

TORAY REPORT

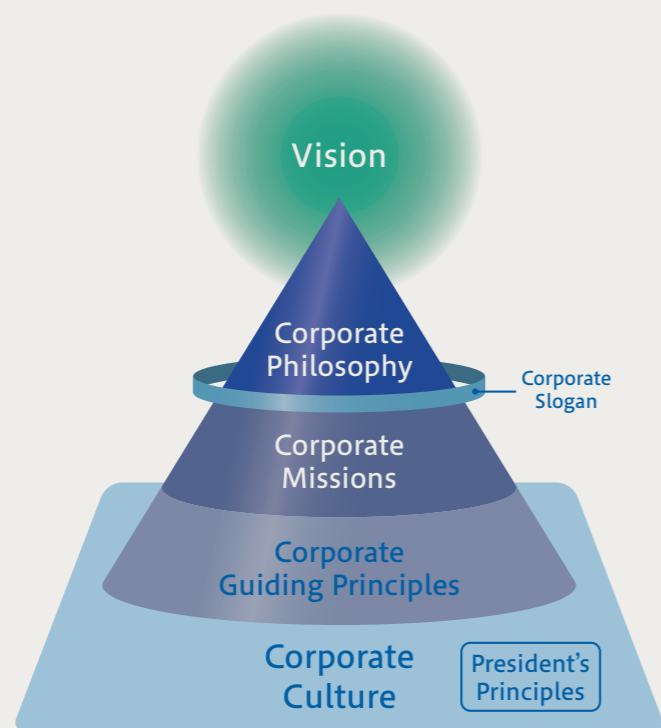
Start of
AP-G 2025

2023



TORAY

Innovation by Chemistry



| Toray Philosophy |

In addition to our traditional Management Philosophy (which includes the Corporate Philosophy, Corporate Missions, Corporate Guiding Principles), the Toray Philosophy includes the Corporate Slogan (which simply expresses Toray's stance on embodying the Corporate Philosophy), the Vision (which represents the direction the Group is headed), the Corporate Culture (which includes values and management perspectives that have been maintained since the company's founding), and the President's Principles.

Corporate Philosophy

Contributing to society through the creation of new value with innovative ideas, technologies and products

Corporate Missions

- For our customers:** To provide new value to our customers through high-quality products and superior services
- For our employees:** To provide meaningful work and fair opportunities
- For our shareholders:** To practice sincere and trustworthy management
- For society:** To establish ties and develop mutual trust as a responsible corporate citizen

Corporate Guiding Principles

Safety and Environment

Placing top priority on safety, accident prevention and environmental preservation in order to protect the safety and health of employees, customers and local communities and contribute to building a sustainable society

Ethics and Fairness

Acting with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations

Customer-Focus

Providing solutions of high value to customers, and pursuing customer satisfaction and the world's highest level of quality

Innovation

Achieving continuous innovation in all corporate activities, and aiming for dynamic evolution and growth

Strong *Genba-Ryoku* (Workplace Competency)

Learning from one another and making self-driven efforts to leverage technologies and expertise in order to strengthen workplace competency, which is the foundation of our corporate activities

Cooperation and Co-creation

Forming integrated internal linkages and strategic alliances with external partners, and evolving together with society by creating new value

Emphasis on Human Resources

Providing motivating work environments where employees can demonstrate their abilities, and building a vibrant corporate culture

Information Disclosure

Appropriately disclosing corporate information and enhancing communication with stakeholders in order to maintain management transparency

Respect for Human Rights

Fulfilling our responsibility to respect human rights as a good corporate citizen

Vision

Toray Group Sustainability Vision

Corporate Culture

- Contributing to society through business activities
- People-centric management
- Management from a long-term perspective
- Pioneering spirit

Corporate Slogan

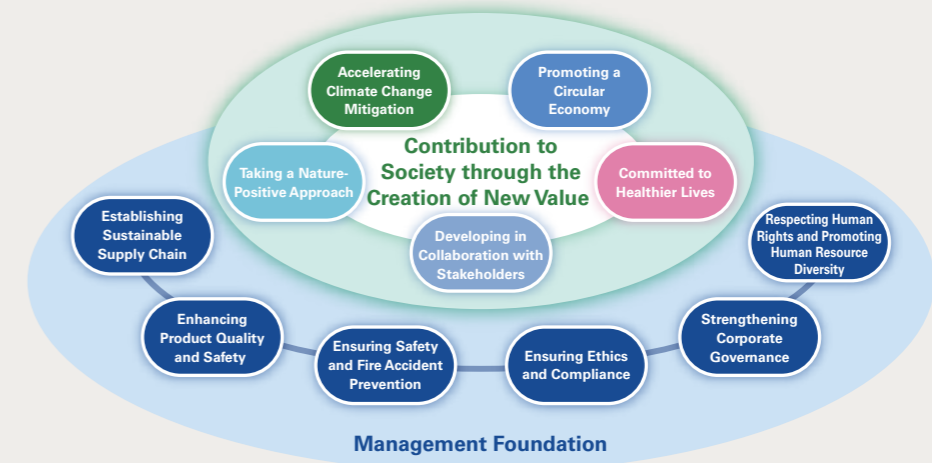
Innovation by Chemistry

Contents

Value Creation Story	06	To Our Stakeholders
	14	Toray Group Value Creation History
	16	The Toray Group Value Creation Process
Value Creation Strategy	18	Financial Highlights
	20	Non-Financial Highlights
	22	Toray Group's Vision
	23	Long-Term Corporate Vision, TORAY VISION 2030
	24	Review of the Medium-Term Management Program, Project AP-G 2022
	26	Medium-Term Management Program, Project AP-G 2025
	36	TORAY IR Day: Medium-term Management Program, Project AP-G 2025 Business Outline and Strategy
	56	Human Resources Management
	58	Interview with a Newly Appointed CEO
	60	REAL TALK—Everyone's Voice
	62	Initiatives for Global Environmental Issues
	67	IR Seminar: Toray Group's Initiatives Toward Realization of a Hydrogen Society
	70	R&D
72	Intellectual Property	
74	Advanced Business Management by Utilizing Digital Technologies	
Governance	76	Members of the Board and Corporate Auditors
	80	Interview with a Newly Appointed Outside Director
	82	Corporate Governance
	86	Comments from an Outside Director
	87	Compliance
	90	Risk Management
Segment Information	92	Results by Segment for FY 2022
	94	Fibers & Textiles
	95	Performance Chemicals
	96	Carbon Fiber Composite Materials
	97	Environment & Engineering
	98	Life Science
Data	100	CSR Roadmap 2025 from the Perspective of Materiality
	104	Stakeholder Engagement
	105	External Evaluation
	106	Toray Group Worldwide Network
	107	Investor Information

Toray Group Corporate Social Responsibility Materiality

In June 2023, Toray Group has selected a total of 11 material issues for its CSR activities, including five issues relating to the Group's Corporate Philosophy of contributing to society through the creation of new value. The other six issues represent key management foundation points that are consistently necessary to address as important issues.



Contribution to Society through the Creation of New Value

Accelerating Climate Change Mitigation

Accelerate the shift to carbon neutrality by contributing to reduction of global greenhouse gas emissions through innovative technologies and advanced materials and by pursuing emissions reduction across the Toray Group.

Promoting a Circular Economy

Promote sustainable, circular resource use and production by increasing recycling, using biomass-based raw materials, and converting CO₂ into resources.

Taking a Nature-Positive Approach

Contribute to restoration of the natural environment by offering products that help provide clean water and air, reduce environmental impact, and otherwise benefit the environment and by working to preserve green spaces and properly manage chemical substances.

Committed to Healthier Lives

Contribute to healthy, hygienic lifestyles by providing advanced materials that promote health and longevity, reduce the burden on nursing care and healthcare providers, improve the quality of medical care, and contribute to human safety.

Developing in Collaboration with Stakeholders

Focus on sustainable development for both the Group and society by pursuing co-creation with stakeholders and contributing solutions to social issues. Appropriately disclose information and promote dialogue with stakeholders.

Management Foundation

Ensuring Safety and Fire Accident Prevention

Protect public safety and the personal safety of employees by pursuing zero accidents, thoroughly practicing disaster and fire prevention, and ensuring safe work environments.

Ensuring Ethics and Compliance

Act with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations.

Enhancing Product Quality and Safety

Provide safe, high-quality products by further strengthening quality control, quality assurance, and product safety management.

Strengthening Corporate Governance

Maintain sound management across the Toray Group by reviewing management systems and programs, strengthening internal controls, and implementing risk management (managing risks related to business activities such as economic security, security trade, and information security).

Establishing Sustainable Supply Chain

Focus on building a stable, sustainable supply chain by promoting environmental conservation and respect for human rights throughout the supply chain.

Respecting Human Rights and Promoting Human Resource Diversity

Respect internationally recognized human rights and create work environments that allow a diverse pool of human resources to demonstrate their creativity.

Moreover, taking materiality into account, in June 2023, the Group formulated CSR Roadmap 2025, which outlines activity targets, main initiatives, and key performance indicators (KPIs) for each of the Group's ten CSR guidelines.

<https://www.toray.com/global/sustainability/stance/roadmap.html>

*Please refer to P.100 for the CSR Roadmap 2025 from the Perspective of Materiality

Toward a Truly Sustainable Company



Mitsuo Ohya

Mitsuo Ohya
President
Toray Industries, Inc.

senbism[®]

Material of the suit worn:
senbism[™] (marketing by Toray Industries, Inc. Women's & Men's Wear Fabrics Dept.)

Passing on the Company Values —Nurturing people while contributing to society and the environment, yesterday, today, and tomorrow—

I was appointed president in June 2023 during the first year of the new Medium-Term Management Program, Project AP-G 2025 (AP-G 2025).

Since its founding in 1926, Toray has voiced its strong belief that the Company is a public institution that serves society. Accordingly, we have engaged in corporate activities with the ultimate goal of contributing to society. Toray's corporate philosophy, "contributing to society through the creation of new value with innovative ideas, technologies, and products," is based on the former company principle, "Toyo Rayon contributes to communities," which was first expressed and codified in 1955. It was revised to the present corporate philosophy in 1986. While far from a novel concept today, Toray understands that its efforts to carry out the philosophy of "contributing to society" has attracted the recognition of society, which in turn has led to performance growth. At the same time, we have inherited the unwavering commitment to sustainability management of our predecessors, which entails developing human resources and taking all possible measures to protect the environment with an awareness toward chemistry-based manufacturing. Guided by this management vision, in 2018 we formulated the Toray Group Sustainability Vision. It clarifies the four perspectives of the world as envisioned by the Toray Group, and states internally and externally the commitment to initiatives that must be taken in order to realize them. Furthermore, in 2020, we announced details of the "Toray Philosophy" as a systemized approach to the management vision that underpins the Company and has been passed down since our founding, including the corporate philosophy.

I am deeply respectful of the fact that Toray Group executives and employees have contributed to the development of society in Japan and worldwide by introducing a variety of innovative materials based on this philosophy. I also keenly feel the weight of responsibility from being entrusted to lead the Company at a time of great change in the business environment.

Together with our more than 48,000 employees, we will continue to share Toray's mission since its founding to nurture people while contributing to society and the environment through our business activities, and this in turn will drive corporate development.

Raison d'être of the Chemical Industry

We believe that sustainability is an extremely important issue for the chemical industry. The chemical industry has a critical mission to provide useful raw materials to help society become carbon neutral. On the other hand, the environmental impact of business activities is significant, so the cost burden of energy and

raw material conversion to achieve carbon neutrality is a major issue. In addition, there are areas where individual company efforts alone cannot address emissions reduction of the entire supply chain, such as promoting the use of renewable electricity and hydrogen, as well as the disposal of raw materials and after-use materials. We believe that the path to sustainable growth for chemical industry and materials manufacturers is to support the transformation of all industries and societies by creating innovations toward carbon neutrality, while utilizing frameworks for reducing GHG emissions throughout society, such as the Japanese government's Green Transformation (GX) measures and the GX League in Japan—a private sector-led initiative—to gain society's understanding for sharing some of the costs of transformation of social and industrial structures. Toray Group intends to take the initiative in the industry with respect to such efforts.

Toray Group Sustainability Initiatives

The basic concept of our carbon neutral initiatives is to promote both "contribution to GHG reduction in society and reduction of emissions from our own business activities." Under this concept, we aim to become carbon neutral in 2050 through the following four initiatives: (1) contribute to the carbon neutrality of society by expanding the Sustainability Innovation (SI) Business, (2) reduce Scope 1 and 2 emissions by thorough energy conservation, fuel conversion, and renewable electricity usage, (3) reduce Scope 3 emissions through recycling, biomass-derived raw materials usage, CO₂ recovery and recycling, and (4) make gradual, continuous investments tailored to each country's energy situation.

With regard to the circular economy, we are promoting product recycling, utilizing biomass-derived raw materials, and conducting research on CO₂ recovery and recycling. As there is growing momentum for recycling of end-of-life products, we will strive to build an advanced recycling system that only Toray Group can provide, such as reverse supply chain of polymer-related products, utilizing our strength of having multiple outlets for the same polymer including fiber, resin, film, composite materials, and water treatment. To this end, we will fully grasp the level of acceptance of environmental premiums by consumers, customer trends in each industry and product, and the status of regulations and rule formation. As for the use of biomass-derived raw materials, we are developing technologies that utilize non-edible and non-food biomass that does not compete with food. We have begun mass production of partial bio-polyethylene (PET) fiber utilizing bio-ethylene glycol (EG) derived from non-food sugarcane waste molasses, as well as commenced trial sales of nylon 510 fiber utilizing mainly non-edible castor beans.

We are also redoubling our efforts in projects that help reduce environmental burdens, such as seawater desalination using water treatment membranes and the reuse of wastewater, as well as projects that contribute to better medical care and foster public health.

Medium-Term Management Program, Project AP-G 2025 — Five Basic Strategies —

In the process of formulating AP-G 2025, we spent time reviewing the previous Medium-term Management Program, AP-G 2022, and were also conscious of the demands of society in areas such as sustainability. Over the past three years, the business environment has changed dramatically, with the spread of COVID-19 and the Ukraine situation leading to the greater prevalence of a bloc economy, as well as diversification in the way people work and their values. These are phenomena that we must respond to. In addition, capital efficiency to effectively allocate and utilize limited management resources along with global risk management are becoming increasingly important. As a materials manufacturer that has operated under the premise of continuous capital investment, we have needed to demonstrate how we would seek solutions to increase earnings scale and efficiency.

The results are summarized in five basic strategies and financial strategies in AP-G 2025.

Basic Strategy 1, “Sustainable growth,” is based on the Toray Group Sustainability Vision. We will work to expand our business by allocating management resources to the Sustainability Innovation (SI) business and the Digital Innovation (DI) business as growth areas in which we can leverage our strengths and expect to increase earnings. DI supports the realization of a sustainable world.

In Basic Strategy 2, “Ultimate value creation,” and Basic Strategy 3, “Product and operational excellence,” we will leverage digital technology with a focus on the frontlines. For ultimate value creation, we will promote the integration of tangible and intangible assets, the extension of the value chain and cross-organizational value creation to add value to our businesses, while creating profitable new businesses that help solve social issues. For product and operational excellence, we will strengthen our quality capabilities and promote cross-organizational cost reduction activities that leverage the comprehensive strengths of our organization.

In Basic Strategy 4, “Enhancement of people-centric management,” we will realize job satisfaction and supportive workplaces by securing and promoting diverse human resources, working to develop personnel, providing environment and opportunities that lead to employee pride in working for Toray Group, and building an organizational culture that values feedback from the frontlines.

In Basic Strategy 5, “Risk management and governance,” we will appropriately control risks associated with business operations, such as economic security risks and country risks. We will also improve the effectiveness of internal controls, eliminate opportunities for fraud, and ensure sound organizational operations.

Our mission is to further deepen the understanding both internally and externally of the background and significance of the policies and strategies adopted and revised in AP-G 2025, as well as to implement the program.

Incorporating ROIC in Toray Group — Business growth while maintaining a sound financial structure —

In addition to the basic strategies, we will continue to maintain and reinforce the financial structure by improving asset efficiency based on cash flow and return on invested capital (ROIC) to support further growth. The SI and DI businesses to be expanded in Basic Strategy 1 include not only existing businesses but also businesses that require new investment and platforms, such as those related to resource recycling. In addition, investment is needed to accelerate GHG emission volume reductions. To this end, we will be even more balanced about allocating limited management resources mainly to capital investment, R&D, and human resources as we pursue business growth while maintaining a sound financial position. To help with this, we adopted ROIC as a new KPI. We will improve management resource efficiency and implement optimal reallocation, as well as increase capital efficiency by improving the balance between cash inflows and outflows and achieve sound, sustainable growth.

Expansion of the Sustainability Innovation (SI) and Digital Innovation (DI) Businesses

While the international situation remains uncertain, there is further increase in demand to ensure a sustainable society.

Under AP-G 2025, we plan to invest a total of ¥450 billion in the SI and DI businesses, which we have designated as growth business fields, including capital investment and R&D expenses. We will also build a cross-organizational structure to propose comprehensive solutions to customers and accelerate external collaboration with the aim of expanding these businesses to account for almost 60% of consolidated revenue.

As a materials manufacturer with advanced research and technology development capabilities, Toray Group will continue to demonstrate the importance of its existence amid more opportunities to help achieve a sustainable society by expanding the SI and DI businesses.

In addition, Toray Group is developing materials for building a green hydrogen supply chain, as it foresees the arrival of an era when green hydrogen, made from power provided by renewable energy and water becomes the mainstream of energy medium for the world. Toray is already the global leader in key components such as hydrocarbon (HC)-based electrolyte membranes, which increase the performance of water electrolysis devices. Thus in June 2022, Toray established the HS Division directly under the authority of the President in order to expand this business for the membranes. In order to shift to full-scale global deployment for bolstering the introduction of green hydrogen, Toray has also begun cooperating with companies and organizations from Japan and overseas, including Siemens

Energy AG, one of the world's leading manufacturers of water electrolysis devices and a company with which Toray has agreed to build a strategic partnership.

Ultimate value creation

—Create value by multiplying tangible and intangible assets—

Since its founding, Toray's mission has been to improve the quality of people's lives, and this has ingrained a corporate culture of creating new and valuable products, maintaining high quality, and providing products at reduced costs through tireless self-driven efforts. That is something to be proud of, but revenue growth is essential as a means to continue this mission, as an ideal without means will not be realized.

When I was at the frontlines of sales, I believed my role was to deliver to the market the products created by Toray's vaunted research, technology, and production, as well as to correctly communicate their value to the market and receive consideration for it. We will once again make known our basic approach to selling prices and our fundamental action of communicating with the market. We will also work on Toray's unique pricing strategy, which is data-driven and backed by digital technology.

In addition, we will create new value and increase our earning power by multiplying our tangible and intangible assets, including our accumulated elemental technologies and intellectual property, past capital expenditures, worldwide network of production bases, diverse business groups, and above all, the human resources who manage our business by making use of these assets.

People-centric management –Toray brand–

People-centric management is one of the values and management view Toray Group has been passed down since its establishment as part of its corporate culture. We will continue to uphold this in order to put our corporate philosophy into practice. Toray's philosophy that "success or failure of a company is decided by its people, and employees shape its destiny," has been widely adopted not only in Japan but also overseas, and Toray is implementing Toray-style management on a global scale while respecting the differences in customs and societal ways of thinking in each country and region.

To realize our corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies, and products," we believe that the Toray brand is fostered when Toray Group employees deliver products and services of high technology and quality to customers and are recognized by society based on the Toray Philosophy. We consider the UL certification issue uncovered two years ago to be a matter that could have shaken the Toray brand. We will continue to work earnestly to prevent such a recurrence and restore confidence in our products.

In Basic Strategy 4, we promote "enhancement of people-centric management" under AP-G 2025. Employees embody the Toray brand itself, and Toray's sustainable development would not be possible without employees who understand the Toray Philosophy. I tell our employees that the key phrases of people-centric management are "Power of dialogue," "One team, our team (all for one, one for all)," "Ability to think things through and get things done," and "Swing for the fences." With dialogue as the starting point, Toray will focus on creating an environment where full-fledged corporate growth and human growth and happiness through team building and interpersonal skills leads to Toray's Group's sustainability.

Toward a truly sustainable company —Fundamentals lead to results—

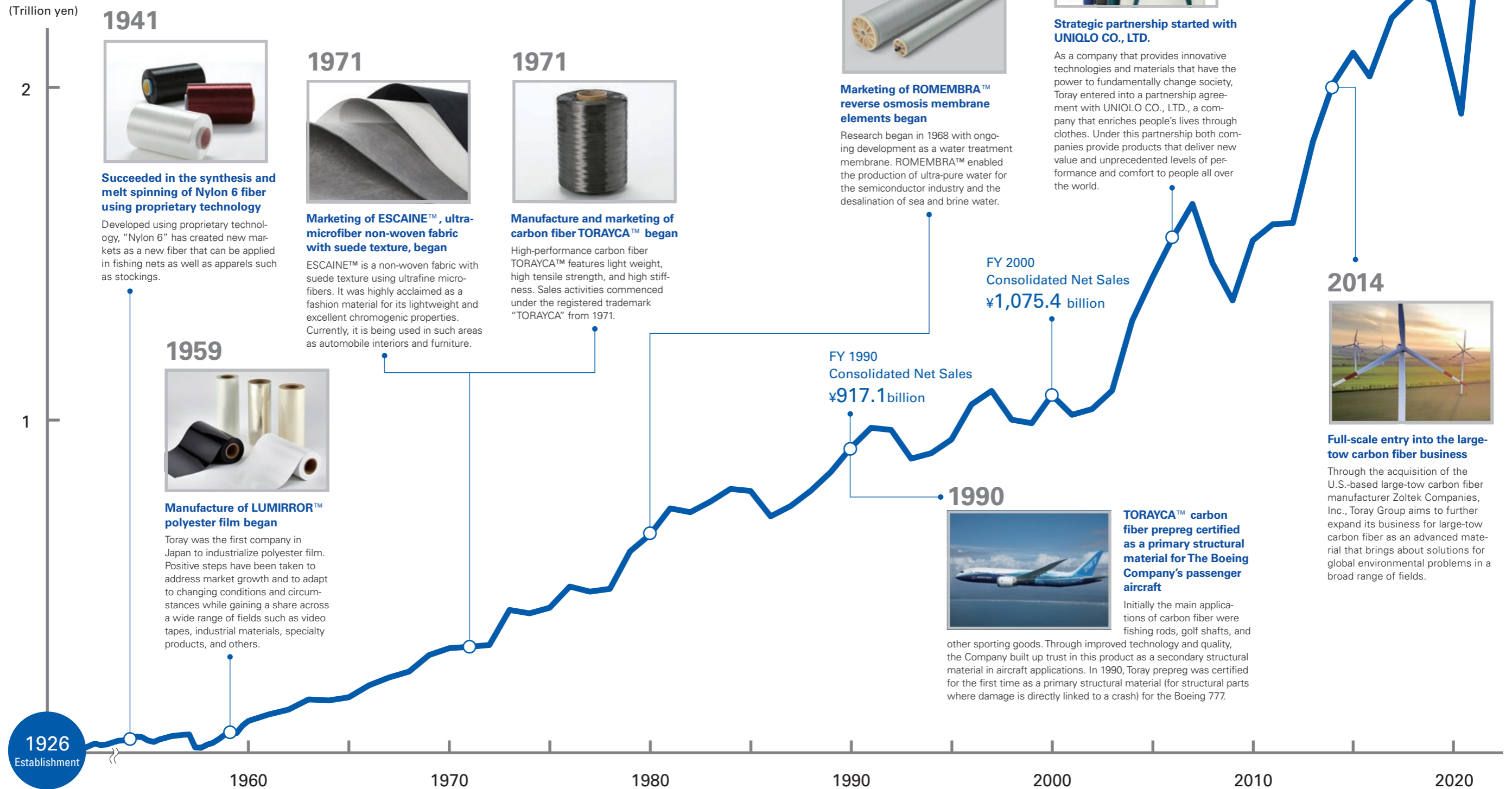
I am by no means trying to say anything new. Toray already has something to be proud of in terms of its management principles, technology, product creation ability, and people. Targeting the Corporate Philosophy and taking fundamental actions outlined in the Toray Philosophy, the united efforts of Toray executives and employees have made a difference and will lead to results. We will engage in dialogue with our customers and the market, earn the trust of society from the results of our corporate activities, and create a virtuous cycle in which employees work energetically with the aim of becoming a truly sustainable company. To this end, I am committed to taking a long-term, all-encompassing viewpoint to ensure that the direction in which each individual's actions will swell and move us forward is the correct one. We appreciate the continued understanding of our stakeholders.

Mitsuo Ohya

President
Toray Industries, Inc.

Toray Group Value Creation History

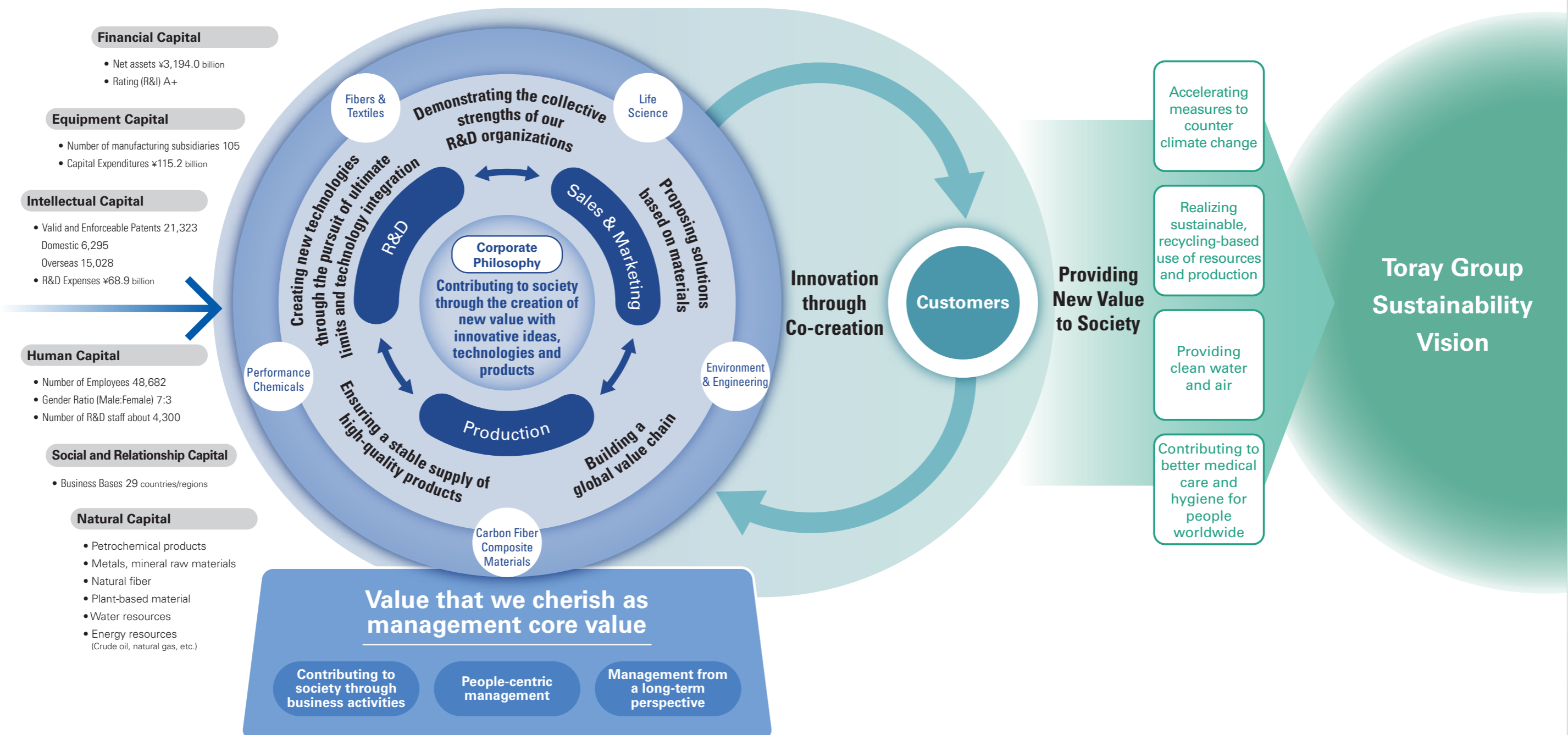
Toray Group began as a manufacturer of viscose rayon in 1926. On top of all three major synthetic fibers such as nylon, polyester, and acrylic, the Company has continued to develop innovative technologies while creating a host of advanced materials and high-added-value products in a broad range of films, chemicals, resins, electronic and information materials, carbon fiber composite materials, pharmaceuticals and medical products, water treatment, and environmental fields. With an eye toward how society will evolve in 2050 and how innovative technologies and advanced materials may be utilized as a driving force, we will adopt a long-term perspective toward enhancing our corporate value.



The Toray Group Value Creation Process

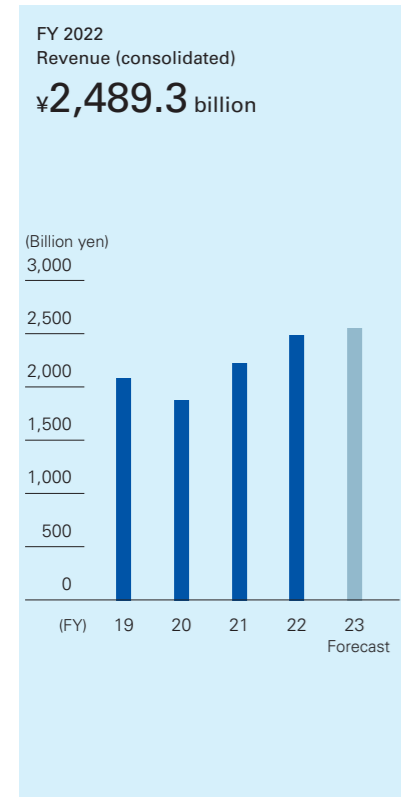
In a bid to realize its corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products,” Toray Group will **provide new value to society** through **a process of co-creation with customers, suppliers, and other parties** that make up the supply chain, starting at the materials stage, while promoting mutual cooperation in R&D, sales and marketing, and

production, the key strengths of Toray Group, based on the core values of “contributing to society through business activities,” “people-centric management,” and “management from a long-term perspective.” At the same time, we will work to realize the four perspectives of the world as outlined in the Toray Group Sustainability Vision.

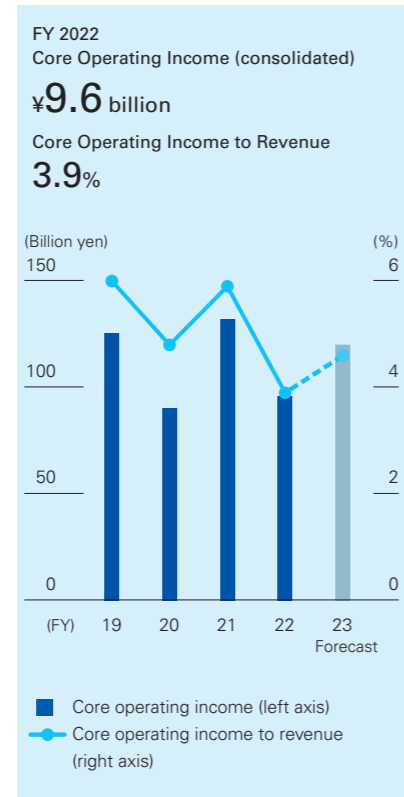


Financial Highlights

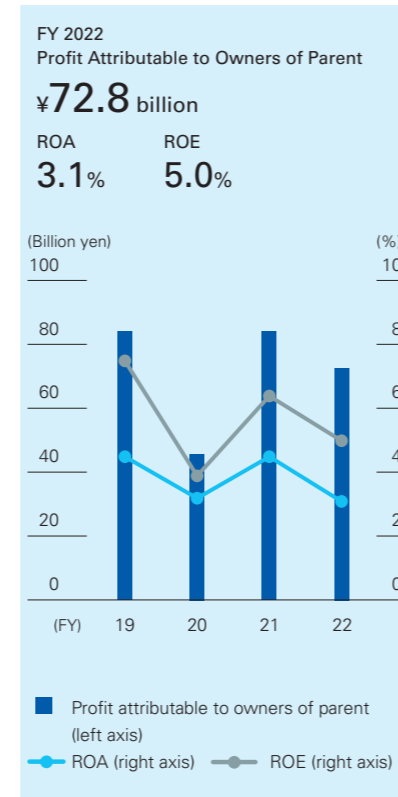
Revenue



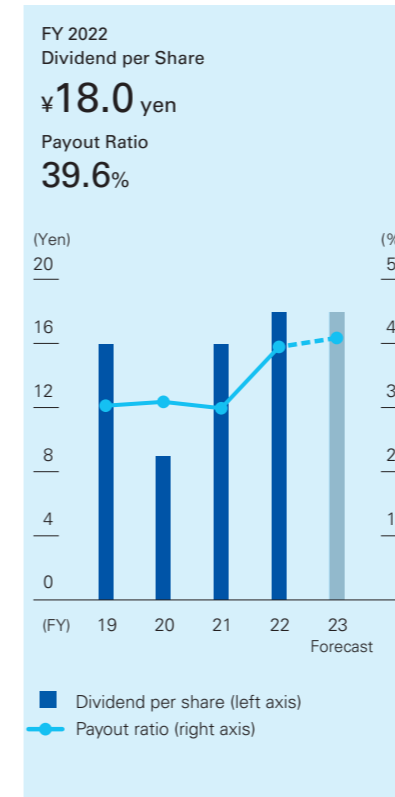
Core Operating Income and Core Operating Income to Revenue



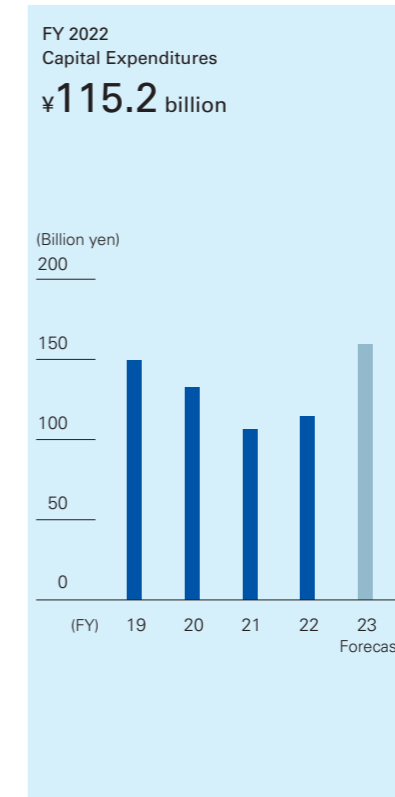
Profit Attributable to Owners of Parent, ROA and ROE



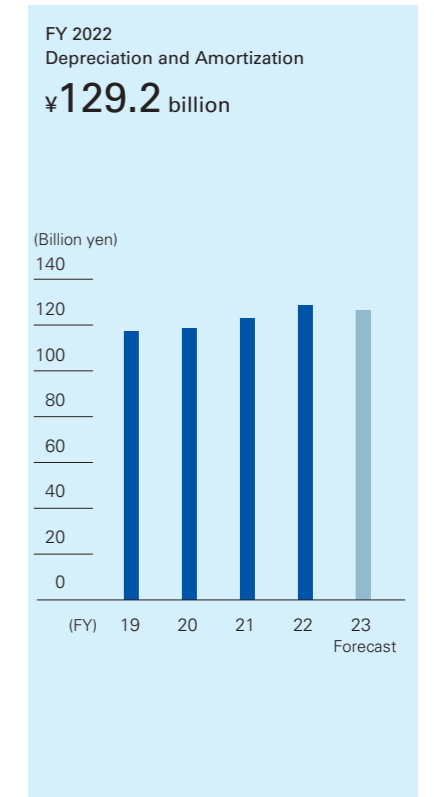
Dividend per Share and Payout Ratio



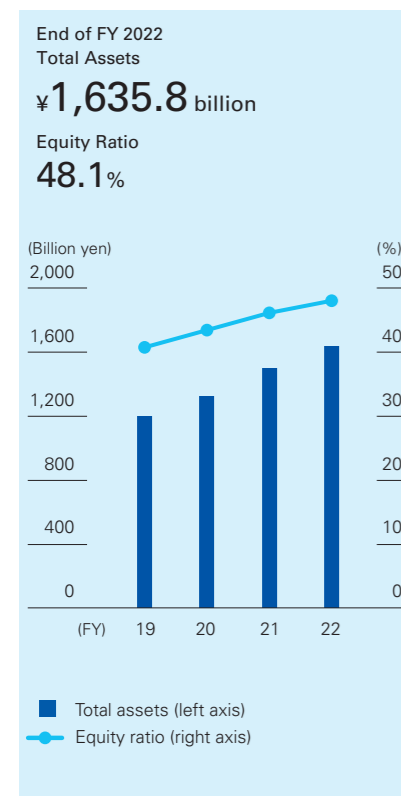
Capital Expenditures



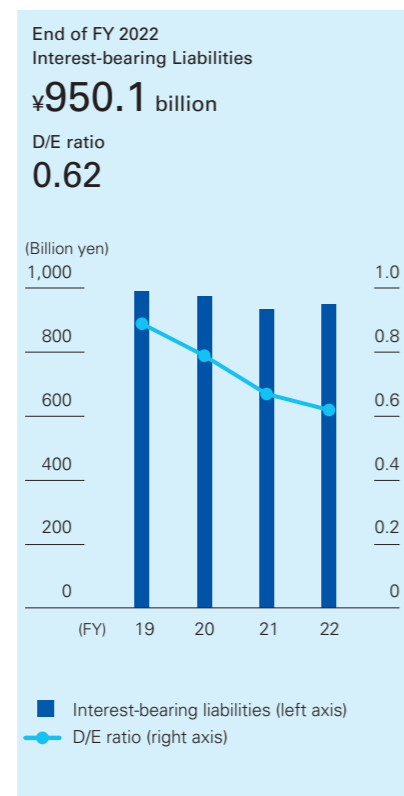
Depreciation and Amortization



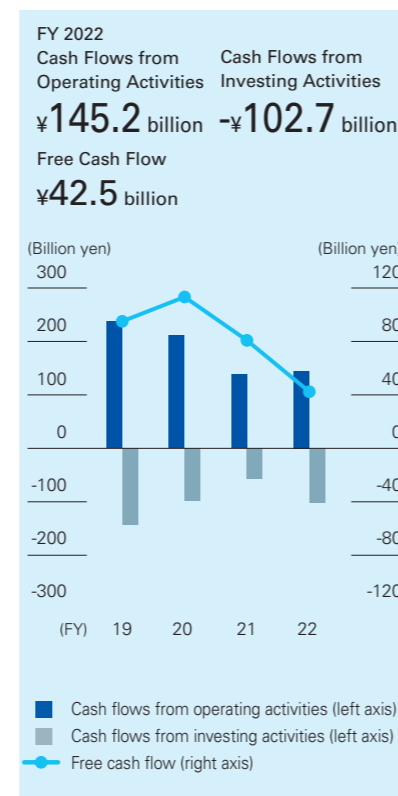
Total Assets and Equity Ratio



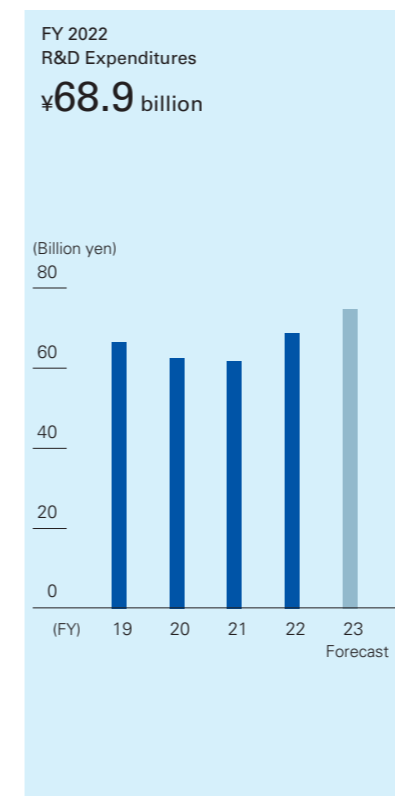
Interest-bearing Liabilities and Debt-to-Equity Ratio (D/E ratio)



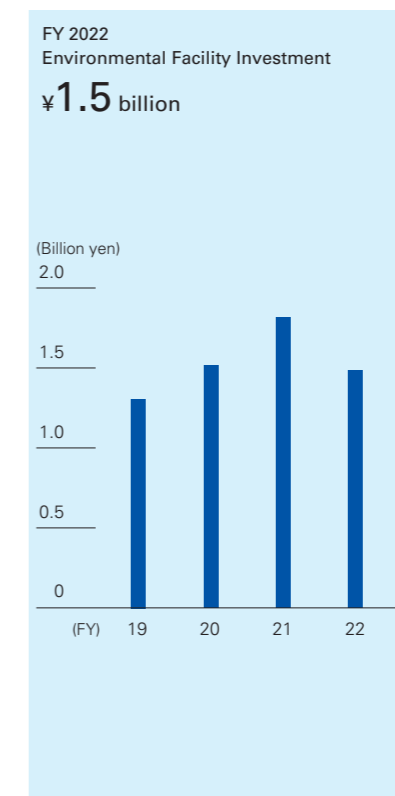
Cash Flows



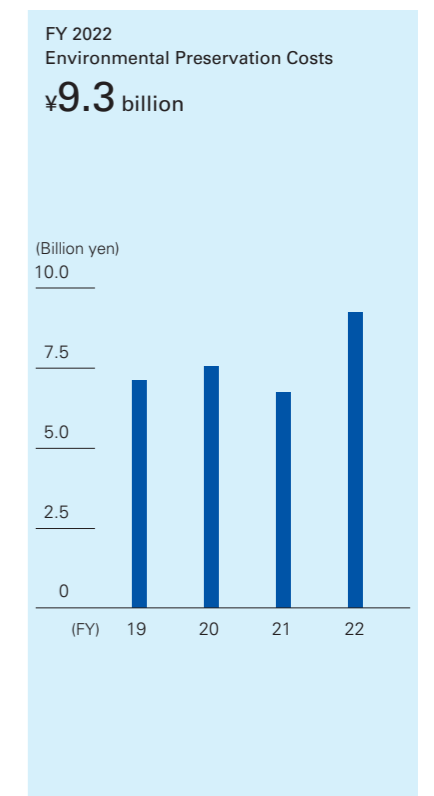
R&D Expenses/Expenditures



Environmental Facility Investment

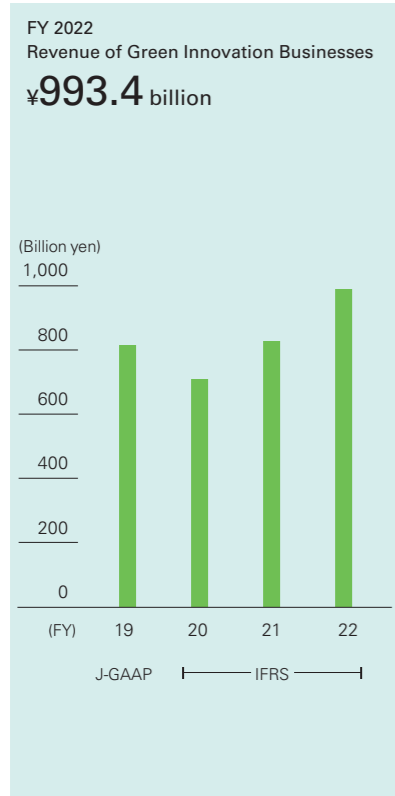


Environmental Preservation Costs

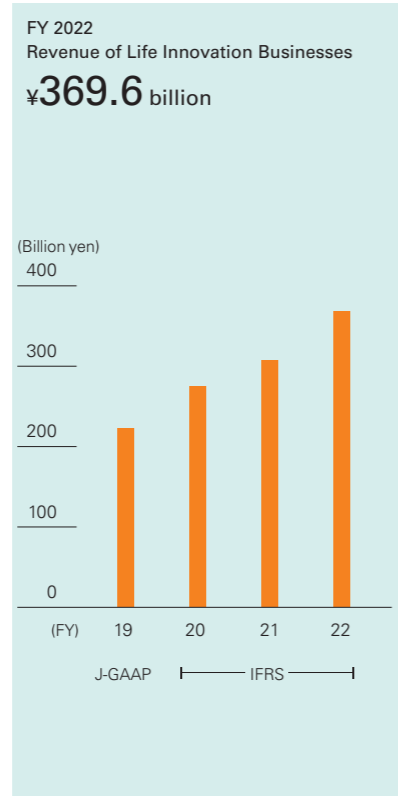


Non-Financial Highlights

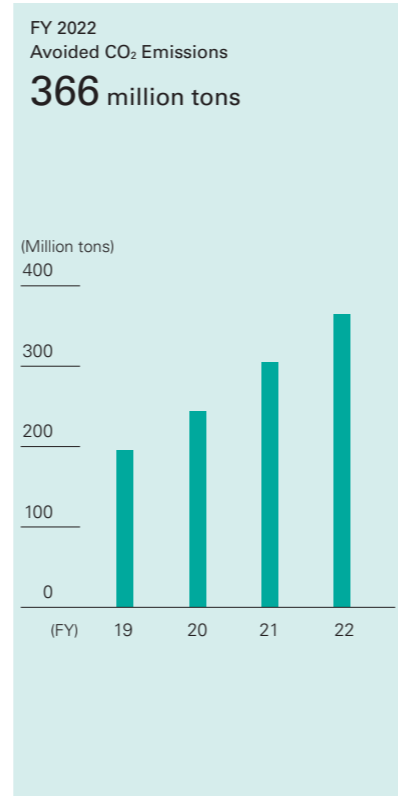
Net Sales/Revenue of Green Innovation Businesses



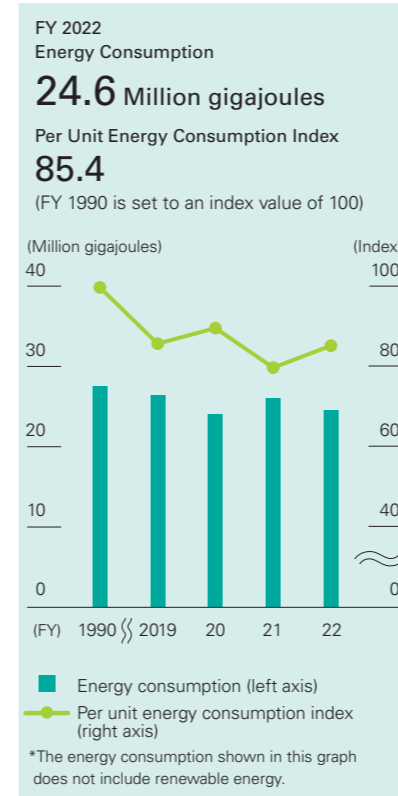
Net Sales/Revenue of Life Innovation Businesses



