# **Results by Segment for Fiscal 2017**

Business Categories and Segments			Summary of Financial Results			
Core Growth Driving Business		Fibers & Textiles	In Japan, demand for some industrial applications such as automobiles was strong and apparel applications saw gradual improvement in store sales of final products. Against this background, Toray Group not only strived to expand sales in both apparel and industrial applications but also worked to expand the business format that integrates fibers to textiles to final products while focusing on strengthening cost competitiveness. Overseas, business performance of some subsidiaries in Southeast Asia and the Republic of Korea remained slow. On the other hand, materials for automotive applications and hygiene products remained strong in general and the Group expanded the integrated business for apparel applications.			
Business	Strategica	Performance Chemicals	In the resin business, shipment for automotive applications was strong in general, mainly in Japan. Besides automotive applications, Toray Group also promoted sales expansion of ABS and PPS resins. In the film business, shipment of battery separator films for lithium-ion secondary batteries increased reflecting demand growth, while films for electronic parts which are used for applications such as smartphones continued to be favorable. In the electronic & information materi- als business, demand for OLED panels increased and shipment of related mate- rials expanded.			
	Strategically Expanding Businesses	Carbon Fiber Composite Materials	With the final demand for the aircraft remaining strong in the aerospace applica- tions, shipments showed signs of recovery as the inventory adjustment in the supply chain was completed. In the industrial applications, demand showed a recovery trend primarily in the environment and energy-related field led by com- pressed natural gas tank applications and wind turbine blade applications. The segment was affected by increases in raw material prices as well as intensify- ing competition.			
Intensively Developing and Expanding Businesses		Environment & Engineering	In the water treatment business, demand for reverse osmosis membranes and other products in general grew strongly in Japan and abroad. In terms of domestic subsidiaries in the segment, industrial machinery and electronics-related equipment performed strongly at an engineering subsidiary.			
		Life Science	In the pharmaceutical business, shipment of pruritus treatment REMITCH®* expanded due to the impact of the introduction of a new dosage form and approval of new indications. On the other hand, shipment of natural-type interferon beta preparation FERON® and orally active prostacyclin derivative DORNER® remained sluggish due to the impact of alternative medicines and generic drugs, and royalty income on some products decreased. In the medical devices business, shipment of dialyzers grew strongly. * REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.			



Excludes other businesses, equivalent to ¥17.9 billion (1%) in net sales and ¥2.9 billion (2%) in operating income, and adjustment of operating income of -¥26.2 billion. The composition ratio by segment of operating income is calculated excluding the adjustment amount.

# **Core Growth Driving Business** Fibers & Textiles

				(Billions of yen)
Years ended March 31		2017	Changes	2018 Forecast
Net sales	856.1	913.6	+6.7%	1,000.0
Operating income	66.8	72.4	+8.5%	81.0
Operating income to net sales	7.8%	7.9%		8.1%

2018 forecasts announced on August 6, 2018.

#### **Basic Policy**

- Strengthen its earnings structure as a core growth driving business of Toray, and expand business in growth business fields and regions
- Aim for significant growth in the segment through the further enhancement of global operations

#### **Earnings Opportunities and Risks**

- Growing need for advanced materials contributing to the resolution for global environmental and energy/resource issues, and health and longevity
- Changes in the global economy and personal spending trends
- Improving standards of living and tighter regulations in China and emerging economies as income levels in those areas rise
- Raw materials and fuel prices trends

#### **Basic Strategies for Achieving the Medium-term Management Program "AP-G 2019" Targets**

- Maintain and reinforce domestic business foundation and processing platform in production areas, and further strengthen business competitiveness
- Reinforce business foundation of existing operations at overseas locations, and expand business in growth business fields and regions
- Strengthen Toray Group's global operations and create new business areas by developing and expanding business on multiple levels combining its strength of diverse product lines, supply chain, and global sales
- > Aim to achieve significant growth by the global fibers/textiles/final products integrated business format and SCM, reinforce value chain of strategic products, and expand new business areas

#### Fiscal 2018 Outlook

In apparel applications, we are focused on enhancing our business model, including expansion of our business format that integrates fibers to textiles to final products. In industrial applications we will expand sales in growth regions on the back of enhanced capacity in growth fields such as hygiene materials and automotive applications.

In addition to continuing to pass on rise in raw material prices to selling prices, we aim to bolster our business structure through cost reductions and other measures, enhance the global business, and expand earnings as expected as a core growth driving business.



