



TOYOBO REPORT 2020

Year Ended March 31, 2020

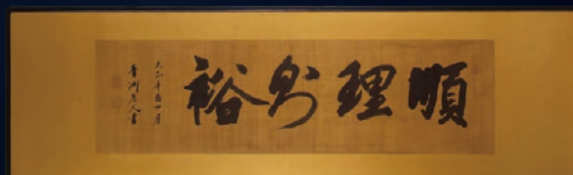
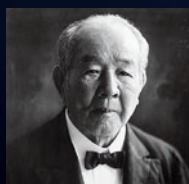
Realizing a more prosperous society — our unceasing challenge since 1882

TOYOBO has grown together with the changing times throughout our 140-year history, based on the spirit of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity). In order to build a prosperous future, we will continue to create products that benefit society.



***Jun-Ri-Soku-Yu* — our approach to CSV, handed down from our founder**

Jun-Ri-Soku-Yu (adhering to reason leads to prosperity) was a personal maxim of our founder Eiichi Shibusawa (1840–1931), and it contains the idea of making the company grow while creating prosperity for society. This way of thinking can be described as the forerunner of the modern concept of Creating Shared Value (CSV).





Contents Please see page 49 for details of TOYOBO Group's response to COVID-19.

Value Creation Vision & Policy

Introduction	01
Principle	03
The Path of Value Creation	05
Approach to Value Creation	07
Materiality.....	09
Message from the President	11
Feature 1 Dialogue with ESG Investors	17
Message from the Chief Financial Officer	21

Value Creation Strategy

Strategy for each Solutions Division	25
Launch of New Department	41
Feature 2 TOYOBO's Way of Manufacturing	43

The Basis of Value Creation

ESG Management	47
Response to COVID-19	49
Environmental Policy & Activities	50
Social Contribution Policy & Activities	55
Governance Policy & Activities	61
Management Team	61
Corporate Governance	63

Overview of Fiscal 2020

Key Events in Fiscal 2020	71
Financial Highlights	73
Non-Financial Highlights	75
Key Financial Data (FY2010–FY2020).....	77
Financial statements	79
Investor Information	85
Corporate Data	86

Editorial policy

Since 2019, TOYOBO has issued an "Integrated Report" instead of the "CSR Report" and "Annual Report" we issued previously. This single publication contains an overview of financial and non-financial information, including Environmental, Social, and Governance (ESG) related data. Through this Integrated Report, we aim to deepen understanding of the Company among our wide range of stakeholders, including our shareholders and investors. We introduce our philosophy and business activities, our growth strategy and outlook for the future, along with messages from senior management. Our intention is that this report will be actively employed as a tool for dialogue with our stakeholders, and will enhance the Group's corporate value.

Reference Guidelines, etc.:

- GRI "Sustainability Reporting Standards"
- Ministry of the Environment "Environmental Reporting Guidelines" (2018 versions)
- Ministry of Economy Trade and Industry "Guidance for Collaborative Value Creation"

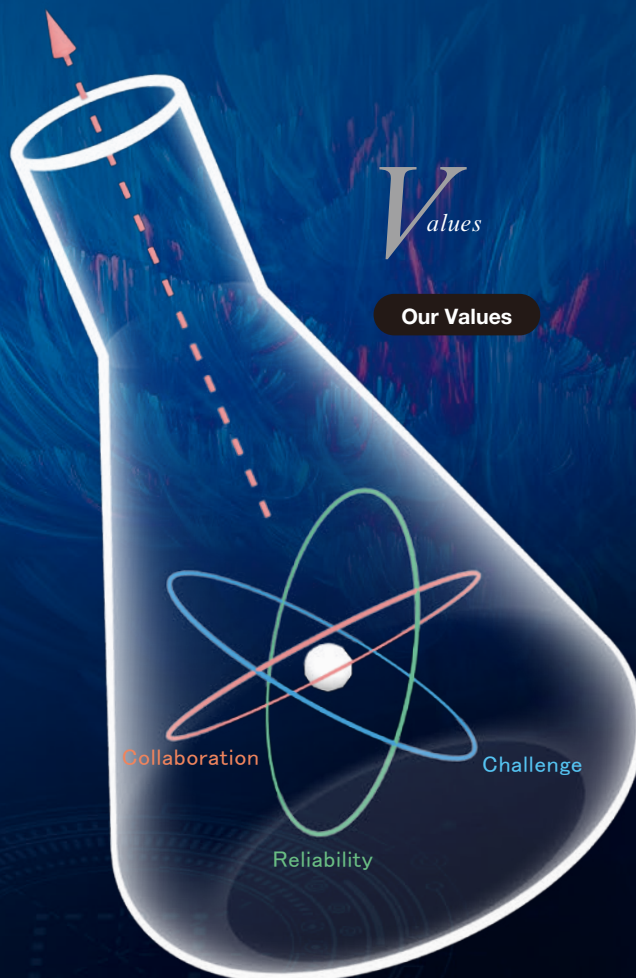
Reporting entity: Unless otherwise stated, the report refers to TOYOBO CO., LTD. (non-consolidated basis), and references to "TOYOBO" or the "Company" mean TOYOBO CO., LTD. Numerical data in financial information is reported on a consolidated basis.

Reporting period: April 2019–March 2020 (Partially includes information dated after April 2020)

Published: August 2020 (next scheduled publication: August 2021)

The TOYOBO Group's foundation for growth is contributing to the well-being of society

TOYOBO
PVVS

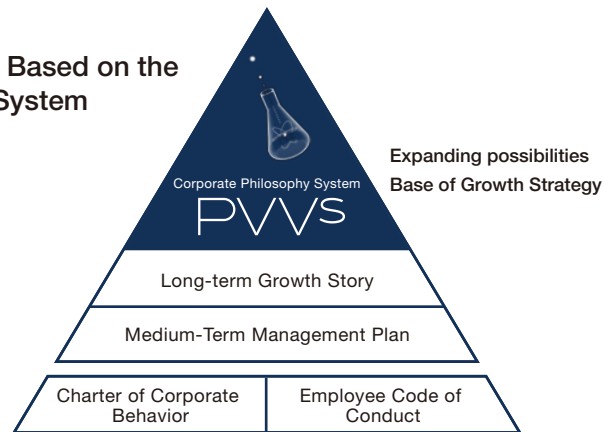


Collaboration

Challenge

Reliability

Management Structure Based on the Corporate Philosophy System



Base of Corporate Activities: Focus on fulfilling our social responsibility (compliance)

P *inciple* **Principle**

Jun-Ri-Soku-Yu (adhering to reason leads to prosperity)

“Jun-Ri” Do what must be done (positive standpoint)
Don't do what must not be done (defensive standpoint)

“Soku-Yu” Adhering to ***“Jun-Ri”*** leads to a prosperous society
while also realizing self-growth

This is the founding spirit of our Company and is our belief.

V *ision* **Our Vision**

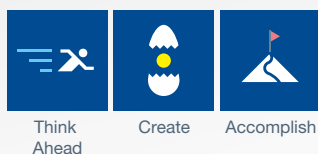
**We will continue to create the solutions
needed by people and the earth with
materials and science.**

V *alues* **Our Values**

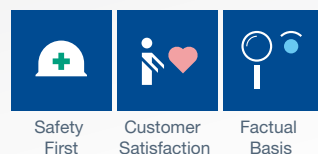
**We welcome change, we enjoy change,
and create change.**

TOYOBO Spirit Our 9 Commitments

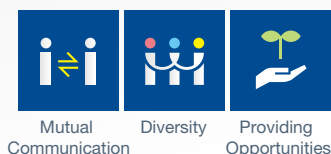
Challenge



Reliability



Collaboration



We have developed our business while responding to the needs and issues of the times through technology

Remaining ever alert to the changing times, TOYOBO Group draws on its advanced technologies to create products and operations that fulfill the expectations of the market and society.

We have worked to develop an optimum portfolio.

Evolution of technology

Core technology

Providing comfortable clothing

Development into a manufacturer of highly functional textiles, from cotton and wool to synthetic fibers



For clean and healthy air

Developing and providing systems for efficient adsorption/desorption and re-use of VOCs



Establishment of Osaka Boseki. Started operation as Japan's first large-scale spinning mill company in the private sector.

Chemical fiber

Synthetic fiber

Yarn

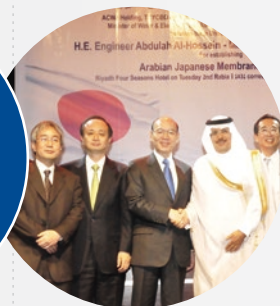
Preventing environmental pollution

Achievement of liquid waste treatment by breaking down and eliminating sugars using yeast



For effective use of seawater

Supplying membranes used in seawater desalination equipment



Market needs and social issues

Japan's industrial development

- Acceleration of the light industrial sector, including milling and yarn production

Post-WWII reconstruction and high-speed economic growth

- Improving the quality of food, clothing and housing
- Pursuit of comfort in clothing

Stable growth period

- Increase in pollution issues resulting from atmospheric pollution
- Increase in traffic accidents following motorization

1880

1920

1960

1970

1980

Transforming our portfolio

1914

TOYOBO is established through the merger of Mie Boseki and Osaka Boseki.

1956

Launched the synthetic fiber business. Starting with acrylic fiber, introduced polyester fiber technology in 1962.

1963

Launched the films business. Subsequently strengthened position as a comprehensive manufacturer of packaging films.

1970

Launched the plastics business based on the synthetic fiber business and high polymer chemical technology.

Current key products

Films

High-performance
fibersFiltration and
separation materials

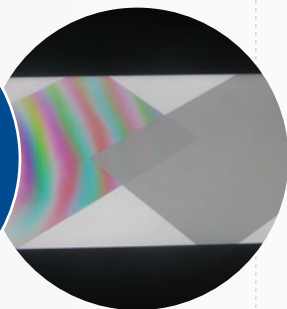
Polyester resin

Engineering plastics

Medical equipment

Enzymes and
diagnostic reagentsImproving
the digital environment

Providing films for
monitor screens that
excel in water
resistance and
durability

Reducing damage
from traffic accidents

Supplying the optimum
airbag materials to
protect passengers

Enhancing dialysis
patients' QOL

Providing membranes
with outstanding
filtering performance for
artificial kidneys



Molding

Processing

Modification

Biotechnology

Ongoing shift to information society, internationalization

- Increase in lifestyle-related diseases
- Spread of LCD TVs
- Water shortages become an issue around the world

Rising environmental awareness,
evolution of digital technology

- Spread of smartphones
- Food loss comes under the spotlight

1990

2000

2005

2010

2015

2020

Sales Ratio

□ Specialty business

■ Others

1972

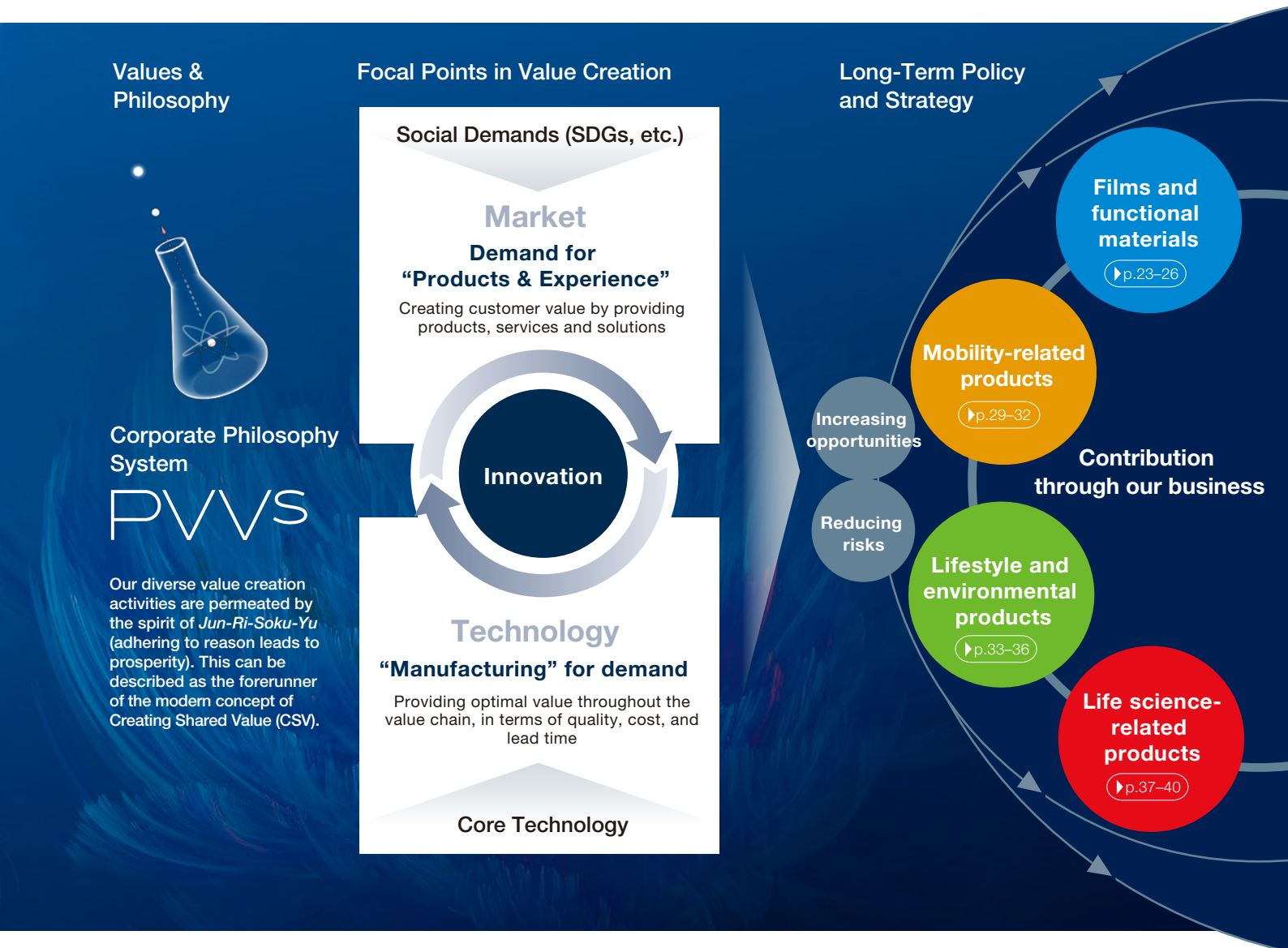
Launched the biotechnology business. Research into yeast in the pulp business becomes the foundation. Also subsequently entered the diagnostic reagent market.

1980

Launched the functional membranes business with production of a seawater desalination module. Also subsequently supplied membranes for hemodialysis.

FY1971
1.0%FY1996
30.0%FY2020
77.7%

Realizing long-term growth by continually providing value-added solutions



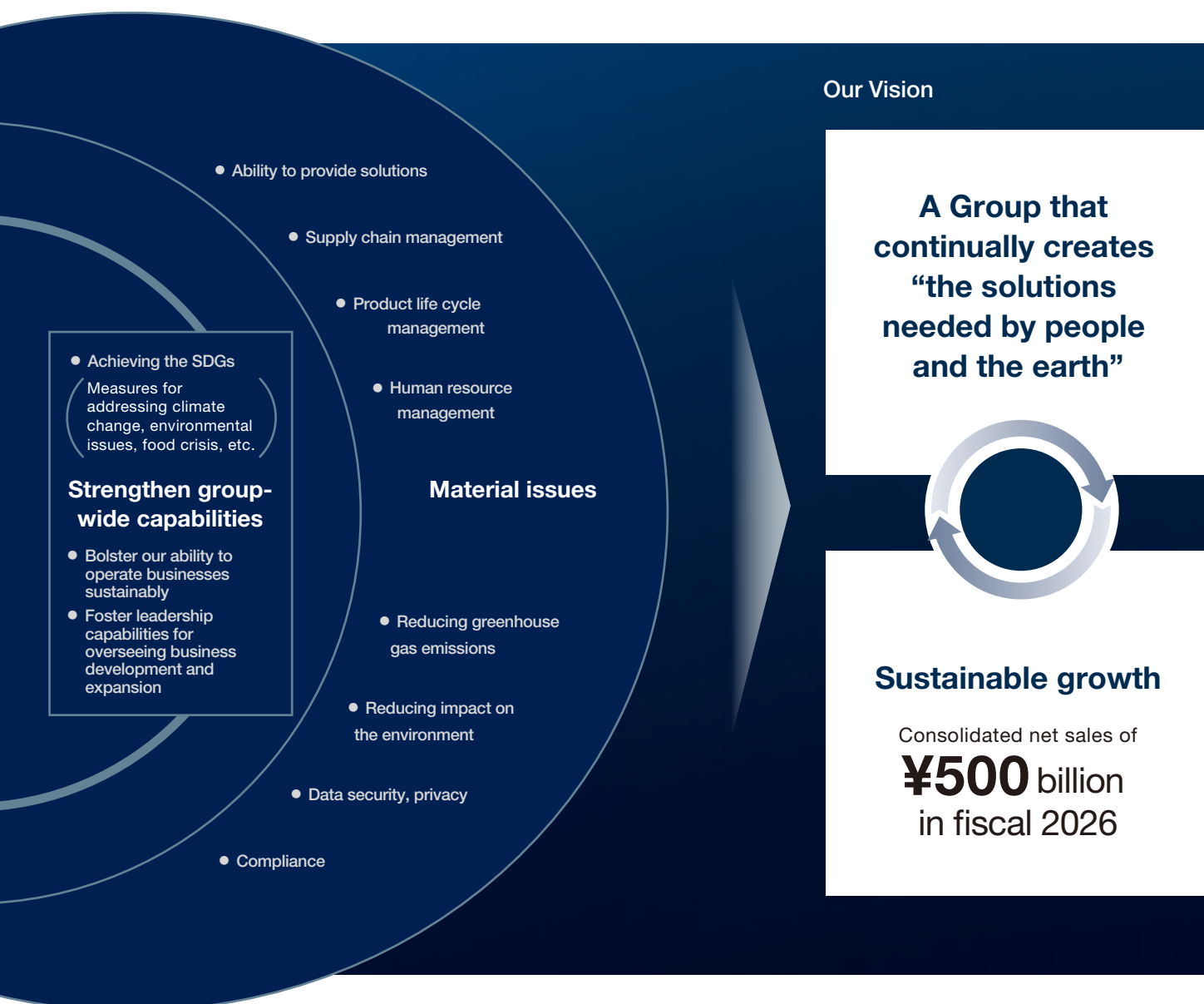
Matching stakeholder demands to our management resources

The demands of society and markets have become increasingly diverse and sophisticated in recent years, as can be seen with the Sustainable Development Goals (SDGs). TOYOBOK Group has built up a wide range of management resources over many years, and we have especially worked on refining our technology. Selecting the technologies that can address external demands, and extending them through further innovation is our starting point for TOYOBOK Group's value creation.

Practicing CSV in four Solutions fields

From fiscal 2021, TOYOBOK Group has reorganized its operations into four fields where we can create value to share with society: these are our Solutions divisions. Each division aims to increase the Company's growth opportunities by providing products and services that help resolve issues, and also to control and mitigate risk while taking ESG issues into consideration. We are also strengthening cross-divisional coordination to support the activities of these four divisions.

▶ Please refer to pages 25 to 40 for details



Our Vision

A Group that continually creates "the solutions needed by people and the earth"



Sustainable growth

Consolidated net sales of
¥500 billion
in fiscal 2026

Identifying material issues

In fiscal 2020, we identified our material issues, which are both important for our stakeholders and have a significant impact for the Company. We also determined the following fundamental items, which are prerequisites to the material issues. We will continue to address materiality while communicating proactively with our stakeholders.

- Corporate governance
- Respect for human rights
- Safety, disaster prevention, quality

▶ Please refer to pages 09 to 10 for details

Drawing up a long-term growth scenario using backcasting

TOYOBO Group's stated aim is to continually create "the solutions needed by people and the earth." We have also established net sales targets for fiscal 2026. We are currently considering our long-term growth scenario to 2030 using backcasting, a method of calculating what we need to do now in order to achieve our future vision and targets.

Identifying materiality in order to continue creating “the solutions needed by people and the earth”

Achieving our vision

Companies must help resolve a wide range of issues facing society, from environmental issues such as climate change and plastic waste, to human rights and labor issues.

In fiscal 2021, responding to the demands and expectations of our stakeholders, TOYOBOKU Group identified CSV- and ESG-related material issues in eight items, to realize our vision of being a Group that continually “creates the solutions needed by people and the earth.”

Incorporating external viewpoints

To identify these material issues, firstly we drew up a list of proposed issues reflecting 12 international guidelines including external initiatives and the GRI Standards. From this list, we clarified the positive and negative impacts of each issue through internal surveys and interviews, to select the appropriate material issues.

We then made adjustments, reflecting the views of

institutional investors and other external parties, and organized the eight proposed material issues along two lines: importance to stakeholders and importance to TOYOBOKU Group. Ultimately, the Board of Directors meeting held on May 22, 2020 determined these as the Group’s material issues.

Reflecting materiality in management plans

As well as configuring targets (KPIs) for each of the identified material issues, we are drawing up specific measures to achieve these targets and will manage progress. At the same time, we will reflect the material issues in our future medium- and long-term management plans.

We will also regularly review the material issues through communication and engagement with our stakeholders.

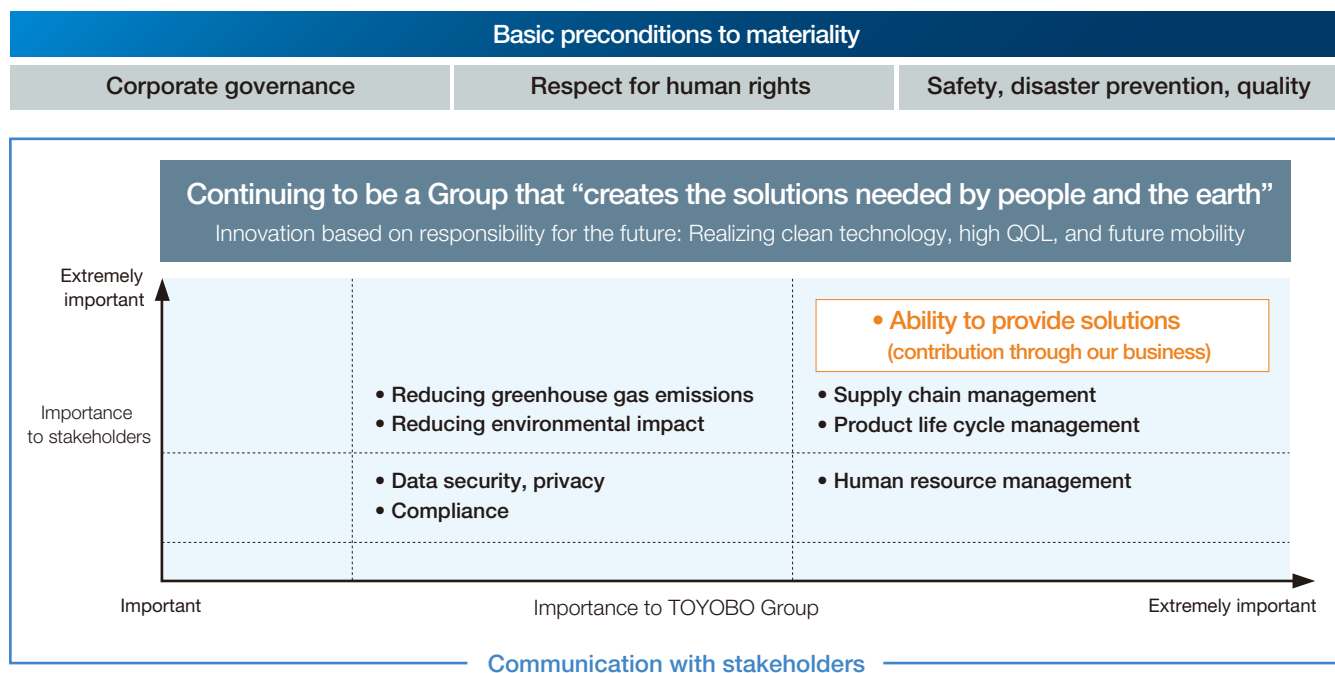
Identification Process



Key Future Initiatives



Identified Material Issues



E Environment S Social G Governance

Related ESG	Basic preconditions to materiality	Related SDGs
G	Corporate governance	16
S	Respect for human rights	10
E S G	Safety, disaster prevention, quality	8

Related ESG	Materiality	Related SDGs
E S	Ability to provide solutions (contribution through our business)	6 12 13 14
E S	Supply chain management	12
E S	Product life cycle management	3 12
E	Reducing greenhouse gas emissions	7 13
E	Reducing environmental impact	6 12 14 15
S	Human resource management	5 8
S G	Data security, privacy	17
S G	Compliance	16

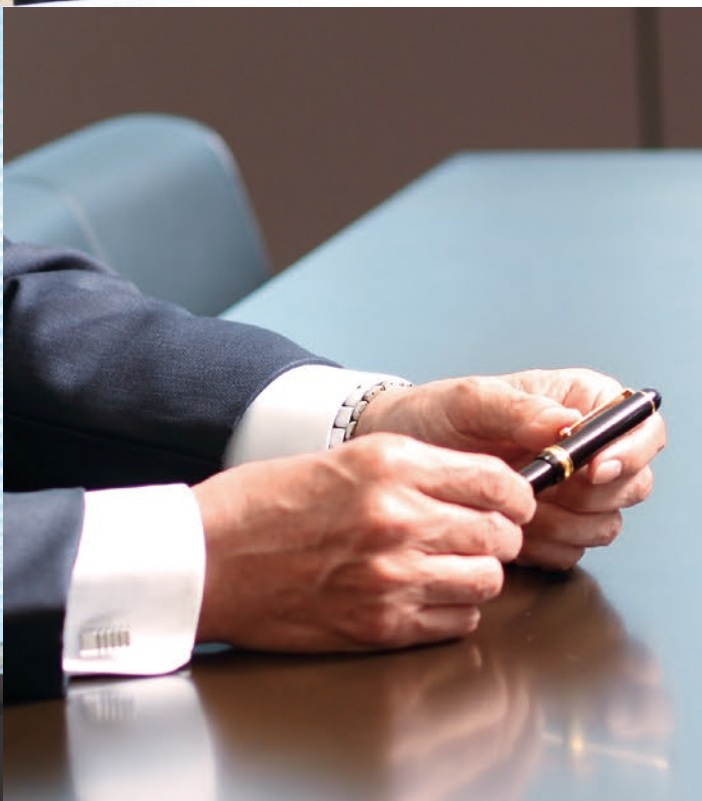
S G	Communication with stakeholders	17
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Message from the President



Seiji Narahara

Representative Director,
President and CEO, Co-COO



Refining our corporate philosophy for long-term growth

The structure of our PVVs corporate philosophy system

Jun-Ri-Soku-Yu sets a clear path to the future

During 2018 and 2019, we reformulated our corporate philosophy of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity). *Jun-Ri-Soku-Yu* was a personal maxim of our founder Eiichi Shibusawa, and the Company proudly preserves the phrase in his original brushwork from a century ago.

But what does the phrase really mean? After many discussions among our management team, we have all agreed decided that *Jun-Ri*, adhering to reason, goes beyond avoiding unreasonable acts and encourages us to be proactive to do what is right. In other words, it's a call for active contribution to solving social issues. As for the latter half, *Soku-Yu*, leads to prosperity, has been understood as meaning that taking action leads to a prosperous society and building on personal growth.

The TOYOBO Group is standing at a major turning point. For decades, we have been restructuring and reconstructing our business portfolio. Now, we are at the stage where we set new goals and strategies for growth. So we returned to our roots, and redefined our new concept of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity) to clearly state our purpose and our path forward. This became the foundation for constructing the TOYOBO Group corporate philosophy system—the Principle, Vision, Values, and Spirit (PVVs).

Revisiting our philosophy reassured me that TOYOBO is a company that has been contributing to solving social issues since its founding. Our purpose has always been to ensure the sustainability of people and the earth. I am not alone in recognizing this. I have heard from many employees that the PVVs corporate philosophy system gave shape to the heart of what we have been doing as well as what we are working for.

