



Innovation by Chemistry

TORAY IR Day

Medium-Term Management Program Project AP-G 2025

Toray Group's Measures for Ultimate Value Creation

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**Executive Vice President and Representative Member of the Board,
Toray Industries, Inc.**



- I. Medium-Term Management Program, Project AP-G 2025**
 - Strategies to Seize Profit Opportunities**
 - I-1. Measures for Ultimate Value Creation, etc.**
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Project AP-G 2025 “Innovation and Resilience Management”

Toray Group will achieve sustainable growth driven by the Sustainability Innovation Business and the Digital Innovation Business

Five Basic Strategies of Project AP-G 2025

TORAY IR Day

Seizing Profit Opportunities

Strategy 1. Sustainable growth

Focusing management resources on Sustainability Innovation Business and Digital Innovation Business

Strategy 2. Ultimate value creation

Maximizing profitability by making the most of tangible and intangible assets, and by collaborating with external partners

Strategy 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

Strategy 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

Strategy 5. Risk management and governance

Ensuring sound organizational management by enhancing internal controls and improving management capabilities

Toray Group Growth Business Fields

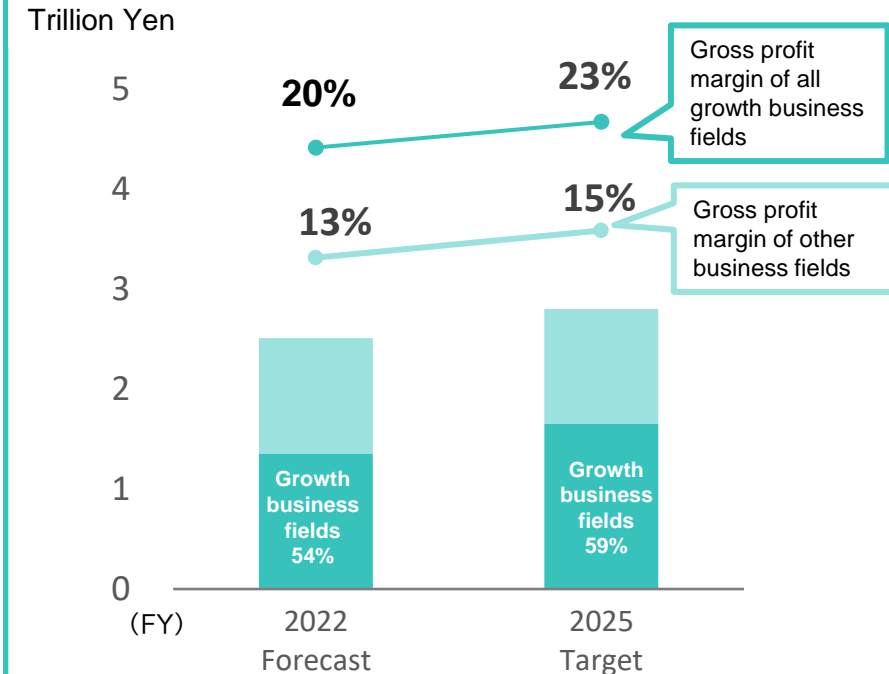
Expanding revenues from businesses related to Sustainability Innovation Business and Digital Innovation Business to about 60% of total

Growth Business
Fields under
AP-G 2022

Growth Business Fields under AP-G 2025



Revenue from Growth Business Fields



Investment in growth business fields

Investment in growth business fields	450	Billion Yen
Breakdown		
• Capital Investment	270	Billion Yen
• R&D	180	Billion Yen

GR Business:
Green Innovation
Business

LI Business:
Life Innovation
Business

Ultimate value creation, Product and operational excellence

Basic Strategy 2 Ultimate value creation

Basic Strategy 3 Product and operational excellence

By making the most of the Toray Group's strengths, enhancing our ability to create value while strengthening our competitiveness to seize new profit opportunities

The Toray Group's Strengths

Proposing solutions based on materials

Creating new technologies through the pursuit of ultimate limits and technology integration

Demonstrating the collective strengths of our R&D organizations

Ensuring a stable supply of high-quality products

Building a global value chain

Leveraging digital technology with a focus on the frontlines

Ultimate value creation

- By pairing tangible and intangible assets, work to extend value chains and create cross-organizational value
- Create new businesses that help solve social issues

Create High Added Value for Businesses

New Business Creation

Enhancing product and operational excellence

- Further improve quality, which is the cornerstone of the Toray Group brand
- Promote cross-organizational cost reduction activities that leverage the Group's collective strengths

