

Results by Segment for FY 2023

Segments	Summary of Financial Results	Performance (Billion yen)	Main Products
* The figures in parentheses of each segment are composition ratios by segment			
<div><div>Fibers &amp; Textiles</div><div></div></div>	<p>Despite the harsh business environment including soaring raw material prices, core operating income increased due to improvement in spread by passing on cost increases to sales prices and promoting high-added-value creation.</p> <p>Although affected by deteriorating market conditions in the U.S. and Europe, the apparel applications were strong, specifically for trading subsidiaries in and outside Japan.</p> <p>In the industrial applications, recovery trend continued, as demand for the automobile applications recovered due to alleviation of semiconductor shortages, as well as expansion in the EV applications.</p>	<div><div>Revenue</div><div>974.8</div><div>(40%)</div></div> <div><div>Core Operating Income</div><div>54.7</div></div>	<ul style="list-style-type: none"><li>Filament yarns, staple fibers, spun yarns, woven and knitted fabrics of nylon, polyester, acrylic, and others</li><li>Nonwoven fabrics</li><li>Ultra-microfiber nonwoven fabric with suede texture</li><li>Apparel products, etc.</li></ul>
<div><div>Performance Chemicals</div><div></div></div>	<p>In the resins business, demand decline in the Chinese market continued, but profitability improved due to improvement in product mix and reduction in fixed costs, etc. The chemicals business performed strongly.</p> <p>In the films business, even though the mainstay electronic parts-related application of PET films is recovering gradually, the impact of inventory adjustment in supply chains persisted in some areas.</p> <p>In the electronic &amp; information material business, demand for OLED-related materials and circuit materials saw some recovery.</p>	<div><div>Revenue</div><div>886.1</div><div>(36%)</div></div> <div><div>Core Operating Income</div><div>36.7</div></div>	<ul style="list-style-type: none"><li>Nylon, ABS, PBT, PPS, and other resins and molded products</li><li>Polyolefin foam</li><li>Polyester, polyethylene, polypropylene, and other films and processed film products</li><li>Raw materials for synthetic fibers, and other plastics</li><li>Fine chemicals</li><li>Electronic and information materials, and graphic materials, etc.</li></ul>
<div><div>Carbon Fiber Composite Materials</div><div></div></div>	<p>The aerospace applications recovered steadily, while wind turbine blade applications entered into an adjustment phase and demand for the industrial applications softened.</p> <p>Trends in the sports applications remained sluggish due to full-scale inventory adjustments, centered mainly on general-purpose goods for outdoor leisure activities.</p> <p>The wind turbine blade applications entered an adjustment phase and were affected by production adjustments. In addition, demand for the general industrial applications softened.</p>	<div><div>Revenue</div><div>290.5</div><div>(12%)</div></div> <div><div>Core Operating Income</div><div>13.2</div></div>	<ul style="list-style-type: none"><li>Carbon fibers, carbon fiber composite materials, and their molded products, etc.</li></ul>
<div><div>Environment &amp; Engineering</div><div></div></div>	<p>In the water treatment business, shipment in the U.S. and China, the two major markets for reverse osmosis membranes, was strong.</p> <p>Sales of a construction subsidiary in Japan were also strong, while plant-related business at an engineering subsidiaries grew.</p>	<div><div>Revenue</div><div>244.1</div><div>(10%)</div></div> <div><div>Core Operating Income</div><div>23.2</div></div>	<ul style="list-style-type: none"><li>Comprehensive engineering</li><li>Condominiums</li><li>Industrial equipment and machinery</li><li>IT-related equipment</li><li>Water treatment membranes and related equipment</li><li>Materials for housing, building, and civil engineering applications, etc.</li></ul>
<div><div>Life Science</div><div></div></div>	<p>In the pharmaceutical business, sales of oral anti-pruritic drug REMITCH®* were affected by the introduction of its generic versions and the NHI drug price revision, and that of orally active prostacyclin derivative DORNER™ were affected by inventory adjustment overseas.</p> <p>*REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.</p> <p>In the medical devices business, though sales of dialyzers were affected by the soaring prices of raw materials and fuels, shipment of dialyzers for hemodiafiltration in Japan was strong.</p>	<div><div>Revenue</div><div>52.2</div><div>(2%)</div></div> <div><div>Core Operating Income</div><div>▲ 1.3</div></div>	<ul style="list-style-type: none"><li>Pharmaceuticals</li><li>Medical devices, etc.</li></ul>

\*Excludes other businesses, equivalent to ¥16.9 billion (1%) in revenue and ¥3.3 billion in core operating income, and adjustment of core operating income of -¥27.2 billion. The composition ratio by segment of core operating income is calculated excluding the adjustment amount.