With this understanding, TOYOBO Group is currently reforming our organization and management plans for long-term business growth. Our corporate philosophy system has how we approach employee evaluations. It has also induced new activities within the company, such

as bringing employees together to talk about their struggles and experiences and how they relate to the TOYOBO Spirit. We will continue to instill and establish the PVVs corporate philosophy system based on *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity) throughout the Group globally.

Fiscal 2020 Results and Fiscal 2021 Outlook Preparing for the future

The business environment in fiscal 2020 (ended March 31st, 2020) was quite severe with the global economic slowdown triggered by US-China trade friction and the sluggish growth of the automobile industry. The fire incident at the Tsuruga Research and Production Center in fiscal 2019 also impacted our operations. The COVID-19 pandemic in 2020 is also growing concern for its impact on the economies of all nations.

Although the business environment has been quite severe, we were close to meeting our financial targets for the beginning of the term. Sales and profits rose YoY driven by steady sales of our unique set of products, including mold releasing films for MLCC, enzymes for diagnostic

Initiatives That Reflect Our Refined Corporate Philosophy System



Message from the President

reagents in the healthcare business, machinery with low environmental impact, and COSMOSHINE SRF®, a polarizer protective films for LCDs that has been garnering substantial sales growth in recent years. The work developing these products is laudable as strategies to strengthen our offerings in non-textile fields started about 10 years ago after the structural reforms were completed. The products have grown into performance drivers for the Group even amid severe business conditions.

During the COVID-19 pandemic, we have implemented various measures to protect our workers and halt the spread of the disease starting with establishing a corporate task force, enabling widespread telecommuting, and cancelling or reconsidering meetings, events, and business trips. In the effort to contain the disease, we also mobilized the company's capabilities by increasing production of PCR reagents and SARS-CoV-2 test kits.

We announced our performance plan for fiscal 2021 on August 6, which was later than usual as we took time to evaluate the potential impact from the COVID-19 pandemic. Because the outlook remains very uncertain, we are currently putting together the Overcome Coronavirus 100 action plan to stockpile ¥10 billion in

funds in preparation for a potential worldwide recession after the pandemic fades. When markets are stagnant, we will not hesitate to postpone any spending possible, and when conditions start to improve, we will be ready to quickly revive our business growth. To be fully prepared, we will maintain our current workforce and conduct essential investment in equipment and R&D.

Changing towards a solution-based organization Rooted in the market and society

In fiscal 2021, the TOYOBO Group reorganized its corporate structure from product-oriented to market-oriented, consisting of four solutions. I had always envisioned a market-oriented structure, but the direct impetus for the reorganization came from the many members who expressed the same idea while we were refining our PVVs corporate philosophy system. The catalyst for revising our organizational structure arose from our discussions that if we intend to continuously contribute to solving social issues in the future, wouldn't it be more apt to

Financial Results, Forecast, and Targets

(¥ bn)

	FY2020 Results	FY2021 Forecast	FY2022 Targets
Net sales	339.6	330.0	375.0
Operating profit	22.8	20.0	30.0
Operating profit margin (%)	6.7	6.1	8.0
Ordinary profit	18.0	14.0	–
Profit attributable to owners of parent	13.8	7.0	16.0
Capital expenditure	36.4	26.5	–
Depreciation	17.0	18.8	–
Earnings per share (¥)	155.1	78.8	–
Return on equity (%)	6.7	–	Minimum 8
Debt-to-equity ratio	0.98	–	Below 1.0

Primary Changes to the Organizational Structure

1. Expanding the scope of businesses and developing solutions

(Previous)
Product-out Organization

Solution-based departments geared towards the market

- Films and Functional Materials Solutions Division
- Mobility Solutions Division
- Lifestyle and Environmental Solutions Division
- Life Science Solutions Division



Marketing strategy functions in each solution division

2. Organize staff functions

Strengthen cross-functional capabilities (development, production)

- Renewable Resources Business Development Department
- Digital Strategy Department
- Corporate Sustainability Department

Guide the Company's growth direction

- Wider application potential for solutions (Larger positive impact)
- Mitigating risk (Smaller negative impact)

have a framework that approaches the issues from the perspective of society rather than built around our product-out approach?

The importance of taking that view has been apparent to us from 30 years ago when the Group began its structural reform. However, as is characteristic of a manufacturer with large-scale production facilities and numerous supply chains, setting up an organization for each market was complicated. Nevertheless, all of our directors recognized that we had to break through and create an organization that will enable us to advance toward our vision and realize sustained growth. This was a major step forward, and I believe we were able to do it because we had clarified our corporate philosophy and vision.

A solution-oriented organization has many advantages. For example, bringing together film and adhesives from previously separated departments enables us to offer a total solution for PET bottle packaging. I am looking forward to the new possibilities that our new organization will bring to the market. I also think it is important for us to take the lead in developing and proposing new solutions that our clients have not yet identified.

The move away from a product-oriented structure may raise new management issues in the Company, but I believe we can respond effectively by placing an executive officer and reinforcing cross-functional management among business divisions. It is essential that all of our employees share and fully support our philosophy of contributing to solving social issues. If we do, I am confident that the new organizational structure will be a great success.

Investment strategy risk management

Evaluation criteria based on our philosophy

Redefining our PVVs corporate philosophy system also greatly clarified our approach to investment strategy. The evaluation criteria for an investment was simplified to “what social issues will this investment help solve?” It is also important to estimate the level of actual contribution



we can provide as we make our decisions.

Our basic approach will be to focus our resources into the fields where we have distinct strengths and the support of our customers, such as our COSMOSHINE SRF® and food packaging films. When making new upfront investments, we will also carefully consider the projection for when we can expect return on investment. Five to six years will be a benchmark target for recouping an investment, and we will also evaluate investments in terms of how much they will contribute to society.

In managing risk that could hinder our corporate growth, we will look at investment opportunities as well as their level of contribution to society. Market conditions and the competitive environment are always changing. Any product that is highly appreciated by the market or that is generating strong profits can change at any moment. We cannot be complacent even with products like COSMOSHINE SRF®, and must pay close attention to the needs of our customers and the product end-users while we continuously ask ourselves, “is the product truly providing the best solution?”

Framing our long-term vision

Backcasting from the future

The TOYOBO Group is currently in the midst of promoting a medium-term management plan for fiscal 2022, but we are looking further ahead toward attaining a fiscal 2026 target of ¥500 billion in consolidated net sales. In fiscal 2021, all management will discuss targets for fiscal 2031 as part of our long-term growth story.

One of the major themes of our discussions is “to change our way of thinking.” Management plans covering a one-year period tend to limit our thinking about how to make the best use of our current resources. The same is true for four year plans. The reason is that, three or four years is not enough time for a Group to prepare adequately.

I believe that starting to look further ahead to 10 years will open the door for ideas that we haven’t imagined before. The year 2030 is also the target year for achieving the United Nations’ sustainable development goals (SDGs), and thinking about the many ways that TOYOBO could be helping solve social issues gives me a sense that we have the potential to contribute even more. Yet, simply following the growth path we are now on will not get us there. I am creating a roadmap for a long-term

growth story by starting at a point in the future and backcasting step by step to clarify what we need to do now so we know what management resources we need more of, if we have any missing parts, where we need to lay the foundation for growth, and precisely what order we need to proceed.

This backcasting approach was the behind our decision to acquire Teijin’s polyester film business in fiscal 2020. We are working with our new employees in the polyester film business to develop new solutions that will contribute to society five to 10 years in the future.

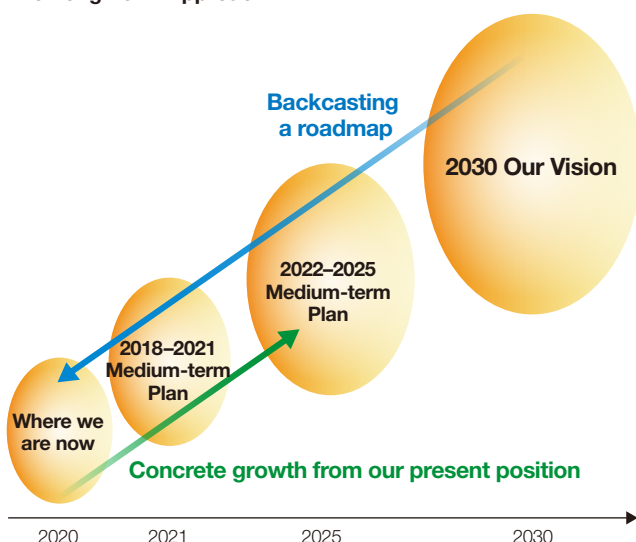
Building our business foundation

Retaining and cultivating our personnel

In fiscal 2019, we launched a special project, the KAERU Project (kaeru means “to change”), to comprehensively improve our workplace culture. With the aim of making the company an easier place to work, the project is taking a bottom-up approach to workplace reform by collecting employee opinions, taking a multifaceted approach to personnel evaluations, and surveying employees about the Company’s good and bad points.

We are also enhancing the training programs provided for employees and managers to leverage the human resources who will lead the Company in the future. I believe exposure to new experiences is the most effective way for employees to develop and grow, and I plan to change the how we approach and implement job rotation. I also believe that our solution-oriented approach will open up many superb opportunities for employees to gain new experiences.

The Long-Term Approach



ESG initiatives

Building a sustainable future during the COVID-19 pandemic

The TOYOBO Group, as a good member of society, has been addressing environmental and social issues underpinned by our *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity) corporate philosophy. Our environmental measures include lowering our greenhouse gas emissions from our fiscal 2014 levels by 30% in fiscal 2031 and by 80% in fiscal 2051.

We also stepped up our efforts to attain the new global standards in January 2020 by becoming a signatory of the UN Global Compact and announcing our support for the Task Force on Climate-related Financial Disclosures (TCFD). In addition, based on the recommendations of the United Nations Global Compact, GRI Standards, SASB Standards, and other global standards, we have identified specific issues of materiality that the Group should address. The issues were identified by widely soliciting opinions inside and outside the company, repeated discussions in management meetings, and by the determination at the Board of Directors meeting in May 2020. We plan to set KPIs for each issue of materiality, to actively promote and manage activities that are required globally, and to proactively report the results publicly and throughout the company.

I have always appealed to all of our employees about the importance of taking a Three Part Harmony that encompasses the present, future, and our business foundation. This three-way approach is also proving very useful during the spread of COVID-19. From the perspective of our business foundation, we are maintaining the safety, security, and stability of our business during the pandemic. For the present, we are revising our business structure so we can continue generating earnings during the pandemic. Looking ahead, this means creating new value that will be needed in the post COVID-19 world. By thoroughly considering our operations from each of three perspectives, we will overcome the business threat from the COVID-19 and contribute to ensuring the sustainability of global society.

Closing message to shareholders and investors

Helping society flourish and our Company grow

Returning profit to shareholders is a top management priority of the TOYOBO Group. Our policy is to maintain a stable dividend and to target a total return ratio of 30%. In fiscal 2020, we distributed annual dividends of ¥40 per share. We understand that some shareholders would like the Company to provide greater immediate returns; however, at this time we are continuing to invest for future business growth, which we expect to generate value return for our shareholders.

I always keep in mind that the primary duty of the CEO is to “take responsibility.” No one knows what will happen in the future. At the same time, as president, constantly probing our management to see if they really have everything under control would hinder them from taking on new challenges. I believe it is always worthwhile to consider our activities in terms of the *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity), and if the project has value and is backed with objective reasoning, then my most important role as president is to provide support by saying, “I take responsibility, so let’s do it.”

There are no easy solutions to society’s problems. The only way we can solve them is to grit our teeth and keep working at it. The TOYOBO Group will continue seeking to grow our business by working to make society better.

Sometimes I wonder what Eiichi Shibusawa would say if he saw the Group as we are today. My hope is that he would say, “That’s the way to do it.”

To all our stakeholders, I would like to express my appreciation for your understanding and ongoing support for the TOYOBO Group.

Representative Director,
President and CEO. Co-Coo



Dialogue with ESG Investors

TOYOBO President Seiji Narahara sat down with Ken Shibusawa, founder of Commons Asset Management and the great-great-grandson of TOYOBO founder, Eiichi Shibusawa, to talk about sustainability within the TOYOBO Group.

The dialogue took place on May 15th, 2020 via web conferencing system.



Ken Shibusawa

Chairman, ESG Chief Executive
Commons Asset Management, Inc.



Seiji Narahara

Representative Director,
President and CEO, Co-Coo
TOYOBO CO., LTD.

Using Shibusawa's *The Analects and the Abacus* as a guide for creating a sustainable modern society

Thoughts on TOYOBOS founder

Continuing the legacy of Eiichi Shibusawa

Narahara Eiichi Shibusawa is considered the father of capitalism in Japan. He founded TOYOBOS and set up 500 other companies with the belief that businesses are social institutions. He left us with the phrase *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity), which has always been our guiding philosophy, the core of our management, and the foundation for our business decisions. His words are what has kept our business running for over a 100 years.

Shibusawa I'd like to start by saying how wonderful it is to hear how everyone in the TOYOBOS Group feels a close tie with my great-great-grandfather. Eiichi Shibusawa dedicated his life to "empowering Japan as a nation." He was born at a time when a person's social standing determined their future. No matter how hard a person may try, a merchant could never be treated like a Samurai class. He understood that to empower a nation, people must be given equal opportunities despite ones social standing. I think this burning passion was behind his drive to help found over 500 companies.

Narahara TOYOBOS is a company that began with private investment, which was Shibusawa's idea. During his overseas inspection, he saw how private companies were involved in creating industries and national infrastructures. I believe that made him think that Japan should also follow that trail.

Shibusawa Since he understood the importance of the private sector as a driver of national empowerment, I would guess that he saw the potential for the spinning industry to be a core industry for Japan.

Principle for business management

The power of "and" in *The Analects and the Abacus*

Narahara The TOYOBOS Group has revised its business portfolio by shifting its focus from textiles to specialty businesses, and we are now generating steady profits. However, in fiscal 2019, we redefined our corporate philosophy system to gear it toward further growth. The reason we refined the philosophy was because we are

currently at a challenging stage of becoming a new TOYOBOS. Therefore we wanted to clarify the reasoning behind our motivation to work.

During that process we looked back at the maxim Shibusawa bestowed on our Company—*Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity). In the past, we had interpreted *Jun-Ri* to mean "refrain from doing what is wrong," but after rereading his book *The Analects and the Abacus*^{*}, we began to understand that *Ri* refers to Confucius' *Analects*. According to Shibusawa, the most important teaching of *the Analects* was to help people in need and to enrich society. Today, we might say that we should "use our technology and human resources to resolve issues in society as well as the world and as a result achieve better lives for ourselves. I believe that is the message that Shibusawa put into *Jun-Ri-Soku-Yu*. Do you agree with this interpretation?

* Eiichi Shibusawa's *The Analects and the Abacus* is a book on business management philosophy. It combines the ethics of *The Analects* of Confucius with the practice of a profitable business, which is "the abacus." Shibusawa asserts that business practices should be ethical and that the profits must be used to achieve a better society.

Shibusawa Yes, I believe so too. I think the theme of *The Analects and the Abacus* is what we now call "sustainability." The abacus, which represents a focus on generating profits, is a necessity for a company to survive. But a business that solely pursues profit will at some point run into difficulties. At the same time, a narrow approach focused solely on *the Analects*, or a strict moral path, would not be sustainable in a drastically changing world. In other words, it's not *The Analects* "or" the Abacus. A car whose wheels were the *Analects* on one side and the abacus on the other could not drive straight if it were using wheels on just one side. I think Shibusawa understood the importance of the "and" that balances *the Analects and the Abacus*.

The Company's purpose

Looking beyond the COVID-19 world

Shibusawa Referring to what you said earlier about knowing the reason, more and more companies are looking at the purpose^{*1} of their enterprise. The word "mission" that often appears in corporate philosophies tells a company and its employees "what we do" but a purpose tells them "why

we do it.”

Narahara TOYOBO’s purpose is contained in *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity) and, as you mention, is to help solve the world’s problems. That is the reason we have changed our organizational structure. We set up divisions based on solutions because we recognized that if we are going to address society’s issues, we needed an organization that was geared to producing solutions.

As we shared the new explanation of the philosophy, within the company we noticed that having a clear understanding of the “why” in our business raised employee motivation to a completely different level compared to being asked to work to increase profits. The refining of the corporate philosophy system created a positive atmosphere among our employees doing their best to find ways to contribute to resolving social problems.

Shibusawa The financial markets are increasingly looking favorably on companies that share that idea. I launched Commons Asset Management to support Japanese companies generating sustainable value creation, and found that the companies doing that were always addressing some kind of social issues.

Narahara As a company that is following Shibusawa’s teachings, it is very pleasing to hear that investors are looking for companies that are applying the concepts in *The Analects and the Abacus*. I believe we can achieve a sustainable society if the world make more effort to recognize and address social issues.

Shibusawa It has been thought that a good company was one that ran their businesses rationally and raised their share price. However, this approach only benefited certain people



and led to disparities in society, raising the question of whether a successful drive for profits is enough create a society that is sustainable overall. The issue gained a further spotlight at this year’s World Economic Forum*2 in Davos, Switzerland, which focused on the topic of “stakeholder capitalism”*3.

The outbreak of the COVID-19 pandemic has only brought further attention on the topic. I expect the real value of the SDGs and ESG lies in the world coexisting with the COVID-19 and after COVID-19.

Narahara I think the world will be a very different place after the pandemic. In TOYOBO Group’s directly related operations, we have been producing and shipping 20 times more virus test kits than usual for use in coronavirus testing centers in Japan and China. We’ve also released research reagents that shorten the detection and measurement period.

We are doing everything we can to help. For example, we are testing technology we created to examine how the norovirus spreads in kitchens. We are trying to see how we can use it for the coronavirus. We supply about 40% of the Japanese market for food packaging films, and we believe we can make a major contribution if we can develop films that the virus cannot stick to or survive on.

I think we will also need to change our business operations. New lifestyles will make it increasingly important to introduce workstyle reform and to digitalize our operations. Risk management will also have to be more stringent.

*1 Many companies have been focusing on the purpose behind their management strategies and branding in recent years. They are essentially looking for the basic reason for the existence of their company or organization in society.

*2 The World Economic Forum is an annual international conference founded by the economist Klaus Schwab. Intellectuals, journalists, and political and business leaders convene to discuss important global issues.

*3 Stakeholder capitalism is the idea that companies should not be bound to prioritize the interest of shareholders. Its approach is to fully encompass the interests of the stakeholders, which includes employees, customers, local communities, and the global environment.

Towards sustainable growth

Becoming a global frontrunner

Shibusawa I think the spinning industry is the industry that has continued to change and evolve among the Japanese industries. My hopes are that TOYOBO will be a frontrunner.

Discussions with you have made me realize that you deeply respect and understand the true nature of Eiichi Shibusawa's philosophy.

There is a need for dialogue not just with investors but with the various stakeholders in society. I also think it is important that the Company communicate both inside and outside the company. In regards to the commitment to SDGs, it is important for the president to reveal his passion as well as the direction very openly.

Narahara I agree. I think it's important to share my thoughts in my own words. I've visited offices and talked directly with many employees, but I was finding it a real challenge to reach out to all of them. As for the company reorganization this April, I presented a video on the company intranet where I spoke about various matters including the direction we are taking the Company. The response from employees was very positive.

Shibusawa New technology is enabling so many new possibilities. Speaking of which, right now I'm talking live with the CEO of a major listed company over the internet.

Narahara If we can't meet to talk with someone in person, we will find other ways to communicate with our stakeholders.

Shibusawa I would like to change our topic to corporate governance, I think it's wonderful that four of your 10 directors are outside directors. I'd like to ask for your opinion regarding the absence of women or non-Japanese voices in the Company's internal directors and executive officers.

Narahara In the past five years, about 40% of the new university graduates we've hired were women. We've also been actively hiring midcareer professionals from outside the company. Although it's taking some time, we are assembling a more diversified workforce that will be the source for the Company's future executive officers and directors.

Shibusawa In the future, I think society will want companies to clearly demonstrate how they are benefiting society.

Narahara Indeed, I think companies will need to disclose quantitative data showing their "social impact." We took a first step in that direction in May 2020 by identifying the material issues (materiality) for the Company. For each materiality, we plan to set KPIs and monitor our progress, which we will report internally and publicly.

Shibusawa Since TOYOBO is a leading maker of materials



company with its roots in textiles, I would also like to see the company active internationally, such by participating in the creation of global standards and guidelines.

Narahara We have started to take steps in that direction. In August 2019, we joined the Circular Economy for Flexible Packaging (CEFLEX), a collaborative initiative of a European consortium of companies. I am looking forward to passing Eiichi Shibusawa's spirit of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity) to future generations as I seek to guide the Company towards sustainable growth. Thank you very much for this interesting discussion today.

Shibusawa Thank you. It was my pleasure.



Ken Shibusawa

Chairman, ESG Chief Executive
Commons Asset Management, Inc.

Mr. Shibusawa joined an international relations association, then obtained an MBA in the United States. He then entered business in the financial industry, working at a foreign-affiliated financial institution, where he traded Japanese government bonds and foreign exchange options, and sold equity derivatives. He was the Japan representative for a major US hedge fund. He left the company in 2001 and established Commons Asset Management, Inc. in 2007. He has been the Chairman of the company since 2008.



Hiroshi Otsuki

Director and Executive Officer,
Controlling Supervisor of Management
and Administration Division

A clear financial strategy for medium- and long-term growth

Leveraging my experience in accounting, finance, and corporate planning

I was appointed Chief Financial Officer in April 2020. I worked in the accounting and finance department for over 20 years until about six years ago and am eager to bring that experience to my new position. In recent years, the Group's earnings performance plummeted when we were right in the middle of sweeping structural reform. Our financial status deteriorated markedly as ballooning interest-bearing debt nearly quadrupled the debt-to-equity ratio. Under those circumstances, we prioritized short-term improvements, and struggled to secure loans from financial institutions.

After years of drastic improvements, our financial state is at a much stronger financial footing than during those trying times. Revamping our business portfolio has steadily improved our profitability, and the continuous paring down of our interest-bearing debt has brought our debt-to-equity ratio close to 1.0. Shifting our focus to highly profitable specialty businesses has stabilized the operating profit margin in recent years and has brought the Group to a position where we can look ahead to another stage of growth.

As we move forward, our financial strategy is to maintain our financial stability while making investment decisions for growth and cash flow management. Prior to becoming Chief Financial Officer, I spent three years in charge of the Corporate Planning Department formulating

the Group's growth strategies. I will leverage my experience to develop and promote financial strategies towards sustained medium- and long-term growth.

We maintained our sound financial structure in fiscal 2020

The TOYOBOKU Group recorded increases in consolidated sales and profits in fiscal 2020 with consolidated net sales reaching ¥339.6 billion, operating profit ¥22.8 billion, and profit attributable to owners of parent ¥13.8 billion. Interest-bearing debt increased by ¥10.4 billion from the previous fiscal year to ¥175.1 billion, while the equity ratio edged down by 1.9 percentage point to 36.4%. We maintained a debt-to-equity ratio of 0.98, keeping it below 1.0, which we have set as an indicator for our financial stability. We enter the second year of our four-year medium-term management plan well on our way towards fulfilling our financial targets for fiscal 2022.

However, we understand that in order to strengthen our financial structure, we need to increase our business profitability and cash flow. One of the key management indicators is operating profit margin. Current medium-term management plan aims to raising the return on equity to 8.0% in fiscal 2022. With the margin still at just 7.8% in fiscal 2020, will continue to constantly advance our business

portfolio reforms and improve our profit structure to strengthen our earning power.

Achieving sustainable growth by taking necessary risks

I believe a financial officer's duty is to "take risks that should be taken and avoid risks that should be avoided." The fundamental responsibility in financial management is to "not let the cash run out," which means "keep the company afloat." I have personally come to understand the importance as we struggled to increase borrowings in times of business structure reforms, and even during the financial crunch following the 2008 global financial crisis. As a result, it is true that keeping the Company alive has slightly stagnated our growth or to take on the risk of upfront investment in the medium or long term.

Of course, we cannot achieve growth by continuing like this. We must be constantly looking ahead several years and beyond and take the necessary risks of upfront investment. Our financial structure is significantly better than it was 10 years ago in terms of both our equity ratio and cash flow. We have been affirmed A-rated for the past few years, making financing easier in the financial markets.

We are finally in a position where we can identify and take necessary risks, as any business needs to do without overstraining our financial balance. We will adamantly avoid taking any unnecessary risks. As a person in charge of capital allocation, I believe that making the right decisions is my utmost mission.

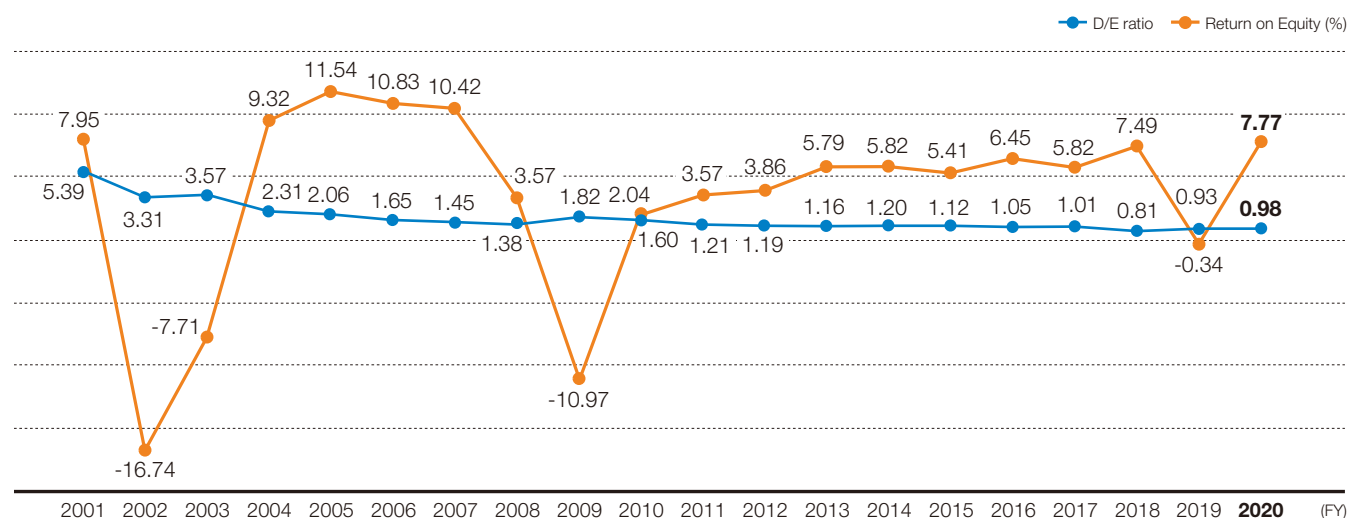
Deciding what we need to reach our objectives

When we form our financial strategy, how will we decide which risks to take and which to avoid? The systemized management philosophy we formulated in fiscal 2019 will play a critical role.

Codifying the management philosophy involved numerous discussions amongst the corporate officers for almost a year. We engaged in a variety of topics such as, what is our purpose? why haven't we been able to grow greatly? what can we provide to society in the years ahead? and what is our vision towards the future? The intense discussions would have been unthinkable in the recent past when we were battling through the structural reform needed for the Company's survival and could only focus on short term perspectives.

The discussions led us to reinterpret and redefine

D/E Ratio and Return on Equity: 20-Year Trend



Message from the Chief Financial Officer

Jun-Ri-Soku-Yu (adhering to reason leads to prosperity). We were able to explain our corporate philosophy system—PVVs—clearly to our Group employees and to the public. The PVVs help set our corporate targets for fiscal 2026, restructure our organization towards a solutions-based business domain, and visualize how we want to develop the solutions for the future.

Our experience in reestablishing our corporate philosophy, medium- and long-term objectives, and business goals have become a common ground for deciding “what must be done and what must not be done.” This is my principal guideline as a chief financial officer when deciding which risk to take and which risk to avoid.

Increasing investments to cultivate new businesses

As we execute the management strategy, we have clarified management philosophy and redefined business domains to

provide concrete guidelines for how much and for which projects to invest, while also being aware of the individual investment conditions for each project. The pros and cons of each potential investment project will be considered in relation to our philosophy and goals.