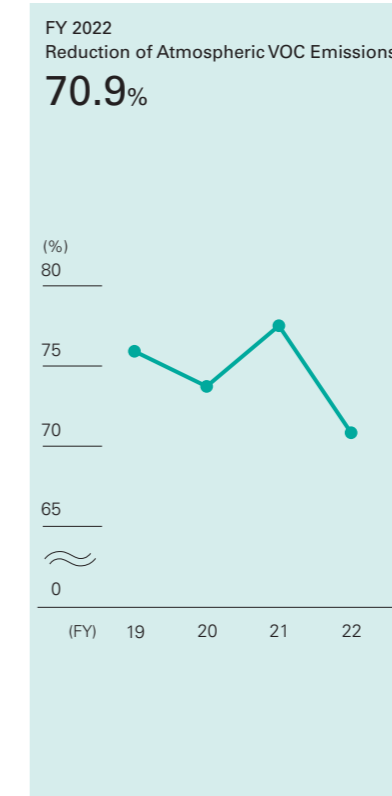
Avoided CO₂ Emissions



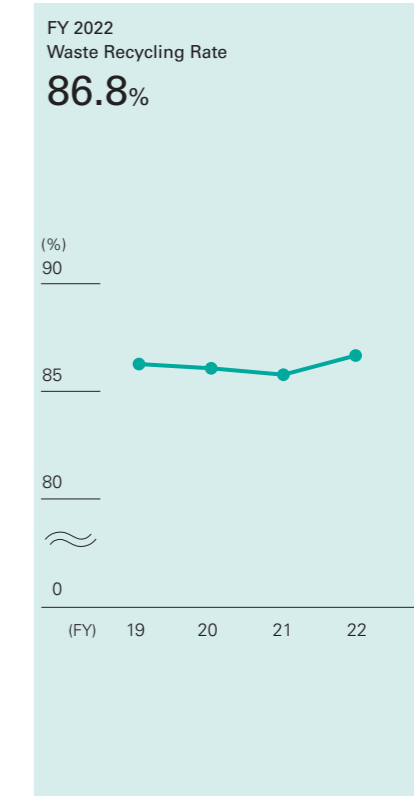
Energy Consumption and per Unit Energy Consumption Index (VS. FY 1990 / Toray alone)



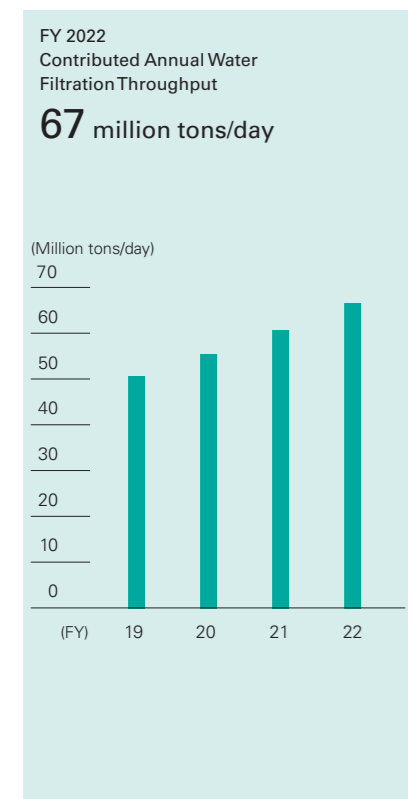
Reduction of Atmospheric VOC Emissions (VS. FY 2000)



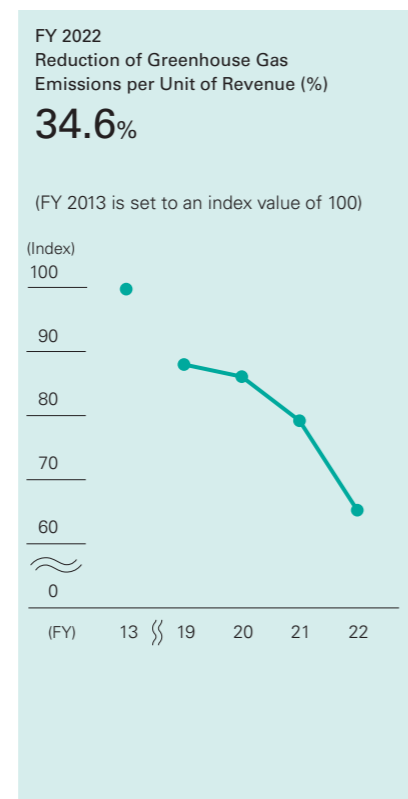
Waste Recycling Rate



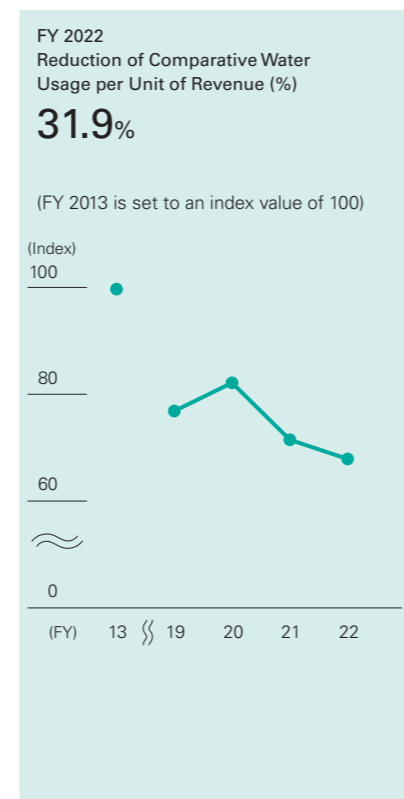
Contributed Annual Water Filtration Throughput



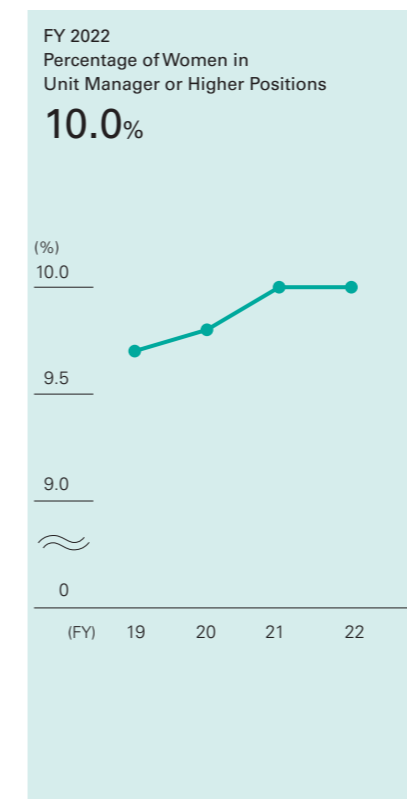
Reduction of Greenhouse Gas Emissions per Unit of Sales/Revenue (%) (VS. FY 2013)



Reduction of Comparative Water Usage per Unit of Sales/Revenue (%) (VS. FY 2013)



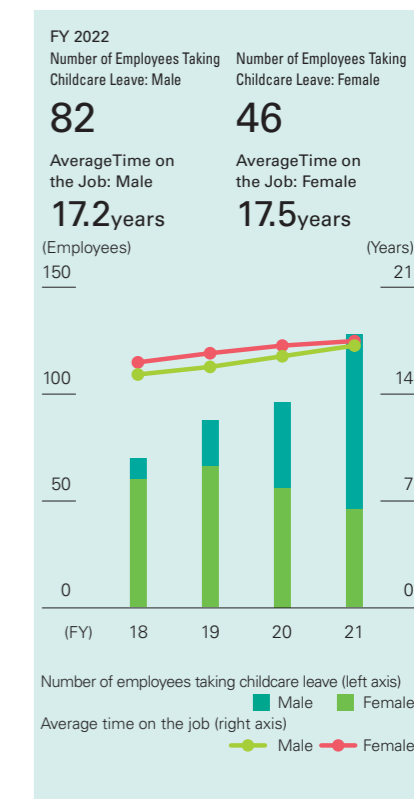
Percentage of Women in Unit Manager or Higher Positions (Toray alone)



Number of Employees by Gender



Average Time on the Job and Number of Employees Taking Childcare Leave (Toray alone)



Toray Group's Vision

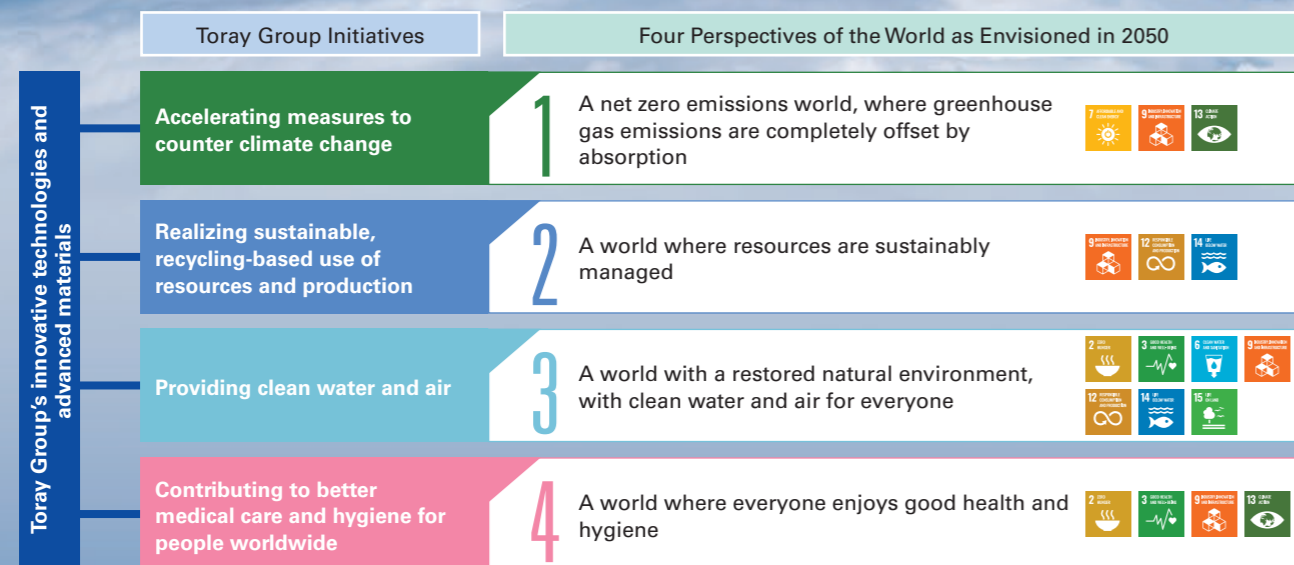
Toray Group established its Long-Term Corporate vision, TORAY VISION 2030, as a milestone for realizing the four perspectives of the world envisioned for 2050 as clarified in the Toray Group Sustainability Vision. Moreover, in March 2023, it announced the Medium-Term Management Program, Project AP-G 2025, which defines the issues to be addressed over the three-year period from FY 2023 to FY 2025. Since then, the Group has been moving forward with these efforts.

Toray Group Sustainability Vision

Toray Group Sustainability Vision formulated in July 2018 clarifies the four perspectives of the world in 2050 that Toray Group aims to achieve, as well as the initiatives that must be taken in order to realize them. More specifically, Toray Group's mission is to provide the necessary solutions to the challenges facing the world in terms of both development and sustainability, including the issues of an ever-increasing global population, aging populations,

climate change, water shortages, and resource depletion, through its innovative technologies and advanced materials. This means that the Group must not only ensure that its growth does not have a negative impact on global sustainability, but must also work closely with its business partners worldwide to help realize the co-creation of new value. As the basis for TORAY VISION 2030, Toray Group Sustainability Vision outlines the future direction of Toray Group and its contribution to addressing global issues, including the goals of the Paris Agreement and the United Nations Sustainable Development Goals (SDGs).

The World as Envisioned in 2050 and Toray Group Initiatives



Long-Term Corporate Vision, TORAY VISION 2030

Toray Group aims to achieve sound, sustainable growth while promoting a business model transformation by accurately identifying changing industrial trends caused by demographic factors, environmental issues, and technological innovation. With this in mind, Toray Group is promoting active investment to promote "global expansion in growth business fields." To make this possible, the Group is working to maximize the value it can create over the medium- to long- term by "strengthening competitiveness" through continuous business model innovations and total cost reductions, and by "strengthening the management foundation" to enable investment for growth based on enhanced capital investment efficiency and an improved financial structure.

Furthermore, the Group had worked across all segments under the policy of "global expansion in growth business fields" by expanding business activities through the supply of Green Innovation (GR) products and Life Innovation (LI) products, and since FY 2023, the Group has set a new target for the supply of Sustainability Innovation (SI) products that merge these two groups of products in an effort to expand revenue and profit. In addition, the Group is actively engaged in the group-wide Future TORAY-2020s Project (FT Project). As part of this project, the Group is investing resources intensively in large-scale themes with the aim of achieving total revenue of around ¥1 trillion in the 2020s across all new businesses.

Long-term Strategies to Achieve "Sound, Sustainable Growth"

1. Global Expansion in Growth Business Fields

- Promote SI Business, which contributes to the solutions for issues of global environment, resource, and energy, as well as to better medical care, longevity, and the fostering of public health

2. Strengthening Competitiveness

- Create new value through business advancement and high-added-value creation, thereby providing solutions with material-oriented approaches to customers and society
- Pursue dramatic cost reductions by setting challenging targets as well as strive to reduce environmental impact

3. Strengthening the Management Foundation

- Improve cash flow and capital efficiency, and balance financial soundness and growth investment
- Conduct business structure reforms of low-growth and low-profitability businesses

Revising 2030 Targets Upwards and Accelerating Action on Sustainability

Toray Group has advanced its growth strategies along the basis of the Toray Group Sustainability Vision. In light of the outcomes of its efforts through FY 2022, however, the Group has revised its targets for FY 2030 and has set out to accelerate action on sustainability. Specifically, the Group has significantly elevated the respective targets for CO₂ emissions avoided in the value chain, water filtration throughput contribution by Toray's water treatment membranes, and GHG emissions and water usage in production activities.

Toray Group Sustainability Vision: FY 2030 Targets

Previous Targets	FY 2030 Target [Baseline: FY 2013]	New Targets	FY 2030 Target [Baseline: FY 2013]
Supply of Green Innovation products	4-fold	Supply of Sustainability Innovation products ^{*1}	4.5-fold
Supply of Life Innovation products	6-fold	CO ₂ emissions avoided in value chain ^{*2}	25-fold
CO ₂ emissions avoided in value chain ^{*2}	8-fold	Water filtration throughput contribution by Toray's water treatment membranes ^{*3}	3.5-fold
Water filtration throughput contribution by Toray's water treatment membranes ^{*3}	3-fold	GHG emissions in production activities ^{*4}	Per unit of revenue across the Toray Group: 50% or more reduction Greenhouse gas emissions of Toray Group in Japan ^{*5} : 40% or more reduction
GHG emissions in production activities	Per unit of revenue across the Toray Group ^{*4} : 30% reduction		
Water usage in production activities	Per unit of revenue across the Toray Group: 30% reduction	Water usage in production activities	Per unit of revenue across the Toray Group: 50% or more reduction

^{*1} (1) Products that accelerate measures to counter climate change; (2) products that facilitate sustainable, recycling-based use of resources and production; (3) products that help provide clean water and air and reduce environmental impact; and (4) products that help deliver better medical care and hygiene for people worldwide.
^{*2} Toray calculates the CO₂ emissions reduced throughout the value chain of products in accordance with the chemical sector guidelines of the Japan Chemical Industry Association, the International Council of Chemical Associations (ICCA), and the World Business Council for Sustainable Development (WBCSD).
^{*3} Water treated annually with Toray water treatment membranes. It is calculated by multiplying the amount of fresh water that the Toray membranes can produce per day, including reverse osmosis (RO), ultrafiltration (UF) and membrane separation bioreactors (MBR), by the number of membrane elements sold.
^{*4} With the use of renewable energies and other zero emission power sources rising worldwide, the Toray Group aims to employ zero-emission power sources at a rate equivalent to or better than the targets in each country by FY 2030.
^{*5} In Japan, Toray works to surpass the reduction target set for the industrial sector by the Japanese government (absolute emissions reduced by 38%) in its comprehensive plan (Cabinet decision on October 22, 2021) based on Japan's Act on Promotion of Global Warming Countermeasures.

Review of the Medium-Term Management Program, Project AP-G 2022

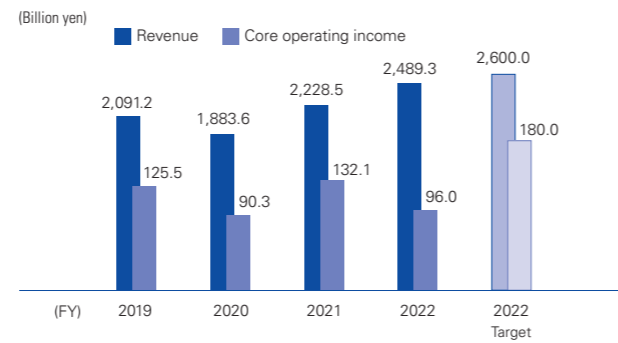
Revenue and Core Operating Income Analysis

Under the Medium-Term Management Program, Project AP-G 2022, announced in May 2020, Toray Group raised the three basic strategies of “Global expansion in growth business fields,” “Strengthening competitiveness,” and “Strengthening the management foundation.” At the same time, it also established the four Group-wide initiatives of “New business creation,” “Advanced business management by utilizing digital technology,” “Reduction of greenhouse gas emissions in production activities,” and “Ensuring the Toray Philosophy is fully embraced.” And to achieve “Sound, sustainable growth” in line with the Long-Term Corporate Vision, TORAY VISION 2030, the Group took an approach that balanced the pursuit of business expansion through active investment with efforts to implement structure reforms and to reinforce the financial structure to facilitate the growth strategy.

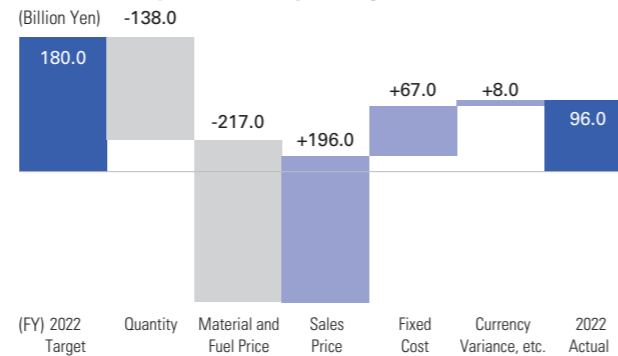
However, economic activity stagnated from the beginning of 2020 stemming from the spread of COVID-19, and growth subsequently slowed due to changes in the external environment, including the spread of infections to COVID variants, Russia’s invasion to Ukraine, supply constraints from labor shortages and disruptions in logistics, and soaring resource prices from inflationary pressure. Although revenue managed to return to a recovery track from FY 2021 against the backdrop of progress in vaccinations, profits faced downward pressure due to shortcomings in passing on higher material prices to sales prices in line with increases in variable costs. A decline in factory

utilization rates due to inventory adjustments in the semiconductor and display markets also had an impact. As a result, revenue and core operating income of FY 2022 both came in far below the initial targets, only reaching ¥2,489.3 billion and ¥96 billion, respectively.

Revenue and Core Operating Income



Variance Analysis of Core Operating Income



Billion Yen	AP-G 2022 Target	FY 2022 Actual	Difference	Factors for Increase and Decrease of Core Operating Income
Fibers & Textiles	76.0	51.2	-24.8	Income decreased due to pandemic-induced changes in the demand structure, such as a shift from formal wear to sports and outdoor apparel. Another factor include a drop in sales volume of materials for industrial applications, and the impact of soaring raw material and fuel prices.
Performance Chemicals	90.0	30.4	-59.6	Resins & Chemicals Business: • Income decreased due to a slow recovery in automobile production volumes and a decline in sales volume caused by slow economic recovery in China. Films Business, Electronic & Information Materials Business: • Income decreased significantly due to lower sales volume. The market is currently in an adjustment phase following a period of unusually high telecommuting-driven demand for TV and smartphone display-related products and special demand for semiconductors. The sharp rise in raw material and fuel prices also had a significant impact.
Carbon Fiber Composite Materials	24.0	15.9	-8.1	Sales volume fell due to the impact of lower the lower production rate of commercial aircraft in aerospace applications. However, higher sales of carbon fiber for wind turbine blades and pressure vessels in industrial applications helped to minimize the decline in income.
Environment & Engineering	19.0	19.7	+0.7	Income grew due to promotion of high-added-value products for seawater desalination applications undertaken to expand the reverse osmosis (RO) membrane business. Another contributing factor was a net change in price due to the depreciation of the yen.
Life Science	0	0.2	+0.2	
Others	2.0	2.5	+0.5	Income increased due to a reduction in fixed costs for Toray Industries, Inc.
Reconciliations	▲31.0	▲23.9	+7.1	
Total	180.0	96.0	-84.0	

Outcomes/Achievements of the Three Basic Strategies

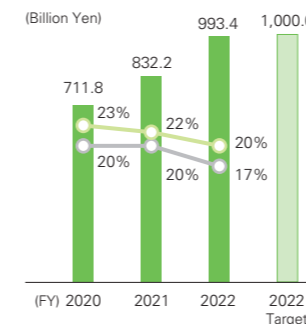
1. Global Expansion in Growth Business Fields

Even during the COVID-19 pandemic, our Green Innovation (GR) and Life Innovation (LI) businesses expanded and almost achieved their targets. Although revenue in the GR

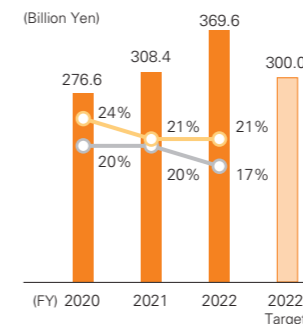
businesses was below target in carbon fiber for aircrafts and battery separator films, revenue expanded in resins for automobiles and motorcycles, large tow carbon fibers for wind turbine blade applications, water treatment membranes, and Toray Engineering’s inspection and production equipment. As a result, the total amounted to ¥993.4 billion. In addition, revenue from the LI businesses came to

¥369.6 billion due to the addition of the “supporting personal safety” field and an increase in shipments of non-woven fabrics for hygiene applications and sports-related materials. However, the operating margins of both businesses declined due to the increased costs associated with rising raw material and fuel prices.

Revenue from GR Businesses



Revenue from LI Businesses



2. Strengthening Competitiveness

As a part of the Total Cost Reduction Project (NTC Project), we promoted cost competitiveness through constant variable cost and fixed cost reduction activities coupled with drastic cost reductions by means of production process innovation. We thereby achieved a reduction of ¥203.1 billion, significantly exceeding the three-year cumulative target of ¥150 billion.

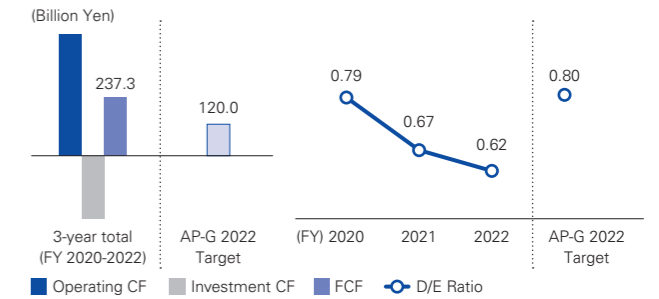
Total Cost Reduction Project (Billion yen)

	FY 2020-2022 3-year total of reduction	AP-G 2022 Target
Variable cost reduction	119.3	100.0
Fixed cost reduction	67.6	35.0
Innovation of production process	16.2	15.0
Total	203.1	150.0

3. Strengthening the Management Foundation

Owing to careful selection of capital investment projects during the COVID-19 pandemic, free cash flow increased to ¥237.3 billion (three-year cumulative total), far surpassing the target of ¥120 billion. Furthermore, owing in part to an increase in retained earnings and greater equity due to foreign exchange impacts at group companies outside Japan, the D/E ratio was 0.62, which was far below the guideline of around 0.8. Meanwhile, the Group also focused its energies on structure reforms for low-growth and low-profitability businesses, including consolidating manufacturing bases in the Japanese fibers and textiles business.

Free Cash Flow (3-year total), D/E Ratio



Sustainability

In addition to expanding the GR and LI Businesses, Toray Group also significantly exceeded its FY 2022 targets for GHG gas emissions and water usage per unit of revenue (20% and 25% reduction respectively compared with FY 2013). As a result of advancing activities targeting carbon neutrality through business activities, the Group significantly increased CO₂ emissions avoided in the value chain by 9.5 times compared with FY 2013.

Sustainability Target for FY 2022

	FY 2013 Actual (Baseline year) (J-GAAP)	FY 2022 Actual (Compared to FY 2013) (IFRS)	FY 2022 Target (Compared to FY 2013) (IFRS)
Avoided CO₂ Emissions	40 million tons	9.5-fold	5.3-fold
Contributed Annual Water Filtration Throughput	27.23 million tons/day	2.5-fold	2.4-fold
Greenhouse gas emissions per unit of sales in production activities	337 tons/100 million yen	233 tons/100 million yen (35% reduction*)	20% reduction
Water consumption per unit of sales in production activities	15,200 tons/100 million yen	10,030 tons/100 million yen (32% reduction*)	25% reduction

*The calculation of the figure for the baseline of FY 2013 includes data for companies that joined the Toray Group in FY 2014 or later.

Compliance

Despite deploying activities to instill the compliance awareness of “having the integrity to do the right thing in the right way,” inappropriate actions related to UL certification were discovered. Therefore, Toray Group set out to thoroughly investigate the root causes and implemented measures to prevent recurrence. In order to reform the corporate culture not to let any misconducts happen again, the management team has expressed its commitment to compliance while the Group has engaged in activities to deepen communication with the frontlines.

Issues for the Next Medium-term Program

In looking to AP-G 2025, the Group recognized that the challenges that must be addressed were: (1) Expanding business and improving profitability (profit margin), (2) Accelerating sustainability measures, (3) Improving asset efficiency (concentrating management resources on growth business fields), and (4) Enhancing internal controls and promoting even greater compliance awareness.

Medium-Term Management Program, Project AP-G 2025 (FY 2023–2025)

Innovation and Resilience Management—Value Creation for New Momentum

Covering the three-year period from FY 2023 to FY 2025, the Medium-Term Management Program, Project AP-G 2025 (hereafter AP-G 2025), is founded on the Toray Philosophy and aims to achieve “sound, sustainable growth” through “contributions to real solutions to the challenges the world faces in balancing development and sustainability” as presented in the Toray Group Sustainability Vision. In this respect, the Group will focus on value creation that enables the related growth strategy as well as strengthening the Group’s human resources base that supports this approach, thereby advancing efforts to strengthen the management foundation in a way that enables growth investments from the perspectives of capital investment efficiency, the financial structure, and human resources.

Under AP-G 2025, the Group has set the basic strategies

as “sustainable growth,” “ultimate value creation,” “product and operational excellence,” “enhancement of people-centric management,” and “risk management and governance” to engage in efforts to expand the Sustainability Innovation (SI) Business and Digital Innovation (DI) Business as growth business fields, as well as in efforts involving business advancement and high-added-value creation. Other areas of focus include efforts to enhance quality strength and cost competitiveness. At the same time, the Group will ensure financial soundness by conducting business operations that consider a balance between profits, cash flow, and asset efficiency. Moreover, the Group will promote the expansion of high-growth and high-profitability businesses along with structure reforms for low-growth and low-profitability businesses in order to trace a new growth trajectory.

Basic Strategies of AP-G 2025		
Seizing Profit Opportunities	1 Sustainable Growth	Focusing management resources on Sustainability Innovation Business and Digital Innovation Business
	2 Ultimate Value Creation	Maximizing profitability by making the most of tangible and intangible assets, and by collaborating with external partners
	3 Product and Operational Excellence	Promoting cross-organizational cost reduction activities leveraging enhancement of quality strength and organizational strength, which are the sources of competitiveness
Strengthening the Management Foundation	4 Enhancement of People-centric Management	Preserving and further building upon the legacy of our corporate culture, which prioritizes developing people, while promoting individual career development, and improving job satisfaction
	5 Risk management and Governance	Ensuring sound organizational management by enhancing internal controls and improving management capabilities

Financial Target for FY 2025

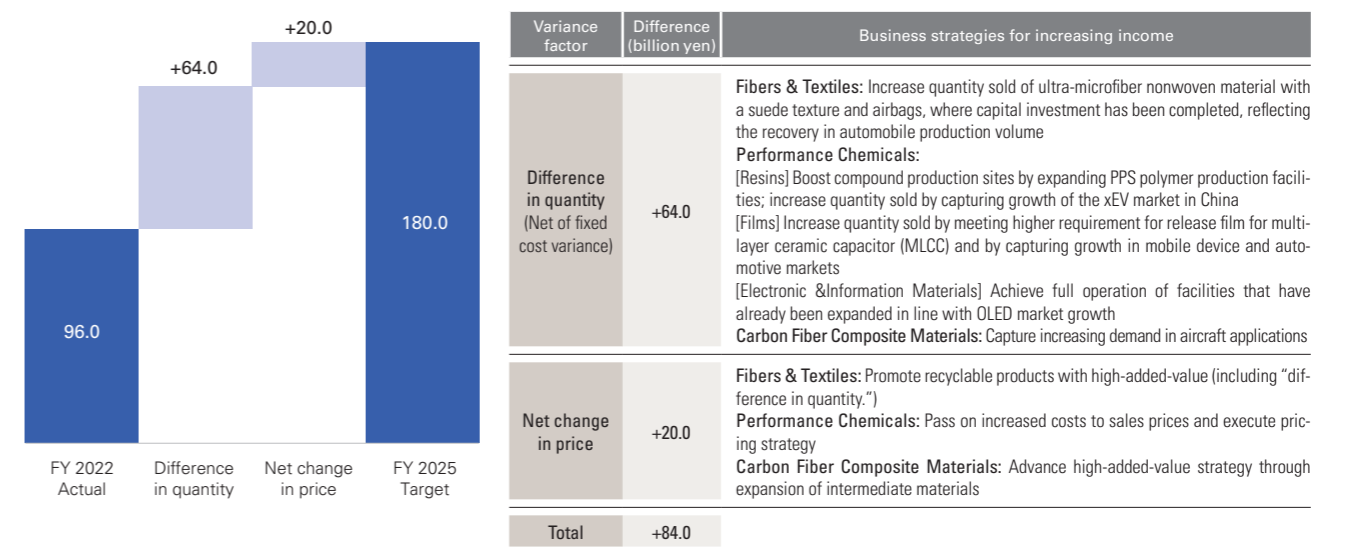
	FY 2022 Actual	FY 2025 Target
Revenue	2,489.3 billion yen	2,800.0 billion yen
Core Operating Income	96.0 billion yen	180.0 billion yen
Core Operating Margin	3.9%	6%
ROIC*1	2.7%	About 5%
ROE*2	5.0%	About 8%
Free Cash Flow	237.3 billion yen (3-year cumulative total)	Positive (3-year cumulative total)
D/E Ratio	0.62	0.7 or lower (guideline)

Exchange rate assumption for AP-G 2025: 125 yen per US dollar

*1 ROIC = Core operating income after tax / Invested capital (average of the balances at beginning and end of the period)

*2 ROE = Net profit attributable to owners of parent / Average equity attributable to owners of parent

Variance Analysis of Core Operating Income (Business Growth Factors) (Billion yen)



Segment Revenue and Core Operating Income Targets for FY 2025 (Billion yen)

		FY 2022 Actual	FY 2025 Target	Main strategies / major capital investments
Fibers & Textiles	Revenue	999.2	1,030.0	Developing environmentally friendly materials and rebuilding the recycling supply chain; expanding business and reaping the benefits of capital investment in growth fields such as ultra-microfiber nonwoven material with a suede texture and airbags; creating high-added-value with functional fibers; expanding Ultrasuede™ production facilities
	Core operating income	51.2	64.0	
Performance Chemicals	Revenue	909.4	1,040.0	Resins & Chemicals: Increasing market share in China and the automobile market; expanding PPS polymer production facilities Films: Expanding business of films for electronic component manufacturing processes; expanding production facilities for PET films used in MLCC manufacturing processes and OPP films for automotive capacitors Electronic & Information Materials: Expanding business in OLED and semiconductor markets; expanding production facilities for electronic coating materials for OLED
	Core operating income	30.4	91.0	
Carbon Fiber Composite Materials	Revenue	281.7	370.0	Capturing market growth in both aviation and industrial/sports applications; expanding production facilities for industrial-use carbon fiber
	Core operating income	15.9	36.0	
Environment & Engineering	Revenue	228.8	280.0	Securing top market share for reverse osmosis (RO) membrane market and expanding peripheral businesses
	Core operating income	19.7	27.0	
Life Science	Revenue	53.8	60.0	Strengthening the business foundation by pursuing business development outside Japan, expanding indications, improving existing products, and ensuring thorough cost reductions
	Core operating income	0.2	2.0	
Others	Revenue	16.4	20.0	
	Core operating income	2.5	0	
Reconciliations	Core operating income	▲23.9	▲40.0	
Total	Revenue	2,489.3	2,800.0	
	Core operating income	96.0	180.0	

Sustainability Targets for FY2025

	FY 2013 Actual (Baseline) (J-GAAP)	FY 2022 Actual (Compared to FY 2013) (IFRS)	FY 2025 Target (Compared to FY 2013) (IFRS)
Revenue from Sustainability Innovation (SI) Business	562.4 billion yen	1,282.8 billion yen (2.3-fold)	1,600.0 billion yen (2.8-fold)
CO ₂ emissions avoided in value chain	40 million tons	9.5-fold	15.0-fold
Water filtration throughput contribution by Toray’s water treatment membranes	27.23 million tons/day	2.5-fold	2.9-fold
Greenhouse gas emissions per unit of revenue in production activities	337 tons/100 million yen	35% reduction*	40% reduction
Greenhouse gas emissions of Toray Group in Japan	2.45 million tons	21% reduction*	20% reduction
Water usage per unit of revenue in production activities	15,200 tons/100 million yen	32% reduction*	40% reduction

*The calculation of the figure for the baseline of FY 2013 includes data for companies that joined the Toray Group in FY 2014 or later.

Seizing Profit Opportunities

BASIC STRATEGY 1 Sustainable Growth

Having established “contributing to society through business activities” as one of its basic concepts for management, Toray Group engages in business operations that aim to achieve “sound, sustainable growth.” As part of this strategy, the Group will work to expand businesses by concentrating management resources on growth business fields. Similarly, the Group will contribute to the realization of a circular economy through efforts to reduce GHG emissions, recycle, and use biomass-based resources intended to “achieve carbon neutrality for Toray Group.”

Expanding Business in Growth Business Fields Founded on the Toray Group Sustainability Vision

Growing demand for addressing sustainability and the evolution of digital technology indicate increase of business opportunities in areas where Toray’s core technologies can be utilized. One of such business fields in which greater profits are expected by exercising Toray’s strengths is the Sustainability Innovation (SI) Business. It is a redefinition of a combination of Green Innovation (GR) Business and Life Innovation (LI) Business the Group had focused on thus far in line with the Toray Group Sustainability Vision. Another is the Digital Innovation (DI) Business, which will serve to help realize the four perspectives of the world envisioned for 2050. We have newly positioned both as growth business fields that supports the “sound, sustainable growth” of the Group.

The Group will allocate ¥450 billion worth of resources consisting of capital investments and R&D expenditures to the SI and DI Businesses. With this resources, the Group intends to build a cross-organizational structure and accelerate both comprehensive solution proposals to customers, as well as internal collaborations, with an aim of expanding these businesses to account for approximately 60% of consolidated revenue. Furthermore, these allocations will solidify the Group’s position as a “leading company in the materials business that contribute to sustainability,” and will embody its core value of “contributing to society through business activities.”

Toray Group Growth Business Fields

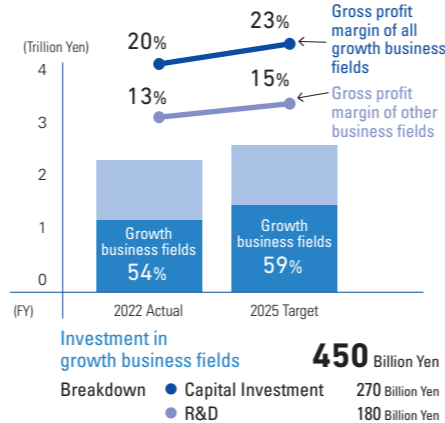
Growth Business Fields under AP-G 2022



Growth Business Fields under AP-G 2025

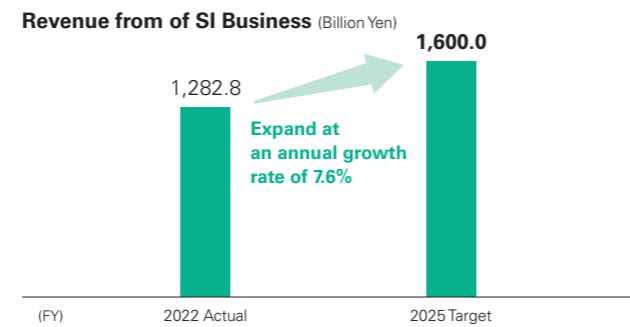
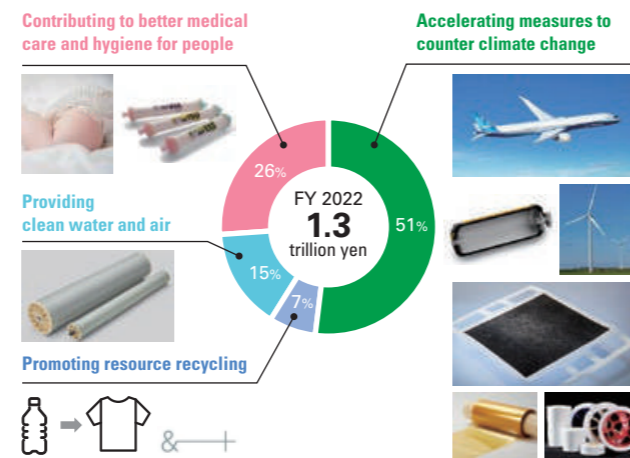


Revenue from Growth Business Fields



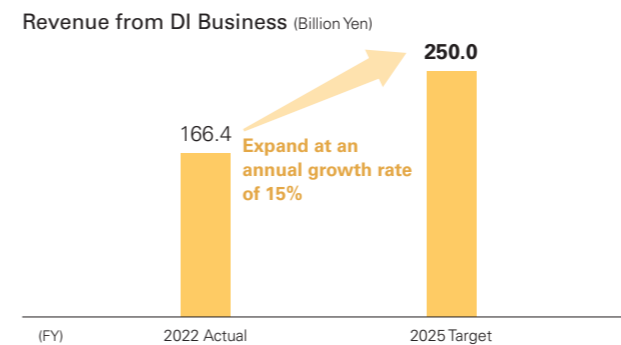
Expansion of the Sustainability Innovation (SI) Business

The SI Business aims to achieve ¥1,600 billion revenue by FY 2025 through the focused allocation of capital investments, R&D, and other resources. Specifically, the Group will allocate these resources to lightweight materials, hydrogen and fuel-cell related materials, and carbon fibers for wind turbine blades that will contribute to the acceleration of action on climate change; recycled materials that will contribute to resource circulation; water treatment membranes and air filters that will contribute to providing clean water and air; and hygiene materials, pharmaceuticals, and medical devices that will contribute to medical care as well as public health.



Expansion of the Digital Innovation (DI) Business

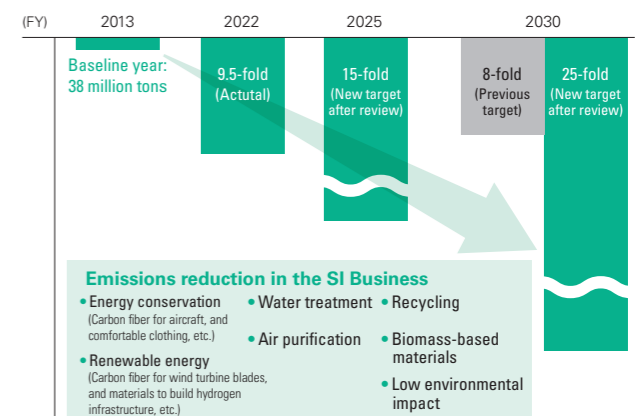
The DI Business will focus on the resins, films, electronic and information materials, and other advanced materials used to manufacture semiconductors and displays, as well as on RO membranes used to produce the ultrapure water required for semiconductor fabrication processes along with cleaning and stripping solvents. Moreover, the DI Business aims to achieve revenue of ¥250 billion in FY 2025 by strengthening efforts to provide total solutions to customers, including proposals that combine materials and processes together with manufacturing and inspection equipment.



Contributing to the Realization of a Carbon Neutral Society

By further expanding the SI Business, Toray Group will significantly elevate the target for CO₂ emissions avoided in the value chain in FY 2030 from the original 8 times to 25 times compared with FY 2013 in an effort to contribute to “building a carbon-neutral society.” Furthermore, in an effort to “achieve carbon neutrality for Toray Group” by 2050, the Group hiked the target for reducing GHG emissions per unit of revenue to more than 50% and the target for GHG emissions of Toray Group in Japan to more than 40% (absolute value) compared with FY 2013, and will accelerate efforts to achieve these.

CO₂ Emissions Avoided in Value Chain (Baseline: FY 2013)



Sustainability Targets for FY 2025

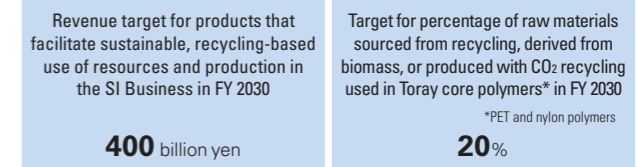
	Previous Targets	FY 2025 Target [Baseline: FY 2013]	FY 2030 Target [Baseline: FY 2013]
Greenhouse gas emissions per unit of revenue in production activities	—	40% reduction	50% or more reduction
Greenhouse gas emissions of Toray Group in Japan	—	20% reduction	40% or more reduction
Water usage per unit of revenue in production activities	—	40% reduction	50% or more reduction

Contributing to Building a Circular Economy

Under AP-G 2025, Toray Group set new targets for recycling-oriented use of resources. Specifically, the FY 2030 revenue target for “products that facilitate sustainable, recycling-based use of resources and production” in the SI Business was set to ¥400 billion, while the target for the percentage of raw materials sourced from recycling used in Toray core polymers* was set to 20% in an effort to accelerate the Group’s contributions to building a resource-recycling-based economy.

*Percentage of raw materials sourced from recycling used in Toray core polymers: The ratio of PET and nylon polymer raw materials sourced from recycling, derived from biomass, or produced with CO₂ recycling.

Revenue Target



Examples of Recycling-Oriented Use of Resources

Recycling	Biomass
Recycled PET film ECOUSE™ Lumirror™	Switching to Biomass-Based Materials
Fiber made from recycled plastic (PET) bottles &+™	

Seizing Profit Opportunities

BASIC STRATEGY 2 Ultimate Value Creation

Toray Group will strengthen value creation by maximizing the use of tangible and intangible assets held by the Group. Specifically, the Group will engage in strategic pricing and value chain innovation as approaches to advancing business and creating high-added-value. Moreover, the Group will work to create new businesses.

Business Advancement and High-Added-Value Creation

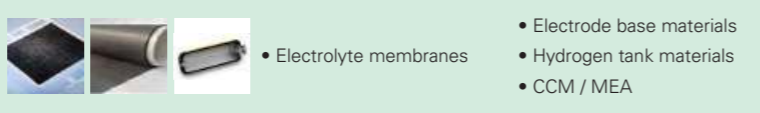

Along with working to differentiate its products, Toray Group will actively engage in strategic pricing intended to ensure customers acknowledge the value generated by the Group, and that the price appropriately reflects this value. Furthermore, Toray Group will maximize the value it delivers to customers through innovations in the

value chain based on collaborations between the Group and its external partners, and through the use of digital technologies.

New Business Creation

Toray Group aims to generate a total of ¥1 trillion in sales across the target themes in the 2020s by concentrating resources on large-scale themes that are anticipated to help solve social issues and become growth drivers for Toray Group. Specifically, the Group will continue to engage in and accelerate commercialization for themes intended to solve global-scale environmental issues and realize a society that offers personal safety, health, and longevity. These themes include “materials related to hydrogen and fuel cells,” “products and process technologies utilizing biomass,” “environmentally friendly printing solutions,” “next-generation medical care,” and “next-generation display solutions.”

Future TORAY-2020s Project (FT Project)

Growth Business Field	Theme
Products that accelerate measures to counter climate change	<p>Materials related to hydrogen and fuel cells</p>  <ul style="list-style-type: none"> Electrolyte membranes Electrode base materials Hydrogen tank materials CCM / MEA
Products that facilitate sustainable, recycling-based use of resources and production	<p>Products and process technologies utilizing biomass</p> <ul style="list-style-type: none"> Process technologies utilizing biomass raw materials 100% bio-based products
Products that help provide clean water and air and reduce environmental impact	<p>Environmentally friendly printing solutions</p> <ul style="list-style-type: none"> Environmentally friendly printing materials that contribute to CO₂ emissions reduction and are VOC-free 
Products that help deliver better medical care and hygiene for people worldwide	<p>Next-generation medical care</p> <ul style="list-style-type: none"> Cancer drugs Cancer diagnostic agents Cardiac diagnosis and treatment devices
Digital related products	<p>Next-generation display solutions</p> <ul style="list-style-type: none"> Next-generation display materials and manufacturing equipment

Phase: Long-term development | Business development | Business expansion

BASIC STRATEGY 3 Product and Operational Excellence

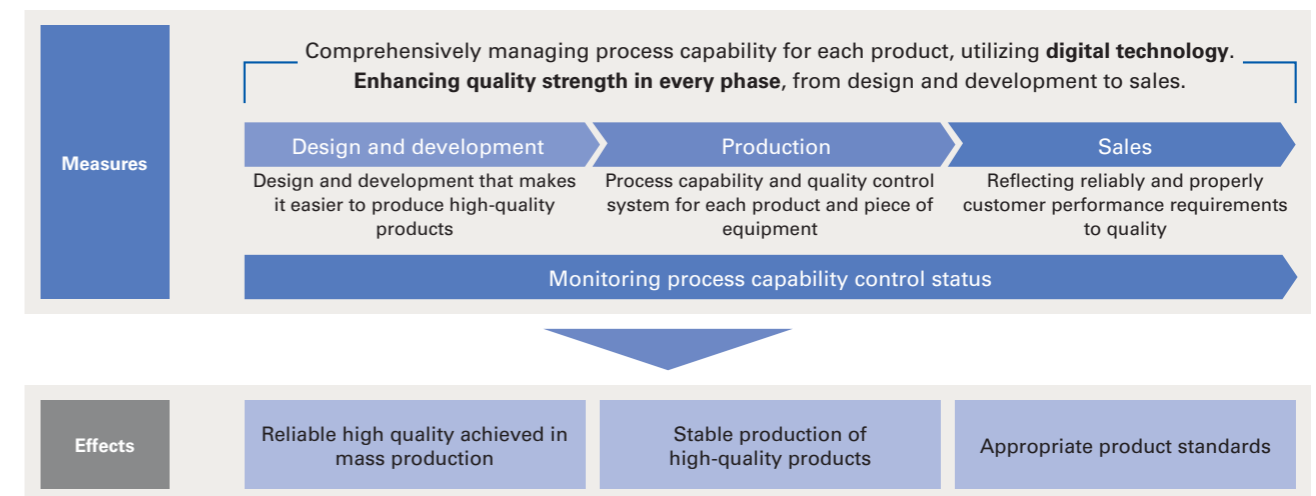
Strengthening the competitiveness of Toray's products and services will rely on further refining quality and cost competitiveness. In addition, this strategy will accelerate DX promotion that is closely tied to the *Genba* (workplace).

Enhancing Quality Strength

Toray Group has recognized anew that “quality is the foundation of the Toray brand and the source of profit,” and will

therefore strive to further deepen the trust of its customers. Likewise, this strategy seeks to embody the strong will of “providing solutions of high value to customers, and to pursuing customer satisfaction and the world's highest level of quality” as included in the Corporate Guiding Principles. Similarly, it seeks to maintain the Group's position as one that boasts the height of its quality strength. As a measure for this, the Group will leverage digital technologies and deploy the Quality Strength Enhancement Project (QE Project) intended to fundamentally enhance the process capability for each product.

