

Medium-term Management Program: “Project AP-G 2019”

Toray Group established a long-term corporate vision, “AP-Growth TORAY 2020” (Vision 2020), taking into consideration our corporate structure from 2011 until 2020, aiming to become a corporate group that continually increases revenues and profits and that provides high value for all stakeholders.

The third medium-term management program under “Vision 2020,” “Project AP-G 2019,” sets out three basic strategies for achieving “Vision 2020”: business expansion in growth business fields; expansion and advancement of global business; and strengthening competitiveness. Moreover, under this program we are proactively creating new revenue streams with our sights set on increasing our corporate value and continuing sustainable growth beyond 2020.

Medium-term Management Program: "Project AP-G 2019"

Innovation and Proactive Management—
To Achieve the "Vision 2020" Goals

BASIC STRATEGIES

01 Business Expansion in Growth Business Fields

Contribute to resolving global environmental issues and energy and resources issues

→ Expansion of Green Innovation Businesses

Please see pages 12-13.

Target net sales in fiscal 2019:

¥900.0 billion

Improve quality of healthcare, ease burden on medical professionals, and contribute to health and longevity

→ Expansion of Life Innovation Businesses

Please see pages 14-15.

Target net sales in fiscal 2019:

¥270.0 billion

KEY INITIATIVES

01 New Business Creation

Toray will create new businesses with revenues of

¥1 trillion in the 2020s.

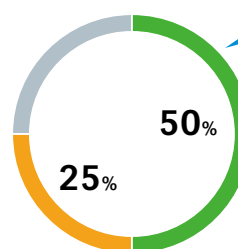
In order to make sources of earnings for the next growth stage, we will identify several large-scale themes that will lead to the creation of new business domains in the 2020s, and accelerate product development and business formation by allocating the resources selectively.

02 R&D and Intellectual Property

Toray will invest a total of

¥220 billion in R&D

over three years from the start of fiscal 2017.



Half of R&D expenses will be allocated to Green Innovation, and one-quarter to Life Innovation

■ Green Innovation
■ Life Innovation

Financial Targets

	FY2016 (Actual)	FY2019 (Target)	
Net Sales	¥2,026.5 billion	¥2,700.0 billion	Dividend Policy Aim for sustainable dividend increase linked to business performance
Operating Income	¥146.9 billion	¥250.0 billion	
Operating Income to Net Sales	7.2%	9%	Guideline of D/E Ratio Below 1
ROA (Operating Income/Total Assets)	6.3%	about 9%	
ROE (Net Income/Owners' Equity)	10.1%	about 12%	

*Exchange rate assumption: ¥100/US\$

02 Expansion and Advancement of Global Business

Expand business globally by capturing profit opportunities in growth countries and regions

Please see pages 16-17.

Target net sales in fiscal 2019:

¥1,500.0 billion

03 Strengthening Competitiveness

Pursue total cost reduction, and strengthen corporate structure, and sales and marketing

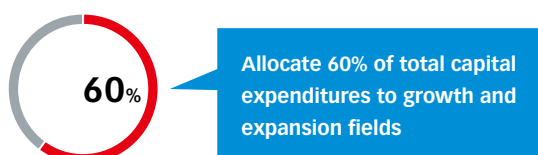
Please see page 18.

Target cost reductions fiscal 2017–fiscal 2019:

¥220 billion

03 Capital Investment

Toray will make a total of **¥500 billion** in capital investment in the three years from the start of fiscal 2017.



■ Growth and Expansion ■ Maintenance/Improvement



■ Overseas ■ Japan

04 M&A and Business Alliances

To increase and to complement growth of existing businesses, Toray will proactively utilize M&A and business alliances as means to adjust to the changing business environment and to attain sustainable growth.

05 Human Resources

Toray will develop leaders at management level for the next generation, and secure and develop core human resources who will exhibit “strong operational competency” at the frontlines.

