

Jul. 2024

# TOYOBO INVESTORS GUIDE (FY 3/24)

TOYOBO CO., LTD. (3101)

## **Aiming to be a sustainable company that contributes to the sustainability of society**



Ikuo Takeuchi

President & Representative Director

*Ikuo Takeuchi*

With our corporate philosophy of “Jun-Ri-Soku-Yu” (adhering to reason leads to prosperity) as its starting point, our Group's vision is to become a group that continues to create the solutions needed by people and the planet with our materials and science. In May 2022, we formulated our Sustainable Vision 2030, which aims to achieve sustainable growth. This sustainable growth means that we contribute to the sustainability of the planet and society through our products, services and technologies, and thereby achieve sustainable growth for ourselves.

To date, our group has taken numerous challenges and strived to provide products and services that respond to changes in the social environment surrounding us with the understanding and support of our stakeholders. Now, at this time, I am strongly convinced that our mission is to address these pressing issues and contribute through our business to the realization of a sustainable society, that is, a "prosperous" society where people can live with peace of mind, and that it is my mission to lead this endeavor, which will lead to a sustainable increase in the corporate value of our group.

In order to continue to be a corporate group that is required by people and the planet, the Toyobo Group will not be afraid to change, will enjoy change and will create change.

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2025 Medium-Term Management Plan (page 14~18)
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# I . Company Profile

- Basic Information
- Corporate Philosophy Framework “TOYOBO PVVs”
- Net Sales and Product Example by Segment
- Products Topics
- Domestic and Overseas Bases, Ratio of Net Sales by Region
- Our History

# Basic Information



Company Name : **TOYOBO CO., LTD.** (Oct. 1, 2012, Change the company name from Toyo Boseki)

Established : May 3, 1882

Incorporated : June 26, 1914

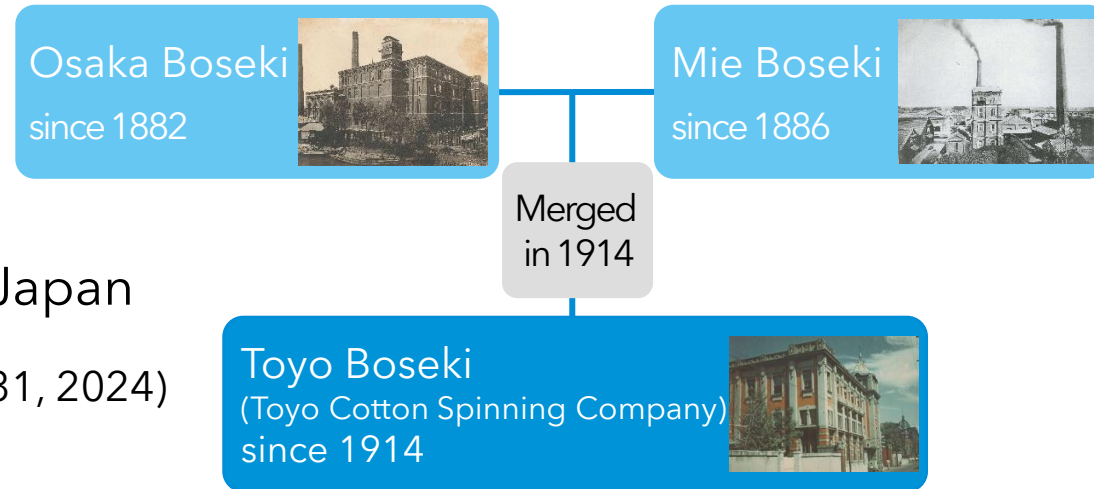
Paid-in Capital : 51,730 million yen

Head Office : 1-13-1 Umeda, Kita-ku, Osaka 530-0001, Japan

Number of Employees : 10,668 (Consolidated) (As of March 31, 2024)

Business Profile : Original business is cotton spinning.

Currently, manufacture, processing, and sales of various products in the fields of film, life sciences, and environmental and functional materials.



**140th anniversary in May 2022**

**Renewal of corporate logo** (from April 2022)



# Corporate Philosophy Framework “TOYOBO PVVs”

**TOYOBO**

## The TOYOBO Group philosophy “Jun-Ri-Soku-Yu”

was a personal maxim of our founder Eiichi Shibusawa, an industrialist who contributed greatly to Japan’s modernization. It has been the foundation of Toyobo Group’s business ever since.



Founder  
Eiichi Shibusawa



Handed down from our founder, Eiichi Shibusawa

## Corporate Philosophy Framework **TOYOBO PVVs**

We systematized “Jun-Ri-Soku-Yu” in 2019.

### Principle

“Jun-Ri-Soku-Yu”

Adhering to reason leads to prosperity

### Vision

We will continue to create the solutions needed by people and the earth with our materials and science.

### Values

We welcome change, enjoy change, and create change.

**TOYOBO Spirit** : Challenge, Reliability, Collaboration



# Net Sales and Product Example by Segment

## Functional Textiles and Trading

Ratio of net sales 23.1%

- Airbag fabrics
- Functional textiles
- Apparel fabrics



Airbag fabrics



Apparel fabrics

## Environmental and Functional Materials

Ratio of net sales 27.8%

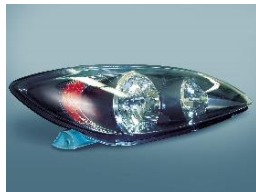
- Resin and chemicals
- Environment and fiber



Industrial adhesives



Thermoplastic polyester elastomer



High-performance polyester resin



Reverse osmosis membranes for seawater desalination



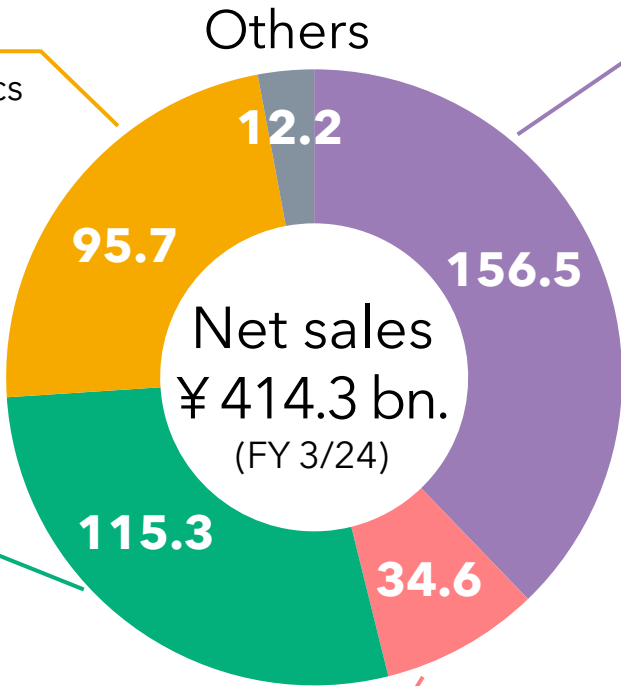
VOC recovery equipment



High-performance fibers



Three-dimensional cushion material



## Films

Ratio of net sales 37.8%

- Industrial film
- Packaging film



Polarizer protective films for LCDs



Food packaging



Mold releasing film for MLCC



Recycled PET film



Transparent vapor-deposited film

## Life Science

Ratio of net sales 8.3%

- Biotechnology
- Medical materials
- Contract manufacturing of pharmaceuticals



Enzymes



Fully automated gene analysis system



Artificial kidney hollow fiber



Bone regeneration inducing materials

## By Segment



### Films made from recycled PET

We reduce carbon emissions by approx. 20% by increasing **the amount of recycled resin from PET bottles to approx. 80%**, at the highest percentage in the world.



### Polarizer protective films for LCD TVs

A super retarder polyester film that converts light emitted by liquid crystal into a state that is closer to natural light.  
**LCD TV market share: Approx. 60%** (Our estimate)



### Enzymes for biochemical diagnostic reagents

Blood glucose (Diabetes), Cholesterol (Arteriosclerosis), Creatinine (Renal function) etc.

**Enzyme market share: Approx. 25%, 2nd in the world**  
(Our estimate)



### Reverse osmosis membranes for seawater desalination

It has excellent chlorine resistance and prevents microbial contamination. It produces high-quality water for domestic use in the Middle East/Arabian Gulf region from high temperature seawater that contains high concentrations of salt.

**Share in the above region: Approx. 20%** (Our estimate)



### VOC recovery equipment for collecting solvents

More than 1,500 units delivered domestically and internationally. Using activated carbon fiber.

**Top share for absorption type** (Our estimate)

Introduction of LIB separator plants is progressing.

## New Technologies and Products (News in FY3/24)

### ➤ Practical use of "vitrimers"\*

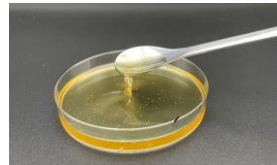
\*Highly functional polymer with reforming, self-adhesive and self-healing.  
"Vitrimers" is a registered trademark of FONDS ESPCI PARIS.

- Adhesive applications for electronic components on flexible printed circuit boards, etc.  
Demand has increased due to the advent of high-speed data communications and electrification of automobiles.
- High-heat resistant, eco-friendly adhesive sheet is solvent-free; can be distributed at ambient temperatures.
- Plan to start providing samples, manufacturing and selling the product around the first half of 2024.



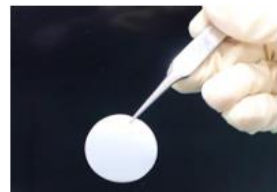
### ➤ MEL (mannosylerythritol lipid)

- Selected for NEDO "Research and Development of Technologies to Promote Biomanufacturing"  
MEL is surfactant of natural origin produced by microorganisms. Start development of revolutionary production systems to expand fields of MEL application.
- Aimed fields of MEL application  
Agricultural spreading agent (reduction of chemical pesticide use)  
Blending agents for feed (reduction of methane gas emissions from cow burps)  
Coating agent for sanitary materials



### ➤ Development of exosome purification kit "CATAROSEV"

- Consisting of a purification membrane with tiny pores and an ion-exchange function, a cleaning liquid, eluate and other elements
- Success in purifying and recovering circulating exosomes at high yield in the body with highly efficient
- Preparing to provide samples to corporations and research institutions that are aiming to use exosomes in pharmaceuticals and cosmetics to facilitate its early commercialization





◆ Bases in Japan (As of April 1, 2024)



A domestic base  
for our textile business  
**Shogawa Plant**



R&D departments  
with accompanying facilities  
**Tsuruga Research and  
Production Center**

**Research Center (Otsu)**  
Compliant with GMP of  
Japan, the United States, and Europe  
**Otsu Pharmaceuticals Plant**