(FY)	2022	2023	Changes	2024 (Forecast)
Revenue (Billion yen)	999.2	974.8	-2.4%	1,006.0
Core Operating Income (Billion yen)	51.2	54.7	+6.8%	64.0
Core Operating Income Margin	5.1%	5.6%		6.4%

## FY 2023

### Revenue

974.8 billion yen

### Core Operating Income

54.7 billion yen

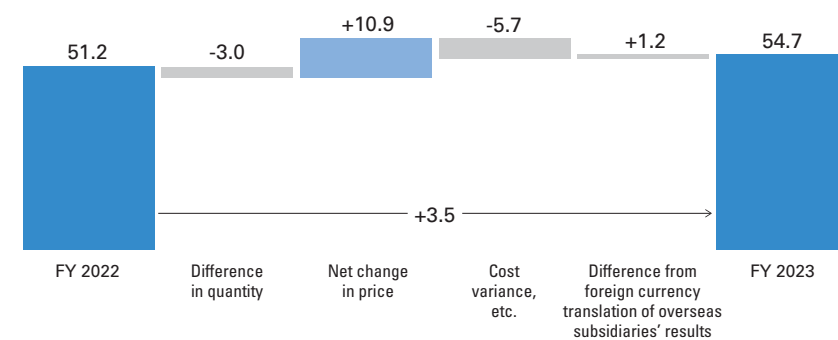
### Core Operating Income Margin

5.6%

### ROIC

6%

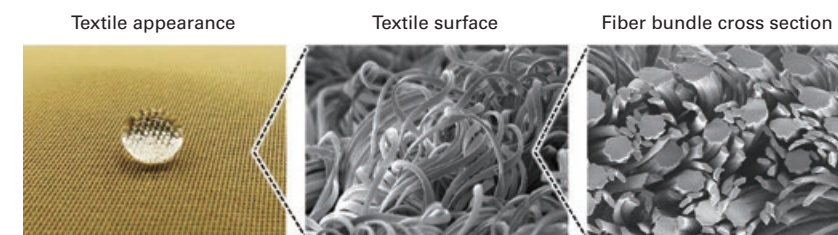
Changes in Core Operating Income (Billion yen)



## PFAS-free, Water-Repellent Stretch Textile with Excellent Water Droplet Removal Properties Developed

Toray has developed DEWEIGHT™, a water-repellent stretch textile that realizes excellent water droplet removal properties. These have been achieved through an environmentally-friendly water-repellent treatment without the use of fluorine-based (PFAS) water-repellent agents, which have been identified harmful.

For this material, we used the concept of biomimetics. The surfaces of lotus leaves and butterfly wings have a multi-roughness structure with fine irregularities formed on top of larger irregularities. A complex layer of air is created underneath the water droplets that land on these surfaces, allowing the droplets to roll off smoothly and thus resulting in excellent water droplet removal properties. Using our proprietary NANODESIGN™ technology, we recreated this structure on the surface of the DEWEIGHT™, achieving sufficient stretchability and a natural material-like feel. The plan is to develop the material in garments ranging from outerwear to bottoms for men and women from the spring/summer 2025 season.



## Messages from the General Managers of the Business Divisions

### Fibers & Textiles Business

Toru Kutsuzawa  
General Manager,  
Fibers & Textiles Division



### Business Strengths

The strengths of Toray's Fibers & Textiles business lie in the world's only three-dimensional business model, through which we provide customers with a full range of solutions by freely combining the three elements of (1) technological development and a variety of products, (2) vertical integration in the supply chain, and (3) a global business network.

### Current Business Environment and Initiatives

The business environment surrounding the Fibers & Textiles business remains harsh, with businesses that are expected to recover and expand struggling due to impacts of a slowdown in spending among U.S. and European consumers and sluggish Chinese economy. Other factors include higher costs due to raw materials and fuel prices hovering high and inflation, as well as intensifying competition centered on commodity markets. Moreover, companies are facing increasing pressure to engage with sustainability in light of the need to address global environmental issues, and therefore must without question accelerate the shift to sustainable materials.

Under this business environment, the main initiatives for the Fibers & Textiles business raised in AP-G 2025 are (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.

### Progress of Initiatives Set in AP-G 2025

The basic policy for the Fibers & Textiles business in AP-G 2025 is to aim for sustainable growth with high profitability through the realization of a stronger foundation and advanced products as measures for promoting sustainability, and through global business expansion in growth business fields. Founded on this policy, we are currently progressing with the three main initiatives described above.

First, as far as (1) improving profitability by ultimate value creation is concerned, we have positioned the ultra-microfiber nonwoven materials with suede texture and airbag textile businesses as growth business fields in which the Group is unified in working to increase profitability. Moreover, we are focused on shifting to high-added-value products utilizing Toray's unique technologies, for example by applying the conjugate spinning technology called NANODESIGN™ to create a continuous stream of products with innovative functions.

