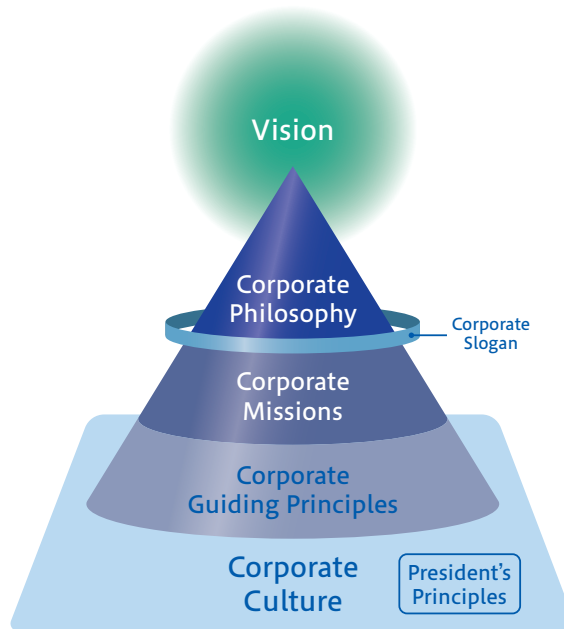


MYSTERY!

TORAY
REPORT
2020



TORAY PHILOSOPHY



| Toray Philosophy |

In addition to our traditional Management Philosophy (which includes the Corporate Philosophy, Corporate Missions, Corporate Guiding Principles), we have formulated the Corporate Slogan (which simply expresses Toray's stance on embodying the Corporate Philosophy), the Vision (which represents the direction the Group is headed), the Corporate Culture (which includes values and management perspectives that have been maintained since the company's founding), and the President's Principles. As a whole, these are referred to as the Toray Philosophy.

Corporate Philosophy

Contributing to society through the creation of new value with innovative ideas, technologies and products

Corporate Missions

- For our customers:** To provide new value to our customers through high-quality products and superior services
- For our employees:** To provide meaningful work and fair opportunities
- For our shareholders:** To practice sincere and trustworthy management
- For society:** To establish ties and develop mutual trust as a responsible corporate citizen

Corporate Guiding Principles

Safety and Environment

Placing top priority on safety, accident prevention and environmental preservation in order to protect the safety and health of employees, customers and local communities and contribute to building a sustainable society

Ethics and Fairness

Acting with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations

Customer-Focus

Providing solutions of high value to customers, and pursuing customer satisfaction and the world's highest level of quality

Innovation

Achieving continuous innovation in all corporate activities, and aiming for dynamic evolution and growth

Strong *Genba-Ryoku* (Workplace Competency)

Learning from one another and making self-driven efforts to leverage technologies and expertise in order to strengthen workplace competency, which is the foundation of our corporate activities

Cooperation and Co-creation

Forming integrated internal linkages and strategic alliances with external partners, and evolving together with society by creating new value

Emphasis on Human Resources

Providing motivating work environments where employees can demonstrate their abilities, and building a vibrant corporate culture

Information Disclosure

Appropriately disclosing corporate information and enhancing communication with stakeholders in order to maintain management transparency

Respect for Human Rights

Fulfilling our responsibility to respect human rights as a good corporate citizen

Vision

Toray Group Sustainability Vision

Corporate Culture

- Contributing to society through business activities
- People-centric management
- Management from a long-term perspective
- Pioneering spirit

President's Principles

- Stay focused on the basics, search for ideal approaches, identify the right steps, and then carry them out
 - All solutions can ultimately be found in the *Genba* (workplace)
- Consider what is best for the company
- Have the integrity to do the right thing in the right way

Corporate Slogan

Innovation by Chemistry

TORAY
PHILOSOPHY

02

TO OUR
STAKEHOLDERS

06



FINANCIAL &
NON-FINANCIAL
HIGHLIGHTS

10

COVID-19 AND
BEYOND

14



"TORAY VISION 2030"
"AP-G 2022"

Long-term Corporate Vision
"TORAY VISION 2030"
Medium-term Management Program
"Project AP-G 2022"

16

HUMAN RESOURCES
STRATEGY

Interview

30

R&D STRATEGY

34

IR DAY

Medium-term
Management Program
"Project AP-G 2022"
Business Briefing by
Segments

35



MANAGEMENT
SYSTEM

Corporate Governance/
Compliance

51

Cautionary statement with respect to forward-looking statements

Descriptions of predicted business results, projections and business plans contained in this integrated annual report are based on forecasts and assumptions regarding the future business environment made at the present time. This integrated annual report is not a guarantee of the Company's future business performance.