**Odate Membrane Plant**

A new film production base  
**Utsunomiya Plant**



The main plant  
of our film business  
**Inuyama Plant**

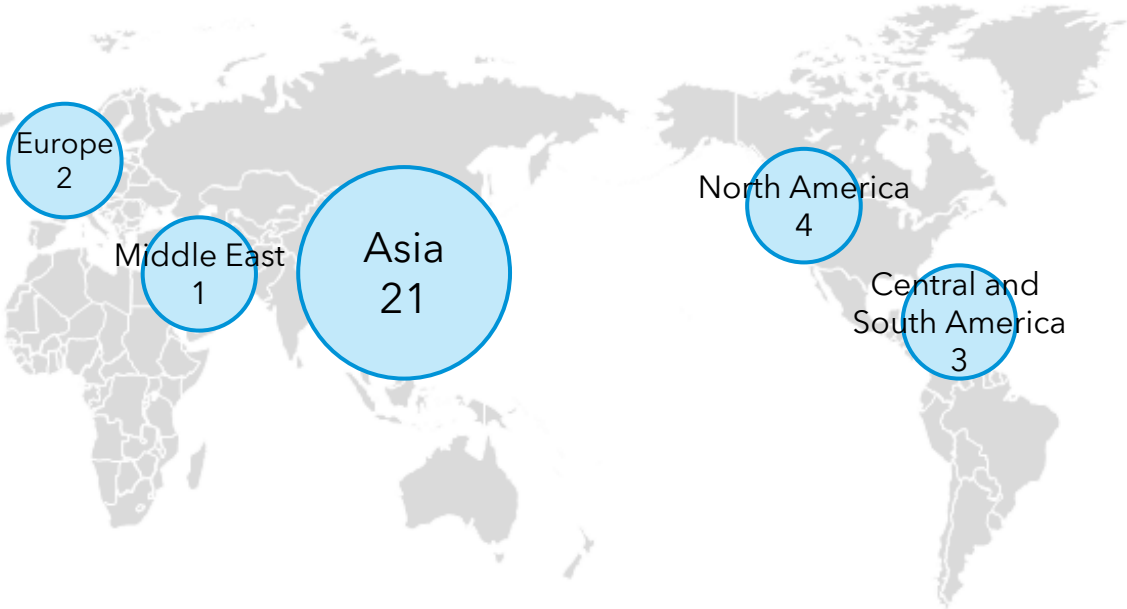


A production base for  
functional resins and fine chemicals  
**Takasago Plant**

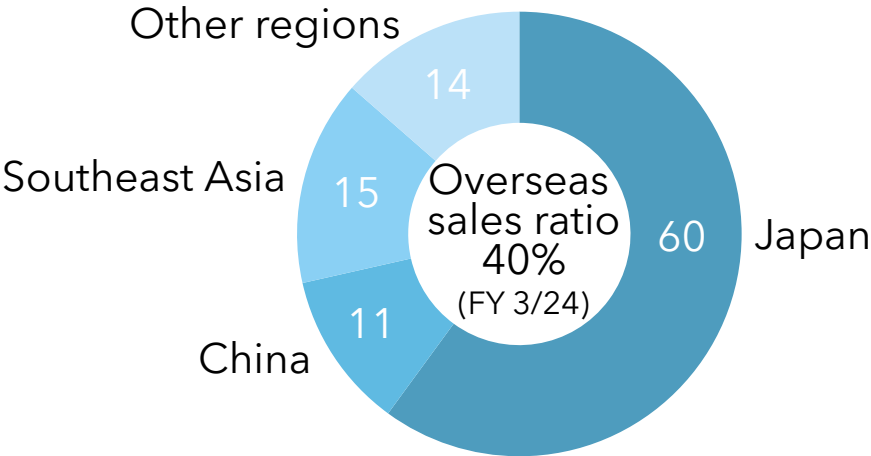


Green products and manufacturing  
**Iwakuni Production Center**

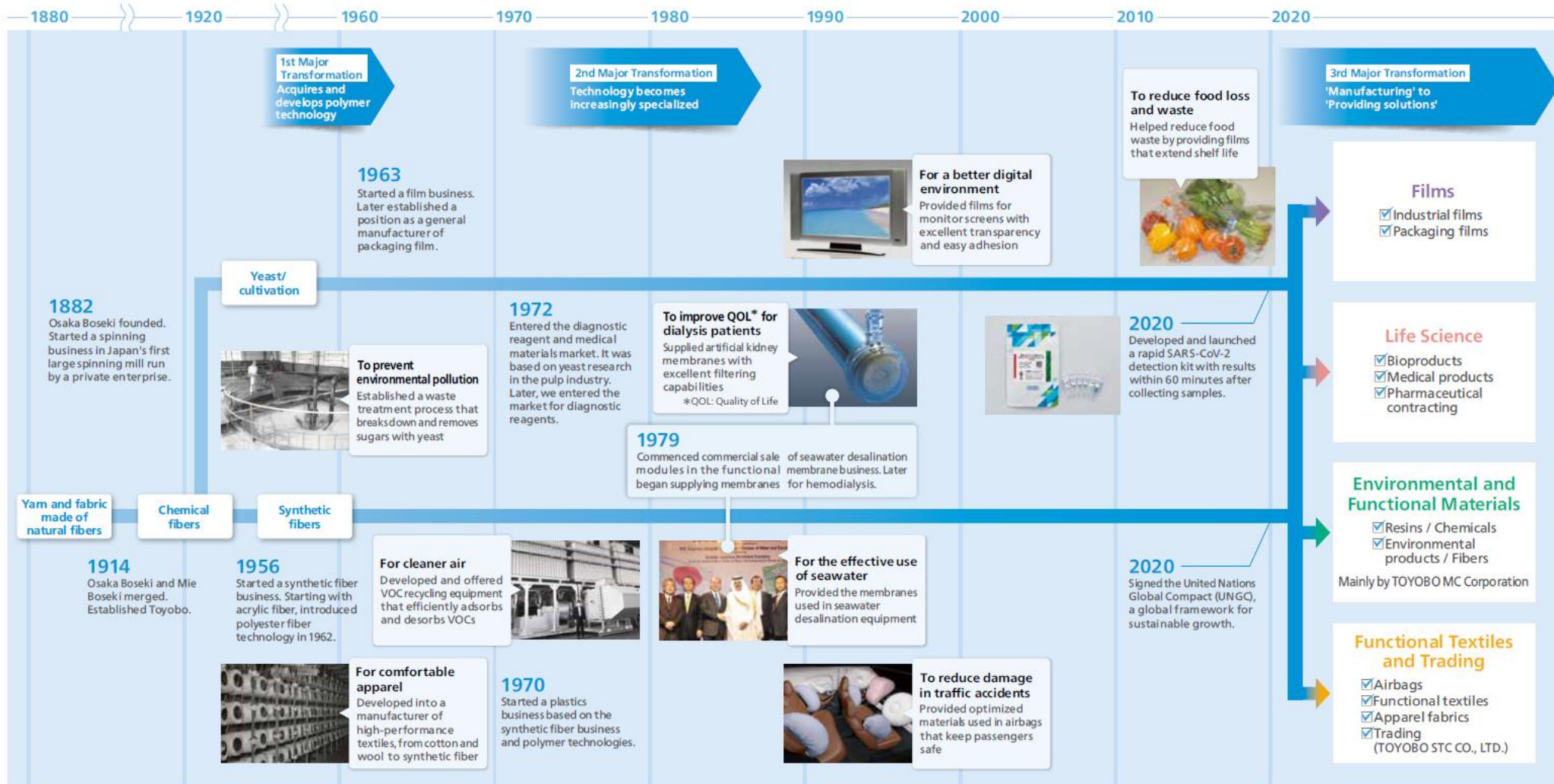
◆ Number of overseas bases



◆ Ratio of net sales by region (%)



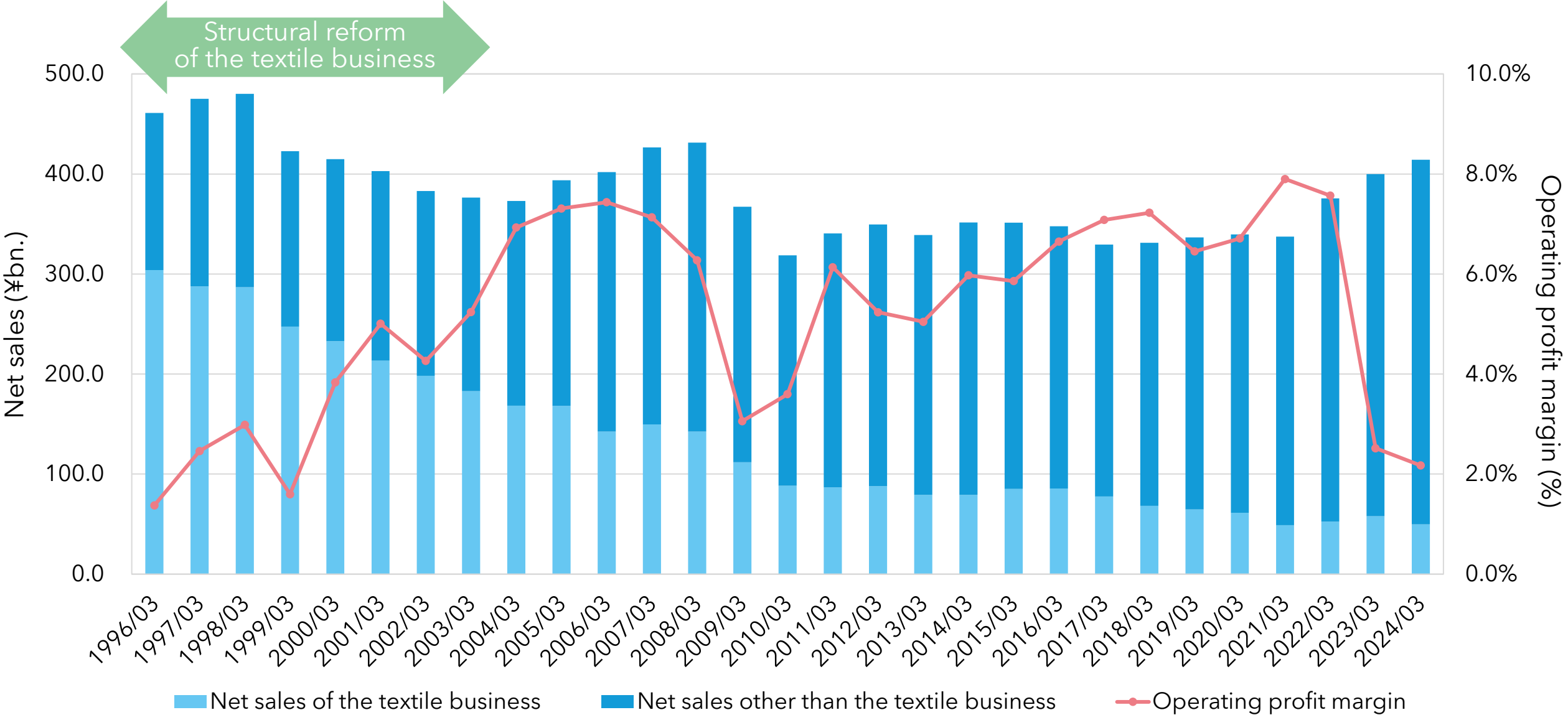
# Our History (1) The Evolution of Toyobo and its Technology **TOYOBO**