Next, with respect to (2) business expansion in growth fields based on high-performance, highly textured products that make use of environmentally responsible materials, we are engaged in product development and business expansion that merges marketing, production, technology, and research. This effort is focused on the two brands of Ecodear™, bio-mass-based materials, and recycled materials &+™.

Lastly, as for (3) product and operational excellence, we are working to strengthen our textile sales capabilities with a focus on the Company's global brands of high-performance textiles. At the same time, we are in the process of expanding integrated businesses through efforts aimed at continuously deepening and extending the global supply chain for apparel applications. On the other hand, we will take steps to improve the profit foundation for businesses and companies that require business structure reforms, such as the polyester/cotton fabric (T/C) business and affiliates in the Fibers & Textiles business. This move will rely on optimizing the scale of production, reviewing product portfolios, and withdrawing from low-profitability businesses, among others.

By working on the aforementioned main initiatives in the Fibers & Textiles business, in FY 2025 we aim to achieve a core operating income of ¥64 billion, up ¥12.8 billion over FY 2022, and an ROIC of 7%, an improvement from the 6% in FY 2022.





## Performance Chemicals

### FY 2023

#### Revenue

**886.1** billion yen

#### Core Operating Income

**36.7** billion yen

#### Core Operating Income Margin

**4.1%**

#### ROIC

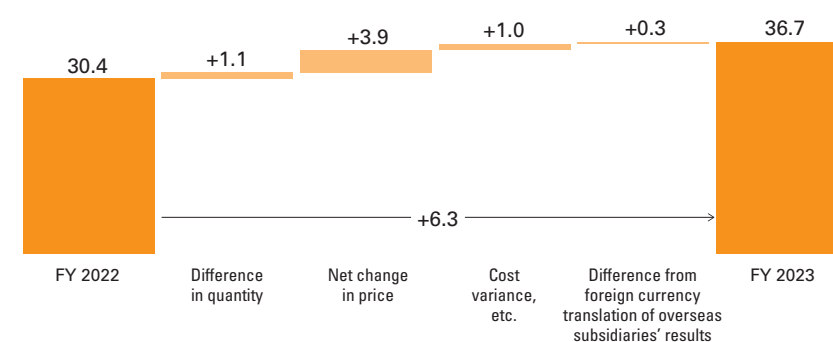
**4%**

#### Revenue Breakdown of Performance Chemicals Segment (Billion yen)

(FY)	2022	2023
Resins, Chemicals	419.5	<b>391.2</b>
Films	321.5	<b>330.5</b>
Electronic & Information Materials	55.2	<b>65.5</b>
Trading, Other	547.1	<b>522.5</b>
Adjustments	▲433.8	<b>▲423.6</b>
Total	909.4	<b>886.1</b>

(FY)	2022	2023	Changes	2024 (Forecast)
Revenue (Billion yen)	909.4	<b>886.1</b>	-2.6%	954.0
Core Operating Income (Billion yen)	30.4	<b>36.7</b>	+20.8%	63.0
Core Operating Income Margin	3.3%	<b>4.1%</b>		6.6%

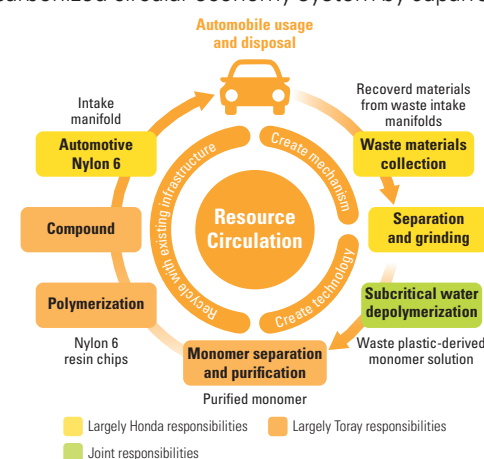
#### Changes in Core Operating Income (Billion yen)



### Joint Verification Project for Chemical Recycling of Nylon 6 Resin from Automobiles Begins

Toray Industries Inc. and Honda R&D Co., Ltd. have begun a joint verification project on a chemical recycling technology in which glass fiber-reinforced nylon 6 parts recovered from end-of-life automobiles are depolymerized with subcritical water to regenerate the materials as a raw monomer (caprolactam). A high-temperature, high-pressure water that can depolymerize nylon 6 in several dozen minutes without the use of catalysts or being affected by additives, subcritical water can generate high yields of raw material monomer.

This technology has been adopted for a FY 2023 project designed to promote the establishment of a decarbonized circular economy system by Japan's Ministry of the Environment. The project will first proceed with the development of depolymerization, monomer separation and refining technologies using intake manifolds, a part of the engine intake system, as raw materials with the aim of commercializing them as chemical recycling technologies for automotive resin parts by around 2027.