SPECIAL FEATURES
For Realization of
a Circular Economy
68
Advanced Business
Management by Utilizing
Digital Technologies
74

RISK
MANAGEMENT
76

ENVIRONMENT
TCFD-related Initiatives
80
Environmental
Management Initiatives
82



HUMAN RESOURCES
MANAGEMENT
85

RESULTS BY
SEGMENT
Fiscal 2019
90

R&D
102
INTELLECTUAL
PROPERTY
104



FINANCIAL
SECTION
105

Stakeholder Engagement
148
External Evaluation
149
Toray Group Worldwide
Network
150
Investor Information/
Corporate Data
151

FUTURE...





Akihiro Nikkaku

Akihiro Nikkaku
President

TO OUR STAKEHOLDERS

Staying focused on the basics, searching for ideal approaches, identifying the right steps, and then carrying them out in highly uncertain times

Introduction

I would like to begin by offering my sincerest condolences to all of those who have been affected by COVID-19. And I would like to express my respect for all of those fighting day and night on the frontlines to prevent spread of the infection. Along with taking the necessary steps to prevent COVID-19 from escalating, Toray Group will spare no effort in bringing about an early end to the crisis and in supporting the development of society and the economy thereafter.

In fiscal 2019, Toray saw both consolidated net sales and operating income decline 7.3% year on year to ¥2,214.6 billion and ¥131.2 billion, respectively, and saw net income attributable to owners of parent decline 29.8% to ¥55.7 billion. In addition to trade friction between the U.S.A. and China, COVID-19 emerged to threaten the world at the start of 2020 and significantly limited the movement of people and goods, thereby driving a recession that progressed throughout the global economy at an unprecedented pace.

Although Toray Group has been unable to avoid the impacts of this situation because we provide materials to key industries around the world, I feel that our medium- to long-term corporate value remains unwavering. I hope that you will recognize this fact from the long-term corporate vision “TORAY VISION 2030” and the medium-term management program “Project AP-G 2022,” both of which are covered in this report.

Toray Group’s Aspirations

Toray Group was established in 1926, based on the principle of “realizing that corporations are public institutions of society and contributing to society through our business.” Ever since, Toray Group has worked hard to earn the respect of society.

Originally formulated in 1986, our current corporate philosophy of “contributing to society through the

creation of new value with innovative ideas, technologies and products” exhibits the management philosophies and values that have been passed down since our founding, as well as our reason for existence as a company. Similarly, Toray Group aims to realize the Toray Group Sustainability Vision under our mission of providing innovative technologies and advanced materials as a means of delivering fundamental solutions to the global challenges involved in balancing development and sustainability with which the world will continue to be faced.

Implementing Programs to Address Issues Under the Long-term Corporate Vision

In July 2018, Toray Group announced the Toray Group Sustainability Vision, which describes the perspectives of world that Toray Group aims to realize by 2050 and the issues to be addressed in order to realize that world. These issues include a range of challenges that are intertwined and ever-graver, including a growing population that is forecasted to reach 10 billion and that is aging in countries around the globe, as well as the relentless escalation of climate change, water scarcity, and resource depletion issues against the backdrop of these demographic challenges.

In May 2020, Toray Group announced the long-term corporate vision “TORAY VISION 2030” as our milestones for raising corporate value by delivering solutions to these kinds of global challenges through the potential of innovative materials. In short, this vision serves as our guidelines for ascertaining trends in society and industry over the next 10-year period, and for achieving sound, sustainable growth while pursuing business model transformation.

At the same time, the Group formulated the medium-term management program “Project AP-G 2022”

that defines what we must do over the three-year period from fiscal 2020 to fiscal 2022. We have already launched initiatives under this program. As expressed by its name, the AP-G (Action Program for Growth) medium-term management program is not a medium-term management “plan,” but a medium-term “program” for achieving growth. Rather than putting in place a plan that is grounded in a set of numerical targets, Toray Group has conventionally focused on medium-term issues. In short, Toray Group management implements “programs to address issues” under the concept that results will follow upon solving each issue.