Quality Strength Enhancement Project (QE Project)



Total Cost Reduction

Under AP-G 2025, Toray Group will continue its group-wide Total Cost Reduction Project (NTC Project) utilizing the Group's collective strengths. This Project seeks to reduce costs regarding every aspect of the Group's business activities, from production process innovations that directly result in significant cost reductions to rationalization and streamlining of everyday tasks. In particular, it aims to reduce costs by a three-year cumulative total of ¥200 billion through stronger cost controls and higher yields at Group companies outside Japan.

Cumulative cost reduction of 200 billion yen over 3 years		
Variable cost reduction activities	Fixed cost reduction activities	Production process innovations
Effect target 125 billion yen/3 years	Effect target 60 billion yen/3 years	Effect target 15 billion yen/3 years

Advanced Business Management by Utilizing Digital Technology

Under AP-G 2025, the Group plans to make ¥20 billion in digital technology related investments in order to accelerate efforts to build global data infrastructure designed to effectively utilize data accumulated by Toray Group throughout the Group, initiatives to combine analysis and simulation technologies, and cooperation with value chain partners. Moreover, the Group plans to train more than 2,000 human resources fluent in digital technologies Group-wide in order to promote the use of data and digital technologies in an approach that is closely tied to the *Genba* (workplace). This strategy will enhance the Group's value creation capability and competitiveness in every aspect of its business activities, including R&D, production, sales, and management.

Strengthening the Management Foundation That Underpins Growth

BASIC STRATEGY 4 Enhancement of People-Centric Management

“People-centric management” has been Toray Group’s approach to management ever since its founding. As such, the Group seeks to advance the promotion and participation of young core human resources, locally hired staff outside of Japan, highly specialized human resources, women, and seniors by securing and promoting a diverse

range of human resources. In terms of human resources development, the Group will provide support for employees to develop their own careers and will promote the training of leaders who can assist in developing workplace competency. Toray Group will promote job satisfaction and supportive workplaces by providing workplace environments and opportunities that lead to employee pride in working for the Group, and by building an organizational culture that values feedback from the frontlines.

Enhancement of people-centric management

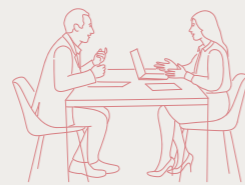
Securing and promoting diverse human resources

- Actively appointing young core human resources
- Planned promotion of locally hired staff to management positions at group companies outside Japan
- Developing and providing career opportunities for highly specialized human resources
- Empowering women in the workforce and supporting their networking
- Providing opportunities for senior human resources



Human resources development

- Supporting self-reliant career development based on career path worksheets used by employees and their superiors
- Developing professional human resources by supporting employee self-development and empowering them to acquire abilities and skills
- Expanding opportunities such as internal recruitment, encouraging employees to take on new challenges
- Training leaders who can develop workplace competency



Promoting job satisfaction and supportive workplaces

- Creating workplaces environments and opportunities that lead to employee pride in working for the Toray Group
- Enabling work styles that accommodate employee life stages, along with career development
- Building an organizational culture that values feedback from the frontlines



BASIC STRATEGY 5 Risk Management and Governance

Amid the growing uncertainty in the business environment due to intensifying geopolitical and other risks, the importance of risk management involved in Toray Group’s business management approach is increasing. Therefore, the Group seeks to identify the risks in each country and region, draft contingency plans for emergencies, check for vulnerabilities in the supply chain, and strengthen the resilience of product supply continuity. Furthermore, Toray Group seeks to improve its operation and quality audit

systems, and to enhance the effectiveness of group-wide internal controls. In addition, the Group will strengthen internal controls by promoting digitalization and expanding the scope of operation flows without human intervention.

On the other hand, the Group seeks to complement the management audit function of Group companies outside Japan and strengthen workplace competency through cooperation between the functional axis and regional axis. Moreover, the Group will build global data infrastructure in an effort to promote the advancement and greater efficiency of global management.

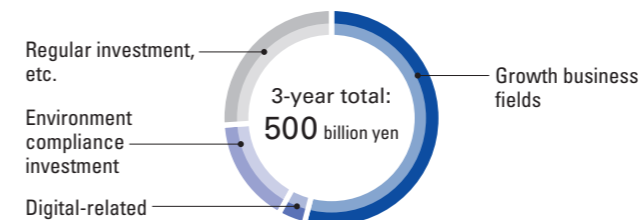
Financial Strategy

Basic Policy Financial Strategy

Toray Group’s basic policy is to promote business expansion while maintaining financial soundness, and therefore aims for capital investments to total ¥500 billion over the three-year period from FY 2023 to FY 2025 (¥355.2 billion under AP-G 2022) and R&D expenditures to reach ¥220 billion (¥193.8 billion under AP-G 2022) over the same period. In particular, the Group plans to invest ¥450 billion in growth business fields, with ¥270 billion in capital investments and ¥180 billion in R&D expenditures. In addition

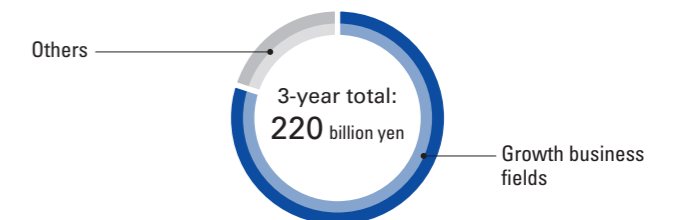
to large-scale investments intended to expand business, the Group will also execute capital investments to address sustainability, improve quality strength, enhance cost competitiveness (including digital technology use), and upgrade aging facilities. The Group will conduct strategic investments in M&As and alliances separately from its capital investments. Meanwhile, the Group seeks to improve ROIC through profitability and capital efficiency enhancements.

Breakdown of Capital Investment



For M&A, conduct strategic investments separately from capital investments

Breakdown of R&D Expenses



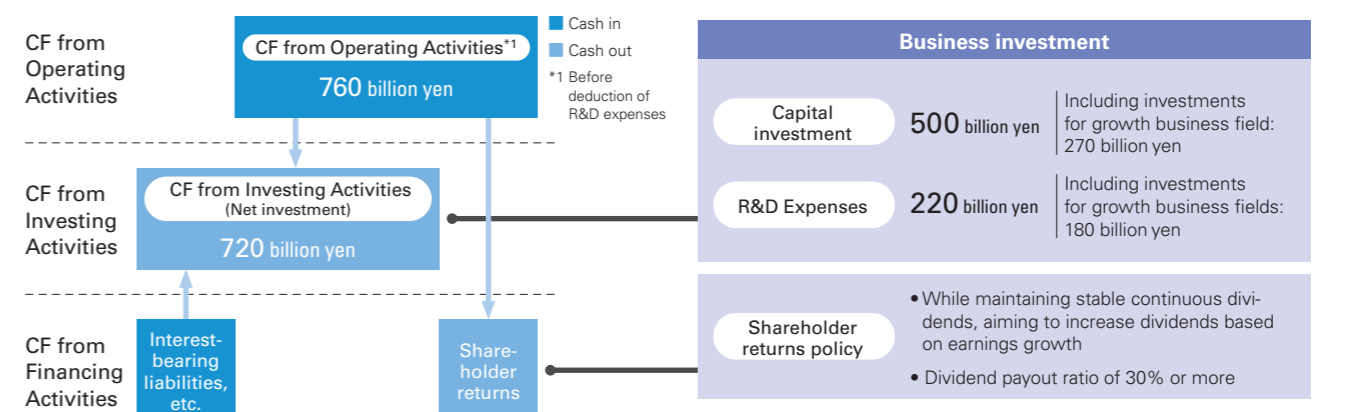
Maintaining Financial Soundness and Capital Allocation

Although free cash flow (three-year cumulative total) and the D/E ratio improved significantly compared with the initial plan under AP-G 2022, improvements in asset efficiency have lagged. Therefore, along with concentrating management resources in growth business fields and engaging in strategic pricing, the Group will raise the reliability of returns, which will connect to improved ROIC. Specifically, for this purpose the Group will further strengthen efforts to identify risks involved in, as well as to enhance management of, capital investments and R&D expenditures.

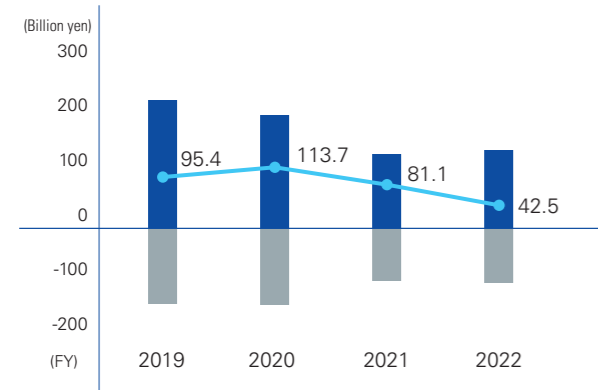
Along with assuming an operating cash inflow of ¥760 billion over the three-year period from FY 2023 to FY 2025, capital investments and R&D expenditures are envisioned to generate an investment cash outflow of ¥720 billion. This capital allocation aims to achieve a positive free cash flow, thereby stabilizing and increasing shareholder returns. Furthermore, the Group will revise the D/E ratio guideline downward from around 0.8 to 0.7 or lower to support sound, sustainable growth based on a strong financial foundation.

AP-G 2025 targets • Free cash flow : **Positive** (3-year total) • D/E ratio : **0.7** or lower

3-year total of Capital Allocation (FY 2023-2025)

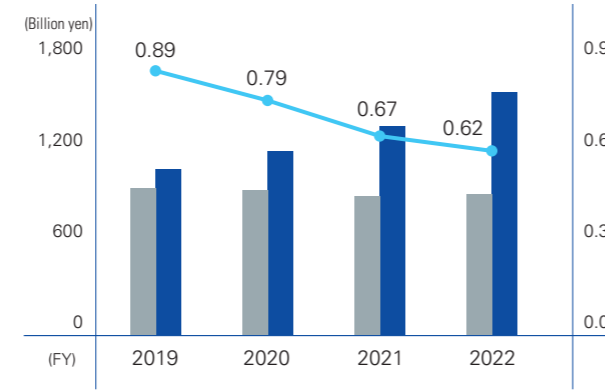


Cash Flows



■ Cash flows from operating activities
■ Cash flows from investing activities ● Free cash flow

Interest-bearing Liabilities, Owner's Equity and Debt-to-Equity Ratio (D/E Ratio)



■ Interest-bearing liabilities (left axis) ■ Owner's Equity (left axis)
● D/E ratio (right axis)

Initiatives to Reinforce the Financial Structure and Enhance Asset Efficiency

The Group aims to raise asset efficiency in terms of cash flow and ROIC* and improve ROIC while seeking a balance between business expansion and greater profitability.

Seizing Profit Opportunities

- Expanding businesses in growth fields (SI/DI businesses)
- Improving profitability through value creation
Improving reliable return on investment
- Investing necessary management resources to achieve targets
- Promoting M&A in areas where synergies can be expected

Strengthening the Management Foundation

- Using a D/E ratio guideline of 0.7 or lower
- Enhancing management of free cash flow
- Reducing working capital by maintaining Cash Conversion Cycle Improvement (3C-i) activities
- Enhancing structural reforms based on Four categories for growth potential and profitability

Growing core operating income

Efficient management of invested capital

ROIC improvement

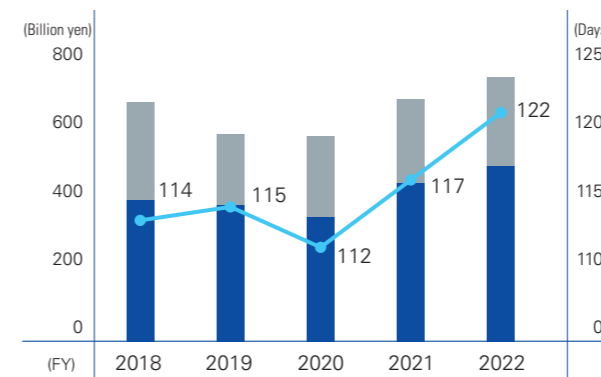
*ROIC = Core operating income after tax / Invested capital
(average of the balances at beginning and end of the period)

Initiatives to Enhance Asset Efficiency

1. Efficient Use of Working Capital

In order to address today's drastically changing business environment, the Group must minimize inventories for products, as well as inventories in the intermediate process and upstream raw material procurement stages. For this purpose, the Group will leverage DX to visualize and optimize inventory along the supply chain, as well as continue 3C-i activities for working capital. At the same time, it will seek to reduce working capital by managing the number of days for inventory and receivables and payables.

Working Capital and CCC (Cash Conversion Cycle)



■ Inventories (left axis) ■ Net receivables and payables (left axis)
● CCC (right axis)

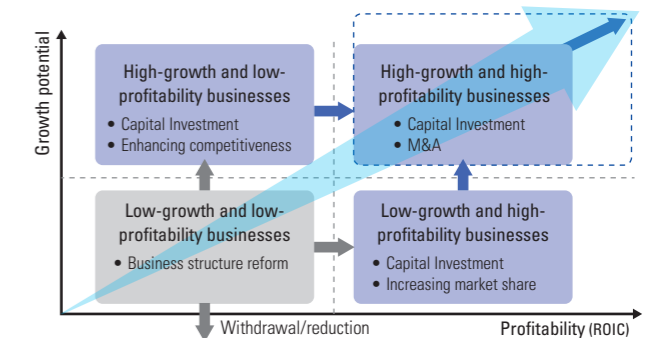
2. Business Portfolio Reforms

Under AP-G 2022, the Group analyzed the business portfolio along the two axes of growth potential and ROIC, and mainly promoted structure reforms for businesses belonging to the low-growth and low-profitability category. Under AP-G 2025, the Group will employ revenue growth rates as an indicator for growth potential and ROIC as an indicator for profitability. These axes will serve as standards for categorizing Toray Group businesses and companies into "high-growth and high-profitability businesses," "low-growth and high-profitability businesses," "high-growth and low-profitability businesses," and "low-growth and low-profitability businesses."

and low-profitability businesses," and "low-growth and low-profitability businesses." In turn, this approach will allow the Group to efficiently improve ROIC by investing management resources in growth business fields and by maximizing the profitability of existing tangible and intangible assets.

- The Group aims to further expand "high-growth and high-profitability businesses" through capital investments, etc.
- The Group aims to grow market share for and shift "low-growth and high-profitability businesses" into the high-growth and high-profitability business category through capital investments, etc., given that revenue growth is low compared with market growth.
- The Group aims to shift "high-growth and low-profitability businesses" into the high-growth and high-profitability category through ultimate value creation and enhanced product and operational excellence. Many of the growth drivers for AP-G 2025 are categorized in this area.
- The Group aims to shift "low-growth and low-profitability businesses" into the other three categories through structure reforms. In the case where businesses have low potential for escaping from the low-growth and low-profitability category and where such businesses continue to generate losses, the Group will consider withdrawal and reduction.

Four categories for growth potential and profitability



Shareholder Return Policy

Toray Group considers the appropriate distribution of profits to shareholders to be an important management issue, and therefore aims to increase dividends through earnings growth. This approach is taken under the Group's basic policy of maintaining stable and continuous dividends

while comprehensively taking into account business earnings trends, the financial structure, and the securing of retained earnings necessary for future growth. The dividend payout ratio is set to 30% or more.

TORAY IR Day

June 5 and 9, 2023

**Medium-term Management
Program, Project AP-G 2025
Business Outline and Strategy**

We provided an opportunity for the General Managers of each business division to directly explain their business strategies for the Medium-Term Management Program, Project AP-G 2025, focusing on the three-year business strategy through FY 2025. We engage in a diverse array of businesses under differing operating conditions. In light of this, we execute growth strategies in line with each stage of these businesses and their respective strengths. Taking this opportunity, we would like to fully convey those strategies to you.

*Organization names and titles are current at the time of IR Day event.

Message from the President

Value Creation for New Momentum

I would like to explain the concept behind the formulation of the Medium-Term Management Program, Project AP-G 2025 (hereafter AP-G 2025).

Since its establishment in 1926, Toray's management philosophy has been based on the concept of "Companies are public institutions and contribute to society through their businesses," and it has been carried forward to the current corporate philosophy, "Contributing to society through the creation of new value with innovative ideas, technologies, and products."

We have been actively addressing environmental issues from an early date, including the establishment of the Global Environment Committee in 1992. In addition, we have been expanding our Green Innovation (GR) businesses since 2011 and our Life Innovation (LI) businesses since 2014. In 2018, we released the Toray Group Sustainability Vision, which outlines the world we aspire to live in, the challenges we face, and our efforts to resolve them.

Toray's mission is to provide the necessary solutions to the challenges facing the world in terms of balancing development and sustainability through supplying innovative technologies and advanced materials. In addition, we have defined promotion of growth strategies based on the Toray Group Sustainability Vision as our basic long-term strategy, with the aim of achieving "sound, sustainable growth."

Our growth strategy involves targeting business expansion through aggressive capital investment made during the past four medium-term management programs, investing management resources in such growth business fields as carbon fiber composite materials. As a materials manufacturer that provides materials to all industries, Toray needs to identify growth business fields and invest capital in advance to fulfill its social responsibility to ensure high quality and stable supply globally. On the other hand, sustainable growth requires continuous capital investment and development to realize such

a sustainable society, including capital investment and promotion of DX.

Under AP-G 2025, we will maximize the cash generated from tangible and intangible assets accumulated to date, under the theme of "value creation" that enables this. To this end, our priority is to improve overall profitability and asset efficiency by increasing the share of Sustainability Innovation and Digital Innovation businesses, which are highly profitable growth business fields. The subheading of AP-G 2025, "Value Creation for New Momentum," also implies that Toray Group will reach even greater heights through a renewed focus on the creation of social and customer value. There is accelerating movement worldwide toward sustainability, led by decarbonization. For Toray as a materials manufacturer which has accumulated advanced research and technology development capabilities, this means ever increasing opportunities to help solve social issues. We are certain that we can play an even more important role in realizing this.

Akihiro Nikkaku
President



TORAY
Innovation by Chemistry

Toray Group's Measures for Ultimate Value Creation

Toray Group is creating ultimate value with an increased sense of urgency to create high-added-value for businesses and new businesses.

Cultivated throughout its history to date, Toray Group's five core strengths are the following: proposing solutions based on materials, creating new technologies through the pursuit of ultimate limits and technology integration, demonstrating the collective strengths of its R&D organizations, ensuring a stable supply of high-quality products, and building a global value chain.

In promoting "ultimate value creation," a key theme of our Medium-Term Management Program, Project AP-G 2025, we will draw on these strengths as a foundation of our efforts while leveraging digital technology with a focus on the frontlines to pair tangible and intangible assets and fully utilize them in a bid to realize high-added-value creation for businesses as well as for creating new businesses. In view of these aspirations, I would like to shine a light on our measures for "ultimate value creation."

Group-Wide Action to Support Growth Business Fields

Under AP-G 2025, we will not only focus on the growth of each business, but also look to expand in growth business fields through Group-wide action. Toray applies a single polymer to diverse fields such as fibers and textiles, films, and resins and has the ability to use this polymer in a wide variety of processes from polymerization to processed products globally. This strength in turn allows us to recover recycled resources and expand into a wide range of businesses. In June 2022, we established the Environmental Solutions Department, a dedicated department to formulate resource recycling strategies across our businesses by identifying markets in which we can promote the value of resource-recycling materials. Positioning the resource recycling market as a growth field, we will work to promote both sustainability and economic growth.

In the Mobility field, we established the Next Mobility Department to provide direct marketing to OEMs and to deliver speedy solutions to customers, leveraging cross-organizational, products, and regional collaboration. In this manner, we will increase the value offered to customers as a set rather than a single item. We have, for example, combined Ultrasuede™ and TORAYPEF™ as surface and base materials, respectively, in order to provide new value. We anticipate this initiative will help trigger the application of these composite materials in the specifications of other proposals.

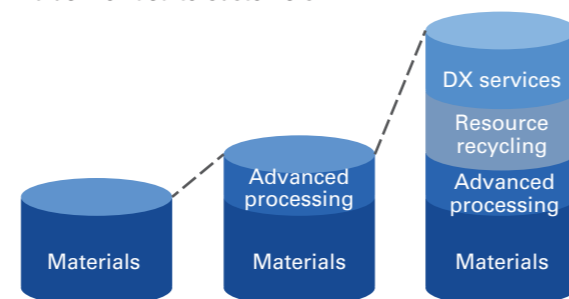
Enriching and Extending the Global Value Chain

Toray Group's trading company revenue (excluding inter-company sales) totals ¥1,050 billion, which exceeds that of its competitors. Moreover, we have developed structures in our respective businesses that not only

promote local production for local consumption, but are also resistant to geopolitical risks and capable of steadfastly fulfilling our supply responsibilities. These factors make up Toray's intangible assets that the Company has continued to build up since its overseas expansion in the 1950s. Looking ahead, we will strategically place human resources in areas close to end customers and fine tune our global sales operation capabilities.

In addition, we will maximize the value provided to customers while enriching and extending the value chain by leveraging collaboration with overseas business sites and external resources, creating high-added-value through advanced processing and technology integration, addressing sustainability issues, and promoting other measures. As part of the Group's endeavors, we launched the AI-based material concierge service as a DX service to help customers optimally select materials and reduce development time in the resin business in 2023. In the water treatment business, we will also focus on subscription-based services that help customers minimize their management burden while ensuring stable facility operations through TORAYWISE™, our proprietary real-time monitoring system.

Value Provided to Customers



Employing Strategic Pricing

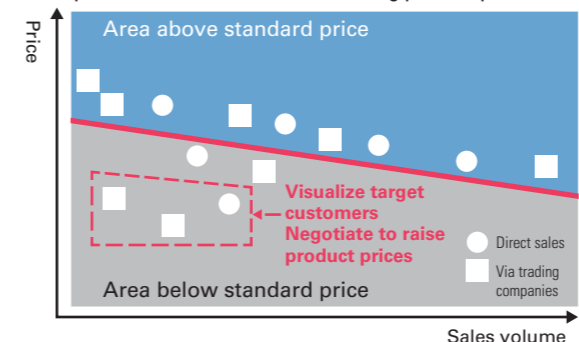
We believe it is extremely important to have a pricing strategy that appropriately reflects the value created to improve profitability. Taking into consideration the environment and market conditions of each business, we will therefore take advantage of every opportunity to proactively improve pricing. For example, we are utilizing digital tools to plot customer transactions on the two axes of sales volume and price. In visualizing customers whose sales volume and prices do not match specifications, we have already initiated steps to negotiate price increases.

Enhancing Brand Value

Under AP-G 2025, the Group as a whole will leverage its profile as a driving force throughout the organization to win not just on product specifications and price, but

Example of Initiative for Management of Price Differences between Customers and between Products

Identifying customers and products where product prices do not reflect the relevant costs, transaction volume and specification differences, and raising product prices



on brand. For example, Ultrasuede™, an ultra-microfiber nonwoven material with a suede texture, clearly defines our business vision and commitment to customers. As a result of our continued efforts to promote the cool image of Made in Japan as our brand identity, in conjunction with the Toray corporate brand, we have witnessed an increase in the brand value of Ultrasuede™ by a factor of 5.2 times from ¥6.6 billion in FY 2017 to ¥34.2 billion in FY 2022. At the same time, we are working toward the 100% use of plant-based raw materials to further enhance our brand value. In line with these endeavors, we will also proactively enhance our brand value in our performance chemicals, carbon fiber, water treatment, and other businesses under AP-G 2025.

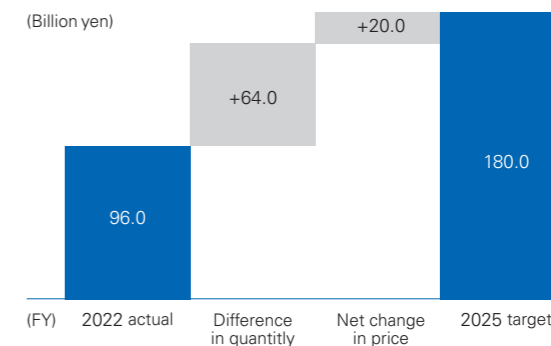
Improving Asset Efficiency

First, Improve ROIC to Approximately 5%

Under AP-G 2025, we have set certain financial targets for FY 2025 as KPIs. This includes core operating income of ¥180 billion (¥96 billion in FY 2022) and ROIC of approximately 5% (2.7% in FY 2022). As far as our core operating income is concerned, we will work to improve our capacity utilization rate by expanding quantities sold in growth business fields. In addition, we will improve our profitability by ultimate value creation, including improvement in pricing. As a part of these endeavors, we will take steps to increase ROIC by reducing working capital and continuing to engage in reengineering with a focus on low-growth and low profitability businesses while improving the turnover of existing assets.

Over the period of AP-G 2025, the Performance Chemicals Business which experienced a decline in FY 2022, is projected to enjoy the largest increase in income owing to recovery in market conditions. We are targeting increase core operating income by ¥64 billion on the back of differences in quantity and ¥20 billion owing to the net change in price from capturing recovery of the aircraft application demand in the carbon fiber composite materials business and business growth in the automobile, semiconductor, and other markets, as well as the reaping the benefits from the past capital investments, coupled with advances in high-added-value products in the fibers and textiles, resins, films, and carbon fiber composite materials businesses.

Variance Analysis of Core Operating Income (Business Growth Factors)



Variance factor	Difference (billion yen)	Business strategies for increasing income
Difference in quantity (Net of fixed cost variance)	+64.0	<p>Fibers & Textiles: Increase sales volume of ultra-microfiber nonwoven material with a suede texture and airbags, where capital investment has been completed, reflecting the recovery in automobile production volume</p> <p>Resins & Chemicals: [Resins] Boost compound production sites by expanding PPS polymer production facilities; expand market share in Chinese xEV market [Films] Increase sales volume by meeting higher requirement for release film for multi-layer ceramic capacitor (MLCC) and by capturing growth in mobile device and automotive markets [Electronic & Information Materials] In line with the OLED market growth, achieve full operation of facilities that are being expanded and scheduled to be completed within the term of AP-G 2025 Carbon Fiber Composite Materials: Capture increasing demand in aircraft applications</p>
Net change in price	+20.0	<p>Fibers & Textiles: Promote recyclable products with high-added-value (including "difference in quantity.") Performance Chemicals: Pass on increased costs to sales prices and implement pricing strategy Carbon Fiber Composite Materials: Advance high-added-value strategy through expansion of intermediate materials</p>
Total	+84.0	

Mitsuo Ohya

Executive Vice President and Representative Member of the Board



R&D Strategies

Utilizing Core Technologies and Combined Strengths to Differentiate Materials and Enhance the Ability to Create Value

Undivided R&D Organization

The definitive characteristic of Toray Group's R&D approach is all of its R&D functions have been centralized into the Technology Center. This undivided R&D organization is able to generate new technologies through fusion and integration of existing technologies more easily and enables more rapid deployment of advanced materials to a wide range of business fields. Each division at the Toray Technology Center is engaged in R&D involving various materials based on the four core technologies of organic synthetic chemistry, polymer chemistry, biotechnology, and nanotechnology. In many cases, the new materials conceived in this center flourish in other business fields. Another major characteristic is that the Group can fully utilize its combined strengths by exploiting the technologies and knowledge from many different fields to solve problems in an individual business field.

Toray Group has been particularly focused in recent years on enhancing the use of these combined strengths. In this respect, it has been fusing its core technologies with its "chemical engineering process," "engineering," and "analysis technologies" in an effort to accelerate development for key initiatives. In the area of "chemical engineering process," the Group creates safe, cost-competitive processes from the perspective of chemical engineering, and supports group-wide themes. In the area of engineering, the Group applies molding, surface treatment, AI, and other elemental technologies to realize and demonstrate innovative processes and equipment that are able to consistently produce products with the nanometer scale, thereby contributing to the development of equipment capable of consistently producing nano-level products, as one example. In the area of analysis, the Group leverages high-end electron microscopes and other devices that can directly observe molecules to analyze structures and compositions.

Technology Center centralizes these technologies to solve various challenges involved in research, technological development, and manufacturing.

Acceleration of Cross-Business Deployment of Separation Membrane Technology

Since the 1980s, Toray Group has created unique separation membrane technologies such as dialyzer and reverse osmosis (RO) membrane. Going forward, further evolution and development of these technologies will move in an increasingly interesting direction. For example, in the area of water treatment, these membranes are used to collect valuable materials and to separate oil from water, and in the health care field, their uses are expanding in areas such as personal protective clothing and new blood purifiers. Moreover, in the chemicals area, research is progressing in biochemical processes that integrate separation technologies and biotechnologies. Similarly, in the area of new energy, membrane technologies are being rolled out for use in electrolyte membranes designed to produce hydrogen for the realization of a hydrogen society. Serving as a means of creating added-value in such a broad range of industrial fields, separation membrane technology is rooted in the fiber, textile, and film technologies possessed by Toray Group. Without question, this cross-business technology deployment stems from the Group's undivided R&D organization.

Using Super Nanotechnology in the Creation of High-Added-Value Products

Each of Toray Group's business fields possesses many unique and high-value differentiated products, or so-called unrivaled technologies and products, which stand on its advanced technological capabilities. Along with making these technologies the de facto standard and expanding market share, the Group continues to engage in

developments that secure and expand profits by continuously reducing costs. NANODESIGN™, NANOALLOY™, and nano-multilayer are just three of these technologies that have enabled a leap in the improvement of material properties and that have created products with characteristics unique to Toray Group. Likewise, the Group is focusing its energy into these technologies, which it refers to in general as Super Nanotechnology.

NANODESIGN™ is a proprietary flow control technology that forms fiber cross-sections at the level of points and that controls the process at the nano-scale, thereby creating unprecedented fibers. This technology has enabled the fibers to have luster, moisture retention, water repellency, elasticity, and other properties as we like. Meanwhile, NANOALLOY™ is a technology that disperses and kneads different polymers at the nano-level as a means of expressing heat resistance, resilience, and various other properties to a higher degree. This technology has been adopted for impact-absorbing components for sports equipment and automobiles. Finally, nano-multilayer technology allow us to individually design film thicknesses ranging from several hundred to a thousand layers, thereby enabling flexible wavelength selection design. This technology is used in a wide array of applications, including films with metallic luster and films for automobile head-up displays.

By deploying these Super Nanotechnologies within each business field, the Group aims to expand related revenue to the level of ¥40 billion by FY 2025 (from approx. ¥12 billion in FY 2022).

the Group envisions R&D expenditures reaching the level of ¥220 billion, a ¥25 billion increase from AP-G 2022 period. The Group will accelerate development through allocating more of these R&D expenditures to the high-added-value themes prioritized by each business field in the aim of increasing revenue in FY 2025 by more than ¥200 billion over FY 2022.

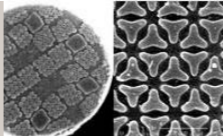
Priority Subjects for the Technology Center

High-added-value themes prioritized by each business field

Fields	Priority issues for the Technology Center
Fibers & Textiles	NANODESIGN™, recycled fibers
Resins & Chemicals	PPS resin, NANOALLOY™ resin, fine particles
Films	Nano-multilayer film, lithium-ion battery separator film
Carbon Fiber Composite Materials	Intermediate materials for industrial use, fuel cell electrode substrates
Electronic & Information Materials	Electronic coating materials, environmentally friendly printing materials
Pharmaceuticals & Medical Products	APOA2-i, acute lung injury treatment column
Water Treatment, Environment & Amenity	RO membranes for seawater desalination, air filters
Others, new businesses, basic and foundational themes	

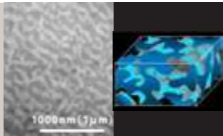
Super Nanotech

NANODESIGN™




Fiber precision
Cross-section control

NANOALLOY™



Polymer
microstructure control

Nano-multilayer

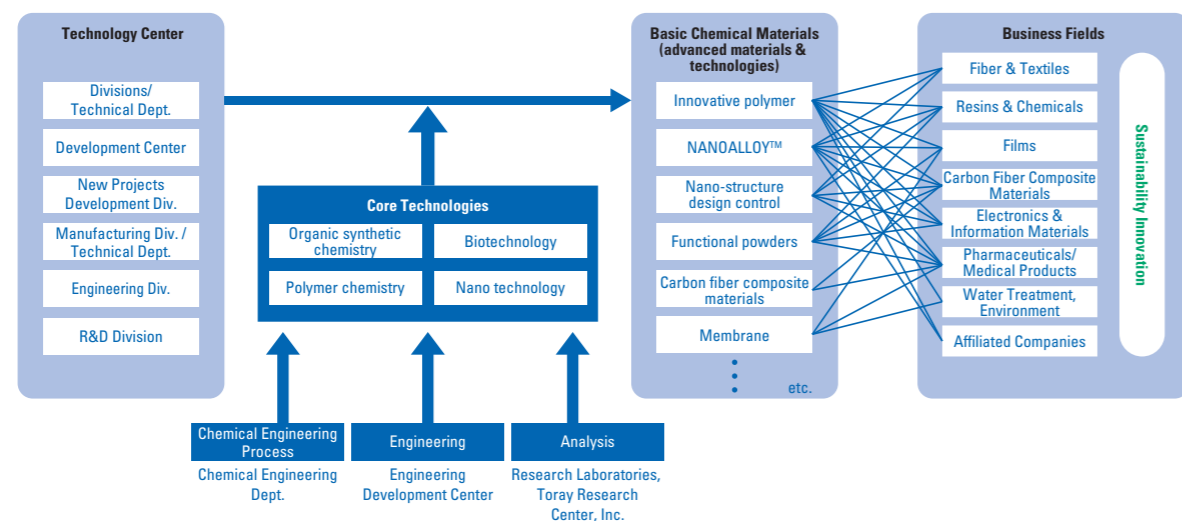


Nano-multilayer/
polymer design
technology

Investing ¥220 Billion in R&D Expenditures under AP-G 2025

Toray has consistently increased its R&D expenditures under the concept that research and technological development provide the key to building the Toray of tomorrow. During the three-year period of AP-G 2025,

Undivided R&D Organization



Satoru Hagiwara

Executive Vice President and Representative Member of the Board, CTO



Fibers & Textiles Business

Basic Policy under AP-G 2025

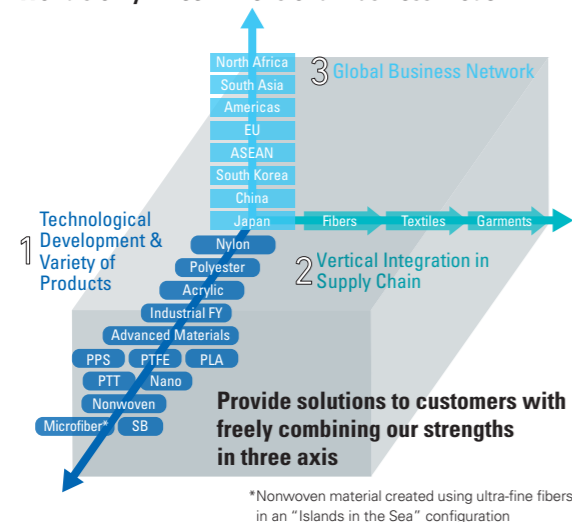
Aim for sustainable growth with high profitability through the realization of strengthened foundation and advanced of products as measures for promoting sustainability, and through global business expansion in growth business fields

The World's Only Three Dimensional Business Model

Toray's fibers and textiles business provides customers with a full range of solutions by combining its three axes of strength: technological development and a variety of products, vertical integration in the supply chain, and global business network. Leveraging the world's only three dimensional business model, we are expanding our business not only in the apparel field, but also for use in industrial applications such as textiles for airbags, nonwoven fabrics for hygiene products, and artificial leathers for automobile interiors.

As far as the Group's technological development and variety of products are concerned, we are working on the development of core materials to high-performance fibers as well as biomass-based and recycled fibers, based on polymer chemistry technology. From a supply chain vertical integration perspective, we are pursuing added value at each stage of production from raw materials (filament and staple fibers) to textiles and garments. Our global operations include 28 production bases in 17 countries worldwide. This network allows us to establish and maintain a production platform in optimal locations, including cooperation with external partner factories.

World's only Three Dimensional Business Model



Main Initiatives of AP-G 2025

Under Project AP-G 2025, Toray Group will work to address the following main initiatives (growth strategies) in its fibers and textiles business: (1) Improving profitability by ultimate value creation, (2) Business expansion in growth fields based on high-performance, highly textured products that make use of environmentally responsible materials, and (3) Product and operational excellence.

Improving Profitability by Ultimate Value Creation

In the fibers and textiles business, we will focus on expanding artificial leather and airbag businesses and adding higher value utilizing Toray's unique technologies. In specific terms, we will direct our energies largely toward the fashion and automobile interior fields as we strive to expand our business centered on the Ultrasuede™ brand developed in Japan and the ALCANTARA™ brand from Italy. Particularly for artificial leather, demand is expected to increase significantly due to the shift away from natural leather and the rapid expansion of the EV market pushing demand upward for automobile interior application. Accordingly, we will expand production facilities for Ultrasuede™ in Japan.

Demand for airbag fabrics is expected to grow at 7% annually between 2022 and 2025. Against this backdrop, Toray is looking to address the needs of the world's major automobile manufacturing regions through its six fabric production bases. In addition, our supply chain network is comprised of three fiber production sites and two cushion sewing sites. We have also established R&D and marketing sites as a part of efforts to build an integrated supply chain. Looking ahead, we will leverage these strengths to meet diversifying needs, including trends in interior spaces as well as the growing demand for environmentally friendly products associated with the shift to autonomous driving.

Toray Group will create a continuous stream of products that offer innovative functions commensurate with efforts to provide higher added-value through its

Proceeding high-added-value creation with Toray's unique technology: NANODESIGN™

Major Products (already in the market)

uts-fit™	<ul style="list-style-type: none"> • Smooth and sleek texture • Bulkiness, retention of shape • Rich in stretchability 	
Qticle™	<ul style="list-style-type: none"> • Natural and deep color • Elastic and stretchable 	
Kinari™	<ul style="list-style-type: none"> • Luster that surpasses silk • Noble glaze, rustling sound of silk • Easy to process and sewing, looking beautiful when tailored 	
Camifu™	<ul style="list-style-type: none"> • Warm texture • Lightness, elasticity • Functional additives retainability 	

Awards: Technology Award of The Society of Fiber Science and Technology; Grand Prix of Senken Gosen Award Material Division; Chemical Society of Japan's Award for Technical Development, etc.

unique technologies, such as conjugate spinning technology NANODESIGN™. These products include uts-fit™, Kinari™, Qticle™, and Camifu™.

Business Expansion in Growth Fields based on High-Performance, Highly Textured Products That Make Use of Environmentally Responsible Materials

Turning to high-performance, highly textured products that make use of environmentally responsible materials, we aim to expand our business with a focus on two brands, namely the biomass-based Ecodear™ and &+™, which utilizes recycled materials. Ecodear™ is a plant-based synthetic fiber which does not affect atmospheric CO₂ concentration even when incinerated. Toray Group markets Ecodear™ N510, a 100% plant-based nylon fiber produced from nylon raw materials such as castor oil plants and corn. Pre-marketing examples of 100% plant-based polyester include Patagonia's Sugar Down and headrest covers of All Nippon Airways' ANA Green Jet, a special aircraft to embody its environment slogan "ANA Future Promise."

&+™ is a recycled fiber made from collected PET bottles, fishing nets, and other waste materials that can be made into high-added-value functional fibers with traceability functions. Fishing nets and gear are said to account for 10% of marine plastic waste by weight. The viability of the recycling business depends on involvement of stakeholders. When people's thoughts and actions for the future are connected (&), new value (plus factors) is added. For example, we are making fibers from the PET bottles collected from the 2023 Tokyo Marathon and recycling it into the uniforms to be worn by volunteers from the following year. In addition, boxes have been set up next to vending machines located in the Group's business and production bases in Japan to collect PET bottles for use in the manufacture of &+™. Promotional activities have begun in Malaysia with the cooperation of the Penang state government to extend this initiative overseas.



Product and Operational Excellence

In the pursuit of product and operational excellence, we are strengthening our textile sales capabilities to leading apparel customers in Japan and overseas with a focus on our high-performance materials AIRTASTIC™, Primeflex™, and Dermizax™. Moreover, we will continue our efforts to deepen and extend our global supply chain for apparel applications, with a particular emphasis

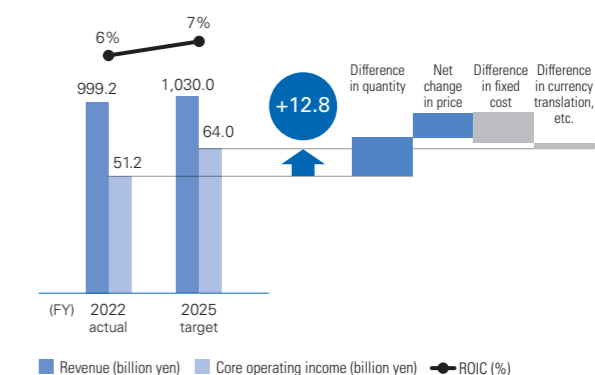
Enhancing Global Megabrand Expansion

AIRTASTIC	Advanced nylon and polyester fabric made of Toray's unique thin yarns, light and compact, with soft textures
Primeflex Stretch Fabric	Advanced fabric with flexible and stretching texture. Has durability, lightness, comfortability, fast-drying properties, applicable to various purposes
Dermizax Waterproof Breathable Fabric	Functional fabric offering a high level of water resistance, breathability and resistance to condensation, as well as excellent elasticity

on expanding our production base in India, a promising market for the future. In contrast, we will take steps to improve the profit foundation by optimizing the scale of production, reviewing the business portfolio, and withdrawing from low-profitability businesses at affiliates in Japan as well as nylon fiber and polyester/cotton fabric businesses that are in need of business structure reform.

By addressing the aforementioned major initiatives, we aim to achieve revenue of ¥1,030 billion in FY 2025, up ¥30.8 billion compared with FY 2022, and core operating income of ¥64 billion, up ¥12.8 billion compared with FY 2022 exceeding the fiscal 2019 level prior to the pandemic.

Target for FY 2025



Variance	Main Factors
Difference in quantity	<ul style="list-style-type: none"> • Expansion of business growth fields such as airbag and artificial leathers • Capturing recovering demand for integrated apparel business • Sales expansion of textile with advanced functions and high-added-value
Net change in price	<ul style="list-style-type: none"> • Expansion of high-added-value such as NANODESIGN™ products • Proceeding with passing on the rise in raw material and fuel prices to the sales price • Business structure reform for low-growth and low profitability
Difference in fixed cost	<ul style="list-style-type: none"> • Expansion of new production lines for products including airbag and artificial leathers • Increase of expenses and labor cost due to expansion of sales activities

Kenichiro Miki

Senior Vice President,
General Manager,
Fibers & Textiles Division



Resins & Chemicals Business

Basic Policy under AP-G 2025

Contributing to the realization of a sustainable society by creating high-added-value products

Main Initiatives of AP-G 2025

Resins Business

Enhancing Governance

In light of the inappropriate action in improperly identifying certain resin products as receiving certification from Underwriters Laboratories (UL), a third-party safety science organization headquartered in the United States, details of which were announced in January 2022, Toray is continuing to promote measures aimed at preventing recurrence. In addition to taking all necessary steps regarding actions on the recurrence prevention measures in response to the recommendations of the Expert Committee, Toray has completed UL recertification for the necessary grades and secured the reinstatement of ISO 9001 certifications for the scope of products for which certification was partially suspended or withdrawn. Moving forward, we will promote measures to prevent a recurrence, appropriately operate a quality control system, and further enhance compliance awareness.

Actions on the recurrence prevention measures in response to the recommendations of the Expert Committee

1	Enhance compliance awareness	<ul style="list-style-type: none"> ✓ Promotion of corporate culture reform through senior managers continually communicating messages to employees the importance of compliance and through communication to the frontlines ✓ Enhancement communication by 5,900 employees on the floor, in order to 1. Enhance process control, 2. Create a culture of openness and 3. Foster a sense of pride (Ongoing)
2	Establish work procedures and a training system for UL-related operations	<ul style="list-style-type: none"> ✓ 1. Training for all members ✓ 2. Restructuring of the certification system/operation procedures ✓ 3. UL verification audit, C-CAP (Completed)
3	Transfer personnel between business divisions and other interaction	<ul style="list-style-type: none"> ✓ 1. Change of director in charge of the division ✓ 2. Personnel transfer of related individuals (Completed)
4	Establish a system to confirm UL compliance by the internal quality assurance organizations and/or external organizations	<ul style="list-style-type: none"> ✓ 1. Internal audit by the Quality Assurance Division ✓ 2. External audit by UL and ISO recertification (Chiba, Nagoya) (Completed)
5	Strengthen the structure of quality assurance organization	<ul style="list-style-type: none"> ✓ Strengthened organizational structure by increasing members in the division and by strengthening auditing system, etc. (Completed)
6	Establish system to ensure reporting of misconduct to Toray administrative organizations	<ul style="list-style-type: none"> ✓ Improved contents of the internal survey (implemented in November 2022), conducted a follow-up of results (Completed)

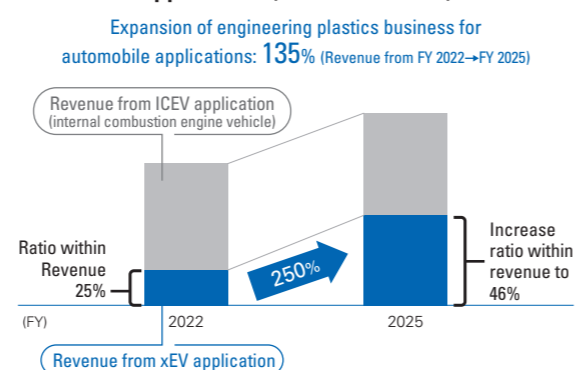
Creating High-added and Ultimate Value

In the resins business, Toray Group commercializes a broad lineup of products, including amorphous ABS resin, crystalline nylon resin, PBT resin, PPS resin, and LCP resin. We also brought to the market TORAYCA™ resin, a carbon fiber reinforced plastic. In addition to an extensive array of products, we provide total solutions encompassing a wide range of areas, including material development

and proposals, design proposals, and support for process and molding, to comprehensively assist customers in their product development activities. These efforts are backed by the strength of our global capabilities and network of 19 business and production bases in 10 countries outside Japan. Toray Group is also successively increasing its compound production capacity in growth regions.

Under AP-G 2025, we will work to enhance the performance of our resin compound business as a first step in creating high-added-value. The percentage of high-performance product revenue to total revenue in the engineering plastic resins business will climb from 30% in 2022 to 36% in 2025. In specific terms, we are targeting 250% growth in revenue from xEV-related sales, where demand is projected to especially expand in FY 2025 compared with FY 2022. If we meet the target, the ratio of xEV applications within the automobile applications is expected to reach 46%.

Automobile applications (Trend in revenue)



PPS resins form a second integral component of efforts for high-added-value creation. PPS resin is a super engineering plastic with long-term heat resistance, chemical resistance, and flame-retardant properties. Its use is expanding in versatile applications, including power semiconductors. Toray has established the world's only integrated monomer/polymer/compound production system and held a 32% share of global PPS compound sales in 2022. During the AP-G 2025 period, we will expand our polymerization facilities in South Korea as well as sales globally, focusing on Europe and China with the goal of securing a global market share of 36% by 2025.

Third in our efforts for high-added-value creation, we will look to our ABS resins. While competition for general purpose ABS resins is becoming increasingly harsh, we expect demand for high-performance ABS resins to return to a 5% annual growth trajectory, and will focus on transparent ABS resins and automobile applications. We aim to maintain our number one share of the global market for transparent ABS resin, and are targeting a global share of 45% by FY 2025, with sales volumes

for automobile applications projected to reach 1.6 times that of FY 2022. Furthermore, we aim to establish our status as a high performance and sustainable ABS resin supplier by developing the market for recycled grades and launching ABS resins using bio-based monomers. In addition, to strengthen our ability to create value through digital innovation, we will integrate materials informatics (MI) and design support tools (CAE systems).

