# **IR Seminar**

# **Toray Group's Initiatives for Sustainability Business**

On September 3, 2025, the Company held an IR seminar. Presentations were delivered by Shinichiro Hata, Corporate Vice President and General Manager of the Corporate Sustainability Strategic Management Division, and Yuriko Teshigawara, Group Leader of the Sustainable Business Strategy Group, Corporate Sustainability Strategic Management Division.





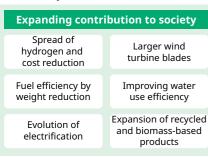


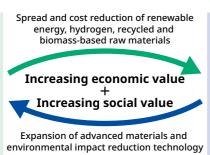
# **Sustainability-Related Business Initiatives**

In the Toray Group, we believe that greater social contributions and the reduction of our own environmental impacts through business activities create a positive cycle that leads to the enhancement of both economic and social value. To this end, we are driving forward initiatives geared towards realizing the Toray Group Sustainability Vision, which we

established in 2018. Accordingly, since the 2010s, we have been promoting the Sustainability Innovation (SI) Business (formerly the Green Innovation (GR) and Life Innovation (LI) Businesses). The SI business continues to expand, and by FY 2024, revenue from this business grew to 1.4 trillion yen, accounting for more than 50% of the Company-wide sales.

### Expanding contributions to society through business and reducing our environmental impact create interactive "Virtuous Cycle of Value"



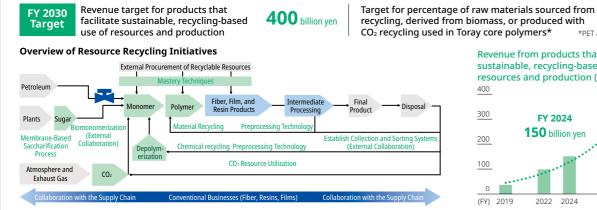


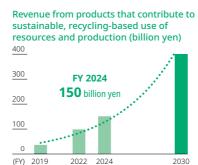
Reducing our environmental impact						
Conversion to clean fuels	Utilization of renewable energy					
Process innovation	Reduction of water usage					
Applying recycled and biomass-based raw materials	Waste reduction					

### **Initiatives for Resource Recycling**

In the field of resource recycling, we are replacing fossil resource-derived raw materials used in fibers, films, and resin products with materials from material recycling and chemical recycling, as well as biomass-derived raw materials. We are not only focusing on material development, but also on process development and utilization technologies development

on our own, as well as restructuring supply chains. Moreover, we are considering the possibility of converting CO<sub>2</sub> itself into a resource in the future. Revenue from the businesses related to the resource recycling exceeded 150 billion yen in FY 2024, and by FY 2030, we are targeting 400 billion yen.





### **Initiatives to Reduce Environmental Impact**

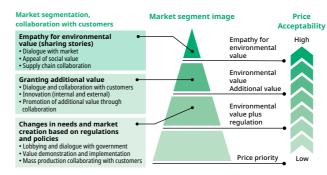
As part of the "Challenge 50+ Project," our company-wide initiatives to reduce our environmental impact, we have set an ambitious goal of reducing GHG emissions and water usage over 50% compared to 2013 levels by 2030. While expanding our businesses, we are pursuing higher efficiency and higher-added-value, and steadily decreasing our GHG emissions and water usage per unit of revenue. We are also tackling the reduction of Scope 3 emissions by collaborating with suppliers to reduce emissions in Category 1, which has the highest impact, and making the transition to raw materials with a low carbon footprint. Furthermore, through our

efforts on so-called "nature positive" initiatives that aim to protect and restore biodiversity and natural capital, we are stepping up our activities to reduce environmental impact, such as improving water use efficiency.

#### Challenge 50+ Project: Goals Lower GHG emissions | Lower GHG emissions Reduce water usage per unit of revenue per unit of Toray per unit of revenue across the Toray Group in Japan by: across the Toray Group by: Group by: **50**% **50**% 40% or more reduction

### **Conversion of Environmental Value to Economic Value**

One of the most important challenges for us is to have the market and customers recognize the increased costs associated with sustainability activities and the environmental value, and convert them into economic value. We are focusing on creating a mechanism to convert environmental value into economic value by segmenting based on the price acceptance of environmental value and by collaborating with our customers.



### 1. Empathy with Environmental Value

Toray's technological capabilities in using biomass-derived raw materials have achieved a performance equivalent to fossil resources. The environmental value from this has been rated highly, leading to the adoption of 100% plant-based nylon N510 fibers in the TANKER™ bags made by Yoshida & Co.

## 2. Granting Additional Value to Environmental Value

Our recycled fiber product brand, &+™, features a combination of yarns made from recycled PET bottles through material recycling and yarns made from discarded fishing nets through chemical recycling, plus Toray's proprietary odd-shaped cross-sectional spinneret technology and ultra-precise composite spinning technology controlled at the nanoscale. This has granted additional value, such as comfort and functionality, to environmental value.

### 3. Environmental Value Plus Regulations

In response to the European ELV (end-of-life vehicle) Directive draft, we are advancing R&D on chemical recycling using subcritical water to recycle automotive parts. Also, we have been involved in hydrogen-related businesses since the early stage of the technology, focusing on supplying products for high-pressure hydrogen gas tanks, fuel cell systems, and water electrolysis systems. As Europe and China lead the hydrogen market through government initiatives, we aim to enter various supply chains and create environmental value driven by regulations and policies.

# **Initiatives Targeting 2030 and Beyond**

Going Forward, by the power of materials and innovation, the Toray Group will continue to tackle various challenges such as larger wind turbine blades, transition to hydrogen, and improvements in recycling, bio-based materials, and

water use efficiency. Also, while securing profitability, we will strive to achieve a balance between global development and sustainability.

	Method	Initiatives	Toray's innovative product	2030	2040	2050
GHG Emissions Reduction	Larger wind power generation	Lightweight / high-strength wind turbine blades	Large tow carbon fiber	Main electricity source Onshore / Offshore (Bottom-fixed) Offshore (Floating)		
	Transition to hydrogen	High-efficiency water electrolysis	Electrolyte membrane, CPs/GDLs for electrodes, Diaphragms, Carbon fiber for tanks	Full-fledged market expansion  Alkaline type PEM type		
	CO <sub>2</sub> removal for CCS	Improved performance of CO <sub>2</sub> separation	Gas separation membrane	Blue hydrogen  Amin absorption method  Membrane separation method		
Resource Recycling	Promoting recycling	Expansion of recycling targets	Separation & refining technology, High-functionality, Subcritical water depolymerization, Hydrogen bacteria	Material recycling Chemical recycling Carbon recycling(CO <sub>2</sub> resource utilization		urce utilization
	Use of non-edible biomass-based raw materials	Efficiency improvement of biochemical processes	Membrane-integrated, saccharification process	Independent from fossil fuel resource		l fuel resources
Nature Positive	Increasing water efficiency	Expansion of applications Improvement of water production / durability	High-performance, water treatment membrane	Expans	ion of water reuse m	arket

Toray Report 2025 Toray Report 2025