareholdings annually, considering future business strategies, operational relationships, and other factors, and determines whether to continue holding these shares.

When exercising our voting rights on cross-shareholdings, we carefully consider the status of the business partner and the content of the proposals, and, as needed, conduct discussions with the business partner. This process ensures that these holdings contribute to the sustainable growth and medium- to long-term enhancement of corporate value for both the company and its business partner, leading to a comprehensive decision.

In fiscal 2024, we executed the sale of nine stocks worth ¥700 million (market value). The proportion of cross-shareholdings to net assets is 1.1%.

Trends in cross-shareholdings



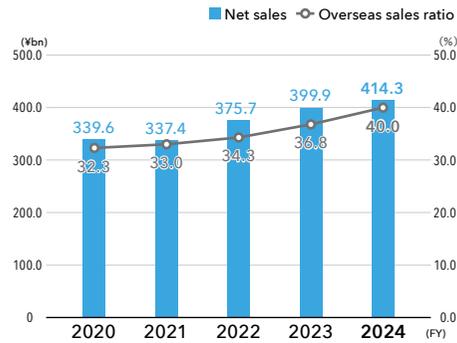
Percentage of consolidated net assets

March 31, 2020	3%
March 31, 2021	4%
March 31, 2022	2%
March 31, 2023	1%
March 31, 2024	1%

Financial and sustainability highlights

Financial highlights

Net sales/Overseas sales ratio



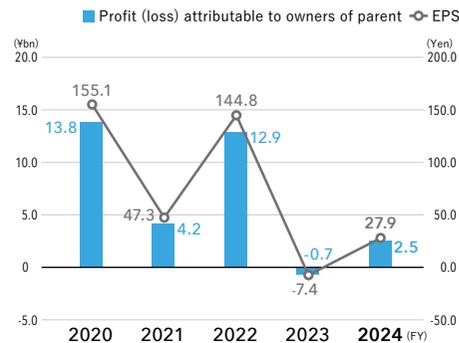
In fiscal 2024, sales of COSMOSHINE SRF® and volatile organic compound (VOC) recovery equipment increased significantly, driven by strong demand. In addition, sales of engineering plastics grew on the back of recovery in automobile production. As a result, net sales increased 3.6% year on year to ¥414.3 billion. The overseas sales ratio rose to 40.0%, supported by sales growth in locations such as Southeast Asia and China, as well as the impact of the yen's depreciation.

Operating profit/Operating profit Margin



In fiscal 2024, sales of COSMOSHINE SRF® increased significantly, and profitability improved in contract manufacturing of pharmaceuticals, textiles, and airbag fabrics. However, due to a significant decline in demand for reagents for PCR testing and continued sluggish cargo movement for packaging films, operating profit decreased 10.6% year on year to ¥9.0 billion.

Profit (Loss) attributable to owners of parent/EPS

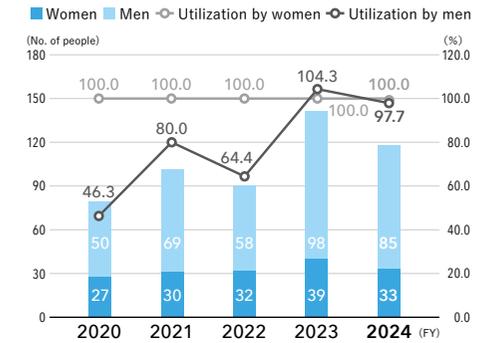


In fiscal 2024, in addition to the decline in operating profit, we recorded ¥3.5 billion in loss on disposal of non-current assets. However, ¥3.3 billion was posted in gain on sale of investment securities due to the disposal of cross-shareholdings. As a result, profit attributable to owners of parent amounted to ¥2.5 billion.

Note: In fiscal 2021, there were impairment losses of ¥7.8 billion related to the acrylic fiber business, and in fiscal 2023, there were impairment losses of ¥9.8 billion related to the nonwoven fabrics materials business, etc.