We aim to increase the value we provide to customers by significantly shortening product development lead times, significantly reducing product development costs, and achieving the selection of the best material candidate.

Chemicals Business

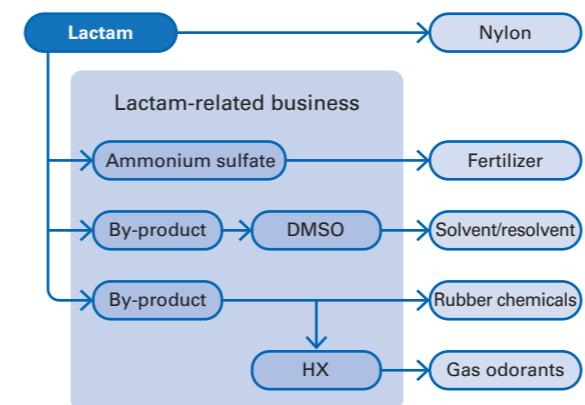
Expanding the Fine Chemicals Business

In the chemicals business, we aim to expand sales mainly of products with the world's top market share by utilizing our proprietary technologies and raw materials. In specific terms, we will focus on New Zeolite (NZ) products that contribute to the advancement of agricultural and food security as raw materials for agricultural chemicals, dimethyl sulfoxide (DMSO), which is used as a cleaning agent and solvent for semiconductors and electronic components, and Thiokol™, which contributes to high insulation and energy conservation as a sealant for insulating glass. DMSO, in particular, is safe and is expected to be in demand as a substitute for other catalysts.

Toray has also developed the world's first interferon drug for cats and dogs and a chronic kidney disease drug for cats with the aim of extending the healthy life expectancy of companion animals. In the aromatic fine chemicals business, we will focus on proposing fragrances to the cosmetics industry based on market research and analysis, and building a flavor supply network to China, ASEAN, and other countries for the food industry. Moreover, as a new business, we will promote the development of high-performance resin powders for 3D printing by utilizing our high-performance polymer design technology.

Strengthening the Lactam and Lactam-Related Business

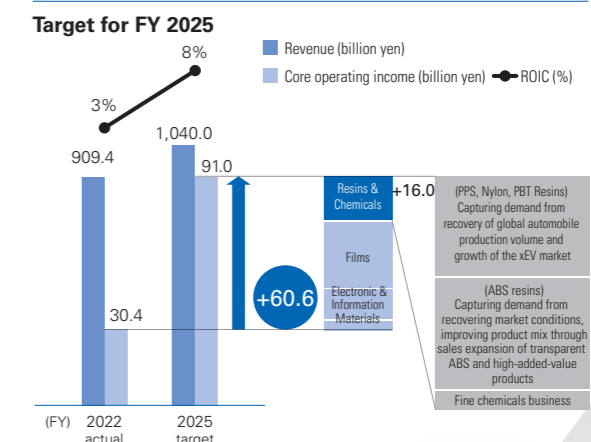
Toray's caprolactam uses the Company's unique photo-reaction technology to realize high safety and easy process. To further reduce environmental impact, we are also developing a new type of lamp that uses LED as its photoreactive light source. Moreover, we are expanding our business in various fields by leveraging the by-products generated during caprolactam production.



Contributing to the Realization of a Sustainable Society

While focusing on expanding sales of high-performance products, we are working to make materials more sustainable through three methods: (1) material recycling, in which plastic products are collected from the market and returned to the polymer or compounding process; (2) chemical recycling, in which collected raw materials are depolymerized and returned to the monomer process; and (3) bio-based production of raw materials. While our efforts are currently focused on material recycling, we aim to push forward with chemical recycling and the use of bio-based raw materials during the period. Through these means, we aim to employ sustainable materials for 30% of the raw materials we sell by 2030.

Taking all of the aforementioned into consideration, Toray aims to capture demand in the xEV and other growth markets by enhancing its solution proposing capabilities, expanding global bases, and developing high-performance products in the resins business. Furthermore, by expanding the fine chemicals business, we aim to increase core operating income in the resins and chemicals businesses as a whole by ¥16 billion in FY 2025 compared with FY 2022.



Kazuhiko Shuto

Vice President, General Manager, Resins & Chemicals Division



Films Business

Basic Policy under AP-G 2025

Complete the concept shift from plastic films to environmentally friendly functional films while promoting the transfer of increased product value to selling prices in line with improvements in quality

Developing Various Applications through the Pursuit of Ultimate Performance

The film business has production and processing sites in nine countries around the world. Drawing on this network, Toray Group is developing such products as polyethylene terephthalate (PET) films that pursue ultimate performance and biaxially oriented polypropylene (OPP) films for a variety of applications, including smartphones, displays, and electronic components used in multilayer ceramic capacitors (MLCCs), capacitors, motors, and batteries for automobiles as well as food packaging materials through polymer, nano, film making and other fundamental technologies.

Main Initiatives of AP-G 2025

Expanding the Digital Innovation and Mobility Businesses

The thinner the functional film, the better is its product characteristics. As a result, the growth in functional film demand is seen mainly in capacitor dielectric material, semiconductor manufacturing processing, and mobility-related applications.

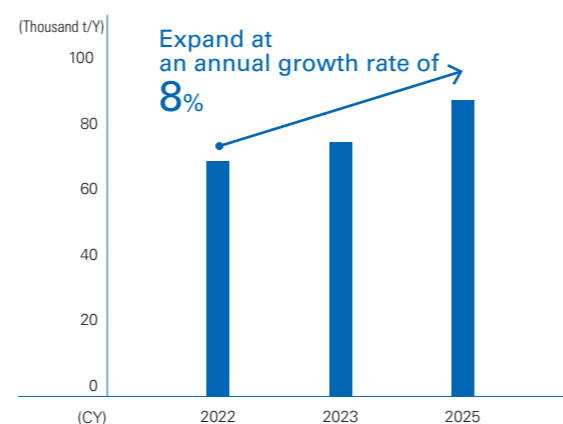
As far as capacitor dielectric applications are concerned, MLCCs are becoming smaller while increasing in capacity at an accelerating pace. This reflects the improved performance of electronic devices and higher data transmission volume. Under these circumstances, Toray's PET films have been adopted by many MLCC manufacturers owing to their superior smoothness and cleanliness, which enables thinner and more ceramic layers. Based on the increase in demand, we will increase production capacity in Japan by 1.6 times compared with the current level by 2025. For our ultra-thin OPP capacitor films for xEVs, for which we hold a 60% global market share, steps have already been taken to increase production capacity in Japan by 1.6 times in 2022. As the leader in the automotive capacitor film market thanks to our ultra-thin, high voltage resistance, high-quality products, we plan to increase our production capacity another 1.4 times by 2025 in light of the forecast growing demand for xEVs.

In the area of semiconductor packaging manufacturing process applications, we will strengthen our production system for dry film photoresist (DFR) application PET films, which are essential for the formation of semiconductor circuit boards amid the trend toward finer wiring. Toray boasts a high market share in the high-end

DFR market and is taking preparatory steps to address increased demand in areas where sound growth is expected, including data center servers.

From a mobility application perspective, polyphenylene sulfide (PPS) films with high heat resistance and durability (resistance to hot water, strong acids, and chemicals) are enjoying widespread acceptance and use as xEV motor insulation materials and in fuel cell vehicle (FCV) as well as hydrogen production equipment applications. Sales are expanding rapidly in China, especially for motor applications. Complementing this product, we are strengthening global partnerships to create new applications for our PICASUS™ brand of polyester films which employs our nano-layering technology. PICASUS™ helps to control light direction by enabling the transmission of vertical incident light while reflecting obliquely incident light and addresses the needs of xEVs for heat insulation and automated driving.

Demand Forecast : PET Film for MLCC Process



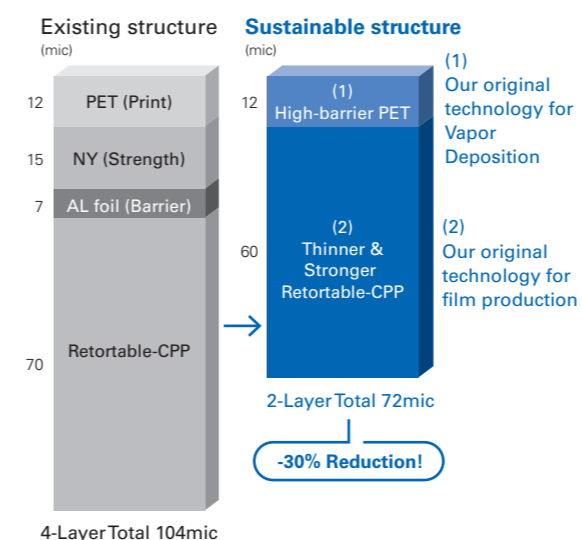
Expanding the Sustainability Innovation Business

Toray has taken the lead ahead of its competitors to collect and recycle the PET film discarded after use in the MLCC manufacturing and other processes. Moving forward, we will deepen collaboration with supply chain companies to provide this recycling system more broadly. Moreover, we will promote the early introduction of chemical recycling and development of bio-based PET.

Responding to pressing social issues including reducing food loss (extend the shelf life of food) and use of plastic, we are developing films for use in packaging materials that combine high-barrier PET films with

thinner, stronger sealant films that help reduce the use of plastic by 30%. These films have a structure that does not use aluminum foil as a barrier material to preserve quality and enables microwave heating, which emits 80% less CO₂ when compared with boiling. We project our products will become mainstream in the retort market going forward. Furthermore, we are promoting the shift to mono-material packaging to address the recycling difficulties encountered with packaging materials made of different ones.

Reducing Food Waste and Plastic Consumption — Films for Retort Pouches



Strengthening Ultimate Value Creation and Competitiveness

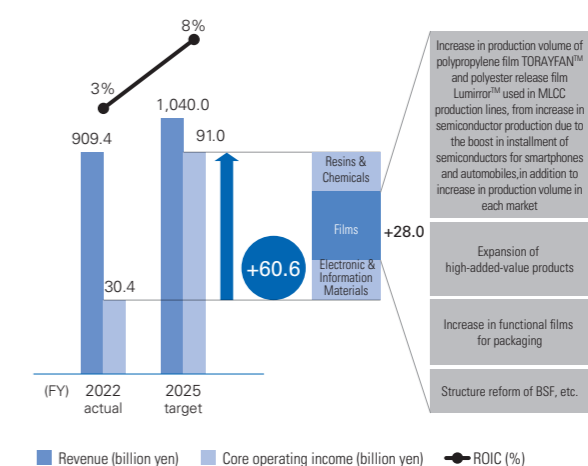
Toray Group will focus on strategic pricing and promoting value in its bid to create ultimate value. The market for the general-purpose films used in electronic components is distinguished by its large number of customers and decentralized pricing strategies. In reality, prices have repeatedly risen and fallen from the initial prices set individually due to a variety of circumstances, including the balance between supply and demand as well as fluctuations in raw material and fuel prices. In this instance, we classify customers into major and long tail users, quantify the risk of losing business, extract customers and products where prices are not appropriate in terms of price, sales volume, and specifications, and take steps to negotiate price hikes. Meanwhile, in the case of PET film for dry film resist (DFR) use, for example, we will focus on reflecting our efforts to reduce circuit defects attributable to foreign substances inside films and surface micro-scratches, to help reduce customers' production costs, and other initiatives in our product prices.

To strengthen our competitiveness, we will create new products and markets by leveraging our strengths

in multi layer, coating, and polymer design technologies, while upgrading and expanding our production and processing sites in line with the growing demand for films. We will also strengthen our cost competitiveness by introducing innovative processes and promoting smart factories using DX technology.

Taking into account the aforementioned, we will focus on expanding the digital innovation, mobility, and sustainable innovation businesses while promoting initiatives to strengthen our ultimate value creation and competitiveness. Through these means, we will work to increase core operating income by ¥28.0 billion in FY 2025 compared with FY 2022.

Target for FY 2025 (Performance Chemicals)



Kazuhisa Itsuji

Corporate Vice President
General Manager,
Films Division



Electronic & Information Materials Business

Basic Policy under AP-G 2025

Maximizing and stabilizing sales and profit by expanding sales in growth markets and regions, strengthening the management foundation, and creating new large-scale businesses

Turning “The One” Strategy Cycle

As the “First One,” the Electronic & Information Materials Business quickly ascertains future needs through its close relationships with leading companies in each industry and rapidly develops products by utilizing its own fundamental and process technologies. Next, we build high barriers to entry with an intellectual property (IP) network, production performance (high quality, stable supply, cost competitiveness), and customer support to become the “Only One.” We will also promote de facto standardization and establish our position as “Number One.” We call this “The One” Strategy and under AP-G 2025 will bring about the spiraling up of this cycle.

In addition to the recession due to stay-at-home demand, in the previous Medium-Term Management Program, Project AP-G 2022, the results for the final fiscal year were affected by inventory adjustments in the display and semiconductor supply chains. Despite the decline, however, we had been steadily laying the groundwork for AP-G 2025 during the same period.

First, in the semiconductor and JISSO (packaging) market, we took advantage of the spread of xEVs and renewable energy infrastructure and, in addition to concentrating our efforts on the development of materials for power semiconductors with a high market share, greatly expanded our share in the Chinese market. Having developed a photodefinable polyimide material that is free of N-methyl-2-pyrrolidone (NMP) solvent and thereby contributes to reducing environmental impact, we are also advancing toward making this the de facto standard coating material for semiconductors. In the display field, we made progress in developing materials for micro LEDs while maintaining good relationships with OLED display manufacturers. In the printing-related field, we have developed a volatile organic compound (VOC)-free printing technology and are focusing on developing label and package printing applications. In new fields, we worked on the development of multi-core optical fibers, for which NANODESIGN™ technology was adopted, and development of high-resolution scintillator panels.

We have also strengthened our support system by assigning key personnel in sales, research, and technology to major locations around the world. Under AP-G 2025, we will promote “The One” Strategy underpinned by these foundations.

Main Initiatives of AP-G 2025

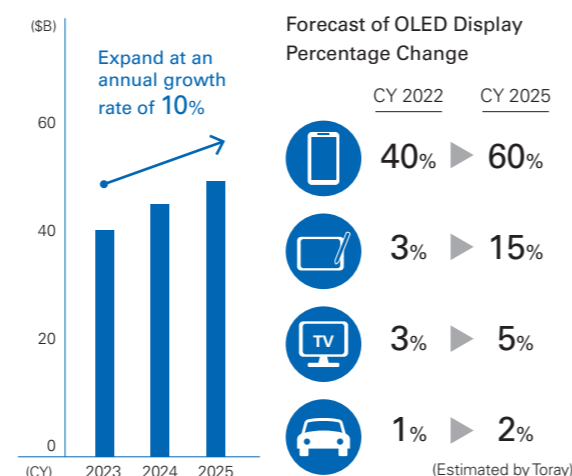
Semiconductor & JISSO Market: Sales Expansion of Materials for Power Semiconductors

The semiconductor market has experienced repeated cycles of growth and stagnation and it is expected to expand at an average annual growth rate of 7% or more until 2025. Under such circumstances, by means of our close relationships with leading companies and industry-academia-government collaboration, we aim to expand our business to exceed the market growth rate through, for example, the development of high-performance products in advance of the market, the establishment of bases in growth regions, sales expansion of environmentally friendly products (the NMP-free polyimide coating material). Geared toward xEVs and renewable energy in particular, with regard to power semiconductor applications, which are expected to further expand, we will focus on meeting the needs for highly reliable buffer coatings and thermal conductive materials with high heat resistance and high voltage resistance.

Display Market: Expansion of Business Centered on OLED

In the display market, OLED, which features high brightness, efficient dimensional designs, and low power dissipation, is beginning to be used not only in mid-sized TVs and smartphones but also in tablets and for automotive displays. Used as a material for insulation layers and planarization layers, Toray’s photodefinable polyimide is becoming the de facto standard in the OLED

Market Size of OLED Displays

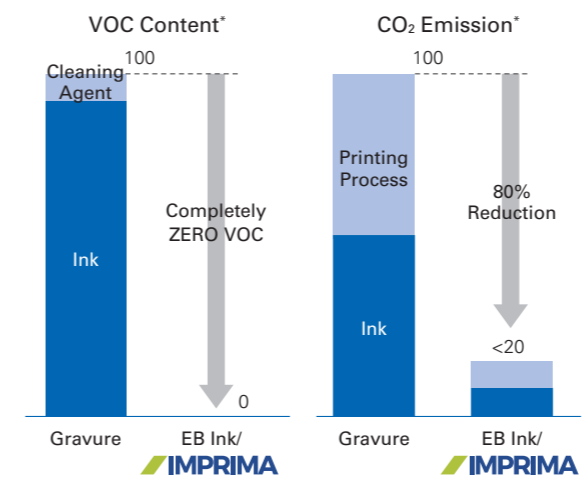


market and is expected to grow significantly along with light-emitting materials. In the micro LED market for next-generation displays, we also provide many related materials for wearable devices and VR goggles while preparing for full-scale market growth.

Printing Market: Accelerating Development of Applications for Completely VOC-Free Printing Systems

In the printing industry, the use of large amounts of organic solvents for inks and cleaning agents has become an issue in terms of environmental friendliness and work environment. In response, Toray has succeeded in developing a completely VOC-free printing system that does not use organic solvents using IMPRIMA™, an offset printing plate that does not require dampening water, and water-soluble electron beam (EB) curable ink. With this innovative system that can significantly reduce CO₂ emissions, we will work with partner companies to accelerate the development of applications such as food packaging.

Achieved “Completely ZERO VOC Printing System”



New Growth Markets: Focus on Multi-Core Optical Fibers and X-Ray Scintillator Panels

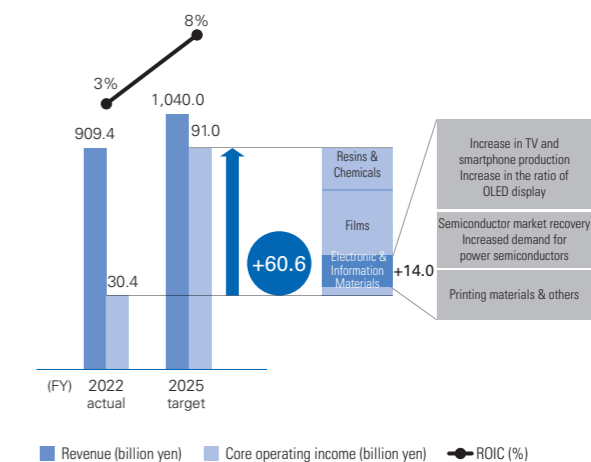
In new areas, we have developed a multi-core optical fiber that pushes the boundaries of conventional optical fibers by combining our proprietary NANODESIGN™ technology and resin flow control technology. By arranging multiple cores that transmit light in a single fiber, this product simultaneously achieves high-speed, high-capacity communication as well as power savings and is thus expected to be found applications in data centers and supercomputers.

We have also developed a scintillator panel for digital X-ray inspection with the world’s highest resolution. X-ray digital imaging promises high-speed processing and low cost, but the problem is that the image becomes blurry due to the diffusion of light within the panel. In response to this, we are developing cellular

scintillator technology that can obtain clear X-ray digital images by forming fine partition walls for each pixel. We aim to find applications in, for example, nuclear power plant piping inspections, aircraft part inspections, and the medical field, including mammography.

As mentioned above, in the electronic information and materials business, we aim to increase our core operating income by ¥14 billion in fiscal 2025 (compared with fiscal 2022) by expanding the market share of our materials for OLED displays and power semiconductors as well as by promoting diversification through the launch of new businesses.

Target for FY 2025 (Performance Chemicals)



Hiroshi Enomoto

Senior Vice President
General Manager,
Electronic & Information
Materials Division



Carbon Fiber Composite Materials Business

Basic Policy under AP-G 2025

In order to seize the business opportunity of the carbon neutral society, which is expanding and accelerating on a global scale, Toray Group provides the best products and realizes business expansion through social contribution by leveraging the core strengths of its carbon fiber composite materials, “high functionality” and “reliability (usability)”

Carbon Fiber Demand to Grow at an Annual Rate of 17%

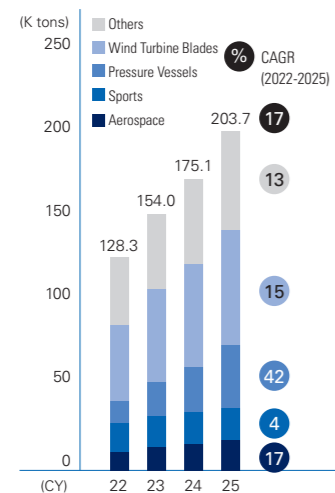
Through its carbon fiber composite materials business, Toray Group provides optimal products that meet the needs of customers from high-performance regular tow carbon fibers to low-cost large tow carbon fibers that are suitable for mass production. Manufactured in Japan, the United States, France, and South Korea, Toray Group maintains an annual regular tow carbon fiber production capacity*1 of 28,770 tons. Meanwhile, with an annual production capacity of 35,000 tons, the Group manufactures large tow carbon fibers in Mexico and Hungary. Toray Group has the world’s largest share*2 in both regular tow and large tow.

Demand for carbon fiber will continue to expand at an annual rate of 17% owing to such megatrends as the drive toward carbon neutrality and is projected to exceed 200,000 tons by 2025. In particular, pressure vessels, including compressed natural gas (CNG) tanks, renewable natural gas (RNG) tanks, and hydrogen (CHG) tanks, wind turbine blades, existing commercial aircraft models, and gas diffusion layer base materials for fuel cells can be expected to drive growth.

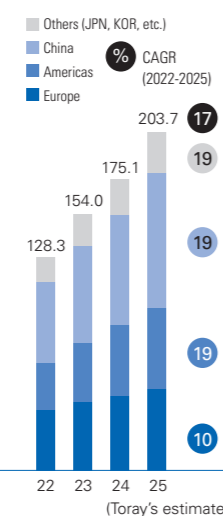
*1 As of March 2023

*2 Global Market share in 2022: Regular tow 35%; Large tow 50%

Demand Forecast by Application



Demand Forecast by Region



Main Initiatives of AP-G 2025

Toray Group has identified six goals to be achieved in its carbon fiber composite materials business over the three-year period of AP-G 2025. In particular, energies will be directed toward the three main tasks of (1) capturing recovery in aircraft demand, (2) reforming its business

structure based on the industrial application expansion, and (3) strengthening quality and cost competitiveness.

Items to be accomplished in the three years of AP-G 2025

1	Respond to Recovering Demand for Commercial Airplanes and for New Demand	Reorganize production bases for airplane (securing personnel) and gain new demands such as UAM and next generation aircraft programs
2	Capture Expanding Industrial Market	Increase production capacity to capture growing demand for industrial applications such as pressure vessel (CHG), wind turbine blades, and centrifuge
3	Business Structure Reform without Overdependence on Aerospace Applications	Expand production and sales for industrial and sports applications after aircraft demand recovers, and shift to business without overdependence on aerospace applications
4	Strengthen Regional Cooperation	Improve services by strengthening collaboration among regional subsidiaries in the Americas (CMA - TAC-G) and Europe (CFE - CIT - DELTA - EACC)
5	Develop a Road Map for Carbon Neutrality	Achieve carbon-neutrality in Europe (CFE) by 2040 and entire carbon fiber composites businesses by 2050
6	Improve Compliance	Improve operation of security trade control and quality control, etc.

Capturing the Recovery in Aircraft Demand

In light of the subsiding impact of the pandemic and the likelihood of a rapid recovery in passenger demand, both Boeing and Airbus announced plans to gradually increase production of existing models through to 2025. In addition, the development of next-generation aircraft that can further reduce fuel consumption and CO₂ emissions is expected by the beginning of 2030. To capitalize on the recovery in existing model demand, we will focus on preferential production from existing qualified material production lines. Responding without delay, we will steadily increase capacity of existing regular tow machines in a bid to minimize the impact on other applications. Moreover, we will work to address R&D and marketing issues related to the development and selection of materials with a view to obtaining material qualification for the next-generation aircraft program from 2025.

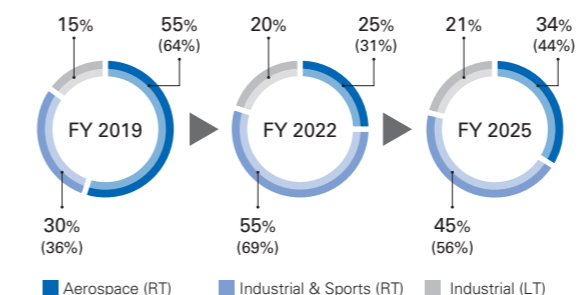
Reforming the Group’s Business Structure

Aerospace applications accounted for 55% of the marginal profit of the carbon fiber composite materials business in FY 2019. With 64% of the Group’s regular tow dependent on aircraft and aerospace applications, results under AP-G 2022 were significantly affected by COVID-19. Under AP-G 2025, we therefore intend to build a balanced earnings base that does not overly depend on aircraft applications. With the aim of improving our business portfolio, we will focus on capturing

the growing demand for industrial applications while strengthening profitability.

In order to strengthen our profit structure, we will install new cost-competitive equipment, adopt a price formula linked to raw material and fuel costs, and enhance product value through technical services and quality improvement.

Marginal Profit Structure by Application



*Numbers in parentheses indicate the ratio of RT

Strengthening Quality and Cost Competitiveness

Toray Group’s competitive advantage in its carbon fiber composite materials business includes its global power from each of production capacity, location, and human resources perspectives. Our strengths in this business also include the quality and reliability of data accumulated over 50 years and our development proposal capabilities encompassing regular and large tow as well as such diverse intermediate materials and composites as thermoplastic and thermoset resins. While taking full advantage of these inherent strengths against the growing emergence of competing manufacturers, we will work to increase our production capacity and production lines at optimal locations and promote the development of innovative processes in order to enhance our cost competitiveness. As a part of efforts to enhance our quality capabilities, we will not only focus on creating leading-edge material and products, but also on such activities as improving our carbon footprint.

Road to Carbon Neutrality

As a leading carbon fiber company, Toray will promote a progressive approach toward carbon neutrality. In line with the Toray Group Sustainability Vision, our policy is to reduce mainly Scope 1 and Scope 2 CO₂ emissions by over 30% from the current level by 2030. Moreover, we intend to initiate the production of recycled carbon fiber in Europe and the U.S. with the ultimate goal of achieving carbon neutrality by 2050. Meanwhile, we will quantify the Life Cycle Assessment (LCA) improvement effects on customers’ products and clarify Toray’s contribution.

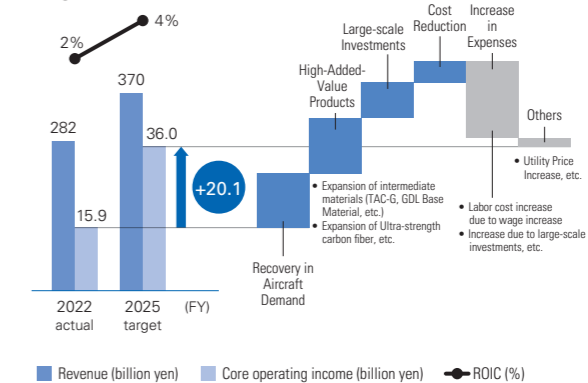
Demand for Carbon Fiber in Full Swing from 2026

As previously mentioned, Toray Group has identified various policies for its carbon fiber composite materials business under AP-G 2025. Guided by these policies, we will strengthen our business structure by capturing

the recovery in demand for commercial aircrafts and expanding high-added-value products. In addition to expanding the scale of business through large-scale capital investments, we will also promote further cost reductions. Based on these endeavors, Toray Group is targeting revenue of ¥370 billion in FY 2025, an increase of ¥88.3 billion compared with FY 2022. From a profit perspective, the Group is targeting core operating income of ¥36 billion in FY 2025, up ¥20.1 billion compared with FY 2022.

Demand for carbon fiber is projected to fully expand from 2026. Applications that are expected to drive this demand include hydrogen tanks and urban air mobility (UAM) flying vehicle development, which are estimated to increase four-fold (90,000 tons) and 10 times (2,000 tons), respectively, by 2030 compared with 2025, as well as next-generation aircraft, which are anticipated to expand to 3,000 tons around 2030. In light of conditions as they currently stand, the three-year term of AP-G 2025 is positioned as a preparatory period that Toray Group will take all steps to capture this potential demand, and we will continue to put in place a sound business base and promote environmental measures to address wide-ranging issues such as carbon neutrality.

Target for FY 2025



Minoru Yoshinaga
Senior Vice President,
General Manager,
Torayca & Advanced
Composites Division

Water Treatment Business

Basic Policy under AP-G 2025

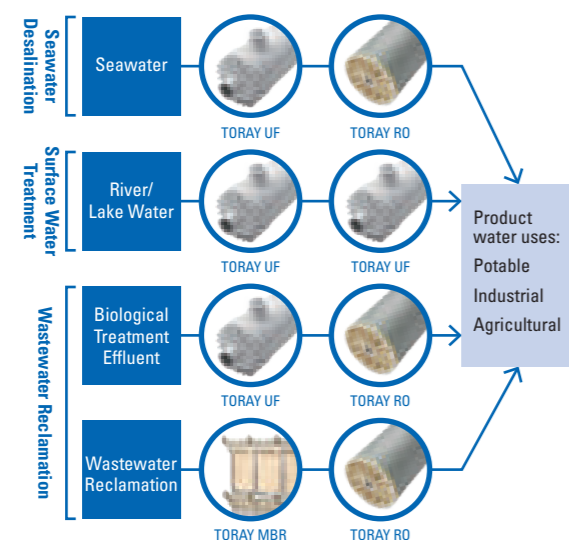
Strengthening the business foundation as a “Leading Company” in the water treatment membrane business—To achieve expanding global market share and secure profitability—

The Strengths of Broad Product Lineups and a Global Integrated Operation System

As the core business in the Environment & Engineering segment, the first strength of the water treatment business is its ability to propose total solutions (IMS*) through the combination of its broad product lineups. Toray Group develops, produces, and sells various membrane products of different diameters entirely in-house in accordance with the substances to be separated during water treatment, from reverse osmosis (RO) membranes to nanofiltration (NF) membranes, ultrafiltration (UF) membranes, and microfiltration (MF) membranes. In this way, it designs the optimal system in accordance with the water source and application to achieve the highest performance in an economical manner. The second strength is its global integrated operation system for production, sales, and technology. Through an organization consisting of five locations globally, the Group reliably supplies high-quality products and offers detailed customer support in a timely manner. It has also established R&D bases beyond Japan in China and India, and is committed to developing new products that align with the water quality and needs of each region.

* IMS: Integrated Membrane System

IMS (Integrated Membrane System)

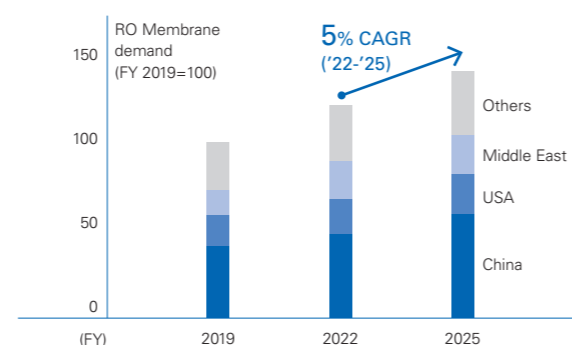


RO Membrane Demand to Grow at an Annual Rate of 5%

Demand for mainstay RO membranes is anticipated to grow at an annual rate of 5% through 2025. As the largest market, China is expected to see greater demand even as applications change, including the launch of applications for new energy in contrast to a contraction in applications for thermal power generation as the country aims to achieve peak carbon emissions by 2030. Moreover, the

U.S. market is experiencing growing demand for sewage and wastewater reuse as a countermeasure for droughts, especially on the West Coast, whereas the Middle East market continues to construct large-scale seawater desalination plants, leading to an outlook for strong demand.

RO Membrane demand outlook (Toray's estimate)



Main Initiatives of AP-G 2025

Under AP-G 2025, the Group aims to increase market share and secure profitability by (1) expanding business and solving social issues, (2) enhancing activities in growth business fields and growth applications, (3) strengthening price and non-price competitiveness, and (4) enhancing its sales network and the sophistication of its sales methods. In addition, the Group supports these efforts by (5) strengthening its organizational power and governance.

Five Major Issues

1 Business expansion and solving social issues	<ul style="list-style-type: none"> Achieve top market share in RO business Enhance activities in growing water reuse field Development of brine mining technology and study of product recycling
2 Enhance activities in growth areas and growth applications	<ul style="list-style-type: none"> Promote global business development in growth fields such as Water reuse, ultrapure water for semiconductors Keep No.1 position of SWRO and further enhance our presence in China and the US market
3 Strengthen price and non-price competitiveness	<ul style="list-style-type: none"> Development of high-added-value products Promote thorough cost reduction Development of drastic cost reduction technology for the future
4 Enhance our sales network and sophistication of sales methods	<ul style="list-style-type: none"> Strengthen web and digital marketing Expand maintenance warranty sales using ICT technology Enhance collaboration with partners
5 Strengthen organizational power & governance	<ul style="list-style-type: none"> Provide opportunities and HR development for young employees Strengthen quality management systems

Growth Driver Strategies

Aiming for the Top Global Share of RO Membranes

In the mainstay RO membrane business, the Group operates through an organization consisting of five locations globally in order to accelerate the development of high-added-value products that reflect customer needs in a

timely manner. Similarly, it will use this organization to enhance sales activities for priority applications and to construct global supply chains in a way that aligns with sales expansion. In addition to promoting cost reductions, the Group also works to further strengthen non-price competitiveness by enhancing its technical services. In short, the Group will globally deploy technical services that integrate everything from technology proposals for customers to support for the use of these technologies via after-sales services. Through these efforts, the Group aims to capture the top global share of the RO membrane market in 2025.

Enhancing Sales Activities for Sewage and Wastewater Reuse Applications

Since the start of the 2000s, efforts to reuse sewage and wastewater, especially in countries and regions suffering from drought, have accelerated. Compared to seawater desalination, sewage and wastewater reuse costs about one-third and it is easier to obtain the raw water, even in inland areas. Moreover, water reuse helps reduce environmental impact by curtailing wastewater discharge, which has led the market to expand at a pace exceeding at an annual rate of 10%. For example, with its poor access to water resources, Singapore began operating an advanced treatment plant called “NEWater,” which even enables sewage water to be used as drinking water. In addition to developing new products and making IMS proposals, the Group is working to strengthen its ability to communicate through a dedicated website and to allocate resources in a focused manner as a means of incorporating demand for these applications scattered among different regions.

Global Approach to Ultrapure Water Applications for Semiconductors

Ultrapure water applications for semiconductors are another growth application. Efforts centered on Europe and the U.S. to attract and build semiconductor plants in their own countries have been gathering strength. At the same time, as the performance of semiconductors improves and the fabrication process evolves, more advanced requirements are being placed on the cleaning water used at each stage of the production process, thereby increasing the need for ultrapure water. In response to these demands, Toray Group developed a new product that significantly enhances the ability to remove silica and other substances from water that cause lower yields during semiconductor fabrication cleaning processes. Along with implementing intensive promotional activities for this product and developing more effective energy-saving products, the Group aims to expand business activities for ultrapure water production applications for semiconductors.

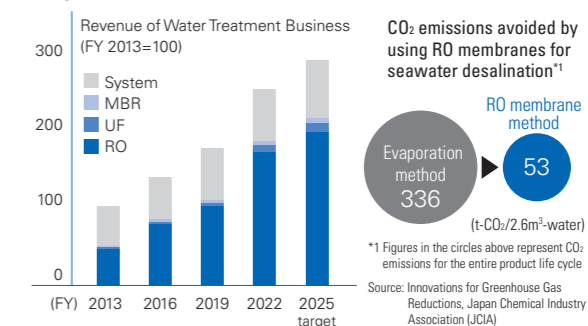
Maintaining the De Facto Standard Position for Seawater Desalination

In addition to increasing demand for water stemming from a growing population and industrial development policies, rising environmental awareness means the Middle East continues to construct large-scale seawater desalination plants using the RO membrane method, which generates few CO₂ emissions. This trend in seawater desalination applications is also spreading not only in the Middle East but also in North Africa against the backdrop of skyrocketing energy prices. Moreover, RO membrane

replacement demand from large-scale desalination plants is expected to increase in line with the accumulation of new plants. Although Toray's technology has succeeded in becoming the de facto standard for seawater desalination applications and has captured an overwhelming majority share, Toray Group will continue to construct supply chains that correspond to this growth in demand, become the accepted provider of specifications for replacement demand through technical service enhancements, and engage in efforts aimed at a further shift to localization and uncompromising cost reductions. In this way, the Group will solidify the de facto standard position.

Under AP-G 2022, the Group enhanced its systems for local production for local consumption and steadily promoted enhancements to its business structure, thereby achieving business expansion that exceeded the target. Under AP-G 2025, the Group will continue to promote the expansion of business activities for all growth applications, centered on the RO membrane business, with the aim of increasing revenues approximately 1.2 times over the three years. At the same time, the Group will contribute to the achievement of sustainability targets and to the realization of carbon neutrality through business expansion.

Target for FY 2025



Sustainability Target	FY 2013 (Baseline year)	FY 2022	FY 2025 Target
Water filtration throughput contribution by Toray's water treatment membranes	27.23 million tons/day	2.4-fold	2.9-fold

Satoshi Shimoyama

Corporate Vice President
General manager,
Water Treatment &
Environment Division



Pharmaceuticals and Medical Products Business

Basic Policy under AP-G 2025

Utilizing the outcomes/achievements during AP-G 2022 and improving the probability of success in development, boost profitability, and restore the soundness of the business within FY 2025.

Realizing a profitable and sustainable business foundation around 2030.

Business Overview and Main Initiatives of AP-G 2025

In addition to pharmaceuticals such as Dorner™ and Remitch®, dialyzers, dialysis machines, extracorporeal circulation therapeutic columns, catheters, and contact lenses, Toray Group's pharmaceuticals and medical products business contributes to health and hygiene as well as longevity with a variety of products using advanced materials. Toray Group's technologies in fibers, membranes, and surface processing are primarily brought together in the fields of dialysis and blood purification. In addition to Japan, we possess production facilities for dialyzers and dialysis machines in China, and besides that in Japan sales bases in the United States, Europe, China, South Korea, and Singapore. The main tasks for AP-G 2025 include: improving the functions of and obtaining additional indications for existing products while developing their overseas business; the steady launch of the diagnostic business; and the provision of high-added-value services by utilizing DX/AI.

*REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.

Priority Measures

- Improve functions, obtain additional indications and develop overseas business of existing products
- Create maximum value utilizing exiting assets (tangible and intangible)
- Launch of the diagnostic business
- Identify growth areas, provide high-added-value services utilizing DX/AI, strengthen solution proposals and expand business and product development in the oncology field.
- Develop environmentally friendly products
- Place top priority on quality, foster competitiveness led by innovative cost reduction technology

Promoting New Product Development

Pancreatic Cancer Diagnostics Kit

Having obtained marketing approval for Toray APOA2-iTQ, an in vitro diagnostic test kit that assists in the diagnosis of pancreatic cancer, domestic sales will begin once insurance coverage becomes available. Pancreatic cancer is the leading cause of cancer death in Japan with approximately 38,000 per year (2020). An extremely serious disease without noticeable symptoms and a five-year survival rate in advanced stages III and IV of less than 10%, we believe that the social significance of new

In Vitro Diagnostics Kit developments that assist in its early detection will be extremely high.

Nucleic Acid Drug

Currently under development, a nucleic acid drug (TRK-250) that aims to inhibit the progression of lung fibrosis has completed Phase I clinical trials in the United States. Improved biostability, which had been an issue with previous nucleic acid drugs, and efficient delivery to target tissue—by being administered directly to the lungs as an inhalant—is expected of this new-concept pharmaceutical that has received orphan drug designation from the FDA in the United States. Inhaled by means of a nebulizer, there is almost no systemic exposure and the risk from potential side effects is expected to be low, so we aim to acquire a business partner and conduct the next phase of clinical trials.

Adhesion Barrier

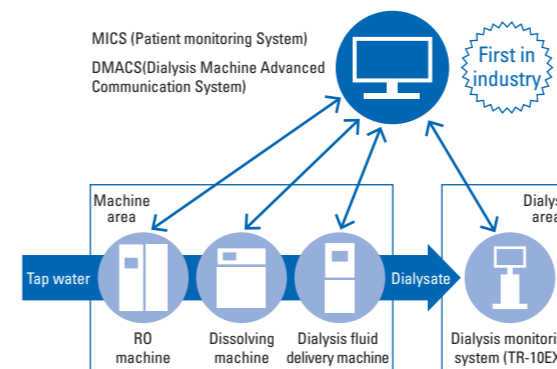
We are promoting as open innovation an adhesion barrier (TRM-270C) for use in surgical operations that combines Toray's fiber and film processing technologies with the polymer nanosheet technology of Nanotheta Co., Ltd., a start-up from Waseda University. Featuring both flexibility and good adhesion to organs—due to its laminated structure of an anti-adhesion layer made of biodegradable resin and a support layer made of water-soluble resin—we are developing this product as a medical device that provides the necessary handling in laparoscopic surgery and in robot-assisted surgery, which has been increasing in recent years. Clinical trials having commenced in the gastroenterology field in 2022, we are also organizing clinical trials in the fields of obstetrics and gynecology.

Strengthening the Dialysis Business

In our core dialysis business, we are focusing on developing a new system that will contribute to improved patient satisfaction, ease the burden on healthcare providers, and reduce costs (time). The AI-based analysis system utilizes big data to select, depending on the patient's condition, the appropriate dialysis membrane, adjust the amount of fluid removed and blood flow in real time, and even to predict falls in blood pressure during treatment. We are also demonstrating our strengths as the only manufacturer in Japan that covers the full range of dialysis-related needs, from reverse osmosis (RO) tap water treatment equipment to dialysis machines. In addition to evolving an artificial dialysis management system that links a series of devices with electronic medical records, we have developed a

Personal Health Record (PHR) system to collect information on patients' daily lifestyles, further strengthening our total dialysis solution.

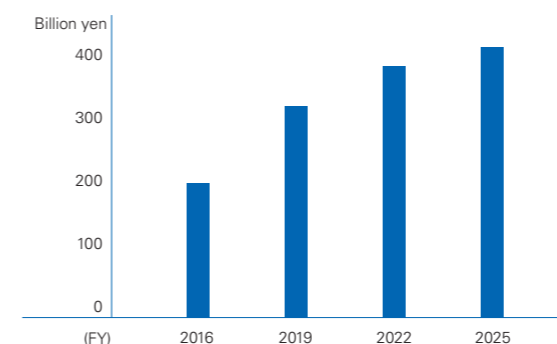
Artificial dialysis management system



Enhancement of HotBalloo™

As Japan moves toward a super-aging society, the number of patients with atrial fibrillation, a type of arrhythmia, is increasing. Since this condition can cause cerebral infarction, heart failure, and dementia, there is a growing need for a curative ablation treatment. Toray launched the world's first hot balloon ablation catheter (HotBalloo™) for the treatment of atrial fibrillation. Using cauterization through thermal conduction, HotBalloo™ has been praised for its potential in reducing the risk of recurrence due to uneven cauterization. Having obtained insurance coverage not only for paroxysmal atrial fibrillation but also for persistent atrial fibrillation, physician-led clinical research is being commenced. Also developing a better operable second-generation product that will maintain the same level of safety and effectiveness, we are planning for its market launch in FY 2023.

Global ablation market (Estimate by Toray)



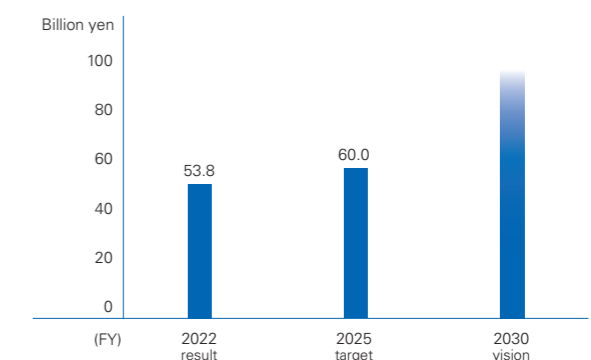
Aiming for Revenue of ¥100 billion or More around 2030

Amid the effects of soaring and persistently high raw material and fuel prices, and the NHI drug revision and reimbursement prices revision, under AP-G 2022, we secured earnings by promoting high-added-value sales, expanding indications and areas, and appropriately responding to medical facilities and government stockpiling projects during COVID-19. However, core operating income was sluggish. To escape from this situation, in AP-G 2025, we aim to achieve revenue of ¥60 billion

and core operating income of ¥2 billion by accelerating the overseas expansion and getting additional indications for existing products, strengthening the dialysis business, and sales of diagnostics.

As our long-term vision around 2030, we will pursue business expansion by means of global launch and sales expansion in the diagnostics business, accelerated overseas expansion and through getting additional indications for existing products, and the development of environmentally-friendly products. In addition, we pursue business expansion through new product launches and solution services. We aim to achieve revenue of ¥100 billion and will work to transform our business into a highly profitable one. Specifically, we will pursue synergistic effect among pharmaceuticals, diagnostics, and medical devices with nucleic acid science at the core. In the blood purification field, we will increase our competitiveness through high functionality, minimization, and recycling design, and accelerate the expansion of the dialysis business through the use of DX/AI.

Revenue Plan of the Life Science Segment



Hirofumi Kobayashi
Senior Vice President
General Manager,
Pharmaceuticals and Medical
Products Division



Human Resources Management

Based on the thinking that the success or failure of a company is decided by its people, and employees shape its destiny, Toray positions human resources as its most important management resource. At the same time making the securing and development of human resources its most important management issue, the Company is promoting human resource strategies in an integrated manner with its management strategies.

On the path from the development to the commercialization of advanced materials, the involvement over the medium- to long-term of human resources who possess a range of abilities remains essential. The Company is leveraging the advantages of Japan's membership-type employment system, where the company protects jobs, employees can work with peace of mind, and teamwork is valued. At the same time, we aim to create organizations and workplaces that incorporate flexible employment structures, where each and every employee can feel fulfilled with their own abilities and develop their own careers, and where they can work as teams to achieve major goals.

1 Strengthening of Human Resources Development

Development of Next-generation Management Leaders

Toray is systematically training successor candidates who can take charge of the next generation of management. Toray Management School, which opened in 1991, selects 20 section managers every year. In addition to helping the candidates acquire the knowledge and skills essential for corporate management, the School also improves their problem-setting and problem-solving abilities through joint research in which themes are selected by groups. 600 graduates including 35 women have gained practical management experience at Japanese and overseas group companies, and 179 have gone on to take up management positions at Toray and its Japanese and overseas group companies. Current President Mitsuo Ohya is also one of the School's graduates. In 2006, we also launched the Toray Group Management School for division and department managers of Japanese group companies and candidates for management succession at the Toray Synthetic Textile Cluster. In 2021, we launched Management Training for General Managers, geared toward those who are about to be promoted to the senior management level of Toray Group.

Expanding and Raising Level of Core Human Resources Charged with Front-line Workplace Competency

Having systemized OJT, OFF-JT, self-development, and personnel systems and measures, Toray is developing its human resources by linking each of these systems. We have prepared training programs for employees at all levels in all fields with the aim of improving and strengthening specialized capabilities, such as in management, sales, accounting, technology development and production management as well as in global capabilities. At the same time, we are making it

possible for key human resources candidates, who will be responsible for front-line workplace competency, to attend training sessions and other activities in a planned manner. In particular, we are focusing on the development of professionals with advanced expertise, technical skills and originality in problem solving, of leaders who act with foresight, leadership and a sense of balance, and of human resources who can play an active role in global business.