I believe we should actively invest in projects that firmly align with our philosophy as well as projects that can be expected to contribute to fulfilling our objectives in the long term. This is even if the return on the investments may take a while. Conversely, I think any investment project that does not meet the terms of our philosophy and objectives should be rejected, even if it promises a certain degree of return in the short term.

Our policy has been to keep capital expenditure below depreciation while keeping them at a certain proportion to each other on a year-by-year basis. However, I believe we now need to actively invest to develop and expand our businesses for future growth. Our capital investment in fiscal 2020 amounted to ¥36.4 billion, which was a substantial increase from previous years, and I expect our investments will continue to exceed depreciation in the years ahead.

Key risks

Financial risk	Countermeasure
Large forex movement	Reduce risk using forward exchange contracts
Large rise in interest rates	Use derivatives, primarily interest rate swaps
Sharp drop in share prices	Board of Directors verifies and continually assesses shares other than those held purely for investment purposes

Other risks (): Number of page with related information, e.g. countermeasures

Risks that have occurred or are very likely to occur

- Natural disaster, accident, infectious disease (p.57)
- Further deterioration in political/economic conditions

Medium- to long-term risks

- Purchasing of raw materials (p.60)
- Securing human resources (p.55)
- Overseas business activities
- Product defects, etc. (p.59)
- Legislation and compliance (p.69)
- Litigation

Basic Capital Management Policy

Increase Corporate Value

Growth Investment Decisions

- Consistency with the objectives for each business based on the *Jun-Ri-Soku-Yu* management philosophy
- Assessment of the certitude of revenue based on WACC

Healthy Financial Discipline

- Increase cash flow by improving the profitability of each business
- Maintain the the D/E ratio below 1.0

Of course, this assumes that we maintain a sound financial position and continue to avoid investments that would cause the debt-to-equity ratio to spike above our 1.0 benchmark.

Investment decisions for each potential project will be rigorously examined for profitability, competitive advantage, and the adequacy of the plan. We will also scrutinize the likelihood of and contingencies for a potential worst-case scenario. The final decision on investing in a project will take into account the degree of revenue certainty and relevance to our business objectives by estimating indicators such as the weighted average cost of capital (WACC) and a comprehensive assessment of how the project fits with the objectives we have for each of our businesses.

Pursuing growth, preparing for the unexpected

In fiscal 2019, the TOYOB0 Group looked beyond the current medium-term management plan and set growth targets for consolidated sales of ¥500 billion and operating profit of ¥50 billion in fiscal 2026. Currently, we are generating about ¥350 billion per year, which means that we will have to boost sales by ¥150 billion to reach the 2025 target. It's clear that organic growth in our existing businesses will not be enough, we will need to conduct upfront investment, in such areas as human resources.

In fiscal 2021, we are formulating new longer-term growth strategies aimed at fiscal 2031 to pursue with our four new solutions divisions. Managing the business operations geared to long-term targets like these will include monitoring short-term performances while also tracking the progress of action plans for growing businesses and optimizing business portfolios.

Risk management will pay close attention to investment risk as well as all areas that can affect their financial status. These include foreign exchange rates, interest rates, credit standings of business partners, market price fluctuations of securities holdings. I always bear in my mind that we should constantly be prepared for the unexpected. Although it's impossible to prevent the unexpected, it is critical to quickly gather information, correctly assess the situation, and take appropriate action when the unexpected occurs to be able.



The spread of COVID-19 was certainly unexpected. Right now we cannot estimate how big it will impact the global economy. Therefore, we have prepared for difficult financial conditions by creating an action plan to generate a fund stockpile of ¥10 billion by reevaluating investment cash-out plans, reducing inventories in all areas, and reconsidering plans for capital investment. The aim of these actions is to ensure the stability of our earnings base and maintain our healthy financial position. We also know that unanticipated incidents can occur in our businesses, such as the fire that occurred in fiscal 2019. Incidents like that are a reminder that we need to be able to limit damage and flexibly execute measures to prevent a negative legacy.

I will dedicate myself to fulfill my commitment as an executive member of TOYOB0 to achieve our vision for growth through the next 10 to 30 years.

Director and Executive Officer,
Controlling Supervisor of Management and
Administration Division

Films and Functional Materials

<Key Products>

Films, functional materials (VYLON®, HARDLEN® / plastics processed products)

Growth Strategy

We focus on creating environmental value added solutions, while expanding existing product sales

Chikao Morishige

Senior Managing Executive Officer

Head, Films and Functional Materials Solutions Division



The Films and Functional Materials Solutions Division was created by combining our films, adhesives and coating-related operations.

Food loss is a growing social issue. In the packaging field, we will continue to increase sales of transparent vapor-deposited film ECOSYAR®—a food storage film with excellent performance and cost. In the industrial films field, we intend to strengthen our capacity to supply COSMOSHINE SRF® by introducing offshore OEMs, while aiming to increase our market share from the current 35% to 50%. In mold releasing films for MLCC, we aim to raise our market share from 25% to 30% to meet solid demand, by expanding facilities at the Tsuruga Research and Production Center.

As well as increasing sales of these existing products, we will accelerate new cross-departmental initiatives. The deepening collaboration between the films and functional materials departments is one example of this. We aim to boost sales and realize efficiencies through deeper information sharing between the two departments. We will also tackle the challenge of creating new value and solutions by optimally integrating our assets in various fields.

We will also focus on the development of biomass-derived polymers in cooperation with the new Renewable Resources Business Development Department, as we aim to become a global leader in environmentally sound products and solutions.



Future Vision

- No.1 global manufacturer of eco-conscious films
- Comprehensive provider of resins

Quantitative Targets (FY2026)

Net sales of

¥200 billion

(¥127 billion as of FY2020)

Note: Our business segments were reorganized with effect from FY2021.
Sales figures for FY2020 are unaudited and approximate.

Characteristics and SWOT for each field

	S trengths	W eaknesses	O pportunities	T hreats
	Gradual decline of domestic demand due to decreasing population. Number of households and dual-income households is growing, competition in the Japanese market is also maturing. The market remains stable.			
Films	• A comprehensive films manufacturer • Lineup of environmentally sound products (recycled and biobased resins, laminating films for cans, and thin shrink film) • Lineup of polarizer protective (PET) films • Integrated production from film manufacturing to processing	• Production is focused in Japan; need to develop overseas production bases	• Rising awareness of environment, safety and security in relation to the SDGs • Growing awareness of the need to reduce food loss • Expanding film demand in the IoT field • Sales, technology and development synergies through integration of TFS*	• Risk of not being able to transport products • Global problem of microplastics
Functional materials (1) VYLON® HARDLEN®	Demand is expected to grow, aligned with the movement to cut CO ₂ emissions in automobile coatings, and the spread of 5G in the electrical/electronics field, etc.			
	• Provision of modification/polymerization technologies and comprehensive technical support • Global production bases and extensive product lineup	• Cost competitiveness	• Transition to 5G, shift to EVs and more lightweight vehicles • Rising environmental awareness (avoiding solvents)	• Tighter chemical substance regulations (restrictions on the use of raw materials)
Functional materials (2) Plastics processed products	Sales of photo-sensitive printing plates for labels, seals, packaging. Exporting to more than 60 countries worldwide			
	• Water-washable printing plates (solvent-free) • Unique organic synthesis technology	• Production at one plant in Japan	• Expansion of market for water-based systems along with rising environmental awareness • Movement away from China due to environmental regulations	• Tighter chemical substance regulations (restrictions on raw materials used)

*Teijin Film Solutions Limited

Films and Functional Materials

Value Creation Flow

Process	Procurement	Manufacturing
ESG aspects  Enhancement of positive effects (increasing opportunities) Mitigation of negative effects (reducing risk) 	 Resource circulation Procuring recycled raw materials from PET bottles (Films)	 Preventing climate change - Installation of gas cogeneration facilities, conversion of fuel from coal to gas  Resource circulation - Re-use of recycled raw materials: 800 tonnes per annum (Crisper®, KAMISHINE®, SPACECLEAN®, CYCLE CLEAN®, RESHINE®) (Films) - Re-use of non-conforming products: 2,750 tonnes per annum (COSMOSHINE SRF®) (Films) - Re-use of HAGIPRO resin* (expected to start in October 2020) (Films) * Impurity-free PET made by removing the surface treatment of films that would otherwise reduce recyclability

Major ESG topics in business processes

Resource circulation

We promote resource circulation by collecting offcuts from the manufacturing process and used end products, recycling them and using them as materials. We also help to reduce the volume of resources used by developing high-strength and thin products.

Preventing climate change

We continue to install gas cogeneration facilities, which can efficiently use the waste heat produced from power generation. We are also promoting conversion of fuel from coal to gas. Through these initiatives, we are reducing CO₂ emissions.

Value provided through products and services

Films that help reduce food loss

The transparent vapor-deposited film ECOSYAR®, which demonstrates outstanding gas barrier characteristics, is ideal for long-term food storage and helps to reduce food loss.

As no metals are vapor deposited, the film is also suitable for heating in microwave ovens.



Food packaging using ECOSYAR®

Films that enhance the functionality of LCD displays

COSMOSHINE SRF® polarizer protective film for LCDs is a product that eliminates the coloration caused by birefringence seen in conventional polyester films. With the increasing size of LCD TVs, as well as the shift to bezel-less

Sales/Use	Disposal/Re-use
↑ Solutions for customer challenges and social issues • Saving resources and reducing CO₂ emissions by using recycled raw materials and developing thinner products - Heat-shrinkable polyester film SPACECLEAN® - Film of recycled PET resin CYCLE CLEAN® - Film of plant-derived raw materials BIOPRANA® • Enables long-term food storage, reducing food loss - Transparent vapor-deposited film ECOSYAR® • Enhances the performance of communications equipment - Polarizer protective films for LCDs COSMOSHINE SRF® - Mold releasing films for MLCC COSMOPEEL® • Replaces metals, reducing weight - Copolymerized polyester VYLON® • Does not use solvents, reducing environmental impact - Environmentally conscious printing plates Printight®, Cosmolight® 	↓ Resource circulation • Collecting and recycling silicon-coated films (Films)

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screens and open-cell panels, the product has gained a large market share.

Films that help save resources

TOYOBO develops and provides films for PET bottle labels that help to save resources through the use of recycled raw materials and a thinner product profile. For example, CYCLE CLEAN®, a film of recycled PET resin, has increased the ratio of recycled resin to a world-leading 80% while retaining the properties of conventional products.

Meanwhile, the heat-shrinkable polyester film SPACECLEAN® is the world's thinnest polyester film, at 20 μm. This is at least 50% thinner than conventional products, and helps to significantly save on resources.



CYCLE CLEAN®

Mold releasing films for ceramic capacitors, supporting the shift to IoT

Ceramic capacitors are multipurpose electronic components that adjust electric current and temporarily store electricity. They are used in various types of electronic circuit.

Our mold releasing films for MLCC, including COSMOPEEL®, are essential to the production of ceramic capacitors. TOYOBO is the only manufacturer with an integrated process from production of the raw film to coating of the releasing layer, supporting the spread and development of IoT and AI.

Mobility

<Key Products>

Engineering plastics, airbag fabrics, etc.

Growth Strategy

We optimize Group synergies to meet social and market expectations, including improving environmental performance and safety

Shigeo Takenaka

Senior Managing Executive Officer
Head, Mobility Solutions Division



Against a backdrop of technological innovation in various fields and increasing consumption of lifestyle services, the automotive industry is entering a 1-in-100-year period of great change, with further market expansion anticipated.

In our engineering plastics business, where replacing metal with plastic components helps to realize more lightweight products and reduce CO₂ emissions, the Mobility Solutions Division has established systems for rapidly gathering information from our sales bases worldwide and developing/proposing products. This has resulted in a comprehensive lineup of materials, and we are expanding sales through a combination of advanced technology and attentive after-sales support.

In the airbag business, which supplies products that keep passengers safe, we aim to double net sales by

recovering market share in Asia following the establishment of a new fabric plant in Thailand, and by stepping up sales promotion to multinational customers.

In addition, more than 10 business divisions and operating departments within TOYOBO Group provide a variety of automotive materials. Going forward, we aim to create synergies by promoting Group cross-organizational systems and initiatives, including a “Mobility Marketing Strategy Department” and “Mobility Strategy Council.” We are aiming to achieve further growth through participation in CASE*¹ and MaaS*² projects, development of composite materials, and initiation of M&A.

*¹ Abbreviation of “Connected, Autonomous, Shared, Electric.”
Refers to the latest technological advances in automobiles.

*² Abbreviation of “Mobility as a Service.” Refers to the provision/use of various forms of transportation as a one-stop service, and the systems for that.



Future Vision

- No. 1 global airbag fabric manufacturer
- Top-tier engineering plastics manufacturer
- Partnerships with global automakers

Quantitative Targets (FY2026)

Net sales of

¥120 billion

(¥44.5 billion as of FY2020)

Note: Our business segments were reorganized with effect from FY2021.
Sales figures for FY2020 are unaudited and approximate.

Characteristics and SWOT for each field

	S trengths	W eaknesses	O pportunities	T hreats
	Ongoing technological innovation, adoption of electric vehicles (EVs) and fuel cell vehicles (FCVs), etc.			
Engineering plastics	• Proven track record with Japanese automotive manufacturers over many years • Comprehensive product lineup and wide-ranging sales achievements • Supply structure via four bases worldwide and global information sharing capability • Outstanding quality and technology demanded by Japanese manufacturers	• Sales channels to non-Japanese automotive manufacturers • European production structure	• Established infrastructure for global expansion • Growing popularity of EVs and FCVs • Increased automobile production volumes in Asia	• Opportunity loss resulting from slow response to CASE/MaaS • Long-term downturn in global automotive market due to COVID-19 pandemic
	With the expected future introduction of self-driving technology, safety demands are likely to increase further			
Airbags	• Group production capacity — global No. 1 in airbag fabrics • Integrated fabric/yarn supply structure via four bases worldwide • Proven track record with Japanese automotive manufacturers over many years	• Oligopoly of nylon-66 manufacturers	• Expansion of sales channels/product lineup through M&A • Increased collaboration with strategic global partners • New markets opened up by self-driving vehicles (airbags for pedestrians)	• Rising price pressure from both suppliers and customers due to oligopoly

Realizing our vision

The Mobility Solutions Division aims to create social value through the fusion of materials and technology in areas such as textiles, films, resins and healthcare, cultivated by TOYOBO Group over many years.

Through active collaboration with customers, academic institutions and partnering technology firms, we propose total solutions in areas targeted by the future mobility market, such as improving comfort in the interior space of vehicles, eliminating the painting process and significantly reducing CO₂ emissions by shifting to monomaterials, and extending cruising range through improved electric power efficiency.



Manipularer® concept car Based on the concept of "manipulating air," it employs more than 50 TOYOBO materials and technologies

Mobility

Value Creation Flow

Process	Procurement	Manufacturing
ESG aspects  Enhancement of positive effects (increasing opportunities) Mitigation of negative effects (reducing risk) 	 Management of chemical substances - Conducting reviews to ensure compliance with legal regulations and switching to alternative components  Resource circulation - Promoting use of recycled resin	 Preventing global warming - Establishing efficient production methods, promoting energy conservation  Developing human resources - Hiring local workers in overseas plants - Providing technology support to domestic and overseas Group companies  Worker health & safety - Raising awareness of preventive maintenance to prevent accidents

Major ESG topics in business processes

Resource circulation

We are working to recycle resources that were previously discarded, by collecting and utilizing offcuts from the manufacturing process. For example, we collect the fabric offcuts that are produced during airbag manufacturing and recycle them into highly heat-resistant resin. We also re-use certain packaging film offcuts as the raw material for engineering plastics.

Preventing global warming

By combining TOYOBBO Group's functional materials (resins, adhesives, films, etc.), we aim to reduce and substitute the processes for vehicle painting lines—said to consume the most energy during automobile production—and help to realize Japan's "Well-to-Wheel Zero Emission" challenge.*

* A policy set out by Japan's Ministry of Economy, Trade and Industry, which aims to reduce greenhouse gas emissions from energy production and vehicle travel to zero.

Developing human resources

As TOYOBBO's operations become increasingly global, we actively employ local workers to optimize operation of our overseas plants. We also provide technical support to our domestic and overseas Group companies to develop human resources.

Sales/Use	Disposal/Re-use
↑ Solutions for customer challenges and social issues - Reducing CO₂ emissions, enhancing energy efficiency and improving safety in next-generation mobility - Helping to realize a pleasant vehicle interior space (safety and comfort) Engineering plastics: - Polyester resin VYLOPET® - Thermoplastic polyester elastomer PELPRENE® - Polyamide resin GLAMIDE® - High-melting-point polyamide VYLOAMIDE® - Thermoplastic stampable sheet QuickForm® - Non-coated and coated fabrics for airbags 	↓ Resource circulation - Collection and recycling of airbag fabric offcuts - Collection and recycling of packaging film offcuts

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Value provided through products and services

Engineering plastics contribute to vehicle weight reduction

High-performance polyamide resin GLAMIDE® contains 70% reinforced fibers, far exceeding global standards. This gives it sufficient strength as an alternative to metals, contributing significantly to reducing component weight.

High-melting-point polyamide VYLOAMIDE® is made from biomass, but also has outstanding heat resistance and cuts water absorption—a shortcoming of nylon—to one-third that of previous polyamide resins.

Thermoplastic stampable sheet QuickForm® demonstrates high strength and high elasticity, as well as outstanding impact resistance, and contributes to lighter component weight. We also anticipate its use in the structural components of automobiles.

Thermoplastic polyester elastomer PELPRENE® has excellent heat and oil resistance, and a lower specific gravity than vulcanized rubber, while its thermoplasticity makes it suitable for re-use. As a result, it has various applications.

Airbag yarn and fabrics, keeping passengers safe

The airbag yarn and fabrics provided by TOYOBO Group are used in 40% of all airbags worldwide.

ECOKURELEAF® is a nylon resin for molding materials, manufactured from the offcuts of fabrics collected during the manufacturing process. It is re-used as a material in engine covers and airbag covers.



Provision of airbags fabrics

Lifestyle and Environment

<Key Products>

Desalination membranes, wastewater treatment systems, equipment for VOC emissions treatment, high-performance nonwoven fabrics (various applications including automotive components, materials, filters), chemical synthetic fiber, super fibers, textiles

Growth Strategy

We employ our unique technologies to help solve global issues such as climate change and water shortages

Shigeo Nishiyama

Senior Managing Executive Officer

Head, Lifestyle and Environment Solutions Division



The Lifestyle and Environmental Solutions Division targets fields that relate to our daily life and the surrounding environment. Previously, each division had an independent strategy, but from now on this Division will gather information and draw up strategies that match growth markets to the technology assets of each division and affiliated company. We will provide in-demand solutions to our customers and society, expand our existing businesses, and accelerate the creation of new business opportunities.

In particular, we will proactively contribute to resolving various global issues with our unique membrane/filter technologies and functional materials—including climate change, air pollution and water shortages, where urgent action is needed.

More specifically, we will be focusing on water-related businesses, in addition to systems and filters that recover VOCs—one of the causes of photochemical smog. With regard to membranes used in desalination plants, our unique RO membranes have been helping to resolve water shortages. In the coming years, we will be actively developing and expanding sales of more energy-efficient forward osmosis (FO) and brine concentration (BC) membranes, which are similarly used in the desalination process (the latter are also effective in purifying industrial wastewater).

Based on the slogan “breaking down conventional barriers,” the newly formed Lifestyle and Environmental Solutions Division will work with speed as we combine the technological know-how in our product offerings of each division.



Future Vision

- Leading global manufacturer of functional nonwoven fabrics
- Environmental solutions provider
- Industrial and consumer materials provider with functional textiles and trading expertise

Quantitative Targets (FY2026)

Net sales of

¥140 billion

(¥128 billion as of FY2020)

Note: Our business segments were reorganized with effect from FY2021.
Sales figures for FY2020 are unaudited and approximate.

Characteristics and SWOT for each field	S trengths	W eaknesses	O pportunities	T hreats
	Water : Ongoing expansion of the RO membrane market due to climate change, population growth, etc. Air: Continued regulation in different countries as environmental pollution becomes an issue			
Environment	• Extensive track record for provision of desalination solutions in the Middle East • Integrated structure for manufacturing/development/maintenance • Leader in state-of-the-art membrane technology (FO and BC membranes) • Gas analysis and optimal design technology built up over many years	• Cost competitiveness • Global service capability	• Increased demand associated with response to global SDGs and tightening of environmental regulations • Replacement of existing technologies with energy-saving membrane technologies • Expansion of secondary battery market along with global shift to electric vehicles	• Improved level of overseas competitor products and intensified price competition • Reduction in environmental investment due to economic downturns
Nonwoven fabrics	Operations developed in a wide range of fields including automotive, civil engineering, construction, industrial filters, medical, soundproof absorption, and insulation (heat barrier)			
	• A comprehensive nonwoven fabrics manufacturer with six manufacturing methods • Proprietary manufacturing technology for high-performance nonwoven fabrics using diverse materials and processes • Customer proposal/service capability backed by delivery over many years	• Global service capability • Focus is on BtoB business	• Rising awareness of environmental and safety issues among customers • Engagement with large numbers of users across a wide range of applications • Increased demand for disaster recovery/prevention/mitigation along with rise in natural disasters	• Sharp fluctuations in raw materials prices • Improved quality of overseas competitor products and intensified price competition • High transportation costs
Functional textiles	With new competition entering the functional textiles market, we focus our business development on Japan, Europe, and the Americas, where the emphasis is on quality rather than cost			
	• Advanced textile manufacturing technology (biconstituent / hollow fiber / modified cross-section fiber technology) • Reliability/quality as a pioneer of reticular textile structure • Global leader in super fiber manufacturing technology • Product development capability, appeal of product comfort, intellectual property strengths • Global reach	• Cost competitiveness • Production capacity	• Expansion of functional textiles in emerging markets • Rising awareness of environmental and safety issues (e.g. recycling, lighter product weight) • Rising awareness of lifestyle issues (hygiene-consciousness, sleep-aid market, aging society, etc.)	• Improved quality of overseas competitor products and intensified price competition • Shrinking of domestic market (decrease in population, decline of manufacturing sector) • High transportation costs

Lifestyle and Environment

Value Creation Flow

Process	Procurement	Manufacturing
ESG aspects  Enhancement of positive effects (increasing opportunities) Mitigation of negative effects (reducing risk) 	 Resource circulation - Use of renewable plant-derived materials (Environment, Functional Textiles) - Use of materials recycled from PET bottles (Nonwoven Fabrics, Functional Textiles)	 Preventing global warming - Energy conservation through systems improvement and greater production efficiency (Nonwoven Fabrics) - Reduction of transport-related CO₂ emissions through local production (Nonwoven Fabrics, Environment, Functional Textiles)  Quality and customer health & safety - Regular Quality Assurance meetings with customers to strengthen quality control (Nonwoven Fabrics, Functional Textiles)  Developing human resources - Active employment of local workers by Saudi Arabian affiliated company (Environment) - Chinese affiliated company has assigned local workers to managerial and sales positions (Nonwoven Fabrics, Functional Textiles)

Major ESG topics in business processes

Resource circulation

We are committed to selecting raw materials with a focus on resource circulation. For example, hollow fiber membranes use renewable plant-derived materials and in 2010, TOYOBO achieved Biomass Mark* Certification. In addition, polyester staple fibers use materials recycled from PET bottles.

*Biomass Mark: A mark awarded to environmental products that use biomass and comply with quality and safety-related legal regulations, criteria and standards.

Preventing global warming

As well as reducing the volume of CO₂ emitted in manufacturing processes, we are cutting CO₂ emissions during transportation. For example, we manufacture desalination membranes in the Middle East to provide for the desalination plants there.

Developing human resources

We have established local affiliated companies in the Middle East and other regions, and local affiliated companies in China and emerging markets actively hire local workers, contributing to industrial diversification and employment creation.

Value provided through products and services

Activated carbon fiber for recovery of VOCs

K-FILTER® is a uniquely activated carbon fiber developed by TOYOBO Group, which we are the first to commercialize in the world. Over 1,500 equipment for VOC emissions treatment using this filter have been supplied both in Japan and internationally, and are helping to prevent air pollution.



K-FILTER® equipment for VOC emissions treatment

Sales/Use	Disposal/Re-use
↑ Solutions for customer challenges and social issues - Supplying the world with safe water Seawater desalination and wastewater treatment systems (RO, BC, FO membranes) - Harmful substances are adsorbed, reducing the impact on the environment K-FILTER® equipment for VOC emissions treatment Functional nonwoven fabrics (electret air filter Elitolon®, heavy metal ion adsorbent spunbond COSMOFRESH NANO™) PPS fibers for bag filters PROCON® - High functionality, recyclable, enhanced comfort Three-dimensional cushion material BREATHAIR® - Reduces weight and saves resources Super fibers IZANAS®, Tsunooga®, ZYLON® 	↓ Resource circulation - Hollow fiber membrane materials are biodegradable after disposal (Environment) ↓ Health & safety of local residents - Prevention of soil contamination, control of poisonous gases during combustion (Environment)

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Membranes for desalination and wastewater treatment

Numerous large-scale desalination plants in the Middle East have adopted TOYOBO Group's RO membranes for desalination, to eliminate water shortages.

We have also developed the BC membranes for wastewater treatment, based on our RO membrane technology. It is more energy-efficient than the existing evaporation method.



RO membrane for seawater desalination

Filters that protect the body from harmful substances

The electret air filter Elitolon® is used in masks, air purifiers and air conditioning systems, among other applications. It protects the body from dust, tobacco smoke, NOx, SOx, radioactive iodine, PM2.5, viruses, etc.

Nonwoven fabric for preventing soil contamination, etc.

Functional PET spunbond nonwoven fabrics, which use recycled polyester materials, have a variety of applications including automotive, construction, civil engineering, packaging, and hygiene products.

They help protect the environment and mitigate companies' environmental impact in various ways, including preventing soil contamination.

Cushion materials with high antibacterial properties

The three-dimensional cushion material BREATHAIR® excels in air permeability, cushioning characteristics, water permeability, and durability. It also includes antibacterial properties, and is widely used in hospitals and nursing care facilities.



BREATHAIR®

Life Science

<Key Products>

Bioproducts (research reagents, diagnostic systems, raw materials for diagnostic applications), pharmaceutical products (contract manufacturing of injections, etc.), medical equipment (nerve regeneration inducing materials, bone regeneration inducing materials, biocompatible polymers), medical membranes (artificial kidney hollow fiber membrane, hollow fiber membrane for blood purification, virus-removing hollow fiber membrane for antibody drug processes)

Growth Strategy

Contributing to the development of healthcare and improvement in QOL with one-of-a-kind products

Yutaka Ouchi

Managing Executive Officer

Head, Life Science Solutions Division



The mission of the Life Science Solutions Division is to consistently “create the solutions for people and the earth” in the healthcare and life science field. Based on our bio- and membrane technologies, we strive to find solutions for the issues faced by users and society, through the fusion and synergy of diverse technologies.

In the diagnostic reagent business, we bring our long-standing expertise in research reagents, to contribute in improving public health, with a focus on developing gene testing agents and their associated materials for a variety of infectious diseases. We are also expanding our lineup of highly functional antibodies for immunity testing agent materials.

In the pharmaceuticals business, we specialize in contract manufacturing of sterile injections to meet growing demand, where our strengths lie in compliance

with regulations in Europe, the United States and Japan.

In the medical membranes field, we are improving our manufacturing technology and developing a new business model for active use in areas including hemodialysis, blood purification and antibody drug processes.

In the medical equipment field, we are working hard to expand sales of regenerative medical materials, aiming for standardized treatment. Moreover, we are accelerating research and development by utilizing products from our other businesses as well as employing external expertise.

Through these strategies, we develop and provide “one-of-a-kind” products that our competitors are unable to emulate, thereby contributing to the development of healthcare and improvement in quality of life (QOL).



Future Vision

- Top domestic provider of solutions for genetic diagnoses of infectious diseases
- Global-leading medical membrane manufacturer

Quantitative Targets (FY2026)

Net sales of

¥40 billion

(¥25.5 billion as of FY2020)

Note: Our business segments were reorganized with effect from FY2021.
Sales figures for FY2020 are unaudited and approximate.