Net Sales (Billions of yen) 913.6

Operating Income

72.4

Operating income to net sales

7.9%

ROA (Operating income/Assets)

# **Core Growth Driving Businesses/Strategically Expanding Businesses** Performance Chemicals

				(Billions of yen)
Years ended March 31		2017		2018 Forecast
Net sales	724.6	803.3	+10.9%	895.0
Operating income	61.8	71.4	+15.5%	79.0
Operating income to net sales	8.5%	8.9%		8.8%

2018 forecasts announced on August 6, 2018.

#### **Basic Policy**

- Expand business by expanding sales of high value-added products in growth business fields and maximum utilization of global bases
- Strengthen earnings base by business structure reform

## **Earnings Opportunities and Risks**

- Growing need for advanced materials contributing to the resolution of global environmental and energy/resource issues
- Changing in the demand trends of end products such as automobiles, including electric vehicles, LCD TVs and smartphones, and changes in technological trends in various components.
- Raw materials price trends

#### **Basic Strategies for Achieving the Medium-term Management Program "AP-G 2019" Targets**

#### Resins, Chemicals Business

- Allocate management resources and promote business expansion in growing businesses including PPS resins, resin compounds overseas, and automotive materials
- Films Business
  - Invest in facilities for lithium-ion battery separator films and promote sales expansion through product development
  - Reorganize manufacturing of PET films, increase value of existing products by utilizing global operations, and enhance sales expansion

Electronic & Information Materials Business

• Expand sales of OLED related materials and accelerate technology development and commercialization of products beyond the LCD display field

## Fiscal 2018 Outlook

Amid ongoing stability in global automobile production, we target sales expansion in automotive application in the resins business as demand for plastic resins expands in line with the trend in automobiles toward electrification and reduced weight. We also focus on expanding sales on the back of enhanced capacity at TORAYPEF<sup>TM</sup>.

In the films business, by utilizing our global operation, we will expand sales of PET films particularly for high value-added products including electronic components. We focus on the sales expansion of battery separator films for lithium-ion secondary batteries to meet growing demand by increasing capacity utilization on the back of sequential capacity expansions enacted in fiscal 2017.

For the electronic & information materials business, we target the sales expansion of OLED related materials in line with growth in the overall market.

In addition to continuing to pass on rise in raw material prices to selling prices, we will strive toward reducing overall costs.



**Operating Income** (Billions of yen)

71.4

Operating income to net sales

8.9%

ROA (Operating income/Assets) 7.6%

# Strategically Expanding Businesses Carbon Fiber Composite Materials

				(Billions of yen)
Years ended March 31	2016	2017	Changes	2018 Forecast
Net sales	161.6	177.9	+10.1%	215.0
Operating income	34.0	20.8	-13.3%	15.0
Operating income to net sales	14.8%	11.7%		7.0%

2018 forecasts announced on August 6, 2018.

## **Basic Policy**

• Further expand the business as the world's number-one manufacturer of carbon fibers

## **Earnings Opportunities and Risks**

- Growing need for advanced materials contributing to the resolution of global environmental and energy/resource issues
- Demand trends in end products, including automobiles, compressed natural gas tanks, wind turbine blades, and aircraft
- Global supply and demand balance for carbon fiber
- Trends in raw materials and fuel prices, foreign currency exchange rates

#### Basic Strategies for Achieving the Medium-term Management Program "AP-G 2019" Targets

#### Aerospace Applications

- Further strengthen existing partnerships
- Capture new programs

#### Industrial Applications

- Reinforce dominant market share by leveraging comprehensive strengths in lineup of regular tow and large tow products
- Reinforce dominant market share in the wind-turbine blade applications by strengthening alliance with major customers, supported by the cost competitiveness in large tow products
- Develop intermediate products/molding technologies and enhance the supply chain to meet the full-scale expansion in automotive application demand

#### **Fiscal 2018 Outlook**

- For aerospace applications, given the completion of the inventory adjustment in the supply chain in fiscal 2017, we expect an expansion in carbon fiber composite material demand amid steady final demand for aircraft.
- For industrial applications, we are targeting sales expansion amid a recovery in overall demand, particularly for environmental and energy-related products such as wind turbine blades and compressed natural gas tanks. We will expand sales of wind turbine blade applications, where demand is expanding, making good use of the sequential expansions in capacity from the fourth quarter of fiscal 2017 in large tow products.
- In addition to continuing to pass on rise in raw material prices to selling prices, we will to strive toward reducing overall costs.

Net Sales (Billions of yen) 177.9

**Operating Income** 

20.8

Operating income to net sales

11.7%

ROA (Operating income/Assets)

# Intensively Developing and Expanding Businesses Life Science

				(Billions of yen)
Years ended March 31	2016	2017	Changes	2018 Forecast
Net sales	54.2	53.8	-0.6%	60.0
Operating income	2.1	1.9	-9.6%	1.0
Operating income to net sales	4.0%	3.6%		1.7%

2018 forecasts announced on August 6, 2018.