In formulating these programs, we considered the details of and identified issues with every item, from medium- to long-term business climates, competitive environments, strengths and weaknesses, and sales, to R&D, and summarized what Toray Group must do over the next three-year period within the Action Program.

Presenting Guidelines for Highly Uncertain Times

During the first half of 2020, the global economy saw production, consumption, and even logistics activities come to a standstill that resulted in significant negative growth as the world struggled to prevent COVID-19 from spreading. Although there may be those who believe it is not possible to formulate an accurate medium-term management program given this situation of increasing uncertainty, the medium- to long-term aspirations of Toray Group are clear. The programs Toray Group must implement to achieve these aspirations will not change fundamentally due to COVID-19. For example, our policies designed to continuously optimize the supply chain remain unchanged, including those we have undertaken over many years to establish a global production system based on a business model of local production and consumption that can minimize the impact of changes in commerce conditions stemming from trade friction between the U.S.A. and China and from country risk.

Moreover, our policy of developing a variety of advanced materials that derive from our core technologies in order to expand businesses that contribute to the development of society remains steady.

There is still no end in sight for COVID-19, but taking action once things have settled after the world has returned to normal will put us behind. We must prepare by ascertaining the true nature of the change, by analyzing how the market will change after COVID-19 ends, and whether or not the current situation is transient or permanent. Rather than failing to indicate any medium-term guidelines because of the high uncertainty

and thus being controlled by the need to deal with the immediate situation, I feel it is far more rational to drive forward under certain assumptions while observing changes in the situation, and to take action as we adjust those assumptions. Specifically because of this uncertain situation, Toray-style management approach is to indicate guidelines, fully discuss our options, and align the vectors within the Group as we search for ideal approaches, identify the right steps, and carry them out.

Developing Materials Truly Needed by the World and Creating New Markets

The values our society held towards transfer and places have transformed significantly, as telework and other changes have expanded due to COVID-19. On the one hand, these changes have prolonged adjustments in aircraft demand, which in turn has raised concerns over negative impacts on the sales of carbon fiber composites and other materials. On the other hand, however, the trend remains unchanged for the increase in demand for lightweight materials that contribute to improved fuel efficiency among the airline industry as a means of addressing environmental problems. Greater demand for these materials due to larger wind turbine blades and the growth of the fuel-cell vehicle market, is also expected to remain unchanged. In addition to carbon fiber composite materials, accelerating digital transformation is likely to actually increase the demand for 5G-compliant semiconductor materials that enable high-speed, high-capacity communications. As a materials manufacturer, Toray continuously identifies changes in the market from a medium- to long-term perspective regardless of the situation, and provides the world with high added-value products that suit these changes. COVID-19 is no exception, and we intend to further undertake new programs as we move forward without altering our stance of creating new markets by innovative technologies.

In terms of materials development, creating beneficial materials is only possible after accumulating technologies over long-periods lasting ten to twenty years. In fact, although we have already worked with carbon fiber for 50 years, it still maintains room for development as a material. Our growth strategy is based on considering what customers need and on providing innovative materials that can only be realized by Toray Group. Accordingly, I believe that for us as a company, it is ever more important to maintain a long-term vision, establish short-term and long-term programs under that vision, and stay focused on the basics as we do what needs to be done in aims of achieving our aspirations.

Domain Synergy that Outweighs Selection and Concentration

Some have pointed out that the Group is not gaining returns from capital investments due to our wide range of business domains. And I am also aware of the view that we are not taking moves towards selection and concentration. There is no question that Toray Group has many business segments. However, each of these segments are derived from the common core technologies of organic synthetic chemistry, polymer chemistry, biotechnology, and nanotechnology. I believe that the attractiveness of Toray Group lies specifically in the fact that we maintain a broad scope of business domains by engaging in a wide range of application fields in a group-wide manner using our strengths in core technologies as a common base.

Although we will naturally consider withdrawing from domains in which we can no longer create added-value, materials always hold the hidden potential to expand into unexpected applications and to form large markets. Therefore, maintaining a wide range of business domains itself extends the scope of possibility for Toray Group. In this sense, specializing on only those fields that are highly profitable today will lead to a weakening of the business foundation over the medium- to long-term. It is my belief that Toray Group will not grow as a result of choosing specific business sectors, but through exhibiting synergy among business domains.