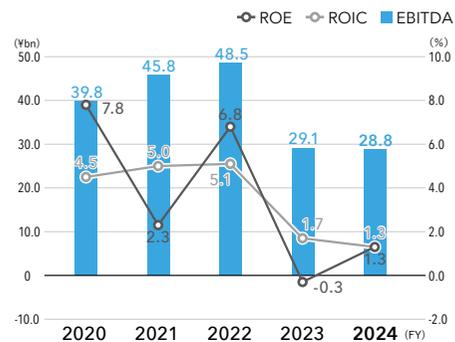
Sustainability highlights

Childcare leave utilization



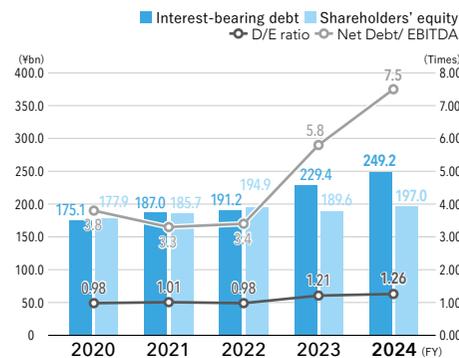
The company aims to increase the utilization of childcare leave by men, who have historically taken little leave, through providing information on childcare leave and encouraging support from superiors. As a result, the number of men taking childcare leave has significantly increased since fiscal 2020. We will continue to work toward maintaining our target of 80% utilization of childcare leave by fiscal 2026.
Boundary: TOYOBO CO., LTD., TOYOBO MC Corporation, and TOYOBO STC CO., LTD.

ROE/ROIC/EBITDA



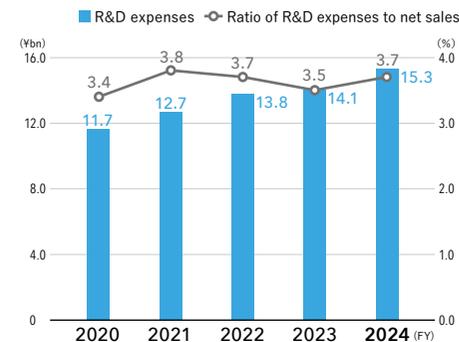
ROE increased to 1.3% due to the rise in profit attributable to owners of parent. ROIC also reached 1.3% because of the decrease in operating profit. EBITDA remained roughly unchanged at ¥28.8 billion.

Interest-bearing debt/Shareholders' equity/Debt to-equity (D/E) ratio/Net debt to EBITDA ratio



Interest-bearing debt at the end of fiscal 2024 increased by ¥19.8 billion year on year to ¥249.2 billion, due to financing through borrowing for capital expenditures. Conversely, shareholders' equity increased by ¥7.4 billion year on year to ¥197.0 billion, primarily due to an increase in remeasurements of defined benefit plans. Consequently, the D/E ratio stood at 1.26, and the Net Debt/EBITDA ratio increased to 7.5 due to the rise in interest-bearing debt.

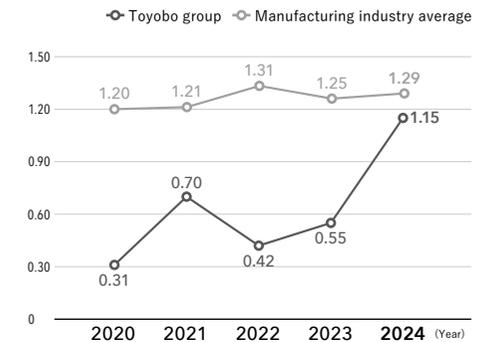
R&D expenses



We are strengthening our R&D activities to generate new value and achieve sustainable growth. Our 2025 Medium-Term Management Plan incorporates strategic investment in R&D, including intellectual property. R&D expenses in fiscal 2024 amounted to ¥15.3 billion, and the ratio of R&D expenses to net sales was 3.7%.
Boundary: Consolidated

Frequency rate of work-related injury leave

(Rate of accidents resulting in lost workday injuries per one million hours worked)



Toyobo group is committed to achieving zero accidents in accordance with the TOYOBO Group Basic Policy on Health & Safety. In 2023, the frequency rate of workplace accidents resulting in lost workdays was 1.15, including partner companies at the same business sites.
Boundary: TOYOBO CO., LTD., and domestic consolidated subsidiaries

Key 11-year financial data

*1 Since fiscal 2019, Toyobo has applied the Partial Amendments to Accounting Standard for Tax Effect Accounting. The figures for fiscal 2018 have been adjusted to reflect this change retroactively.