#### **Basic Policy**

Maintain and expand domestic market share, accelerate and strengthen overseas development
Use selection and concentration to promote more efficient product development

#### **Earnings Opportunities and Risks**

- Growing need for advanced materials to improve quality of healthcare, ease burden on medical professionals, and contribute to health and longevity
- Japanese government's promotion of generic products and ongoing revision of National Health Insurance drug price standards as well as reduction of the insurance reimbursement prices
- Laws and regulations trends in each country

#### Basic Strategies for Achieving the Medium-term Management Program "AP-G 2019" Targets

#### Pharmaceutical Business

- $\bullet$  Maintain the domestic market share and develop overseas markets of oral antipruritus drug REMITCH  $^{\circledast^*}$
- Create next-generation drugs using new processes

#### Medical Devices Business

- Expand sales of dialyzer products in Japan and overseas
- Expand domestic sales and accelerate overseas development in critical care and cardiovascular products
- Quickly commercialize bio-devices

#### **Fiscal 2018 Outlook**

- While the pharmaceutical business appears to be facing headwinds from the emergence of generic products, we expect the oral antipruritus drug REMITCH<sup>®\*</sup> oral disintegrating tablets, which were launched in June 2017, to maintain its domestic market share through appealing its superiority, and we will concurrently target acceleration in overseas development. In regard to drug development moving forward, we focus on a pipeline expansion in priority areas, including neurological diseases as well as kidney diseases, autoimmune disorders and cancer, and research in innovative bio-pharmaceuticals aiming at the creation of next-generation drugs.
- In the medical devices business, we target an expansion in the domestic and overseas dialysis business thanks to the provision of one-stop services combining dialyzers developed based on Toray's hollow fiber technology with dialysis machinery and its management system, which can be used for a variety of dialysis-related medical needs.
- In the medical products business, we focus on expanding sales through improvements in existing products, indication expansion and the acceleration of overseas development, particularly in the priority areas of emergency care, intensive care (acute blood purification), and cardiovascular products. As we look to an expansion in business moving forward, we will advance the development of new medical devices based on the technologies related to advanced materials, in which Toray excels.
   \*REMITCH<sup>®</sup> is a registered trademark of Torii Pharmaceutical Co., Ltd

Net Sales (Billions of yen)

53.8

Operating Income



Operating income to net sales

3.6%

ROA (Operating income/Assets)

# Intensively Developing and Expanding Businesses Environment & Engineering

				(Billions of yen)
Years ended March 31		2017	Changes	2018 Forecast
Net sales	212.5	238.3	+12.1%	260.0
Operating income	11.7	13.3	+13.5%	16.0
Operating income to net sales	5.5%	5.6%		6.2%

2018 forecasts announced on August 6, 2018.

## **Basic Policy**

• Expand business in the environment and energy field with focus on water treatment membranes and facility design capabilities

## **Earnings Opportunities and Risks**

- Growing need for advanced materials that can contribute to the resolution of global environmental and energy/resource issues, and related machinery to manufacture them
- Political instability in areas suffering from water shortages
- Crude oil price trends
- Capex trends at mainstay customers

#### **Basic Strategies for Achieving the Medium-term Management Program "AP-G 2019" Targets**

#### Water Treatment Business

- Expand business and strengthen competitiveness in the membrane business
- Enhance development of reverse osmosis membrane products and strengthen cost competitiveness
- Expand sales of UF membranes in China and the U.S.A.
- Strengthen the business foundation in the water treatment system and plant business
- Engineering Business
  - Expand plant business and industrial machinery (in the environment and energy fields and the life science field)
  - Make use of external resources in growth areas
  - Strengthen cost competitiveness
  - Accelerate overseas expansion

## **Fiscal 2018 Outlook**

- In the water treatment business, as to reverse osmosis membranes, we target sales expansion
  of drinking water use by seawater desalination and brine water desalination, and industrial applications including pure water production for industrial use, as well as in the field of wastewater reuse.
  As to UF/MF membranes, we target sales promotion for water purification applications and preprocessing applications in wastewater reuse as well as desalination of sea water. We are focused on
  expanding sales of MBR membranes for wastewater reuse applications in emerging economies
  such as India and the countries of South and Central America.
- For the engineering subsidiary, we focus on an expansion in plant construction in the environmental and energy field as well as in the life science field. In the industrial machinery business, we target sales expansions particularly in the fields of electric vehicles and semiconductors, where demand is expected to rise.

Net Sales (Billions of yen)

# 238.3

Operating Income

13.3

Operating income to net sales

5.6%

ROA (Operating income/Assets) 5\_2%