Characteristics and SWOT for each field	S trengths	W eaknesses	O pportunities	T hreats
	Emerging markets are driving growth in the clinical testing market, while China is driving growth in the research reagent market			
Bioproducts	• Branding and large market share in emerging markets • Technological capability enabling integrated development from raw material to reagent • World's fastest trace detection technology	• Cost competitiveness • Strengthening production structure	• Growing scale of global market in clinical testing agents/research reagents • Spread of genetic testing in Japan and internationally	• Competitors entering the market, product and price competition • Paradigm shift in genetic detection technology
	Drug manufacturers are outsourcing formulation to focus their resources on drug discovery Development of orphan drugs is also accelerating			
Pharmaceuticals	• Ability to handle high-mix, low volume production • Ability to comply with regulations in Europe, the United States and Japan • A strong network of connections with pharmaceutical manufacturers	• Upgrading facilities to comply with latest GMP^{*1} • Developing specialist human resources • Strengthening production structure	• Ability to handle high-mix, low volume production	• GMP requirements are increasing year on year • Competitors are expanding business through M&A • Competitors are also entering the European/U.S./Japanese markets
	The number of dialysis patients using artificial kidney hollow fiber membranes are increasing markedly in emerging markets, and the worldwide annual growth rate is 6% ^{*2}			
Medical membranes	• Stable quality based on solid sales track record • Outstanding filtering performance based on advanced membrane production technology • Our hollow fiber membrane production technology enables entry into blood purification treatment for septicemia	• Strengthening production structure	• Increase in dialysis patients worldwide (+6% annually) • Rising health consciousness: focus on QOL • Increase in severe cases due to inflammatory response to infectious diseases • Spread of septicemia treatments	• Cost competition from entry of new competitors
	Limited growth anticipated in Japanese market due to decreasing population, global market expected to be the main battleground in future			
Medical equipment	• Development technology for new materials/products (development of biocompatible and safe bioabsorbable materials, etc.) and its effective application to medical equipment	• Lack of means to discover product needs • Business infrastructure	• Increased focus on regenerative medicine (Japan) • National policy to shorten regulatory approval time for medical devices • Preferential treatment of reimbursement pricing for products with high novelty	• Intensifying cost competition

^{*1} Good Manufacturing Practice:
The manufacturing and quality control standards required of manufacturers (including non-Japanese manufacturers) and marketing authorization holders

^{*2} TOYOBIO estimate

Life Science

Value Creation Flow

Process	Procurement	Manufacturing
ESG aspects  Enhancement of positive effects (increasing opportunities) Mitigation of negative effects (reducing risk) 	 Quality and customer health & safety - Acceptance testing based on GMP (Pharmaceuticals) - Ensuring complete traceability of raw materials in products intended for implant	 Worker health & safety - Conducting prior reviews concerning the safety of chemical substances (Pharmaceuticals)  Quality and customer health & safety - Strict controls based on GMP (Pharmaceuticals)  Preventing global warming - Promoting energy conservation by upgrading to highly efficient equipment (Medical Membranes)  Resource circulation - Collecting offcuts, etc. and providing these to manufacturers that regenerate raw materials (Medical Membranes) - Reducing packaging material volumes by simplifying packaging (Medical Equipment)

Major ESG topics in business processes

Resource circulation

In the medical membrane field, we collect offcuts during manufacturing and provide these to manufacturers that regenerate raw materials, realizing resource circulation. In the medical equipment field, wherever possible we simplify packaging at the point of sales to avoid wasting resources, while always ensuring quality.

Health & safety

In the pharmaceuticals field, besides implementing GMP control measures, we carry out product-specific initiatives in each area. For example, in the medical equipment field, we ensure complete traceability of raw materials in products intended for implant. The scientific support group also trains users to prevent incorrect use.

Value provided through products and services

Enzymes and analysis systems supporting diagnostics

To contribute to the health of people worldwide, we supply diagnostic-use enzymes to diagnostic reagent manufacturers for use in biochemical diagnosis.

We also provide the fully automated gene analysis system GENECUBE®, which uses our unique high-speed nucleic acid amplification technology to simplify and shorten the process from nucleic acid extraction to amplification and detection. This helps to reduce treatment times and cut drug costs.

Reagents aiding research into SARS-CoV-2

Employing our unique enzymes, SARS-CoV-2 Detection Kit enables the genetic extraction process to be completed in as little as two minutes.

By optimizing the enzyme action through the preparation of a reagent compound, the time taken to amplify the

Sales/Use	Disposal/Re-use
↑ Solutions for customer and social issues - Enhancing QOL through our contributions to medical settings Nerve regeneration conduit Nerbridge® Artificial kidney hollow fiber membranes Fully automated gene analysis system GENECUBE® Sterile injections, etc. ↓ Quality and customer health & safety - Formation of scientific support group to prevent incorrect use of products (Medical Equipment)	↓ Management of chemical substances - Selection of specified collection contractors for organic solvents, etc. (Medical Equipment) ↓ Worker health & safety - Installation of waste ducts at sites where organic solvents are handled (Medical Equipment) ↓ Health & safety of local residents - Outsourcing of waste material processing to specialist operators (Medical Equipment)

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extracted genes has been cut by more than half. The process from extraction to measurement can be completed in under 60 minutes.

Medical equipment promoting regeneration of peripheral nerves

The nerve regeneration conduit Nerbridge® is a device that promotes the regeneration of peripheral nerves severed or damaged as a result of an injury or related causes. It is the first treatment device to obtain approval in Japan using this technology. There is no need to harvest undamaged nerves, unlike in conventional treatment, which shortens surgery time and helps to reduce the burden on the patient. After nerve regeneration, the product is dissolved and absorbed safely by the patient's body.



Nerbridge®

Hollow fiber membranes helping to improve dialysis patients' treatment and QOL

TOYOBO provides artificial kidney hollow fiber membranes with the aim of improving treatment results for dialysis patients and their quality of life (QOL). Our membranes boast outstanding filtering performance and stable waste removal performance, with little degradation over time, while also demonstrating superior biocompatibility.



Dialyzer for artificial kidney using a hollow fiber membrane

Contributing to realization of a circular economy

—Establishment of Renewable Resources Business Development Department

Aim of establishing a new Department

In recent years, there has been an urgent need to address environmental issues, such as reducing plastic waste and petroleum-based raw materials. Recognizing these issues from the outset, TOYOBO Group has long adopted a broad vision in our continued search for new technologies. One such example is a technology that creates polyester raw materials from wood. Anellotech Inc., a U.S. biochemical venture company is currently developing this technology. TOYOBO Group has joined forces with Anellotech Inc., Suntory Group and many other international companies to initiate a project to develop a 100% biobased PET bottle. We are also collaborating with Dutch chemical technology company Avantium N.V. (See “Key development topics” on the right).

To further accelerate these initiatives and contribute to

creating a sustainable society, in April 2020 we established the Renewable Resources Business Development Department. Based on the slogan “Catalyzing Circular Economy,” we will fulfill our responsibility as a plastics manufacturer and contribute to the realization of a circular economy.



Laboratory of Anellotech (New York, U.S.)

Mission

Ensuring the supply of renewable resources

Developing recycling-related technologies

Expanding business

To ensure that the materials TOYOBO Group provides are sustainable, we are promoting the use of biobased and recycled materials. As well as in-house development, we will continue to search for related technologies around the world.

While we pursue company-wide cross-divisional cooperation, we will collaborate with external organizations and companies as we commercialize our products.

Participating in initiatives

TOYOBO Group is participating actively in various initiatives. One such example is the Clean Ocean Material Alliance (CLOMA), which we joined in fiscal 2019. CLOMA is an organization established in Japan with the aim of reducing marine plastic waste. Its members include a wide range of companies involved in the manufacturing, processing and use of packaging and other materials. We are also participating in CEFLEX (see pages 53 and 72), Petcore Europe, and Japan BioPlastics Association (JBPA).

Working closely with a variety of companies and organizations, we will help to build a plastics value chain that is appropriate to the era of the circular economy.



Key development topics in FY2021

Food packaging film made from 100% biobased resin

The high-performance polyester Polyethylene Furanoate (PEF) is created through polymerization of Avantium's biobased raw materials with TOYOBO's unique technology. Compared to conventional PET films, PEF films made from 100% biobased resin have an oxygen barrier efficiency 10 times higher, while water vapor barrier efficiency is twice as high. Drawing on this superior barrier performance, we are expanding into the market, focused on food packaging film.

Development of catalyst with enhanced PET recyclability

TOYOBO GS Catalyst®, a polymerization catalyst developed by TOYOBO, is the world's first aluminum catalyst.

The catalyst is more environmentally sound: it does not contain any heavy metals and the obtained PET resin does not deteriorate when melted, making it well suited to recycling.

TOYOBO has already licensed the technology to Thailand's Indorama Ventures Public Company Ltd., the world's largest PET resin manufacturer. With the excellent recyclability of the produced PET resin, we will develop this business worldwide in cooperation with Indorama.



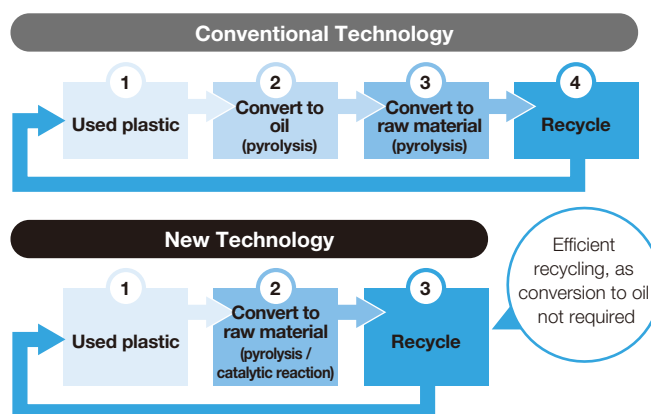
GS Catalyst® (front) has higher transparency than the other catalysts

Establishment of JV company to create used plastic recycling business

Anellotech's technological development has enabled a new technology to efficiently recycle a wide variety of used plastics. Following this, in June 2020 the joint venture company R Plus Japan, Ltd. was established by a group of 12 companies operating in Japan's plastics value chain, which includes TOYOBO. We intend to push forward with development of the used plastic recycling business, utilizing this new technology.



Press conference of JV company establishment



Long-term vision

We have drawn up a roadmap to 2030—while also looking towards 2050—based on government policies in Japan and overseas, as well as environmental industry targets. In collaboration with our partners worldwide, we aim to shift to biobased products focused on polyester resin, and to establish technologies related to material and chemical recycling. Working closely with each Solutions division, we will also adapt flexibly to changes in the business environment.

2040–50

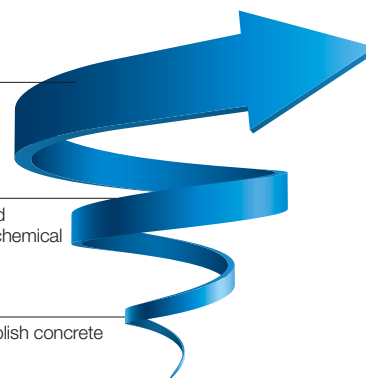
Realization of a circular economy

2030

Shift to biobased PET resin and establishment of material and chemical recycling technologies

2020

Launch new department, establish concrete development themes



TOYOBO's Way of Manufacturing

The Tsuruga Research and Production Center—the source of diverse products and solutions, and TOYOBO's largest R&D/manufacturing base

History of the Tsuruga Research and Production Center

1934	1964	1978	1984
Toyo Boseki: Start of operations at the Tsuruga Plant Start of rayon production (The current Tsuruga Plant No. 1)	Kureha Boseki: Start of Tsuruga Nylon Plant operations (The current Tsuruga Research and Production Center) *1966: Merger of Toyo Boseki and Kureha Boseki	Establishment of Tsuruga Enzymes Plant (The current Tsuruga Biochemicals Plant)	Start of Nippon Magphane Tsuruga Plant operations (The current Tsuruga Films Plant)
		Bioproducts	
	Films		
Textiles and polymers			



Invested
¥10 billion
in new production
facilities

¥6 billion
investment

2010	2014	2018	2019
Full-scale start of production reform activities	Begin operating world's largest polyester film production facilities	Establishment of Xenomax – Japan Co., Ltd. for production of high heat-resistant polyimide film	Launch of manufacturing plant for mold releasing films for MLCC

Grown to become TOYOBO's core plant, almost 90 years after establishment

The Tsuruga Research and Production Center started life in 1934 with the production of rayon. Since then, it has widened its sphere of operation over many years to include films, biochemicals and high-performance products, meeting the needs of the times. We have developed systems that enable the Tsuruga plant to handle processes from R&D

right through to production, and it plays a fundamental role in "TOYOBO's way of manufacturing."

In recent years, we have continued to implement process control standardization using ICT/IoT, while investing aggressively to bolster the plant's production capacity.

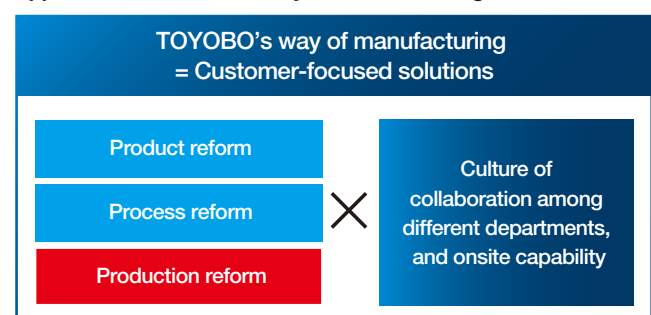
Production reform activities in support of manufacturing

In our production reform activities, we seek to resolve issues by boosting the onsite capability throughout the plant, based on an understanding of the "customer's perspective" and "what is needed the most," which are the most valued aspects of "TOYOBO's way of manufacturing." We have carried out production reform activities at the Tsuruga Research and Production Center continuously for 10 years, and have created a culture in which knowledge is shared across departmental boundaries.

Customer needs are always subject to change. It could be product quality, information and solutions, resilience towards natural disasters and other emergency situations in recent years, onsite capability to respond to customer feedback, and the actual reliability of our onsite operations. Supplying outstanding products that give our customers joy, providing customers with accurate information, and building systems using ICT/IoT, are also key topics in our activities.

In addition, whenever a department is the first to identify or uncover new information, this is shared with the other departments. An important characteristic of the Tsuruga Research and Production Center is the way in which various issues are tackled in an integrated manner—cross functionally—to produce synergies.

Approach to TOYOBO's Way of Manufacturing



Process control by artisans, utilizing ICT/IoT

Production reform activities at the Tsuruga Research and Production Center commenced in fiscal 2011. Since then, we have been standardizing our process control to provide safe and stable onsite working conditions. This has been achieved by tackling issues such as complaint handling, cost competitiveness, and technology & skill transfer, all of which are common among many departments.

After 10 years of constant efforts, we have managed to reduce more than 90% of the problems throughout the plant. This has been achieved by identifying potential problems during daily adjustments to manufacturing processes and

voluntary maintenance work, and then making the appropriate improvements. The vast implicit knowledge of the organization, particularly of our most experienced workers, has been useful. Identifying and standardizing their knowledge becomes a major strength. This means that in relation to the elements of process control—monitoring, judgment, and action—the knowledge and expertise gained from past experience can be put into practice by anyone, whether a new employee or an experienced professional. In this sense, our employees become master artisans conducting process control.

Monitoring Identifying changes

The knowledge and experience of artisans

Our artisans can draw on their experience to quickly and flawlessly identify changes in equipment or processes that may result in product abnormalities.

They can do this because the points and standards they need to check are clearly identified.

Workflow for realizing artisans' process control

Visualizing the artisan's standards

- **Clarifying points and standards**
The following items are surveyed in detail: What do I see, hear and feel? How is it different from the normal state?
- **Documenting and mechanizing points and standards**
These are reflected in standardization manuals and alarms, onsite notices, etc.

Strengthening the monitoring structure

- **Ensuring time for monitoring**
We reduce the time spent on searching and wandering around by reviewing work processes and the placement of people as well as objects.
- **Strengthening patrol inspections**
Security and disaster prevention as well as other items are reviewed and adjusted to the artisan level

Support provided by ICT/IoT

- **Deploying and developing monitoring tools**
Various tools and systems are used for monitoring: position sensors and image analysis are used for visual monitoring, while vibration sensors are used for auditory and touch-based monitoring
- **Developing analysis systems**
Indications of changes are detected, and workers are notified

Judgment

Action

Quickly and securely restoring normal operation

The knowledge and experience of artisans

Our artisans can quickly and securely restore changes in equipment or processes back to normal operation.

They can do this because they have the logic (in thought and procedures) along with the skills to identify the cause and take action quickly and properly.

Workflow for realizing artisans' process control

Visualizing the artisan's logic

- **Clarifying logic**
We organize the thought and procedures for identifying causes, and the types of action appropriate to each cause
- **Documenting logic**
Standards and Procedure manuals that describe solutions and techniques are created to enable prompt and accurate action

Enhancing knowledge and skills

- **Extending training and drills**
We create systems that facilitate efficient learning of the knowledge, technology and skills required for an understanding of logic and an approach akin to that of an artisan

Support provided by ICT/IoT

- **Developing support systems**
We promptly provide documents detailing the information, logic and methods required from cause identification to action

Security and disaster prevention initiatives

In September 2018, a major fire occurred at the Tsuruga Research and Production Center. In order to learn from this event, we gathered the direct feedback of those who experienced the fire, collated the problems raised and shared these within the plant. Based on this, we carried out a review of the plant's systems where we conducted inspections and made improvements at each onsite location, installed new equipment for the entire plant, and improved the firefighting system as well as activities.

The system adopted in our production reform activities has been useful here. Meetings were held to make decisions for the Group, but before that, sectional meetings thoroughly discussed

the following topics: 3S (Sort, Sweep, and Standardize), problem mitigation, training, quality and smart operations.

Our customers as well as the people from the surrounding area suffered significant damage, and we caused great inconvenience to them. To ensure that such a fire never occurs again, the memories and experiences we have collated will be passed down through our production reform activities.

Moreover, we have incorporated the lessons of the Tsuruga plant fire in our company-wide disaster prevention guidelines and our investments in disaster prevention equipment.

Key results

Spunbond nonwoven fabric production

Raw material losses
35% reduction

Product defects
75% reduction

BREATHAIR® production

Raw material losses
40% reduction

Product defects
70% reduction

*Initiatives from FY2011 to FY2019

ESG Management

Our Officers' Commitment



Masakatsu Shirai
Director, Executive Officer
Controlling Supervisor of
HR and Sustainability
Planning Division

Since the adoption of the SDGs by the United Nations General Assembly in 2015, there has been an acceleration and expansion of activities around the world to realize a sustainable society. Corporations are expected to strengthen and augment initiatives in a variety of areas, including measures to tackle climate change, contribution to the realization of a circular economy, and respect for human rights.

TOYOBO Group has held firm to its corporate philosophy of *Jun-Ri-Soku-Yu* (adhering to reason leads to

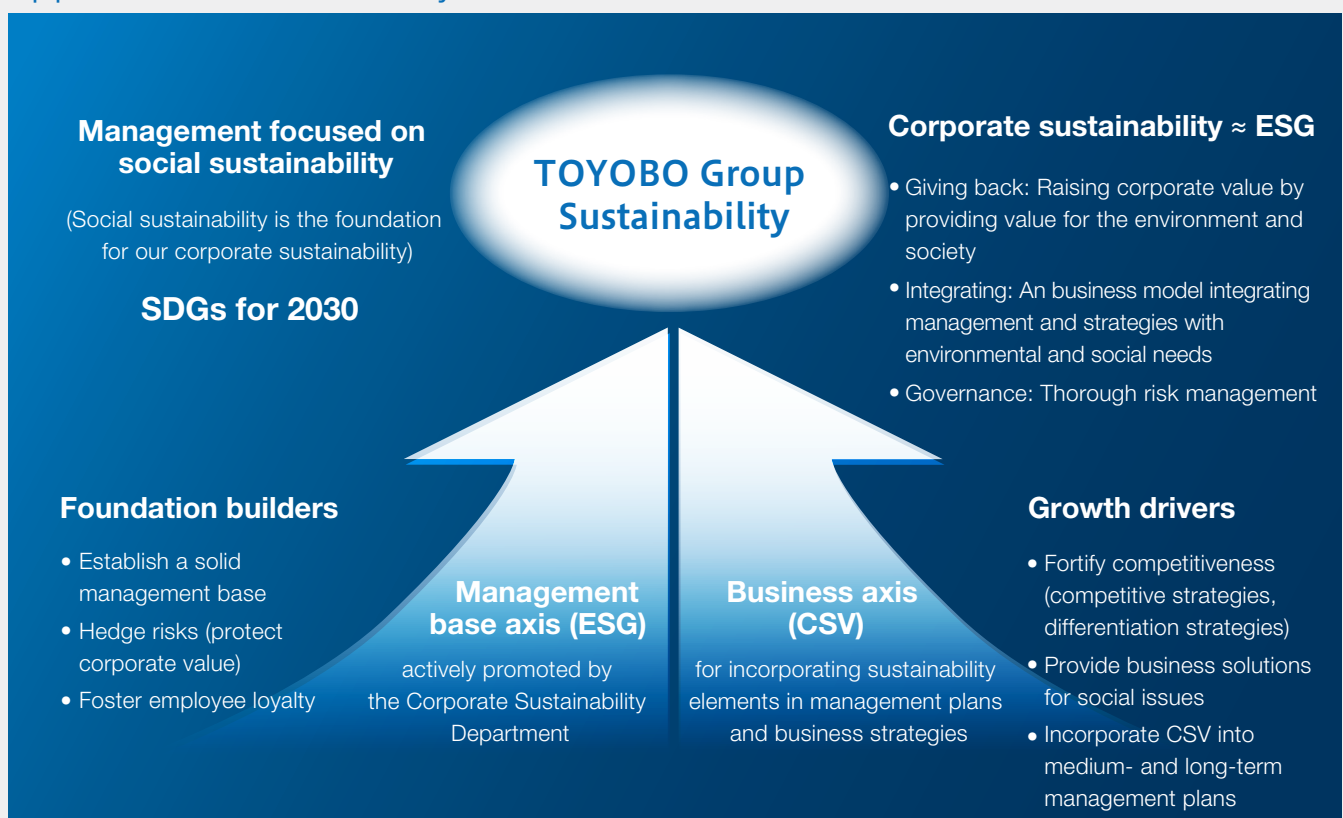
prosperity)—a personal maxim of our founder Eiichi Shibusawa—and has been a pioneer in implementing CSV. At the same time, we have made a commitment to further promote management aimed at enhancing both economic and social value. With this approach, we are proactively contributing towards a sustainable society, based on the ever growing demands of the times. Reorganizing and enhancing our corporate philosophy system is one example of this approach.

In 2019, we enhanced our corporate philosophy system as Principle, Vision, Values, and TOYOBO Spirit (PVVs). Our Vision states that “we will continue to create the solutions needed by people and the earth with materials and science,” thus clarified our commitment to making significant contributions to solving social issues through our business activities.

Furthermore, in January 2020, we became a participant to the UN Global Compact (UNGC), and also expressed our support for the TCFD Recommendations. Then, in April, we established a Corporate Sustainability Department to strengthen our management foundation and support business growth from an ESG perspective, and also identified the Group’s material issues (see page 09).

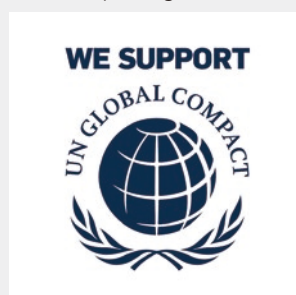
Going forward, the Department will play a central role in further accelerating initiatives in response to global demands and expectations, and will actively communicate this process and the results to our stakeholders.

Approach to Sustainability



UN Global Compact (UNGC)

In January 2020, TOYOBO CO., LTD. became a signatory to the UN Global Compact (UNGC*), and also joined Global Compact Network Japan, which comprises Japanese companies and organizations that are UNGC signatories. As a responsible corporate citizen, this reflects our endorsement of the goal to resolve global issues and realize sustainable growth. We also gather information through our participation in the subcommittees of Global Compact Network Japan, utilizing this in our day-to-day activities. From fiscal 2021, we are participating in the following subcommittees: ESG, Supply Chain, Environmental Management, Kansai-based regional subcommittee, Reporting Research. TOYOBO will abide by the ten principles of UNGC and strengthen measures to realize a sustainable society.



The Ten Principles of UNGC

Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	▶ p.09–10, p.58, 60
	Principle 2: make sure that they are not complicit in human rights abuses.	
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	▶ p.09–10, p.56, p.58, 60
	Principle 4: the elimination of all forms of forced and compulsory labour;	
	Principle 5: the effective abolition of child labour; and	
	Principle 6: the elimination of discrimination in respect of employment and occupation.	
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges;	▶ p.09–10, p.25–42, p.48, p.50–54
	Principle 8: undertake initiatives to promote greater environmental responsibility; and	
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	▶ p.09–10, p.69

Task Force on Climate-related Financial Disclosures (TCFD)

The TOYOBO Group's Vision is to be a group that continuously creates solutions demanded by people and the global environment through "Materials and Science." As part of its efforts, the group aims to help realize a sustainable society through the provision of products and services.

The TOYOBO Group has expressed its support for recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD) and joined the TCFD Consortium of companies and financial institutions in Japan that agree on the recommendations. The Group will analyze the potential future business risks and opportunities arising from climate change and respond to the risks and opportunities along with its financial information disclosure.



Response to COVID-19

In our response to COVID-19, TOYOBO Group's top priority has been the safety and wellbeing of our employees and their families, with the primary goal of protecting both society and the Company. We are also making a positive contribution through our products and services.

COVID-19 has sent shock waves through society, and

we are now moving towards a "new normal" in the era of living with COVID-19 and after COVID-19.

We will enhance our crisis resilience and strengthen business continuity, and through our new organizational structure launched in April 2020, we will work proactively to provide superior solutions.

Contribution through our business

- Increased production of reagents for PCR tests
- Developed a SARS-CoV-2 detection kit (▶p.37)
- Increased production of nonwoven fabric and filter materials (including for face masks), materials for medical-use face shields, etc.
- Participated in medical gown production project
- Obtained approval for production and sales of SARS-CoV-2 genetic test reagents for use with the fully automated gene analysis system GENECUBE®

- Donated protective clothing to hospitals, made using airbag fabrics
- Donated face masks to hospitals, care facilities and local governments, etc., both at home and abroad

TOPIC

In collaboration with Toyoda Gosei Co., Ltd. and others, we have developed protective clothing that uses TOYOBO Group's airbag fabrics. The clothing can be washed and re-used, helping to resolve shortages of materials in medical settings.

We have also commenced production and sales of SARS-CoV-2 test reagents for use with our fully automated gene analysis system GENECUBE®. This system automates the process from sample and reagent mixing to viral gene amplification and detection, lightening the workload for testers and helping to reduce the risk of infection.



GENECUBE®



Produced original fabric face masks and donated these to local governments

Protective clothing developed jointly with Toyoda Gosei Co., Ltd. and others

Ensuring employee safety

- Encouraged home-based working and staggered working hours (▶p.57)
- Following the government's emergency declaration, kept the ratio of employees attending the office to under 20%, and gradually relaxed this after the state of emergency was lifted, with employee safety the top priority
- Implemented robust infection prevention and control measures

Maintaining continuity of plants and production activities

- Operation under BCP procedures
- Flexible inventory and production adjustments

Finance

- Securing cash on hand
- Cash-generating activities: Overcome Coronavirus 100

(▶p.13, 24)

(As of June 30th, 2020)

E Long-Term Countermeasures up to 2050

Long-term global warming countermeasures

In recent years, the impact of climate change associated with global warming has become apparent with an increase of natural disasters such as typhoons and localized torrential rainfall, as well as changes in the ecosystem due to "subtropicalization" of the climate. Against this backdrop, in December 2015 the Paris Agreement was adopted as the international framework of the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21). In addition, there has been a worldwide increase in ESG investing, in which investors focus on and select those companies that give consideration to Environment, Social and Governance factors.

TOYOCO Group also recognizes the serious risk posed by global warming and climate change to the continuation of business activities, and we are working hard to achieve our emissions reduction targets. In the coming years, we will extend our focus beyond production to our overall business activities, as we endeavor to contribute to environmental sustainability through our product- and technology-based solutions. In this way, we will strive to cut greenhouse gases from an even longer term perspective.