Fiscal year	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Items of consolidated statements of income (millions of yen)											
Net sales	351,577	351,279	347,763	329,487	331,148	336,698	339,607	337,406	375,720	399,921	414,265
Operating profit	21,006	20,580	23,123	23,332	23,923	21,727	22,794	26,657	28,430	10,063	8,995
Ordinary profit	18,426	16,257	20,393	20,650	20,415	17,788	18,035	20,706	23,092	6,590	6,962
Extraordinary income	595	1,160	702	469	11,492	1,519	11,206	629	6,529	9,753	3,312
Extraordinary losses	5,151	5,101	4,871	7,179	13,683	19,204	9,525	15,753	14,825	15,731	4,687
Profit (loss) attributable to owners of parent	8,154	8,117	10,150	9,444	13,044	- 603	13,774	4,202	12,865	- 655	2,455
Comprehensive income	12,988	18,182	2,147	13,519	15,611	- 467	4,437	9,471	12,112	- 1,232	12,454
Items of consolidated balance sheet (millions of yen)^{*1}											
Current assets	184,630	196,607	186,633	196,293	186,571	193,125	206,416	212,963	239,314	299,133	273,733
Non-current assets	271,625	269,202	257,954	254,497	258,924	267,922	282,458	278,225	278,460	289,773	333,257
Current liabilities	160,582	146,250	130,690	136,865	125,110	131,768	122,321	131,444	146,750	202,500	184,148
Non-current liabilities	150,558	158,472	153,795	143,016	135,870	148,053	183,916	171,109	173,876	164,984	192,755
Net assets	145,115	161,087	160,101	170,910	184,515	181,226	182,636	188,635	197,149	221,422	230,087
Shareholders' equity	142,310	157,988	156,915	167,773	180,561	176,585	177,890	185,729	194,876	189,588	197,033
Total assets	456,256	465,809	444,587	450,790	445,495	461,047	488,874	491,188	517,774	588,906	606,990
Interest-bearing debt	170,721	177,085	165,358	169,230	145,594	164,769	175,139	186,958	191,249	229,405	249,244
Cash flows (millions of yen)											
Cash flows from operating activities	23,927	20,107	32,337	26,872	22,353	7,838	44,255	35,028	17,097	7,798	21,595
Cash flows from investing activities	- 22,218	- 20,089	- 10,636	- 14,132	- 1,174	- 24,286	- 39,216	- 31,678	- 24,608	- 36,011	- 58,784
Cash flows from financing activities	- 10,839	797	- 21,384	- 324	- 27,831	12,608	- 1,805	5,340	- 1,729	61,295	8,260
Free cash flow	1,709	17	21,701	12,740	21,178	- 16,448	5,040	3,350	- 7,511	- 28,213	- 37,189
Cash and cash equivalents at end of period	19,177	20,389	20,101	32,179	25,857	22,167	25,084	34,526	26,433	60,204	33,310
Capital expenditure, depreciation and amortization, and R&D expenses (millions of yen)											
Capital expenditure	20,074	17,491	17,336	18,360	21,259	25,512	36,445	23,253	33,640	42,734	61,569
Depreciation and amortization	14,038	14,916	14,434	14,939	15,666	15,823	17,005	19,095	20,080	19,050	19,806
R&D expenses	10,474	10,819	11,266	11,114	10,402	11,022	11,690	12,656	13,792	14,112	15,310

Key 11-year financial data

*2 As of October 1, 2017, Toyobo consolidated every 10 shares of its common stock into 1 share based on a resolution of the 159th Ordinary General Meeting of Shareholders held on June 28, 2017. In addition, the number of shares comprising one unit of stock changed from 1,000 to 100 on the same date.

*3 ROE: Profit attributable to owners of parent ÷ average fiscal year-end/year-initial shareholders' equity. *4 ROA: Operating profit ÷ total assets.

*5 ROIC: NOPAT ÷ average fiscal year-end/year-initial invested capital (invested capital: Net assets + interest-bearing debt). *6 Calculated using fiscal 2013 as base year.

*7 EBITDA: Operating profit + depreciation and amortization (including goodwill).

*8 In fiscal 2015, we changed the acrylate-based fiber (AP) business from films and functional polymers to industrial materials. In fiscal 2017, we changed the activated carbon fiber (AC) business from industrial materials to healthcare, and the AP business from industrial materials to textiles and trading.

*9 Business segments were changed in fiscal 2021. Accordingly, figures for fiscal 2020 have been reclassified under the altered categories to facilitate comparison.

*10 Business segments were changed in fiscal 2024. Accordingly, figures for fiscal 2023 have been reclassified under the altered categories to facilitate comparison.