Career Path Worksheets that Support Self-Reliant Career Development

Toray introduced the career path worksheet as a tool to support the growth of each and every employee. Employees draw up their own career plans and, through interviews with their superiors, verify their past work experience and their current level of achievement in relation to the required skills as well as discuss their career prospects. Based on that content, superiors also formulate training plans for their subordinates, thereby creating a system to support subordinates in their work execution and career development. Furthermore, we have adopted a self-declaration system as part of our job rotation system, allowing employees to apply for a transfer every year to advance their careers. In this way, we are incorporating human resources development measures that support the self-reliant career development of our employees and promoting the creation of a highly motivated, highly productive organization.

Fostering Mindset to Face Challenges through In-house Recruitment System

In addition to supporting self-reliant career development, Toray is also conducting internal recruitment with the aim of fostering the mindset to face challenges. Job openings are posted on the Company's intranet, and employees who have been employed in their current position for three years or more are free to apply. Every year, many employees are taking advantage of this open recruitment system to achieve transfers across fields and types of occupation.

Company-wide Training Course Enrollment in FY 2022

Training category	Persons enrolled			Time dedicated to training per employee (hour)
	Men	Women	Total	
Management	699	59	758	44.8
Sales, marketing, and administration	262	74	336	20.2
Technical	620	84	704	29.0
Global	74	12	86	50.2
Total	1,655	229	1,884	34.7
Out of the Total, Digital Training	238	24	262	27.0

2 Securing and Promoting Diverse Human Resources

Active Promotion of Locally Hired Staff

We are also raising awareness among locally hired staff working at group companies around the world that they are Toray group employees. Developing human resources into executives who understand and can put Toray's management philosophy and policies into practice, we are actively promoting people to management positions, including executive positions at Toray's headquarters. We are also conducting human resources development overseas through both OJT and OFF-JT. In addition to training sessions at each company, by means of OFF-JT we are regularly holding group training sessions by region and rank as well as holding training sessions in Japan for directors and executives. Furthermore, we are also providing career development through international personnel rotations. At the present time, two local staff members have been appointed as Toray executive officers, and five have followed the executive officers as directors. At group companies around the world, local staff account for 60% of executive positions, including departmental managers, factory managers and above, in Europe and the United States, and 45% in Asia.

Accelerating Promotion of Women's Empowerment in the Workforce

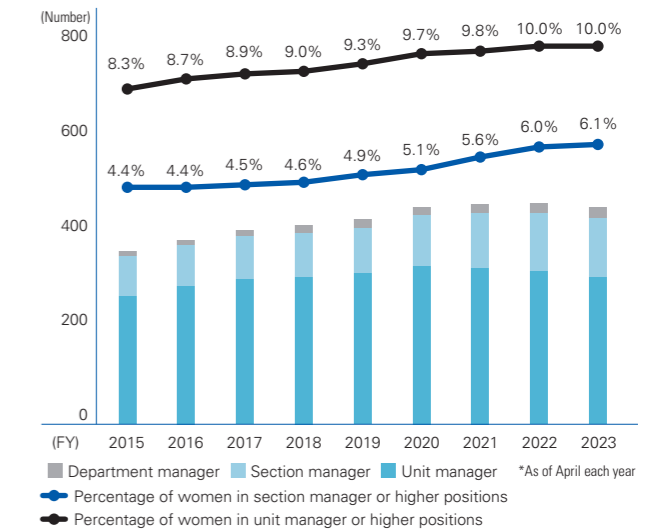
By utilizing the career path worksheets to support individual skill development and planning for realizable careers, we are working to improve the retention rate of female employees and the ratio of female employees in managerial positions. We have also designed systems to minimize the difficulties and challenges that female employees may face, especially the impact of life events on their career development. The number of women working at Toray Group companies outside Japan is also increasing, and in FY 2022, 14 female employees were dispatched in countries and regions such as China, Southeast Asia, Europe, and the United States, in positions such as sales, legal affairs, accounting, and technologies, etc.

Toray Group's female manager training program, which was launched in 2014, was independently planned by female general managers and to date has been held eight times. Female managers who had participated commented that it was a good opportunity to learn from a variety of role models who have the experience of responding to a variety of situations, as well as to strengthen their awareness of their own career development. In addition, male managers also participated in the most recent training session, and together they discussed career development for female employees.

Targets for Promoting Women's Empowerment in the Workforce (April 2021 to March 2026)

- To increase the ratio of women in management positions year by year. The immediate specific target is to increase the ratio of women in management positions from 5.1% in FY 2020 to 6.5%.
- The ratio of the continued employment rate of female employees to the continued employment rate of male employees is set at 1.0 for each employment management category, for employees who have been with the Company up to 10 years.

Number of Women in Management Positions and Women as a Percentage of Total Management (Toray Industries, Inc.)



3 Promoting Job Satisfaction and Supportive Workplaces

Job satisfaction for each and every individual is connected to the source of vitality that creates new value. Through the introduction of the career path worksheet, Toray aims to become a company that supports "finding a place for self-realization within Toray Group."

Under AP-G 2022, we extended the Toray Philosophy (TP) Project to share and disseminate our philosophy so that each and every employee could gain the sense that they were contributing to society through their work. Under AP-G 2025, we are holding live "REAL TALK—Everyone's Voice" events between management and employees, including the president, and launching initiatives to respect feedback from workplaces and lead to the fostering an open organizational culture.

To create supportive workplaces, we are also working to enhance and upgrade support for balancing work and life. These efforts includes setting up a section to showcase a variety of support system available on the WELBOX, our online employee welfare service site, so that employees, irrespective of their gender, can choose from a variety of lifestyles. In particular, systems relating to childcare, nursing care, and maternity protection have been well-developed exceeding legal requirements and easy to use.

Use of Childcare Leave (Toray Industries, Inc.)

FY		2017	2018	2019	2020	2021	2022
Number of employees taking childcare leave	Women	68	58	60	66	56	46
	Men	3	4	10	22	40	82

Toward Toray Group's Transformation and Sustainable Growth



Tri Q. Huynh
President & CEO
Toray Membrane USA,
Inc. (TMUS)

—Please tell us your reasons for joining Toray subsidiary TMUS in the United States and your impressions of Toray Group after having joined the Company.

After graduating from university, I worked for eight or nine years at a water treatment company, mainly as an engineer, but that company was later acquired by a major company. I joined Toray Membrane USA (TMUS) in 2008, shortly after the company was established, and the CEO at the time, who knew of me, had approached me. Even before joining the company, I had the opportunity to gain first-hand experience of Toray products and knew what kind of functions they had, and thus I rated Toray's technological capabilities very highly. At the same time, I felt that Toray had the potential to become an industry leader in the near future, so decided to join the company as a senior engineer. After joining the company and the team members, I was convinced that this startup was precisely the best place for me to demonstrate my skills. Furthermore, after joining the company, I realized that Toray Group has a vision of wanting to be successful over the long-term, not just the short-term.

—Did you have a career path to management in mind when you joined the company?

To be involved in corporate management was not what I was aiming for from the beginning. As I had majored in chemical engineering at university, I wanted to first improve my abilities as an engineer. However, as people

advance in their careers, their own areas of expertise and areas in which they have an interest broaden. At TMUS, career paths opened up for me not only in engineering but also in sales, and I became interested in that kind of work. I believe that building a career not only as an engineer but also in sales activities has led me to the position I am in today.

—Please tell us how you felt when you were appointed CEO and what your future aspirations are.

After becoming involved in sales activities and management, I worked hard to become a CEO someday, so when I heard that I had actually been selected as CEO, I was very happy and honored to have achieved my long-held goal. On the other hand, I was a little surprised that I was selected as the CEO of a Japanese company, as I imagine at the management level, I fall into the younger category.

However, this is my 15th year at TMUS. As I have been working my way up since the early stages of the startup, I have been able to see how this company has grown up to now and therefore believe that I have a good understanding of Toray's corporate culture as well as the current situation. Although we have grown in a short period of time from a startup to a company that can generate profits, my feeling is that we still have a lot of potential. Therefore, my goal from now on is to lead TMUS to the next chapter in its growth to make the company even bigger. This starts with a change in mindset of employees. I would like to create a company that can grow sustainably by building a foundation of thinking that looks at long-term growth, rather than simply focusing on earning immediate profit. I find this a challenging task, and am honored to have been given this opportunity.

—What do you think are the challenges that Toray Group is facing in the United States?

As a group, Toray possesses diverse, chemistry-based technologies. From there, in addition to water treatment,

we are expanding our various businesses globally, including textiles, carbon fiber composite materials, and functional chemicals, and are working to contribute to people's lives and society. I feel proud to be a member of the Group.

With regard to our business in the United States, I think it is good that a diverse group of local human resources is responsible for the management of the group companies. This is because we local human resources have a good understanding of the culture and people of each region and exert an important presence in the success of our business.

On the other hand, although a major company with world-class technology at its disposal, Toray is not well known in the United States. Additionally, there is little communication or collaboration between the local group companies, giving the impression that each company is developing its business independently. This often places them at a distinct disadvantage when competing against huge corporate groups. If the group companies in each region were closely connected and pooled their resources, we could expect various synergies between our businesses and be able to increase our competitiveness as a group. I also think that Toray's name recognition would improve by becoming more active as a group. Therefore, I think what is needed is more collaboration and cooperation among the local companies.

—What strengths does TMUS possess in the United States?

I mentioned that there is room for improvement in increasing Toray's name recognition in the United States. When it comes to the water treatment industry, Toray's products such as hollow fiber ultrafiltration (UF) membranes and reverse osmosis (RO) membranes have extremely high performance, and the technological capabilities backed by these achievements are undoubtedly recognized as a brand. This is where TMUS's greatest strength lies. In the water treatment industry, however, companies are

undergoing consolidation, and there are cases in which small companies have pooled a variety of technologies and grown into major companies. In an increasing number of cases, such companies are proposing a variety of packaged solutions. For TMUS to adapt to these changes in the competitive environment and exhibit further growth, I believe it is important to strengthen partnerships not only of course within the Group but also outside the Group and with our customers, while aiming to create more value than we could do alone.

—Lastly, could you please give a message to those who will join Toray Group in the years to come.

Looking back on my journey, the first thing I would like to say to everyone who joins Toray Group is to view working at Toray as a long-term commitment rather than a short-term. I do not recommend Toray to people who think that once they find the job they want, they can just move on to the next one. However, it is a great place for people who want to build their career over the long term.

Conversely, for those people who want to grow and improve themselves at Toray, a long-term commitment is essential. In other words, it will be necessary to find opportunities to contribute to the challenges Toray is facing and increase their own value while gaining knowledge, skills, and experience. I believe that this is the meaning of long-term commitment and that will also lead to an attachment and loyalty to the Company. This has also provided a driving force in my own career.

Having begun its life as a startup, TMUS is now entering a period of generational shift. In addition to the active participation of mid-level employees, nurturing the younger generation has become an issue. In the meantime, the business environment is constantly changing, and if we stand still, we will soon be left behind. Under these circumstances, I would like to give back to Toray and will do my utmost to make the necessary changes and bring about evolution to grow TMUS in a sustainable manner.

Please watch the short film STRAIGHT PATH, which is based on President Huynh's true story.



REAL TALK—Everyone's Voice Open Communication from All Angles



President Ohya took the baton from the former president to lead REAL TALK

The 5th REAL TALK, with his first participation in the livestream, was held at Tokyo Head Office

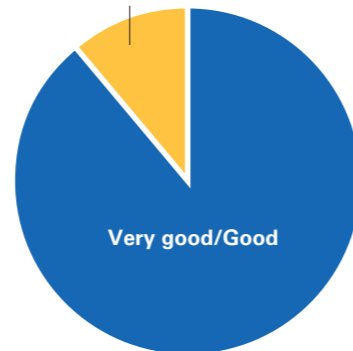
We have livestreamed “REAL TALK—Everyone’s Voice” since January 2023 as an opportunity to promote open two-way communication between management and employees with the aim of fostering a corporate culture that enables everyone to be freer, more open, and further demonstrate a pioneering spirit. Started by former President Akihiro Nikkaku, President Mitsuo Ohya has continued this initiative, answering questions from employees.

Employee questions are wide-ranging, from serious workplace inquiries such as “What do you think about the fact that we sometimes have to spend an inordinate amount of time preparing documents to respond to random comments from upper management, making it difficult to concentrate on our main duties?,” “How do you plan to address aging production facilities?,” “What are your measures to deal with personnel shortages?” to everyday queries like “How does the president spend his days off?” and “What is the president’s daily schedule?” The president also answers questions received via the live chat on the day of the livestream.

REAL TALK livestreams were held twice in FY 2022 and are scheduled to be held a total of six times in FY 2023, including at our factories. REAL TALK provides a valuable opportunity for employees to interact with President. REAL TALK has been well received by many employees, with positive comments including: “I felt closer to the president,” “I got a glimpse of the president’s thoughts and personality,” “The atmosphere felt free and open,” “These sessions will likely improve communication skills Group-wide,” and “The president expressed his frank opinions about workplace issues.” In post-livestream surveys, 90% of employees responded that the program was “very good” or “good.”

Post-livestream survey results (average of previous 6 surveys)

Fair/Not very good/Not good



As for his impressions of the livestream, President Ohya said: “I listen to the opinions of all employees, including younger ones, very closely. I want to use such opportunities to have many discussions with employees globally.”

[The 6th REAL TALK from the Nagoya Plant]



President Ohya

Employee from Plastics Technical Department serving as moderator

President Ohya and participating employees exchanged opinions about the everyday challenges and good points of the Nagoya Plant based on opinions of those working there, providing a 40-minute session full of realism that only a live talk session can create.



Comment from REAL TALK Management Staff Representative



Takayuki Minami
Corporate Communication Planning & Administration Group, General Administration & Communications Division

REAL TALK has been planned not with the goal of reaching conclusions, but rather to provide a forum where employee voices can be conveyed to management, employees can hear management thoughts directly, and each individual can have the opportunity to think and take action.

At first, I was worried about how employees would react to the event, but post-session surveys revealed increasingly supportive comments with each livestream, with more people saying “It’s a good project, so keep up the good work!” Some departments watch REAL TALK at monthly meetings and discuss their impressions and opinions, so we feel that internal communication is gradually changing.

The 7th REAL TALK to be held at the Ishikawa Plant



Employee answering a question



Using the large conference room at the Tokyo head office as a studio for the inhouse livestream



Initiatives for Global Environmental Issues

Toward Achieving Carbon Neutrality by 2050

In addition to expanding businesses in the areas such as renewable energy, hydrogen, electrification-related materials, recycling of resins, and other areas in which it has conventionally been involved, Toray Group will create businesses related to CO₂ separation and recycling, and other new businesses as a means of bolstering the Sustainability Innovation (SI) Business. This effort is also intended to contribute to the achievement of carbon neutrality in 2050 by reducing greenhouse gas emissions throughout society. Moreover, the Group will develop and introduce sustainable energy (renewable power and hydrogen) and raw materials, innovative processes, and technologies that utilize CO₂ through the expansion of the SI Business, thereby reducing its greenhouse gas emissions (Scope 1 and Scope 2) in the aim of achieving carbon neutrality for the Group in 2050. The Group will also work to reduce Scope 3 greenhouse gas emissions for the purpose of decreasing emissions throughout the supply chain.

Toray Group believes that achieving carbon neutrality will require transformations based on new concepts together with leaps in technological innovation, and that

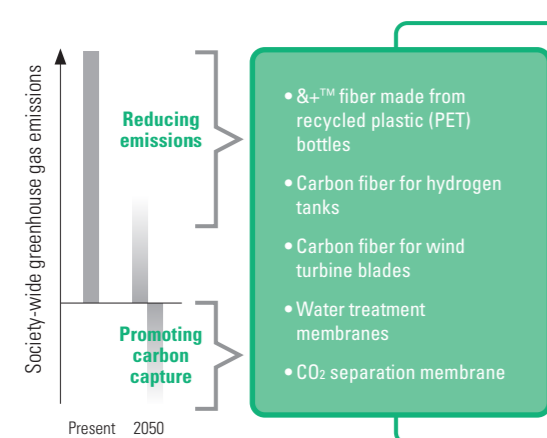
doing so will rely on initiatives undertaken by individual companies, as well as through joint efforts involving entire industries, nations, and society as a whole. The Group therefore engages in measure and policy proposals intended to achieve carbon neutrality in collaboration with economic organizations, industry associations, and initiatives.

Major organizations and their committees and subcommittees (examples) in which the Group holds membership

- Nippon Keidanren (Japan Business Federation): Subcommittee on Global Environment, Committee on Environment
- Japan Association of Corporate Executives: Environment and Energy Committee
- Japan Chemical Industry Association: Technical Affairs Committee
- Japan Chemical Fibers Association
- Japan Environmental Management Association for Industry
- GX League

Contributing to a carbon neutral world

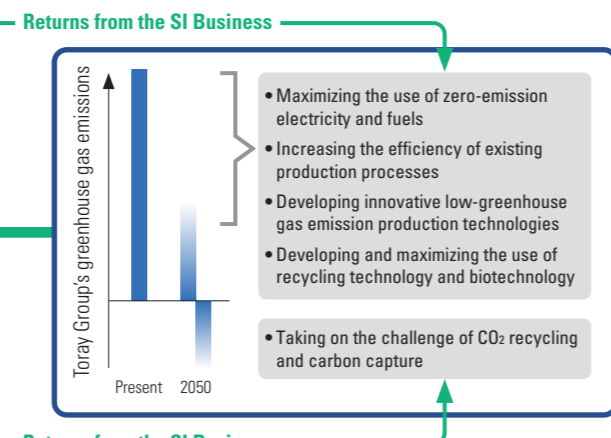
Increasing the Volume of Greenhouse Gas Emissions Avoided through the Sustainability Innovation (SI) Business



(Corresponding KPIs)	FY 2030 Target [Compared to FY 2013]
Supply of Sustainability Innovation products	4.5-fold
CO ₂ emissions avoided in value chain	25-fold

Achieving carbon neutrality for the Toray Group by 2050

Adopting greenhouse gas emissions reduction technology in business activities



(Corresponding KPIs)	FY 2030 Target [Compared to FY 2013]
GHG emissions in production activities	GHG emissions per unit of revenue for the entire Toray Group Over 50% reduction
	GHG emissions of Toray Group in Japan Over 40% reduction

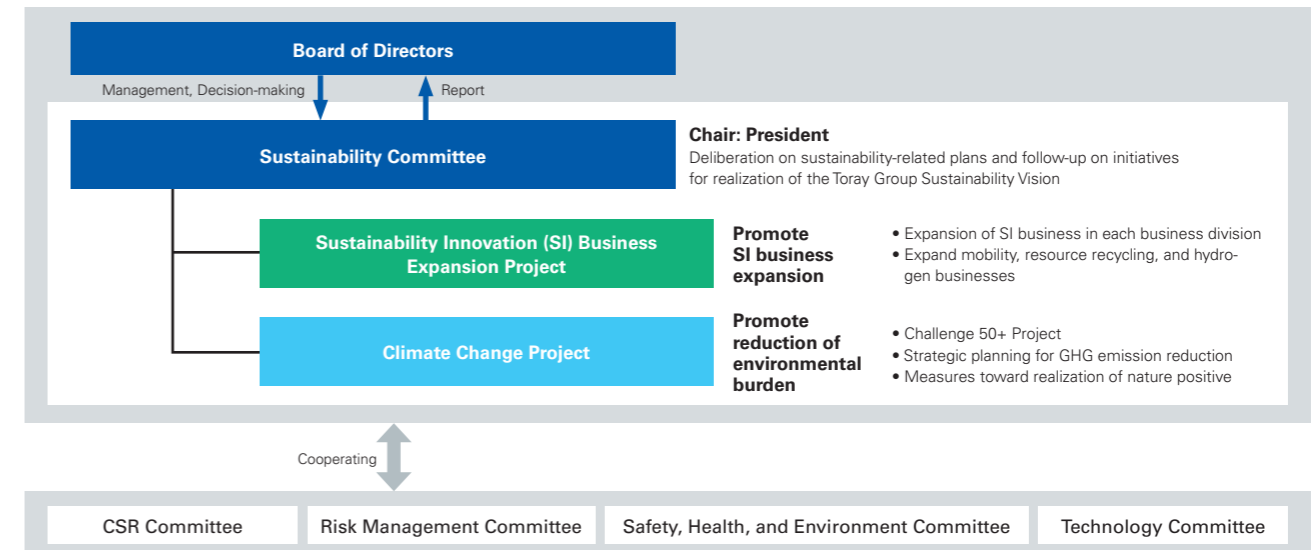
TCFD Initiatives

Governance System Related to Climate Change

Toray Group has positioned the Sustainability Committee chaired by the President as the body in charge of overseeing efforts to combat climate change. The Committee defines policies, medium- and long-term roadmaps, and targets for achieving the Toray Sustainability Vision, including carbon neutrality in 2050, and manages the progress of these efforts.

At least once a year, the Board of Directors receives a report

summarizing the matters discussed by each group-wide committee, including the Sustainability Committee, and appropriately monitors the measures to counter climate change. When making management decisions, the Board considers climate change-related issues as an important element for engaging in oversight and comprehensive decision-making.



Risk Management

As part of its periodic risk identification and assessment efforts, the Risk Management Committee considers climate change-related risks to be one of relatively high importance. The Committee therefore conducts detailed risk analyses and assessments based on the TCFD framework under the supervision and management of the Sustainability Committee as

the body with sole responsibility for climate change-related issues. Based on the results of its assessments, the Risk Management Committee reconsiders risks and promotes measures to address climate change-related risks in a group-wide yet agile manner.

Strategy

Toray Group has identified climate change-related risks and opportunities, and performed quantitative scenario analyses to grasp their financial impacts based on the qualitative scenario analyses regarding the potential influence of each on the Group from the Toray Group TCFD Report 2021. After the analysis was conducted, Toray Group reconfirmed the resilience of the long-term strategy (outlined in the Long-Term Corporate Vision, TORAY VISION 2030) that will drive its achievement of the Toray Group Sustainability Vision.

The Paris Agreement target is to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. Looking to help achieve this target and achieve carbon neutrality in 2050, Toray Group primarily analyzed the 1.5°C increase scenario, but also considered the 2°C increase

scenario. The Group also looked at the 4°C increase scenario assuming insufficient progress on efforts to ameliorate global climate change.

Based on these scenario analyses, Toray Group is bolstering the Sustainability Innovation (SI) Business, which contributes to the achievement of the Toray Group Sustainability Vision. Similarly, the Group promotes the production of green hydrogen, its use in industrial and transportation applications, and the development of products that help utilize CO₂, thereby contributing to the reduction of greenhouse gas emissions in working to achieve carbon neutrality for society as a whole. Moreover, the Group seeks to reduce its greenhouse gas emissions and aims to achieve carbon neutrality through the development and introduction of sustainable

Initiatives for Global Environmental Issues

energy and raw materials returned through the expansion of the SI Business, as well as through innovative processes and technologies that use CO₂.

In addition, Toray Group aims to achieve a circular economy by recycling plastic products and switching to bio-based materials, as well as through the use of Toray technologies that support a circular economy, in areas such as water treatment, hydrogen, and renewable energy-sourced electric

power. Specifically, the Group will promote material recycling for reusing plastic products and chemical recycling for converting these back into their basic chemicals. And it will promote technological developments that use bio-ethylene glycol (EG) derived from non-edible sugar cane molasses. Moreover, the Group is engaged in the development of CO₂ separation membranes as a key technology for separating and recovering CO₂ for use.

Main Opportunities/Risks and Responses Related to Climate Change (excerpt)

Social Change	Main Opportunities / Risks	Main Response by Toray Group	Magnitude of Opportunity			
			1.5°C	2°C	4°C	
Increase in ratio of renewable energy	Opportunities	<ul style="list-style-type: none"> Growth of renewable energy-related business Growth of storage battery-related business 	Carbon fiber for wind turbine blades	L	↘	↘
	Risks	<ul style="list-style-type: none"> Soaring energy costs Delay in energy conversion to secure suppliers 	Energy conservation efforts	¥60.0 billion (Cost)	↘	↘
Establishment and raising of carbon taxes and GHG emissions reduction targets	Opportunities	<ul style="list-style-type: none"> Growth of energy conservation-related business 	<ul style="list-style-type: none"> Lightweight materials (carbon fiber, resin) Insulating and heat shielding products (insulation, heat shielding fibers, films, etc.) Functional garments (cooling materials) 	L	→	→
	Risks	<ul style="list-style-type: none"> Increased procurement costs of fossil resource-derived raw materials and fuels Criticism for fossil resource use Loss of competitiveness due to carbon tax disparity Decrease in existing users due to changes in the supply chain 	GHG emission reduction	¥85.0 billion (Cost)	↘	↘
Change in social systems for realization of hydrogen society	Opportunities	<ul style="list-style-type: none"> Growth of business related to hydrogen manufacturing, transport, storage, and use 	<ul style="list-style-type: none"> Gas separation membrane (porous carbon fiber) High-strength carbon fiber for hydrogen tanks Components and materials used in fuel cells 	L	↘	↘
	Risks	<ul style="list-style-type: none"> Decline in material prices due to increased competition Securing suppliers due to delay in conversion to hydrogen 	Strengthening competitiveness	L	↘	↘
Electrification of mobility	Opportunities	<ul style="list-style-type: none"> Growth of materials business for electric mobility 	<ul style="list-style-type: none"> Lightweight materials (carbon fiber, resin) Battery materials Materials for motors and hydrogen tanks 	L	↘	↘
	Risks	<ul style="list-style-type: none"> Decrease in demand for products related to internal combustion engines Decline in material prices due to increased competition 	<ul style="list-style-type: none"> Responding to demand for electrification Strengthening competitiveness 	¥230.0 billion (Revenue)	↘	↘
Adoption of CCUS	Opportunities	<ul style="list-style-type: none"> Growth of businesses related to CO₂ separation and recovery 	Gas separation membrane (porous carbon fiber)	M	↘	S
	Risks	<ul style="list-style-type: none"> Thermal power generation electricity cost increase 	Energy conservation efforts	L	M	S
Changes to the economic system toward the realization of a circular society	Opportunities	<ul style="list-style-type: none"> Growth of biomaterials business Growth of recycled materials business Growth of businesses contributing to waste reduction (emissions reduction, durability) 	<ul style="list-style-type: none"> Biopolymers Membrane bioprocess, biodegradable materials Recycled materials (Ecouse™, &+™, etc.) High-performance packaging materials VOC free waterless printing system for flexible packaging 	L	↘	↘
	Risks	<ul style="list-style-type: none"> Increased waste disposal costs Shrinking materials market due to the shift away from mass production and mass consumption Opportunity loss due to delay in responding to a recycling-oriented society 	<ul style="list-style-type: none"> Strengthen waste management and promote recycling Responding to demand for bio-based materials and recycling, etc. 	L	↘	↘

*1 Excerpt from Toray Group TCFD Report VER.2 (Japanese version) <https://www.toray.co.jp/sustainability/tcdf/>

*2 Items that are difficult to estimate quantitatively with a certain degree of accuracy are classified into the following three levels (large, medium and small) according to the magnitude of their impact on sales revenue or business profit.

Large (L): Sales revenue of 50 billion yen or more or business profit of 5 billion yen or more
 Medium (M): Sales revenue of 10 billion yen or more but less than 50 billion yen, or business profit of 1 billion yen or more but less than 5 billion yen
 Small (S): Sales revenue less than 10 billion yen or business profit less than 1 billion yen

The impact on revenue was analyzed for the sales aspect, and the impact on business profit was analyzed for the cost aspect. In cases where the same size classification for each climate scenario was considered to have varying degrees of impact within that classification, a gradient was used, with darker colors used for those deemed to have a greater impact. The gradient represents changes within the same category of "social change" and does not represent differences in the magnitude of impact between different categories.

KPIs and Targets

Toray Group has set forth its quantitative targets for FY 2030 in the Toray Group Sustainability Vision. In addition, as the milestone for the Vision, it has disclosed the results for FY

2022, as well as targets for FY 2025 as the interim target in the Medium-Term Management Program, Project AP-G 2025 (See P.23 and P.27).

Status of Environmental Management Initiatives

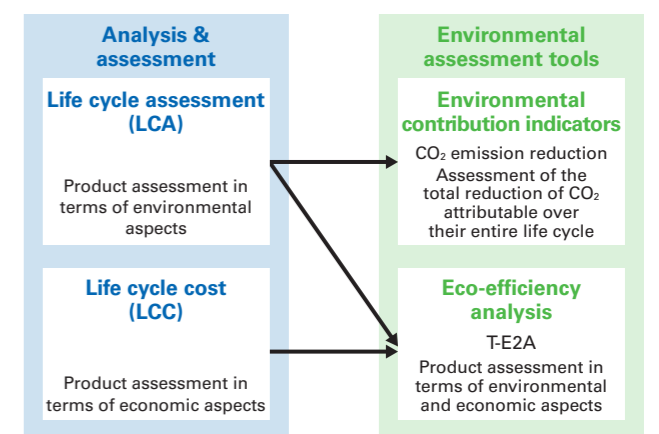
Promoting Life Cycle Management

In addressing global environmental issues, it is vital to consider the entire life cycle of products and services to reduce environmental impact while also delivering improved economic and social value. In this respect, Toray Group practices life cycle management (LCM).

LCM is the basis for Sustainability Innovation (SI) products, and the Group has adopted life cycle assessment*¹ and the Toray Eco-Efficiency Analysis (T-E2A)*² tool and is working to establish LCM as a tool to measure CO₂ reduction in the entire life cycle of products and services. Products are certified as SI products through a two-stage screening process by the divisional committees and the Sustainability Innovation Certification Committee (provisional name) as the successor to the Green Innovation Certification Committee. Only those products determined to be effective solutions for global environmental issues through this process as based on objective evidence are certified.

*1 Life cycle assessment (LCA) is a method for quantitatively assessing the resources that have gone into a product and the impact the product will have on the environment and ecosystems over its life cycle.

Toray's Life Cycle Management Approach



*2 T-E2A is an environmental analysis tool developed by Toray Industries, Inc. It produces a map of multiple products plotted along the axes of environmental impact and economic performance, enabling users to select the most environmentally friendly and economical products.

Environmental Accounting

Toray has been practicing environmental accounting since 1999, to track investments and gauge their cost effectiveness. The value of environmental facility investments in FY 2022

amounted to ¥1.49 billion, a decline of ¥330 million over the previous fiscal year, while environmental preservation costs amounted to ¥9.26 billion, an increase of ¥2.51 billion.

Greenhouse Gas Emission Reduction Initiatives

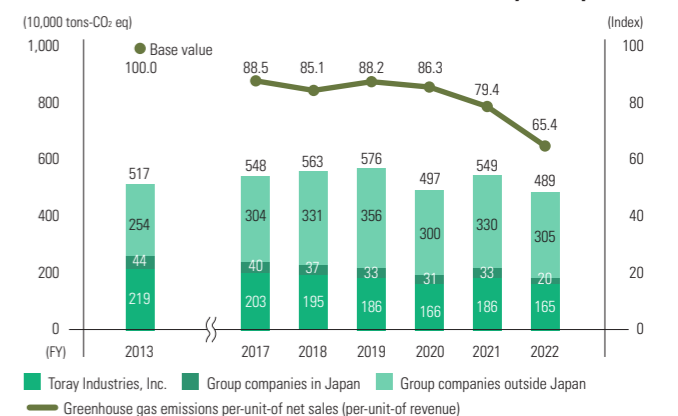
As its greenhouse gas emissions reduction target for CSR Roadmap 2022, Toray Group presented the goal of reducing greenhouse gas emissions per unit of revenue by 20%*¹ compared with FY 2013 levels for the entire Toray Group on a continuous basis through FY 2022, and implemented systematic reduction measures.

Greenhouse gas emissions for the entire Toray Group during FY 2022 decreased 10.9% over the previous fiscal year to 4.89 million tons-CO₂.

Toray Group minimized greenhouse gas emissions per unit of revenue by increasing group-wide revenue and by implementing initiatives intended to reduce greenhouse gas emissions (promotion of energy savings through process improvements, use of renewable energy, reduction of coal use at overseas plants, etc.), and thereby decreased emissions 34.6%*² compared with FY 2013 levels.

In FY 2022, Toray and its group companies in Japan reduced greenhouse gas emissions 16.1% over the previous fiscal year by bolstering the efficiency of energy consumption and by reducing waste and loss. Greenhouse gas emissions per unit of revenue improved 9.2% over the previous fiscal year thanks to higher revenue and initiatives to reduce greenhouse gas emissions. These efforts resulted in a 33.2% decline compared with FY 2013.

Greenhouse Gas Emissions and Greenhouse Gas Emissions Per-Unit-of Net Sales (Per-Unit-of Revenue) (Toray Group)*³



*1 For Scope 1 and 2

*2 Until FY 2022, this was calculated by multiplying the GHG emissions and revenue of individual subsidiaries worldwide by the applicable Toray Industries' equity share. Starting in FY 2023 however, the calculation method will change, and the degree of financial control Toray Industries has over the individual subsidiary (not the equity share) will be used, in accordance with the GHG Protocol, the international standard.

*3 Until FY 2019, emissions per unit of sales were used due to the adoption of Japanese accounting standards. Since FY 2020, however, emissions per unit of revenue have been used due to the adoption of International Financial Reporting Standards (IFRS). Moreover, values for FY 2013 as the baseline year are calculated by including emissions and revenues from companies that joined Toray Group during or after FY 2014.

Installing Renewable Energy Systems

Toray Group is systematically installing renewable energy systems. The Group installed a solar power generation system at Toray Plastics Precision (Zhongshan) Ltd., in FY 2020, as well

as at Seta Plant 3 and Toray Precision Co., Ltd., in FY 2021, and respectively started operation. In addition, Tokai Plant began co-combusting sludge fuel as boiler fuel from FY 2017.

In addition, the Group also switched all power consumed by Toray's headquarters to 100% renewable energy starting in

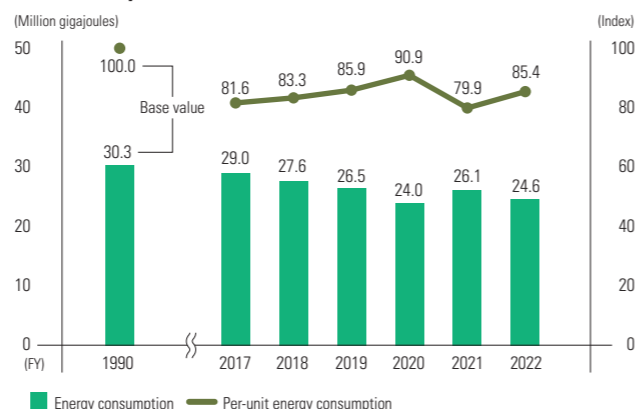
April 2022. This move has reduced greenhouse gas emissions by an estimated 1,500 tons-CO₂ annually on a global basis.

Energy Conservation Measures

Toray is vigorously working on energy conservation activities with the goal of reducing its per-unit energy consumption*¹ by 2% annually. Although energy consumption declined 5.9% in FY 2022 as a result of promoting greater energy consumption efficiency and reducing waste and loss, per-unit energy consumption worsened 6.9% due to a decline of 12.0% in production volumes. Meanwhile, compared with FY 1990, the baseline year for reductions in per-unit energy consumption, this is an improvement of 14.6%.

Toray Group organizes energy conservation teams to help carry out annual energy conservation diagnostics at plants in Toray and its group companies around the world. In FY 2022, the Group conducted these activities at five of Toray's plants, three group company plants in Japan, and four group company plants around the world. The energy savings thereof effectively reduced greenhouse gas emissions by more than approximately 10,000 tons-CO₂ per year.

Energy Consumption and Per-unit Energy Consumption Index (Toray Industries, Inc.)^{*2}



*¹ Energy consumption per converted production volume
 *² The energy consumption shown in this graph does not include renewable energy.

Biodiversity Initiatives

Next to the issue of climate change, the issue of biodiversity preservation has been a major focus of the international community in recent years. Biodiversity forms the basis of natural capital such as water, air, plants, animals, and minerals that are indispensable to human society. Climate change caused by human activities, depletion of natural resources, ecosystem destruction, and species extinction are causing biodiversity loss to occur at an alarming rate, making it a serious problem facing humankind. This has sparked an international discussion about the importance of taking a nature positive approach to stopping and reversing biodiversity loss.

Toray Group views conservation of biodiversity as a critical global environmental issue which is as just important as reducing greenhouse gas emissions. Toray is contributing to the biodiversity conservation and nature positive approach through its business activities. This includes water treatment technology

to produce reliably safe drinking water, water conservation through the reuse of treated wastewater, and air purification using filter-related materials.

The Group also uses environmental assessment checklists to conduct safety reviews for all products and to carry out environmental risk investigations before making capital investment. The checklists enable the Group to ensure that it is not exceeding legal limits on regulated substances contained in exhaust gas, wastewater, and waste from manufacturing. When assessing new land use, the checklists cover items related to biodiversity, including regulations at production bases, the necessity for surveys on rare species, and any requests from citizen groups, among other considerations. Through these efforts, Toray strives to assess its impact on biodiversity and help build a sustainable world.

Newly establishing the Environmental Solutions Department within the Corporate Marketing Planning Division



Yuriko Teshigawara
 General Manager,
 Environmental Solutions
 Department

Under the Toray Group Sustainability Vision, Toray Group is engaged in group-wide initiatives geared toward combating climate change and promoting a circular economy. In June 2022, the Group established the Environmental Solutions Department within the Corporate Marketing Planning Division to serve as the headquarters for using the strengths of the Group's businesses to their fullest through an approach to marketing and supply chain management that cuts across its businesses. In working toward the realization of a circular economy, the Group must tackle issues in its Fibers & Textiles, Resins, Films, and other business divisions, while at the same time charting the optimization of group-wide policies for polyester, nylon, and other polymers on an individual basis. The primary mission of the Environmental Solutions Department is to build a value chain that straddles each department regarding issues involved in securing resources for recycling, developing technologies, and commercialization, and to realize systems that connect the value chain to revenue and profits. At the same time, the Group launched the Circular Economy Subcommittee led by the Executive Vice President in charge of Marketing & Sales to debate policies involving Toray initiatives for a circular economy. The subcommittee has been working to achieve the targets raised by the Group for 2030, namely a revenue target of ¥400 billion for products that facilitate sustainable, recycling-based use of resources and production, and a target of 20% for the percentage of raw materials sourced from recycling used in Toray core polymers*¹.

*¹ The ratio of PET and nylon polymer raw materials sourced from recycling, derived from biomass, or produced with CO₂ recycling.

IR Seminar

Toray Group's Initiatives Toward Realization of a Hydrogen Society

The Group held an IR Seminar titled "Toray Group's Initiatives Toward Realization of a Hydrogen Society" on September 5th, 2023. In this event, these three speakers gave presentations: Satoru Hagiwara, Executive Vice President and Representative Member of the Board, Keisuke Ishii, General Manager, Torayca Division, and Kozo Takahashi, General Manager, HS Division.

Hydrogen Is the Key to Fulfilling Carbon Neutrality

In 2050, in the world that has achieved carbon neutrality, the primary energy source will have completely shifted from fossil fuels to wind, solar, and other forms of renewable energy. Moreover, hydrogen will have come to play an important role as a source of clean power, a carrier of clean power, and as a form of secondary energy.

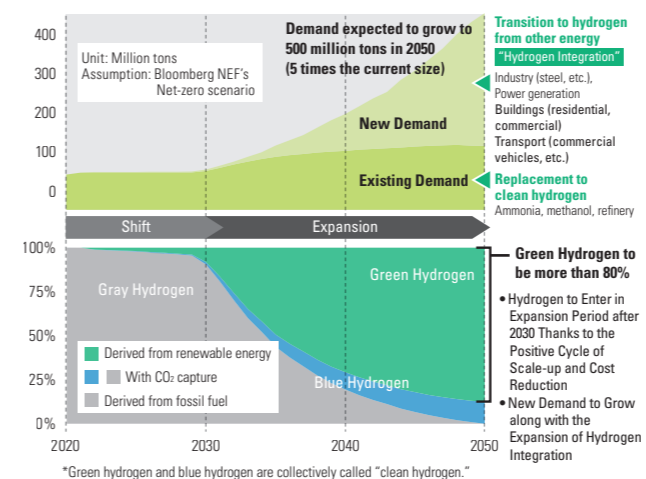
Satoru Hagiwara

Executive Vice President and Representative Member of the Board, CTO



Already, the trend toward real-world implementation of clean hydrogen is spreading among countries across the globe, with the number of related projects exceeding 1,000 and amounting to a total investment of ¥45 trillion. Over the coming decade, real-world usage will progress centered on green hydrogen, which is produced by water electrolysis using renewable energy, where replacement of existing demand for ammonia and other raw materials will begin. Following on this, new demand will emerge as each sector begins to convert to hydrogen use, after which up-scaling and cost reductions are expected to progress. The hydrogen society will then enter a period of rapid expansion, driving the hydrogen market to a scale of 500 million tons per year in 2050, five times of its size today. Green hydrogen is expected to account for 80% of the total.

Hydrogen Long-term Demand Forecast (upper) and Transition to Clean Hydrogen (lower)

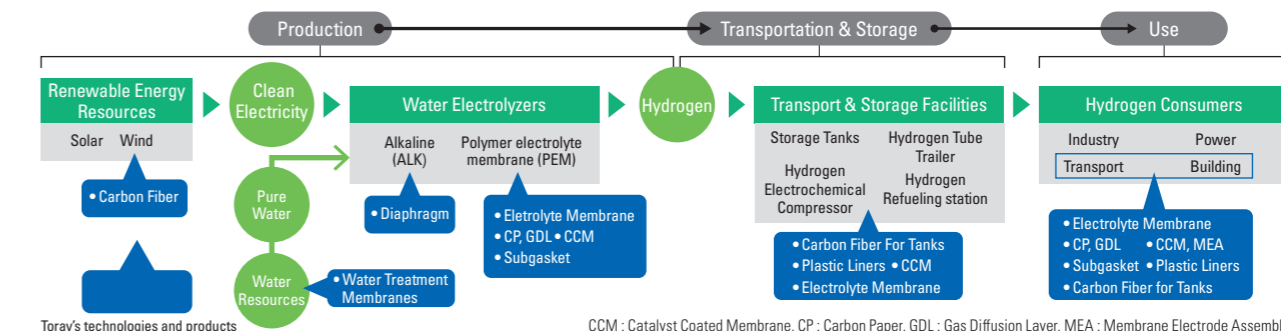


Developing and Manufacturing a Wide Range of Core Materials Used throughout the Hydrogen Supply Chain

The feature of Toray's hydrogen-related businesses is the range of products it offers across the entire supply chain, from production to transportation, storage, and use. For example, Toray's carbon fibers are required for the wind power used to generate green electricity employed to produce hydrogen, while its water treatment membranes are used to produce water that serves as the raw material. The water electrolyzers, which are expected to expand in the future, include alkaline (ALK) and polymer electrolyte membrane (PEM) types. Toray is working to apply its core materials such as diaphragms, polymer electrolyte membranes, catalyst coated membranes (CCM), electrodes, subgasket films for these electrolyzers. In

regard to hydrogen transportation and storage, Toray provides carbon fibers and plastic liners of which high-pressure tanks are made, while in terms of use it delivers the core materials that are similar to those used in fuel cells.

The primary driver for expansion of green hydrogen is realization of parity pricing (pricing that can compete with existing fuels). As part of its efforts to realize a hydrogen society, Toray therefore provides advanced materials as solutions that facilitate the answers to the challenge of increasing the availability of lower cost clean hydrogen to a wide range of customers throughout the supply chain.



IR Seminar

Toray Group's Initiatives Toward Realization of a Hydrogen Society

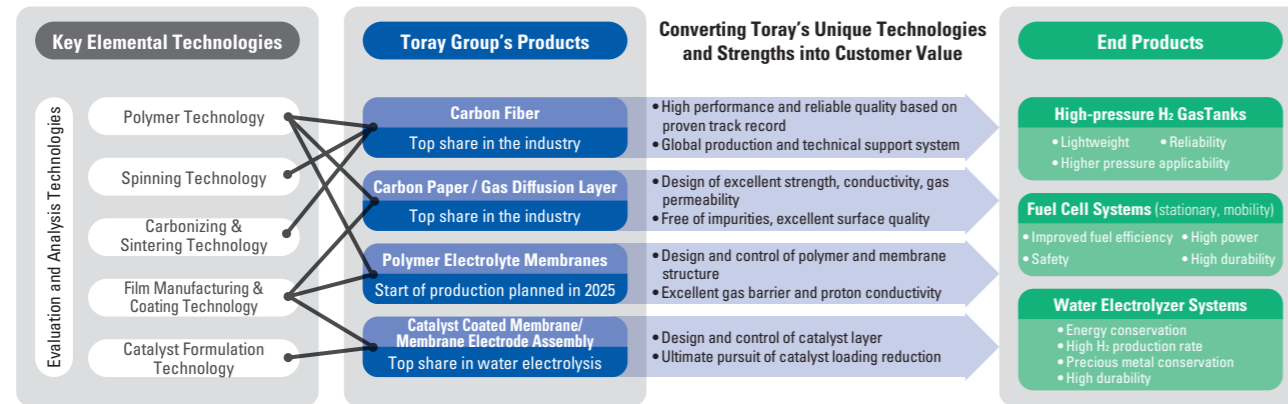
Converting Toray's Proprietary Technologies and Strengths into Customer Value

Toray develops the core materials that will support a hydrogen society by leveraging its key polymer and processing technologies, thereby providing these materials with an advantage in terms of its high quality compared with its competitors. Moreover, Toray holds a leading industry share for carbon fibers used in gas tanks; carbon paper (CP), gas diffusion layer (GDL), and other electrode materials used in fuel cell and water electrolysis systems; and catalyst coated membranes (CCM) / membrane electrode assembly (MEA). In addition, in 2025 the Group plans to begin mass-production of hydrocarbon (HC) electrolyte membranes, which are positioned to become a major new product.

With over 60 years of history, Toray carbon fibers were first used for natural gas as applications spread to the high-pressure

tank field, and will continue deploying into new areas with the expansion of the hydrogen market. In the field of fuel cells, the Group developed CP electrode materials for passenger vehicles, and is now working with a focus on expanding the business for heavy duty vehicles that will depend on fuel cells for decarbonization. HC electrolyte membranes have a history of 20 years, while the CCM/MEA offered by Greenerity, Toray's subsidiary in Germany, have a history of 30 years.

Leveraging these proprietary technologies and strengths accumulated over the years, Toray Group will enable lighter weights, higher pressure, greater reliability, better efficiency, improved performance, superior durability, and other forms of value for the hydrogen supply chain, which are ultimately delivered to its customers.



Promoting R&D of Innovative Technologies that Contribute to Carbon Recycling

A carbon neutral world will also need to realize carbon recycling, whereby carbon is recovered and converted into valuables (ammonia, methane, methanol, synthetic fuel, polymers, etc.) for use in combination with clean hydrogen. This will require separating various mixed gases into their individual components, for which Toray proposes innovative separation membranes. One of these is hydrogen separation membranes. The Group has demonstrated the highest level

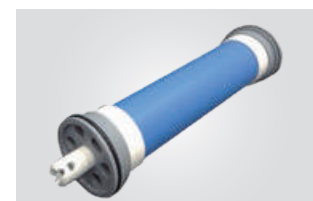
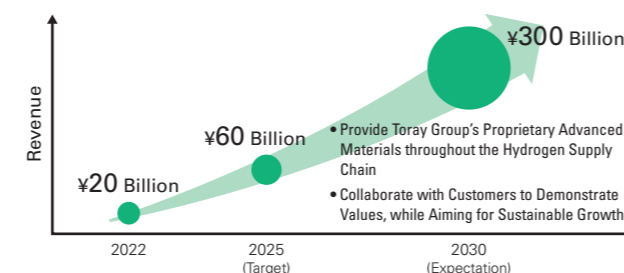
of hydrogen purity in the world by leveraging its water treatment RO membrane technology for use in this area. Another is CO₂ separation membranes, for which the Group has demonstrated basic performance in terms of heat resistance and efficiency, for example, and for which it is advancing to the field demonstration stage. Moreover, the Group is investigating a hydrogen-oxidizing bacterium-based bioprocess as a technology to convert the series of raw gases into valuables.