## Messages from the General Managers of the Business Divisions

### Resins & Chemicals Business

#### Takashi Endo

General Manager,  
Resins & Chemicals Division



#### Business Strengths

The strengths of the resins business are: an integrated production system for raw materials, polymers, and compounds; stable supply capabilities from business locations in 10 countries around the world; extensive lineup of high-quality products; and new product development capabilities. Similarly, the strength of the chemicals business is its comprehensive solution proposal capabilities that leverage the compelling product lineup based on Toray's proprietary synthesis technologies.

#### Current Business Environment and Initiatives

Currently, this business faces a harsh business environment as a result of market sluggishness due to delayed recoveries in automobile production and demand from China, as well as to oversupply. On the other hand, we foresee the emergence of new demand in line with the growing pressure to address sustainability and with the advancement of today's digital society. We therefore aim to expand business for sustainable materials, digital technology-related materials, and other high-performance products. In addition to raw material costs, however, the costs of utilities, logistics, and other areas are also on the rise. In response, we will promote the value of Toray's products to customers through strategic pricing, and work on passing on cost increases to sales prices in a seamless manner.

#### Progress of Initiatives Set in AP-G 2025

In the resins business, in light of the inappropriate action regarding Underwriters Laboratories (UL) certification announced in January 2022, we have continued our efforts to prevent recurrence and have completed UL recertification for the necessary grades. In order to reemerge as a trusted partner for our customers, we aim to establish a system that provides a stable supply of high-quality services and products with a priority on quality and compliance above all else.

In the TORELINA (PPS resin) business, which is expected to see greater demand mainly from electric vehicles owing to their remarkable growth, we will increase polymerization capacity by 5,000 tons per year. Moreover, along with furthering existing efforts to enhance compound production capacity, we are promoting technological differentiation from competitors in the aim of maintaining our leading global market share and of raising profitability.

In the TOYOLAC (ABS resin) business, we will promote expansion of differentiated grades for automobiles, transparent ABS resin for the medical applications, and other high-performance products in an effort to transition to a stable profit business that is generally insulated from the influence of market movements. Going forward, we will advance the development and expansion of sustainable materials, and work to strengthen profitability.

In the chemicals business, we will, without delay, advance production facility capacity enhancements focused on the mainstay fine chemicals business in and outside of Japan, and firmly capture the growing demand for agriculture chemicals, semiconductors, and energy-saving products. With the goal of further business expansion, we are also moving forward with preparations towards approval application as planned to accelerate overseas deployment of the veterinary medicines business.

Since its founding, the resins and chemicals business has created new value together with our customers through development and sales of high-performance products. We will continue to reduce greenhouse gas emissions with an eye to the entire supply chain through the expansion of sustainable material businesses and through reductions in greenhouse gas emissions from plants, thereby contributing to the sustainable development of society.

Messages from the General Managers of the Business Divisions

Films Business

Kazuhisa Itsuji  
General Manager,  
Films Division



Business Strengths

The strengths of the films business are the production and sales system capable of supplying high-quality, high-performance products that address the various customer needs in each region across the globe, and research and development capabilities that pursue ultimate performance using the fundamental technologies that support the system, namely polymer, nano, and film production and processing technologies. Under the Ecouse™ brand, we were the first company in the world to sell a film made by collecting and recycling the used PET film, thereby leading the industry in regard to action on sustainability.

Current Business Environment and Initiatives

Although profits significantly fell due primarily to repercussions from extraordinary demand caused by COVID-19 starting in 2022, the films business has made a comeback owing to a recovery in demand upon entering 2024 and to progress in various self-improvement measures.

PET films, however, are now faced with a harsh business environment against the backdrop of increasing general versatility of existing applications and rising infrastructure costs in the U.S. and Europe, primarily. In response, we are currently in the process of implementing structural reforms involving consolidation of production lines that are no longer competitive and reflecting costs in product selling prices commensurate with competitiveness. Meanwhile, the Asian market for PET films for electronic components, which has experienced prolonged inventory adjustments throughout the entire supply chain, returned to a growth trajectory.

Having dominated the global market through overwhelming product competitiveness and contributing to lighter-weight, compact EVs and HEVs, TORAYFAN for automotive capacitors has grown into a pillar of profit for the films business. In 2025, we will work to further expand the business by adding production lines of film at Tsuchiura Plant.

As far as food packaging applications are concerned, which help enhance various functions, including barrier properties that extend shelf life, we are working to address sustainability as the greatest issue for these films. Specifically, we are reducing the thickness of these films to minimize the use of plastic, switching to monopolymer structures to enhance recyclability, and transitioning to plant-based products and biodegradable films.

Progress of Initiatives Set in AP-G 2025

In order to complete the concept shift from plastic films to environmentally friendly functional films, we have worked to withdraw from general-purpose product groups in an effort to shift all film products to high-added-value products. At the same time, we have engaged in strategic pricing initiatives at all locations and for all products, whereby we comprehensively analyze the value of Toray products as seen from the customer’s viewpoint, and reflect in selling prices the appropriate level of value enabled by higher quality delivered throughout the supply chain.