Fiscal year	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019		FY2020	FY2021	FY2022		FY2023	FY2024	
Per-share information (yen)^{*2}														
Book value per share (BPS)	160.28	177.95	176.75	188.98	2,034.04	1,989.29		2,003.01	2,090.47	2,192.17		2,146.46	2,236.50	
Earnings (loss) per share (EPS)	9.18	9.14	11.43	10.64	146.93	-6.80		155.12	47.30	144.75		-7.37	27.87	
Dividend per share	3.50	3.50	3.50	3.50	40.00	40.00		40.00	40.00	40.00		40.00	40.00	
Financial indicators														
Overseas sales ratio (%)	26.6	28.5	29.5	29.2	29.0	30.5		32.3	33.0	34.3		36.8	40.0	
Operating profit margin (%)	6.0	5.9	6.6	7.1	7.2	6.5		6.7	7.9	7.6		2.5	2.2	
Return on equity (ROE) ^{*3} (%)	5.8	5.4	6.4	5.8	7.5	-0.3		7.8	2.3	6.8		-0.3	1.3	
Return on assets (ROA) ^{*4} (%)	4.6	4.4	5.2	5.2	5.4	4.7		4.7	5.4	5.5		1.7	1.5	
Return on invested capital (ROIC) ^{*5} (%)	4.3	4.2	4.8	4.8	4.9	4.4		4.5	5.0	5.1		1.7	1.3	
Price-to-earnings (P/E) ratio (PER)	17.65	17.72	14.78	18.14	14.29	—		7.37	30.11	7.55		—	40.44	
Price-to-book (P/B) ratio (PBR)	1.0	0.9	1.0	1.0	1.0	0.7		0.6	0.7	0.5		0.5	0.5	
Total return ratio (%)	38.1	38.3	30.6	32.9	27.2	—		25.8	84.6	27.6		—	156.5	
Dividend on equity (DOE) (%)	2.2	2.1	2.0	1.9	2.0	2.0		2.0	2.0	1.9		1.8	1.8	
Total shareholder return (TSR) ^{*6} (%)	103.4	105.6	112.2	129.4	142.4	102.2		87.7	107.8	89.6		88.7	96.7	
Equity ratio (%)	31.2	33.9	35.3	37.2	40.5	38.3		36.4	37.8	37.6		32.2	32.5	
EBITDA ^{*7} (millions of yen)	35,044	35,496	37,557	38,272	39,589	37,550		39,799	45,752	48,509		29,113	28,802	
D/E ratio (multiples)	1.20	1.12	1.05	1.01	0.81	0.93		0.98	1.01	0.98		1.21	1.26	
Net debt/EBITDA ratio (multiples)	4.3	4.4	3.9	3.6	3.0	3.8		3.8	3.3	3.4		5.8	7.5	
Results by business segment (millions of yen)^{*8, *9, *10}														
Net sales	Films and Functional Polymers	148,000	146,029	143,398	138,574	148,667	156,241	Films and Functional Materials	127,127	152,842	170,326	Films	146,064	156,531
	Industrial Materials	71,704	71,520	70,522	59,925	63,454	66,540	Mobility	43,905	36,573	44,721	Life Science	38,134	34,564
	Healthcare	27,344	28,777	27,723	36,423	35,723	34,675	Lifestyle and Environment	128,409	109,148	114,295	Environmental and Functional Materials	110,796	115,327
	Textiles and Trading	79,089	85,093	85,486	77,552	68,317	64,585	Life Science	25,538	27,087	35,003	Functional Textiles and Trading	92,361	95,665
	Real estate and other business	25,440	19,860	20,634	17,013	14,987	14,657	Real estate and other business	14,629	11,757	11,375	Real estate and other business	12,567	12,178
Operating profit	Films and Functional Polymers	7,794	6,988	9,920	12,747	13,713	13,727	Films and Functional Materials	14,582	20,028	19,897	Films	1,623	2,688
	Industrial Materials	5,501	6,601	6,288	3,875	4,262	2,620	Mobility	-701	-1,572	-1,753	Life Science	9,212	4,438
	Healthcare	5,140	5,042	4,726	5,242	5,179	5,170	Lifestyle and Environment	5,936	4,376	3,453	Environmental and Functional Materials	4,048	4,668
	Textiles and Trading	2,952	2,334	2,500	1,066	645	914	Life Science	3,798	4,517	8,655	Functional Textiles and Trading	-2,514	-1,044
	Real estate and other business	2,732	2,630	2,841	3,344	2,819	2,233	Real estate and other business	2,623	2,302	2,218	Real estate and other business	2,187	3,014
Adjustment	-3,113	-3,016	-3,152	-2,941	-2,694	-2,936	Adjustment	-3,444	-2,993	-4,041	Adjustment	-4,492	-4,768	