Towards Resilience and Proactive Management

Although many countries are restarting economic activities without waiting for an end to COVID-19, the recovery in production and consumption activities has been limited in preparation for a second wave. Accordingly, the global economy is traveling a path to normalcy at a more moderate pace than expected, and these harsh conditions are expected to continue for the foreseeable future. Moreover, there is also a chance that further intensification in the conflict between the U.S.A. and China following the end of COVID-19, and it will weigh down the global economic recovery. Within this situation, however, there are also markets like those for 5G which are expected to become more active as a result of COVID-19, as well as markets like those for xEV which are expected to experience an early recovery as a result of government funding, so I believe it is important to ascertain post-COVID-19 trends as early as possible and adapt to the new normal.

The main theme of “AP-G 2022” is Resilience and Proactive Management, which indicates our goal of

achieving operations that are also prepared for uncertainties under the concept of strengthening the management foundation, one of the three basic strategies of the medium-term management program. As a means of supporting growth strategies after the end of COVID-19, we will take this opportunity to fully ensure the resiliency of the corporate structure, and fundamentally strengthen the management foundation from a medium- to long-term perspective that goes beyond the current fiscal year.

Strengthening Corporate Governance

Finally, I would like to discuss our efforts to enhance the effectiveness of the Board of Directors and to strengthen the business execution system.

Along with reducing the number of Board members from 19 to 12 in fiscal 2020, we increased the number of outside directors from 2 to 4 in order to ensure a greater variety of perspectives. We also expanded the composition of the Governance Committee, which, chaired by an outside director, serves as an advisory body to the Board of Directors and acts as the nomination and remuneration committee, to 3 internal members of the Board and 4 outside directors.

We also introduced an executive officer system composed of 30 vice presidents, including two foreign nationals, appointed by the Board of Directors. This move was made for the purpose of enabling the vice presidents which represent all businesses, primary functions, and the major regions, to share management policies and the Group’s operating conditions, and to execute business based on quick decision-making that accurately ascertains the business environment and changes therein.

Materials Have the Power to Fundamentally Change Our Everyday Life

In order to fundamentally change “things,” the materials that serve as the foundation of all products must evolve. Under this belief, Toray Group contributes to the solutions for global challenges by creating innovative materials targeted at realizing a sustainable world view and deploying these in a wide range of applications and fields under our mission of addressing the needs of society as a materials manufacture. For this reason, we ask that all of our stakeholders grant us their continued understanding and support.

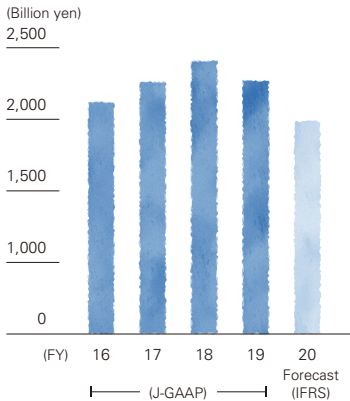
Akihiro Nikkaku
President

Financial Highlights

Net Sales/Revenue

FY2019
Net Sales

¥2,214.6 billion



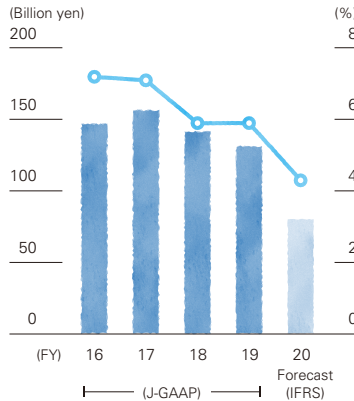
Operating Income/ Core Operating Income, Operating Income to Net Sales/ Core Operating Income to Revenue

FY2019
Operating Income

¥131.2 billion

Operating Income to Net Sales

5.9%



■ Operating income/Core operating income (left)
○ Operating income to net sales/
Core operating income to revenue (right)

Net Income Attributable to Owners of Parent/Profit Attributable to Owners of Parent, ROA and ROE