Enhancing Quality Strength

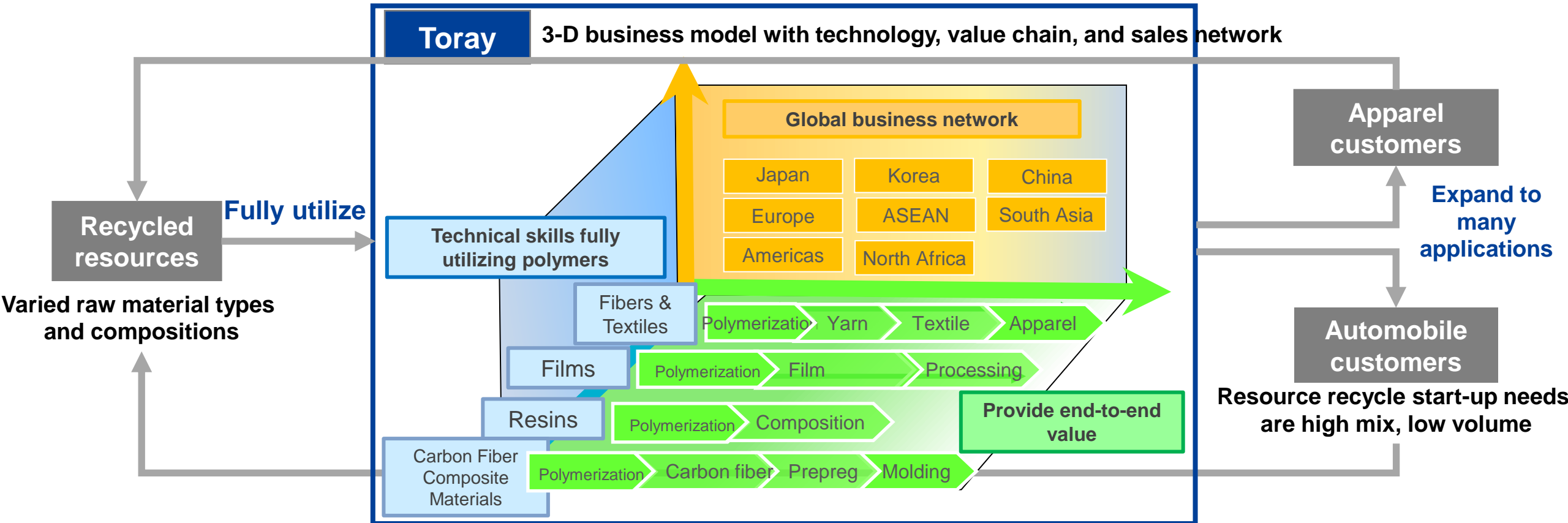
Enhancing Cost Competitiveness

Measures for Ultimate Value Creation

1. Group-wide Action to Support Growth Business Fields
2. Refining Sales Operational Capabilities,
Enriching and Extending the Value Chain
3. Employing Strategic Pricing
4. Enhancing Brand Value

1. Group-wide Action to Support Growth Business Fields: Resource Recycling

Toray expands the applications of a single polymer to diverse fields such as fibers & textiles, films, and resins, and uses it in a wide range of processes from polymerization to processed products. Toray will leverage its unique strengths in global operations to expand the resource recycling market to its advantage.

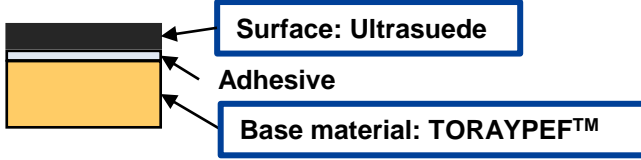


1. Group-wide Action to Support Growth Business Fields: Mobility



Interior molding materials

Combining Ultrasuede™ and TORAYPEF™ into a composite material improves moldability



Next-generation radiator grill

Under development using **metallic PICASUS™** in collaboration between Japan, Europe, and China sites with Covestro Japan Ltd. (with illumination and sensor transparency functions)

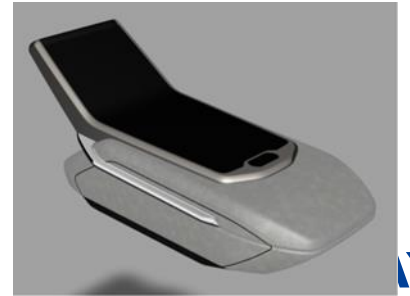


Proposal of comprehensive solutions across product categories

Comprehensive proposals for interior comfort needs
Interior materials, sound absorbing materials, temperature control films, optical fiber, HUD film, decorative films, and printing technology



Comprehensive proposals for new generation cockpits
Using surface materials, specialty inks, conductive materials, and elastic films, etc.



2. Refining Global Sales Operational Capabilities

The strength of the Toray Group's sales lies in sales operational capabilities that meet the demands of customers and build a global value chain.

Strengths the Toray Group has cultivated

- ✓ Proposing solutions based on materials
- ✓ Creating new technologies through the pursuit of ultimate limits and technology integration
- ✓ Demonstrating the collective strengths of our R&D organizations
- ✓ Ensuring a stable supply of high-quality products
- ✓ Building a global value chain
= **Sales operational capabilities**

- ✓ Accelerating business expansion through direct marketing with customers making use of Toray Group trading companies

	FY2022 revenue	Percentage of company-wide revenue
Toray Group trading company ¹	1.05 trillion yen	Approx. 40%

1. Excluding intercompany sales

- ✓ Developing the structures for local production for local consumption in each business to address geopolitical risks and fulfil supply responsibilities