Key sustainability data



External assurance



ESG performance data

FY2024 results

Planet

Data aggregation period: (Domestic) April 1, 2023, to March 31, 2024 (Overseas) January 1, 2023, to December 31, 2023

Boundary: Toyobo group (TOYOBO CO., LTD., and domestic and overseas group companies)

		FY2024 results	Calculation methods
Scope 1	<input checked="" type="checkbox"/>	659 thousand t-CO ₂	In reference to the GHG Protocol, we include GHG emissions, calculated by converting the energy required to produce electricity or steam sold to other companies. GHG emissions with non-energy origins are calculated for Toyobo (non-consolidated) and domestic group companies. The factors shown below are used in the respective calculations. ■CO ₂ emission factors for purchased gas: (Domestic) Basic emission factors by gas supplier as listed in the Ministry of the Environment's "Emission Factors by Gas Supplier (for Calculating Greenhouse Gas Emissions of Specified Emitters)—FY2023 Supply Data" (In cases where the emission factor of a given gas supplier was unknown, the "alternative factor" was used.) ■CO ₂ emission factors for purchased electricity: (Domestic) Adjusted emission factors by electricity supplier as listed in the Ministry of the Environment's "Emission Factors by Electricity Supplier (for Calculating Greenhouse Gas Emissions of Specified Emitters)—FY2023 Results" (In cases where the emission factor of a given utility was unknown, the "national average factor" was used.) (Overseas) Factors for 2020 listed by country "Emission Factors 2022" (2022), International Energy Agency (IEA) ■CO ₂ emission factors other than for purchased electricity: "Greenhouse Gas Emissions Calculation and Reporting Manual (v5.0)" (2024) issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry (used for both domestic and overseas subjects).
Scope 2	<input checked="" type="checkbox"/>	172 thousand t-CO ₂	
GHG emissions per unit of sales	<input checked="" type="checkbox"/>	2.01 t-CO ₂ per million yen	Total Scope 1 and Scope 2 emissions ÷ consolidated net sales
Energy consumption	<input checked="" type="checkbox"/>	2,810 GWh	In reference to the GHG Protocol, the energy required to produce electricity or steam sold to other companies is not deducted. The unit calorific values of fuels are based on the Energy Conservation Act and are expressed as higher heating values.
Scope 3			
Category 3 Fuel and energy-related activities not included in Scope 1 or Scope 2		108 thousand t-CO ₂	The total value obtained by multiplying the amount of fuel and electricity purchased over one year (activity data) by the emission intensity per unit for each type of fuel and electricity, as provided by the Ministry of the Environment database and the Inventory Database for Environmental Analysis (IDEA).
Category 11 Use of sold products	<input checked="" type="checkbox"/>	2,944 thousand t-CO ₂	The total value is calculated by multiplying the amount of utilities consumed during the use of final products sold over one year (activity data), such as electricity, steam, and chilled water, by the emission factors, useful life, and operating rate. Emission intensity per unit is based on proprietary data derived from the Ministry of the Environment database, IDEA, IEA, and equipment specifications used in the generation of each utility. The calculation focuses on VOC recovery equipment, urine sediment testing equipment, and fully automated gene analysis systems.
Total		5,499 thousand t-CO ₂	Calculations are made using weighted averages for some subsidiaries and affiliated companies, according to ratios of sales, sales volume, and number of employees.