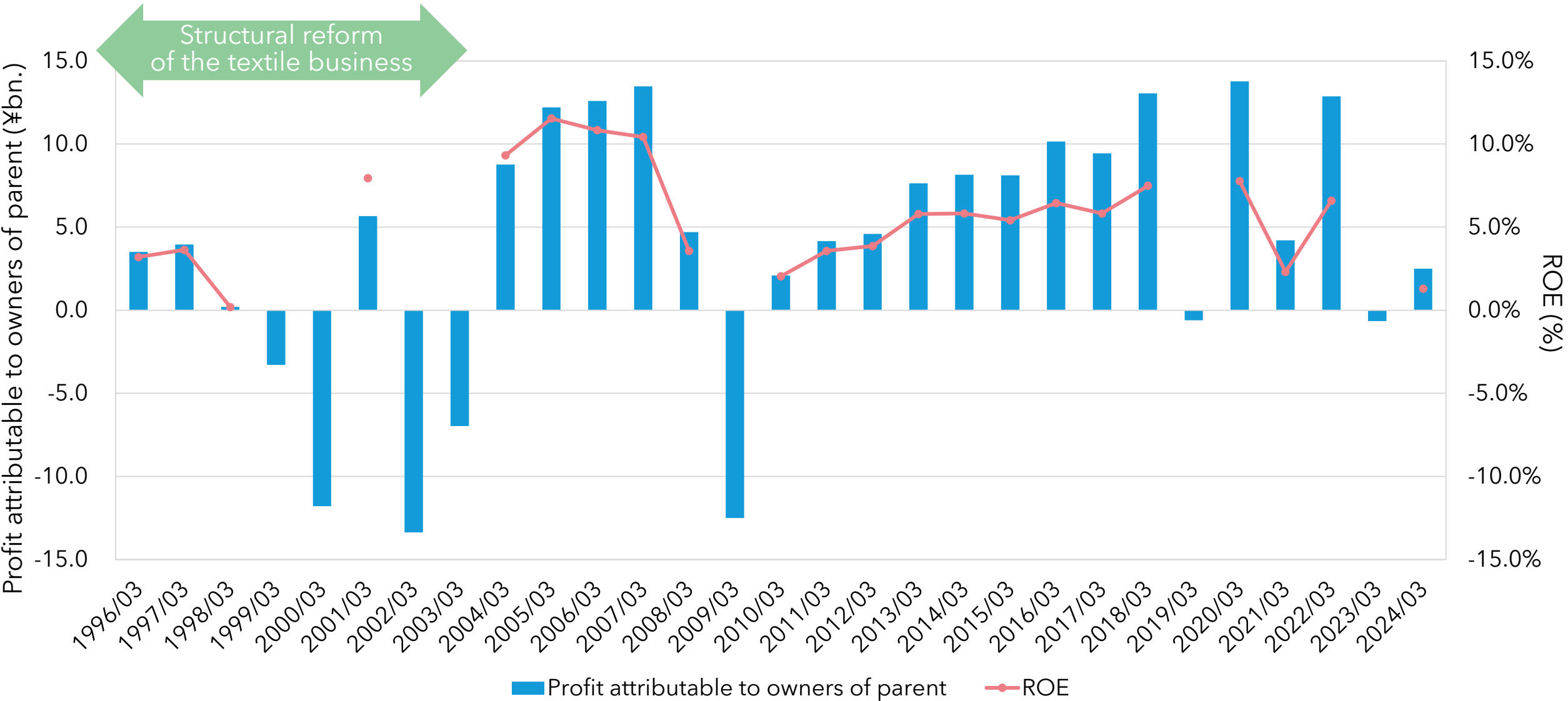
## Market Needs & Social Issues

Japan's industrial development	Postwar rebuilding, rapid economic growth	Steady growth period	Progressing informatization and internationalization	Growing environmental awareness, advances in digital technology
<ul style="list-style-type: none"> <li>Stimulate light industry such as cotton and yarn spinning</li> </ul>	<ul style="list-style-type: none"> <li>Build up daily necessities</li> </ul>	<ul style="list-style-type: none"> <li>Growing public hazards from air pollution</li> <li>Pursuit of clothing comfort</li> <li>Increasing traffic accidents from motorization</li> </ul>	<ul style="list-style-type: none"> <li>Increasing lifestyle diseases</li> <li>Spread of LCD TVs</li> <li>Water scarcity observed in locations around the world</li> </ul>	<ul style="list-style-type: none"> <li>COVID-19 pandemic</li> <li>Spotlight on food loss</li> <li>Spread of smartphones</li> </ul>

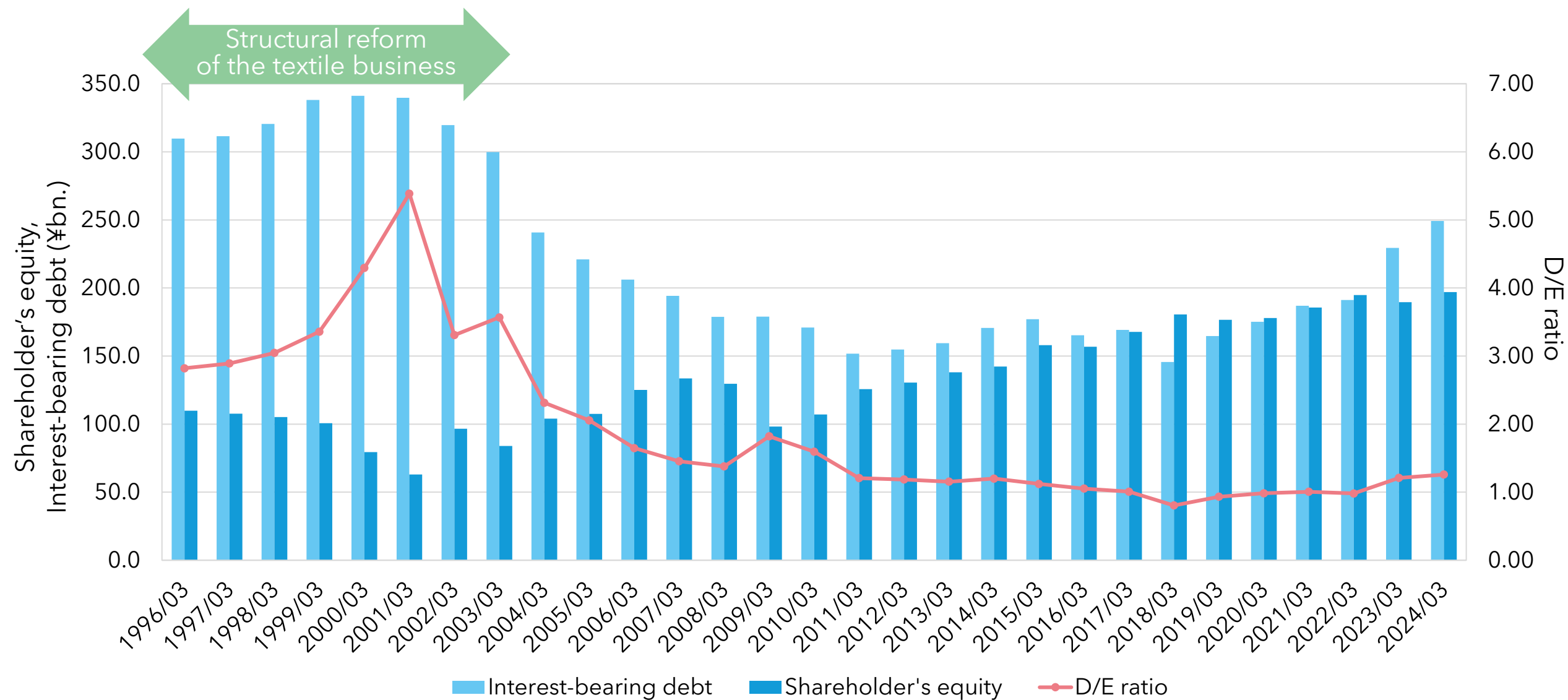
# Our History (2) Changes in Profitability



# Our History (3) Changes in Capital Efficiency



# Our History (4) Changes in Financial Position





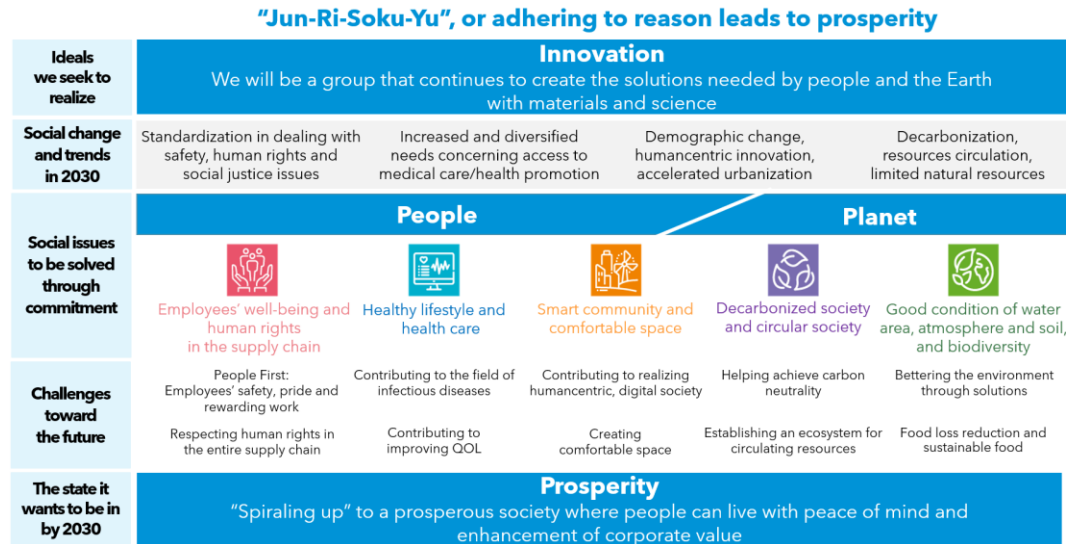
## Ⅱ . Sustainable Vision 2030, 2025 Medium-Term Management Plan

- Sustainable Vision 2030
- 2025 Medium-Term Management Plan (FY 3/23 to FY 3/26)

# Sustainable Vision 2030, 2025 Medium-Term Management Plan (FY 3/23 to FY 3/26) (1)

Formulating the long-term “Sustainable Vision 2030” and 2025 Medium-Term Management Plan (FY 3/23 to FY 3/26) in May 2022

## Total picture of the Sustainable Vision 2030



## Where we'd like to be in 2030

Realization of a “prosperous” society where people can live with peace of mind and a spiral increase in corporate value

1. Contributing to solving social issues through business operations
2. Sustainable growth (solid foundation and track for future growth)
3. People First (safe working environment where employees can work with peace of mind, pride and rewarding work, self-growth)

### Sustainability indices

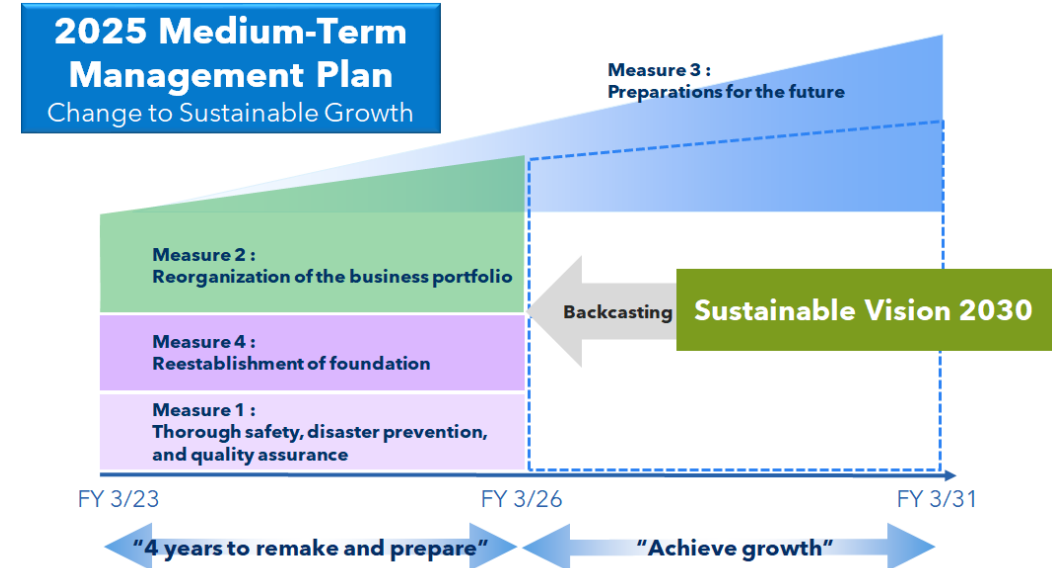
Serious incidents	<b>ZERO</b>
Employee engagement score	<b>Over 70%</b>
GHG emissions cut (over FY 3/14)	<b>Over 46%</b> Carbon neutrality in FY 3/51
Ratio of green materials in main business operation*	<b>60%</b>