Business Expansion in Growth Business Fields

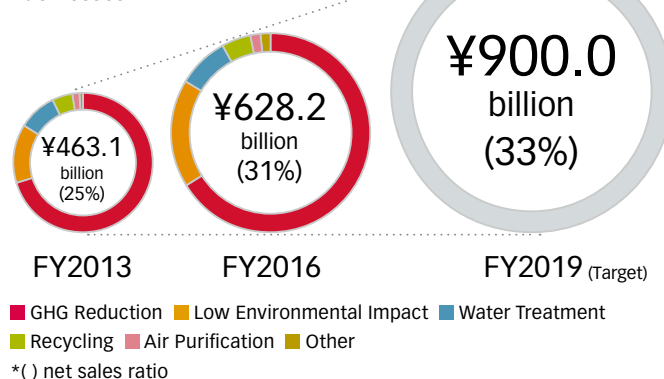
Expansion of Green Innovation Businesses

Toray Group's Green Innovation businesses contribute to society by providing solutions to issues such as the global environment, energy and resources, as well as supporting the Group's sustainable growth. In this field, we are seizing various opportunities for business growth such as reducing greenhouse gas (GHG) emissions, decreasing environmental impact, water treatment, recycling, and air purification.

We will further expand our businesses in this field by prioritizing investment of business resources such as capital investment and R&D in existing large business themes. In the fields such as renewable energy and environmentally friendly vehicles we will contribute to solving social issues by creating and supplying advanced materials. As a result, we will achieve greater profits. Moreover, we will continue with our environmental management initiative of lifecycle management (LCM), which considers environmental impacts throughout the entire lifecycle of products and services.



Net Sales of Green Innovation Businesses





Carbon fiber, which is one-quarter of the weight and ten times the tensile strength of steel, accounts for 50% of the structural weight of Boeing 787s. The environmental impact of aircraft is drastically reduced by making them lighter.

Automobiles with a lighter environmental footprint, such as electric and fuel cell vehicles, are becoming more common. Toray is contributing to the realization of low-carbon societies through our proprietary carbon fiber components and separators for lithium-ion secondary batteries.

Main Business Fields

GHG Reduction

Carbon fiber for aircraft, automobiles, wind-turbine blades, pressure vessels, etc.
Separators for lithium-ion secondary batteries

Low Environmental Impact

Non-halogen flame retardant material
TORAY WATERLESS PLATE®

Water Treatment

Water treatment membranes such as RO, MBR, MF/UF membranes
Home water purifiers

Recycling

Regeneration-type recycling, circulation-type recycling
Material, chemical recycling

Air Purification

Dust-collecting filters
Air filters

Water resource issues are growing around the world. Toray is tackling such water scarcity issues through membrane treatment technologies for seawater desalination and wastewater reclamation.





3 BASIC STRATEGIES

01

Business Expansion in Growth Business Fields

Expansion of Life Innovation Businesses

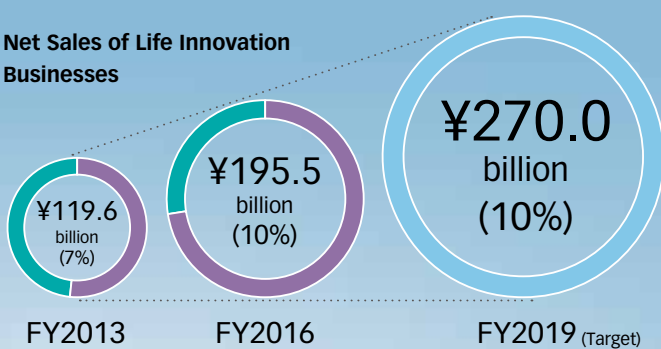
Our Life Innovation businesses aim to improve the quality of health-care, ease the burden on medical professionals, and contribute to health and longevity from various avenues by using our extensive range of group-wide managerial resources.

In Toray's pharmaceuticals and medical devices business, which is primarily based on products such as pharmaceuticals, dialysis machines, and catheters, we will continue to restructure the business by changing our business portfolio and expanding our business overseas.

In advanced materials fields—such as high-functional polypropylene spunbond and sports fabrics, disposable protective clothing, and clothing using functional materials for vital signs monitoring—we will accelerate expansion of each product business, including further expansion globally. We will also enhance building of business models to expand business related to downstream fields and the final market.