People

		FY2024 results
Ratio of women managerial staff ^{*1 *2}	<input checked="" type="checkbox"/>	5.5%
Ratio of women directors ^{*3}		20%
Training investment per employee (and training time) ^{*1}		¥50,000 (18.22 hours)
Ratio of annual paid leave taken ^{*1}		83.2%
Ratio of men employees taking childcare leave ^{*1}		97.7%
Employment ratio of people with disabilities ^{*3}		2.29%
Frequency rate of workplace accidents resulting in lost workdays ^{*4}		1.15
Frequency of meetings with employees and labor unions ^{*3}		60
Implementation of human rights education and training ^{*1}		58.1%
Number of internal transfers through the internal recruitment system (cumulative) ^{*5}		17

Innovation

		FY2024 results
R&D expenses		¥15.3 billion
Number of patents held ^{*3}		4,624

Referenced guidelines

- 1) In making the calculations, we referred to the "Corporate Value Chain (Scope 3) Accounting and Reporting Standard" and its evaluation guidelines from the GHG Protocol; the "Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain" from the World Business Council for Sustainable Development (WBCSD); and various sources of information on the Green Value Chain Platform.
- 2) With regard to emission intensity per unit, we referred to the following databases as of March 2024.
 - "Emissions Intensity Database for Accounting for Greenhouse Gas Emissions from Organization Supply Chains ver. 3.4" (2024), Ministry of the Environment. Cited as "Ministry of the Environment DB."
 - "IDEA (Inventory Database for Environmental Analysis) ver2.3" (2019), National Institute of Advanced Industrial Science and Technology/Sustainable Management Promotion Organization. Cited as "IDEA."
 - "Emission Factors 2022" (2022), International Energy Agency (IEA). Cited as "IEA."

*1 Boundary: TOYOBO CO., LTD., TOYOBO MC Corporation, and TOYOBO STC CO., LTD.

*2 Calculation method: Calculated based on the provisions of the Act on Promotion of Women's Participation and Advancement in the Workplace (including those on secondment who are primarily employed by the three companies mentioned above).

*3 Boundary: TOYOBO CO., LTD.

*4 Boundary: TOYOBO CO., LTD., and domestic consolidated subsidiaries. Aggregation period: January 1, 2023, to December 31, 2023.

*5 Cumulative number of transfers since the start of the system in FY2023.

Indicators for fiscal 2024 with this icon are externally assured by KPMG AZSA Sustainability Co., Ltd. See page 68 of this Integrated Report for the Independent Assurance Report. > p.68

Third-party assurance report | External recognition

Sustainability data including items with third-party assurance > p.67

Third-party assurance report

Independent Assurance Report

August 20, 2024

To the President & Representative Director, CEO & Co-COO of TOYOBO CO., LTD.

We were engaged by TOYOBO CO., LTD. (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with ✓ (the "Indicators") for the period from April 1, 2023 to March 31, 2024 included in its TOYOBO REPORT 2024 (the "Report") for the fiscal year ended March 31, 2024.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting one of the Company's factories and one of the Company's subsidiaries selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

Our Independence and Quality Management

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Management 1, we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

/s/ Shinnosuke Kayumi
Shinnosuke Kayumi, Partner
KPMG AZSA Sustainability Co., Ltd.
Osaka, Japan
September 30, 2024

Notes to the Reader of Independent Assurance Report:
This is a copy of the Independent Assurance Report and the original copies are kept separately by the Company and KPMG AZSA Sustainability Co., Ltd

External recognition

Inclusion in ESG indices

Toyobo has been selected as a constituent for inclusion in three global ESG indices: the FTSE Blossom Japan Index in June 2021, the MSCI Japan ESG Select Leaders Index in December 2021, and the FTSE Blossom Japan Sector Relative Index in March 2022. (Selection remained effective as of June 2024.)

We are also included as a constituent stock in the MSCI Japan ESG Select Leaders Index, the MSCI Japan Empowering Women Index (WIN), the Morningstar Gender and Diversity Index (GenDi), and the S&P/JPX Carbon Efficient Index. In addition, we have been selected as a constituent security for all ESG indicators targeting Japanese stocks referenced by Japan's Government Pension Investment Fund (GPIF) (as of June 2024).



FTSE Blossom Japan



FTSE Blossom Japan Sector Relative Index

FTSE Russell (a registered trademark of FTSE International Limited and Frank Russell company) certifies that TOYOBO CO., LTD. has met the criteria for inclusion in the FTSE Blossom Japan Index and the FTSE Blossom Japan Sector Relative Index, as determined by third-party evaluation. The FTSE Blossom Japan Index is created by FTSE Russell, a global index provider, and is designed to measure the performance of Japanese companies that excel in environmental, social, and governance (ESG) practices. The FTSE Blossom Japan Index is widely used for creating and evaluating sustainable investment funds and other financial products. The FTSE Blossom Japan Sector Relative Index is also widely utilized for the creation and assessment of sustainable investment funds and other financial products.