FY2019

Net Income Attributable to Owners of Parent

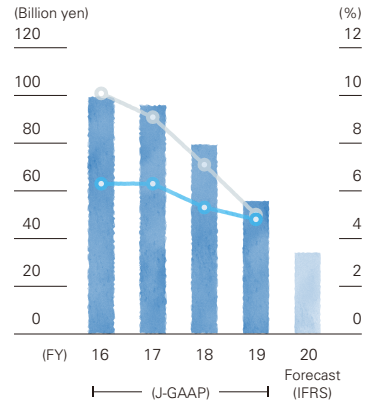
¥55.7 billion

ROA

4.8%

ROE

5.0%



■ Net income attributable to owners of parent/
Profit attributable to owners of parent (left)
○ ROA (right) ○ ROE (right)

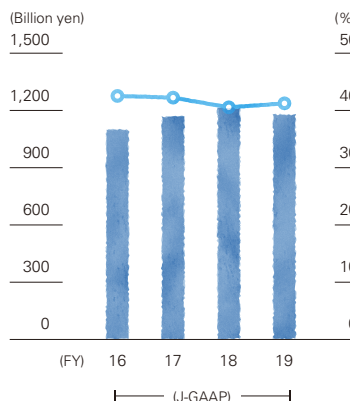
Net Assets and Equity Ratio

End of FY2019
Net Assets

¥1,179.6 billion

Equity Ratio

41.3%



■ Net assets (left)
○ Equity ratio (right)

Interest-bearing Liabilities and Debt/equity Ratio

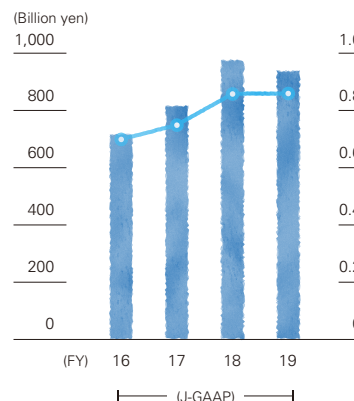
End of FY2019

Interest-bearing Liabilities

¥938.9 billion

Debt/equity Ratio

0.86



■ Interest-bearing liabilities (left)
○ Debt/equity ratio (right)

Cash Flows

FY2019

Cash Flows from
Operating Activities

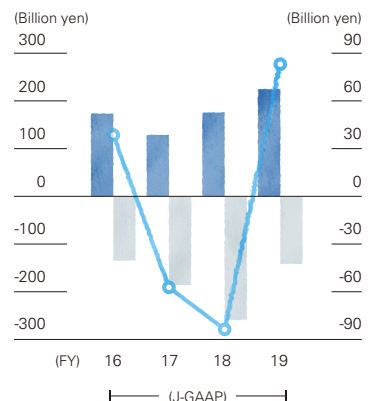
¥225.8 billion

Free Cash Flows

¥83.4 billion

Cash Flows from
Investing Activities

¥-142.4 billion



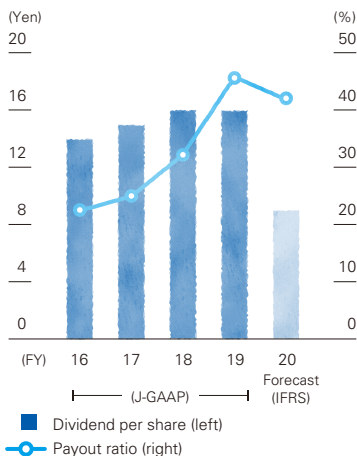
■ Cash flows from operating activities (left)
■ Cash flows from investing activities (left)
○ Free cash flows (right)