\*Assumed to be film business

### Financial indices

Consolidated sales	<b>600 billion yen</b>
Operating profit margin	<b>Over 8.3%</b>
ROE	<b>Over 9%</b>
ROIC	<b>Over 7%</b>

## Basic policy and 4 measures of 2025 Medium-Term Management Plan



<b>Measure 1</b>	<b>Thorough safety, disaster prevention, and quality assurance</b>	<ul style="list-style-type: none"> <li>- Execute a master plan for safety and disaster prevention “zero accidents”</li> <li>- Reconstruct the quality assurance management structure</li> <li>- Risk management structure</li> </ul>
<b>Measure 2</b>	<b>Reorganization of the business portfolio</b>	<ul style="list-style-type: none"> <li>- Stratify businesses (return on capital employed and growth potential)</li> <li>(1) Focused expansion: proposal and implementation of growth measures, and enhancement of competitive advantage</li> <li>(2) Stable earning: seeking growth or maintenance and improvement</li> <li>(3) Requiring improvement: implementation of the master plan for what the business should be</li> </ul>
<b>Measure 3</b>	<b>Preparations for the future</b>	<ul style="list-style-type: none"> <li>- Creation of new businesses and technologies: strengthening of environment and biotechnology related business, and Mirai Pro POC</li> <li>- DX strategy : SFA, MI, Smart Factory, and new earning ways</li> <li>- Roadmap for carbon neutrality (2050)</li> </ul>
<b>Measure 4</b>	<b>Reestablishment of foundation</b>	<ul style="list-style-type: none"> <li>- Promote human resources development, diversity</li> <li>- Workplace capabilities in manufacturing</li> <li>- Development of the business base</li> <li>- Governance / Compliance</li> <li>- Change of the organizational culture</li> </ul>

# 2025 Medium-Term Management Plan (FY 3/23 to FY 3/26) (2)

## Review of first half (FY 3/23 to FY 3/24)

### ■ Decline in earning power

**Operating profit: 20.0-25.0 billion yen → 9.0 billion yen (FY 3/24)**

- Deterioration in terms of trade (reduced marginal profit ratio) × sales volume decrease + fixed cost/expense increase (offense/defense)
- Deterioration of performance in packaging film and nonwoven materials  
→ Change in positioning of business portfolio
- Delay in announcement of investment results and growth strategies (new equipment launch)

### ■ Deterioration in financial structure, partly due to upfront large-scale investment

**D/E ratio: under 1.0 times → over 1.2 times (FY 3/24)**

- Decline in earning power (= decrease in operating cash flow) + large-scale investment (films, life science, etc.)  
→ negative free cash flow (increase in interest-bearing debt)
- Delays in reorganization of business portfolio caused increase in total assets and capital employed

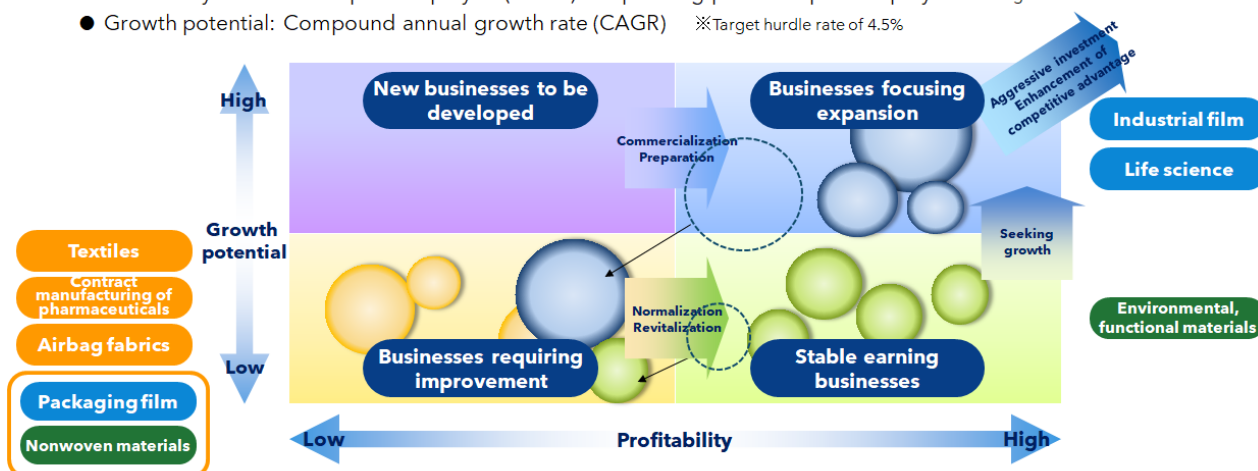
### ■ Steady progress of "Thorough safety, disaster prevention, and quality assurance," "Preparations for the future," and "Reestablishment of foundation."

- Thorough safety, disaster prevention, and quality assurance: Steady progress toward unwavering trust
- Preparations for the future: Narrowing down of main themes in business development, progress on DX, response to carbon neutral
- Reestablishment of foundation: Human resources investment (training etc.), infrastructure maintenance, uptrend in organizational culture improvement

## Change in positioning of business portfolio

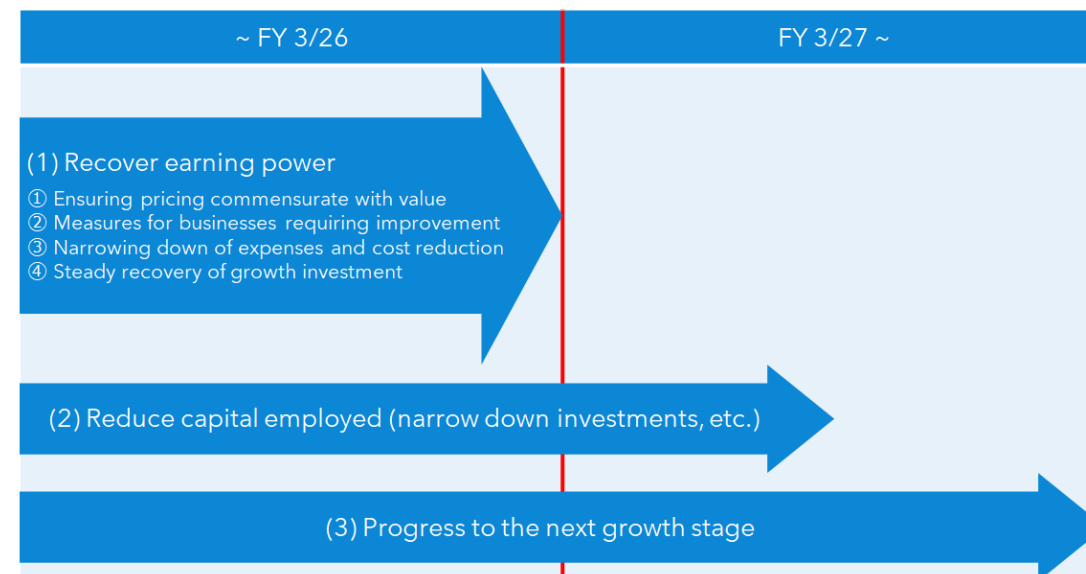
Assess and stratify each business into 4 quadrants with 2 axes: "Profitability" and "Growth potential"

- Profitability: Return on capital employed (ROCE) = Operating profit / Capital employed ※Target hurdle rate of 6.5%
- Growth potential: Compound annual growth rate (CAGR) ※Target hurdle rate of 4.5%



- Determine whether the business is a "stable earning business" or a "business requiring improvement," taking into account not only the hurdle rate but also qualitative information.
- The entire Group's capital efficiency indicator is ROIC, and the management indicator for each business is ROCE.

## Action for the second half onward (from FY 3/25)



## Action for the second half onward (1) Recover earning power: basic policy

① Ensuring pricing commensurate with value	- Follow up on execution of pricing by management: shift price setting from cost based to value based
② Measures for businesses requiring improvement	- 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 roadmap to profitability - Textiles: Returned to profitability in FY 3/24 → pursue capital efficiency improvement
③ Narrowing down of expense and cost reduction	- Increase in cost competitiveness of business sites and plants - Reduction in cost of indirect materials and services - Increase in operational efficiency and productivity
④ Steady recovery of growth investment	- Profit increase by realizing effects of growth investments and development investment

# 2025 Medium-Term Management Plan (FY 3/23 to FY 3/26) (3)



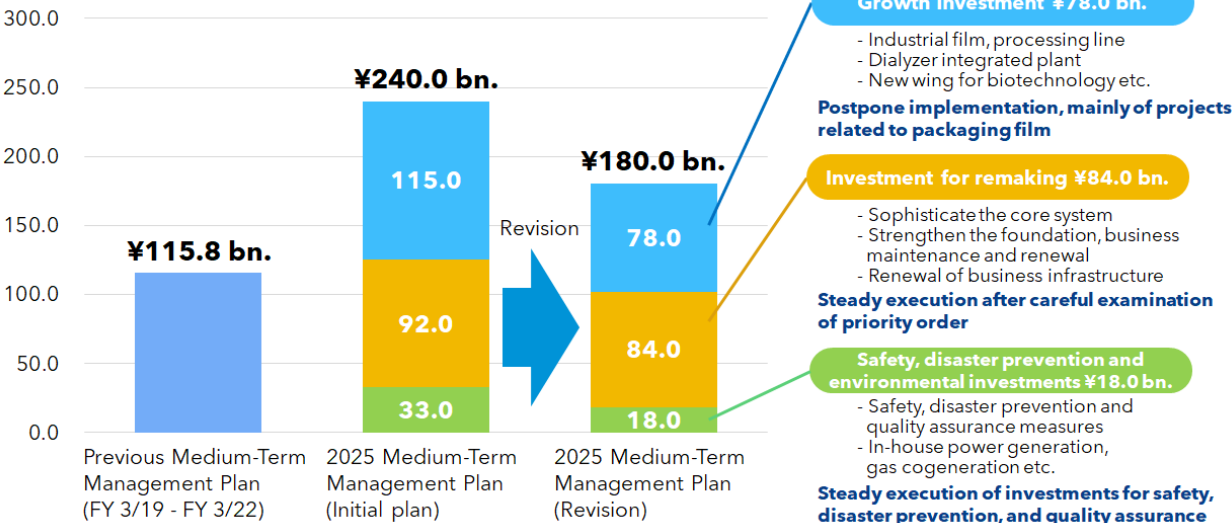
## Action for the second half onward (1) ④ Steady recovery of growth investment

Segment	Details	Investment amount (¥bn., round number)	Time to realize investment results			
			FY 3/24	FY 3/25	FY 3/26	FY 3/27~
Films	- OPP film equipment (Inuyama)	7.0				
	- Processing equipment 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 resin (Takasago)	8.0 *2				
	- Equipment for high performance resin (Iwakuni)					