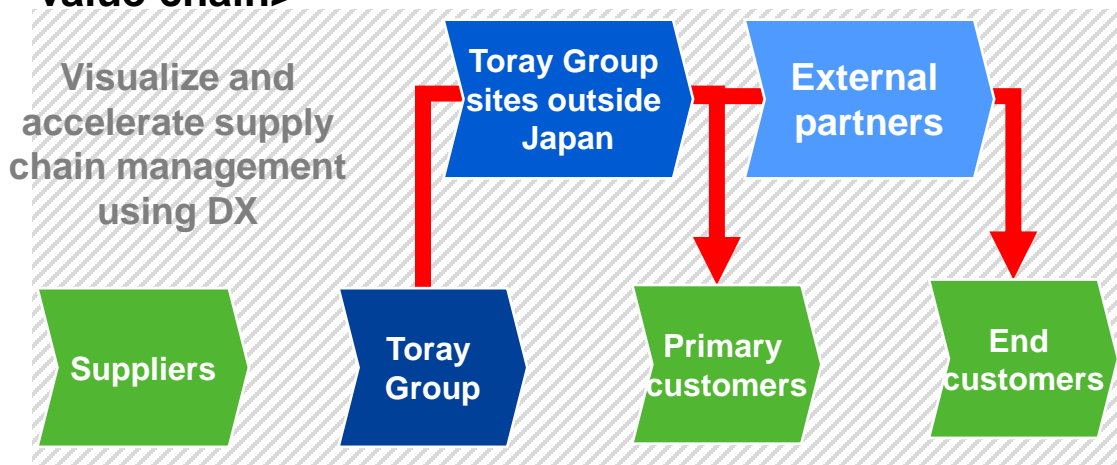
Major group companies (as of March 31, 2023)

	China	ASEAN		Americas	Europe	Korea	India
Fibers & Textiles	TSD TFNL THK TPN	ITS CTX ETX TPJ	TTS TTT PFR PAB	TFA TAMX	TTEL Alcantara TTCE APT ASE	TAK	TID TKAT
Resins	TPCH TPPH/Z	ITS TTS	TBPR TPM	TREC TPA	TREU	TAK	TID

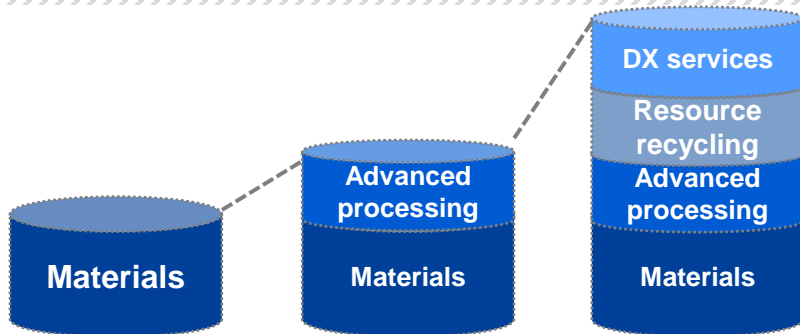
2. Enriching and Extending the Value Chain

Reform the business model by enriching and extending the value chain leveraging collaboration with overseas sites, external resources, and digital transformation (DX). Maximize value provided to customers and expand quantity sold.

<Conceptual diagram: Enriching and extending the value chain>



Value provided to customers



Case 1: Material concierge service

Launch service in 2023 to solve customer issues

Toray	Customer
<p>Concierge system</p> <p>Vast amounts of material data + AI</p>	<ul style="list-style-type: none"> Enables optimal material selection with limited material knowledge Eliminates rework and reduces development time to 1/4 or less
<p>Direct input of desired physical properties</p>	<p>Immediate optimum resins proposals</p>

Case 2: Water treatment ssubscription service

Supporting operation and maintenance management using Toray's proprietary real-time monitoring system, TORAYWISE™

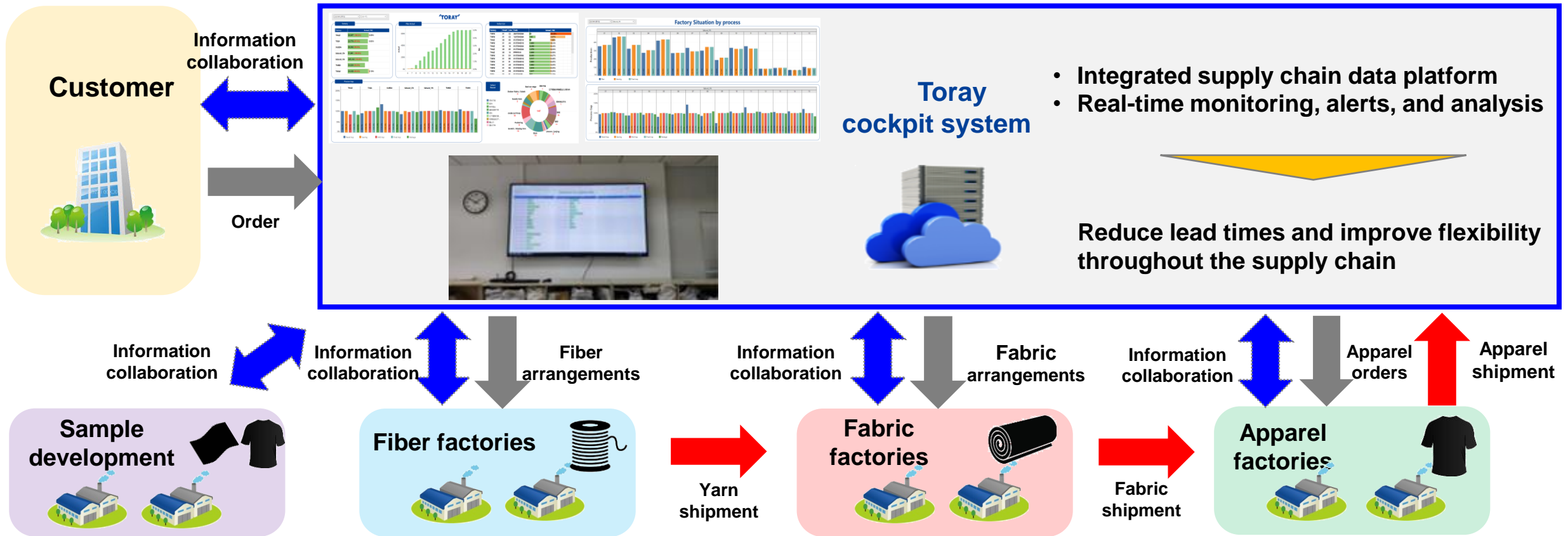
- Reducing burden on operation managers
- Ensuring stable facility operation