2024 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

2024 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX

THE INCLUSION OF TOYOBO CO., LTD. IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF TOYOBO CO., LTD. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

Other evaluations

Our efforts have received the following evaluations.



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



2024
健康経営優良法人
Health and productivity
ホワイト500



SBT-certified GHG emission-reduction targets
Scope 1 and 2: Reduce GHG emissions by 27.0% from FY2021 levels by FY2031.
Scope 3: Reduce GHG emissions by 12.5% from FY2021 levels by FY2031.

Corporate data (As of March 31, 2024)

Corporate data

Company name	TOYOBO CO., LTD.
Established	May 3, 1882
Head Office	Osaka Umeda Twin Towers South, 1-13-1 Umeda, Kita-ku, Osaka 530-0001, Japan Main TEL: +81-6-6348-3111
Number of employees	10,668 (consolidated) / 3,063 (non-consolidated)

Main locations in Japan
(As of April 1, 2024)



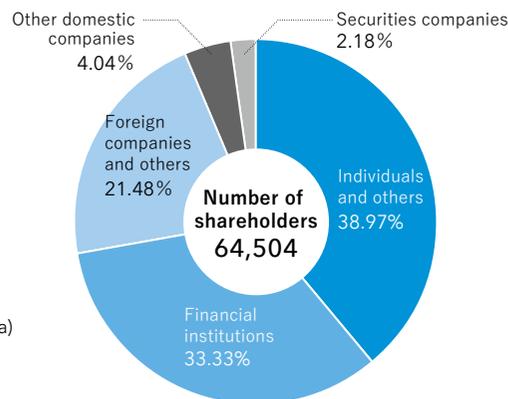
Main locations overseas

- TOYOBO (SHANGHAI) CO., LTD. (China)
- TOYOBO (THAILAND) CO., LTD.
- TOYOBO U.S.A., INC.
- TOYOBO DO BRASIL PARTICIPACOES LTDA. (Brazil)
- TOYOBO Korea Co., Ltd. (South Korea)
- TOYOBO Chemicals Europe GmbH (Germany)
- PT. TOYOBO TRIAS ECOSYAR (Indonesia)
- Spinreact, S.A.U. (Spain)
- Arabian Japanese Membrane Company, LLC (Saudi Arabia)
- TOYOBO INDUSTRIAL MATERIAL (THAILAND) LTD.
- TOYOBO TEXTILE (MALAYSIA) SDN. BHD.

Investor information

Stock exchange listing	Tokyo Stock Exchange Prime Market
Securities code	3101
Administrator of shareholder register	Sumitomo Mitsui Trust Bank, Limited 1-4-1 Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan
Independent auditing corporation	KPMG AZSA LLC 3-6-5 Kawaramachi, Chuo-ku, Osaka 541-0048, Japan
Number of shares	Total number of authorized shares: 200,000,000 Total number of shares issued: 89,048,792
Paid-in capital	¥51,730 million
Number of shareholders	64,504
Annual General Meeting of Shareholders	Held annually in June
Number of shares per unit	100

Distribution of shares by shareholder (according to number of shares owned)



Major shareholders

Shareholder name	Number of shares held (thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd.	13,494	15.32
Custody Bank of Japan, Ltd.	10,287	11.68
Toyobo Employees Stockholders' Association	2,400	2.72
GOVERNMENT OF NORWAY	2,302	2.61
Toyukai	2,016	2.29
NIPPON LIFE INSURANCE COMPANY	1,750	1.99
Meiji Yasuda Life Insurance Company	1,402	1.59
DFA INTL SMALL CAP VALUE PORTFOLIO	1,309	1.49
JP MORGAN CHASE BANK 385781	1,280	1.45
STATE STREET BANK WEST CLIENT-TREATY 505234	1,092	1.24

Note: Treasury stock (949,992 shares) is excluded from shareholding ratio calculations.