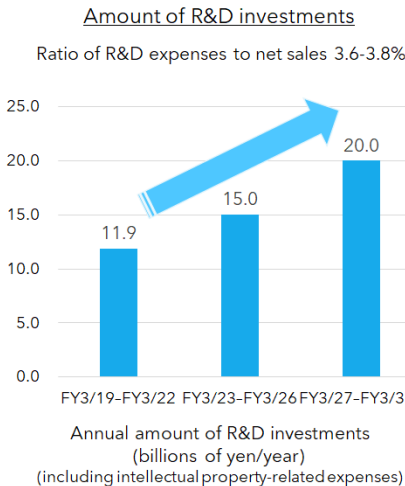
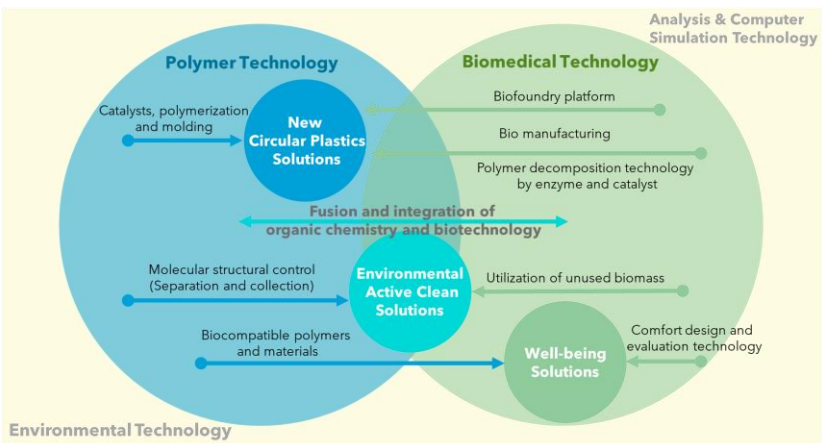
\*1: Total with Unit 1 \*2: Total investment amount of JV

## Action for the second half onward (2) Reduce capital employed: narrow down investments

Revision of CAPEX to reduce by 60.0 billion yen (May 2024)



## Action for the second half onward (3) Progress to the next growth stage New domains by integrating core technologies



## New creation in three areas

New Circulation Plastics Solution	<b>Conversion to renewable polymer</b> <ul style="list-style-type: none"><li>- Highly efficient chemical recycling of used plastics (establishment of R Plus Japan, Ltd., utilization of Anellotech Inc.'s technology)</li><li>- 100% biomass new plastic such as PEF (Polyethylene furanoate)</li></ul>
Environmental Active Clean Solution	<b>Providing new eco-conscious materials and services</b> <ul style="list-style-type: none"><li>- Practical use of "vitrimers" which is eco-friendly, solvent-free and high-heat-resistant adhesive materials</li><li>- Energy savings in seawater desalination process using FO membranes (forward osmosis)</li><li>- Expansion into energy conservation, salt making, wastewater treatment, and recovery of valuable substances using BC membranes (treating high-concentration salt water)</li><li>- Material for organic photovoltaics: Outstanding energy-saving technology. Achieve the world's highest level of conversion efficiency in a dim room</li></ul>
Well-Being Solutions	<b>Medical materials and devices that meet Unmet Medical Needs</b> <ul style="list-style-type: none"><li>- Acute blood purification membrane: Ascites filtration and concentration membrane (CART), therapeutic devices for sepsis</li><li>- Biocompatible polymer: Polymer that can provide characteristics such as antithrombogenicity, inflammation prevention, and antibiofouling for plastics, metals, medical devices, etc.</li></ul> <b>Providing value to the next-generation medicine</b> <ul style="list-style-type: none"><li>- "Catarosev": Purification kit to recover exosomes with high efficiency, purity and yield</li></ul>
Cross-domains	<b>Providing petroleum-free and sustainable materials through "biomanufacturing"</b> <ul style="list-style-type: none"><li>- MEL: Providing surfactants produced by microorganisms as agricultural spreading agent, blending agents for feed, coating agent for sanitary materials, etc.</li><li>※ Selected for NEDO "Research and Development of Technologies to Promote Biomanufacturing"</li></ul>

\* "Vitrimer" is a registered trademark of FONDS ESPCI PARIS.

# 2025 Medium-Term Management Plan (FY 3/23 to FY 3/26) (4)

## Financial indicators

(Initial plan : May 2022  
Forecasts : May 2024)

	FY 3/22 Results	FY 3/23 Results	FY 3/24 Results	FY 3/26 Forecasts	FY 3/26 Initial plan
Net sales (¥bn.)	375.7	399.9	414.3	450.0	450.0
Operating profit (¥bn.)	28.4	10.1	9.0	25.0	35.0
(Ratio to sales) (%)	7.6	2.5	2.2	5.6	7.8
EBITDA (¥bn.) *1	48.5	29.1	28.8	51.0	63.0
Profit attributable to owners of parent (¥bn.)	12.9	- 0.7	2.5	9.0	15.0
ROE (%) *2	6.8	-	1.3	≥ 4.5	≥ 7.0
ROIC (%) *3	5.1	1.7	1.3	≥ 4.0	≥ 5.0
D/E ratio	0.98	1.21	1.26	< 1.40	< 1.20
Net Debt / EBITDA ratio *4	3.4	5.8	7.5	< 5.0	< 5.0
CAPEX (FY 3/23-FY 3/26 cumulative) (¥bn.)				180.0	240.0

\*1 Operating profit + Depreciation (includes goodwill) \*2 Profit / Beginning and ending balance average shareholder's equity  
\*3 \*NOPAT / (Interest-bearing debt + Net assets) \*4 (Interest-bearing debt - Cash and deposits) / EBITDA

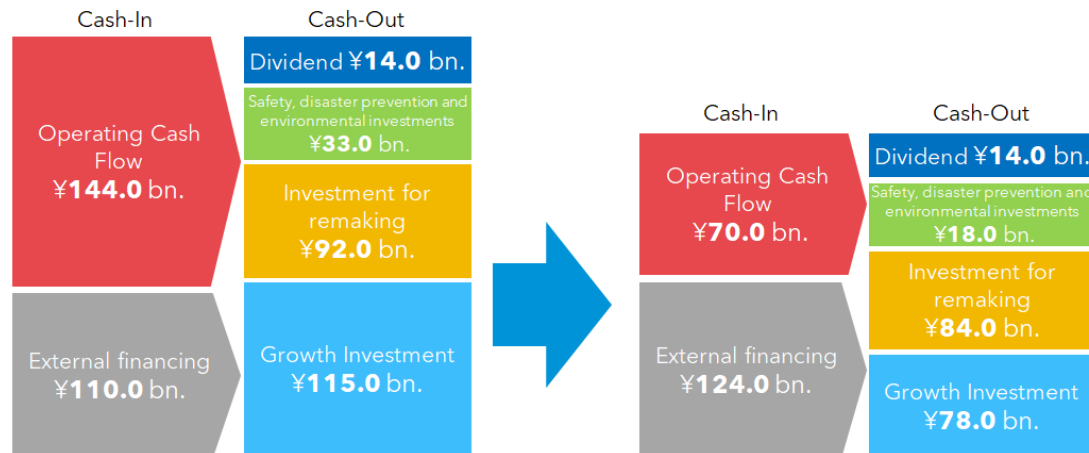
## Cash flow allocation (FY 3/23 to FY 3/26)

CAPEX: Prioritization of safety, disaster prevention, and environmental response, and revision according to decrease in operating cash flow

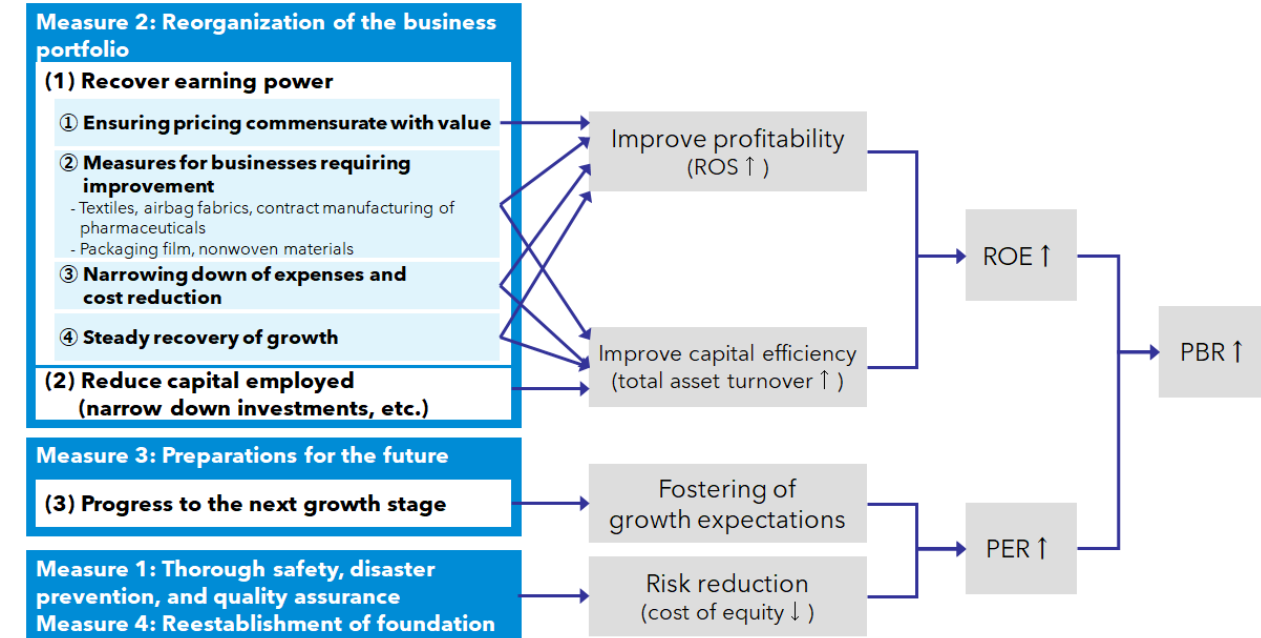
### Initial plan

### Revision

(Initial plan : May 2022  
Forecasts : May 2024)



## Management that is conscious of cost of capital and stock price: improvement of ROE and ROIC



## Shareholders returns

### The policy during the term of 2025 Medium-Term Management Plan

Aim for a total return ratio of 30% (share buybacks are also included as an option), based on continually provide a stable dividend, in a comprehensive consideration of such factors as sustainable profit levels, retention of earnings for future investment and improving the financial position.



### Ⅲ. Expanding Businesses in 2025 Medium-Term Management Plan

- Films Business
- Life Science Business
- Environmental and Functional Materials Business

# Films Business

TOYOBO

## Main Products

### ➤ Industrial Film

Materials: Polyester, etc.