In order to further strengthen competitiveness, we will increasingly make upgrades to existing products, including films for MLCC and DFR applications, with a sense of speed through collaboration between production, sales, technology, and research. Similarly, we will advance new application and product developments across the globe in a way that is tailored to various and new needs such as next-generation batteries, hydrogen, and AI.

Messages from the General Managers of the Business Divisions

Electronic & Information Materials Business

Kei Shimaji  
General Manager,  
Electronic & Information  
Materials Division



Business Strengths

The strengths of this business are its development capabilities that draw out superior material properties, a robust patent network, and strong partnerships with major customers. In particular, our OLED display materials are recognized for their high reliability, and have thus established a position as the de facto standard. Similarly, in regard to semiconductor and electronic component materials, we have captured a leading market share given the advantages offered by our extensive product lineup tailored to different applications. By further extending these strengths, we will contribute to the group-wide efforts to expand the Digital Innovation business.

Current Business Environment and Initiatives

Despite an apparent move away from television, primarily among younger generations, the mainstay display market is experiencing growth in demand for high-performance tablets, laptop computers, and other mobile devices. In the other mainstay market of semiconductors, growth in demand for power semiconductors has come to a temporary standstill due to sluggishness in automotive power semiconductors used in xEV and those used in consumer goods. On the other hand, memory applications are trending towards recovery against the backdrop of expanding investments in data centers following the spread of AI. Under this environment, we will cooperate closely with our customers to develop new products in a swift, timely manner that stays one-step ahead of demand in order to identify growth markets and release a steady stream of new products that match these. Moreover, the situation in Ukraine, prolonged economic friction between the U.S. and China, growing tensions in the Middle East, and other aspects of the social landscape will potentially keep energy prices high and drive inflation to new levels. We therefore face the critical challenge of accurately grasping product strengths and added value to ensure appropriate pricing commensurate with product value.

Progress of Initiatives Set in AP-G 2025

In working to enhance corporate value and improve profitability as group-wide initiatives, in FY 2024 we commissioned a new polyimide production line for OLED display materials, and made the decision to introduce research and development equipment in South Korea with an eye to the shift in demand from televisions to mobile devices. Similarly, in order to fulfill continuously growing demand, as well as the need for environmental action, regarding semiconductor and electronic component materials, we are currently increasing production capacity for photosensitive N-methyl-2-pyrrolidone-free (NMP-free) polyimide and non-photosensitive polyimide. Moreover, as part of our strategic pricing activities, we are improving profitability by expanding sales of new, highly competitive products for head-mounted displays and tablets, as well as by focusing efforts on revising selling prices based on customer value analyses of existing products. We will steadily promote these initiatives and expand business in a sustainable, environmentally responsible manner.

FY 2023

Revenue

290.5 billion yen

Core Operating Income

13.2 billion yen

Core Operating Income Margin

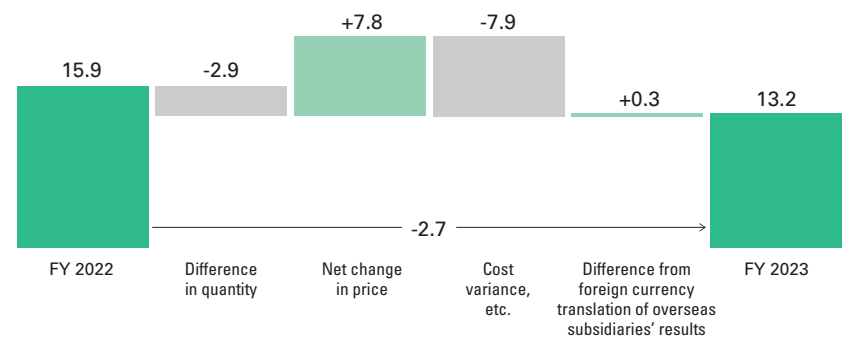
4.5%

ROIC

2%

(FY)	2022	2023	Changes	2024 (Forecast)
Revenue (Billion yen)	281.7	290.5	+3.1%	307.0
Core Operating Income (Billion yen)	15.9	13.2	-17.2%	24.0
Core Operating Income Margin	5.7%	4.5%		7.8%

Changes in Core Operating Income (Billion yen)



Increase of Regular Tow Carbon Fiber Production Facility Capacity in the United States, Korea, and France

Toray decided to increase regular tow carbon fiber production capacity at three of its subsidiaries, Toray Composite Materials America, Inc. (CMA), Toray Advanced Materials Korea Inc. (TAK), and Toray Carbon Fibers Europe S.A. (CFE) in France, with new lines at each subsidiary scheduled to begin production in 2025.