We will seek to reduce emissions of greenhouse gases from our business activities through measures such as switching to natural gas in our factories and enhancing production

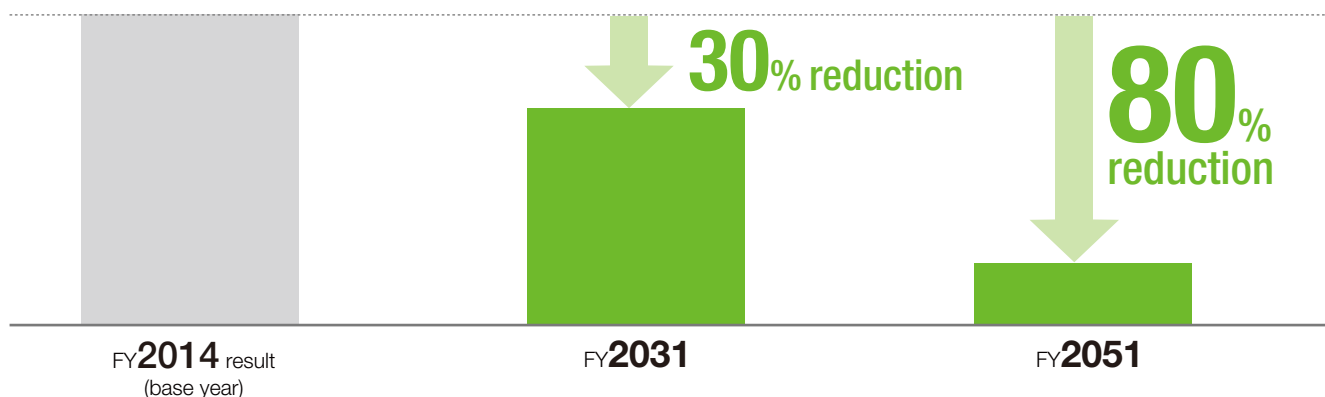
efficiency, as well as introducing renewable energies such as solar power.

With regard to the initiatives we are engaged in through our products and solutions, we are developing and increasing sales of engineering plastics, which help to reduce CO₂ emissions from automobiles due to their lighter weight and greater fuel economy. We are also developing products and technology that contribute to carbon recycling, by viewing CO₂ as a carbon resource and collecting it for re-use as various carbon compounds.

Through these measures, we aim to reduce our greenhouse gas emissions by 30% and 80% in fiscal 2031 and fiscal 2051, respectively, compared with fiscal 2014.



Greenhouse Gas Reduction Targets

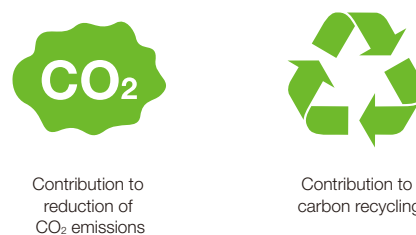


Key Measures

Reduction of Emissions from Business Activities



Contribution through Products & Solutions



Preventing Climate Change

Basic approach

Climate change poses a significant risk to the continuity of our business. We are therefore endeavoring to cut greenhouse gas emissions throughout our supply chain.

Activities to cut greenhouse gas emissions during production

In fiscal 2020, TOYOBO Group drew up a long-term vision aimed at further cutting greenhouse gas emissions.

This includes the goal of an 80% reduction in emissions by fiscal 2051, compared with the fiscal 2014 level. We have also updated our interim targets to fiscal 2031.

We are now aiming for a 30% reduction (compared with fiscal 2014) replacing the previous 17% reduction target.

CO₂ emissions in fiscal 2020 totaled approximately 873,000 tonnes for Scope 1¹ and Scope 2² combined, 3.4% lower than the previous fiscal year and 28.1% lower than the reference fiscal year (fiscal 2014). We believe this is due to the benefits of gas cogeneration facilities³ and enhanced production efficiency.

Moreover, in fiscal 2020 we constructed the Group's fourth gas cogeneration facility at the Tsuruga Research and Production Center, our largest R&D and production base. Operation is scheduled to commence from fiscal 2021, and we are confident that the facility will help reduce greenhouse gas emissions.

→See "Non-Financial Highlights" on page 75 for emission volumes by year

1 Direct emissions from owned or controlled sources

2 Indirect emissions from the use of purchased electricity/heat/steam

3 An energy recycling system, harnessing waste heat (from clean natural gas-fired electric generation) to produce steam & hot water used in manufacturing processes, supplying of hot water and air-conditioning etc.

Activities to cut greenhouse gas emissions in logistics

Our annual goal is a 1% year-on-year reduction in greenhouse gas emissions in logistics.

To achieve this, we are implementing a modal shift (active use of sea and rail transport due to their lower CO₂ emissions), taking measures such as shortening the transportation distance by using the ports closest to our business sites and factories. Moreover we are reducing the number of running vehicles through efficient loading of cargo and bulk transportation.

In fiscal 2020, we implemented port diversification for certain products of industrial film, which had previously been shipped entirely from Kobe port. Products manufactured at the Tsuruga Research and Production Center are now shipped from Tsuruga port, and products manufactured at the Inuyama plant are now shipped from Nagoya port.



Gas cogeneration facilities at Tsuruga Research and Production Center

Management of Chemical Substances

Basic approach

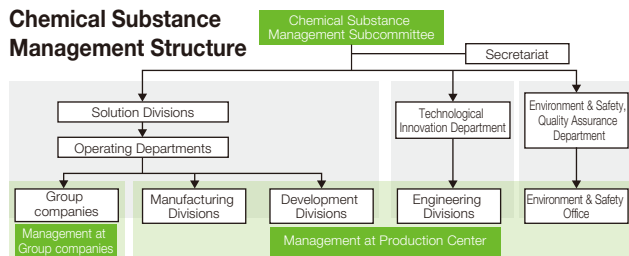
TOYBO Group endeavors to manage chemical substances appropriately throughout the product lifecycle (research, development, design, manufacturing, sales, use, and disposal), in order to help conserve the global environment, prevent accidents, ensure workers' health and safety, and ensure product safety.

Chemical substance management structure

For appropriate management of chemical substances, TOYBO Group has established a management system at each office. Each solutions division supervises the activities of the offices and group companies under their jurisdiction.

In addition, we have created a "TOYBO Chemical Substance Management Classification" in compliance with laws and regulations—both international and domestic—as well as client requests. This classifies the chemical substances we handle into five levels, and the management procedures are specified for each level or "rank". Use of substances in rank A and B is permitted only when the risks are thoroughly assessed, mitigation measures are taken, and the risk is deemed tolerable. We are continuously making efforts to reduce the overall usage volume of rank A and B substances by optimizing and replacing these substances.

Chemical Substance Management Structure



TOYBO Chemical Substance Management Classification

Rank	Management Category	Notes (laws and regulations, etc.)
A	Substances requiring particularly strict management	Chemical Substances Control Act ¹ , Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, Act on the Protection of the Ozone Layer, Act on the Prohibition of Chemical Weapons, POPs ² , PIC ³ , etc.
B	Substances requiring strict management	Chemical Substances Control Act, PRTR ⁴ , Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, etc.
C	Substances requiring strict exposure prevention measures	Chemical Substances Control Act, PRTR, Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, Fire Service Act, etc.
D	Substances requiring exposure prevention measures	PRTR, Industrial Safety and Health Act, etc.
E	Others	Other than A–D

1 Chemical Substances Control Act: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

2 POPs (treaty): Prevention and reduction of Persistent Organic Pollutants (POPs)

3 PIC (treaty): The Prior Informed Consent Regulation (trade)

4 PRTR: Pollutant Release and Transfer Register

Chemical substance management activities

Supply chain management, which started with the European Union's legislation on chemical substances, has also come to be required in Japan following the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substances Control Act), as well as other regulations relating to the management of chemical substances. Additionally, the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) has been adopted by the United Nations.

In view of this situation, TOYBO Group has introduced a chemical substance management system covering procurement to manufacturing and sales. This is to realize green procurement while providing accurate and prompt support to our customers. We employ this system to investigate the use of regulated substances and carry out surveys regarding content in products. The system also supports suppliers in creating safety data sheets (SDS) for chemical substances.

Given the global expansion of TOYBO Group's operations, we are creating a database of chemical substance-related laws and regulations in Asia, Europe, North and South America. Furthermore, in order to identify and mitigate chemical substance handling risk, we have established rules concerning matters including the replacement/reduction of hazardous chemical substances, proper maintenance of the workplace and environments, and the management of chemical substances in products. In this way, we are striving to ensure proper management.

Reducing emissions of Pollutant Release and Transfer Register (PRTR) substances

TOYBO Group is assessing and reports the release and transfer volumes of the PRTR substances for each office. We publish and analyze the results annually to reduce our substance waste and transfer volumes.

We are reducing our release volumes through measures including the following: improving and updating manufacturing facilities and systems, improving operating conditions, installing equipment to remove the applicable substances, replacing raw materials and auxiliary raw materials. We will continue to implement activities aimed at reducing release volumes.

Release and Transfer Volumes of PRTR Substances

(tonnes)					
FY	Transfer volume	Emissions to air	Emissions to public sewage system	Emissions to soil	Landfill volume
2018	1,174	154	20	0	0
2019	1,085	103	12	0	0
2020	1,169	95	19	0	0

Resource Circulation

Basic approach

In recent years, there have been growing expectations in society for the creation of a “circular economy”; an economic system that recycles and reuses previously discarded products as new resources.

TOYOBO Group has long taken a proactive approach to resource circulation, such as using recycled resin made from PET bottles as the raw material for chemical synthetic fiber and film products. Our current aim is to realize resource circulation on a larger scale, including the use of bio-based raw materials and biodegradable products. We will continue to promote initiatives that help achieve resource circulation throughout the product life cycle, from design, material procurement and production to post-usage, thereby contributing to the realization of a circular economy.

Participation in various initiatives

In August 2019, TOYOBO Group joined the European consortium CEFLEX. Established in 2017, CEFLEX comprises more than 130 companies and organizations involved in the flexible packaging value chain, including leading raw materials manufacturers, converters, printing companies, consumer goods manufacturers, retailers, and recycling companies. CEFLEX’s goals include establishing a collection, sorting, and reprocessing infrastructure for used flexible packaging by 2025 in order to promote the realization of a circular economy in the European flexible packaging sector. Joining CEFLEX will allow TOYOBO Group to quickly

acquire the latest information on recovery systems and regulations, and moreover, we will use this in developing and supplying eco-friendly technologies and products.

We have also joined the Japan Clean Ocean Material Alliance (CLOMA), an organization established in Japan to reduce marine plastic waste. Through collaboration with other CLOMA members, which includes manufacturers, processors and users of packaging and other materials, we will work to develop and promote the use of alternative materials.

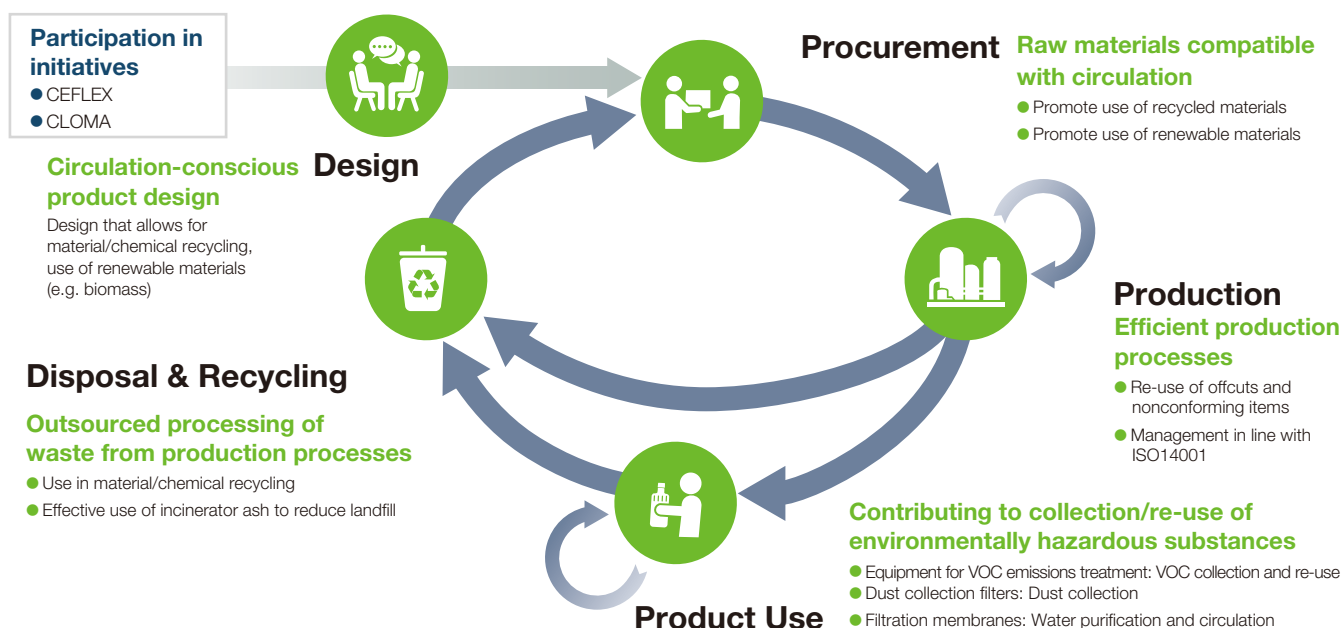
Waste reduction

TOYOBO Group is working to reduce, re-use, and recycle waste, aiming for a final disposal rate (landfill rate)* of under 1%. We again achieved this target in fiscal 2020, with a final disposal rate of 0.57%. We will continue making efforts to further reduce the final disposal rate through reviews of our sorting and disposal methods. We will also set new recycling rate targets to promote resource circulation.

TOYOBO takes a systematic approach to appropriate disposal of polychlorinated biphenyl (PCB) waste. The disposal rate up to fiscal 2020 was 77% (unit volume basis). With regard to electric facilities containing low-concentration PCBs, which we currently use, we are implementing updated plans so as to meet the statutory disposal deadlines.

*The volume of landfill waste within total waste

Contributing to Resource Circulation through All Business Processes



Eco-Conscious Products

Mechanism for certification of eco-conscious products

As clearly stated in our Charter of Corporate Behavior, TOYOBO Group strives to save energy as well as reduce and re-use resources. We also develop products and technologies that help mitigate our impact on the environment. These products and technologies are defined and evaluated under our Eco-Review system. This system evaluates the following aspects at every stage in the product life cycle: “climate change prevention,” “reduction of chemical substances,” “resource conservation,” “reduction in waste,” and “other environmental contributions”. Products that meet these standards are certified as ECO-PARTNER SYSTEM™ products.

Since the Eco-Review is carried out at every product life cycle—from R&D to commercialization—issues that require improvement from an environmental protection perspective are identified and improved at an early R&D stage prior to the subsequent review. Consequently, we are contributing to the environment as we develop our products and technologies.

Ratio of ECO-PARTNER SYSTEM™ product sales increases to 30.4%

Our goal is to increase the ratio of ECO-PARTNER SYSTEM™ product sales to 30% of total sales by fiscal 2031 (the ratio was 25% until fiscal 2016). In fiscal 2020, the ratio was 30.4%.

Certification of ECO-PARTNER SYSTEM™ products is currently only carried out within the Company. We plan to extend the system to Group companies in the near future.



Biodiversity

Basic approach

Our lives are supported by innumerable chemicals. Textiles, packaging/containers, and pharmaceutical products are just some of the things that are essential to daily life. However, various ecosystems are endangered when the raw chemical substances generated as a byproduct of manufacturing are released into the air, water or the soil. TOYOBO Group’s “Fundamental Policy on the Global Environment” calls for the Group to actively protect the environment in the society and community, and to support/participate in activities to preserve biodiversity, as a good citizen. In doing this, we strive to minimize the impact of our business activities on ecosystems.

Contributing through business processes and products

TOYOBO Group utilizes a variety of environmental protection technologies to remove harmful chemical substances from water and gases emitted at our offices and factories. We also strive to improve our manufacturing processes so as to minimize their impact. In addition, we have installed monitoring systems within our business processes to ensure that no harmful chemical substances are released accidentally.

With our eyes fixed firmly on the future, we are working hard to help protect the natural environment throughout the supply chain. This includes developing technologies that allow renewable resources to be used as the raw materials for various types of products, and biodegradable plastics that return to nature after use.

We will continue to provide products and solutions that remove harmful substances from the water and air, thereby contributing to the conservation of the global environment and ecosystems.

Human Resource Management

Basic approach to developing human resources

TOYOBO Group considers human resources to be our most important asset.

We support the growth of each and every one of our employees, while respecting their diversity. We believe that the continuation and development of the Group as a whole can be achieved by building an environment in which our employees can flourish within the company and realize their own potential. TOYOBO carries out human resource development based on a training program categorized by job level, type and objective, from the newly employed to top management. Over our long history, we have fostered an approach of valuing “people”—our most important asset—and this is shared throughout the Group.

Now, we are putting our maximum effort into nurturing the next generation of management, who will contribute to our growth strategy. We provide opportunities for selected employees to attend business schools and internal training programs. At the same time, we are actively engaged in diversity and inclusion initiatives to train mid-career hires and promote the participation of women in the workforce. Educational and training activities are also provided for domestic Group companies, while selected employees from overseas are provided with training in Japan as well. Through these initiatives,

Education & Training System

Job Level	Manager	Specialist
Job Category-Specific Training	Distance Learning / E-Learning	
	Technical Seminars	
	Sales Training	
Standard Training	Global Training	
	Role-based Training	
	Training for Executive Management Candidates	
	Selectable Seminars	
	OJT for Work Issues	
	Training by Level	
	Career Design Seminar	

Education & Training-Related Results

	FY2020 Results	
Training hours per employee	15hrs	
Training investment per employee	¥40,000	
Total training attendees	Male	1,265
	Female	299
Total training hours	Male	26,968hrs
	Female	9,280hrs

we nurture our employees to help put into practice TOYOBO's corporate philosophy of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity); in other words, those who can create shared value.

Nurturing the next generation of management

TOYOBO strives to ensure that our employees acquire a broad knowledge and enhance their skill set through job rotation, including overseas assignments, from an early stage. In addition, we hold annual interviews to identify each individual's career aspirations and use this information to help them develop and ensure that they are assigned to the appropriate position. In this way, personal growth at the individual level leads to the development of the Company.

These initiatives also allow us to single out candidates for the next generation of management at an early stage. By placing them in business operation and management positions, we help our candidates to hone their management skills as we form our succession plan. Around 20 employees are selected for education and training each year, and they acquire the necessary management knowledge at business schools and the like. Additionally, around four employees spend approximately six months practicing skills such as formulating measures to grow the business, debating, and making proposals at simulated management meetings.

Developing global human resources

TOYOBO Group implements “Short-term Overseas Business Training” in which around 10 employees in two separate groups from Japan are sent overseas for training each year (first and second half of the year). This motivates younger and mid-career employees to participate in TOYOBO's global business, and also represents a major opportunity for them to further their careers.



Training for local employees from overseas offices

In addition, local candidates for management from overseas offices are selected to undergo training in Japan twice each year. This aims to enhance their understanding of TOYOBO and deepen interaction with employees who work in Japan.

Basic approach to diversity

TOYOBO Group believes that personal and organizational growth is achieved through a process of mutual respect among our employees, with their differing work styles, careers, gender, nationality, race, and beliefs, and through cooperation to achieve our shared objectives.

We respect different opinions and a wide range of values, and cooperate to achieve ambitious goals together.

Promotion of work-life balance

TOYOBO has introduced schemes that go above and beyond the legal requirements, including the Childcare Shortened Work Hour Program and Nursing Care Leave, and we also provide a Flextime system. From fiscal 2020, Childcare Leave offers five days of paid leave, and we are also encouraging male employees to take childcare leave.

We are also engaged in work style reform, so that our employees can work with renewed efficiency and achieve a good balance between work and personal life. Initially, we introduced a 15-Minute Shortened Work Hour Program at head and branch offices in fiscal 2018, and at the Research Center in fiscal 2019, and at other offices we implement a program to increase the number of days of leave. In addition, we hold a No Overtime Day at least once a month, so that employees can spend quality personal time together with family and friends, and we also view this as an opportunity to enhance creativity.

In fiscal 2020, we introduced a Teleworking scheme at head and branch offices, which provides for a more flexible work style according to each employee's life stage.

Scheme Usage

(FY)

	2016	2017	2018	2019	2020
Women taking childcare leave	23	34	19	25	27
Ratio of women taking childcare leave (%)	100	100	100	100	100
Men taking childcare leave	0	2	2	1	50
Ratio of men taking childcare leave (%)	0	2	1	1	46
Employees taking childcare shortened work hour program	40	50	65	75	65
Annual paid leave utilization ratio (%)	66	65	66	68	73

Promoting the advancement of women

TOYOBO established the Female Empowerment Promotion Group within the Human Resources Department, and the Group has been engaged in activities to promote the empowerment of women. We have held presentations, seminars for managers, career design seminars, female leader development seminars, etc., on a continuous basis, in order to realize a change of mentality among our employees. With regard to women on the so-called "career track" route, we have continued to actively hire female university graduates, with a target ratio of 40%, and are also focusing on widening the positions in which women work and nurturing female leaders. We have also launched a project to encourage female employees who previously worked in non-career track positions to flourish, and this is increasing motivation and developing human resources. In April 2019, we launched a trial Mentor Program for women, which supports them in developing their career plan.

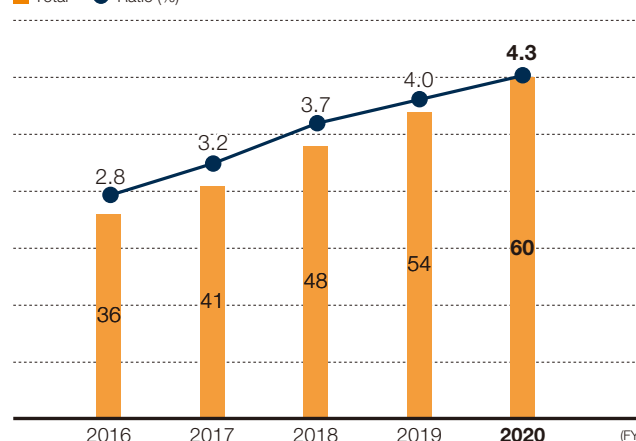
TOYOBO has introduced a babysitter support system to assist with childcare, which provides the full cost of childcare when an employee is on a business trip. The number of users has steadily increased. Since April 2018, we have provided a nursery inside the Research Center (Otsu City, Shiga Pref.) for employees with children. The nursery not only enables employees to return to work early from childcare leave and make their return to work easier, but also lays the platform for women to feel more comfortable with planning a family.

Educational Activities and Training (FY2020)

Activities/Training	Frequency	Participants
Presentation	21 times	682
Seminar for Managers	6 times	137
Career Design Seminar	2 times	48
Female Leader Development Seminar	2 times	33

Proportion of Female Employees with Management-Level Qualifications

■ Total ● Ratio (%)



Basic approach to health and safety

TOYOBO Group is striving to improve employees' mental and physical wellbeing and achieve zero accidents based on the principles and activities set out in the "TOYOBO Group Basic Policy on Health & Safety."

In fiscal 2020, we embarked on the strategic implementation of health and productivity management, considering health care from a management perspective. Going forward, we will promote initiatives that energize and increase the productivity of the organization, and improve performance through measures such as maintaining and enhancing employees' health and wellbeing. We also aim to obtain certification under the Ministry of Economy, Trade and Industry's Certified Health & Productivity Management Outstanding Organizations Recognition Program.

Health management system

In March 2020, TOYOBO Group formulated a "Health & Productivity Management Declaration" in order to proactively and systematically address health and productivity management, and also established a structure to promote this. Under the supervision of the Chief Health Officer (CHO), the Labor Affairs Department, industrial physicians, occupational health nurses/medical care nurses, and the health insurance union are working together on the following key measures:

- (1) raising employees' health awareness (education and training)
- (2) improving employees' lifestyle habits (exercise, diet, support for quitting smoking, etc.)
- (3) strengthening mental health measures (including improvement measures for high-stress employees and workplaces);

Additionally, as a countermeasure against COVID-19, we have encouraged working from home and staggered working hours, ensured social distancing when working in the office, provided information about infection prevention, distributed masks, etc.

Mental healthcare

We invite guest lecturers to provide training for managers, to increase their awareness and understanding of mental healthcare. Individual consultations are also given by industrial health staff at each business site. We also provide personalized support to those suffering from high levels of stress, based on the results of a stress checkup. In the near future, we plan to identify and resolve issues in high-stress workplaces based on the results of group analysis.

With regard to mental healthcare in COVID-19 stay at home situations (adopted as a measure to tackle the spread of COVID-19), we have addressed the importance of self-care and so-called "line care" (care provided by managers for the wellbeing of their staff and measures to improve the workplace), issuing information so as to maintain and support our employees' physical and mental wellbeing.

Safety management system

TOYOBO Group has established a Safety & Security Promotion Committee under the Global Environment and Safety Committee to promote safety and disaster prevention activities. The committee members conduct safety and environment assessment of our offices and plants as well as Group companies, in order to check the status of onsite activities.

Each month management and employees at the Health and Safety Committee jointly investigate and consider matters relating to health and safety, at each business site and plant, and employees are informed of the decisions taken. Affiliated businesses at the same business site are also promoting safety and disaster prevention activities together with our employees.

Disaster prevention initiatives

Following the fire at TOYOBO's Tsuruga Research and Production Center, which broke out on September 6th, 2018, we reviewed our security and disaster prevention activities, and the whole Group is making concerted efforts to regain the trust of society.

Using the "Inspection Guidelines for Fire Risk" drawn up based on the advice of a third-party expert, an overall inspection is made of TOYOBO Group's main production plants, and this systematically promotes functional improvements to fire-fighting equipment at our sites of production. We will also continue to revise the content of our training drills so that they are more practical and enable us to protect our workplaces in the event of a fire.

We have designated September 6th each year as TOYOBO Group Disaster Preparedness Day so that the lessons learned from this fire are not forgotten, and since fiscal 2020, disaster prevention rallies have been held at each plant, attended by the President. Disaster prevention seminars are also given by visiting experts so as to improve awareness of disaster prevention.

With regard to training, we have revised the company-wide training system for safety and disaster prevention in order to continually enhance employees' awareness of disaster prevention, and have also enhanced the curriculum relating to disaster prevention.



Disaster prevention seminar

Respect for Human Rights

Basic approach

Respect for human rights is essential if a company hopes to earn the trust of society. Given its importance, TOYOBO Group has included “respect for human rights” among the ten principles that make up our Charter of Corporate Behavior. It is also one of the fundamental prerequisites to materiality.

Structure and main initiatives

Through the “TOYOBO Compliance Manual” distributed to our employees, TOYOBO Group strives to ensure that employees understand the rules and case studies described in the manual relating to respect for human rights, prohibition of discrimination, prohibition of child labor and forced labor, respect for diversity, prohibition of harassment, and protection of personal information. In addition, a Complaint Handling Committee provides consultations and handles human rights-related issues

including harassment, and works to quickly identify and resolve such issues through compliance surveys. We also hold seminars on respect for human rights and presentations on gender and sexual diversity to improve awareness of human rights among employees. In fiscal 2020, we provided training for Group company employees concerning the human rights of overseas workers, and also instructed our various trading partners to do so as well.

With regard to respect for human rights in the supply chain, our “CSR Procurement Guidelines” clearly stipulate the need to consider human rights when selecting trading partners.