Operation behavior prediction
Trouble analysis

Customer facility ← TORAYWISE → Toray

Example: Apparel Business Cockpit System

Introduction of a cockpit system to centrally manage customer orders and data dispersed in various sites, such as fabric and garment production schedules. Visualize data, act quickly on abnormalities, and improve prediction accuracy

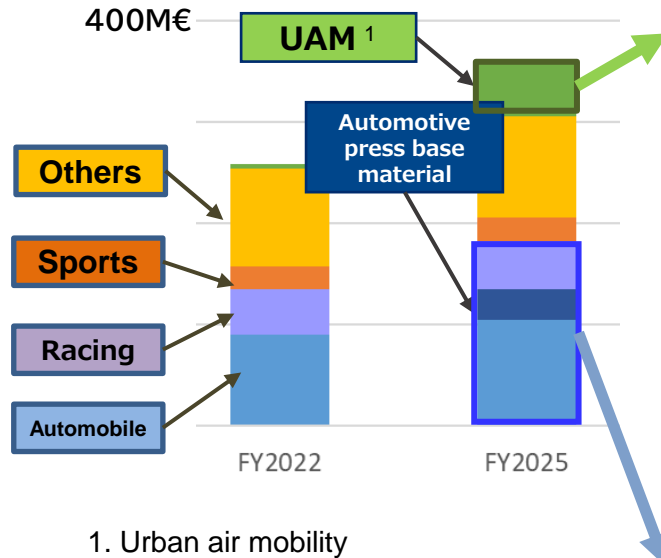


Refining Global Sales Operational Capabilities

Example: Strengthening Collaboration in the European Prepreg Segment of the Carbon Fiber Composite Materials Business

Boost competitiveness and maximize profit of prepreg business by sharing and utilizing the resources of group companies in Europe