Dividend per Share and Payout Ratio

FY2019
Dividend per Share

¥16

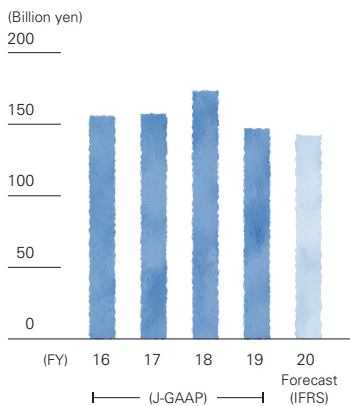
Payout Ratio
45.9%



Capital Expenditures

FY2019
Capital Expenditures

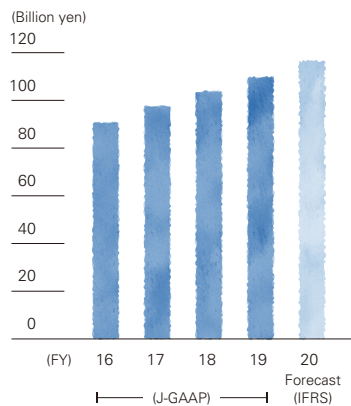
¥147.5 billion



Depreciation and Amortization

FY2019
Depreciation

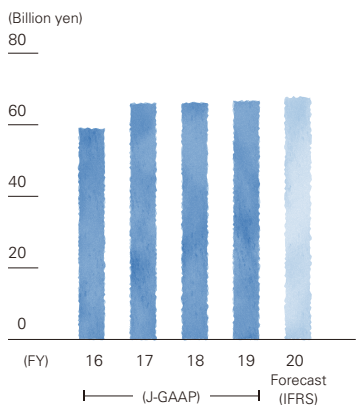
¥110.1 billion



R&D Expenses/Expenditures

FY2019
R&D Expenses/Expenditures

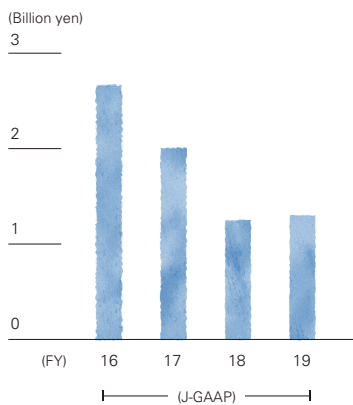
¥66.9 billion



Environmental Facility Investment

FY2019
Environmental Facility Investment

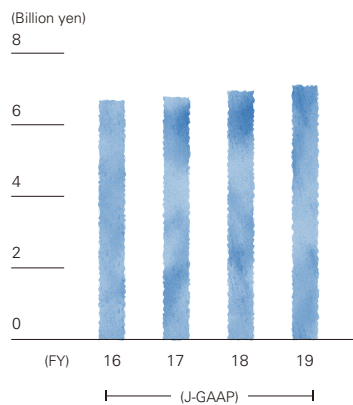
¥1.3 billion



Environmental Preservation Costs

FY2019
Environmental Preservation Costs

¥7.1 billion

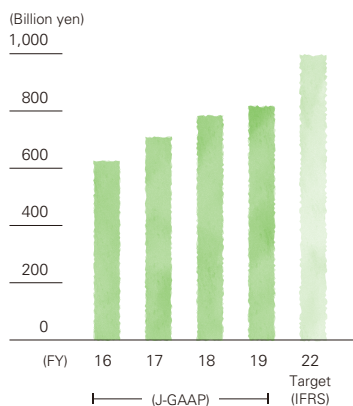


Non-Financial Highlights

Net Sales/Revenue of Green Innovation Businesses

FY2019
Net Sales of Green Innovation Businesses

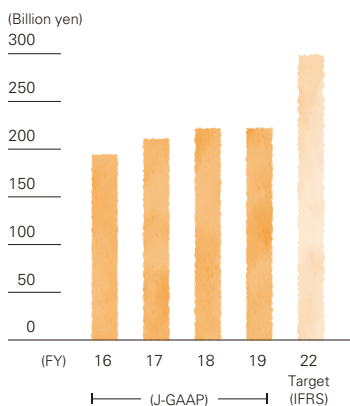
¥820.1 billion



Net Sales/Revenue of Life Innovation Businesses

FY2019
Net Sales of Life Innovation Businesses

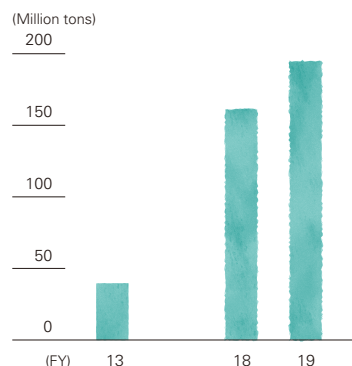
¥223.2 billion



Contribution to CO₂ Reduction in Value Chain

FY2019
Contribution to CO₂ Reduction in Value Chain

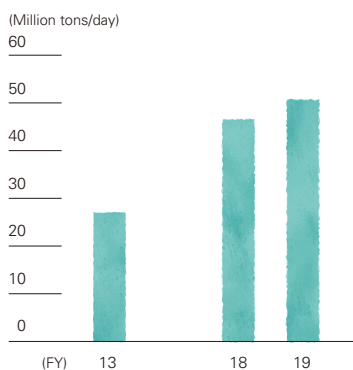