#### Polarizer protective films for LCDs "COSMOSHINE SRF"

- Polyester-based super retarder film.
- Elimination of coloration (rainbow pattern) caused by birefringence
- Our strengths: Handling ability (superior dimensional stability, low degree of warping), price competitive
- LCD TV share: Approx. 60% (Our estimate)
- Future Development: Pursue thickness reduction

#### Mold releasing film for MLCC

- Our strengths: Integrated manufacturing from film forming to coating, film forming technology that realizes superior smoothness, lineup from general-purpose items to high-end products
- Final products: Developed for automotive and smartphone applications
- Share: Approx. 25 % (Our estimate), a world-leading share

### ➤ Packaging Film

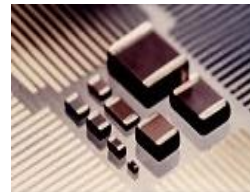
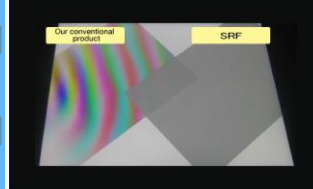
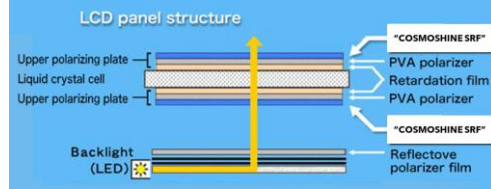
Possesses multiple materials: Polyester, Nylon, Polypropylene, Polyethylene  
Applications: **Food packaging** films, laminating films for cans, etc.  
Share: **Top share overall in Japan** (Our estimate)

#### Transparent vapor-deposited film "ECOSYAR"

- Binary vapor deposition of alumina and silica.  
Both flexibility and gas barrier property
- Extend food's best before date
- Market: Growth rate of 10% per year globally

#### Recycled PET film "CYCLE CLEAN"

- Uses of 80% recycled resin, reduces CO<sub>2</sub> emissions by approx. 20%



## Growth strategy

To be the world's leading green film maker

### Increased production and expansion of highly functional film

\* Compared to FY 3/22

- Mold releasing film for MLCC
  - New inline coating equipment
  - Processing equipment Unit 2
  - Horizontal recycling
- Polarizer protective films for LCDs "COSMOSHINE SRF"
  - Establish system for increased production through thinner films and modification of existing production lines

Approx. 2.5x increase in production capacity



New manufacturing equipment to be built at the Utsunomiya Plant (image)

### Development of new highly functional film

- Expand implementation of PEN film (wind power generation (isolation), sealers for fuel battery cells)
- Development of post-"COSMOSHINE SRF", post-mold releasing film for MLCC (semiconductor process, eco-conscious, foldable)

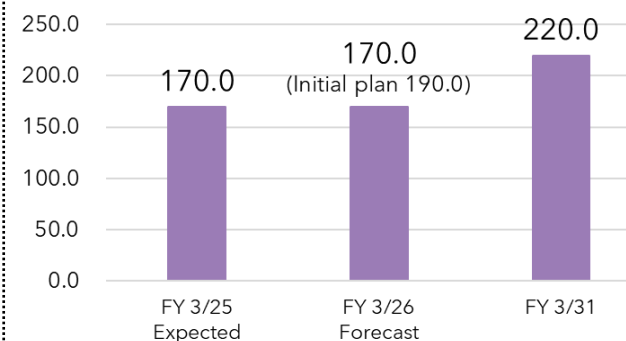


New MIRAI fuel cell unit

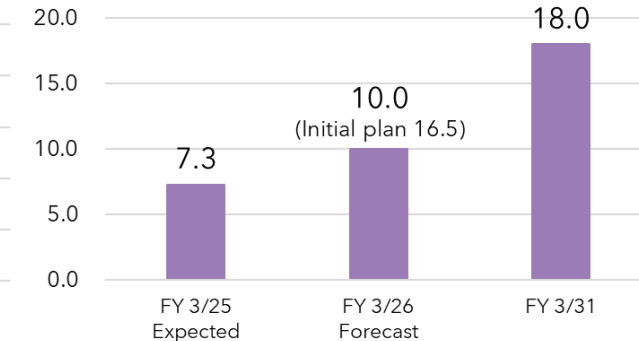
### Contribute to decarbonized and circulating society

- Expand into new markets ~ Eco-Conscious Products ~
- Shift from can coating to laminate films. Shift from release paper for labels to release films
- Expand development of green film
  - Resource conservation through volume reduction by using film with high rigidity (operation of new equipment for OPP film)
  - 100% bio-based resin film
  - Film using recycled raw materials
  - Recycling of used processing film from within and outside the Company

### Net sales target (¥bn.)



### Operating profit target (¥bn.)



※FY 3/26 Forecast as of May 2024 (Initial plan as of May 2022)

# Life Science Business

TOYOBO

## Main Products

### ➤ Biotechnology

Our strengths: Technology for making high-functionality proteins

**Enzymes, research reagents, diagnostic systems for genetic testing**

- Example of enzymes: PCR enzymes  
→ amplify rapidly, copy accurately, highly resistant to contaminants  
Share: Domestic approx. 15%  
← Pre-Corona approx. 5% (Our estimate) Top 3 in Japan
- Example of research reagents: Detection kit for COVID-19  
→ Short time testing is possible

**Enzymes for biochemical diagnosis**

(Blood glucose, Cholesterol, Creatinine etc.)

- Genetic recombination technology for microorganisms → functional modification and mass production of enzymes, Large product lineup
- Share: Approx. 25% (Our estimate) (2nd in the world)
- Overseas sales ratio: Approx. 70%

### ➤ Medical materials

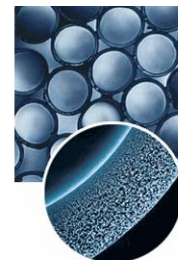
Hollow-type separation membranes: Separation membranes with microscopic pores in the cross section of the hollow fiber  
Our strengths: Membrane production technology (control of pore size, design of cross-sectional structure)

**Artificial kidney hollow fiber**

- Excellent biocompatibility due to cellulose-based membranes
- Share: Global 6% (domestic approx. 20%, China 13%, etc.)

**Virus removing membranes**

- Membrane that separates antibodies and viruses for use in the final manufacturing process for antibody drugs. Hollow-fiber structure allows for a large treatment volume
- Antibody drugs are a growing market tripling in size over the ten years period



Enlarged cross-sectional view of hollow fiber membranes

## Growth strategy

## Global Niche Category Leader Strategy

### Biotechnology business

- Raw enzymes for biochemical diagnosis
  - Production capacity expansion, **approx. 1.5x increase in production capacity (from 2024)**, and expansion of overseas development
- Expansion of solutions business for infectious diseases
  - New equipment for raw materials for genetic diagnostic reagents
- Development of biotechnology in other markets
  - Biomufacturing (agricultural spreading agent)

### Medical materials business

- Increase production of artificial kidney hollow fiber while closely watching overseas development
  - Integrated production plant jointly with Nipro Corporation (from 2024, Odate City, Akita Prefecture)
- Expansion of applications for acute blood purification membranes and process membranes
  - CART membranes (ascites filtration and concentration), virus removing membranes, filtration membranes for culture media
- Expansion of biomaterials business
  - Antithrombogenic polymer "SEC ONE SURFACE"



Establishment of Medical Research Laboratory

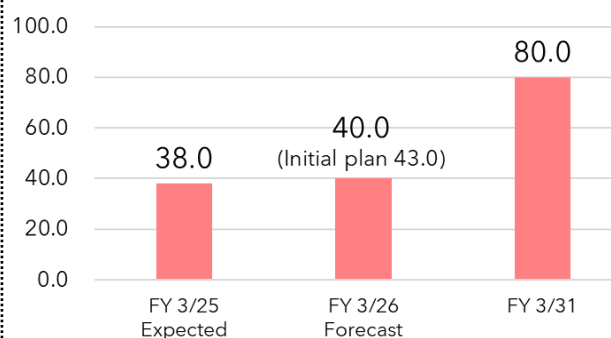
- Located in Research Center (Otsu City, Shiga Prefecture)
- Opening ceremony on 8 April 2024
- Strengthen research and development system for medical products



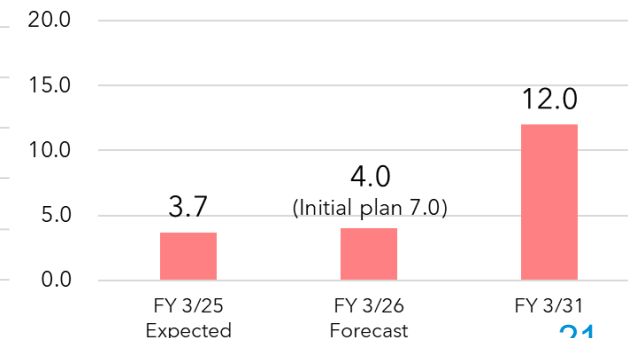
Integrated production plant for CTA dialyzer

- Located in Nipro Corp. Odate Factory (Odate City, Akita Prefecture)
- Our company make hollow fibers from raw materials

### Net sales target (¥bn.)



### Operating profit target (¥bn.)



※FY 3/26 Forecast as of May 2024 (Initial plan as of May 2022)

## Main Products

### VOC recovery equipment

- VOC recovery system using high-performance activated carbon fiber
- Purification and recovery of industrial wastewater
- Accelerate global development in the LIB growth market due to the shift to electric vehicles

### "VYLON", "HARDLEN"

- Resins used as a film adhesive and an adhesion promoter for polyolefin. Adhesiveness, durability, etc.
- Expand sales of LIBs and FPCs to overseas markets

### Engineering plastics

- Automotive parts applications account for the majority
- Features include light weight, heat resistance, good appearance, etc.
- Weight reduction and higher performance according to the trend of shifting to electric vehicles. Expand sales of products overseas

### Reverse osmosis membranes for seawater desalination

- Excellent chlorine resistance, prevents microbial contamination
- Producing high quality domestic water in the Middle East Gulf countries with high temperature and high-density seawater

### High-performance fibers

- "IZANAS" : Strength, light weight, water resistance, shock absorption, etc.
- "Zylon" : World's highest level of strength, modulus of elasticity, heat resistance, etc.
- Expanding to floating offshore wind power generation.



## Growth strategy

## Becoming a new functional materials manufacturer with a presence in global markets

### Resin and chemicals business

- Engineering plastics
  - EV response, expansion of OEM for overseas companies
- "VYLON" "HARDLEN"
  - Lithium-ion battery pouch applications, high-speed transmission applications (low dielectric)
  - Practical use of "vitrimers" (adhesive sheets for electronic materials)

\* "Vitrimer" is a registered trademark of FONDS ESPCI PARIS.

### Environment and fiber business

- VOC recovery equipment
  - For lithium-ion battery separator plants
- Water treatment membrane
  - FO membranes (energy savings in seawater desalination process, osmotic pressure power generation), BC membranes (wastewater treatment etc.)
- High performance fibers
  - Mooring cables for offshore floating wind power generation

Joint venture company between Toyobo Co., Ltd. and Mitsubishi Corporation in functional materials **TOYOBO MC Corporation** started operations

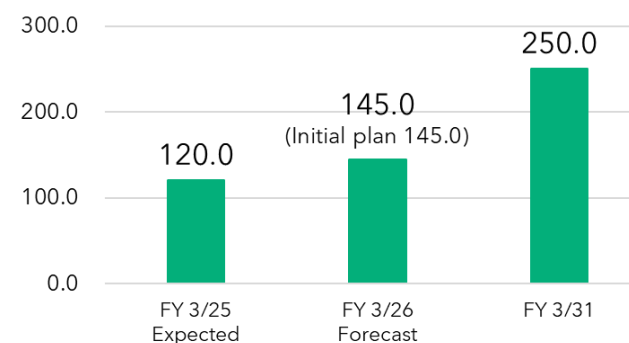
■ Investment ratio:  
Toyobo Co., Ltd. 51%,  
Mitsubishi Corporation 49%

■ Aims: Combining our product and technology development capabilities with Mitsubishi Corporation's broad industry knowledge and management expertise

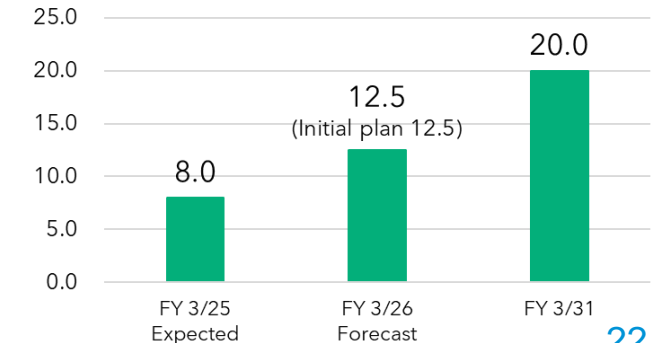
■ Launch date: April 1, 2023

Environmental and Functional Materials Business, which are "stable earning businesses", aims to expand and grow with TOYOBO MC Corporation