Aiming to Achieve Sales of ¥300 Billion in FY 2030

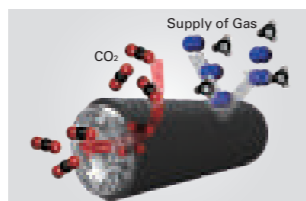
Sales for Toray Group's hydrogen-related businesses in FY 2022 amounted to around ¥20 billion. During FY 2025, the final year of Medium-Term Management Program, Project AP-G 2025, the Group is targeting sales of up to ¥60 billion, with carbon fibers for hydrogen tanks, electrode materials, and CCM/MEA as the primary growth drivers. Together with HC

electrolyte membranes, further growth in these businesses will serve as a driver in the Group's efforts to steadily capture the growth of the hydrogen society with the aim of achieving ¥300 billion sales in FY 2030.

Challenge for Expansion of Hydrogen-related Businesses



High-Efficient Hydrogen Separation Membrane



All-Carbon CO₂ Separation Membrane

Initiatives of Torayca & Advanced Composites Division

Anticipating Dramatic Growth in Demand for High-pressure Gas Tanks and Gas Diffusion Layer (GDL) for Fuel Cells

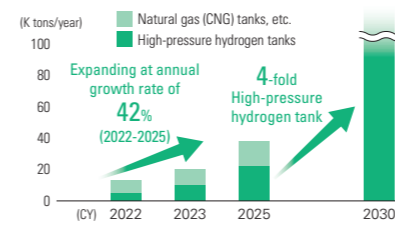
Toray's carbon paper (CP) is used as porous transport layers (PTLs) for the water electrolyzers that produce hydrogen, while high-pressure gas tanks reinforced with carbon fiber are used for hydrogen refueling stations, hydrogen transport trailers, and fuel cell vehicles. Moreover, CP and the gas diffusion layer (GDL) made from CP play an important role as electrode substrate for fuel cells.

In particular, fuel cell vehicles are considered to be advantageous for large trucks and other

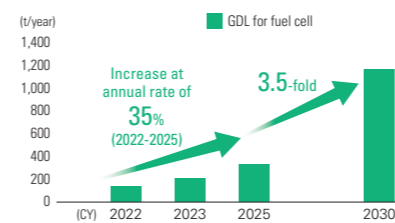


Keisuke Ishii
General Manager,
Torayca Division

Carbon Fiber Demand Outlook



Demand Outlook for CP/GDL



commercial vehicles that travel long distances because they offer better payloads and range than battery EVs. Likewise, the Group anticipates significant growth in demand for carbon fibers used in high-pressure hydrogen gas tanks starting in 2026. Specifically, the demand for carbon fibers for high-pressure gas tank applications, including those used for natural gas, is expected to expand at an annual growth rate of 42% until 2025, whereas the demand for these in 2030, when hydrogen gas tank applications will fully take-off, is expected to quadruple that of 2025.

Moreover, the demand for CP and GDL used in polymer electrolyte membrane (PEM) type water electrolyzers and fuel cells is also growing. This area is expected to expand rapidly, with demand in 2030 increasing 3.5-fold compared with 2025. Boasting a leading share of the industry, Toray's GDL has superior features compared with those of competing manufacturers, in terms of gas permeability, water transportation characteristics, high conductivity, high strength, and high surface quality. Thereby it contributes to the higher output, longer life, and improved safety of fuel cell vehicles.

Initiatives of HS Division

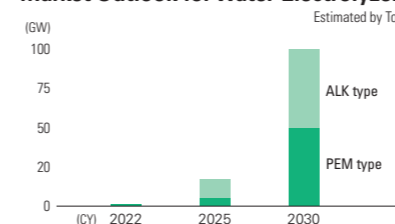
Working to Capture the Growth of the Hydrogen Society through Hydrocarbon (HC) Electrolyte Membranes

The HS Division offers the core components that are shared by water electrolyzers, hydrogen compressors, and fuel cells, namely electrolyte membranes, catalyst coated membranes (CCMs), and membrane electrode assemblies (MEAs) made by laminating a gas diffusion layer onto a CCM. Moreover, it is responsible for Greenerity (Germany) and Yamanashi Hydrogen Company (YHC). Along with establishing the basic concept of hydrocarbon (HC) electrolyte membranes

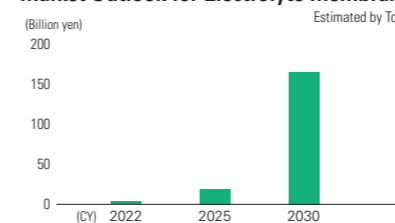


Koza Takahashi
General Manager,
HS Division

Market Outlook for Water Electrolyzer



Market Outlook for Electrolyte Membrane



at its laboratories, Toray acquired Greenerity and has since incorporated its CCM/MEA production technologies. Later on, it demonstrated this technology as part of a national project, entered a partnership with Siemens Energy, and established the HS Division as a new profit center in June 2022.

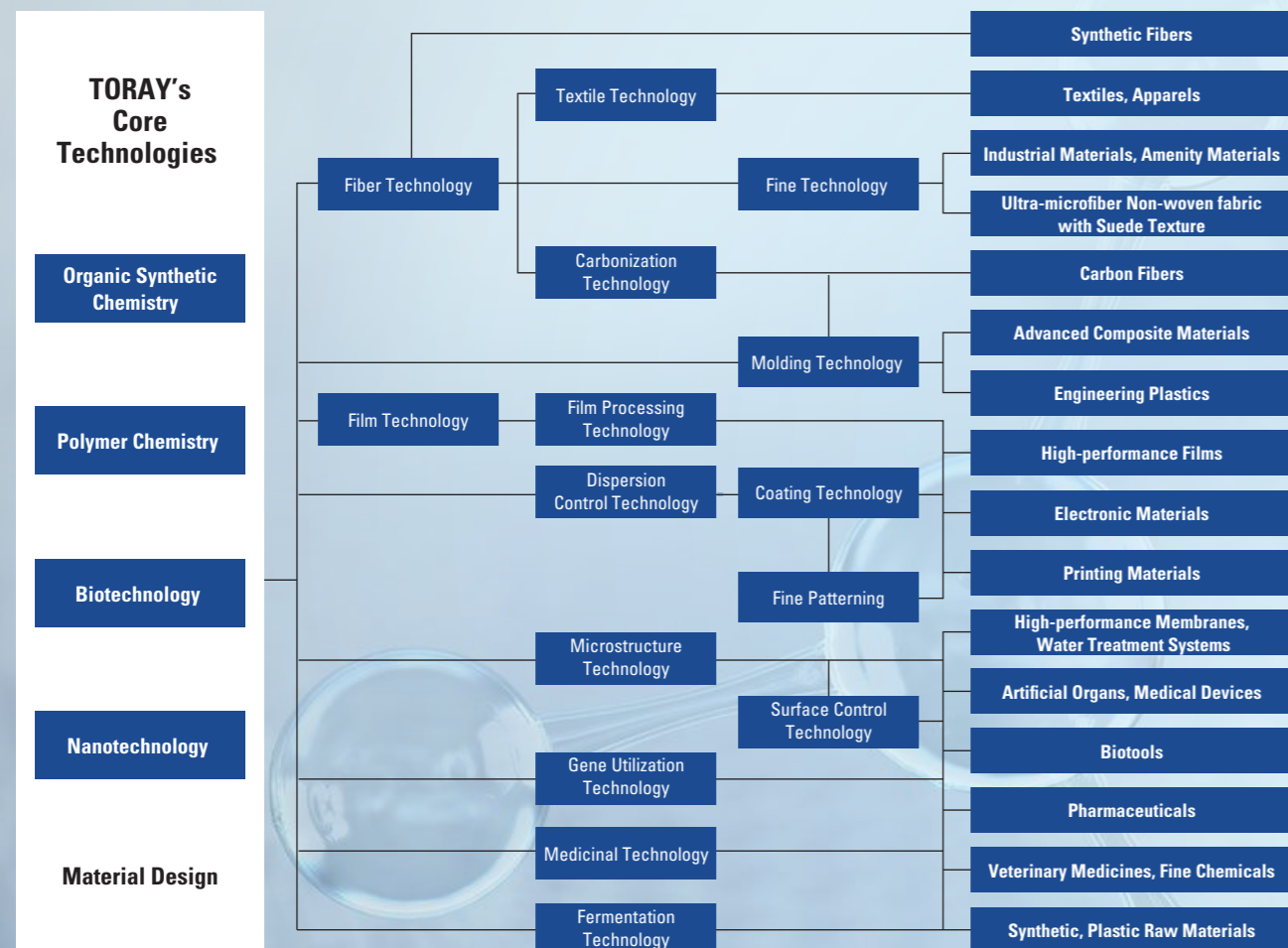
Leveraging proprietary polymer design, precision polymerization, and nano-level structure control technologies, Toray conceived of HC electrolyte membranes, which contribute to significant performance improvements for PEM-type water electrolyzers with superior adaptability to renewable energy power sources. As the use of renewable energy progresses in the future, the ratio of PEM-type electrolyzers using HC electrolyte membranes will rise compared to existing alkaline-type water electrolyzers, and are therefore expected to account for 50% of the market by around 2030. The electrolyte membrane market will also grow significantly along with the increase, and is expected to reach a market scale of around ¥160 billion annually in 2030, of which the Group intends to capture a major portion using Toray's proprietary HC electrolyte membranes.

R&D

Toray's corporate slogan, "Innovation by Chemistry," represents our pursuit of technological innovation in the core area of chemistry and our aim of being a global leading corporation in advanced materials. We plan to continue bolstering the Group's combined strengths and creating innovative advanced materials well into the future.

Toray's Technical Fields

Toray Group's core technologies are "organic synthetic chemistry," "polymer chemistry," "biotechnology" and "nanotechnology." Based on these, we are working toward greater depth and fusion of fundamental technologies such as polymerization, fiber spinning, textile processing, film processing, and organic synthesis, while expanding our operations from fibers and textiles to films, chemicals, and resins. We are also creating advanced materials and developing businesses in the fields of electronics & information materials, carbon fiber composite materials, pharmaceuticals, medical devices, and water treatment.



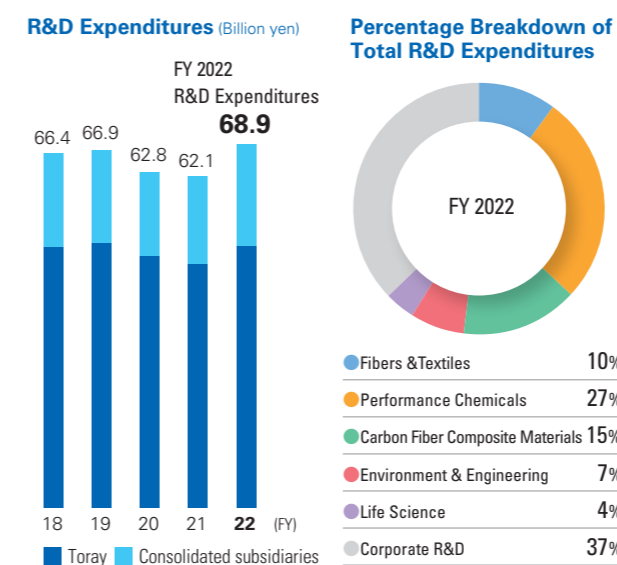
Won The Chemical Society of Japan Award for Technical Development for 2022 for development of advanced, highly functional textiles by precise control of fiber cross-section morphology at the nano-level

Toray received the The Chemical Society of Japan Award for Technical Development for 2022 for the development of highly functional textiles by precise control of fiber cross-sections. This was the second straight year for Toray to receive recognition for its advances in nanotechnology.

The award recognizes the creation of NANODESIGN™, an innovative conjugate spinning technology that employs a new technology to freely and precisely control the cross-sectional shape of composite fibers, and the successful commercialization of advanced fibers leveraging NANODESIGN™. Specifically, Toray has leveraged NANODESIGN™ to make it possible to develop fibers and textiles for comfortable clothing that combine natural texture with the functionality of synthetic fibers. Conventional fibers cannot match these capabilities. These advances include Kinari™, a fabric that realized the multiple characteristics of natural silk. Another is Camifu™, a new textile material that combines excellent water absorption and quick-drying performance with a natural feel. There is also Qticle™, a stretch fabric with outstanding colorability.



Research and Technological Development Provide the Key to Building the Toray of Tomorrow



R&D Basic Policy and Organization

Toray's Technology Center serves as the headquarters for driving research and technological development into advanced materials based on the firm conviction that research and technological development provide the key to building the Toray of tomorrow.

Developing and commercializing materials requires a certain amount of time. Thus, the strength of Toray Group's R&D lies in our ability to recognize the value of materials and our commitment to distant long-term continuity, as well as pipeline management from a long-term perspective not only for themes that generate profits today, but also for the ones in the near and distant future. Moreover, Toray R&D teams inherit the idea of "The Deeper, the Newer"—a concept that digging deep into something will result in new discoveries and inventions—the DNA of "pursuit of the ultimate limits." Based on a grand vision of the times and the needs of society, Toray aims to drive innovation that possesses social and economic value.

Toray Group has centralized all of its R&D functions into the Technology Center. Bringing specialists from many fields together in this undivided R&D organization makes it easier to create new innovations by integrating technologies. This also enables the Group to fully utilize its combined strength by actively exploiting techniques and knowledge from many fields to solve problems in a single field of business.

Establishing New Research Facility That Will Foster Sustainable Economic Progress Based on "Fusion of Green and Nano-based Technologies" Concept

Toray is setting up a new research facility at Nagoya Plant with the aim of accelerating R&D in response to green transformation (GX) and next-generation mobility. The Company will build a framework to promote integrated material development, process design, and customer proposals. The facility is scheduled for completion in FY 2026.

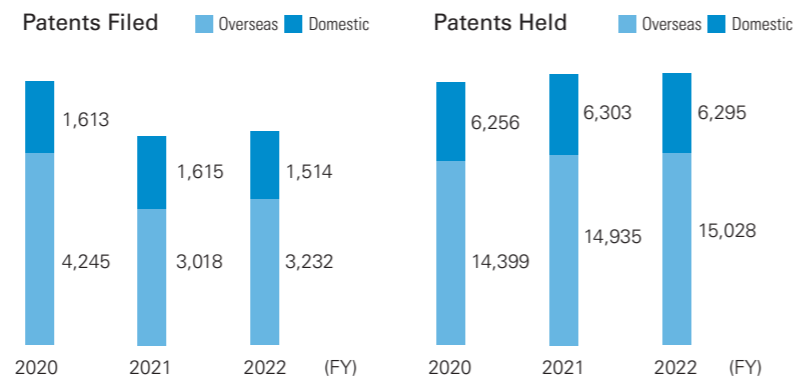
This facility will bring together polymer, chemicals, and carbon fiber composite materials researchers, as well as digital transformation professionals and developers with chemical engineering expertise. They will be driving advances in nanotechnology, such as incorporating materials informatics (MI) and computational chemistry in areas that will include polymer design, nanostructure control, and composite material design. The facility itself is being designed to integrate nanotechnology with green technologies, such as recycling and biorefining. At the same time, by working to reduce environmental impact from process perspectives, the facility will be bolstering materials development that will help achieve a sustainable society.

By locating the facility adjacent to the Environment and Mobility Development Center and the Advanced Composites Center, both of which engage in mobility-related development and evaluations, the Company is also expecting to generate synergies while promoting integrated R&D and digital solutions proposals. Toray will reinforce open innovation internally and externally by creating an open laboratory for cocreation with customers and academia while deploying a framework to deepen communication among researchers and encourage ideas to emerge.



Exterior of new research facility

Intellectual Property



Basic Policies on Intellectual Property

Toray Group has formulated and executes the following four intellectual property strategies as its basic policies on intellectual property.

1. Intellectual property strategies, as a part of the strategy trinity, that conform to management principles

Toray Group regards intellectual property as one of its vital management resources. We have linked our intellectual property strategies mutually and organically with our business and R&D strategies, and as a component of this “trinity,” we have positioned intellectual property strategies as one of the most important elements of our management strategies.

2. Promoting the procurement of rights

In order to protect Toray Group’s products and technologies and to ensure profits, we promote high-quality patent applications and patenting, and strive to build a strong patent network with deterrence capabilities. Regarding trademarks, we execute the acquisition of appropriate rights with an eye to improving brand value. The decline in the

number of patent applications filed during FY 2021 was due to the careful selection of filing countries in consideration of cost-effectiveness.

3. Respecting the rights of others

Toray operates a patent confirmation system to comprehensively investigate the relationship between its own products and technologies and patents owned by other companies to assure that there is no infringement upon the rights of other parties. We also check the relationship of our trademarks with those registered by other companies prior to use.

4. Rightful enforcement of our own rights

When Toray Group’s patent rights are infringed upon by another party, we take proper steps depending on the circumstances by exercising our patent rights, such as demanding that infringement cease, receiving monetary profits from licensing, and using our patent rights for cross-licensing with the patent rights of other parties.

Systems and initiatives for intellectual property strategy implementation

Toray Group implements intellectual property strategies in line with its basic policies through the following systems, initiatives, etc.

1. Patent responsibility structure and global patent strategy responsibility structure

Toray and its major group companies appoints patent managers for each product line and technology group and have established patent committees with the participation of members from the Intellectual Property Division, as well as research, R&D, and marketing and sales departments. Activities with regard to filing, patenting, defense, and exploitation of rights are promoted upon deliberation by the patent committees. In addition, the supervising executives in charge of technology and production in each business are appointed as global patent strategy chairperson to guide and supervise global intellectual property activities conducted by Toray and its Japanese and overseas group companies in each business.

2. Development and implementation of an Intellectual Property (IP) action plan

Under the guidance of global patent strategy chairperson, each business division formulates and carries out an “IP

action plan” concerning important matters on intellectual property. Themes that should be given particular emphasis are selected as “Rank-A Projects” and focused upon for promotion. The status of implementation of the IP action plan is reported once a year to the Board of Directors.

3. Building barriers to other companies’ entry by intellectual property

Toray and its major domestic and overseas subsidiaries and affiliated companies are strategically using patent application and patenting as well as concealment of know-how to build strong barriers to entry by other companies.

4. Patent confirmation system

When manufacturing or selling new products, we ensure that utilization, production, sale, etc. of our technologies and products do not infringe upon the patent or other rights of others.

5. IP landscape initiatives

In formulating IP strategies, we are taking action to explore ways to utilize our patents, and other initiatives, such as promoting the training of personnel (IP analysts, and others) who can exploit IP landscapes, developing research tools, and also analyzing the business environment and investigating new and relevant topics.

Assessing Toray’s intellectual property

1. Toray Takes Top Spot on Patent Result’s Ranking for Fiber, Paper and Pulp Industry

The “2022 Ranking of Capability to Prevent Other Companies from Obtaining Patent Rights,” published annually by Patent Result Co., Ltd., is an advanced patent application index that compiles the number of patents by a company that were cited as reasons for rejection of another company’s patent application in the course of the patent deliberation process, in any particular year. Toray was ranked No. 1 in the fiber, paper and pulp category for the eleventh consecutive year. As the same index benchmarks are used, if “fiber, paper and pulp,” and “chemicals” categories are treated as a single industry, Toray’s ranking becomes No. 4.

2. Ranked 16th on the “2022 Patent Asset Growth Ranking”

Toray ranked 16th on the “Patent Asset Growth Ranking,” a list created by Nikkei Business Magazine consisting of the top 40 Japanese companies ranked in accordance with the degree of growth in patents held by these companies over the past two years as of the end of December 12, 2022. This ranking adopts a calculation method that combines the number of held patents with the frequency of citations made in patents filed by other companies, for example, and therefore tends to reflect trends in innovation.

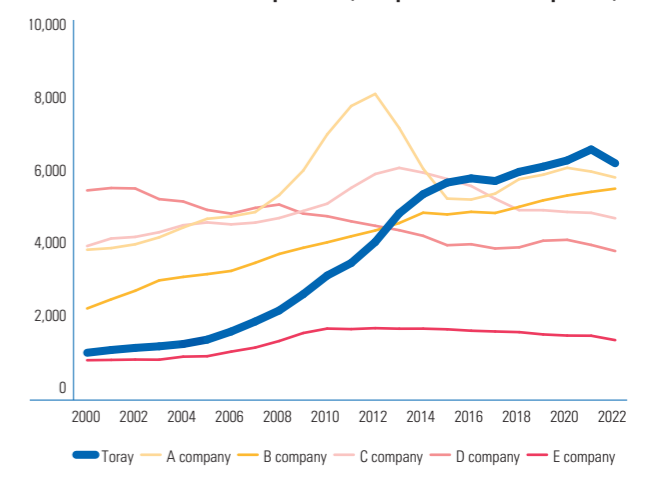
3. Patent Asset Index™ Assessments

LexisNexis’s PatentSight™ provides a Patent Asset Index™ (PAI) based on the technical and market value of patent families.

The following figure illustrates the changes in the PAI for six competing companies, including Toray Group, regarding patent families pertaining to the SDGs (Sustainable Development Goals). The SDGs are a set of international objectives consisting of 17 goals and 169 targets that aim to achieve a sustainable, better planet by 2030.

Toray Group has steadily increased the value of related patents that can contribute to the achievement of SDGs over the past 20 years, including years prior 2015 when the SDGs were first raised by the UN Summit. Since 2016, the Group has been in a superior position compared to its competitors.

PAI trend of SDGs-related patents (comparison of 6 companies)



*Prepared by the Company using the PatentSight Patent Asset Index™ of LexisNexis, Inc.

Toray intellectual property contributes solutions to global environmental issues

Separation Membrane Technology

Since the 1980s, Toray has continued to create innovative separation membrane technologies for artificial kidney, reverse osmosis (RO) membrane, and other similar applications, where the evolution and development in these technologies has shown further expansion. The figure to the right maps the standing of patents related to separation membrane technology held by Toray Group, and uses different colors corresponding to each technological field to indicate Toray’s many patents.

In the field of membrane bioprocesses, specifically, Toray advances research into bioprocesses that fuse membrane technologies and biotechnologies in order to produce inedible sugars and chemicals from inedible biomass at high-efficiency while consuming less energy. At the same time, Toray has been conducting demonstrations and commercialization investigations in Thailand regarding these technologies. Toray has acquired multiple related patents (red dots) in conjunction with this development, through which it will help to realize a society that does not rely on fossil resources.

Landscape map of patents related to separation membrane technology (each dot: Toray Group patents)



Advanced Business Management by Utilizing Digital Technologies

Promotion of Closely *Genba* (Workplace)-Linked DX

Having declared advancements in management through digital transformation (DX) to be a key initiative, Toray established the Toray Digital Transformation (TDX) Promotion Committee, which is chaired by the President, as a body to debate and discuss group-wide policies for promoting DX. After having put in place the subordinate Technology Center DX Promotion Committee and the Business DX Promotion Committee, the Company is advancing a group-wide TDX Promotion Project in addition to departmental initiatives.

In particular, we will promote utilization of data and digital technologies in a manner closely tied to the *Genba* (workplace) to successfully face a number of challenges, such as creating products and services that meet the needs of our customers and society, strengthening cost competitiveness, and increasing the sophistication of business management. Specifically, in addition to promoting DX themes in research and development, production, business, and management fields, we will develop a global data infrastructure and develop human resources fluent in digital technologies.

Toray Digital Transformation (TDX) Promotion Committee

Technology Center DX Promotion Committee

Drive advancement and streamlining by leveraging digital technology in research and technological development (R&D), and production

Business Division DX Promotion Committee

Contributing to visualizing global management information in sales & marketing, finance & accounting, purchasing & logistics, and advancing business management

Investing ¥20 Billion in DX Promotion

Under AP-G 2025, based on DX closely tied to the *Genba* (workplace), we will promote building of a global data infrastructure to utilize the data accumulated within Toray Group throughout the Group, integration of analysis and simulation technologies, collaboration with the value chain, and the development of more than 2,000 human resources fluent in digital technologies.

In building a global data infrastructure, we will centralize Toray Group's performance management data, including that from domestic and overseas affiliates, and improve Group governance through timely monitoring systems such as Business Intelligence (BI). By combining analysis and simulation technologies, we will work to reduce costs and improve quality through the visualization of production

activities and data analysis, and create new materials through simulation informatics. In collaboration with the value chain, we will work to improve the accuracy of production and sales plans and the optimization of inventory through real-time collaboration and management, while focusing on visualizing our carbon footprint. We will also accelerate the promotion of DX in all aspects, such as in strengthening digital marketing and in managing signs of problems by utilizing AI.

As far as human resources are concerned, we will expand and upgrade the DX human resource certification system and develop human resources who understand the workplace, know how to use digital technology as a tool, and who will take the lead in improving that workplace.

Investment related to digital technology: ¥20 billion

Building a global data infrastructure	Promoting accumulation, sharing, and visualization of data
Combining analysis and simulation tech.	Using AI and MI* to capture benefits of digitally leveraged manufacturing *Materials Informatics
Cooperating with value chain partners	Real-time cooperation and management
Development of HR fluent in digital technology	Establishing a base of human resources fluent in digital technologies totaling 2,000 people group-wide <ul style="list-style-type: none"> Focusing on the development of senior leaders and leaders who are familiar with both the frontlines and digital technology

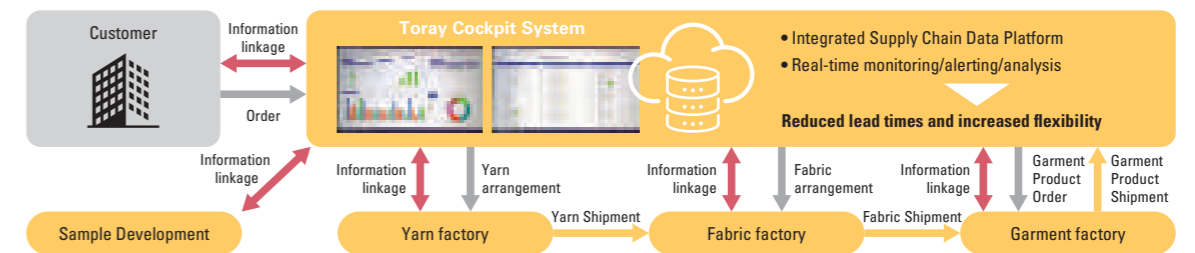
Level of Digital Fluency	Expert	Over 20 people	Creation of new digital methods (Professional)
	Senior Leader	Over 200 people	Execute from problem-setting to solution by themselves using digital methods (Leader)
	Leader	Over 600 people	Solving problems with basic digital methods (Field promoters)
	Associate	Over 1,200 people	Mastering the digital basics
	General Digital Personnel		

Case 1

Apparel Business Cockpit System

To strengthen our ability to build global value chains and sales operations, which are strengths that the Toray Group has cultivated over the years, we are promoting business model reform. We are achieving this reform by working to deepen and extend our value chain by utilizing collaboration with bases outside Japan, external resources, and DX tailored to actual situations in the workplace. In supplying differentiated, highly advanced processed products,

we are building an integrated supply chain data platform that centrally manages data dispersed across various sites, such as customer orders from major global apparel companies, fabric and garment production schedules. This makes it possible to visualize data, act quickly on any abnormalities, improve prediction accuracy, and provide value in the form of, for example, reduced lead times and production flexibility.



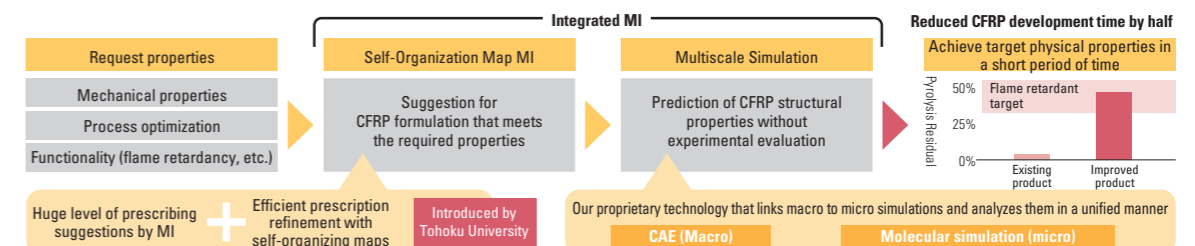
Case 2

Development of Flame-Retardant CFRP by Means of Integrated Materials Informatics (MI)

Having utilized integrated MI, which combines MI using self-organizing maps (introduced from Tohoku University) with its proprietary multiscale simulations (MS), Toray succeeded in halving the development period for a flame-retardant carbon-fiber reinforced plastic (CFRP).

Simplifying and displaying in visual form vast amounts of data, a self-organizing map arranges materials with similar characteristics close to each other. Using this feature makes it possible to analyze complex information in a form

that is easy for humans to understand. A method that combines microscale (molecular dynamics, etc.) and macroscale (CAE, etc.) simulations, using MS makes it possible to analyze phenomena from multiple angles, solve essential problems, and promote material design. Going forward, we will expand integrated MI's range of applications while accelerating the streamlining and sophistication of research and technological development.

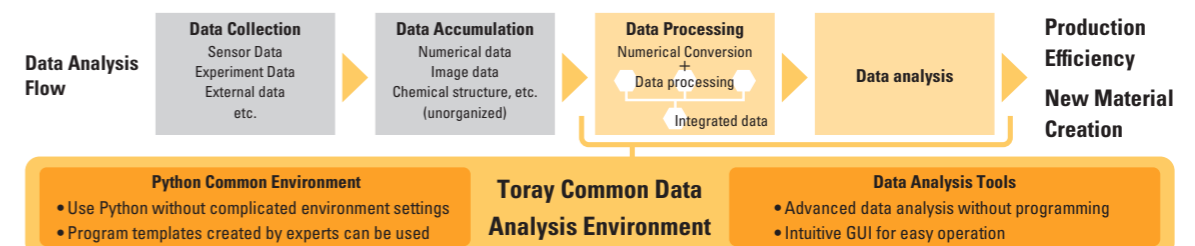


Case 3

Building of a Toray Common Data Analysis Environment

Data analysis such as MI and process informatics (PI) is performed in the following steps: data acquisition → accumulation → processing → analysis. Systems for data acquisition and accumulation are built according to each department's operations. However, since data processing and analysis deal with organized numerical data, building of a common company-wide environment was needed from the perspective of increasing sophistication and efficiency of initiatives. In response, from November 2022,

we built and rolled out the Toray Common Data Analysis Environment to the entire Company. This is equipped with a programming environment (Python common environment) and a proprietary data analysis tool that can be operated intuitively. Since its rollout, utilization of the Toray Common Data Analysis Environment has extended throughout Toray including technical and business departments, contributing significantly to DX promotion within the Company.



Members of the Board and Corporate Auditors

(As of June 27, 2023)

Members of the Board



**Chairman and Representative Member of the Board
Akihiro Nikkaku**

1973 Joined the Company
2001 General Manager, Engineering Division; General Manager, Second Engineering Dept.
2002 Vice President (Member of the Board)
2004 Senior Vice President (Member of the Board)
2006 Senior Vice President (Member of the Board & Member of the Executive Committee)
2007 Executive Vice President and Representative Member of the Board
2010 President and Representative Member of the Board
2020 President and Representative Member of the Board, Chief Executive Officer, Chief Operating Officer
2023 Chairman and Representative Member of the Board (incumbent)



**President and Representative Member of the Board
Mitsuo Ohya**

1980 Joined the Company
2009 General Manager, Industrial & Textile Fibers Division
2012 Vice President (Member of the Board)
2014 Retired from Vice President (Member of the Board)
President and Representative Member of the Board, Toray International, Inc.
2016 Senior Vice President (Member of the Board & Member of the Executive Committee)
2020 Executive Vice President (Representative Member of the Board)
2023 President and Representative Member of the Board (incumbent)



**Representative Member of the Board
Satoru Hagiwara**

1981 Joined the Company
2012 General Manager, Industrial Films Division;
Chairman, Toray Films Europe S.A.S.;
Chairman, Toray Plastics Europe S.A.
Vice President (Member of the Board)
2014 Senior Vice President (Member of the Board)
2017 President and Representative Member of the Board, Toray Advanced Film Co., Ltd.
2020 Senior Vice President (Member of the Board)
2022 Executive Vice President (Representative Member of the Board) (incumbent)



**Member of the Board (Outside)
Ryoji Noyori**

1997 Dean, Graduate School of Science and School of Science, Nagoya University
2001 Director, TAKASAGO INTERNATIONAL CORPORATION (incumbent)
2003 President, RIKEN
2004 Special Professor, Nagoya University (incumbent)
2015 Director-General, Center for Research and Development Strategy, Japan Science and Technology Agency (incumbent)
Vice President (Member of the Board) of the Company
Member of the Board of the Company (incumbent)



**Member of the Board (Outside)
Susumu Kaminaga**

1969 Joined Sumitomo Precision Products CO., LTD.
1995 Representative Director, Surface Technology Systems Ltd.
2000 Director, Sumitomo Precision Products CO., LTD.
2002 Managing Director, Sumitomo Precision Products CO., LTD.
2004 President, Sumitomo Precision Products CO., LTD.
2012 Senior Advisor, Sumitomo Precision Products CO., LTD.;
Representative Director, SK Global Advisers Co., Ltd. (incumbent)
Director, DEFTA Capital (incumbent)
2016 Outside Director, Olympus Corporation
2020 Member of the Board of the Company (incumbent)



**Member of the Board (Outside)
Kazuo Futagawa**

1980 Joined the Ministry of Health and Welfare
2012 Director-General of Minister's Secretariat, the Ministry of Health, Labour and Welfare
2014 Director-General, Health Policy Bureau, the Ministry of Health, Labour and Welfare
2015 Vice-Minister of Health, Labour and Welfare
2017 Retired from Vice-Minister of Health, Labour and Welfare
2018 Special Advisor on Policy, Social Security Reform Office, Cabinet Secretariat
2020 Member of the Board of the Company (incumbent)
Member of the Board, Kanamic Network Co., LTD. (incumbent)



**Member of the Board
Kazuyuki Adachi**

1980 Joined the Company
2017 Director, Toray Industries (Thailand) Co., Ltd.;
President, Luckytex (Thailand) Public Company Limited;
Chairman, Thai Toray Textile Mills Public Company Limited
2018 Senior Vice President (Member of the Board)
2020 Senior Vice President (Member of the Board)
2023 Executive Vice President (Member of the Board) (incumbent)



**Member of the Board
Kazuhiko Shuto**

1980 Joined the Company
1998 Vice President (Member of the Board), Penfabric Sdn. Berhad
2005 Chairman, Toray Jifa (Qingdao) Textile Co., Ltd.
2010 General Manager, Textiles Division
2014 Vice President (Member of the Board)
2016 Senior Vice President (Member of the Board)
2018 Retired from Senior Vice President (Member of the Board)
Chief Representative for China; Chairman & President, Toray Industries (China) Co., Ltd.; Chairman, Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.
2020 Senior Vice President
2022 Senior Vice President (Member of the Board)
2023 Executive Vice President (Member of the Board) (incumbent)



**Member of the Board
Tetsuya Tsunekawa**

1984 Joined the Company
2004 General Manager, Films & Film Products Research Laboratories
2009 General Manager, Advanced Film Technical Dept., Films & Film Products Research Laboratories
2012 General Manager, Tsuchiura Plant
2014 Vice President (Member of the Board)
2016 Senior Vice President (Member of the Board)
2020 Retired from Senior Vice President (Member of the Board)
Senior Vice President
2022 Senior Vice President
2023 Senior Vice President (Member of the Board) (incumbent)



**Member of the Board (Outside)
Yuko Harayama**

1998 Assistant Professor, Faculty of Economics, University of Geneva
2002 Professor, Graduate School of Engineering, Tohoku University
2007 Outside Director, Compagnie de Saint Gobain SA
2010 Deputy Director, Directorate for Science, Technology and Industry, Organization for Economic Cooperation and Development
2013 Executive Member, Council for Science, Technology and Innovation, Cabinet Office
2020 Executive Director, RIKEN
2022 Co-Representative Director, Japanese Association for the Advancement of Science (incumbent)
2023 Member of the Board of the Company (incumbent)



**Corporate Auditor
Hideki Hirabayashi**

1981 Joined the Company
2003 Director, Penfibre Sdn. Berhad
2005 Executive Vice President, Toray Plastics (America), Inc.
2007 General Manager, Industrial Films 1st Dept., the Company
2010 In charge of Europe Region; Chief Representative for Europe; General Manager, Europe Office
2016 General Manager, General Administration & Legal Division; General Manager, General Administration Dept.
2017 Vice President (Member of the Board)
2020 Retired from Vice President (Member of the Board)
Corporate Vice President
2021 Senior Vice President
2023 Corporate Auditor (incumbent)



**Corporate Auditor
Yoshiyuki Tanaka**

1984 Joined the Company
2006 Executive Vice President, Toray Fluorofibers (America), Inc.
2014 General Manager, Okazaki Plant
2015 Vice President (Member of the Board)
2018 General Manager, Manufacturing Division (Fibers & Textiles Technology and Manufacturing)
2020 President and Representative Member of the Board, Toray Opelontex Co., Ltd.
2021 Corporate Auditor (incumbent)



**Member of the Board
Masahiko Okamoto**

1986 Joined the Company
2009 Vice President (Member of the Board), Toray Industries (Malaysia) Sdn. Berhad; Vice President (Member of the Board), Penfabric Sdn. Berhad; General Manager on Special Assignment, Finance & Controller's Division (Finance & Controller's Chief for Malaysia)
2011 General Manager on Special Assignment, International Division
2013 General Manager, Finance Dept.
2017 General Manager, Controller's Dept.
2020 Corporate Vice President (Member of the Board)
2023 Senior Vice President (Member of the Board) (incumbent)



**Member of the Board
Takashi Yoshiyama**

1984 Joined the Company
2009 General Manager, Advanced Composites Technical Dept.
2010 General Manager, Second Advanced Composites Technical Dept.
2014 General Manager, Composites Production Dept., Shiga Plant
2016 General Manager, Manufacturing Division (Advanced Composites Manufacturing)
2017 General Manager, Manufacturing Division (Advanced Composites Technology and Manufacturing)
President, Euro Advanced Carbon Fiber Composites
2023 Corporate Vice President (Member of the Board) (incumbent)



**Member of the Board (Outside)
Kunio Ito**

2002 Dean, Graduate School of Commerce and Management and Faculty of Commerce and Management, Hitotsubashi University
2004 Executive Vice President and Board Member, Hitotsubashi University
2013 Director, Kobayashi Pharmaceutical Co., Ltd. (incumbent)
2014 Director, Seven & i Holdings Co., Ltd.
Member of the Board of the Company (incumbent)
2015 Director, Hitotsubashi CFO Education and Research Center (Incumbent)
2018 Research Professor, Department of Business Administration, Hitotsubashi University Business School



**Outside Corporate Auditor
Hiroyuki Kumasaka**

1973 Joined FUSO Audit Corporation (later MISUZU Audit Corporation)
2007 Chairs of the Board of Council; Head, Tokyo Office, the Audit Corporation
Representative Liquidator, the Audit Corporation
2008 Outside Corporate Auditor, MATSUDA SANGYO CO., LTD.
2011 External Corporate Auditor of the Board, Japan Airlines Co., Ltd.
2015 Outside Audit and Supervisory Committee Member, MATSUDA SANGYO CO., LTD.
2019 Outside Corporate Auditor of the Company (incumbent)



**Outside Corporate Auditor
Makiko Takabe**

1981 Appointed as an Assistant Judge
2014 Chief Judge, Fukui District Court and Family Court
2015 Presiding Judge, Intellectual Property High Court
2018 Chief Judge, Intellectual Property High Court
2020 President, Takamatsu High Court
2021 Registered as a lawyer (Dai-ichi Tokyo Bar Association)
Of Counsel, Nishimura & Asahi (incumbent)
2023 Outside Corporate Auditor of the Company (incumbent)



**Outside Corporate Auditor
Kozo Ogino**

1981 Joined The Mitsu Bank, Ltd.
2010 Executive Officer, Sumitomo Mitsui Banking Corporation
2011 Managing Executive Officer, Sumitomo Mitsui Banking Corporation
2013 Director, Sumitomo Mitsui Financial Group, Inc.
2014 Director and Senior Managing Executive Officer, Sumitomo Mitsui Banking Corporation
2017 Director and Deputy President, Sumitomo Mitsui Banking Corporation
Director, Deputy President, Executive Officer, Group CRO, Sumitomo Mitsui Financial Group, Inc.
2019 Senior Advisor, Sumitomo Mitsui Financial Group, Inc.
President & CEO (Representative Director), SMBC Trust Bank Ltd.
2022 Chairperson, SMBC Trust Bank Ltd. (incumbent)
2023 Outside Corporate Auditor of the Company (incumbent)

Management Team

(As of June 27, 2023)

President
Mitsuo Ohya

Executive Vice President
Satoru Hagiwara

Executive Vice President,
Legal & Compliance Division (Security Trade
Administration Dept.),
Quality Assurance Division, and Intellectual
Property Division;
Technology Center

Executive Vice President
Kazuyuki Adachi

Executive Vice President,
Manufacturing Division

Corporate Vice President
Kazuhisa Itsuji

Corporate Vice President,
Films Division;
Chairman, Toray Films Europe S.A.S.

Corporate Vice President
Satoshi Shimoyama

Corporate Vice President,
Water Treatment & Environment Division;
Water Treatment Division;
Chairman, Toray Asia Pte. Ltd.;
Chairman, Toray Membrane (Foshan) Co., Ltd.

Corporate Vice President
Kei Shimaji

Corporate Vice President,
Electronic & Information Materials Division

Executive Vice President
Kazuhiko Shuto

Executive Vice President,
Marketing & Sales;
Corporate Marketing Planning Division;
Affiliated Companies Division
Resins & Chemicals Division

Senior Vice President
Hirofumi Kobayashi

Senior Vice President,
Pharmaceuticals & Medical Products
Division;
Pharmaceuticals & Medical Products Division
(Technology & Manufacturing)

Senior Vice President
Tetsuya Tsunekawa

Senior Vice President,
Corporate Strategic Planning Division;
HS Division

Corporate Vice President
Osamu Tsuneki

Corporate Vice President,
Purchasing & Logistics Division

Corporate Vice President
Takashi Yoshiyama

Corporate Vice President,
Torayca & Advanced Composites Division;
Chairman, Toray Carbon Fibers Europe S.A.

Corporate Vice President
Katsuyuki Yanai

Corporate Vice President,
Human Resources Division;
Toray Human Resources Development
Center

Senior Vice President
Shigeki Taniguchi

Senior Vice President,
CSR & Investor Relations;
General Administration & Communications
Division;
Tokyo Head Office

Senior Vice President
Kenichiro Miki

Senior Vice President,
Fibers & Textiles Division;
Osaka Head Office

Senior Vice President
Satoru Nishino

Senior Vice President,
Chief Representative for Americas;
President, Toray Industries (America), Inc.;
Chairman, Toray Plastics (America), Inc.

Corporate Vice President
Shinichiro Hata

Corporate Vice President,
Quality Assurance Division

Vice President
Young Kwan Lee

Vice President,
Chief Representative for the Republic of
Korea;
President, Toray Industries Korea Inc.;
Chairman, Toray Advanced Materials Korea
Inc.

Vice President
Teh Hock Soon

Vice President,
Chief Representative for Malaysia;
President, Toray Industries (Malaysia) Sdn.
Berhad;
Chairman, Penfabric Sdn. Berhad;
Chairman, Toray Malaysia Systems Solution
Sdn. Bhd.;
Chairman, P.T. Century Textile Industry Tbk

Senior Vice President
Hiroshi Enomoto

Senior Vice President,
Chief Representative for Europe;
President, Toray Industries Europe GmbH

Senior Vice President
Hajime Ishii

Senior Vice President,
Fibers & Textiles Division;
Global SCM Division

Senior Vice President
Hiroyuki Matsuda

Senior Vice President,
Information Systems Division;
Engineering Division

Vice President
Kazuyuki Yakushiji

Vice President,
Manufacturing Division (ACM Technology &
Production)

Vice President
Masahide Matsumura

Vice President,
Chief Representative for Thailand;
President, Toray Industries (Thailand) Co., Ltd.

Vice President
Toru Kutsuzawa

Vice President,
Chief Representative for China;
Chairman and President, Toray Industries
(China) Co., Ltd.;
Chairman, Toray Sakai Weaving & Dyeing
(Nantong) Co., Ltd.;
Chairman, Toray International (China) Co., Ltd.

Senior Vice President
Masahiko Okamoto

Senior Vice President,
Finance & Controller's Division

Corporate Vice President
Yuichiro Iguchi

Corporate Vice President,
Research & Development Division;
Basic Research Center

Corporate Vice President
Yoshio Yamamoto

Corporate Vice President,
Legal & Compliance Division;

Vice President
Hiroshi Tsuzuki

Vice President,
Corporate Strategic Planning Division;
Corporate Marketing Planning Division

Executive Fellow

Executive Fellow
Akihiko Kitano

Executive Fellow,
Advanced Materials & Application Center;
ACM Technology Division

Interview with a Newly Appointed Outside Director

Diversity is all about the change created by people with wide-ranging attributes and differences collaborating with each other in an environment of mutual respect.

—What are your aspirations as a newly appointed outside director?

I am often asked “what is your area of expertise?” Rather than focusing on a single path, I have increasingly explored a wide range of avenues when encountering different fields and educational opportunities and worked to expand my scope of knowledge. If forced to comment, I would say that my expertise lies in education and economics. I was, for example, approached to become a professor at the Graduate School of Engineering at Tohoku University, not only for my expertise in engineering, but also because of my commitment to foster researchers who can look at their efforts from multiple perspectives, including the practical social application and business value creation of research results.

My first contact with Toray was when I was involved in developing the Science, Technology, and Innovation Basic Plan of Japan’s Cabinet Office. To a large part, I feel that my career has unintentionally fostered a sense of diversity as opposed to specialization, and as a result, I have become adept at examining various issues from multiple perspectives. I have also served as an outside director of Compagnie de Saint Gobain SA, a company based in France with a long history. Immediately after assuming office, conditions deteriorated, most notably with the global economic crisis caused by the collapse of Lehman Brothers, and I was faced with a mountain of unforeseen problems and the need to address investors’ concerns. From this experience, I realized firsthand the importance of the role that outside directors play in reconciling internal and external perspectives. In serving as a Toray outside director, I am therefore committed to using my unique perspective and experience to help the Company enhance its corporate value in a sustainable manner.

—What do you consider are the most important aspects of effective governance?

The larger the organization, the more complex and international the business, the more important it is to integrate the organization and make decisions quickly. I believe that a well-functioning decision-making system that oversees an organization in a manner where critical decisions and issues are addressed in a timely manner is indicative of effective governance. I am not referring here purely to

formats and semantics. Effective governance is not a matter of simply completing an organization chart. It entails the smooth two-way flow of information from the frontline to management and vice versa. Given any decision-making system of organization made up of human component, outputs can often become blurred. With this in mind, I intend to look closely at this from an external perspective as an outside director.

Daring to offer an opinion from a slightly skewed perspective, familiarity with work in a company can often manifest itself in fixed assumptions that impede change. Moreover, while recognizing that engagement is critical to the creation of value involving various stakeholders, self-interest has the exact opposite effect. I will also closely monitor this issue from a neutral standpoint.