196 million tons



Water Filtration throughput Contribution of Toray's Water Treatment Membranes

FY2019
Water Filtration throughput Contribution of Toray's Water Treatment Membranes

51 million tons/day

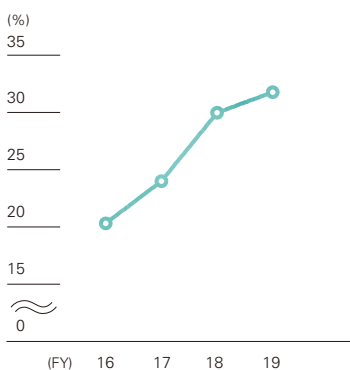


Reduction of Greenhouse Gas Emissions

(Toray Group companies in Japan)

FY2019
Reduction of Greenhouse Gas Emissions

31.8%

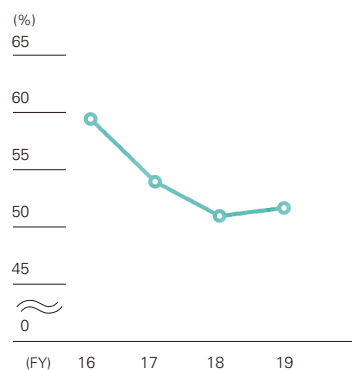


Comparative Water Usage per Unit of Sales

(FY 2001, set to an index value of 100)

FY2019
Comparative Water Usage per Unit of Sales

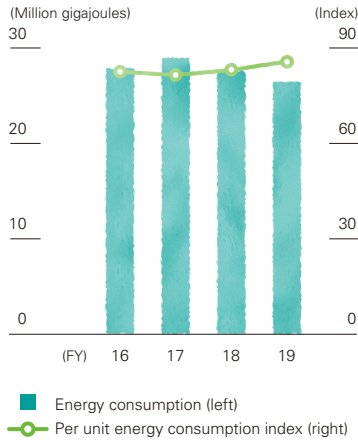
51.7%



Energy Consumption and Per Unit Energy Consumption Index

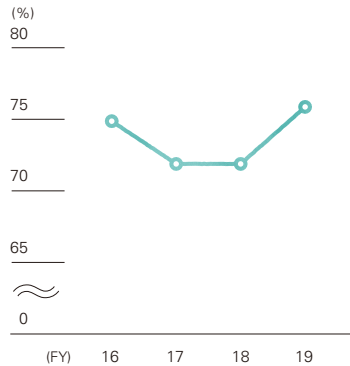
(VS. FY 1990)

FY2019
Energy Consumption
26.5 Million gigajoules
Per Unit Energy Consumption Index
85.9 (FY 1990, set to an index value of 100)



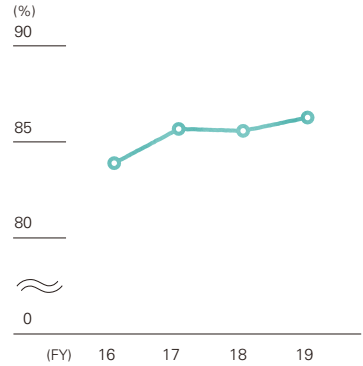
Reduction of Atmospheric VOC Emissions

FY2019
Reduction of Atmospheric VOC Emissions
76%



Waste Recycling Rate

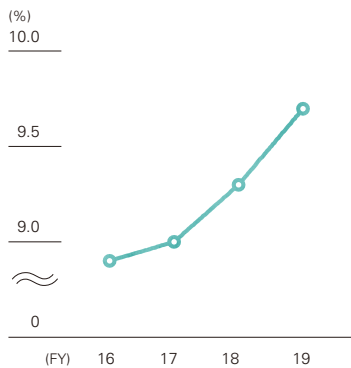
FY2019
Waste Recycling Rate
86.4%



Percentage of Women in Unit Manager or Higher Positions

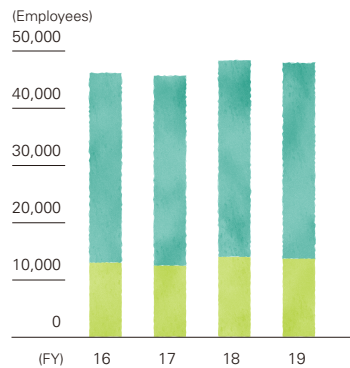
(Toray)