Data Security and Privacy

Basic approach

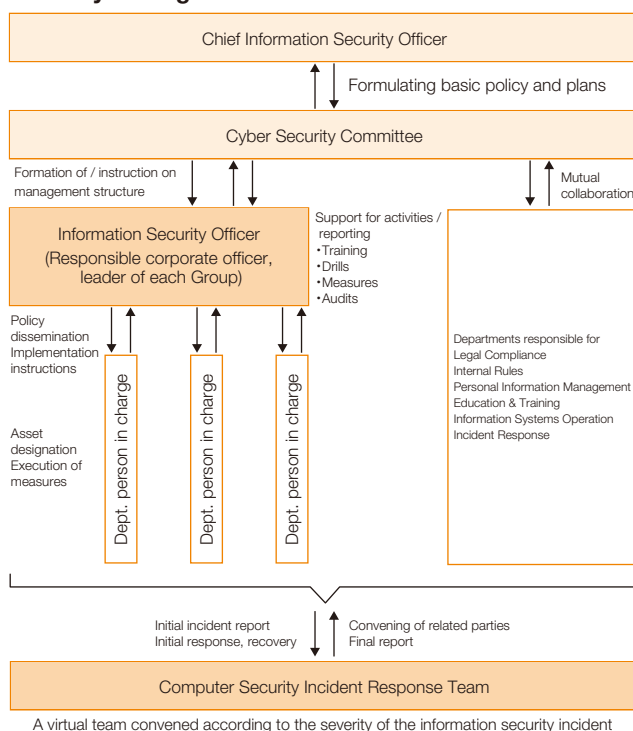
Given the accelerating evolution of the information society, TOYOBO Group has drawn up an “Information Security Policy” to ensure the Group’s continued sustainable growth in the future, and strives to manage and utilize all information assets appropriately.

Structure and main initiatives

In fiscal 2019, TOYOBO Group set up a Cyber Security Committee, and most technical and specialist measures were implemented by fiscal 2020. In fiscal 2021, we will continue to improve employee awareness and strengthen our response to incidents, while also training internal experts.

With regard to the European Union’s General Data Protection Regulation (GDPR), we have instructed our Group companies in the EU (in Germany, Spain and Slovakia) to formulate standards and implement training.

TOYOBO Group Information Security Management Structure



Quality Management

Basic approach

TOYOBO Group's quality management is based on our PVVs corporate philosophy system, which incorporates our corporate philosophy of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity).

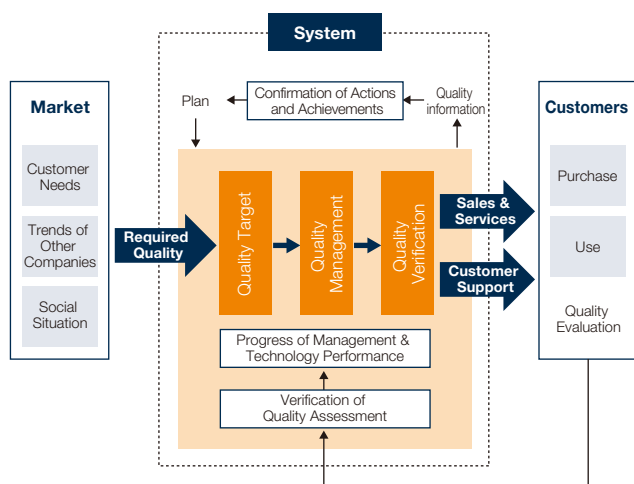
We implement quality management activities under the motto "TOYOBO's way of manufacturing," based on the idea of always taking our customer's standpoint, accurately identifying the customer's needs, and providing solutions that satisfy the customer.

Quality Assurance activities

The basis of "TOYOBO's way of manufacturing" is to consistently put ourselves in the customer's position and provide what is needed the most. This includes incidental services and solutions, in addition to our product offerings. In this way, we aim to help customers resolve their challenges/ issues and realize their wishes.

To achieve this, all employees have shared access to the Quality Assurance Manual, which describes the basic approach and code of conduct for all employees when implementing TOYOBO Group's development, production and sales activities. In addition, the Quality Assurance Guidelines provide the basis for developing a system that guarantees quality. A QA system is established for each product and service, so that quality and product safety can always be guaranteed at each stage. Additionally, checks are repeatedly carried out by business supervisors, related internal and external parties, and experts, to ensure that no incidents occur in the market.

Overview of Quality Assurance Activities



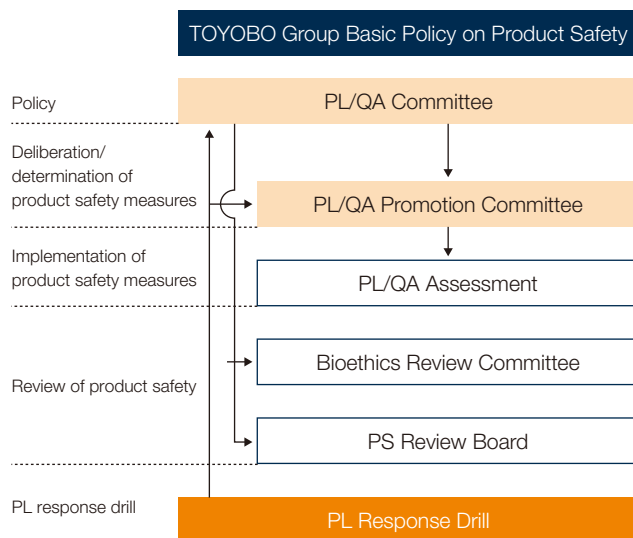
Product safety promotion activities

TOYOBO Group has established a "PL/QA Committee" as a standing committee with overall responsibility for Product Liability (PL) and QA. This committee, which comprises persons in charge from each business and persons in charge (executives) from the corporate staff, puts in place systems to ensure product safety in relation to products and technology, and to facilitate appropriate responses to PL or other quality-related incidents. As well as optimizing corporate activity and maintaining/enhancing the Group's standing in society, the committee strives to increase customers' trust and confidence in the TOYOBO Group, while making sure that its activities are in keeping with the times. It also conducts PL/QA assessments to verify and improve Product Safety (PS) activities in each department and group companies.

Moreover, the committee establishes criteria for assessing PS and PL risk, and based on these criteria, it carries out inspections at each stage, from product development to sales. By addressing risk in advance, the committee works to mitigate risks pertaining to customers and employees.

All possible measures are taken to ensure product safety, and training drills are also performed every year at all business divisions based on PL incident scenarios. Product safety remains a crucial theme throughout the whole of TOYOBO Group, and we will continue to mitigate risk as much as possible to fulfill our social responsibility.

PL Response System



Supply Chain Management

Basic approach

TOYOBO Group has established an appropriate trading policy and conducts procurement/logistics responsibly, so as to support the development of a sustainable society.

In October 2018, we revised our CSR Procurement Guidelines in order to achieve the SDGs within the supply chain, including legal compliance, fair trade, respect for human rights (including the prohibition of child labor / forced labor and discrimination based on gender identity including LGBT), and consideration for the environment.

CSR Procurement Guidelines (Summary)

1. Promote CSR and engage proactively in social contribution
2. Maintain and strengthen compliance (with laws and regulations), fair trade, corporate ethics
3. Maintain and strengthen environmental activities
4. Guarantee quality and safety in the supply of products
5. Respect human rights
6. Disclose information to stakeholders and communicate with them in a timely and appropriate manner, and maintain and strengthen information security measures

CSR survey

We conduct a questionnaire among our key business partners, based on the CSR Procurement Guidelines. This allows us to verify the status of their CSR activities, while enabling them to deepen their understanding of CSR activities.

Fairness and transparency in trade

We take a rigorous approach to ensuring fairness and transparency, based on sound trading. We do not give or accept gifts or entertainment in order to secure unjust profit or preferential treatment from our business partners, and have strengthened our checking system to ensure that actions that raise suspicion do not occur.

Response to natural disasters, etc.

In recent years, various areas of Japan have experienced significant damage from earthquakes, typhoons and sudden localized rainstorms. We have gained knowledge in the process of responding to these events, and aim to realize even more stable procurement and logistics.

As part of our Business Continuity Plan (BCP), we strive to identify and manage risk throughout the supply chain. For procurement, we are looking to procure raw materials from multiple regions, and for logistics, we are establishing alternative transportation means and routes in collaboration with logistics operators.

The spread of COVID-19 has led to supply uncertainty and logistics delays in some areas. We are endeavoring to quickly gather data on supply chains, and are taking measures including the use of alternative parts and routes in order to minimize damage.

Green procurement

We prioritize procurement of raw materials with a low environmental impact, and work with business partners who take a proactive approach to protecting the environment. Together, we are promoting green procurement to help build a sustainable society. We ask our business partners to provide information about the chemical substances contained in products, as follows.

- (1) That the material does not contain any of the prohibited substances specified by TOYOBO.
- (2) That the content of hazardous substances specified by TOYOBO has been identified.

In fiscal 2019, we revised our “Chemical Content Information Sheet” based on the information sharing scheme “chemSHERPA”, developed by Japan’s Ministry of Economy, Trade and Industry, and requested our business partners to respond. For general purchased goods, we are promoting green purchasing with the use of environmental labels.

Resolving social issues in logistics

To resolve social issues in logistics, we are pushing forward with initiatives to reduce the environmental impact and reform the work style in logistics. To reduce our impact on the environment, we are shortening the transportation distance by using the ports closest to our business sites, implementing a modal shift, and improving loading efficiency. We are also sharing logistics and storage with other companies (including joint shipment, making use of returning trucks, securing joint storage space), and are encouraging the introduction of systems that enable visualization of the logistics situation.

Additionally, we formulated 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, which we submitted to the White Logistics Campaign Office and also published on our website. We disclose our various initiatives, including “Logistics improvement proposals and cooperation,” “Utilization of pallets, etc.,” “Modal shift to sea and rail transport,” “Consideration of compliance with applicable legislation when selecting logistics operators,” and “Safety measures for freight handling.”

^{*} A movement in which all the parties involved in logistics cooperate to propose and implement mutually beneficial improvements.



Management Team

Directors

Seiji Narahara ①

Representative Director, President and CEO, Co-COO

Jan. 1988 Joined TOYOBO
Apr. 2009 Deputy Director and General Manager, Finance Department
Apr. 2010 Corporate Officer
Jun. 2011 Director and Corporate Officer
Apr. 2014 Representative Director, President Chief Operating Officer (current position)

Masaru Watanabe ②

Representative Director, Co-COO, Controlling Supervisor of Business Units

Apr. 1979 Joined TOYOBO
Oct. 2009 Deputy Director, General Manager of Plastics Operation Planning Office, and General Manager of Plastics Management Office
Apr. 2014 Corporate Officer
Jun. 2016 Director and Corporate Officer
Apr. 2017 Director and Corporate Executive Officer
Apr. 2018 Representative Director and Senior Managing Executive Officer
Jun. 2020 Representative Director, Co-Chief Operating Officer (current position)

Ikuo Takeuchi ③

Director, Managing Executive Officer, Controlling Supervisor of Corporate Planning Division

Apr. 1985 Joined the Company
Oct. 2014 General Manager of Corporate Planning Office
Oct. 2015 Deputy Director, General Manager of Corporate planning Office
May 2017 Deputy Director, served in Global Business Planning Department and seconded to TOYOBO (SHANGHAI) CO., LTD., TOYOBO CHINA CO., LTD.
Apr. 2018 Executive Officer
Apr. 2020 Managing Executive Officer
Jun. 2020 Director (current position)

Hiroshi Otsuki ④

Director, Executive Officer, Controlling Supervisor of Management and Administration Division

Nov. 1987 Joined the Company
Jun. 2010 General Manager of Finance Department and Senior Coordinator of Corporate Planning Office
Apr. 2014 General Manager of Plastics Planning and Management Office, and Manager of Film Business Management Office
Oct. 2014 Deputy Director, General Manager of Plastics Planning and Management Office, and Manager of Film Business Management Office
Apr. 2017 Executive Officer (current position)
Jun. 2020 Director (current position)

Yoshio Araki ⑤

Director, Executive Officer, Controlling Supervisor of Production Technology Innovation and Quality Assurance Division

Apr. 1984 Joined the Company
Jan. 2008 General Manager of Polymer Production Technology Department and Manager of Corporate Research Venter Project D
Oct. 2013 Deputy Director, General Manager of Plastics Production Technology Department
Apr. 2018 Executive Officer (current position)
Jun. 2020 Director (current position)

Masakatsu Shirai ⑥

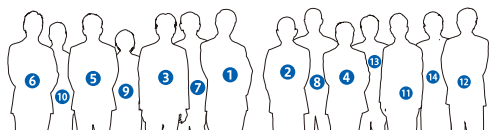
Director, Executive Officer, Controlling Supervisor of HR and Sustainability Planning Division

Apr. 1985 Joined the Company
Apr. 2012 General Manager of HR Labor Administration Department
Oct. 2016 Deputy Director, General Manager of Human Resources Department
May 2017 Deputy Director, seconded to Toyobo Information System Create Co., Ltd.
Apr. 2018 Executive Officer (current position)
Jun. 2020 Director (current position)

Masaru Nakamura ⑦

Outside Director

Apr. 1977 Joined Sumitomo Corporation
Apr. 2006 Corporate Officer
Apr. 2008 Executive Officer
Apr. 2010 Managing Executive Officer
Apr. 2012 Senior Managing Executive Officer
Apr. 2016 Adviser
Jun. 2017 Director of the Company (current position)



Takafumi Isogai 8

Outside Director

Jan. 1987 Assistant Professor of Faculty of Liberal Arts, Osaka University
 Apr. 1996 Assistant Professor of Graduate School of Engineering Science, Osaka University
 Apr. 2002 Professor of Faculty of Mercantile Marine, Kobe University of Mercantile Marine
 Oct. 2003 Professor of Faculty of Maritime Sciences, Kobe University
 Apr. 2013 Professor of School of Commerce, University of Marketing and Distribution Sciences
 Apr. 2018 Part Time Lecturer at University of Marketing and Distribution Sciences
 Jun. 2018 Director of the Company (current position)

Kimie Sakuragi 9

Outside Director

Mar. 1981 Joined Fukutake Publishing Co., Ltd. (current Benesse Holdings, Inc.)
 Apr. 1995 Supervisor of Book Businesses in Publishing Division
 Nov. 1998 Chief of Business Ethics and Compliance Office
 Jan. 2003 Manager of Business Ethics and Compliance Office
 Jun. 2003 Audit and Supervisory Board Member
 Apr. 2007 Adjunct Professor of the University of Aizu Graduate School (current position)
 Jun. 2019 Director of the Company (current position)

Masaaki Harima 10

Outside Director

Apr. 1977 Assistant Judge at Osaka District Court
 May 1981 Registered as an attorney at law (Osaka Bar Association)
 Sep. 1987 Founded Harima Law Office (current Fushimimachi Lawyer's Office)
 Apr. 2010 Chairman of Osaka City Fair Work Committee
 Jun. 2011 Outside Corporate Auditor of Ishihara Sangyo Kaisha, Ltd. (current position)
 Jun. 2014 Independence Committee of the Company
 Jun. 2020 Director of the Company (current position)

Corporate Auditors —**Taneaki Nagata** 11**Yasuhiro Iizuka** 12**Outside****Corporate Auditors** —**Shiro Takenaka** 13**Hiroyuki Sugimoto** 14**Senior Managing
Executive Officers** —**Shigeo Takenaka****Shigeo Nishiyama****Chikao Morishige****Managing Executive
Officers** —**Yasuo Ota****Ikuo Takeuchi****Yutaka Ouchi****Executive Officers** —**Takayuki Tabo****Hiroshi Otsuki****Takeo Kashima****Yoshio Araki****Ichiro Takai****Kenjiro Ogami****Masakatsu Shirai****Nobuya Fujiwara****Kazuhiko Katayama****Seiji Yamazoe****Atsuhiko Otsuka****Yoshihiro Nomi**

Corporate Governance

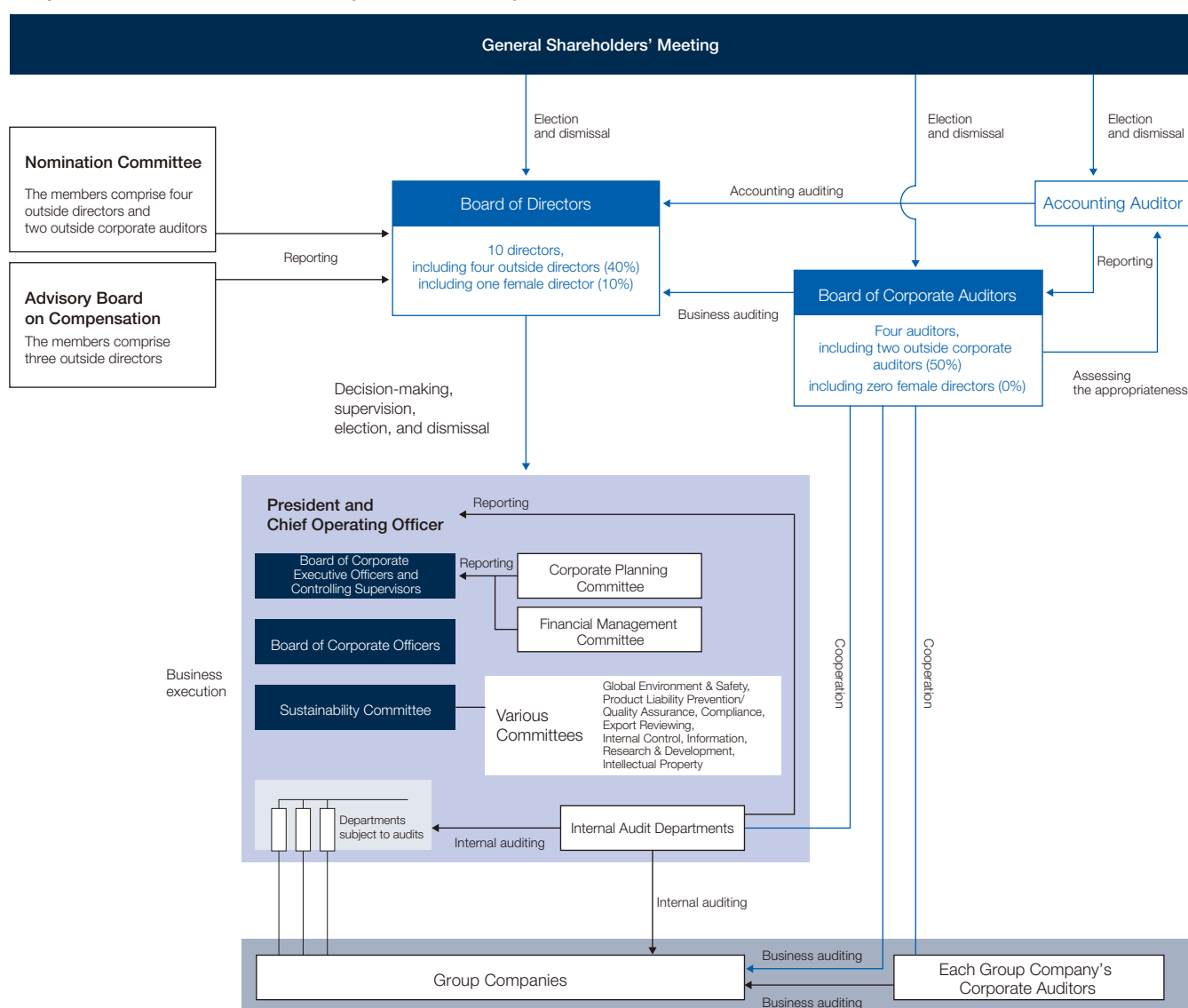
Basic approach and system overview

To respond to the changing times and continuously enhance corporate value, TOYOBO Group has established the following three policies: (1) Ensure timeliness in decision-making, (2) Ensure transparency in management, and (3) Prioritize fairness. Based on these principles, we are working to create and strengthen our corporate governance structure.

TOYOBO is a company with auditors and, under this governance system, has adopted the corporate officer system.

In the corporate officer system, which is defined in our management regulations, the Board of Directors oversees the business execution of Corporate Officers. Under TOYOBO's governance framework, a clear separation is made between the role of the Board of Directors—which oversees decision-making and performs management oversight—and the Corporate Officers who are in charge of business execution. This system enables rapid decision-making and efficient business execution.

Corporate Governance Structure (as of June 2020)



Board of Directors

The Board of Directors has 10 directors, including four outside directors. A director's term of office is set at one year to ensure a swift response to changes in the business environment and to clarify the responsibilities.

At the General Shareholders' Meeting held in June 2019, one outside director (female) was appointed in order to increase diversity and strengthen the supervisory function. Moreover, at the General Shareholders' Meeting held in June 2020, we adopted a modified system aimed at further separating decision-making and supervision from business execution. For example, the Board is elected from outside directors and corporate officers who oversee departments that are engaged in operations with a company-wide scope. This system makes it easier for corporate officers, who are responsible for specific businesses, to concentrate on their respective businesses and fields.

In fiscal 2020, the Board of Directors made decisions on matters stipulated in laws and the Articles of Incorporation, and on important investment deals including acquisitions. In addition, the Board received reports on each business and conducted appropriate supervision.

In order to further optimize the functions of outside officers (both directors and auditors), important issues are shared beforehand. In addition, TOYOBO periodically holds liaison meetings that consist of representative directors and outside officers, to share their viewpoints and exchange opinions on management issues.

Board of Corporate Auditors

The Board of Corporate Auditors has four members, two of whom are outside corporate auditors. Their responsibilities include attending meetings of the Board of Directors and other important meetings, stating their opinions when necessary, and auditing each department's operation in order to audit directors' execution performance.

KPMG AZSA LLC has been appointed to conduct TOYOBO Group's independent audits required under Japan's Companies Act. The Board of Corporate Auditors receives auditing plans and reports from the independent auditor and meets with the independent auditor periodically to exchange information.

The Internal Audit Department supervises the effectiveness of internal governance. The department reports the results of internal audits to the President and exchanges information with corporate auditors.

Board of Corporate Executive Officers and Controlling Supervisors

There are 20 corporate officers, including some who serve concurrently as directors. The Board of Corporate Executive Officers and Controlling Supervisors deliberates in advance on matters to be resolved by the Board of Directors, and determines matters related to business execution, which has been entrusted by the Board of Directors.

The Corporate Planning Committee and the Financial Management Committee are established under the Board of Corporate Executive Officers and Controlling Supervisors. They deliberate on important investments and new projects, important borrowing, etc. from their respective realms of expertise, thereby managing business risk.

With regard to other initiatives, a working group comprised of directors was established, to discuss issues including the future vision of the TOYOBO Group.

Meetings Convened in FY2020

Number of meetings held		
Board of Directors (Ordinary Meetings)		12
Board of Directors (Extraordinary Meetings, incl. quarterly results meetings)		7
Board of Corporate Auditors		15
Outside Officer Liaison Meeting		7
Board of Corporate Executive Officers and Controlling Supervisors		31
Corporate Planning Committee		10
Financial Management Committee		20
Attendance record of outside directors (attendance rate)		
Board of Directors	Taketoshi Oka (Director)	18/19 (95%)
	Masaru Nakamura (Director)	19/19 (100%)
	Takafumi Isogai (Director)	16/19 (84%)
	Kimie Sakuragi (Director)	15/15 (100%)
	Shiro Takenaka (Corporate Auditor)	19/19 (100%)
	Hiroyuki Sugimoto (Corporate Auditor)	18/19 (95%)
Board of Corporate Auditors	Shiro Takenaka (Corporate Auditor)	15/15 (100%)
	Hiroyuki Sugimoto (Corporate Auditor)	15/15 (100%)

Director Skill Matrix (as of June 2020)

		Independent	Age	Gender	Within the expertise required by the Company, skills that are particularly beneficial (3 for inside directors and 1 for outside directors)								Overseas Business Experience
					Corporate Management/Strategy	Sales/Marketing	Finance/Accounting	Legal Affairs/Ethics	HR/Talent Development	R&D	Sustainability	Production Technology & Quality	
Inside	Seiji Narahara		63	Male	○		○	○					○
	Masaru Watanabe		63	Male	○	○	○						
	Ikuo Takeuchi		57	Male	○	○					○		○
	Hiroshi Otsuki		59	Male	○	○	○						
	Yoshio Araki		60	Male						○	○	○	
	Masakatsu Shirai		57	Male				○	○		○		
Outside	Masaru Nakamura	○	66	Male	○								○
	Takafumi Isogai	○	71	Male								○	
	Kimie Sakuragi	○	61	Female							○		
	Masaaki Harima	○	69	Male				○					

Evaluating the effectiveness of the Board of Directors

From January to March 2020, in order to further enhance the functions of the Board of Directors, an overall analysis and evaluation of the effectiveness of the Board in fiscal 2020 was carried out with the support of a third-party organization.

Method of analysis and evaluation of effectiveness

We have conducted a survey on our directors and corporate auditors. As in the previous fiscal year, the responses to this survey were provided directly to the external organization. Analysis and evaluation were carried out by the Board of Directors based on the aggregated survey reported by the external organization.

Summary of evaluation results

- (1) The survey results gave a broadly positive assessment regarding matters including the number of Board members, the ratio of internal and outside officers, its composition including the diversity of members, and management of meetings procedures. This confirms the overall effectiveness of the Board of Directors.
- (2) In order to further enhance discussion concerning long-term business strategy, the Board of Directors is promoting initiatives aimed at sustainable growth, which involves reviewing the criteria for selecting items on the agenda and delegating the appropriate authority to subordinate meeting bodies, etc.
- (3) As well as continuing last fiscal year's initiatives, the Board aims to further strengthen its Group management functions.

Nominating directors and determining compensation

In order to ensure transparency and fairness when determining the nomination of directors and their compensation, deliberations are made at the Nomination Committee and the Advisory Board on Compensation, and then reported to the Board of Directors.

The Nomination Committee comprises two representative directors and six outside directors. They are responsible for reporting to the Board of Directors concerning matters including the selection of directors and corporate officers, from the perspectives of fairness and transparency. The Compensation Advisory Board, which is made up of two representative directors and three outside directors, conducts objective and fair deliberation/verification of the compensation system, standards, and calculation methods, while taking into account the surveys by external organizations.

Officer compensation system

TOYOBO's system of officer compensation is designed in line with basic policy, within the monetary amount of officer compensation resolved at the General Shareholders' Meeting. Our basic policy is as follows: (1) provide incentives that lead to TOYOBO Group's sustained growth and enhance corporate value over the longer term; (2) secure highly talented management personnel; (3) set determination procedures that are objective and highly transparent.

Based on the above policy, in fiscal 2020 we reviewed the compensation system for directors, including the introduction of a stock compensation scheme.

Breakdown of directors' compensation (excluding outside directors)

- (1) Monthly compensation: Basic compensation according to role and monthly fixed compensation reflecting last fiscal year's performance (company-wide and within their assigned department)
- (2) Compensation in the form of restricted stock units (non-performance-based)

Details of Officer Compensation (FY 2020)

Position	Total compensation, etc. (¥ mn)	Total compensation by type (¥ mn)		Number of officers
		Monthly compensation	Stock compensation	
Directors (excluding outside directors)	340	312	28	6
Corporate auditors (excluding outside corporate auditors)	51	51	—	2
Outside officers	55	55	—	6

Training programs for officers

For our newly appointed directors and corporate auditors, we provide orientation concerning their roles and duties, as they undergo an external training program upon their appointment, in order to acquire the necessary knowledge.

In addition, newly appointed outside directors and outside corporate auditors also attend orientations regarding the Company's operations, finances and organization, and more. They are also encouraged to continue participating in external training programs and lectures to continuously build on their managerial literacy.

Progress in system enhancement

Initiatives to Strengthen Corporate Governance

(Year)	Initiative & Objective
1998	▶ Established the Ethics Committee (the current Sustainability Committee) - To promote companywide compliance activities as a key element of management
2004	▶ Appointed one outside director, shortened the term of office for directors to one year - To clarify management accountability by strengthening the supervisory function and shortening the term of office ▶ Established an Advisory Board on Officer Provisions, etc. (the current Advisory Board on Compensation) - To ensure transparency and fairness in procedures for determining officer compensation
2005	▶ Introduced a corporate officer system, reduced the number of directors - To split the decision-making/supervisory and executive functions
2015	▶ Increased number of outside directors to two - To strengthen the supervisory function by multiple appointments ▶ Established an outside officer liaison meeting - To hold regular information exchange meetings to optimize the functions of outside officers ▶ Established the Nomination Committee - To ensure transparency and fairness in procedures for nominating/dismissing directors
2016	▶ Made an analysis/evaluation of the overall effectiveness of the Board of Directors - Will annually identify issues and make improvements
2018	▶ Increased number of outside directors to three, raising their ratio to one third of all directors - To ensure diversity among members of the Board of Directors, as well as strengthen governance
2019	▶ Increased number of outside directors to four (adding a female director) - To further promote diversity among members of the Board of Directors ▶ Revised the officer compensation system (introduced compensation in the form of restricted stock units) - To offer longer term incentives and realize greater sharing of value with shareholders
2020	▶ Implemented further separation between decision-making/supervision and business execution in regard to election of directors

Message from an Outside Director



Kimie Sakuragi
Outside Director

Contributing my BtoC experience

“TOYOBO is actually a BtoBtoC (business-to-business-to-consumer) company,” President Seiji Narahara told me prior to my appointment as outside director. “Many people view us as a BtoB company, but the materials we provide to our client companies would eventually become products for the general consumers.” I had also thought of TOYOBO as a BtoB company and anticipated adding my expertise from working at a BtoC company. However, the insight I gained from that discussion with Mr. Narahara made it crystal clear what TOYOBO needed from me.