Driven by the decarbonization megatrend, Toray anticipates that demand for regular tow carbon fiber will expand at an annual rate of 17% through 2030. Toray plans to increase production capacity at CMA's Spartanburg plant, TAK's Gumi plant, and CFE's Abidos plant, increasing annual production capacity across the Toray Group from the current 29,000 tons to 36,000 tons.

By these increases in production facility capacity Toray is working to establish a stable supply system in the United States and Korea in response to rising demand, mainly for pressure vessel applications, and also with a view toward stable supply for aviation and other applications. In Europe, Toray is responding to increasing demand for the medium- and high-modulus carbon fibers used for secondary structures and engines of commercial aircraft, the demand for which is expected to grow as build rates recover, as well as uranium enrichment rotors, satellite applications, and high-end automobiles. This increase in production facility capacity will likewise help to ensure a stable supply.

Messages from the General Managers of the Business Divisions

Carbon Fiber Composite Materials Business

Takashi Yoshiyama

General Manager,  
Torayca & Advanced Composites  
Division



Business Strengths

The strengths of Toray's carbon fiber composite materials are their high functionality and high reliability. In addition to their quality and usability demonstrated through a years-long track-record of use, we will leverage our development and proposal capabilities for various intermediate materials and composites, such as regular tow, large tow, thermoset resins, and thermoplastic resins. Specifically, we will use this approach to develop advanced materials and products, and to swiftly address market pressure for carbon footprint (CFP) improvements, as a means of helping to realize a carbon neutral society through business expansion.

Current Business Environment and Initiatives

The carbon fiber demand in 2024 for the aerospace applications is being driven by increased aircraft production of Boeing and Airbus compared with the previous year. In the industrial applications, despite demand growth in pressure vessels over the previous year, compressed hydrogen gas (CHG) tanks are sluggish in demand, due mainly to a slowdown in infrastructure roll-out. In contrast, demand for wind turbine blades is expected to recover in the second half. Meanwhile, in the general purpose products in the sports applications, inventory adjustments are continuing, stemming from the effects of the end of the special demand caused by COVID-19.

Currently, we are focused on addressing the growing numbers of aircraft in production, and on steadily capturing increasing demand for pressure vessels. In response to the recent emergence of new carbon fiber manufacturers from China and South Korea, we have been working to further strengthen quality and cost competitiveness, and prioritizing action on carbon neutrality and other issues.

Progress of Initiatives Set in AP-G 2025

We have decided to expand regular tow carbon fiber production facilities at our subsidiaries in the U.S., South Korea, and France, which are scheduled to start operations in 2025. In the pressure vessel applications including compressed natural gas (CNG) tanks, compressed hydrogen gas (CHG) tanks, for which growth is anticipated, we are working to develop high strength carbon fibers to meet customer needs. Similarly, we will maintain and strengthen our competitive advantages in terms of both quality and cost in the increasingly competitive market. Likewise, we will improve profitability by expanding differentiated products such as medium- and high-modulus fibers.

Although demand for large tow from wind turbine blade applications temporarily declined, we have worked to strengthen this area by reducing fixed and utility costs with an outlook for full-scale recovery in FY 2025. For customers in Europe and the U.S., we are developing new products and pioneering new applications, including development of high-quality grades for offshore windfarms and longer blades.

From an environmental-friendliness perspective, Toray's Ehime Plant, a carbon fiber manufacturing subsidiary in France, and a prepreg manufacturing subsidiary in Italy were certified by ISCC PLUS. Likewise, we have begun disclosing information on an individual basis to address the demand from customers for CFP disclosures. As a recent application example in this area, Lenovo is now manufacturing laptop computers using recycled carbon fibers from scraps discarded during the manufacturing processes for the Boeing 787's main wings, which are made from Toray carbon fibers.



## FY 2023

### Revenue

**244.1** billion yen

### Core Operating Income

**23.2** billion yen

### Core Operating Income Margin

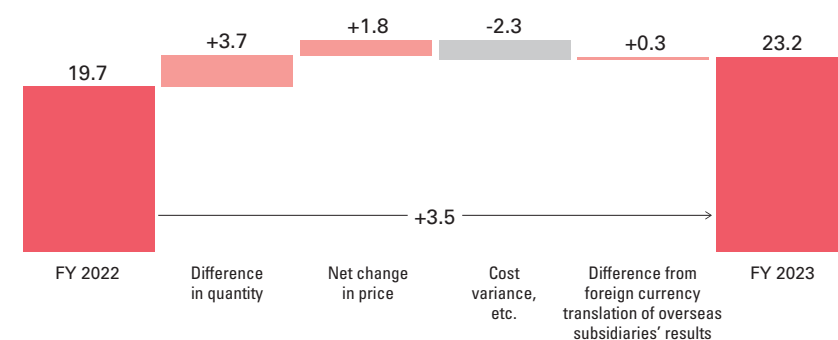
**9.5%**

### ROIC

**8%**

(FY)	2022	2023	Changes	2024 (Forecast)
Revenue (Billion yen)	228.8	<b>244.1</b>	+6.7%	250.0
Core Operating Income (Billion yen)	19.7	<b>23.2</b>	+17.7%	25.5
Core Operating Income Margin	8.6%	<b>9.5%</b>		10.2%