—Why do you think diversity is important?

Imagine an organization where everyone thinks and acts the same way. In a world where the correct answer never changes, this scenario can be extremely efficient. In contrast, companies in general, including Toray, operate in a rapidly changing external environment and exist in a world of uncertainty where value disappear in an instant. The world is not a place with fixed answers. Under these circumstances, I am convinced that diversity is critical to ensuring multifaceted views and a flexible organization.

Discussions surrounding diversity in Japan tend to focus on the empowerment of women. It is a mistake to think that this is a solution to efforts aimed at promoting diversity. Putting in place a comfortable workplace for women, increasing the number of female managers, and providing women with preferential treatment are not in themselves the solution. The goal is to secure a level playing field and to allow women to demonstrate their abilities in similar fashion to men, which will lead to increased corporate value. Diversity is not only about gender or other such differences. Diversity is also about individuality and a comprehensive range of factors, including the experience that each individual has gained. On the other hand, when simply bringing together a diverse group of people, should those individuals behave as they please then an inefficient organization that is unable to make any decisions is likely to result. Diversity in business is all about the change



Yuko Harayama
Outside Director

created by people with wide-ranging attributes and differences collaborating with each other in an environment of mutual respect. With this in mind, I believe that it makes sense to become an organization that is resilient to environmental change and highly capable of creating value.

—What are your thoughts on the use of AI in innovation and the promotion of DX?

Ideas belong to each individual. Historically, people have come together to put forward new ideas. With the emergence of generative AI, which instantly organizes a huge amount of data and facts that people cannot fully examine, human beings gained an amazing bag of wisdom. Wherever possible, I have promoted the importance of becoming people who can employ AI wisely. At the same time, it is equally important that we maintain the necessary axis and materials to judge AI, and ensure that we are not controlled by it. My fear is that AI will proffer plausible answers that we will grow to rely without question. The

application of AI and promotion of DX is merely the natural evolution of tools that help to further enhance convenience. It is important that we utilize these tools to create innovations and not become passive users.

—Do you have any closing words about leadership in a diverse organization?

Leadership is not about a person at the top of the hierarchy wielding authority to make subordinates follow him or her. Leadership is a skill that motivates people to behave with conviction. In a diverse organization, not only management, but also a variety of people are expected to exercise leadership in various situations. I would add one more thing, the key role of a leader is to lead the team or organization into the future. Leadership does not necessarily require the leader to provide all the answers. Leadership can be achieved by letting others decide and taking responsibility. Put simply, I believe that seeing an issue to the very end is of the utmost importance.

Corporate Governance

Basic Policy

From the outset, one of Toray Group's managerial principles has been that the purpose of a company is to contribute to society. The Group has developed the Toray Philosophy that incorporates this principle. The Group systematizes the Toray Philosophy as a Corporate Philosophy, Corporate Missions, Corporate Guiding Principles, etc. The Corporate Missions clearly enunciate that the Group will practice "sincere and

trustworthy management." The Corporate Guiding Principles stipulate the Group's commitment to "acting with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations." When establishing the corporate governance structure, the Group seeks to realize these philosophies as its basic policy.

Outline of Governance System and Reasons for Adopting the System

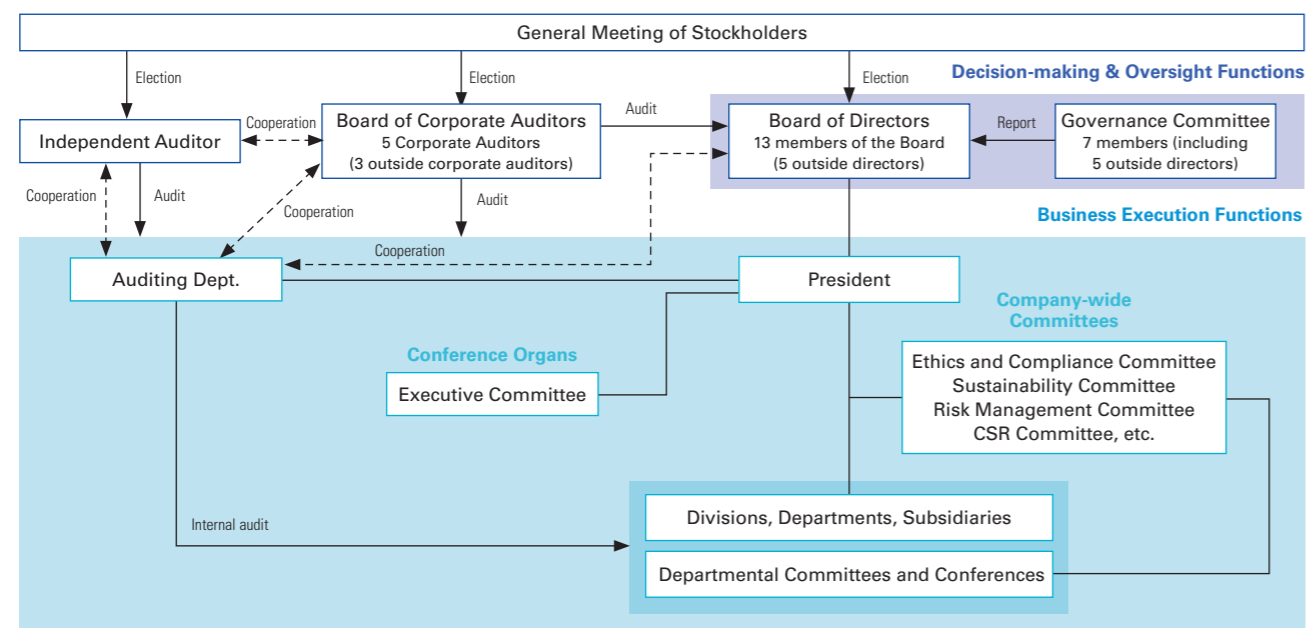
Toray operates as a company with a Board of Corporate Auditors and Board of Directors. The Board of Directors, which includes outside directors, decides on the business execution and supervises the execution of duties by the members of the Board. The Board of Corporate Auditors includes outside corporate auditors and independently audits the execution of duties by the members of the Board, separately from the Board of Directors and the executing organization. This framework is designed to secure the transparency and fairness of decision made by the Board of Directors. In addition, there is a Governance Committee, which serves as a voluntary advisory body to the Board of Directors. The Governance Committee deliberates on all matters relating to corporate governance, enhancing the effectiveness of governance by the Board of Directors.

decision-making, as well as oversight, require assessment of a wide variety of risks from multiple perspectives based on expertise related to the day-to-day operations of the Group's worksites. To that end, the structure of the Board of Directors is designed to ensure that members bring a diverse range of perspectives to management oversight and decision-making. Meanwhile, outside directors are elected to the Board to enhance transparency and fairness, to ensure management oversight from an even broader perspective, and to obtain appropriate managerial advice from a medium- to long-term perspective.

Toray Group operates in a broad spectrum of business fields at a global level. Business management and

The Board of Corporate Auditors is entirely independent of the Board of Directors. Based on professional expertise in finance, accounting, and law, as well as an understanding of the Group's businesses, the Board of Corporate Auditors oversee directors' execution of their duties.

Corporate Governance Structures



Strengthening the Governance Framework

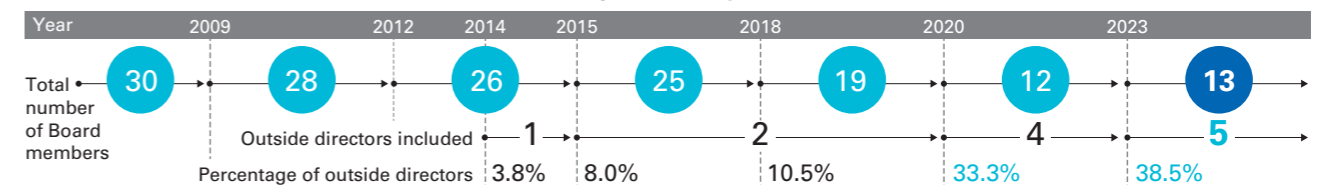
Toray introduced an operating officer system in June 2020 to enable execution based on swift decision making that accurately responds to the business environment and its

changes. Additionally, we took this opportunity to reduce the number of directors, and as of June 27, 2023, had appointed eight internal members of the Board and five

outside directors, for a total of 13 directors. The Board of Directors determines the scope of business execution to be delegated to vice presidents and supervises the execution of those duties. There are seven directors who also serve as vice presidents. The Chairman convenes and

chairs the Board of Directors' meetings. The Governance Committee consists of two inside and five outside directors, and it is chaired by an outside director to ensure a multifaceted perspective.

Reduction in number of Members of the Board and change in its composition



Policy on the Composition of the Board of Directors, Policy and Procedures for Selecting Members of the Board

The Board of Directors has to evaluate a wide variety of risks multilaterally to fulfill its roles of oversight and decision-making. To that end, the Board of Directors strives for appropriate balance in the number of members and structure, with members who widely cover the fields of the corporate activities of the

Group in terms of knowledge, experience and ability, and appropriately ensures diversity as a whole with the announcement of the skill matrix of members of the Board. As to the structure of the Board of Directors, the Governance Committee continuously reviews it.

Skill Matrix

Name	Business operations				Corporate		Strategic
	Management experience	Global business experience	Technology/ Manufacturing/ R&D	Sales & Marketing	Legal/Intellectual property/Risk management	Accounting/ Finance	
Akihiro Nikkaku	●	●					
Mitsuo Ohya	●			●			
Satoru Hagiwara	●		●				
Kazuyuki Adachi		●	●				
Kazuhiko Shuto		●		●			
Tetsuya Tsunekawa			●				● (DX)
Masahiko Okamoto		●				●	
Takashi Yoshiyama		●	●				
Kunio Ito						●	● (ESG)
Ryoji Noyori			●				● (Science and technology)
Susumu Kaminaga	●						● (Business strategies)
Kazuo Futagawa					●		● (Policy science)
Yuko Harayama							● (Innovation)
Hideki Hirabayashi		●			●		
Yoshiyuki Tanaka		●	●				
Hiroyuki Kumasaka						●	
Makiko Takabe					●		
Kozo Ogino						●	

*The skill matrix above is not an exhaustive list of all the knowledge and experience held by the individuals, but presents up to two major skills among those that the Company expects of them to promote management strategies.

Status of Outside Directors/Corporate Auditors Elections

Toray ensures objectivity and transparency of corporate governance by establishing and disclosing standards for independence of outside directors and outside corporate auditors. Based on these standards, the Company elects

five outside directors and three outside corporate auditors and submits notification regarding their status as independent officers to the Tokyo Stock Exchange.

Remuneration for Members of the Board

Given their roles, remuneration for internal members of the Board consists of basic remuneration which is a fixed amount as well as a performance-based remuneration, including a bonus which takes into account the consolidated business results for each fiscal year and other factors, and stock acquisition rights as stock options, which are linked to medium- to long-term business results. In the light of their roles, remuneration for outside directors consists of basic remuneration only.

Remuneration is set at a level that enables the Company to secure superior human resources and further motivate them to improve performance, referring mainly to the results of a survey of other companies' remuneration by an external third-party organization. The Company undertakes reviews of the payment ratios of performance-based remuneration and remuneration other than performance-based remuneration as appropriate, based on the results of a survey of other companies' remuneration and deliberations at the Governance Committee.

With respect to basic remuneration, the maximum limit of total remuneration is determined at general meetings of stockholders. Particulars of the agenda at the general meeting of stockholders are determined by the Board of Directors following a report from the Governance Committee. Bonuses are determined by the Board of Directors following a report from the Governance Committee, with consideration given mainly to the consolidated core operating income for each fiscal year that best represents the results of the Company's global business

operations, plus the historical record.

The maximum limit of total number of Stock Acquisition Rights as well as the limit of remuneration relating to the granting of the Stock Acquisition Rights as stock options to members of the Board is resolved at the general meetings of stockholders. Within that limit, the total number of Stock Acquisition Rights to be allocated to each internal member of the Board is determined at the Board of Directors meeting based on the standards determined by the Board of Directors after the Governance Committee makes a report to the Board of Directors. The issue price of the 12th series of stock acquisition rights allocated during the fiscal year under review (allocated on August 20, 2022) was ¥685,000 per stock acquisition right (¥685 per share).

Given their roles, remuneration for corporate auditors consists of basic remuneration only. With respect to basic remuneration, the maximum limit of total remuneration is determined at general meetings of stockholders. Within the scope of the maximum limit, basic remuneration to each corporate auditor is determined through consultation by corporate auditors based on the Company's internal regulations.

Regarding details of remuneration to individual members of the Board, the remuneration system is continuously reviewed by the Governance Committee. Based on the results, the Governance Committee makes a report to the Board of Directors, which makes a resolution. Accordingly, the Board of Directors believes that the said details are in line with the Decision-making policy.

Overview of the Results of the Analysis and Evaluation

Toray's Board of Directors implemented "Questionnaire Survey to Evaluate the Effectiveness of the Board of Directors in the fiscal year ended March 31, 2023" of all the 17 Board members and corporate auditors. In addition, the Company had individual interviews with seven outside directors and outside corporate auditors to hear opinions in relation to the responses to the questionnaire. The collection and summary of the questionnaire and interviews were outsourced to a third-party organization to ensure transparency and objectivity. The survey results were analyzed and evaluated at the Governance Committee held on June 9, 2023, and the results of the analysis and evaluation were deliberated at the Board of Directors' meeting held on June 14, 2023. The overview of the analysis and evaluation results shown below describes the contents resolved at the Board of Directors meeting.

- (1) In FY 2022, the Board of Directors performed oversight and decision-making based on a deep understanding and sympathy with the Management Philosophy and Corporate Missions. As a result, we believe that the Board of Directors generally fulfilled its roles and responsibilities in indicating the direction of corporate strategies and other major courses of action in an appropriate manner.
- (2) In FY 2022, the Board of Directors held 15 meetings in total to perform oversight and decision-making in a timely and appropriate manner. We believe that the Board of Directors generally fulfilled its roles and responsibilities in establishing an environment conducive to appropriate risk-taking by maintaining dialogue between outside directors and vice presidents and undertaking other initiatives in the operation of the Board of Directors.
- (3) With respect to the 15 Board of Directors meetings held in FY 2022, the attendance rate of the members of the Board was 100%. Outside directors made remarks mainly from

their respective professional viewpoints. Their opinions at the Board of Directors' meetings, including the abovementioned remarks, were appropriately reflected in measures taken by the management. The Board of Directors confirmed that progress has been made in determining the root cause and implementing recurrence prevention measures in relation to the inappropriate actions involving UL LLC certification in the Company's resins business. With respect to transactions causing possible conflicts of interest, internal procedures to handle them were appropriately carried out. For all of the reasons above, we believe that the Board of Directors generally fulfilled its roles and responsibilities in carrying out the effective oversight of members of the Board and the management from an independent and objective standpoint in an appropriate manner.

- (4) In light of foregoing, we believe that the Board of Directors generally fulfilled its roles and responsibilities in an effective manner in FY 2022. Regarding "diversity at the Board of Directors meetings," however, we will continue discussions, on the premise of ensuring quality, on the recruitment of human resources that can contribute to realizing the Toray Philosophy. With regard to "further activating discussions at the Board of Directors meetings," continuing from the fiscal year ended March 31, 2023, specific measures for improvement must be taken in the fiscal year ending March 31, 2024 and thereafter so as to further improve the effectiveness of the Board of Directors.
- (5) With respect to the opinions received from the members of the Board and corporate auditors while evaluating the effectiveness of the Board of Directors, the Governance Committee shall deepen discussions based on those opinions with a view to further improving the effectiveness of the Board of Directors, as necessary.

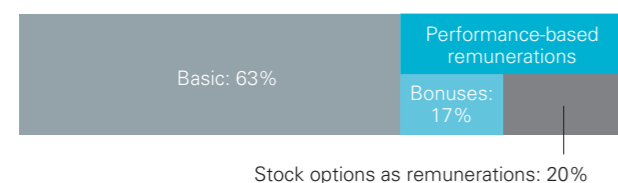
Details of Remuneration (April 2022- March 2023)

Position	Total remuneration (millions of yen)	Total remuneration by type (millions of yen)			Recipients
		Basic	Bonuses	Non-monetary remunerations Stock options as remunerations	
Members of the Board (excluding outside directors)	566	380	79	107	9
Corporate auditors (excluding outside corporate auditors)	79	79	—	—	2
Outside directors	56	56	—	—	4
Outside corporate auditors	36	36	—	—	3

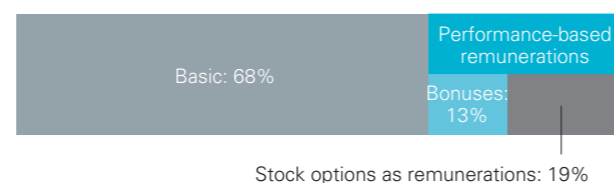
Notes: 1. Recipients included one member of the Board (excluding outside directors) who retired during FY 2022.
2. Total amounts of remuneration do not include the ¥17 million paid in salaries to one employee-director.

Composition of Remuneration (April 2022- March 2023)

President and Representative Member of the Board



Internal Member of the Board



Measures to ensure the effectiveness of the governance framework for listed subsidiaries

Chori Co., Ltd

- On March 25, 2020, Chori Co., Ltd. established the Governance Committee, which is a voluntary committee, to strengthen the independence, objectivity, and accountability of the functions performed by its Board of Directors regarding the nomination and remuneration of members of the Board. The subsidiary's Governance Committee also deliberates on matters that become necessary to be addressed from the perspective of protecting the interests of its general shareholders. No former employees, directors, officers, or other personnel of the Company serve as members of the Governance Committee, which is composed mainly of independent outside directors, hence the independence of the subsidiary in exercising authority over the election and dismissal of its directors is guaranteed.
- When exercising authority over the election and dismissal of the subsidiary's independent outside directors, the Company seeks to make an appropriate decision for each agenda item, while serving the interests of the subsidiary's shareholders in general. That decision depends on whether the candidate can oversee management from a broader perspective to further improve the transparency and fairness of management and can provide appropriate management advice from a medium- to long-term perspective, based on his/her sympathy to the management philosophies of Toray and the subsidiary, in addition to understanding of the businesses.
- The transactions between the Company and the subsidiary are concluded based on the negotiations with reference to several factors such as the market price.

Suido Kiko Kaisha, Ltd.

- On December 20, 2021, Suido Kiko Kaisha, Ltd. established the Governance Committee, which is a voluntary committee. Its purpose is to appropriately manage the election and dismissal of members of the senior management (full-time executive directors), nomination of director candidates, remuneration of members of the senior management and directors, and conflicts of interest with the controlling shareholder, while strengthening the independence, objectivity and accountability of the functions of the Board of Directors regarding decisions and other matters on important transactions and actions with the controlling shareholder for the purpose of protecting the interests of minority shareholders. By requiring a majority of the committee members to be independent outside directors, the independence of the subsidiary in exercising authority over the election and dismissal of its directors is guaranteed.
- When exercising authority over the election and dismissal of the subsidiary's out-side and independent directors, the Company seeks to make an appropriate decision for each agenda item, while serving the interests of the subsidiary's shareholders in general. That decision depends on whether the candidate can oversee management from a broader perspective to further improve the transparency and fairness of management and can provide appropriate management advice from a medium- to long-term perspective, based on his/her sympathy to the management philosophies of Toray and the subsidiary in addition to understanding of the businesses.
- The transactions between the Company and the subsidiary are concluded based on the negotiations with reference to several factors such as the market price.

Comments from an Outside Director



Kunio Ito
Outside Director

Q The new leadership team kicked off in June. Please let us know your thoughts regarding the inquiry process up to finalizing the new team and your assessment of that process.

A As Toray engages in such a broad range of main businesses, managing them and exercising leadership is no easy task. Led by the Governance Committee, we have long discussed and sought a person with a new management style and outstanding leadership who can realize the “New Toray,” while carrying over the extensive experience built up over the years under President Akihiro Nikkaku. As the new president appointed through this process, I expect to see Mr. Mitsuo Ohya fuse Toray’s technological capabilities with his own expertise in marketing, thereby realizing creativity and innovation amid the discontinuous changes in the business environment and driving growth in corporate value.

Q The Tokyo Stock Exchange requires improvements from any company that falls below a PBR of 1x. The Medium-Term Management Program, Project AP-G 2025 (AP-G 2025), includes “improving profitability” and “improving asset efficiency” as challenges, as well as “ultimate value creation” as one of its basic strategies. Please provide some comments and recommendations for Toray on AP-G 2025.

A As an outside director, I feel disappointed that Toray’s PBR has fallen below 1x. In addition to releasing the names of companies that have dropped below this benchmark, the Tokyo Stock Exchange also announced the “JPX Prime 150,” made up of those companies that have created significant corporate value. Based on my analysis, the average PBR of the 150 selected companies is 3.6x. These companies clearly have earnings capability, in other words, excellent net profit-to-sales ratios. And their ROE greatly exceeds their cost of capital. In this respect, I believe both “improving profitability” and “improving asset efficiency” are appropriate program challenges under AP-G 2025. All that is left to do now is take action.

Q Another basic strategy under AP-G 2025 is “enhancement of people-centric management.” Please provide us with a few comments if you have any thoughts on the strengths and weaknesses of Toray regarding human resources.

A I feel that historically, Toray has highly valued its people, and that it has been committed to training. Nearly 30 years ago, well ahead of the rest of the industry, Toray opened the Toray Management School as a selective manager training program. Today, the number of companies that have introduced selective personnel training programs has drastically increased, and Toray was truly a pioneer in this respect. One aspect that symbolizes the Company’s stance, though, is that despite struggling with its performance at times, Toray has continued to administer this program without ever suspending it or cutting its budget. So, I feel that it makes sense to include “enhancement of people-centric management” within AP-G 2025. As society has come to recognize the importance of human capital management, however, I feel it is important for Toray to create an environment and corporate culture that enable people to grow rather than one that nurtures them, and to enhance the autonomy and independence of individuals.

Q Please tell us about your impression after having participated in the Institutional Investors Collective Engagement Forum (IICEF)’s Collective Engagement Program.

A The Collective Engagement Program was a valuable opportunity in that I was able to engage in sincere dialogue with the investors that attended. And I feel I truthfully answered their various questions to the best of my ability. I myself have engaged with many investors over the years, and feel that I understand where their interests lie. Yet I am convinced that directly conversing with investors regarding individual companies and touching upon their specific areas of interest was beneficial for strengthening the governance of Toray in the future. The participants of the program fully conveyed the message that investors are most strongly interested in the governance of the companies in which they invest, and that they wish to ascertain whether they should continue to trust and invest in these companies. I therefore intend to strive together as part of the Board of Directors in order to meet the investors’ expectations.

IICEF Collective Engagement Program

Date: February 20, 2023
 Attendance: Kunio Ito, Member of the Board; Susumu Kaminaga, Member of the Board; Kazuo Futagawa, Member of the Board; and Kazuya Jono, Corporate Auditor
 Participating Investors: 7 companies (organized by the Institutional Investors Collective Engagement Forum)

• Dai-ichi Life Insurance Co., Ltd.	• Meiji Yasuda Asset Management Co., Ltd.
• Mitsubishi UFJ Trust and Banking Corporation	• Pension Fund Association
• Resona Asset Management Co., Ltd.	• Sumitomo Mitsui DS Asset Management Co., Ltd.
• Sumitomo Mitsui Trust Asset Management Co., Ltd.	

We held a collective engagement with the seven companies listed above regarding the inappropriate actions relating to UL certification by Toray’s resins business. The collective engagement provided Toray an opportunity to explain the awareness held by the outside directors and outside corporate auditors, together with the Company’s initiatives, regarding corporate culture and governance. At the same time, the collective engagement served as a valuable opportunity to deepen the understanding between Toray and the investors on these issues. Toray will continue to ensure accountability going forward.

Compliance

Basic Approach

In order to contribute to society by leveraging innovative technologies and advanced materials in line with its corporate philosophy, as well as by working to resolve major global issues, Toray Group must build and maintain relationships of trust with our various stakeholders. And in order to gain this trust, it is essential to comply with the laws

and regulations related to our business activities in each country in which we operate and maintain the highest level of integrity in all our actions. Therefore, top management focuses on a leadership role in placing the highest priority on compliance, while both the Group and its suppliers are required to promote ethics and compliance.

Ethics and Compliance Structure

Toray has established an Ethics and Compliance Committee chaired by the President and consisting of the vice presidents. At this committee, management and workers come together to consider and discuss policies related to ethics and compliance. Moreover, this Committee reports on the operational status of the whistle-blowing system established by Toray Group, including the number of reports (consultations) and other details, to members of the Board.

During FY 2022, this Committee met twice to deliberate and discuss Toray Group’s ethics and compliance activity results for FY 2021 and the activity plans and progress updates for FY 2022. We also discussed individual measures, such as the implementation of Compliance Month and collaboration on plans with safety activities. In each

workplace, instead of top-down initiatives led by each divisional/departmental general manager, we promote such activities by shifting to middle-up-down approach. As a starting point, the middle management at each workplace themselves considered and implemented the activities required in each workplace, then conveys the opinions obtained through the activities to the top management.

In initiatives for group companies around the world, Toray Group has established the Affiliate Companies’ Compliance Meeting and the Overseas Affiliate Companies’ Compliance Meetings under the Ethics and Compliance Committee. Through these committees, Toray Group is examining and promoting compliance activities in each company, country and region.

Ethics & Compliance Code of Conduct

Toray Group has established the Ethics & Compliance Code of Conduct (revised in June 2023), which outlines the code of conduct as important rules to be followed by executives and employees of Toray Group, as well as the compliance helpline, and the promotion framework for ethics and compliance. The contents of the code are regularly reviewed

by the Ethics and Compliance Committee, chaired by the President and consisting of the vice presidents. Also, reports are made and submitted to the Board of Directors by this committee. The code of conduct is thoroughly communicated to all Toray group executives and employees including contracted, part-time, and temporary workers.

Corporate Ethics and Legal Compliance Education

Toray posts information on CSR and legal compliance on its corporate intranet. Toray Group circulates important information about legal and compliance matters that are highly relevant to its business in Japan and overseas. Besides, for the entire group companies, we promote active discussions in workplaces through workshops to examine these matters and study cases of corporate misconduct.

Since FY 2012, Toray has provided e-learning courses on corporate ethics and legal compliance for all executives and employees, including contracted, part-time, and temporary workers. Themes in the training courses set for each fiscal year included explanations to instill Toray’s code of conduct and whistle-blowing system, as well as case studies on anti-bribery, human rights and harassment.

In FY 2022, the courses focused on the Ethics &

Compliance Code of Conduct and Toray Group’s whistle-blowing system, and 96.4% of the targeted participants took the course. In a survey of participants, 60.8% answered that they had “understood” the content of the Code of Conduct, and 38.9% that they had “understood the Code of Conduct to some extent,” and we are continuing to disseminate information and promote education to further instill its content. We are also using similar teaching materials to conduct training sessions at our group companies in Japan. Following the case of misconduct in UL certification registration, in FY 2022 we also conducted thorough compliance training throughout the Company, covering topics such as an introduction to the incident, an analysis of its causes, and countermeasures.

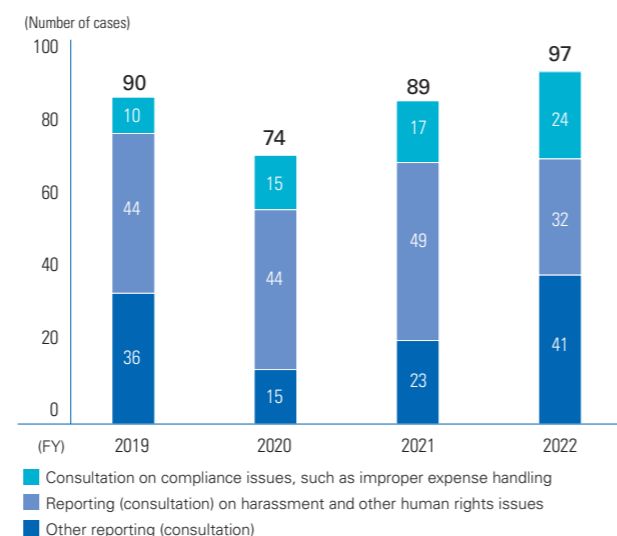
Expanding the Whistle-Blowing System

Toray established the Corporate Ethics and Legal Compliance Helpline as a whistle-blowing system in FY 2003 and expanded the system to include all group companies in Japan in FY 2010. In FY 2022, Toray and its group companies received a total of 97 whistle-blowing (consultation) cases, of which seven resulted in disciplinary action. The facts were investigated with utmost care to protect against any risk of negative impact on the individual reporting to or consulting with the hotline. If a problem was identified, efforts were made to solve the problem and measures were taken in accordance with the internal rules of each company, such as company regulations. The operational status of the whistle-blowing system is reported to the Board of Directors and the Board of Corporate Auditors by the Ethics and Compliance Committee.

In 2022, we developed internal regulations based on the Whistleblower Protection Act, which had been revised and enforced in June of the same year, and added executives, employees who have retired within one year, and business partners to the users of the whistle-blowing system. We also made our own revisions, such as adding

rules regarding the designation of personnel who handle whistleblower-related tasks.

Content and Number of Whistle-Blowing (Consultation) for Toray Group



Reinforcing Compliance in Product Quality Assurance

Toray Group is pursuing five major issues to reinforce product quality assurance compliance throughout the Group.

1. Reinforcement of structures related to quality assurance systems of the entire Toray Group

The Group provides guidance to Toray Industries and its group companies globally regarding the development of quality assurance system, and audits the effectiveness of these systems and operations. Based on the formulated product quality assurance vision, the organizations design initiatives to close the gap between the vision and actual performance.

2. Development of human resources and creation of workplace culture not allowing any misconduct

Toray has designated November as Quality Month. Coinciding with this initiative, the Company has conducted quality assurance compliance education since FY 2020. By providing educational materials to Toray Industries as well as its group companies in and outside Japan, each department and company is taking the initiative in promoting training. (Number of training participants in FY 2022: 23,918)

3. Understanding of actual state of agreements with customers and establishment of guidelines related to product quality (assurance)

Based on the guidelines for product quality assurance agreements, we continue to assess agreements and review their provisions as necessary.

4. Appropriate maintenance or control and modernization or fulfillment of measuring equipment

The Group has risk assessment tables for judging the necessity of upgrading or conducting maintenance on measuring equipment, and use them to identify devices in need of an upgrade.

5. Improvement of quality data management system to not allow any misconduct

The Group is developing data management systems that minimize human involvement, such as by automating measurement and transfer of measurement data, and issuance of inspection reports.

Competition Law Compliance, Anti-Corruption, and Anti-Bribery

1. Competition Law Compliance

The Ethics & Compliance Code of Conduct defines the code of conduct related to competition laws that must be observed by all Toray group executives and employees. Educational materials related to competition laws have been prepared in Japanese and English for all Toray

group employees. Within Japan, the Group prepares and utilizes compliance training materials and gathers examples of compliance violations related to competition laws. In FY 2022, no legal action was taken against Toray Group on the grounds of anti-competitive behavior, antitrust or monopoly practices.

2. Anti-Corruption and Anti-Bribery

In January 2020, Toray Group formulated the Anti-Bribery Regulations that explicitly prohibit offering and accepting bribes to or from public officials and business partners, and established the rules for approval and reporting when offering or receiving money or other benefits to or from public officials and business partners. Similar rules have also been introduced at both domestic and overseas group companies.

The Ethics & Compliance Code of Conduct defines the code of conduct related to anti-corruption and anti-bribery measures that must be observed by all Toray group executives and employees. Accompanying guidelines and educational materials covering to the anti-corruption and anti-bribery measures have been prepared in Japanese and English for all Toray group employees and they are shared on a group-wide basis. No legal action was taken against Toray Group on anti-corruption or anti-bribery grounds in FY 2022.

Protection of Personal Information

In order to comply with Japan's Act on the Protection of Personal Information, Toray has established Regulations for the Management of Personal Information, together with a management framework and practices to ensure each department manages personal information appropriately. Audits are regularly conducted into the management conditions in each department.

In FY 2022, the Company received no complaints concerning personal information and there were no data breaches. Major Toray group companies in and outside Japan appropriately conduct management in accordance with the management systems and methods specified by the internal rules of each company.

Promotion of Mission B.E.A.R. Activities

In FY 2018, Toray Group launched a new initiative with the slogan "Have the integrity to do the right thing in the right way." The initiative includes the following four principles for taking more effective action to ensure compliance.



Compliance Action Principles

- B: Be fair, be honest and have integrity**
- E: Encourage respect and communication**
- A: Adopt a *Genba* (workplace) approach—Look to the facts!**
- R: Responsibility as a member of our excellent company**

Under the name "Mission B.E.A.R.," an acronym of the first word of each principle, Toray group companies formulate declarations and action plans related to compliance, and implement initiatives that correspond to their individual

situations. Toray Group implements periodic follow-ups for the initiatives of each company, shares the effective initiatives of each company within the Group, and encourages each company to take the initiative in evolving their compliance activities.

In FY 2022, Toray continued to assist each company's compliance promotion activities. Including the Compliance Promotion Month, steps were actively taken to share compliance-related initiatives, utilize the results of compliance awareness questionnaires, and carry out collaborative projects with safety activities at plants. Through these activities every effort is being made to strengthen risk response that emphasizes factors unique to each region and type of business while reinforcing Toray Group's integrity-driven corporate culture.

Implementing Internal Legal Audits

In FY 2022, Toray implemented internal legal compliance audits relating to high-priority items including the Antimonopoly Act, bribery regulations, insider trading regulations, and concluding agreements, for designated departments of Toray and its group companies in Japan. Nothing

inappropriate was found in any of the items covered, but we will continue to raise awareness of legal compliance by sharing information through educational activities and in-house magazines.

Improving Security Trade Controls

Concerns about the spread of conventional mass weapons of destruction and changes in the international security balance necessitate risk management addressing security trade controls. Toray convenes a Security Trade Administration Committee comprising officers of divisions that are involved in exports and technology transfer. In FY 2022, the committee decided on measures to implement

for the fiscal year after considering pressing risks based on recent international circumstances and regulatory trends. The committee members also convene a Divisional Security Trade Administration Committee that communicates corporate measures and implements supplementary programs, such as precautions to be taken by departments and group companies under its supervision.

Risk Management

Risk Management Structure

In order to respond to risks that rapidly emerge due to changes in the surrounding environment and to respond immediately in the event of a crisis, Toray Group has the Risk Management Committee, chaired by the General Manager of Toray Industries, Inc.'s Corporate Strategic Planning Division. It also facilitates close communication between the Board of Directors and top management as it pursues risk management as an integral part of management strategy. In addition, as subordinate organizations of the Risk Management Committee, the Overseas Crisis Management Committee and Local Crisis Management Committee have been established to manage employees' overseas travel under normal conditions and compile information on overseas risks.

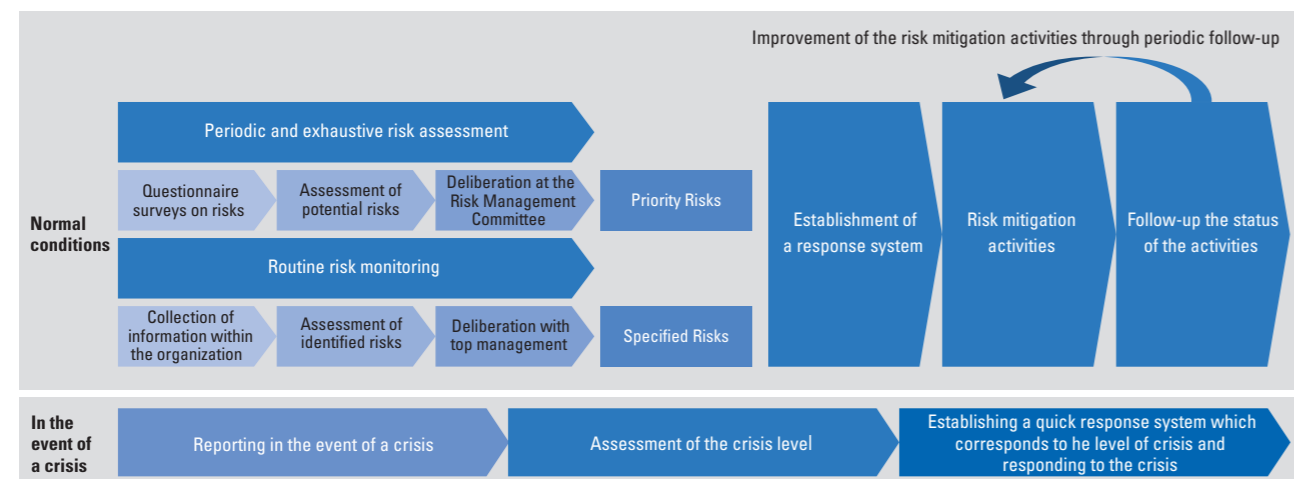
Risk Management Committee System



Risk Management Activities

For risk management in normal times, the Group implements a PDCA cycle to manage Toray Group Priority Risks (hereinafter referred to as Priority Risks) and Specified Risks. In principle, the Company conducts an exhaustive identification of Priority Risks once every three years. Priority Risks are set based on those with a high degree of potential risk (probability of occurrence × degree of impact), and the division or department responsible for mitigating each risk focuses on risk mitigation. Specified risks

include risks arising in a short period of time, and have a complementary relationship with priority risks. Specified Risks are determined by a dedicated department in the Corporate Strategic Planning Division that routinely monitors domestic and overseas trends, based on consultation with top management. In the event of a crisis, a quick response system is established according to the level of the crisis, in accordance with internal regulations.



Business Risks

Major risks that Toray Group has evaluated to have significant impact on business, etc. are listed below. For details on each risk, please refer to "Business and Other Risks" in the Annual Securities Report (142nd Period).

- Crisis response risks based on the possibility of war [*Priority Risks]
- Product supply disruption risk [*Priority Risks]
- Risks related to product demand, market trends, and business plans
- Risks related to global business development

- Risks related to foreign currency, interest rate and securities market fluctuations
- Risks related to environmental issues such as climate change, water shortages, and resource depletion
- Risks related to natural disasters and accidents
- Risks related to human resource strategies
- Risk related to compliance
- Risks related to information security and cyber threats

*"Crisis response risks based on the possibility of war" and "Product supply disruption risk" were set as Priority Risks for the sixth three-year period (FY 2023 to 2025) through identifying and evaluating risks, which is described on the following page.

Major initiatives in FY 2022

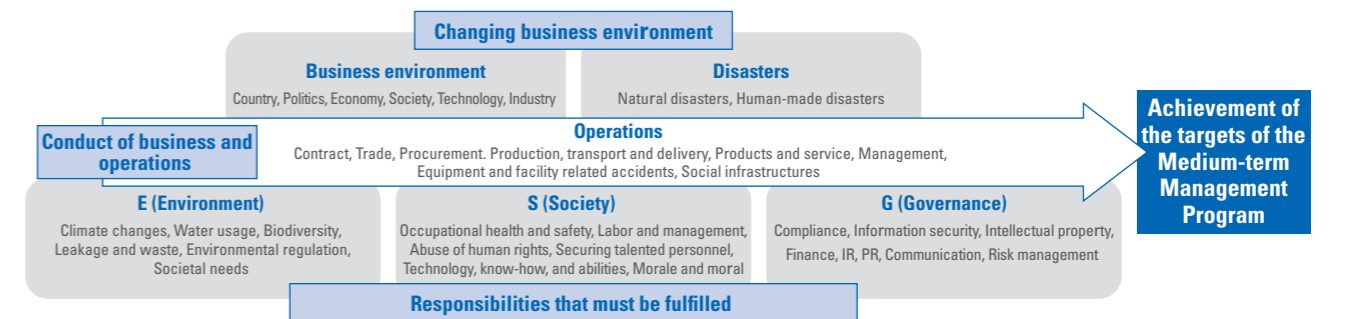
1. Identifying and evaluating risks

In 2022, we conducted the following process to identify and evaluate risks for the entire Group that could hinder the achievement of the targets of the Medium-Term Management Program from FY 2023 to 2025.

- (1) A survey was conducted to identify the imminence of risks as well as specific concerns in Toray Group's functional departments and domestic and overseas affiliates, targeting 118 risks (see chart below) comprehensively organized in the categories of "business environment," "disasters," "operations," "E (environment)," "S

- (2) After aggregating and analyzing information obtained from the survey, discussions on risk awareness, issues, and countermeasures were held with risk-related departments and top management.
- (3) Summarizing the analysis of the questionnaire survey and information obtained from the discussions, draft of Priority Risk is deliberated and decided by the Risk Management Committee. Each division also sets its own risks to be addressed.

Identifying Risks for Achievement of the Targets of the Medium-Term Management Programs



2. Priority risk mitigation activities

(1) Addressing Information Security Risks

Information security has been included as one risk area in the fifth three-year set of Priority Risks for Toray Group, and more comprehensive initiatives have been taken group-wide. In FY 2022, the Group established the Toray Group Information Security Steering Committee, which is chaired by the head of Toray Industries' General Administration & Communications Division, and changed the system from individual optimization of each company to the entire Group. Under the supervision and management of the committee, Toray Group as a whole maintains and improves information security by formulating group-wide security management standards, following up on the implementation status, and conducting periodic security assessment and monitoring. In the event of incidents such as information leaks or suspension of information system use due to cyber-attacks, we ensure that such incidents are reported to the head of the General Administration & Communications Division within 24 hours. Then, depending on the damage or the possibility of damage, a system and response procedures are in place and operated to contact relevant parties inside and outside the Company and to prevent the spread of damage.

(2) Addressing Global CSR procurement risks


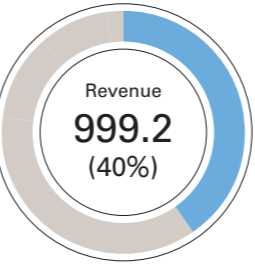
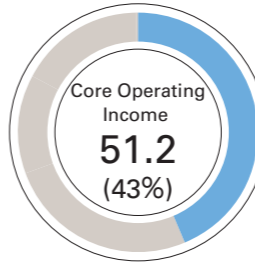

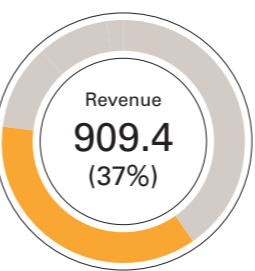
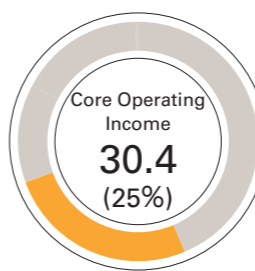
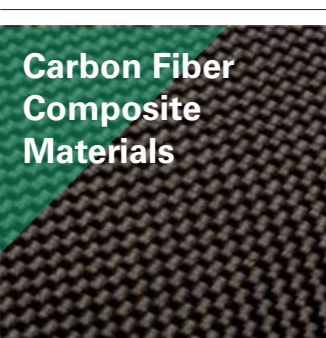
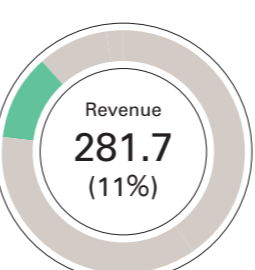
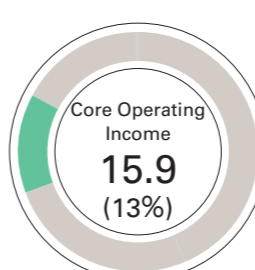
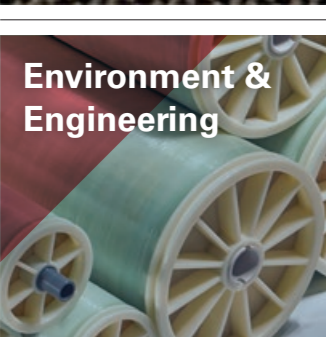
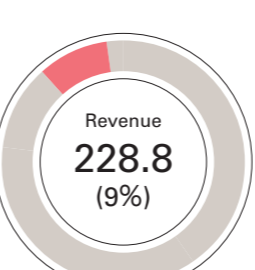
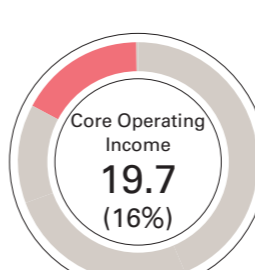

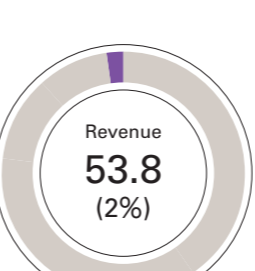
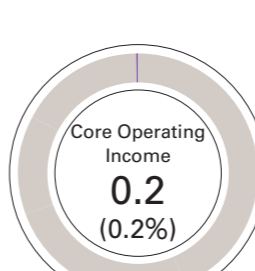
Toray Group has designated "Global CSR procurement risks" as one type of risk under the fifth set of Priority Risks, and has considered the adoption of a process that involves identifying important CSR procurement risk types corresponding to specific countries, regions, and industries, and then picking out suppliers that require risk investigation, auditing, and/or mitigation measure implementation. In FY

2022, we carried out testing in cooperation with Japanese and overseas Group companies to verify whether the survey sheets and audit procedures for suppliers, which were created with the three priority issues of human rights and labor, safety and health, and environmental preservation as survey targets, are actually operational. We have also established a process to narrow down the list of suppliers to be surveyed based on supplier information collected from each of our domestic and overseas Group companies. In the future, we will strive to reduce CSR procurement risks for the entire Group by establishing processes for risk identification and investigation, conducting risk investigations of identified suppliers to be surveyed, and conducting audits and follow-ups when risks are identified.

3. Business Continuity Plan Initiatives

In FY 2018, Toray Industries, Inc. created and began administering BCPs for key products selected from each business in accordance with the Procedures for Developing BCPs for Designated Key Products in the event of an earthquake. Group companies in and outside Japan began this initiative in FY 2019. In addition, since FY 2012, Toray Group has continued to conduct company-wide drills on setting up an emergency response headquarters. In FY 2022, as in FY 2021, in light of Toray's enhanced network environment and the improved reliability of public network infrastructure, the Company conducted initial response drills online, on the assumption that a large number of employees could be working from home due to the suspension of transportation services and the outbreak of COVID-19. Toray Group will continue to strengthen its capability to respond to earthquakes with training and other measures.