In experience serving as a business ethics and compliance officer and Audit & Supervisory Board Member, my general assessment criteria have been to ask, Are the company’s actions in line with its philosophy? Is the company meeting the expectations of stakeholders, or are they falling short? and Do the words match with the deeds? After working for a BtoC company, I am also aware of the duty of an outside director to evaluate our operations from the perspectives of the consumer and society.

Reforming corporate governance

Over the past year, the TOYOBO Group made significant progress promoting strategies for medium- and long-term growth, such as reorganizing the corporate philosophy and reforming the corporate structure.

In terms of corporate governance, we further separated business supervision and the execution of duties by shifting more decision-making authority to the people at the business site and reorganizing the board of directors to focus on planning and monitoring of medium to long-term growth initiatives.

Now that we have established a corporate structure for generating steady and stable profit flow, our top priority for the Board of Directors is to set a roadmap towards attaining consolidated sales of ¥500 billion in fiscal 2026.

Promoting the participation and advancement of women in the workplace

I believe, promoting and appointing more women to management positions is major area the management needs to address. Despite initiatives advanced by the Women Empowerment Promotion Group, in fiscal 2020 the percentage of women management was still a low 4.3%.

Soon after I was appointed as outside director, I was given an opportunity to share my own career experiences and meet with a few of the women in management positions. My impression was that they were an exceptionally capable group. I believe that the management would do well to take a moment to reflect on the real benefits that will come from developing and using the full potential and skills of its female workforce.

I would think it is reasonable to believe that in most households, women make most of the purchasing decisions related to consumer goods. TOYOBO is presently reforming its business model and shifting towards a market centric approach. The management would be missing a major opportunity if it does not leverage the significant insight its female managements and employees could bring to identifying market needs creating business and making business decisions. Research shows that the active participation and advancement of women in the workforce is proportionate to corporate performance. I believe TOYOBO needs to do more to develop, promote, and encourage women in the workplace.

TOYOBO in the future

Our future society after the COVID-19 pandemic is uncertain, but I expect there will be a drastic change in people’s values in relation to lifestyle and health. TOYOBO has been providing PCR test reagents and detection kits, mask materials, and medical face shield materials to help prevent the spread of the virus. The Company needs to continue to accelerate “creating solutions for people and the earth.”

The redefined TOYOBO spirit consists of three values of the PVVs corporate philosophy system—challenge, reliability, and collaboration. TOYOBO is an outstanding company that is credible and dedicated to its purpose. TOYOBO is building customer trust with its advanced technologies and actively communicating with stakeholders. However, I believe more can be done to take on new challenges. The Company needs to change how we interact with customers and the market, be more flexible in generating ideas, and fulfill society’s expectations by proactively taking on more challenges to create new values. Right now, I believe that is the greatest priority for the TOYOBO Group.

Compliance

Basic approach

Our Group's corporate philosophy, *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity), forms the basis of our compliance activities. In particular, the idea of "thinking rationally and logically, as well as respect for ethics and morals, the fundamental nature of being human."

Compliance promotion structure

A Compliance Committee is comprised of members from the Board of Corporate Executive Officers and Controlling Supervisors. The goal is to promote Group-wide compliance from a management perspective. A Compliance Promotion Committee has also been established as a sub-committee, which considers and promotes specific initiatives.

In fiscal 2020, the Compliance Committee convened twice, and the Compliance Promotion Committee convened four times. The committees clarified their policy and standards, and debated/finalized various measures related to enhancing the effectiveness of education, training and preventive measures.

Compliance consultation centers

TOYOBO provides an internal reporting service and internal/external compliance consultation centers for all Group employees. This prevents as well as quickly detects workplace legal violations and other instances of wrongdoing.

Number of Consultations

FY2016	FY2017	FY2018	FY2019	FY2020
12	20	15	32	35

Compliance education

We carry out compliance training programs by job level. This applies to management, new employees and newly promoted staff as well. We also provide educational programs for expats, and study sessions / seminars are given on specific key topics such as cyber security and bribery/gifts/entertainment.

Initiatives in fiscal 2020

In fiscal 2020, we developed various activities to enhance awareness of compliance, based on the slogan "Sensitivity and Reporting."

Major activities in fiscal 2020

Clarification of policy and standards

Revision and dissemination of Compliance Manual

The TOYOBO Group Compliance Manual, which is the foundation of the Group's compliance activities, has been revised and distributed to Group employees, who also read through the texts together in each workplace.

Tackling the key issue of bribery/gifts/entertainment

Policies and guidelines have been established to address bribery/gifts/entertainment. Rules concerning gifts and entertainment have also been put in place in order to build fair and healthy relationships with our clients as well as partner companies, and we have introduced a reporting system for the receipt of such gifts and entertainment.

Enhancing the effectiveness of education, training and preventive measures

Hosting seminars

Members of the Compliance Department and IT Department, acting as lecturers, host seminars at nine business sites and 31 affiliated companies on topics such as preventing misconduct and cyber security. Attendees are management-level personnel from the Company and Group companies. Seminars were also given concerning gifts and entertainment, mainly for the upper management.

Issuing case study reports

A "Compliance Mini Study," which educates employees about cases of violation in case study format, is issued monthly, and heads-up reports (occasional publication) are also issued based on cases that occurred within TOYOBO Group.

Compliance Month activities

In the November Compliance Enforcement Month, a compliance survey was carried out to identify issues related to the status of compliance and promotion activities. Improvement measures were then taken.



Seminar on bribery/entertainment

Risk Management

Basic approach

We are identifying various types of risk that could pose a threat across the entire range of our business activities, and are managing risk appropriately according to the characteristics of each risk.

In an emergency situation, we immediately set up a task force under the instruction of the relevant corporate officer, and bring the crisis under control through a swift response. By putting these systems in place and conducting the aforementioned initiatives, we work hard to earn the trust of our customers, the local community, and our shareholders and other stakeholders.

Business risk

With regard to specific risks in our business activities, we have established the CSR Committee* as the body for overseeing Group-wide risk, headed by the President as chair of the Committee. Under the auspices of this Committee, there are eight sub-committees including global environment and safety

committee, which manage the various types of business risk at the Group level. We have also established the Corporate Planning Committee and Financial Control Committee under the Board of Corporate Executive Officers and Controlling Supervisors. Specialist committee members selected from each department deliberate on proposals for new projects or important investment and borrowing, and control business risk from a multi-faceted perspective.

*Renamed the Sustainability Committee in April 2020

Business continuity planning (BCP)

TOYOB0 Group has drawn up a BCP focused on combining both “fulfillment of our responsibility to supply products as a manufacturer” and “coexistence with the global environment and society,” and we make continual improvements.

The BCP clarifies the chronological sequence of the roles and functions of each department from when a crisis occurs, through to its resolution. It also contains specific details of preparations during normal times.

Digital Strategy

Basic approach

The development of IT is accelerating the evolution of the digital society. Responding to this change, TOYOB0 Group is developing an IT system infrastructure that encompasses the entire value chain, and we are transforming our way of business, making full use of digital technologies. As well as improving business efficiency, we aim to enhance the value we provide to society and our customers.

Promotion structure and initiatives

TOYOB0 Group has promoted digitalization by actively incorporating IT in our operations. This includes streamlining sales activities using a variety of IT tools, enhancing manufacturing controls with the aid of IT, and more efficiently managing intellectual property through the use of AI.

In April 2020, we established a dedicated Digital Strategy Department to promote such activities on a company-wide basis. In accordance with our road map to 2024, we will strengthen the Group’s internal IT system infrastructure and push forward with digital transformation.

Key Digitalization Measures in the near Future

Field	Measures
Marketing/ Sales	● MA (marketing automation) ● Company-wide rollout of SFA (sales force automation)
R&D/ IP Management	● Introduction of Materials Informatics (materials development using AI) ● Enhancement of intellectual property management using AI
Manufacturing / Quality Assurance	● Company-wide rollout of smart factories ● Enhancement of quality controls and quality assurance
Supply Chain Management	● Building a next-generation procurement system ● Demand forecasting using AI

Key Events in Fiscal 2020

TOYOBO made Teijin Film Solutions Limited a wholly-owned subsidiary



Utsunomiya office

In May 2019, TOYOBO entered into a stock purchase agreement with Teijin Limited to make its subsidiaries Teijin Film Solutions Limited and P.T. Indonesia Teijin Film Solutions into wholly-owned subsidiaries. The stock acquisition was completed on October 1st.

Both firms are engaged in the polyester film business. They have strong capabilities in development and manufacturing technologies, and offer a wide lineup of distinctive, high-functionality products, including mold releasing films for MLCC, which has seen rising demand in recent years. The film business is one of TOYOBO Group's growth fields, and the Group aims to further strengthen its development and supply structure for high-performance films through the acquisition. We also aim to further expand our film business by bolstering our overseas production capacity to meet customers' needs on a global basis.

Overview of the new company: Trade name changed upon completion of stock acquisition on October 1st, 2019.

Former trade name	Teijin Film Solutions Limited
New trade name	TOYOBO FILM SOLUTIONS LIMITED (name changed on October 1, 2019)
Address	1-17-10 Kyobashi, Chuo-ku, Tokyo, JAPAN
Representative	President and Representative Director: Yoshihiro Nomi
Capital	JPY 10,510,000,000
Business activity	Production and sale of films
Former trade name	P.T. Indonesia Teijin Film Solutions
New trade name	PT. INDONESIA TOYOBO FILM SOLUTIONS (name changed during October 2019)
Address	Jl. M.H. Thamrin, Kel. Panunggangan Kec. Pinang, Tangerang 15143 Banten, INDONESIA
Representative	President and Director: Yuichi Hanawa
Capital	USD 77,400,000
Business activity	Production and sale of films



Products employing PEN films

Development of BIOPRANA® Oriented Nylon Film (ONY), a new material that uses biomass raw material

TOYOBO has developed and has been the first in the world* to commercialize BIOPRANA® Biaxially Oriented Nylon Film (ONY), a packaging film that uses nylon resin derived partially from biomass (a plant-based material) as one of the raw materials. BIOPRANA® ONY uses nylon resin derived from biomass, but has equivalent performance to conventional products that only use petroleum-based raw materials.

Biaxially Oriented Nylon Film (ONY) has various applications due to its excellent shock resistance, including liquid packaging and sealed heat-resistant pouches. TOYOBO will continue to develop products and technologies that help to reduce the impact on the environment.

*As of October 15, 2019, based on our survey



It has various applications, including liquid packaging, refillable pouches, and retort packaging (such as sealed pouches of ready-to-eat food).

Participation in European consortium CEFLEX to help develop a circular economy

Amid rising awareness of environmental issues, TOYOBO is working to reduce the environmental impact and promote recycling of film products.

CEFLEX is a European consortium aiming to further enhance the performance of flexible packaging in the circular economy. Established in 2017, it comprises more than 130 companies and organizations involved in the flexible packaging value chain, including raw materials manufacturers and recycling companies. CEFLEX's goal is to establish a collection, sorting and reprocessing infrastructure for used flexible packaging across the whole of Europe by 2025. Joining CEFLEX will provide TOYOBO Group with the latest information about recovery systems and regulations, and we are committed to developing and supplying eco-friendly technologies and products that will contribute to the realization of a circular economy.



Launch of "MIRAI JINZAI JUKU" Phase 2 for nurturing talent and creating new business

TOYOBO previously launched the "MIRAI JINZAI JUKU" incubator project for nurturing talented human resources of the future. Young staff members, who are selected through an internal recruitment process, plan and develop products by raising funds through the "Makuake" crowdfunding service. Phase 1 launched in November 2018, and this has led to the creation of four products.

Phase 2 commenced in September 2019 with 15 new participants, and new products are currently in preparation for the spring 2020 crowdfunding. We plan to continue this program and nurture human resources who can take on the challenge of creating new businesses, thereby meeting the diverse needs of our customers.



"BizAile®", a multi-function business backpack that's easy on the shoulders

Crowdfunding page for "DRY BLANKET™," a blanket that provides outdoor protection without giving an unpleasant, stuffy feeling

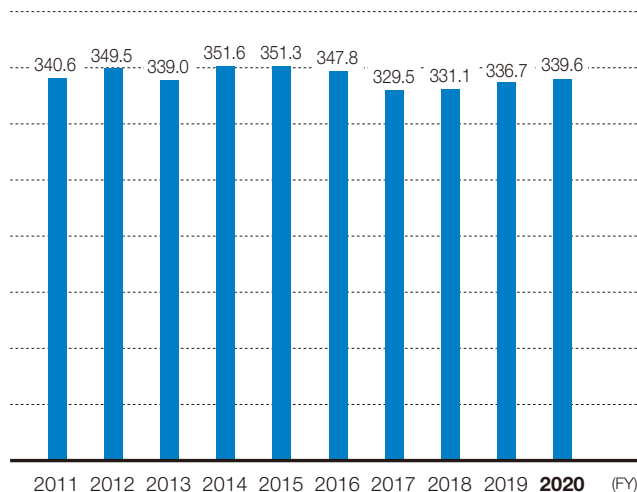


Workshop

Financial Highlights

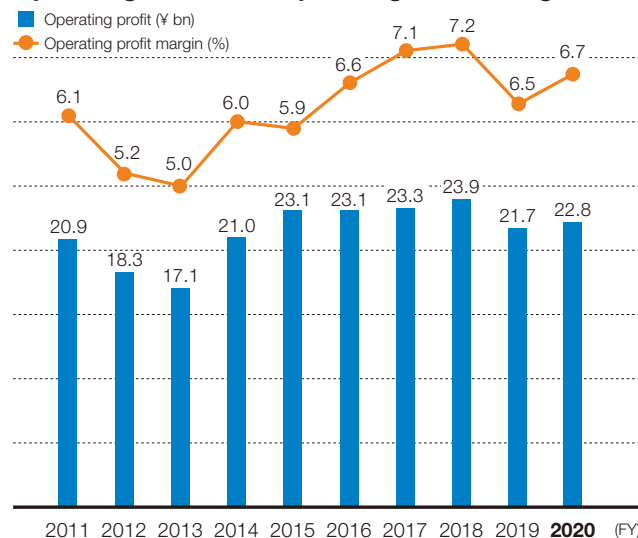
Net Sales

(¥ bn)



During fiscal 2020, TOYOBDO acquired all the shares of two subsidiaries held by Teijin Limited as of October 1st, 2019, and commenced integrated management. As a result, net sales rose by 0.9% year on year to ¥339.6 billion.

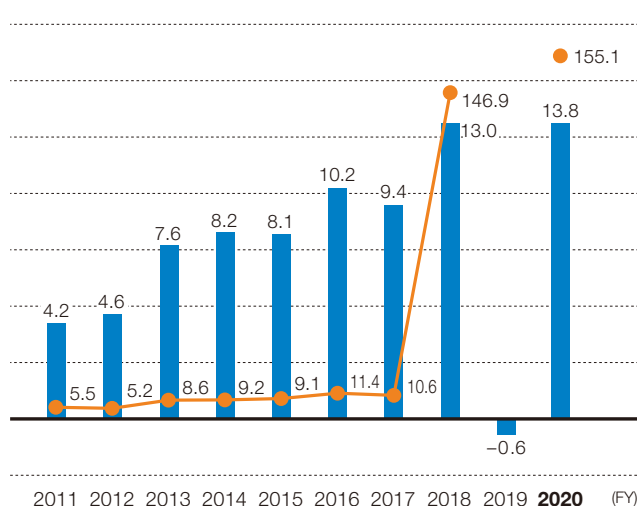
Operating Profit and Operating Profit Margin



In fiscal 2020, performance was affected by production cuts in sectors such as automotive resulting from US-China trade friction, while the spread of the COVID-19 had an impact in 4Q. On the other hand, there was steady sales growth in products offering distinctive features, such as COSMOSHINE SRF®. As a result, operating profit rose by 4.9% year on year to ¥22.8 billion, surpassing our initial target of ¥22.0 billion. The operating profit margin was 6.7%.

Profit (Loss) Attributable to Owners of Parent

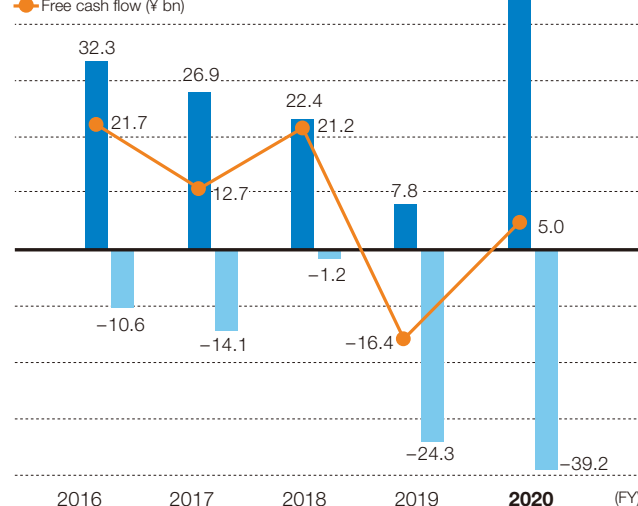
■ Profit (loss) attributable to owners of parent (¥ bn)
● Earnings per share (EPS) (yen)



In fiscal 2019, we recorded a net loss attributable to owners of parent of ¥0.6 billion due to factors including extraordinary losses associated with the fire at the Tsuruga Research and Production Center, while in fiscal 2020, insurance claims payments totaling ¥10.6 billion received in connection with the fire were recorded as an extraordinary profit, leading to a net profit of ¥13.8 billion. EPS was ¥155.1. The EPS increase in 2017 was due to a one-for-ten reverse split of the Company's ordinary shares carried out on October 1st, 2017.

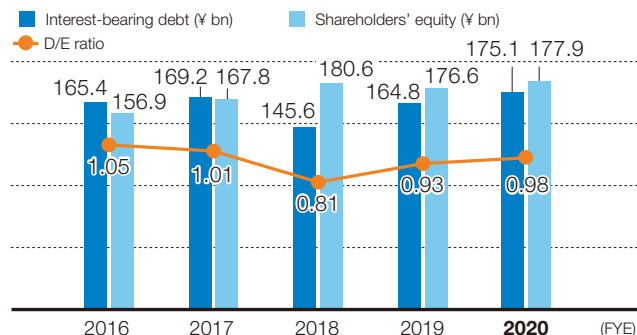
Cash Flow

■ Cash flows from operating activities (¥ bn)
■ Cash flows from investing activities (¥ bn)
● Free cash flow (¥ bn)



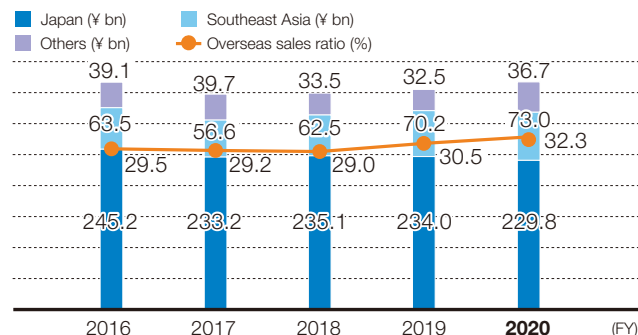
In fiscal 2020, cash flows from operating activities rose sharply from a year earlier to an inflow of ¥44.3 billion, due to factors including a recovery in performance and an increase in depreciation and amortization. Cash flows from investing activities rose by ¥14.9 billion year on year to an outflow of ¥39.2 billion, owing to factors including the acquisition of tangible and intangible fixed assets. As a result, there was a substantial recovery in free cash flow, from -¥16.4 billion in the previous fiscal year to an inflow of ¥5.0 billion.

Interest-Bearing Debt / Shareholder's Equity / Debt-To-Equity Ratio



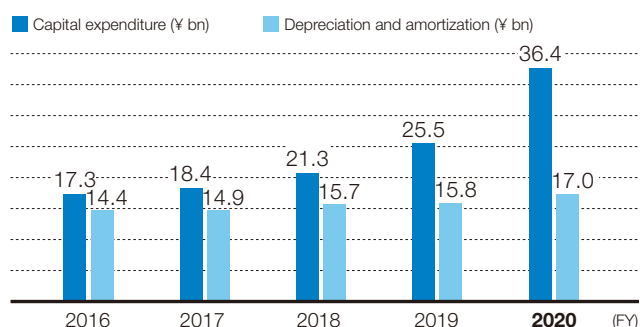
Interest-bearing debt rose by ¥10.4 billion year on year to ¥175.1 billion at the close of fiscal 2020, due to factors including the issuance of corporate bonds. Meanwhile, shareholders' equity rose by just ¥1.4 billion year on year to ¥177.9 billion, as although retained earnings grew by a substantial amount, there was a decrease in the valuation difference on available-for-sale securities. This resulted in a D/E ratio of 0.98.

Overview by Region (Net Sales / Breakdown of Net Sales)



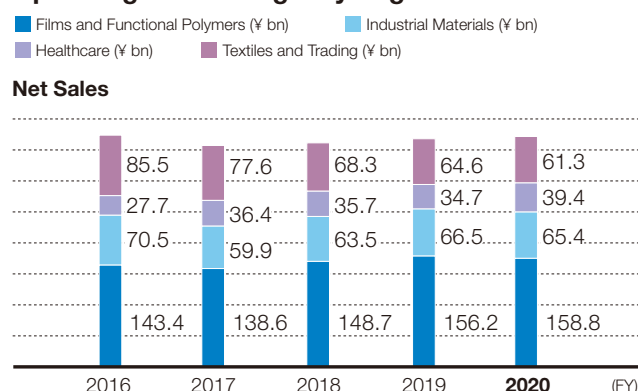
In fiscal 2020, the overseas sales ratio was 32.3%, as sales in overseas markets grew in areas including industrial film, enzymes for diagnostic reagents, equipment for VOC emissions treatment and elements.

Capital Expenditure / Depreciation and Amortization

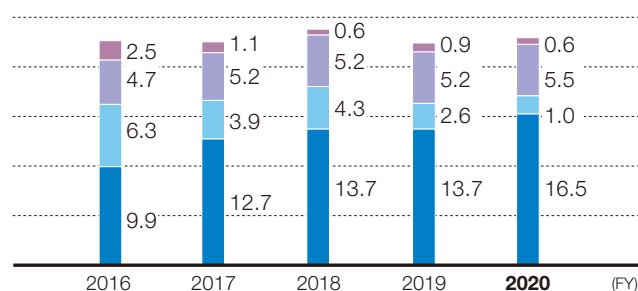


In fiscal 2020, capital expenditure totaled ¥36.4 billion due to factors including investment projects in the industrial film business. Depreciation and amortization was ¥17.0 billion.

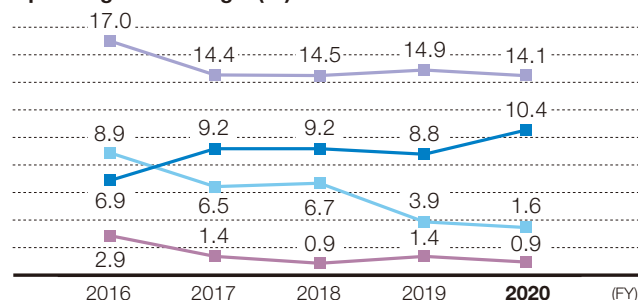
Net Sales / Operating Profit / Operating Profit Margin by Segment



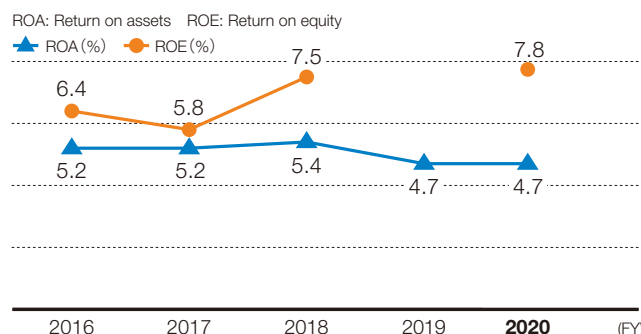
Operating Profit



Operating Profit Margin (%)



ROA/ROE

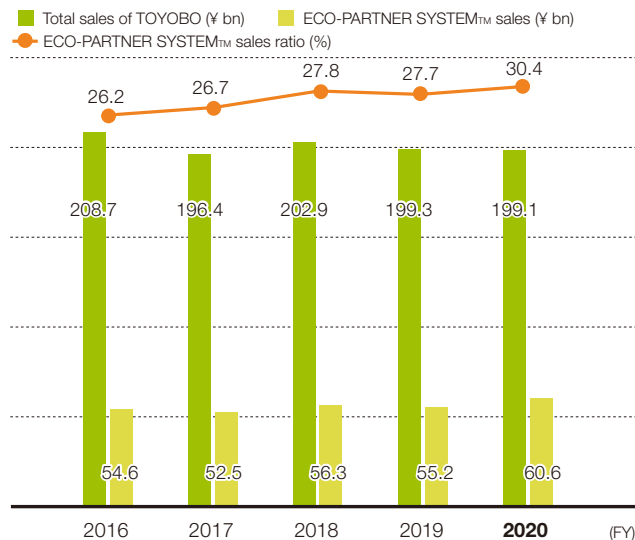


ROE was 7.8%, due to an increase in net profit attributable to owners of parent resulting from growth in industrial films and the receipt of insurance claims payments in connection with the fire at the Tsuruga Research and Production Center.

ROA was the same as the previous fiscal year's level, as although operating profit grew, total assets increased due to factors including a rise in fixed assets.

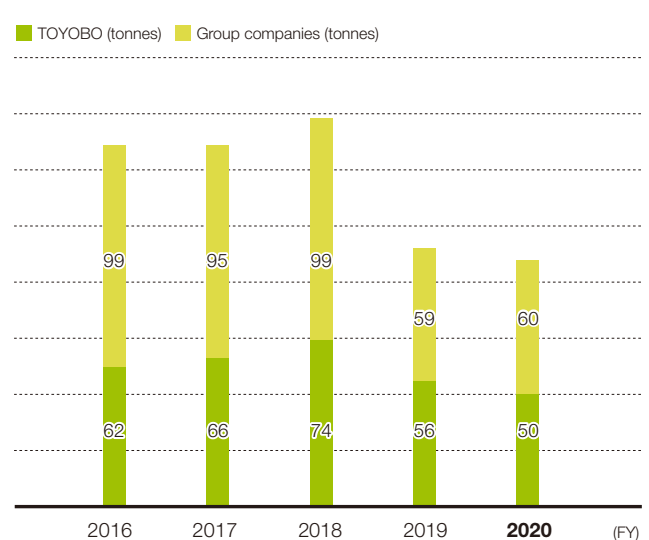
Non-Financial Highlights

ECO-PARTNER SYSTEM™ Sales Ratio



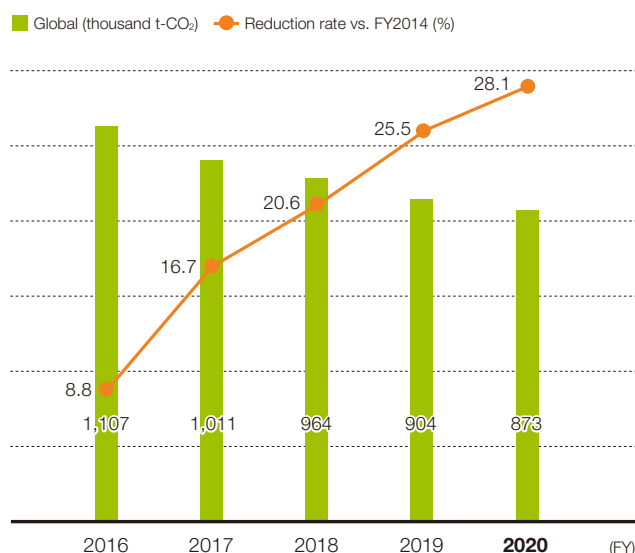
We have operated the ECO-PARTNER SYSTEM™ since fiscal 2007 as a unified brand of products and technologies that contribute to reducing the Group's environmental impact. To achieve certification under the ECO-PARTNER SYSTEM™ brand, assessments are made for every stage of a product, from raw material through to disposal, and the product is evaluated in terms of its contribution to reducing the Group's environmental footprint from five perspectives including prevention of global warming. Sales in fiscal 2020 totaled ¥60.6 billion, and the ratio to net sales was 30.4%. As we have now achieved our previous target (a ratio to net sales of 30% by fiscal 2031), going forward we will set new targets and further develop the brand.