### Net sales target (¥bn.)



### Operating profit target (¥bn.)



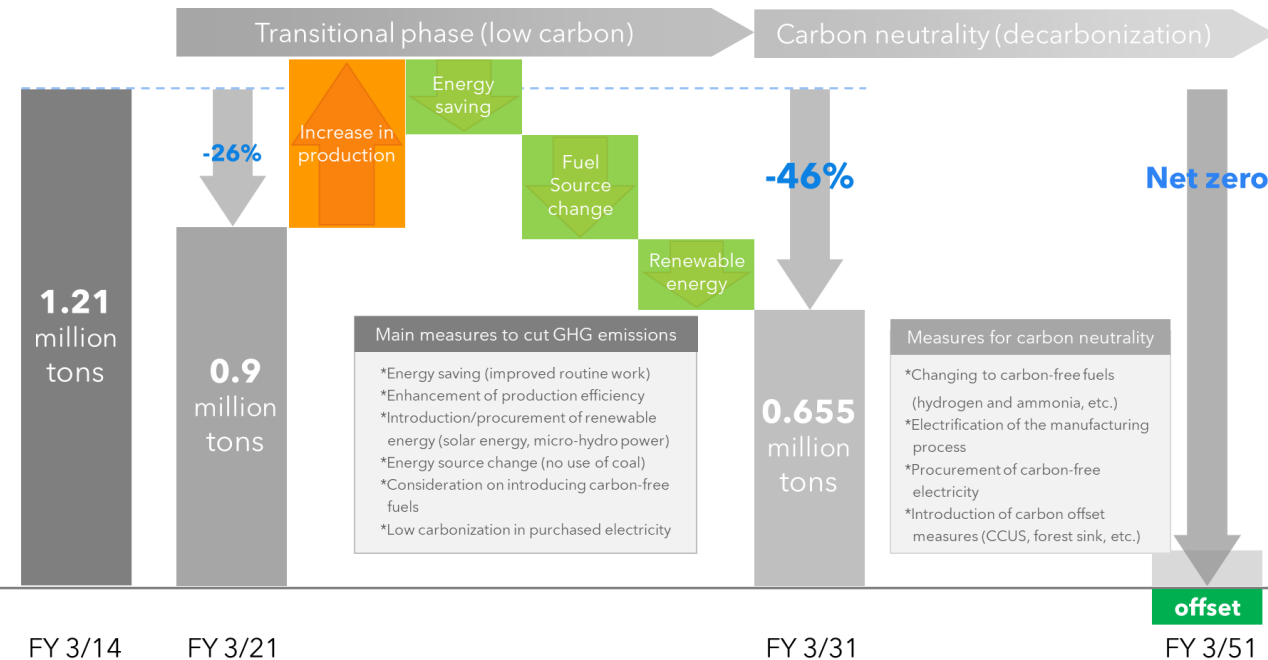
※FY 3/26 Forecast as of May 2024 (Initial plan as of May 2022)

## IV. ESG

- Environment
- Social
- Governance



## ◆ Roadmap for Carbon Neutrality (Scope 1,2)



## ◆ Initiatives to Reduce GHG Emissions

### ● Fuel conversion (away from coal)

Renewing our in-house thermal power generation plant at the Iwakuni Production Center (construction completed in October 2023)

- Conversion from coal to liquefied natural gas and RPF\*

\*Solid fuel made mainly from used paper and waste plastic

- Expected to reduce GHG emissions of 80 thousand tonnes per year  
→ Equivalent to approx. 40% of FY 3/14 emissions at the Iwakuni Production Center

### ● Introduction of renewable energy

Installation of solar power generation equipment at the Inuyama Plant (in operation since March 2023)

	GHG emissions (thousand tonnes-CO <sub>2</sub> )	Reduction rate (compared to FY 3/14)	
		Results (FY 3/23)	Targets (FY 3/31)
Scope1	712	26.4%	At least 46%
Scope2	182		
Scope3	5,290	—	—

## ◆ External Evaluation

- Selected as constituent of all six Japanese ESG indices adopted by GPIF

FTSE Blossom Japan Index

FTSE Blossom Japan Sector Relative Index

MSCI Nihonkabu ESG Select Leaders Index

MSCI Japan Empowering Women (WIN) Select Index

S&P/JPX Carbon Efficient Index

Morningstar Japan ex-REIT Gender Diversity Tilt Index



2024 CONSTITUENT MSCI Nihonkabu  
ESG SELECT LEADERS INDEX

2024 CONSTITUENT MSCI JAPAN  
EMPOWERING WOMEN INDEX (WIN)



- Selected as Supplier Engagement Leader (2021, 2022)

CDP's Supplier Engagement Rating assessment evaluates a company's engagement with their supply chains on climate change issues.

\*CDP is a British not-for-profit organization that runs a global disclosure system on supply chain environmental impacts



- Validated by SBT Initiative (December 2022)

GHG emission reduction targets certified by the SBT initiative as science-based targets

< Targets approved by SBTi >

GHG emissions by FY 3/31 compared to FY 3/21

Scope1,2 27.0% reduction, Scope3 12.5% reduction



# Environment: Plastic Resource Circulation and Eco-Conscious Products

## ◆Our group-wide efforts for plastics resource circulation

In Sustainable Vision 2030, we set a target of ratio of green materials in films business operation for 60% in 2030. Through this greening, we will contribute to reducing the use of petroleum-derived resources and making them alternative.

### Percentage of green films

Results	FY 3/23	11 %
Targets	FY 3/31	60 %
	FY 3/51	100 %

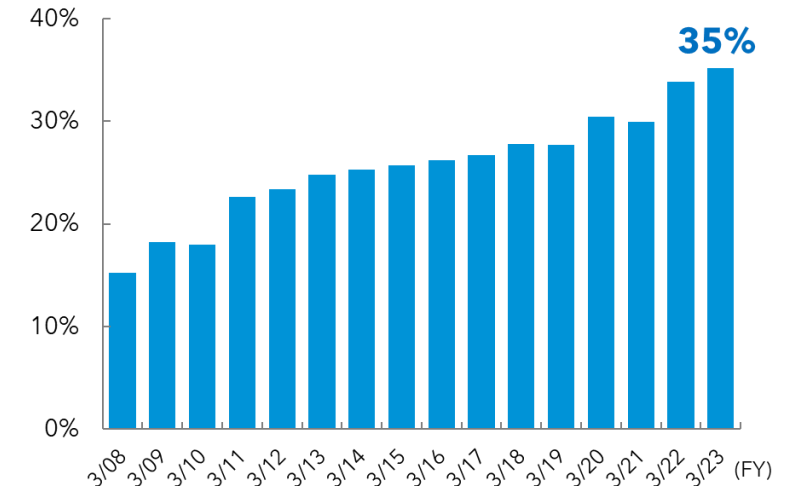
In FY 3/23, we studied the calculation method of the green ratio and calculated the actual results.

Examples of film products related to resource circulation

<b>Biomass raw materials</b>	<b>Plant-derived raw materials</b> ● "BIOPRANA" <b>100% biomass resin</b> ● PEF (Polyethylene furanoate)
<b>Chemical recycling</b>	<b>Chemical recycling to crude raw materials</b> ● R Plus Japan, Ltd.
<b>Material recycling</b>	<b>Use of recycled resin</b> ● "CYCLE CLEAN" "SPACECLEAN" ● "Crisper" "KAMISHINE" "RESHINE" <b>Enabling recycling through use of mono-material</b> ● "PYLEN EXTOP" "ECOSYAR" <b>Resistant to thermal degradation even after repeated recycling</b> ● "TOYOBO GS Catalyst"
<b>Recycling in the manufacturing process</b>	● "KAMISHINE NEO" ● Recycling of mold releasing film for MLCC
<b>Reduce</b>	<b>Volume reduction, thickness reduction</b> ● "SPACECLEAN" "PYLEN EXTOP" <b>Food loss reduction</b> ● "ECOSYAR"

## ◆Eco-conscious products

Sales ratio held by eco-conscious products  
(TOYOBO CO., LTD. only)



### "ECO-PARTNER SYSTEM"

Our unique system to certify products that meet evaluation standards from five aspects\* as eco-conscious products (in operation since 1998). Considering expanding the scope of application to include group companies

\*Preventing climate change, resource conservation, waste reduction, reduction of chemical substance use, biodiversity and other

### Hollow fiber reverse osmosis membranes (RO membranes)

- Possible to produce fresh water from seawater with low energy. Substantial reduction in CO<sub>2</sub> emissions by comparison with the multi-stage flush method.
- Made mainly from biomass material

### VOC\* recovery equipment

\*volatile organic compounds

- Contributes to the reduction of emissions and recovery and reuse of organic solvents such as methylene chloride, ethyl acetate, toluene, and IPA etc.
- Incorporates "K-FILTER", unique activated carbon fiber. Enables high quality solvent recovery and energy savings.



## ◆ Human resource management

Each individual can work with a sense of growth, pride, and satisfaction.

4 policies of new human resource system (from July 2022)

- Promoting and supporting capacity building
- Treating and evaluating in accordance with job responsibilities
- Enhancing management skills
- Encouraging the active participation of diverse professional human resources

## ◆ Promotion of diversity

Initiatives	Results (FY 3/24)	Targets (FY 3/26)
Ratio of women in managerial positions	5.5 %	5.0 % or above
Ratio of men employees taking childcare leave Average number of days	97.7 % 19.3 days	Over 80 % 14 or more days (20% increase from FY3/21)

### Main measures implemented

- Women leader development seminars (cumulative number of participants: 189)
- Maintain women's share of new graduate recruitment at a level of at least 40%
- Notification to men employees taking paternity leave and their superiors, and interviews before and after the leave
- Babysitter support system, establishment of a nursery within the company



## ◆ Employee engagement (from 2021)

Launched a survey on organizational climate and job satisfaction, targeting all officers and employees

	Results (FY 3/23)	Targets (FY 3/26)
Employee engagement score	55 %	Over 70 %

## ◆ Respect for human rights

Respect basic human rights of all stakeholders, including officers and employees, in accordance with TOYOBO Group Human Rights Policy

- Survey on human rights of our group (non-consolidated in FY 3/23)
- At our domestic (non-consolidated) business sites, we conducted a Labor and Human Rights survey
- For technical intern trainees from overseas, we surveyed at relevant business sites
- Human rights-related education and training
- CSR procurement survey
- For risk assessment, we conduct questionnaire surveys every other year aimed at major business partners worldwide, based on our CSR Procurement Guidelines. (FY 3/22, FY 3/24)
- Expansion of target suppliers to group companies (approximately 500 companies) in FY 3/24



Evaluation scores of CSR procurement survey (FY 3/22)

## ◆ External evaluation

**First certified as a top tier company Outstanding Health and Productivity Management** (March 2023)

A joint program between the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi. This program recognizes companies of varied size that practice particularly outstanding health and productivity management



**Certified as the Eruboshi Certification (second level)** (December 2021)

The Eruboshi Certification is awarded to companies that demonstrate outstanding implementation of initiatives related to participation and advancement by women in the company under the Act on Promotion of Women's Participation and Advancement in the Workplace.