Prepreg demand forecast in Europe

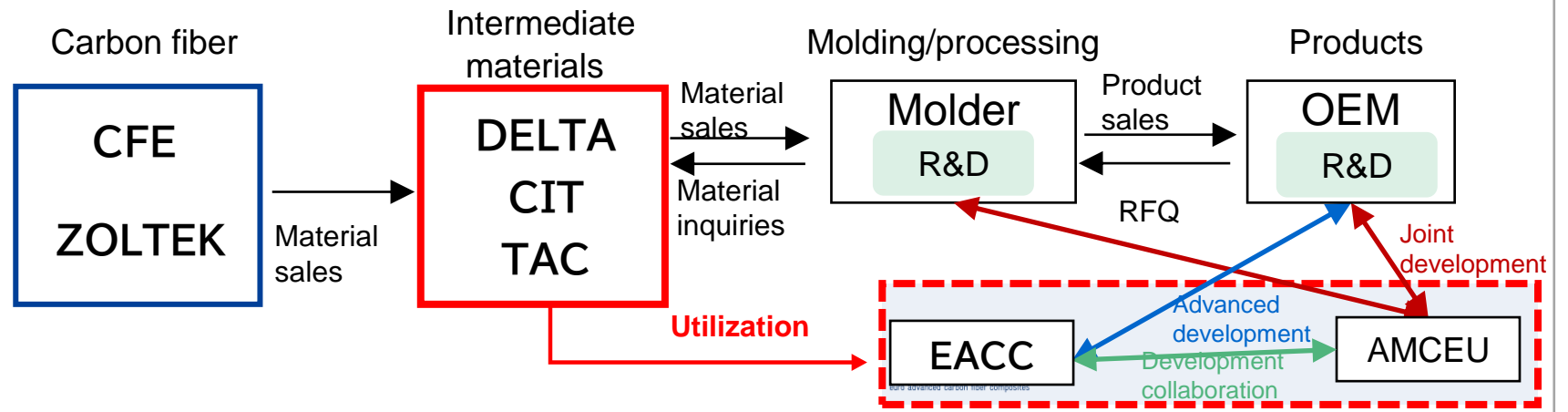


Creating new UAM market demand



TAC: Toray Advanced Composites

Strengthening vertical collaboration in Europe

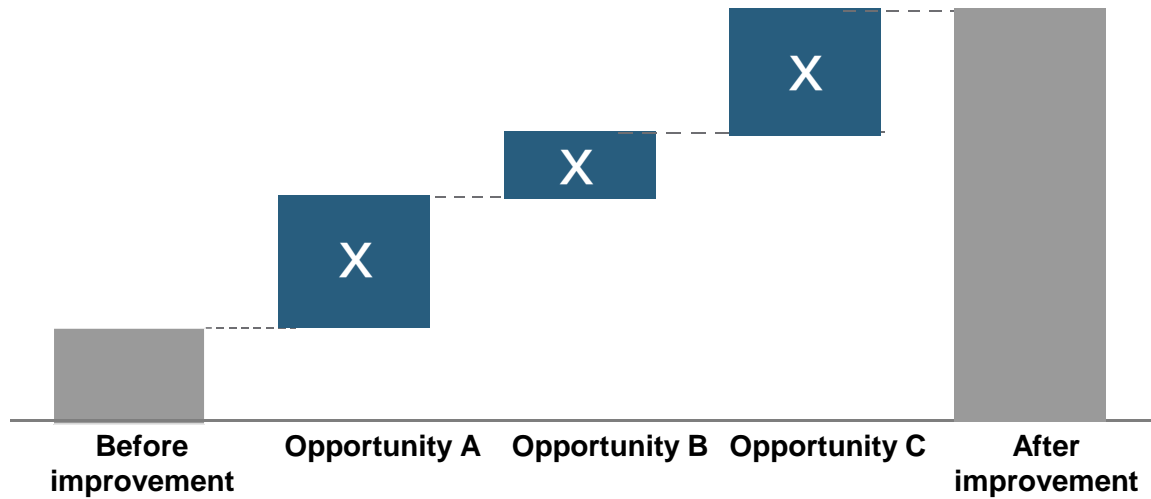


3. Employing Strategic Pricing

(2) Raising prices by creating new value

Reflect the value created by the Toray Group appropriately in prices

<Conceptual diagram of pricing improvement>

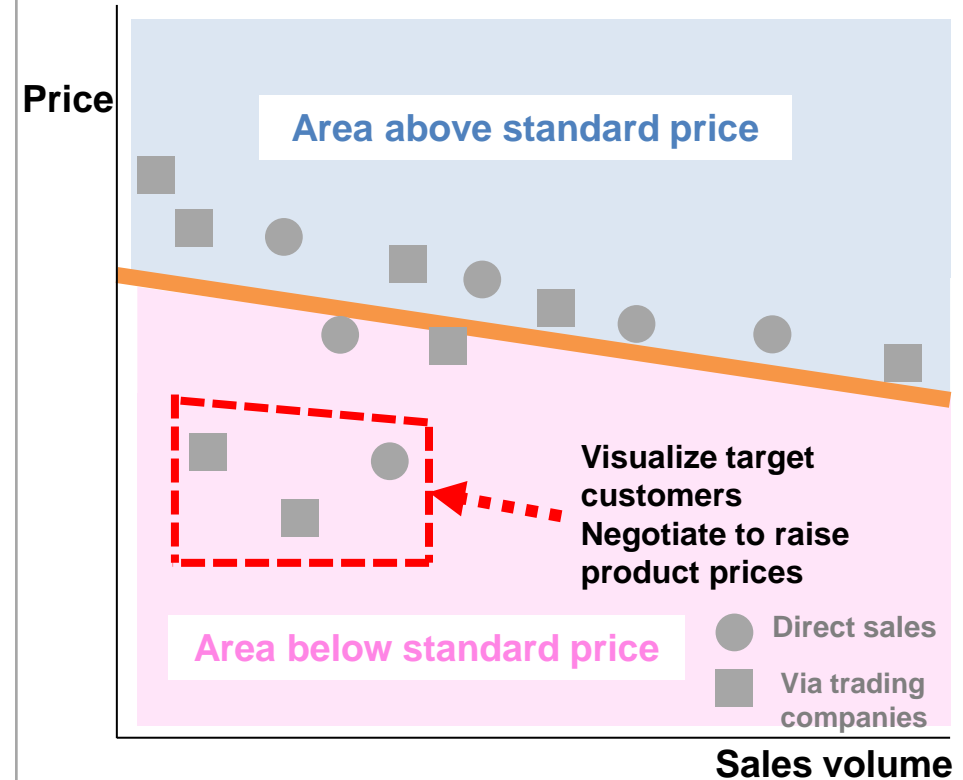


Examples of opportunities for improvement

Exercising pricing power	Management of price differences between customers and between products
Profit management (management accounting)	General purpose product price control
Long tail user management	Quantification of risk of loss

Example of initiative for management of price differences between customers and between products

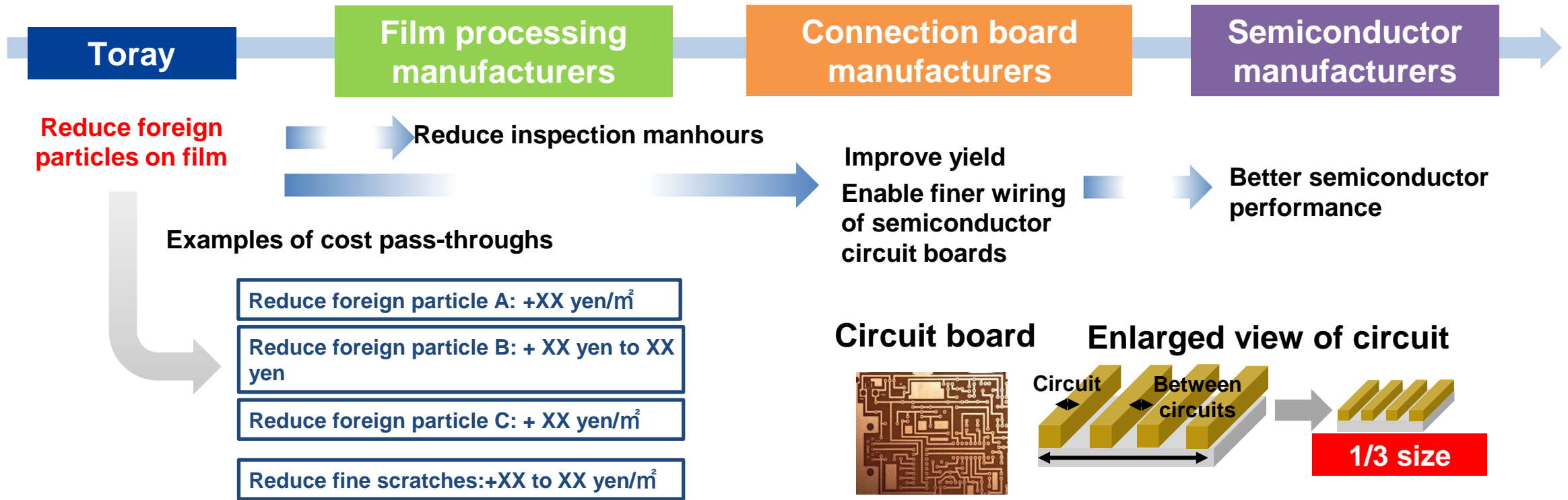
Identifying customers and products where product prices do not reflect the relevant costs, transaction volume and specification differences, and raising product prices