PRTR Substances Emissions



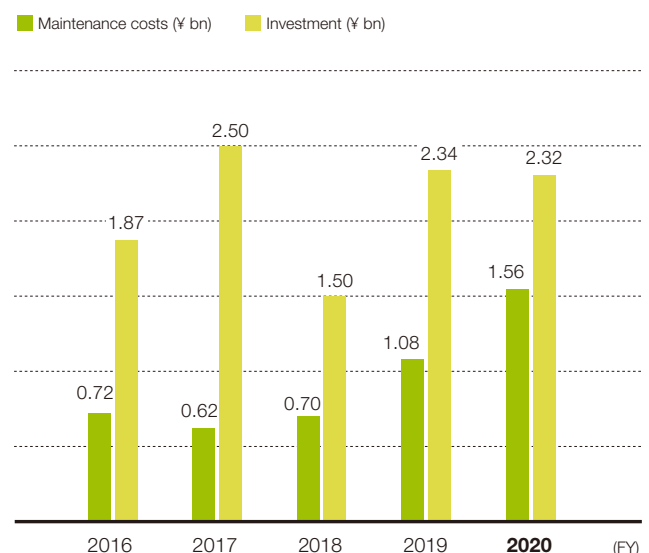
The Group is actively engaged in managing chemical substances appropriately and reducing environmental emissions, as part of the material issues. The Group's PRTR substances emissions in fiscal 2020 totaled 110 tonnes, a reduction of 4% compared with the previous fiscal year, due to the installation of recovery systems and the like.

GHG Emissions / Reduction Rate vs. FY2014 (%)



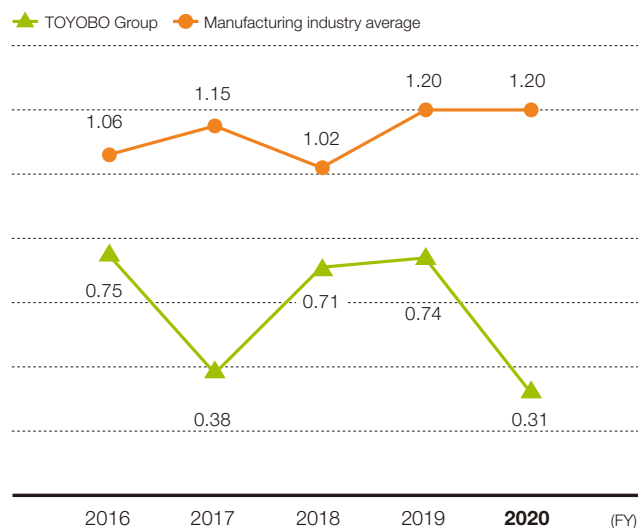
We have set target reductions for greenhouse gas (GHG) emissions of 30% for fiscal 2031 and 80% for fiscal 2051 (both compared with fiscal 2014), and we are promoting reductions in emissions throughout our business activities. In fiscal 2020, CO₂ emissions totaled 873,000 tonnes, a 28.1% reduction compared with fiscal 2014, due to the installation of gas cogeneration facilities as well as initiatives to use energy more efficiently.

Environmental Protection Costs



As a means of quantitatively evaluating our environmental protection activities, TOYOBO Group implements environmental accounting with reference to the Ministry of the Environment's "Environmental Accounting Guidelines 2005." In fiscal 2020, capital expenditure with the objective of environmental protection totaled ¥1.56 billion. This was mainly due to the installation of gas cogeneration facilities at the Tsuruga Research and Production Center. In addition, maintenance costs totaled ¥2.32 billion. This primarily includes the costs of statutory environmental impact measurements, industrial waste disposal, various inspections, and associated personnel expenses.

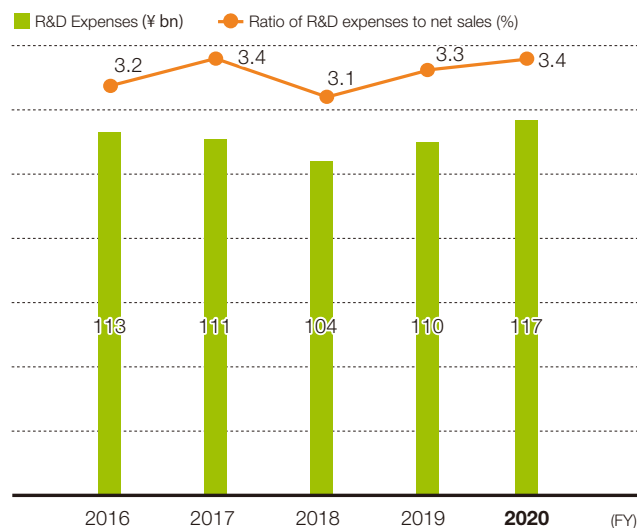
Frequency Rate of Lost Workday Injuries



TOYOBO Group is striving to achieve zero accidents in accordance with the "TOYOBO Group Basic Policy on Health & Safety." We place importance on the frequency rate of lost workday injuries. This was 0.31 in fiscal 2020, inclusive of affiliated businesses at the same business site.

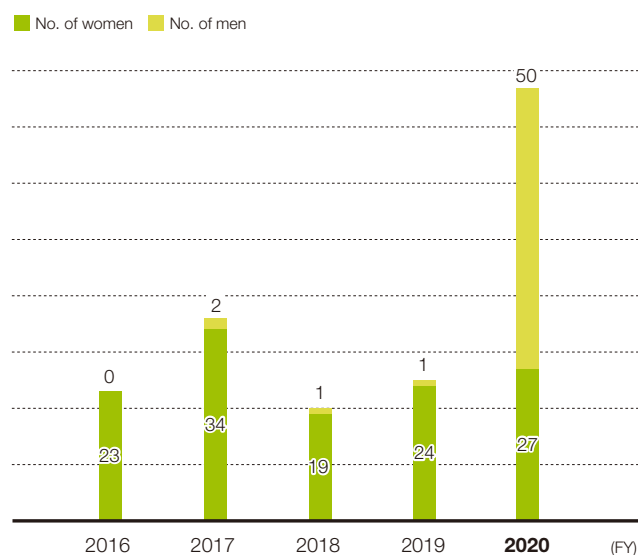
Note: Frequency rate of lost workday injuries refers to the rate of accidents resulting in lost workday injuries per one million hours worked.

R&D Expenses



We are strengthening our R&D activities in order to generate new value and achieve sustainable growth, and the medium-term management plan incorporates strategic investment in research and development. R&D expenses amounted to ¥11.7 billion in fiscal 2020, and the ratio of R&D expenses to net sales was 3.4%.

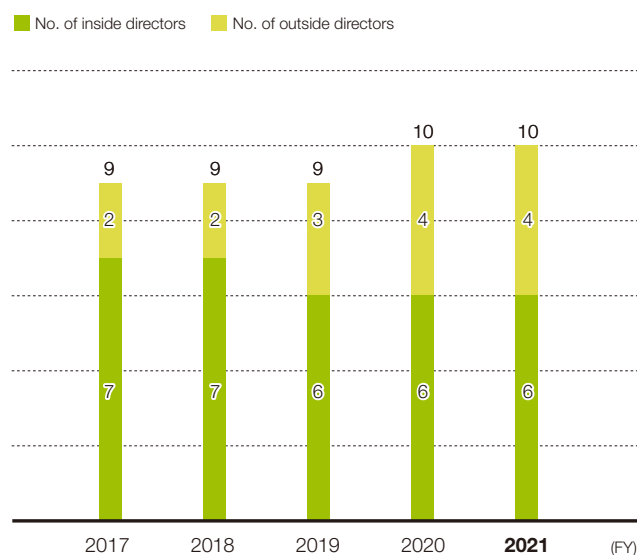
Childcare Leave Utilization



In fiscal 2020, we adopted a new system, offering paid childcare leave for the first five days.

In addition, men who had previously taken little childcare leave were encouraged to do so by their managers, and we also provided information about childcare leave to increase uptake. As a result, utilization of childcare leave among male employees grew significantly to 50 employees.

Number of Directors



Following the Annual General Meeting of Shareholders in June 2019, there were six inside directors and four outside directors (including one female director), and the ratio of outside directors on the Board of Directors was 40%.

Key Financial Data (FY2010–FY2020)

	FY2010	FY2011	FY2012	FY2013	
Fiscal year (¥ mn)					
Net sales	¥ 318,773	¥ 340,573	¥ 349,505	¥ 339,009	
Operating profit	11,469	20,890	18,305	17,081	
Ordinary profit	7,441	17,043	15,730	15,522	
Extraordinary income	365	427	364	2,673	
Extraordinary losses	8,061	12,479	5,231	5,420	
Profit (loss) attributable to owners of parent	2,094	4,155	4,587	7,639	
Comprehensive profit	-	5,416	9,065	11,097	
Assets, liabilities and equity (¥ mn)¹					
Current assets	¥ 157,329	¥ 172,001	¥ 177,735	¥ 184,739	
Non-current assets	281,110	271,515	260,105	262,707	
Current liabilities	163,554	163,444	162,850	164,831	
Non-current liabilities	143,787	130,299	127,267	127,093	
Net assets	131,097	149,773	147,724	155,522	
Total shareholders' equity	107,095	125,770	130,572	138,024	
Total assets	438,439	443,516	437,841	447,445	
Interests-bearing debt	170,963	151,804	154,888	159,430	
Cash flow (¥ mn)					
Cash flows from operating activities	¥ 29,024	¥ 33,714	¥ 14,192	¥ 30,354	
Cash flows from investing activities	(13,455)	(11,579)	(15,061)	(11,294)	
Cash flows from financing activities	(15,832)	(9,915)	(11,531)	(2,636)	
Free cash flow	15,547	22,136	(869)	19,060	
Cash and cash equivalents at end of period	9,953	21,927	9,481	26,467	
Capital expenditure, depreciation and amortization, R&D expenses (¥ mn)					
Capital expenditure	¥ 15,166	¥ 13,931	¥ 16,517	¥ 18,041	
Depreciation	20,419	19,113	19,473	13,246	
R&D expenses	10,296	10,634	10,820	9,966	
Per share information (¥)²					
Net assets per share	¥ 143.43	¥ 141.85	¥ 147.26	¥ 155.35	
Net profit (loss) per share	2.88	5.49	5.17	8.61	
Dividends per share	3.50	3.50	3.50	3.50	
Financial indicators					
Operating profit to net sales ratio (%)	3.6	6.1	5.2	5.0	
Return on equity (%)	2.0	3.6	3.9	5.8	
Return on assets (%)	2.6	4.7	4.2	3.8	
Price earnings ratio (%)	51.69	21.88	22.81	18.58	
Dividend on equity (%)	2.5	2.5	2.4	2.3	
Equity ratio (%)	24.4	28.4	29.8	30.8	
EBITDA (¥ mn)	31,888	40,003	37,778	30,327	
D/E ratio	1.60	1.21	1.19	1.16	
Results by business segment (¥ mn)³					
Net sales	Films and Functional Polymers	¥ 114,928	¥ 126,960	¥ 138,437	¥ 137,394
	Industrial Materials	63,157	71,462	71,221	71,891
	Healthcare	32,377	31,386	26,580	24,839
	Textiles and Trading	88,373	86,832	87,999	79,211
	Real Estate and Other Business	19,938	23,933	25,267	25,673
Operating profit	Films and Functional Polymers	6,095	12,528	8,574	7,634
	Industrial Materials	2,333	4,911	5,342	5,453
	Healthcare	4,023	3,724	4,133	4,170
	Textiles and Trading	418	624	1,058	213
	Real Estate and Other Business	1,839	2,322	2,478	2,740
	Adjustment	(3,239)	(3,219)	(3,280)	(3,128)

1. Figures from the year ended March 31st, 2019 onward reflect the application of "Partial Amendments to Accounting Standard for Tax Effect Accounting", and these accounting standards are applied retrospectively to the indicators, etc. for the year ended March 31st, 2018.
2. By resolution of the 159th Annual General Meeting of Shareholders held on June 28th, 2017, we carried out a one-for-ten reverse split of the Company's ordinary shares, effective October 1st, 2017. In addition, we amended the number of shares constituting one unit from 1,000 to 100, as of the same date.
3. From the year ended March 31st, 2015, the AP business was moved from Films & Functional Polymers to Industrial Materials. From the year ended March 31st, 2017, the AC business was moved from Industrial Materials to Healthcare, and the AP business was moved from Industrial Materials to Textiles & Trading.

FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
¥ 351,577	¥ 351,279	¥ 347,763	¥ 329,487	¥ 331,148	¥ 336,698	¥ 339,607
21,006	20,580	23,123	23,332	23,923	21,727	22,794
18,426	16,257	20,393	20,650	20,415	17,788	18,035
595	1,160	702	469	11,492	1,519	11,206
5,151	5,101	4,871	7,179	13,683	19,204	9,525
8,154	8,117	10,150	9,444	13,044	(603)	13,774
12,988	18,182	2,147	13,519	15,611	(467)	4,437
¥ 184,630	¥ 196,607	¥ 186,633	¥ 196,293	¥ 186,571	¥ 193,125	¥ 206,416
271,625	269,202	257,954	254,497	258,924	267,922	282,458
160,582	146,250	130,690	136,865	125,110	131,768	122,321
150,558	158,472	153,795	143,016	135,870	148,053	183,916
145,115	161,087	160,101	170,910	184,515	181,226	182,636
142,310	157,988	156,915	167,773	180,561	176,585	177,890
456,256	465,809	444,587	450,790	445,495	461,047	488,874
170,721	177,085	165,358	169,230	145,594	164,769	175,139
¥ 23,927	¥ 20,107	¥ 32,337	¥ 26,872	¥ 22,353	¥ 7,838	¥ 44,255
(22,218)	(20,089)	(10,636)	(14,132)	(1,174)	(24,286)	(39,216)
(10,839)	797	(21,384)	(324)	(27,831)	12,608	(1,805)
1,709	17	21,701	12,740	21,178	(16,448)	5,040
19,177	20,389	20,101	32,179	25,857	22,167	25,084
¥ 20,074	¥ 17,491	¥ 17,336	¥ 18,360	¥ 21,259	¥ 25,512	¥ 36,445
14,038	14,916	14,434	14,939	15,666	15,823	17,005
10,474	10,819	11,266	11,114	10,402	11,022	11,690
¥ 160.28	¥ 177.95	¥ 176.75	¥ 188.98	¥ 2,034.04	¥ 1,989.29	¥ 2,003.01
9.18	9.14	11.43	10.64	146.93	(6.80)	155.12
3.50	3.50	3.50	3.50	40.00	40.00	40.00
6.0	5.9	6.6	7.1	7.2	6.5	6.7
5.8	5.4	6.4	5.8	7.5	(0.3)	7.8
4.6	4.4	5.2	5.2	5.4	4.7	4.7
17.65	17.72	14.78	18.14	14.29	-	7.37
2.2	2.1	2.0	1.9	2.0	2.0	2.0
31.2	33.9	35.3	37.2	40.5	38.3	36.4
35,044	35,496	37,557	38,271	39,589	37,550	39,799
1.20	1.12	1.05	1.01	0.81	0.93	0.98
¥ 148,000	¥ 146,029	¥ 143,398	¥ 138,574	¥ 148,667	¥ 156,241	¥ 158,833
71,704	71,520	70,522	59,925	63,454	66,540	65,405
27,344	28,777	27,723	36,423	35,723	34,675	39,412
79,089	85,093	85,486	77,552	68,317	64,585	61,328
25,440	19,860	20,634	17,013	14,987	14,657	14,629
7,794	6,988	9,920	12,747	13,713	13,727	16,541
5,501	6,601	6,288	3,875	4,262	2,620	1,035
5,140	5,042	4,726	5,242	5,179	5,170	5,547
2,952	2,334	2,500	1,066	645	914	561
2,732	2,630	2,841	3,344	2,820	2,233	2,623
(3,113)	(3,016)	(3,152)	(2,941)	(2,694)	(2,936)	(3,512)

Consolidated Balance Sheets

(¥ mn)

	FY2019	FY2020
Assets		
Current assets		
Cash and deposits	22,318	25,247
Notes and accounts receivable - trade	81,909	85,345
Electronically recorded monetary claims - operating	3,881	8,208
Merchandise and finished goods	45,849	49,150
Work in process	13,704	12,750
Raw materials and supplies	17,247	18,728
Other	8,417	7,141
Allowance for doubtful accounts	(199)	(154)
Total current assets	193,125	206,416
Non-current assets		
Property, plant and equipment		
Buildings and structures, net	50,166	52,746
Machinery, equipment and vehicles, net	43,163	43,343
Land	98,199	97,055
Construction in progress	11,335	29,876
Other, net	5,613	8,459
Total property, plant and equipment	208,476	231,478
Intangible assets		
Other	3,654	4,641
Total intangible assets	3,654	4,641
Investments and other assets		
Investment securities	29,745	20,916
Deferred tax assets	17,276	17,977
Other	9,462	8,203
Allowance for doubtful accounts	(691)	(757)
Total investments and other assets	55,792	46,339
Total non-current assets	267,922	282,458
Total assets	461,047	488,874

(¥ mn)

	FY2019	FY2020
Liabilities		
Current liabilities		
Notes and accounts payable - trade	42,736	41,659
Electronically recorded obligations - operating	2,036	8,357
Short-term borrowings	41,882	32,027
Current portion of bonds payable	10,000	-
Current portion of long-term borrowings	12,433	8,510
Provision for bonuses	4,128	4,366
Other	18,553	27,403
Total current liabilities	131,768	122,321
Non-current liabilities		
Bonds payable	30,000	55,000
Long-term borrowings	69,009	75,851
Deferred tax liabilities for land revaluation	21,277	21,277
Provision for retirement benefits for directors (and other officers)	233	247
Provision for environmental measures	419	331
Retirement benefit liability	18,236	21,613
Other	8,879	9,598
Total non-current liabilities	148,053	183,916
Total liabilities	279,821	306,238
Net assets		
Shareholders' equity		
Share capital	51,730	51,730
Capital surplus	32,206	32,200
Retained earnings	51,858	61,929
Treasury shares	(415)	(350)
Total shareholders' equity	135,378	145,509
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	9,071	4,013
Deferred gains or losses on hedges	(33)	(8)
Revaluation reserve for land	44,483	44,457
Foreign currency translation adjustment	(10,277)	(11,954)
Remeasurements of defined benefit plans	(2,038)	(4,128)
Total accumulated other comprehensive income	41,206	32,381
Non-controlling interests	4,641	4,746
Total net assets	181,226	182,636
Total liabilities and net assets	461,047	488,874

Consolidated Statements of Income

(¥ mn)

	FY2019	FY2020
Net sales	336,698	339,607
Cost of sales	255,634	255,140
Gross profit	81,064	84,467
Selling, general and administrative expenses	59,337	61,673
Operating profit	21,727	22,794
Non-operating income		
Dividend income	742	650
Share of profit of entities accounted for using equity method	471	469
Other	1,779	2,211
Total non-operating income	2,992	3,329
Non-operating expenses		
Interest expenses	1,305	1,369
Salaries paid to dispatched employees	1,014	859
Loss on suspension of production	1,079	947
Other	3,533	4,914
Total non-operating expenses	6,931	8,089
Ordinary profit	17,788	18,035
Extraordinary income		
Gain on sales of investment securities	198	448
Gain on bargain purchase	175	65
Insurance claim income	306	10,647
National subsidies	607	-
Other	233	46
Total extraordinary income	1,519	11,206
Extraordinary losses		
Impairment loss	32	2,397
Loss on fire	13,822	3,112
Loss on disposal of non-current assets	1,905	3,979
Loss on tax purpose reduction entry of non-current assets	607	-
Loss on sales of shares of subsidiaries and associates	1,873	-
Other	965	37
Total extraordinary losses	19,204	9,525
Profit before income taxes	102	19,716
Income taxes - current	2,907	5,587
Income taxes - deferred	(1,994)	819
Total income taxes	913	6,406
Profit (loss)	(810)	13,310
Loss attributable to non-controlling interests	(207)	(464)
Profit (loss) attributable to owners of parent	(603)	13,774

Consolidate Statements of Comprehensive Income

(¥ mn)

	FY2019	FY2020
Profit (loss)	(810)	13,310
Other comprehensive income		
Valuation difference on available-for-sale securities	1,035	(5,052)
Deferred gains or losses on hedges	16	25
Revaluation reserve for land	-	-
Foreign currency translation adjustment	(123)	(1,705)
Remeasurements of defined benefit plans, net of tax	(413)	(2,089)
Share of other comprehensive income of entities accounted for using equity method	(171)	(52)
Total other comprehensive income	343	(8,873)
Comprehensive income	(467)	4,437
Comprehensive income attributable to		
Comprehensive income attributable to owners of parent	(298)	4,974
Comprehensive income attributable to non-controlling interests	(169)	(538)

Consolidated Statements of Cash Flows

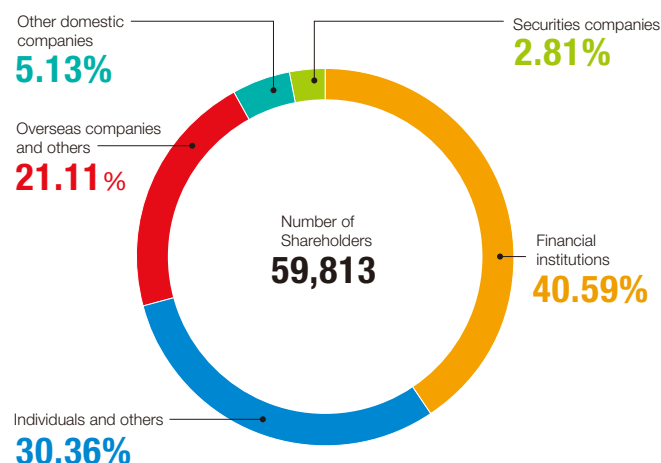
(¥ mn)

	FY2019	FY2020
Cash flows from operating activities		
Profit before income taxes	102	19,716
Depreciation	15,823	17,005
Increase (decrease) in allowance for doubtful accounts	101	48
Increase (decrease) in retirement benefit liability	(671)	230
Interest and dividend income	(863)	(791)
Interest expenses	1,305	1,369
Share of loss (profit) of entities accounted for using equity method	(471)	(469)
Impairment loss	32	2,397
Loss (gain) on sales and disposal of property, plant and equipment, net	1,902	3,963
Loss (gain) on sales and valuation of investment securities	(87)	(448)
Loss (gain) on sales of shares of subsidiaries and associates	1,873	-
Insurance claim income	(306)	(10,647)
Loss due to fire	13,822	3,112
Decrease (increase) in trade receivables	(4,562)	(2,005)
Decrease (increase) in inventories	(7,098)	1,678
Increase (decrease) in trade payables	603	3,367
Decrease (increase) in retirement benefit asset	1,452	142
Other, net	(1,116)	552
Subtotal	21,843	39,219
Payments for Loss due to fire	(8,029)	(4,147)
Payments for loss on litigation	(255)	-
Income taxes (paid) refund	(6,027)	(1,464)
Proceeds from insurance income	306	10,647
Net cash provided by (used in) operating activities	7,838	44,255
Cash flows from investing activities		
Purchase of property, plant and equipment and intangible assets	(24,235)	(30,858)
Proceeds from sales of property, plant and equipment and intangible assets	529	1,344
Purchase of shares of subsidiaries resulting in change in scope of consolidation	-	(8,797)
Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation	425	-
Proceeds from sales of shares of subsidiaries and associates	475	-
Collection of long-term loans receivable	33	903
Long-term loan advances	(1,940)	(117)
Interest and dividends received	944	810
Other, net	(517)	(2,500)
Net cash provided by (used in) investing activities	(24,286)	(39,216)

(¥ mn)

	FY2019	FY2020
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	8,719	(13,498)
Proceeds from long-term borrowings	23,316	14,595
Repayments of long-term borrowings	(24,105)	(12,460)
Proceeds from issuance of bonds	10,000	25,000
Redemption of bonds	-	(10,000)
Purchase of treasury shares	(5)	(3)
Interest paid	(1,307)	(1,376)
Dividends paid	(3,550)	(3,551)
Dividends paid to non-controlling interests	(7)	(25)
Other, net	(453)	(487)
Net cash provided by (used in) financing activities	12,608	(1,805)
Effect of exchange rate change on cash and cash equivalents	(106)	(621)
Net increase (decrease) in cash and cash equivalents	(3,945)	2,613
Cash and cash equivalents at beginning of period	25,857	22,167
Increase (decrease) in cash and cash equivalents resulting from change in scope of consolidation	256	303
Cash and cash equivalents at end of period	22,167	25,084

Stock Listing	Tokyo
Stock Code	3101
Transfer Agent	Sumitomo Mitsui Trust Bank, Ltd. 1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan
Independent Auditors	KPMG AZSA LLC 3-6-5, Kawara-machi, Chuo-ku, Osaka 541-0048, Japan
Common Stock	Authorized: 200,000,000 shares Issued: 89,048,792 shares
Paid-in Capital	¥51,730 million
Number of Shareholders	59,813
General Shareholders' Meeting	Held in June every year
Number of Shares Constituting One Unit	100

Composition of Shareholders**Major Shareholders**

	Number of shares held (thousands)	Percentage of voting rights (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	7,610	8.57
The Master Trust Bank of Japan, Ltd. (Trust Account)	7,587	8.54
National Mutual Insurance Federation of Agricultural Cooperatives	3,558	4.01
Nippon Life Insurance Company	1,750	1.97
Toyukai (Contractor Share Holding)	1,741	1.96
Japan Trustee Services Bank, Ltd. (Trust Account 9)	1,681	1.89
JP MORGAN CHASE BANK 385151	1,675	1.89
TOYOBO Employees Stockholders' Association	1,669	1.88
Japan Trustee Services Bank, Ltd. (Trust Account 5)	1,585	1.79
DFA INTL SMALL CAP VALUE PORTFOLIO	1,462	1.65

Stock Prices

Highest/lowest stock prices for the past five years

FY	2016	2017	2018	2019	2020
Highest (¥)	216	211	2,249 (218)	2,164	1,684
Lowest (¥)	140	155	1,900 (184)	1,386	903

1. Stock price quotations are from the Tokyo Stock Exchange (First Section).

2. The highest and lowest stock prices shown for fiscal 2018 are figures following the share consolidation. Figures in parentheses show pre-share consolidation amounts.

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Telephone: +81-6-6348-3111

Established May 1882

Number of Employees 3,181 (Nonconsolidated) / 10,073 (Consolidated)

Branches

Tokyo Branch
Nagoya Branch
Tsuruga Research and Production Center
Iwakuni Production Center
Toyama Center
Research Center
Takasago Plant
Inuyama Plant

**Overseas**

TOYOBO (SHANGHAI) CO., LTD.
TOYOBO U.S.A., INC.
TOYOBO (THAILAND) CO., LTD.
TOYOBO CHEMICALS EUROPE GmbH
TOYOBO DO BRAZIL PARTICIPACOES LTDA.

TOYOBO Group's Business Locations around the Globe**External Recognition**

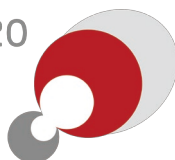
TOYOBO is listed on the following SRI indices, as of March 2020.

- MSCI Japan Empowering Women Index (WIN)
- SOMPO Sustainability Index

2020 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

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2020



Sompo Sustainability Index





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■ Corporate Sustainability Department Sustainability Planning Group

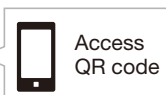
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Disclaimer

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TOYOBO REPORT 2020

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