Results by Segment for FY 2022

Segments	Summary of Financial Results	Performance (Billion yen) <small>* The figures in parentheses of each segment are composition ratios by segment.</small>	Main Products
 <h3>Fibers & Textiles</h3>	<p>While hygiene material applications were sluggish from the impact of the worsening supply-demand balance, apparel applications saw a recovery from the pandemic. Industrial applications witnessed a demand recovery trend for automobile applications in some regions. Almost all applications and regions were affected by the soaring costs of raw materials and fuels as well as persistently high transportation costs.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Revenue 999.2 (40%)</p> </div> <div style="text-align: center;">  <p>Core Operating Income 51.2 (43%)</p> </div> </div>	<ul style="list-style-type: none"> Filament yarns, staple fibers, spun yarns, woven and knitted fabrics of nylon, polyester, acrylic, and others Nonwoven fabrics Ultra-microfiber nonwoven fabric with suede texture Apparel products, etc.
 <h3>Performance Chemicals</h3>	<p>The Performance Chemicals segment overall was affected by the soaring raw material and fuel prices.</p> <p>In the resins and chemicals businesses, while the fine chemicals business performed strongly, the resins business was weak given the impact of demand declines in the Japanese and Chinese markets and other factors. Demand declined due to inventory adjustment in supply chains for optical applications and electronic parts in the films business as well as OLED-related materials and circuit materials in the electronic & information materials business.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Revenue 909.4 (37%)</p> </div> <div style="text-align: center;">  <p>Core Operating Income 30.4 (25%)</p> </div> </div>	<ul style="list-style-type: none"> Nylon, ABS, PBT, PPS, and other resins and molded products Polyolefin foam Polyester, polyethylene, polypropylene, and other films and processed film products Raw materials for synthetic fibers, and other plastics Fine chemicals Electronic and information materials, and graphic materials, etc.
 <h3>Carbon Fiber Composite Materials</h3>	<p>In aerospace applications, production rate of aircrafts at the major customer showed a recovery trend.</p> <p>Sports applications grew strongly, due mainly to bicycles for outdoor leisure, fishing rods, and golf applications.</p> <p>In industrial applications, demand for environment- and energy-related applications, including compressed natural gas tank applications, remained strong due to rising oil prices.</p> <p>We promoted passing on the rise in raw material and fuel prices to the sales price.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Revenue 281.7 (11%)</p> </div> <div style="text-align: center;">  <p>Core Operating Income 15.9 (13%)</p> </div> </div>	<ul style="list-style-type: none"> Carbon fibers, carbon fiber composite materials, and their molded products, etc.
 <h3>Environment & Engineering</h3>	<p>In the water treatment business, demand for reverse osmosis membranes and other products grew strongly, while facilities that newly started operations contributed to the performance.</p> <p>Among Japanese subsidiaries in the segment, an engineering subsidiary saw increases in the shipment of lithium-ion secondary battery-related equipment.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Revenue 228.8 (9%)</p> </div> <div style="text-align: center;">  <p>Core Operating Income 19.7 (16%)</p> </div> </div>	<ul style="list-style-type: none"> Comprehensive engineering Condominiums Industrial equipment and machinery IT-related equipment Water treatment membranes and related equipment Materials for housing, building, and civil engineering applications, etc.
 <h3>Life Science</h3>	<p>In the pharmaceutical business, while sales volume of orally active prostacyclin derivative DORNER™ expanded for the overseas markets, sales of pruritus treatment REMITCH®* were affected by the introduction of its generic versions as well as by a NHI drug price revision.</p> <p>In the medical devices business, shipment of dialyzers for hemodiafiltration grew strongly in Japan, but the business was affected by the soaring prices of raw materials and fuels.</p> <p><small>*REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.</small></p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Revenue 53.8 (2%)</p> </div> <div style="text-align: center;">  <p>Core Operating Income 0.2 (0.2%)</p> </div> </div>	<ul style="list-style-type: none"> Pharmaceuticals Medical devices, etc.

*Excludes other businesses, equivalent to ¥16.4 billion (1%) in revenue and ¥2.5 billion in core operating income, and adjustment of core operating income of ¥23.9 billion. The composition ratio by segment of core operating income is calculated excluding the adjustment amount.

Fibers & Textiles

Revenue

¥999.2 billion

Core Operating Income

¥51.2 billion

Core Operating Margin

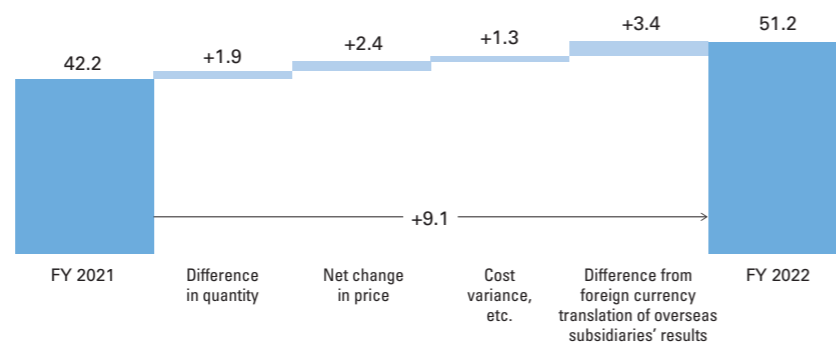
5.1%

ROA (Core Operating Income/Assets)

5.6%

(FY)	2021	2022	Changes	2023 (Forecast)
Revenue (Billion yen)	836.2	999.2	+19.5%	989.0
Core Operating Income (Billion yen)	42.2	51.2	+21.5%	59.5
Core Operating Margin	5.0%	5.1%		6.0%

Changes in Core Operating Income (Billion yen)



Toray Expands Production Facilities for Ultrasuede™ Suede Texture Artificial Leather

Toray has decided to expand the production facilities for Ultrasuede™ at the Shiga Plant and Gifu Plant. The Company will increase annual production capacity from 10 million m² to 15 million m². The new production lines are scheduled to start operation in the second half of 2024 with total capital investment of approximately ¥10 billion.

Ultrasuede™ is a highly sensitive, high-performance suede texture artificial leather sold globally as a leading edge Japan-quality brand. Increasing production capacity roughly 1.6-fold in 2019, production has continued at full-capacity. In addition to fashion and home interior items, applications of this product have expanded in recent years including automobile interiors. In particular, electric vehicle interior applications have expanded as a substitute for natural leather from the perspective of environmental friendliness. Moreover, given its good affinity with increasingly simple and excellent design of interiors, applications are expanding from conventional seat material to materials for ceilings, door trim, instrument panels, and other areas. Accordingly, demand for this product is dramatically growing.

Examples



Lexus RZ



Nio EC6



LOVOT

Performance Chemicals

Revenue

¥909.4 billion

Core Operating Income

¥30.4 billion

Core Operating Margin

3.3%

ROA (Core Operating Income/Assets)

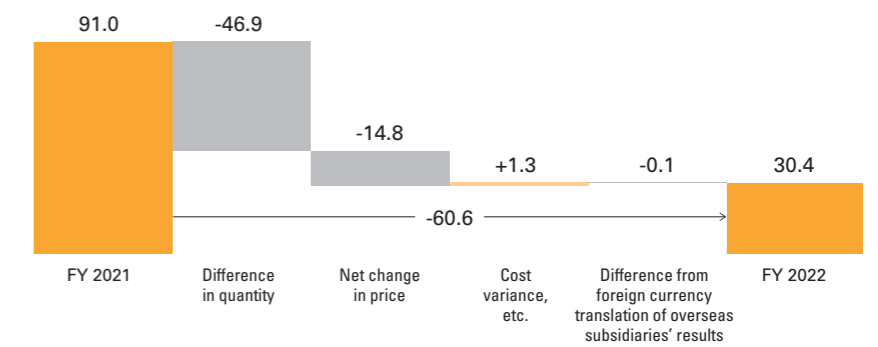
2.6%

Revenue Breakdown of Performance Chemicals Segment

(FY)	2021	2022
Resins, Chemicals	425.9	419.5
Films	335.0	321.5
Electronic & Information Materials	74.1	55.2
Trading, Other	530.3	547.1
Adjustments	▲455.4	▲433.8
Total	910.0	909.4

(FY)	2021	2022	Changes	2023 (Forecast)
Revenue (Billion yen)	910.0	909.4	-0.1%	929.0
Core Operating Income (Billion yen)	91.0	30.4	-66.6%	41.0
Core Operating Margin	10.0%	3.3%		4.4%

Changes in Core Operating Income (Billion yen)



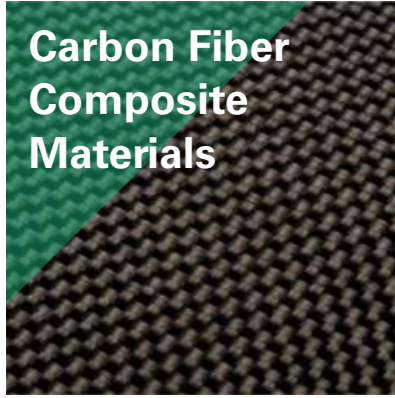
Toray Increases Lumirror™ Release Film Production Capacity for Multi-Layer Ceramic Capacitor Manufacturing

In order to respond immediately to growing demand for multilayer ceramic capacitors (MLCCs) in telecommunications and automotive applications, Toray Group decided to boost production capacity of Lumirror™ biaxially oriented polyester release films for manufacturing MLCCs in Japan, the biggest consumer of release films. Specifically, the Group will retrofit the production facilities at Gifu Plant to increase production capacity 1.6-fold compared with today. At a total capital investment of ¥8 billion, the new facilities are scheduled to begin production in 2025.

Lumirror™ is an extremely smooth film that is highly effective in enabling thin, irregularity-free ceramic layers. Many MLCC manufacturers have adopted it for this reason, helping them to miniaturize and raise the capacity of MLCCs. Toray leads the global MLCC mold release film market, currently producing these films in Japan (Mishima and Gifu Plants), Malaysia, and Korea. The new production line is expected to address recycling by collecting used film for reuse.



Lumirror™ is a biaxially oriented polyester film, first produced on an industrial scale in Japan by Toray. It is used worldwide in a variety of applications ranging from electronics to packaging, magnetic and industrial specialties.



Revenue
¥ **281.7** billion

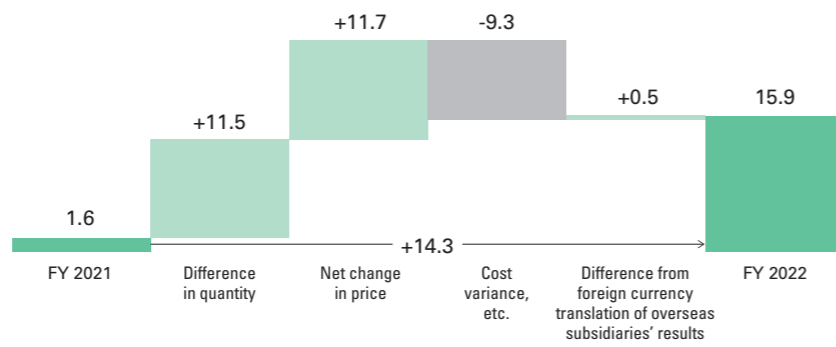
Core Operating Income
¥ **15.9** billion

Core Operating Margin
5.7%

ROA (Core Operating Income/Assets)
2.5%

(FY)	2021	2022	Changes	2023 (Forecast)
Revenue (Billion yen)	215.2	281.7	+30.9%	302.0
Core Operating Income (Billion yen)	1.6	15.9	+907.5%	20.5
Core Operating Margin	0.7%	5.7%		6.8%

Changes in Core Operating Income (Billion yen)



Toray Develops High-Speed Thermal Welding Technology for Carbon Fiber Reinforced Plastics

As a technology that contributes to high-rate production (high-speed and high-capacity) and weight savings for aircraft, Toray Group developed a thermal welding technology that rapidly and securely joins carbon fiber reinforced plastic (CFRP) components in a similar manner as standard welding. This technology enables high-speed assembly of thermosetting CFRP parts as well as of thermosetting and thermoplastic CFRP parts without the need for adhesive bonding and bolt fastening.

Thermosetting CFRP has been used for airframes made of CFRP because of its high reliability based on a long track record of use. The downside, however, is that the complicated CFRP adhesive bonding and bolt fastening processes have become assembly bottlenecks. In terms of production time, CFRP airframes have therefore lagged behind those of aluminum alloy airframes. The Group will push ahead with demonstrations of this technology with a view to commercializing its use in airframes after 2030, along with further expanding CFRP applications.



Thermally Welded Assembly of Aircraft Structural Demonstrator Applying this Technology



Revenue
¥ **228.8** billion

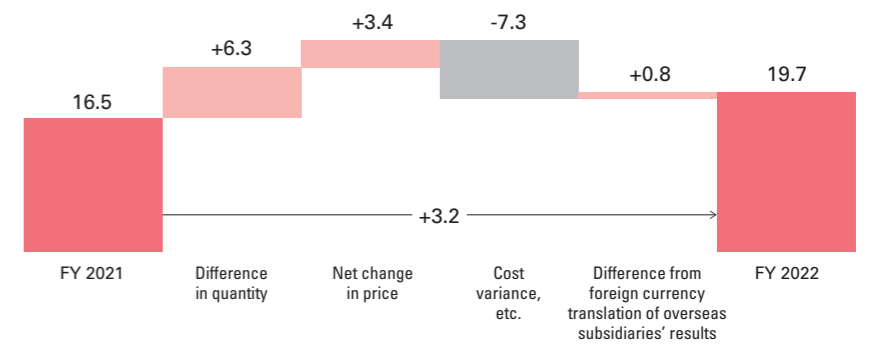
Core Operating Income
¥ **19.7** billion

Core Operating Margin
8.6%

ROA (Core Operating Income/Assets)
6.3%

(FY)	2021	2022	Changes	2023 (Forecast)
Revenue (Billion yen)	199.3	228.8	+14.8%	248.0
Core Operating Income (Billion yen)	16.5	19.7	+19.2%	25.0
Core Operating Margin	8.3%	8.6%		10.1%

Changes in Core Operating Income (Billion yen)

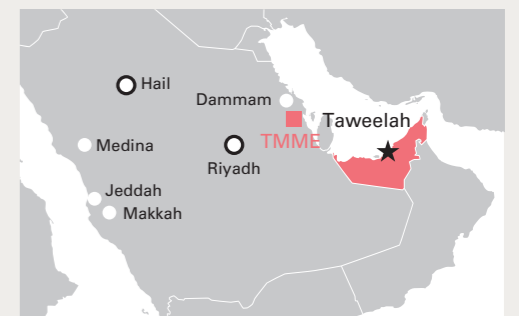


Toray Receives Reverse Osmosis Membrane Order for The World's Largest Seawater Desalination Plant

Toray Group received a reverse osmosis (RO) membrane order for the Taweelah desalination plant in the United Arab Emirates. Following commissioning during the second half of fiscal 2022, this plant became the world's largest RO desalination facility, with a daily capacity of 909,000 cubic meters of water.

The United Arab Emirates began considering construction launch using the RO method nearly 20 years ago. Key factors in Toray obtaining this order were that its RO membrane technology and robust track record in the Middle East over the past 15 years have delivered lower capital investment and operating costs than the conventional evaporation method. The country has plans to build other RO plants in the future, and Toray will continue to contribute to its infrastructure development by providing RO membranes and technical support.

Toray Membrane Middle East LLC (TMME) will provide technical services. By strengthening RO membrane supply and technical support, Toray Group will help alleviate water shortages in the Middle East as a region that supports stable energy supply of the world.





Life Science

Revenue
¥53.8 billion

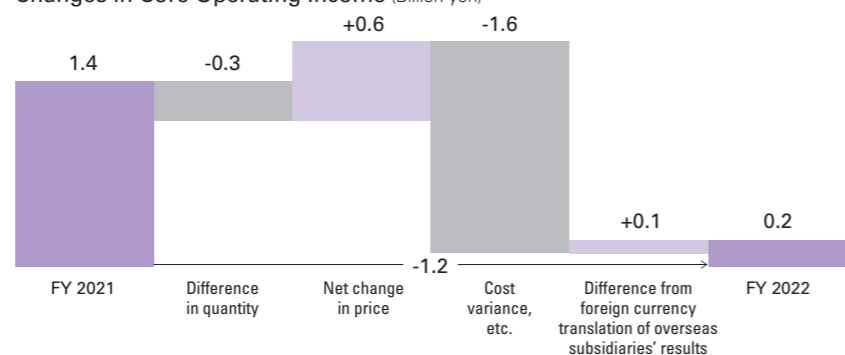
Core Operating Income
¥0.2 billion

Core Operating Margin
0.4%

ROA (Core Operating Income/Assets)
0.3%

(FY)	2021	2022	Changes	2023 (Forecast)
Revenue (Billion yen)	52.0	53.8	+3.5%	55.0
Core Operating Income (Billion yen)	1.4	0.2	-86.2%	0.0
Core Operating Margin	2.6%	0.4%		0.0%

Changes in Core Operating Income (Billion yen)



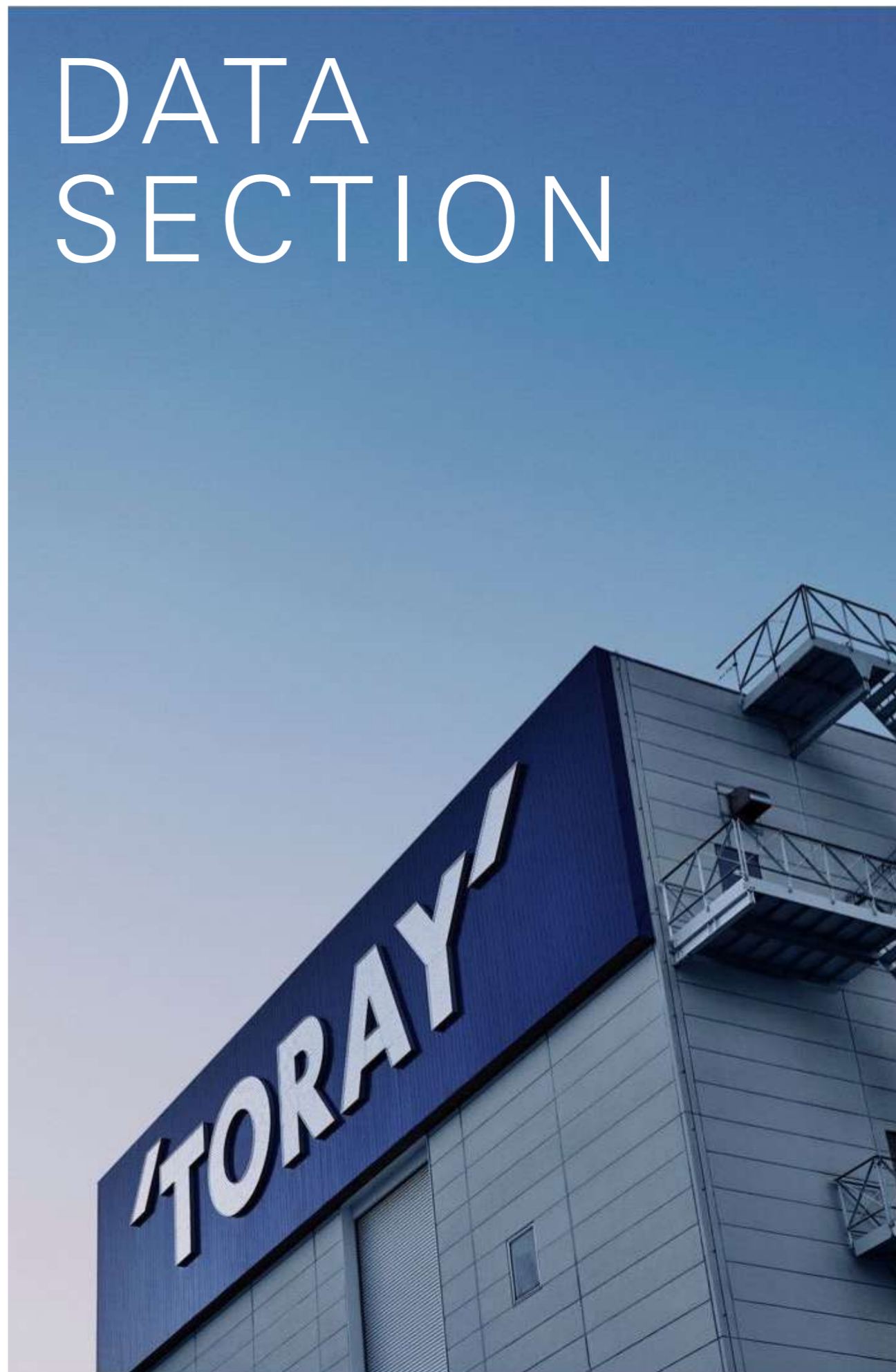
Toray Receives Marketing Approval for an In Vitro Diagnostics Kit for Aiding in the Diagnosis of Pancreatic Cancer

Toray Group received marketing approval from Japan's Ministry of Health, Labour and Welfare in June 2023 for "Toray APOA2-iTQ," an in vitro diagnostic test kit intended to aid in the diagnosis of pancreatic cancer. This is the first kit approved in Japan to measure two apolipoprotein A2 (APOA2) isoform concentrations in plasma. Toray will begin offering Toray APOA2-iTQ domestically once insurance coverage becomes available for it.

Professor Kazufumi Honda of the Graduate School of Medicine of Nippon Medical School discovered that the quantitative ratios of APOA2-AT and APOA2-TQ change in the blood of pancreatic cancer patients. Based on the results of joint research with Nippon Medical School and the National Cancer Center, as well as research conducted by the Japan Agency for Medical Research and Development, Toray has obtained unique antibodies that specifically recognize the terminal structures of the two APOA2 isoforms and developed Toray APOA2-iTQ by using the antibodies which can precisely measure the concentrations of these isoforms.

Although survival rates are expected to improve if pancreatic cancer can be detected at an early stage, this type of cancer progresses more rapidly than others and has symptoms that do not readily become apparent to those suffering from it. As the new kit is blood-based, Toray APOA2-iTQ enables testing of more people than other approaches. Moreover, the reagent measures substances that differ from existing tumor markers and is therefore expected to detect pancreatic cancer which is not detectable by those markers.

DATA SECTION








CSR Roadmap 2025 from the Perspective of Materiality

For more information on Materiality, please click here.
<https://www.toray.com/global/sustainability/stance/materiality.html>



Materiality	Main Initiatives of CSR Roadmap 2025	KPIs of CSR Roadmap 2025	Targets			Related CSR Guidelines	Related SDGs	
			FY 2023	FY 2024	FY 2025			
Accelerating Climate Change Mitigation	Reduce greenhouse gas emissions per unit of revenue	3-5 Reduction of greenhouse gas emissions per unit of revenue (%)	At least 40% lower than FY 2013 (FY 2025)			3 Safety, Accident Prevention, and Environmental Preservation		
	Reduce water consumption per unit of revenue	3-6 Increase in solar power generation capacity (%)	At least 40% higher than FY 2022 (FY 2025)					
	Aim for a high waste recycling rate	3-7 Reduction of water usage per unit of revenue (%)	At least 40% lower than FY 2013 (FY 2025)					
	Expand revenues from Sustainability Innovation Business ¹	3-8 Waste recycling rate (%)	At least 86%	At least 87%	At least 87%	7 Contributing Solutions to Social Issues through Business Activities		
	Expand contribution to CO ₂ reduction in the value chain ²	7-1 Revenues from Sustainability Innovation Business	1,600 billion yen (FY 2025)					
	Expand water filtration throughput contribution by Toray's water treatment membranes ³	7-2 Contribution to CO ₂ reduction in value chain	15 times compared to FY 2013 (FY 2025)					
		7-3 Contribution of Toray water treatment products	2.9 times compared to FY 2013 (FY 2025)					
Promoting a Circular Economy	Reduce greenhouse gas emissions per unit of revenue	3-5 Reduction of greenhouse gas emissions per unit of revenue (%)	At least 40% lower than FY 2013 (FY 2025)			3 Safety, Accident Prevention, and Environmental Preservation		
	Reduce water consumption per unit of revenue	3-6 Increase in solar power generation capacity (%)	At least 10% higher than FY 2022 (FY 2025)					
	Aim for a high waste recycling rate	3-7 Reduction of water usage per unit of revenue (%)	At least 40% lower than FY 2013 (FY 2025)					
	Expand revenues from Sustainability Innovation Business	3-8 Waste recycling rate (%)	At least 86%	At least 87%	At least 87%	7 Contributing Solutions to Social Issues through Business Activities		
	Expand contribution to CO ₂ reduction in the value chain	7-1 Revenues from Sustainability Innovation Business	1,600 billion yen (FY 2025)					
	Expand water filtration throughput contribution by Toray's water treatment membranes	7-2 Contribution to CO ₂ reduction in value chain	15 times compared to FY 2013 (FY 2025)					
		7-3 Contribution of Toray water treatment products	2.9 times compared to FY 2013 (FY 2025)					
Taking a Nature-Positive Approach	Reduce greenhouse gas emissions per unit of revenue	3-5 Reduction of greenhouse gas emissions per unit of revenue (%)	At least 40% lower than FY 2013 (FY 2025)			3 Safety, Accident Prevention, and Environmental Preservation		
	Reduce water consumption per unit of revenue	3-6 Increase in solar power generation capacity (%)	At least 10% higher than FY 2022 (FY 2025)					
	Aim for a high waste recycling rate	3-7 Reduction of water usage per unit of revenue (%)	At least 40% lower than FY 2013 (FY 2025)					
	Reduce atmospheric VOC ⁴ emissions	3-8 Waste recycling rate (%)	At least 86%	At least 87%	At least 87%	7 Contributing Solutions to Social Issues through Business Activities		
	Expand revenues from Sustainability Innovation Business	3-9 Reduction of atmospheric VOC emissions (%)	At least 70% lower than FY 2000	At least 72% lower than FY 2000	At least 72% lower than FY 2000			
	Expand contribution to CO ₂ reduction in the value chain	7-1 Revenues from Sustainability Innovation Business	1,600 billion yen (FY 2025)					
		7-2 Contribution to CO ₂ reduction in value chain	15 times compared to FY 2013 (FY 2025)					
		7-3 Contribution of Toray water treatment products	2.9 times compared to FY 2013 (FY 2025)					
Committed to Healthier Lives	Expand revenues from Sustainability Innovation Business	7-1 Revenues from Sustainability Innovation Business	1,600 billion yen (FY 2025)			7 Contributing Solutions to Social Issues through Business Activities		
	Reduce overtime work exceeding standard hours	8-6 Reduction in employees who exceed 45 hours/month of non-statutory working hours	Year-on-year reduction	Year-on-year reduction	Year-on-year reduction	8 Human Rights Promotion and Human Resources Development		
	Encourage the use of annual paid leave by labor union members	8-7 Available annual paid leave used by labor union members (%)	90%	90%	90%			
Developing in Collaboration with Stakeholders	Enhance information dissemination through owned media such as the Group's websites and social media accounts	6-1 Number of corporate website page views (per month)	1 million page views/month	1 million page views/month	1 million page views/month	6 Communication		
	Facilitate exchange of opinions between management and employees, ascertain issues and problems, and reflect them in the Group's CSR initiatives	6-2 Interviews conducted to exchange opinions within the company (rate of progress)	(First round) 100% completed	(Second round) 30%	(Second round) 60%			
	Expand opportunities for management to disseminate information and promote communication with stockholders and investors	6-3 Interviews with key investors in which management participates (number)	Cumulative total of 120	Cumulative total of 120	Cumulative total of 120			
	Enhance communication with the mass media	6-4 News releases (number)	200	200	200	7 Contributing Solutions to Social Issues through Business Activities		
	Expand revenues from Sustainability Innovation Business	7-1 Revenues from Sustainability Innovation Business	1,600 billion yen (FY 2025)					
	Expand contribution to CO ₂ reduction in the value chain	7-2 Contribution to CO ₂ reduction in value chain	15 times compared to FY 2013 (FY 2025)					
	Expand water filtration throughput contribution by Toray's water treatment membranes	7-3 Contribution of Toray water treatment products	2.9 times compared to FY 2013 (FY 2025)					
	Request suppliers to comply with the Toray Group CSR Procurement Guidelines, and strive to ascertain the status of each company's CSR initiatives	9-1 Suppliers agreeing to the Toray Group CSR Procurement Guidelines (%)		At least 75%	At least 85%	At least 90%		9 Establishing Sustainable Supply Chain
	Identify high-risk areas that may have a negative impact on the environment and human rights, and promote supply chain due diligence to implement measures to prevent or mitigate the identified risks	9-2 Implementation of supply chain due diligence (% of cases)		At least 60% (FY 2024)		At least 90%		
	Promote procurement of responsibly sourced materials such as non-conflict minerals and sustainable palm oil	9-3 Oil procurement needs met by palm oil sourced in a manner that is environmentally responsible and respectful of human rights (% of oil purchased, by value)		At least 70% (FY 2024)		At least 90%		
Reduce CO ₂ emissions intensity from distribution activities	9-4 Reduction in CO ₂ emissions per unit of sales from distribution activities (year-on-year)		1%	1%	1%	10 Social Contribution Activities as a Good Corporate Citizen		
Continually investigate and ascertain logistics risks related to natural disasters such as typhoons and heavy rains, and strive to reduce risks	9-5 Key external inventory sites that have been assessed for natural disaster risk and have implemented measures to mitigate serious risks (%)		At least 60%	At least 75%	At least 90%			
Implement social contribution activities at the appropriate scale	10-1 Social contribution expenditure (% change from average expenditure over last six years)		100% or higher	100% or higher	100% or higher			
Promote active planning and implementation of voluntary social contribution activities at each Group site, on an ongoing basis	10-2 Social contribution activities (number)		2,500 or more	2,500 or more	2,500 or more			
Implement a range of educational support activities that capture interest and curiosity of youngsters through school visits and company tours focusing on areas such as science, environment, and career opportunities, thereby helping to inspire upcoming generations	10-3 Beneficiaries of educational support activities such as science classes for schools and career education (number)		15,000 or more	15,000 or more	15,000 or more			

CSR Roadmap 2025 from the Perspective of Materiality

Materiality	Main Initiatives of CSR Roadmap 2025	KPIs of CSR Roadmap 2025	Targets			Related CSR Guidelines	Related SDGs
			FY 2023	FY 2024	FY 2025		
Ensuring Safety and Fire Accident Prevention	Aim for zero major accidents	3-1 Number of major accidents	0	0	0	3 Safety, Accident Prevention, and Environmental Preservation	
	Achieve world's best standard for safety management	3-2 Achievement for world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time)	No more than 0.05	No more than 0.05	No more than 0.05		
	Aim for zero fire and explosion accidents	3-3 Number of fire and explosion accidents	0	0	0		
	Aim for zero environmental accidents	3-4 Number of environmental accidents	0	0	0		
Ensuring Ethics and Compliance	Aim for no major cases of violation of laws or ordinances	2-1 Number of major violations of laws or ordinances	0	0	0	2 Ethics and Compliance	
	Conduct internal legal audits and improve problems found in the audits	2-2 Group companies implementing internal legal audits (%)	<ul style="list-style-type: none"> Toray Industries, Inc.: 100% Group companies in and outside Japan: Implemented focusing on high-risk companies 				
	Provide information and implement education on major laws and regulations and other compliance-related matters	2-3 Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%)	100%	100%	100%		
Enhancing Product Quality and Safety	Ensure that quality assurance compliance education is being fully implemented	4-1 Quality assurance compliance education (% of people trained)	100%	100%	100%	4 Product Quality and Safety	
	Enhance the auditing function to ensure improvement and continuity of Toray Group's overall quality assurance framework, and conduct auditing to check its effectiveness	4-2 Quality and product safety audit implementation rate (%)	100%	100%	100%		
	Aim for zero product accidents	4-3 Number of product accidents	0	0	0		
Strengthening Corporate Governance	Regularly hold Toray Group Business Strategy Discussion ^{*5} sessions at Board of Directors meetings	1-1 Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (times)	8	8	8	1 Corporate Governance	
	Operate an effective internal control system	1-2 Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)	90%	90%	90%	5 Risk Management	
	Follow up on the status of internal control implementation at each group company	5-1 Group companies implementing self-assessment and results follow-up using the internal control checklist (%)	35%	70%	100%		
	Implement risk reduction across the Group for information security risks such as cyberattacks and information leaks	5-2 Group companies implementing information security evaluation and risk reduction (%)	35%	70%	100%		
Establishing Sustainable Supply Chain	Request suppliers to comply with the Toray Group CSR Procurement Guidelines, and strive to ascertain the status of each company's CSR initiatives	9-1 Suppliers agreeing to the Toray Group CSR Procurement Guidelines (%)	At least 75%	At least 85%	At least 90%	9 Establishing Sustainable Supply Chain	
	Identify high-risk areas that may have a negative impact on the environment and human rights, and promote supply chain due diligence to implement measures to prevent or mitigate the identified risks	9-2 Implementation of supply chain due diligence (% of cases)	At least 60% (FY 2024)		At least 90%		
	Promote procurement of responsibly sourced materials such as non-conflict minerals and sustainable palm oil	9-3 Oil procurement needs met by palm oil sourced in a manner that is environmentally responsible and respectful of human rights (% of oil purchased, by value)	At least 70% (FY 2024)		At least 90%		
	Reduce CO ₂ emission intensity from logistics	9-4 Reduction in CO ₂ emissions per unit of sales from distribution activities (year-on-year)	1%	1%	1%		
	Continually investigate and ascertain logistics risks related to natural disasters such as typhoons and heavy rains, and strive to reduce risks	9-5 Key external inventory sites that have been assessed for natural disaster risk and have implemented measures to mitigate serious risks (%)	At least 60%	At least 75%	At least 90%		
Respecting Human Rights and Promoting Human Resource Diversity	Implement human rights education and training	8-1 Group companies implementing human rights education and training (%)	100%	100%	100%	8 Human Rights Promotion and Human Resources Development	
	Achieve the legally mandated employment rate of persons with disabilities	8-2 Group companies that have achieved legally mandated employment rate of persons with disabilities (%)	100%	100%	100%		
	As part of career development initiatives for core staff, enhance the use of the career path worksheets included in the personnel information system	8-3 Career development initiatives for core staff using the personnel information system (use of career path worksheets) (% of employees)	Year-on-year increase	Year-on-year increase	Year-on-year increase		
	Promote the use and improve the operation of measures to support employee work-life balance	8-4 Employees returning to work from childcare leave (%)	100%	100%	100%		
		8-5 Male employees taking childcare leave or other leave for the same reason (%)	Year-on-year increase	Year-on-year increase	Year-on-year increase		
	Reduce overtime work exceeding standard hours	8-6 Reduction in employees who exceed 45 hours/month of non-statutory working hours	Year-on-year reduction	Year-on-year reduction	Year-on-year reduction		
	Encourage the use of annual paid leave by labor union members	8-7 Available annual paid leave used by labor union members (%)	90%	90%	90%		

*1 Business areas and product lines that can help realize the Toray Group Sustainability Vision

*2 Toray calculates the CO₂ emissions reduced throughout the value chain of products in accordance with the chemical sector guidelines of the Japan Chemical Industry Association, the International Council of Chemical Associations (ICCA), and the World Business Council for Sustainable Development (WBCSD).

*3 Water treated annually with Toray water treatment membranes. It is calculated by multiplying the amount of fresh water that the Toray membranes can produce per day, including reverse osmosis (RO), ultrafiltration (UF) and membrane separation bioreactors (MBR), by the number of membrane elements sold.

*4 Volatile organic compounds

*5 Toray Group Business Strategy Discussions are opportunities to check the progress made on medium-term management issues, including initiatives for sustainability, and the direction of business operations.

Stakeholder Engagement

Toray Group has established the Basic Policies to Promote Dialogue with Stakeholders. The Group is communicating proactively with various stakeholders in all aspects of its corporate activities, and periodically report on and discuss the content of these activities with its management. With the goal of strengthening the system for engaging with stakeholders, a new organization was established in April 2018 to supervise communications in general, and efforts are being made on centralizing the function of information transmission, both internally and externally.

Engaging with Stockholders and Investors

The Group actively communicates with institutional investors and securities company analysts by providing information materials when requested and holding same-day results briefings when quarterly earnings are announced. In addition to IR materials, including integrated annual reports, the Group also provides a wide range of information on management policies and strategies, as well as financial and earnings information in the Investor Relations section of the Toray website.

Briefings on business for stockholders are held in order to deepen their understanding of Toray Group.

In FY 2022, Toray held four results briefings and held 565 meetings with investors and analysts.

Engaging with Employees

Continuous dissemination activities are necessary to increase empathy for the Toray Philosophy and for each and every employee to act and make decisions based on the Toray Philosophy. We have thus been devising methods, such as expanding our information tools and holding regular events, in working to increase employee participation. As one of our new activities, we have been conducting live video streaming called “REAL TALK—Everyone’s Voice” since January 2023 as a forum for open, two-way communication between management and employees. Held twice at Toray’s headquarters in FY 2022, the plan is to hold this type of event six times in total, including at plants, in FY 2023.

Engaging with Customers

Toray Group believes that the customer comes first. Communication is carried out closely with the customers, mainly through the marketing and sales departments, and periodic customer satisfaction surveys. The results of these surveys are shared internally at Board meetings and through in-house newsletters as the Group strives to provide even higher quality customer service.

To serve as spaces for communication with customers, we have established showrooms at our main locations, including Mishima (inside the Toray Human Resources Development Center) and Shiga (within the Shiga Plant). In FY 2022, we renovated the exhibition space on the corporate culture floor of the Toray Human Resources Development Center (Mishima).

Engaging with Business Partners

While providing materials and products as a manufacturer of advanced materials, Toray Group must engage in upstream management of its supply chains to better fulfill the needs of its customers, including the areas of production facilities and procured raw materials and resources. Accordingly, the Group has established its Basic Purchasing Policies and Basic Distribution Policies to emphasize this approach and ensure fair business activities. Throughout the Group, proper and fair transactions, adherence to laws, environmental preservation, respect for human rights, improvements in quality and other policies in initiatives with regard to corporate responsibility in procurement, purchasing, and distribution are promoted.

Engaging with Local Communities

In addition to holding informal gatherings for discussion regularly, Toray Group strives to engage in more active dialogue with nearby residents in a variety of other settings, including by participating in events sponsored by local governments and inviting local residents onto plant grounds for summer festivals.

In FY 2022, the impact from COVID-19 infections subsided, and we actively engaged in activities that contributed to local communities.

External Evaluation

Toray was included in the following SRI indices.

Included in the Dow Jones Sustainability™ Index Asia Pacific

Toray Industries is included in the Asia Pacific Index of the Dow Jones Sustainability™ Indices (DJSI). The DJSI are stock indices from S&P Global that evaluate corporate performance in terms of sustainability.



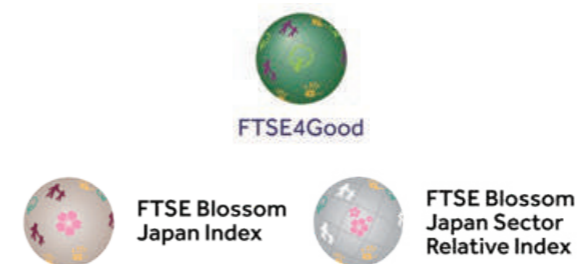
Included in The S&P Global Sustainability Yearbook 2023

Toray Industries is among the 710 global leaders in sustainability listed in The Sustainability Yearbook 2023 published by S&P Global.



Included in FTSE4Good Index/ FTSE Blossom Japan Index/ FTSE Blossom Japan Sector Relative Index

Toray Industries is included in the “FTSE4Good Index Series”, “FTSE Blossom Japan Index Series” and the “FTSE Blossom Japan Sector Relative Index” developed by FTSE Russell, a wholly owned subsidiary of the London Stock Exchange Group. The Company is also included in the FTSE Blossom Japan Sector Relative Index.



MSCI Japan ESG Select Leaders Index AAA Rating/Included in the MSCI Japan ESG Select Leaders Index

Having acquired the highest rating of AAA on the ESG rating by MSCI, Toray Industries is included in the MSCI Japan ESG Select Leaders Index. MSCI provides institutional investors (from pension funds to hedge funds) across the globe with various tools to support investment decisions.



*1 The use by Toray Industries, Inc. of any MSCI ESG Research LLC or its Affiliates (“MSCI”) data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of Toray Industries, Inc. by MSCI. MSCI services and data are the property of MSCI or its information providers, and are provided “as-is” and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

*2 The inclusion of Toray Industries, Inc. in any MSCI Index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Toray Industries, Inc. by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

Selected as CDP Water Security A List Company

Toray Industries was recognized as a Water Security A List company, the highest rating, by CDP, a global non-profit organization, for the fourth consecutive year. In 2022, the Company was given a A- rating on climate change performance.



Selected as Constituent of S&P/JPX Carbon Efficient Index

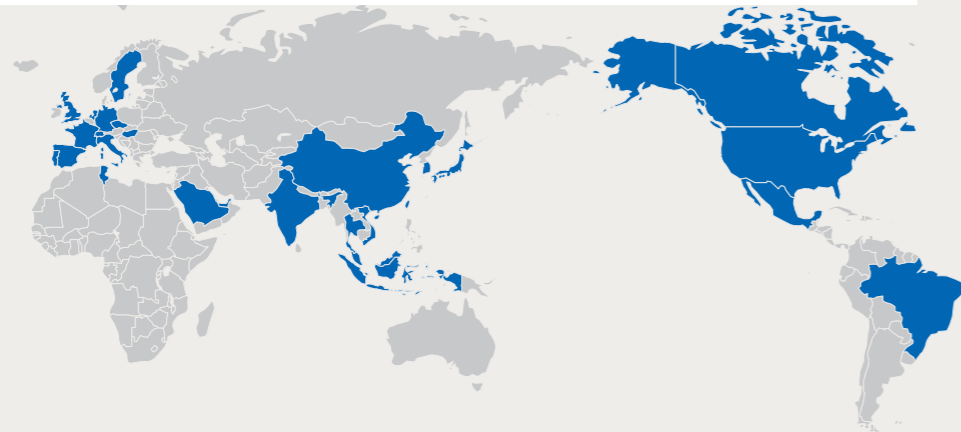
Toray has been selected as a constituent of the environmental stock index presented by S&P Dow Jones and the Tokyo Stock Exchange.



Toray Group Worldwide Network

Toray Group operates businesses in 29 countries and regions including Japan.

310 subsidiaries and affiliated companies (114 in Japan, 196 overseas) (as of March 31, 2023)



Japan

- Toray Fine Chemicals Co., Ltd.
- Toray Advanced Film Co., Ltd.
- Suido Kiko Kaisha, Ltd.
- Toray Construction Co., Ltd.
- Toray Engineering Co., Ltd.
- Toray Medical Co., Ltd.
- Toray Systems Center, Inc.
- Toray International, Inc.
- Chori Co., Ltd.
- Du Pont-Toray Co., Ltd.
- Japan Vilene Company, Ltd.
- DuPont Toray Specialty Materials K.K.
- Dow Toray Co., Ltd.
- Sanyo Chemical Industries, Ltd.

United Kingdom

- Toray Textiles Europe Ltd.

Italy

- Alcantara S.p.A.

France

- Toray Carbon Fibers Europe S.A.
- Toray Films Europe S.A.S

China

- Toray Fibers (Nantong) Co., Ltd.
- Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.
- Toray Industries (H.K.) Ltd.
- Toray Plastics (China) Co., Ltd.
- Toray Industries (China) Co., Ltd.
- Pacific Textiles Holdings Ltd.

Republic of Korea

- Toray Advanced Materials Korea Inc.
- Toray Battery Separator Film Korea Limited
- STEMCO, Ltd.
- STECO, Ltd.

Malaysia

- Penfibre Sdn. Berhad
- Toray Plastics (Malaysia) Sdn. Berhad

Indonesia

- PT. Indonesia Toray Synthetics

Thailand

- Toray Textiles (Thailand) Public Company Limited
- Thai Toray Synthetics Co., Ltd.

U.S.A.

- Toray Plastics (America), Inc.
- Toray Composite Materials America, Inc.
- Zoltek Companies, Inc.
- Toray Advanced Composites USA Inc.

Other group companies

- Fibers & Textiles
- Performance Chemicals
- Carbon Fiber Composite Materials
- Environment & Engineering
- Life Science
- Other
- Trading

Major Offices and Plants in Japan

Osaka Head Office

Branches

Nagoya, Hokuriku, Kyushu, Tohoku, Chugoku & Shikoku

Plants

Shiga, Seta, Ehime, Nagoya, Tokai, Aichi, Okazaki, Mishima, Chiba, Tsuchiura, Gifu, Ishikawa, Nasu

Overseas Offices

U.S.A.

Toray Industries (America), Inc.

Germany

Toray Industries Europe GmbH

China

Toray Industries (China) Co., Ltd.
Beijing Branch

Republic of Korea

Toray Industries Korea Inc.

India

Toray Industries (India) Private Limited

Brazil

Toray do Brasil Ltda.

Investor Information (As of March 31, 2023)

Common Stock:

Issued: 1,631,481,403 shares (including treasury stock)
Number of Stockholders: 206,980

Annual General Meeting:

The annual general meeting of stockholders is normally held in June in Tokyo.

Listings:

Common stock is listed on the Tokyo Stock Exchange.

Independent Auditor:

Ernst & Young ShinNihon LLC

Transfer Agent:

Sumitomo Mitsui Trust Bank, Limited
1-4-1, Marunouchi Chiyoda-ku, Tokyo
100-0005, Japan

Cash Dividends Per Share

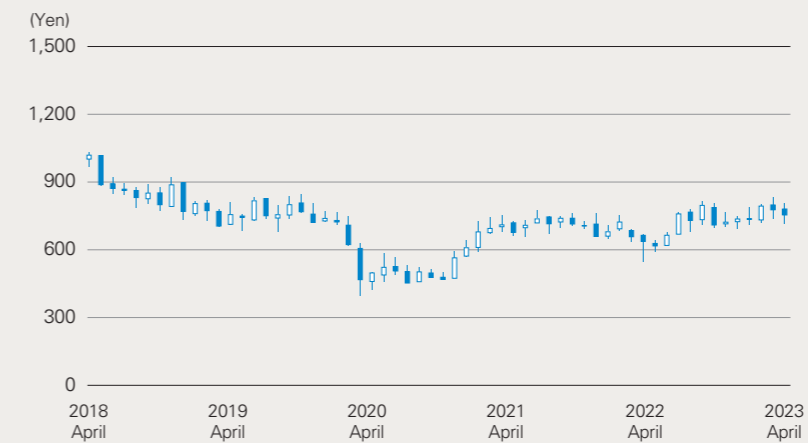
	FY 2022	FY 2021
Total for the year	¥18.00	¥16.00
Interim	9.00	8.00

Principal Stockholders

	Shares held	Percentage of shares held*
The Master Trust Bank of Japan, Ltd. (Trust Account)	255,550,400	15.95
Custody Bank of Japan, Ltd. (Trust Account)	132,812,600	8.29
Nippon Life Insurance Co.	71,212,250	4.45
TAIJU LIFE INSURANCE COMPANY LIMITED	35,961,000	2.24
STATE STREET BANK WEST CLIENT-TREATY 505234	26,808,514	1.67
National Mutual Insurance Federation of Agricultural Cooperatives	26,593,000	1.66
Custody Bank of Japan, Ltd. (Trust 4 Account)	24,608,800	1.54
Sumitomo Mitsui Banking Corporation	24,022,000	1.50
JP MORGAN CHASE BANK 385781	20,241,561	1.26
Mitsui Fudosan Co., Ltd.	19,460,720	1.21

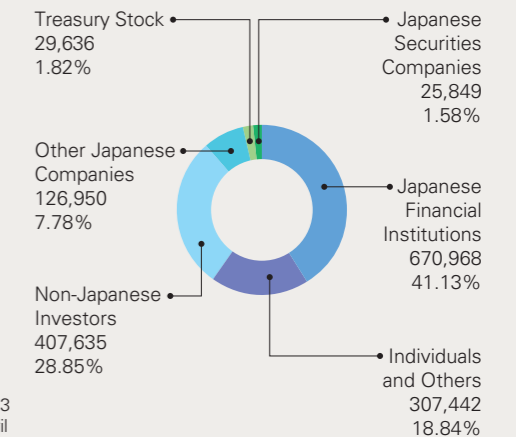
*Percentage of shares held is calculated excluding 29,636,294 shares of treasury stock.

Stock Price Range



Composition of Stockholders

(Thousands of shares)



Corporate Data (As of March 31, 2023)

Toray Industries, Inc.

Head Office

Nihonbashi Mitsui Tower, 1-1,
Nihonbashi-Muromachi 2-chome,
Chuo-ku, Tokyo 103-8666, Japan
Telephone: 81 (3) 3245-5111
Facsimile: 81 (3) 3245-5054
URL: www.toray.com

Established:

January 1926

Paid-in Capital:

¥147,873,030,771

Number of Employees:

48,682

Toray: 6,992
Japanese subsidiaries: 10,420
Overseas subsidiaries: 31,270

TORAY REPORT