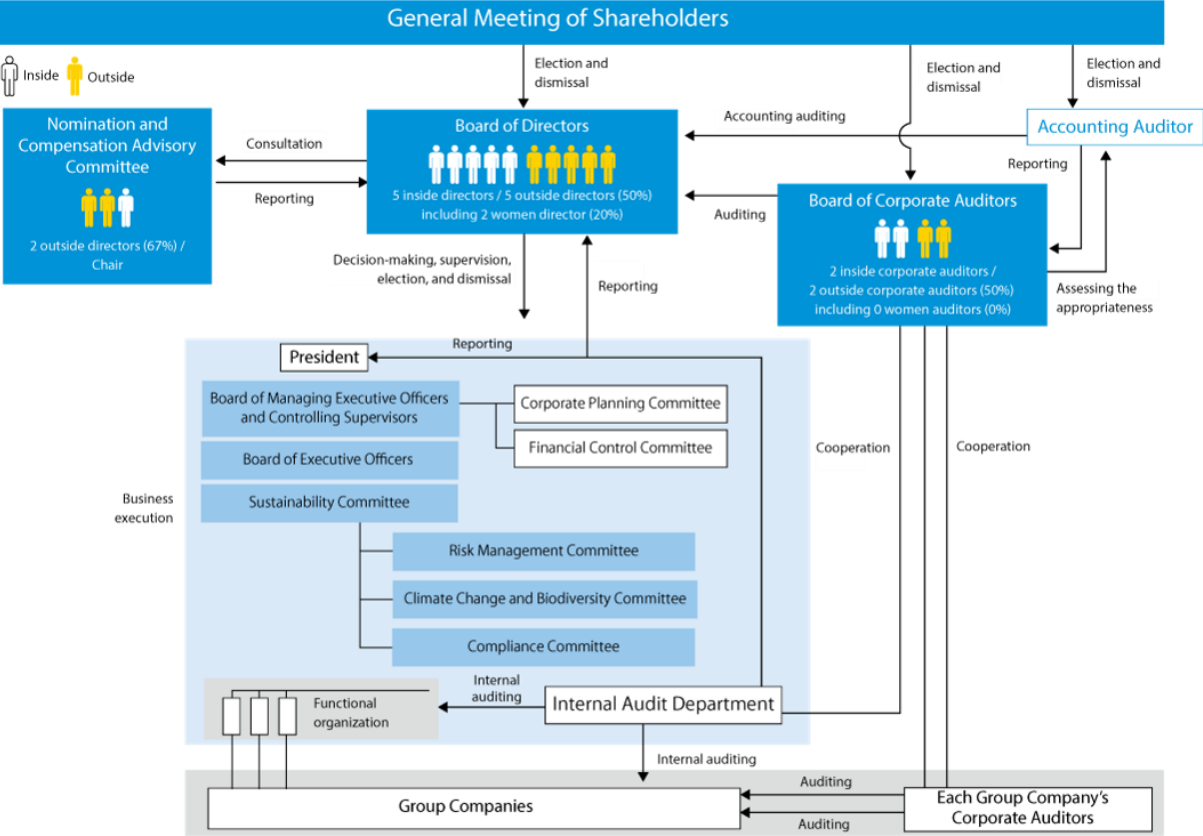


**Certified as a Platinum Kurumin** (July 2023)

The Platinum Kurumin certification is awarded to companies that have achieved a higher level of initiative, such as the introduction and use of systems to support a balance between childcare and work



◆Corporate governance structure (as of June 2023)



◆Initiatives to strengthen corporate governance

- From 2022, increased the number of independent outside directors by one to five. The ratio of outside directors was increased to 50%, and monitoring was strengthened. Management skills enhanced.
- From 2023, increased the number of female outside directors by one to two.

Skill matrix for Directors (as of June 2024)

	Name	Position	Of the experience and background required by the company, skills that are particularly beneficial						
			Corporate Management	Production/Technology/Development	Marketing/Sales	Finance/Accounting	Environment/Society	Governance/Risk Management/Compliance	IT/DX
Inside	Seiji Narahara	Chairman & Director	○			○	○	○	
	Ikuo Takeuchi	President & Representative Director, CEO & Co-COO	○		○		○	○	○
	Taichi Sakai	Representative Director, Senior Managing Executive Officer		○			○	○	○
	Takahito Sagara	Director, Managing Executive Officer		○	○			○	○
	Takehiko Inada	Director, Managing Executive Officer	○			○	○	○	
Outside	Takafumi Isogai	Outside Director		○			○		
	Kimie Sakuragi	Outside Director			○		○	○	
	Masaaki Harima	Outside Director					○	○	
	Hiroshi Fukushi	Outside Director	○	○	○				○
	Shoko Takase	Outside Director		○	○				○

◆Officer compensation system

Basic compensation : Short-term incentive compensation\* : Long-term incentive compensation = 6 : 3 : 1 (guideline of ratio)

(Fixed portion by position) (Reflect the previous fiscal year's company-wide performance and the performance of the department under charge) (Compensation for granting restricted shares)

\*Short-term incentive compensation

- EBITDA is used as a KPI for company-wide performance (linking it to the goals of 2025 Medium-Term Management Plan)
- Performance of the department under charge is taken into account the degree of operating income achieved, ROA, EBITDA, and other factors in the department under charge.
- The Board of Directors decided to incorporate sustainability indices into short-term incentives for executive compensation from July 2024.

## V. Stock Information



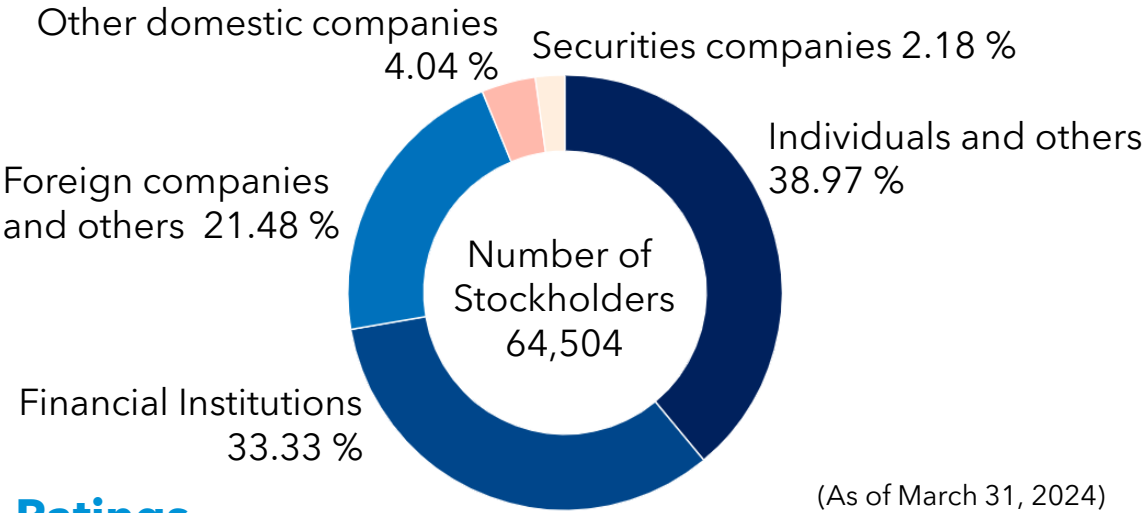
# Stock Information



Stock Listings	The Prime market of the Tokyo Stock Exchange
Stock Code	3101
Common Stock	Authorized: 200,000,000 shares Issued: 89,048,792 shares (Including 949,992 shares of treasury stock)
Paid-in Capital	51,730 million yen

## Distribution of Shareholders

(As of March 31, 2024)



## Ratings

Rating Agency	Rating Date	Rating
Rating & Investment Information (R&I)	January 30, 2024	<b>A-</b>
Japan Credit Rating Agency (JCR)	February 27, 2024	<b>A</b>

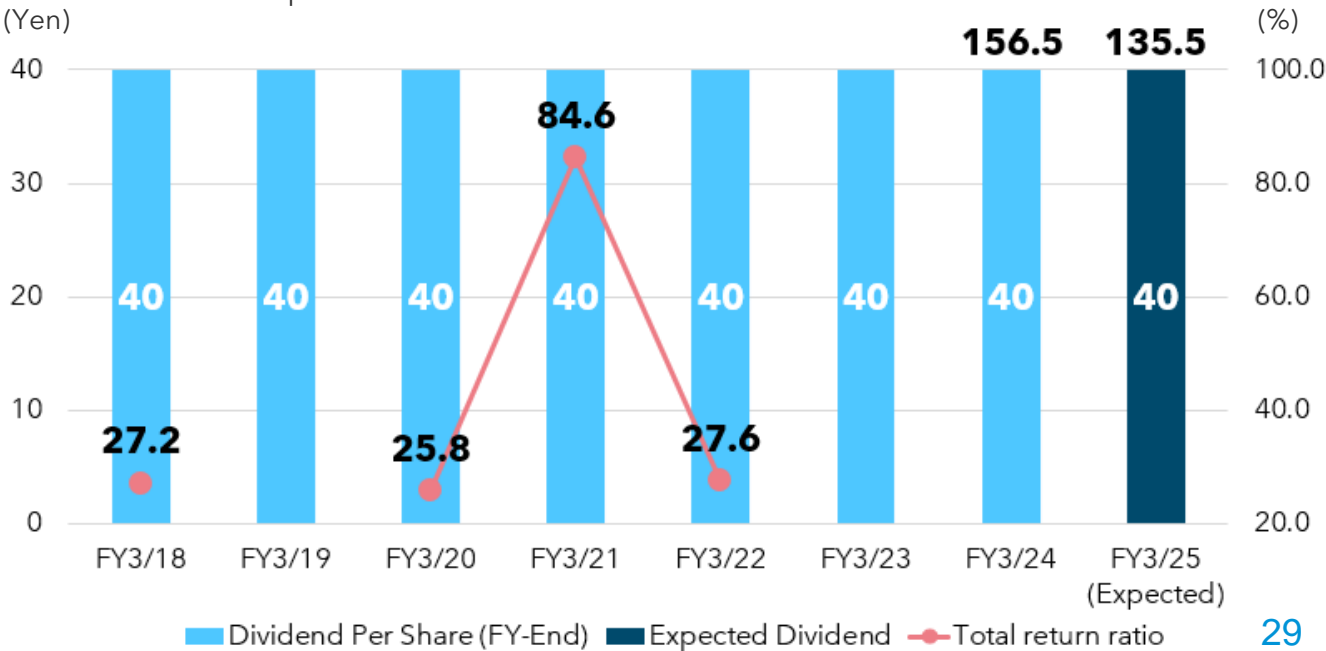
## Stock Prices (Highest / lowest stock prices for the past five years)

Fiscal year	FY 3/19	FY 3/20	FY 3/21	FY 3/22	FY 3/23
Highest (yen)	1,684	1,687	1,505	1,134	1,182
Lowest (yen)	903	1,033	1,046	979	980

## Basic Policy Regarding Earnings Distribution

Target total return ratio (\*) of 30%.

(\*) Total return ratio = (total dividend + total amount of share buybacks) / profit attributable to owners of parent



## VI. Links

Investor Relations TOP <https://ir.toyobo.co.jp/en/ir.html>

- ✓ Business Results Presentation <https://ir.toyobo.co.jp/en/ir/library/presentation.html>
- ✓ Sustainable Vision 2030 [https://www.toyobo-global.com/sustainability/group\\_sustainability/vision/](https://www.toyobo-global.com/sustainability/group_sustainability/vision/)
- ✓ 2025 Medium-Term Management Plan (FY3/23-FY3/26) <https://ir.toyobo.co.jp/en/ir/library/plan.html>
- ✓ 2023 Integrated Report (Year Ended March 31, 2023) <https://ir.toyobo.co.jp/en/ir/library/integrated.html>
- ✓ Business Briefing (Films Business, Life Science Business, Environmental and Functional Materials Business)  
<https://ir.toyobo.co.jp/en/ir/library/meeting.html>
- ✓ Factbook <https://ir.toyobo.co.jp/en/ir/library/fact.html>
- ✓ Company Brochure <https://www.toyobo-global.com/pdf/company/profile/companyguide.pdf>

The business performance forecasts and targets included in the business plans contained in this presentation are based on information known to the Company's management as of the day of presentation. Please be aware that the content of the future forecasts may differ significantly from actual results, due to a number of unforeseeable factors.

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