### Changes in Core Operating Income (Billion yen)



### Order for Reverse Osmosis (RO) Membranes for Saudi Arabia's Large-Scale Seawater Desalination Plant Received

Toray received an order for reverse osmosis (RO) membranes for the Yanbu 4 seawater desalination plant in the Kingdom of Saudi Arabia. The products and technical services will be provided by local subsidiary Toray Membrane Middle East LLC (TMME).

Key factors in Toray obtaining this order were its RO membrane technology and robust record in the Middle East established over the past 15 plus years, delivering lower capital investments and operating costs compared to the conventional evaporation method. With a water production capacity of 450,000 m<sup>3</sup> per day, the Yanbu 4 plant supplies potable water to Madinah and the famous pilgrimage site of Makkah.

The plant is also the Kingdom's first seawater RO desalination plant using clean energy such as solar power under a public-private-partnership (PPP) structure. The Gulf countries are investing extensively in infrastructure to cater to rising demand for water brought about by population growth, and the Yanbu 4 plant represents an example of the paradigm shift from the evaporation method to the RO membrane method.

Toray will continue to help resolve water issues around the world, including in the Middle East where water demand is expected to grow, by providing cutting-edge water treatment membranes such as RO membranes and strengthening its technical services to operating plants.



## Messages from the General Managers of the Business Divisions

### Water Treatment Business

#### Satoshi Shimoyama

General Manager,  
Water Treatment & Environment  
Division



### Business Strengths

Amid the world's various water-related problems, since the 1960s the Company has worked to develop membranes with an eye to the future, leading to the in-house development of various kind of products, including reverse osmosis (RO), nanofiltration (NF), ultrafiltration (UF), and microfiltration (MF) membranes. Today, we provide optimal solutions tailored to different water sources and applications in more than 100 countries around the world. Also, we have established a production system consisting of five locations across the globe, as well as the global sales and technical service network, in order to produce high-quality products in the regions where they are consumed, provide technical services aligned with the needs of local customers, and work to solve rapidly growing and intensifying water problems around the world.

### Current Business Environment and Initiatives

In addition to water shortages arising from global warming and population growth, more stringent environmental regulations have been triggered by a growing awareness of the environment. As a result, construction of large-scale seawater desalination plants in the Middle East remains an ongoing trend, which is also spreading into North Africa. Amid the increasing demand to reuse wastewater, the Company was one of the first to establish a track record in this area through NEWater, the advanced treatment plant in Singapore, and is now rapidly expanding into the west coast of the U.S. In China, the largest market, we have been affected by lower demand for thermal power generation due to efforts focused on achieving peak carbon emissions, yet there is also hope for new demand stemming from action on achieving zero emissions. Despite fluctuations caused by economic and geopolitical risks, we are establishing supply systems that are prepared for higher demand over the medium- to long-term. We will also strengthen our business foundation by promoting aggressive business expansion in growth business fields and new markets, and by strengthening competitiveness through more sophisticated technical services and thorough cost reductions.

### Progress of Initiatives Set in AP-G 2025

We are progressing with business expansion as planned in the mainstay RO membrane business with the goal of capturing the top global market share in FY 2025. Amid a rising demand for seawater desalination applications in the Middle East, North Africa, and other drought-prone regions across the globe, we are working to expand local production capacity and to enhance technical service locations as a means of steadily capturing new large-scale and replacement projects. Regarding ultrapure water applications for semiconductors, as semiconductors have become more advanced, we have released a new product which is better able to remove silica and other neutral substances from water for the purpose of improving yields in the semiconductor fabrication cleaning process. Currently, we are also developing an energy-saving type that will help reduce CO<sub>2</sub> emissions. Meanwhile, wastewater reuse applications are growing at 10% per year given the ease with which raw water can be obtained, even in inland areas, and the ability to reduce environmental impacts. In order to accommodate raw water from regions around the world, we are developing new products and strengthening solution proposals that rely on combination of Toray membranes (UF + RO, MBR + RO). In addition to business expansion in these growth business fields, we are also developing products with an eye to future needs such as recovering lithium and removing PFAS from water, promoting the value of seamless technical services from design proposal to plant inspection, and strengthening profitability by implementing thorough cost reductions.