Example: Activities to Promote Value of Functional Films for Semiconductor Processes

Improve the value of customers' products, contribute to cost reductions, and reflect the value created appropriately in prices

Finer semiconductor circuit board wiring by reducing foreign particles on film, contribute to better performance, and pass through to sales prices



4. Enhancing Brand Value

Win on brand, not just on product specifications and price, by leveraging the brand as a driving force throughout the organization

Case study: Brand strategy for Ultrasuede™, an ultra-microfiber nonwoven material with a suede texture

Clearly define the business vision and customer commitment and implement the business strategy with all relevant employees working together using the vision and commitment as a guide

Ultrasuede™ brand value (research by Interbrand)

FY 2017 ¥6.6 bil. → FY 2022 ¥ 34.2 bil. 5.2-fold increase

Vision

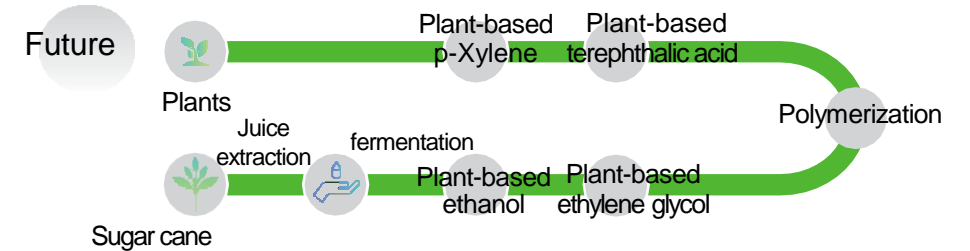
“To enrich society through empowered creativity and materials evolution”

The values we cherish

- A brand that represents Toray
- Leaving an enriched society for the next generation
- Connecting the world with Japan quality
- Infinite possibilities through technical innovation
- Enhancing value with customers



Initiative aimed at realizing approximately 100% plant-based raw materials in line with the vision



Major themes for future brand initiatives

Business sector	Theme of initiatives
Performance chemicals	Using TORELINA™ PPS resin to strengthen the brand in the resins business
Carbon fiber	Implementing a global brand strategy in the carbon fiber composite materials business
Environment and engineering	Enhancing business value by providing high performance membranes and water purification systems under the “TORAY” brand name