Toray's proprietary advanced materials are used in numerous fields and help our lives become safer and more comfortable.

Net Sales of Life Innovation Businesses



■ Advanced Materials in LI Businesses ■ Pharmaceuticals & Medical Devices

* () net sales ratio

Main Business Fields

Advanced Materials in LI Businesses

PP spunbond for hygiene products
Functional materials for vital signs monitoring
Disposable protective clothing
Air filters
X-ray CT cradles, cartridges
DNA chips
High-sensitivity protein detection system
Fabric for sportswear

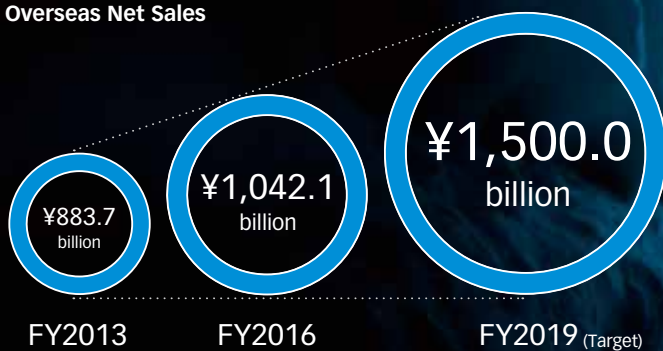
Pharmaceuticals/ Medical Devices

Pharmaceuticals
Artificial kidneys
Catheters
Dialysis machines
Extracorporeal circulation therapeutic columns
Contact lenses

Expansion and Advancement of Global Business

In the United States and Europe there is increasing demand for advanced materials in industries such as automotive and energy fields. Meanwhile, noticeable trends in China and other emerging countries are improvements in their standard of living associated with rising income levels and strengthening of environmental regulations. We will expand our business globally by capturing profit opportunities by foreseeing such trends in growth countries and regions.

Overseas Net Sales



FOR GLOBAL BUSINESS EXPANSION AND ADVANCEMENT

- 01 Promote “AE (Asia, Americas, Europe, and Emerging Regions) Project” targeting overseas businesses on a group-wide basis
- 02 Prioritize allocation of capital investment and R&D resources to growth countries and regions
- 03 Establish a supply system for cost competitive products
- 04 Radically reform business composition and organizational structures for advancement of business
- 05 In the businesses that have a global platform, differentiated products, and core technologies, implement brand initiatives based on integrated business strategies and establish a supply chain



Strengthening Competitiveness

We will strengthen our competitiveness by pursuing total cost reduction, and strengthening our corporate structure, and sales and marketing.

We aim to reduce costs by a total of ¥220 billion in three years from fiscal 2017 under the current Medium-term Management Program, "Project AP-G 2019."

PURSUE TOTAL COST REDUCTION, AND STRENGTHEN CORPORATE STRUCTURE AND SALES AND MARKETING

TOTAL COST REDUCTION

- ▶ Promote Total Cost Reduction (TC) Project on a group-wide basis
- ▶ Activities of variable cost reduction (annual target at over 3.6%)
- ▶ Control fixed costs through P-ratio* accounting method (P-ratio of under 0.96 each fiscal year)
- ▶ For innovation of production process, identify themes by category in terms of "innovative cost reduction," "large-scale total cost reduction," and "capacity increase of existing facilities" to achieve reduction effects by more than ¥50 billion in three years

* P (Performance) - ratio = fixed cost growth rate/marginal profit growth rate
Target: less than 1.0 or monitored by division under budget

STRENGTHENING CORPORATE STRUCTURE

- ▶ Clarify issues of companies and businesses with profitability problems, and gather Toray Group's collective efforts to improve revenue and profit
 - ➔ Options include reducing or withdrawing from businesses with limited growth potential or excessive competition
- ▶ Manage the Group's assets effectively and expand revenue and profit

STRENGTHENING SALES AND MARKETING

- ▶ Sales and marketing lead the way in building a profit-making system in cooperation with production, the technology and R&D departments, and external partners
- ▶ Maximize revenue and profit of existing businesses through improvement in price policies, distribution systems and brand initiatives