## FY 2023

### Revenue

**52.2** billion yen

### Core Operating Income

**▲1.3** billion yen

### Core Operating Income Margin

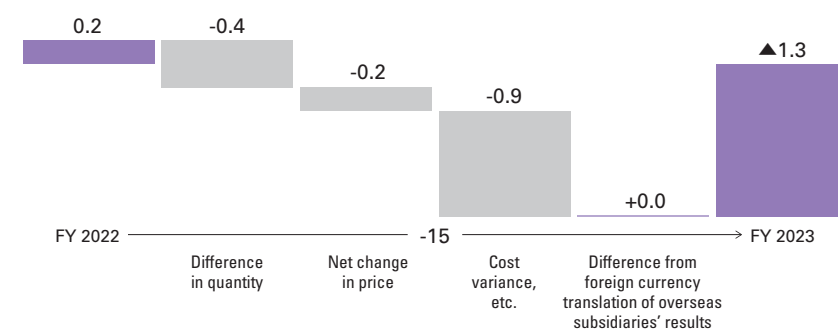
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### ROIC

**-2%**

(FY)	2022	2023	Changes	2024 (Forecast)
Revenue (Billion yen)	53.8	<b>52.2</b>	-2.8%	55.5
Core Operating Income (Billion yen)	0.2	<b>▲1.3</b>	—	0.0
Core Operating Income Margin	0.4%	—	—	—

### Changes in Core Operating Income (Billion yen)



### Launch of In Vitro Diagnostic Test Kits to Aid in Diagnosis of Pancreatic Cancer

Covered by Japanese health insurance, Toray APOA2-iTQ in vitro diagnostic test kits intended to assist in the diagnosis of pancreatic cancer went on sale in February 2024. Since blood-based diagnostics are utilized for the kits, their accessibility will facilitate use by many more people. Pancreatic cancer is one of cancers which do not readily produce detectable symptoms and grow rapidly, but survival rates are expected to improve if detected early.

Professor Kazufumi Honda of the Graduate School of Medicine of Nippon Medical School discovered that the quantitative ratios of two types of APOA2 isoform protein change in the blood of pancreatic cancer patients. Since this product is based on this principle and measures substances different from existing tumor markers, it is expected to enable the early diagnosis of pancreatic cancers in patients that would previously have gone undetected.



## Messages from the General Managers of the Business Divisions

### Pharmaceuticals & Medical Products Business

#### Jun Hayakawa

General Manager,  
Pharmaceuticals & Medical  
Products Division



#### Business Strengths

In the pharmaceuticals business, we leverage organic chemistry and biotechnology, the core technologies of Toray, to sell, research, and develop pharmaceutical products that resolve unmet medical needs. In the medical devices business, our ability to create innovative medical materials and devices with high added value based on advanced material technologies is the source of our competitiveness. In the dialyzer products business, we help improve the satisfaction of patients, reduce the burden on medical practitioners, and improve the economics of dialysis centers as the only manufacturer in Japan that offers a full line-up of dialyzers featuring hollow fiber and surface processing technologies, dialysis monitoring systems, dialysis water, and the related management systems. In addition to the three existing businesses, in 2024 we launched the in vitro diagnostics agent business, and will pursue synergy among these four businesses to realize new strengths.

#### Current Business Environment and Initiatives

Due to the NHI drug pricing and reimbursement pricing, we are not allowed to pass on the soaring cost of raw materials, fuel, and logistics to the prices. In such industrial structure, the business environment remains severe, stemming from the continuous reduction of NHI drug prices and reimbursement prices in Japan, and the entry and penetration of generics in the market both in and outside Japan. Against this backdrop, we will expand profitability by strengthening global expansion, new product sales, and high-value-added products.

#### Progress of Initiatives Set in AP-G 2025

In 2024, in the pharmaceutical business, we launched sales for REMITCH® in China (partner: 3S Bio) and Thailand (partner: Meiji Seika Pharma). Also, we acquired approval for this product in Indonesia (partner: Meiji Seika Pharma) in August 2024. And we will supply safe products that can be used with peace-of-mind in order to enhance the QOL (Quality of Life) of patients in each of these countries.

As for dialyzers, we have completed our line-up of ultrapure water production equipment using Toray's high-performance RO membranes, dialysis fluid delivery system, dialysis monitoring systems, and the systems that manage these in an integrated manner. We are now promoting water savings, fluid savings, power savings, and other economic benefits afforded by ultrapure water machines and integrated management systems. We will also provide other forms of new value, including an additional function that mitigates the drops in blood pressure that often occur during dialysis treatments as an option for newly purchased dialysis machines, and medical support for dialysis centers.

In February 2024, we launched sales of Toray APOA2-iTQ as a pancreatic cancer diagnostic assistance kit, and embarked on full-scale operations of the in vitro diagnostics agent business. In this way, we are promoting greater use of this test in an effort to help save as many patients as possible. And we will collect further clinical evidence to further its use around the world.

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