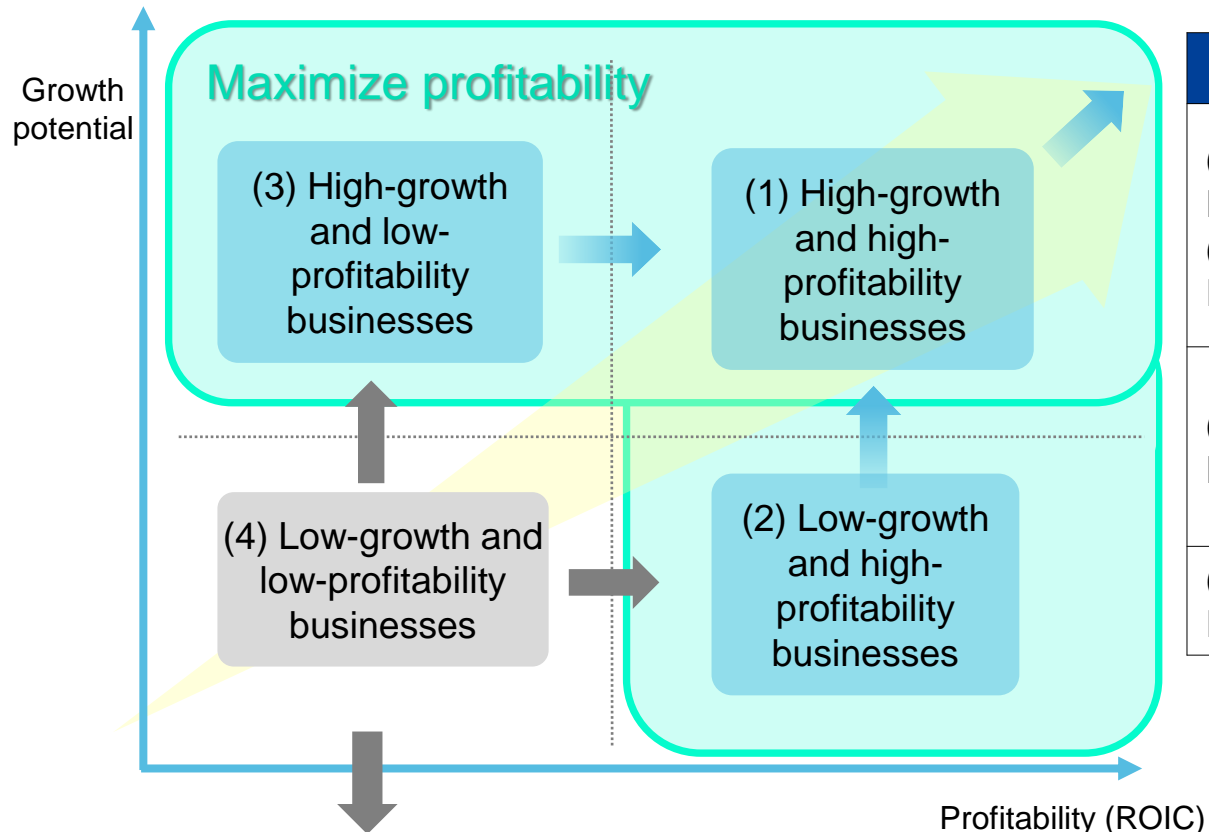
I -2

Improving Asset Efficiency

Efficient Management of Invested Capital

Identify growth potential/profitability (ROIC) in global, appropriate **businesses (company, product, regional, application, etc.)**
 Improve ROIC efficiently by investing management resources in **growth business fields and maximizing profitability of existing tangible and intangible assets**

Four categories for growth potential and profitability



Categories	Major strategies
(1) High-growth and high-profitability (3) High-growth and low-profitability	Expand business by investing resources in growth business fields (SI and DI business), providing cross-organizational solution proposals, and accelerating external collaboration
(2) Low-growth and high-profitability	Increase value added through sales operational capabilities and combining diverse products, expand trade areas, and ensure loss management and improve costs
(4) Low-growth and low-profitability	Continue structural reform and consider withdrawing

Reducing Working Capital

Reducing working capital by advancing the level of supply chain management leveraging DX and through Cash Conversion Cycle Improvement (3C-i) activities

Advancement of supply chain management leveraging DX

Optimize inventories by improving the accuracy of production and sales plans and making decisions using statistical models and AI forecasts



Promoting DX with a focus on the frontlines

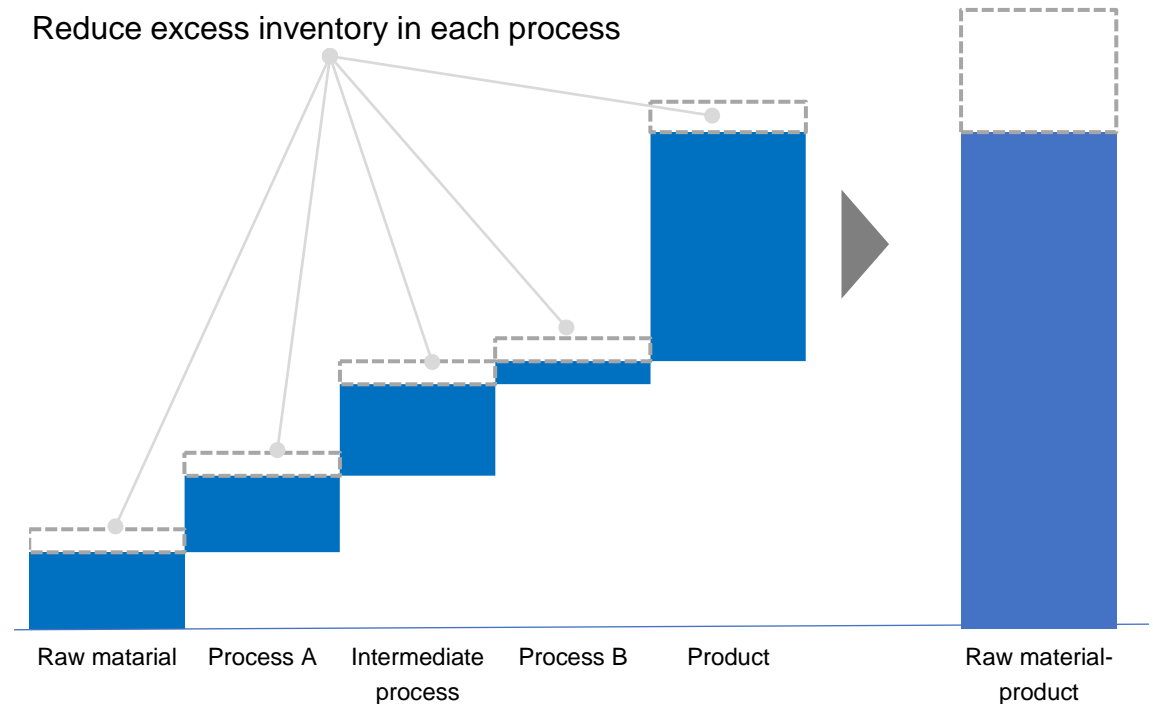


Improving accuracy and make decisions

Inventory optimization → **Reducing working capital**

Conceptual diagram of inventory optimization

Reduce excess inventory in each process



II

AP-G 2025 Target

Financial Targets for FY 2025

Achieving both business growth and greater profitability, while also improving asset efficiency

(Billion yen)

	FY 2022 result	AP-G 2025 FY 2025 target
Revenue	2,489.3	2,800
Core operating income	960	180
Core operating margin	3.9%	6%
ROIC ¹	2.7%	About 5%
ROE	5.0%	About 8%
Free cash flow (3-year cumulative total)	237.3	Positive
D/E ratio	0.62	0.7 or lower (guideline)