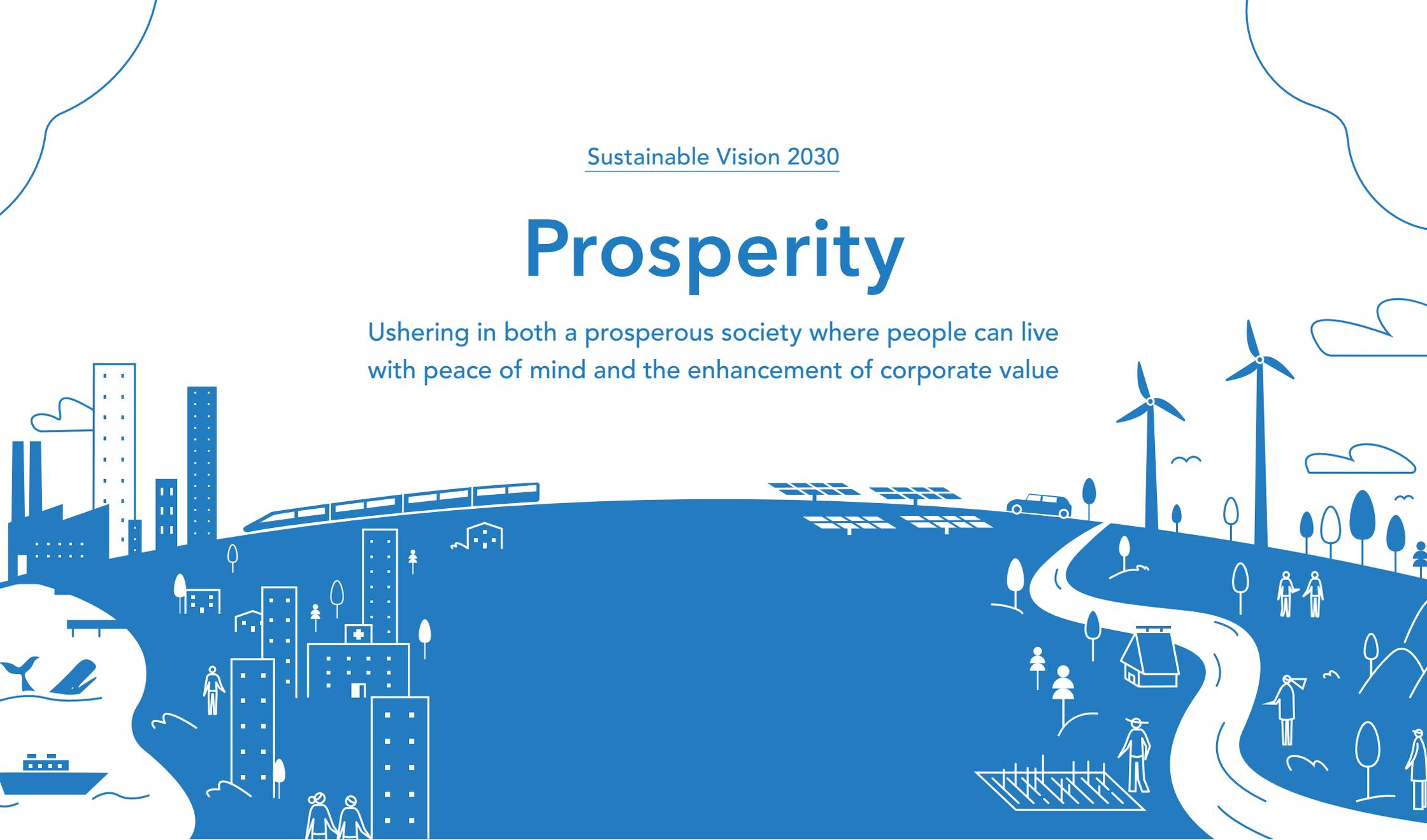
Share price

Fiscal year	Five-year highest/lowest				
	2020	2021	2022	2023	2024
Highest price (yen)	1,684	1,687	1,505	1,134	1,182
Lowest price (yen)	903	1,033	1,046	979	980

Sustainable Vision 2030

Prosperity

Ushering in both a prosperous society where people can live with peace of mind and the enhancement of corporate value



TOYOBO

TOYOBO CO., LTD.
Corporate Sustainability Department

Osaka Umeda Twin Towers South 1-13-1 Umeda Kita-ku, Osaka City, Osaka 530-0001, Japan
URL: <https://www.toyobo-global.com/sustainability/> MAIL: sustainability@toyobo.jp

Disclaimer

This report contains forward-looking statements that reflect the plans, outlook, strategies, and performance of Toyobo group. These forward-looking statements are based on judgments made with currently available information. Please be aware that actual performance might differ significantly from these forward-looking statements due to various factors, including risks and uncertainties. Factors influencing our future outlook include, but are not limited to, the economic environments in which we conduct business operations, competitive pressures, related laws and regulations, changes in the status of product development, and exchange rate fluctuations.