1. Core operating income after tax / Invested capital (average of the balances at beginning and end of the fiscal year)

1. Improving profitability

Core operating income:
180 billion yen

- (1) Improve capacity utilization rate by expanding quantity sold with a focus on growth business fields and large-scale capital investment businesses
- (2) Raise prices and improve profitability by creating new value

ROIC: 5%

2. Improving asset efficiency

- (1) Raise the level of supply chain management and reduce working capital by maintaining Cash Conversion Cycle Improvement (3C-i) activities
- (2) Continually implement reengineering with a focus on low-growth, low profitability businesses

Main Strategies in Each Business

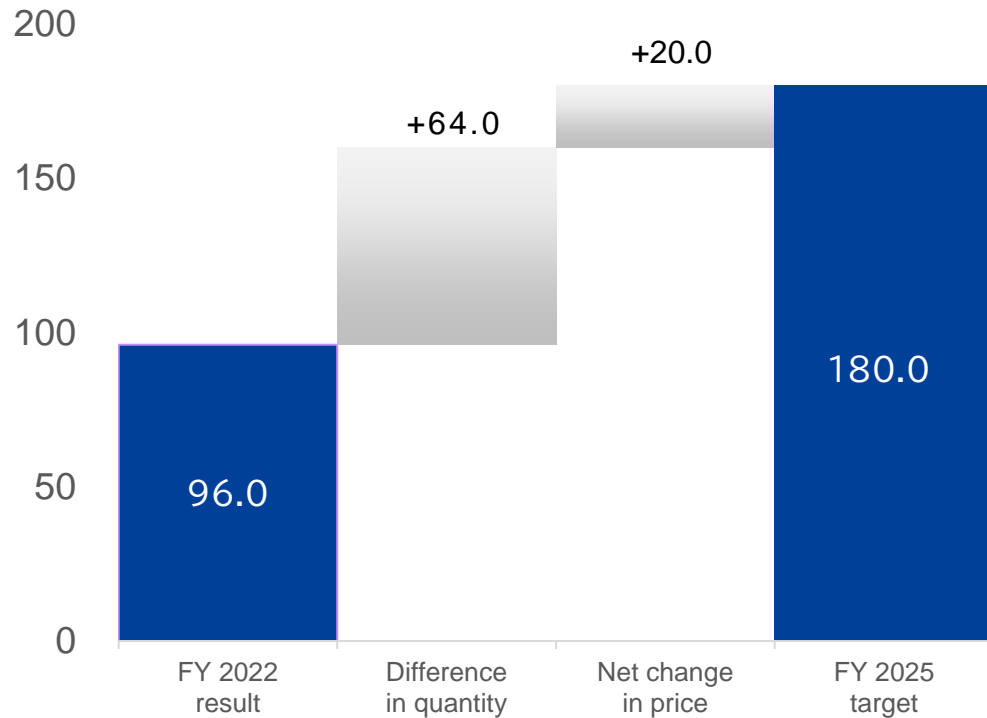
		Main strategies / major capital investments	KPI (core operating income) (billion yen) FY2022→FY2025
Fibers & Textiles		Developing environmentally friendly materials and rebuilding the recycling supply chain; expanding business and reaping the benefits of capital investment in growth fields such as ultra-microfiber nonwoven material with a suede texture and airbags; creating high added value with functional fibers; expanding Ultrasuede production facilities	51.2→64.0
Performance Chemicals	Resins & Chemicals	Increasing market share in China and the automobile market; expanding PPS polymer production facilities	30.4→91.0
	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	
Carbon Fiber Composite Materials		Capturing market growth in both aviation and industrial/sports applications; expanding production facilities for industrial-use carbon fiber	15.9→36.0
Environment & Engineering		Securing top market share for reverse osmosis (RO) membrane market and expanding peripheral businesses	19.7→27.0
Life Science		Strengthening the business foundation by pursuing business development outside Japan, expanding indications, improving existing products, and ensuring thorough cost reductions	0.2→2.0
Total (consolidated)			96.0→180.0

Variance Analysis of Core Operating Income (Business Growth Factors)

Basis for FY2025 Core Operating Income Target

Full-scale recovery in capital investment due to recovery in aircraft applications in the carbon fiber business, as well as business expansion in automobile and semiconductor markets. Advancement of products with high value added in the Fibers & Textiles, Resins, Films, and Carbon Fiber Composite Materials businesses. Anticipated increase in fixed costs due to operation of new facilities and upfront expenses for environmental compliance.

(Billion yen)



Variance factor	Difference (billion yen)	Business strategies for increasing income
Difference in quantity (Net of fixed cost variance)	+64.0	<p>Fibers & Textiles: Increase quantity sold 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; increase quantity sold by capturing growth of the xEV market in China [Films] Increase quantity sold 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] Achieve full operation of facilities that have already been expanded in line with OLED market growth</p> <p>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.”)</p> <p>Performance Chemicals: Pass on increased costs to sales prices and execute pricing strategy</p> <p>Carbon Fiber Composite Materials: Advance high-added-value strategy through expansion of intermediate materials</p>
Total	+84.0	

Descriptions of predicted business results, projections and business plans contained in this material are based on assumptions and forecasts regarding the future business environment, made at the time of publication. Information provided in this material does not constitute any guarantee concerning the Toray Group's future performance.

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