FY2019
Percentage of Women in Unit Manager or Higher Positions
9.7%



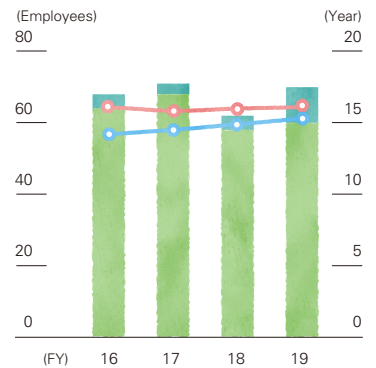
Number of Employees by Gender

FY2019
Male **34,373**
Female **13,658**



Average Time on the Job and Number of Employees Taking Childcare Leave

FY2019
Number of Employees Taking Childcare Leave: Male **10**
Number of Employees Taking Childcare Leave: Female **60**
Average Time on the Job: Male **15.3** years
Average Time on the Job: Female **16.1** years



Number of employees taking childcare leave (left)
Average time on the job (right)
■ Male ■ Female
○ Male ○ Female



COVID-19 AND BEYOND

Coexisting with COVID-19

—Clearing a path toward a sustainable future

Toray Group is making a contribution to suppressing the spread of COVID-19 and to providing treatments by its materials capabilities. We at Toray Group consider it our mission to provide fundamental solutions by bringing to bear our innovative technologies and advanced materials to address an array of issues impacting the world on a global scale.

Overcoming a difficult worldwide situation, and aiming to realize our long-term corporate vision

The spread of the COVID-19 pandemic threatens the lives and lifestyles of people around the world, and this blow to the global economy is said to surpass that of the 2008 financial crisis. To address this, Toray Group is offering its adhesive blood-purifying device TORAYMYXIN™, medical gowns, and nonwoven fabrics for masks that will all contribute to containing the spread and to treating COVID-19.

As a basic materials manufacturer, Toray Group will maintain its efforts to consistently supply our products that underpin society. Moreover, we are committed to the development of innovative technologies and advanced materials that will work to materially transform society, with an eye toward the new world that will arise after this situation abates.

Our aim, for when we overcome this worldwide calamity, is that Toray Group be a corporate entity that possesses a high degree of value for all of its stakeholders. We will promote the medium-term management program, “Project AP-G 2022” as we advance toward the realization of the long-term corporate vision, “TORAY VISION 2030.”

Toray obtains tentative approval in Canada for use of TORAYMYXIN™ as treatment for COVID-19

Toray has received an Interim Order from the Canadian Authority, Health Canada, for the use of its endotoxin adsorption cartridge TORAYMYXIN™, as a treatment for patients infected with COVID-19. TORAYMYXIN™ is already in use as a treatment for patients with septic shock, but with this authorization, it was granted expanded indications to treat COVID-19 patients with acute respiratory failure in the absence of cardiac failure or fluid overload and diffuse alveolar damage (DAD) (HRCT findings).

Toray requested by the Japanese government to deliver medical gowns produced in Japan

Based on a request from the Japanese government that had been hit by tight domestic demand for medical gowns on account of the COVID-19 pandemic, Toray decided to deliver one-time use medical gowns (isolation gowns) to the Ministry of Health, Labour, and Welfare. With the objective of providing frontline sites with a steady supply of required volumes within short lead times, Toray Group will fully engage its domestic supply chain, and plans to deliver a total of 8.1 million pieces between May 2020 and March 2021.

In addition, in order to provide protective clothing for medical professionals and others, the Company plans to secure domestic production, together with ramping up production outside of Japan.

Enhancing and expanding supply chain of nonwoven fabrics for masks in Japan

Toray is enhancing and expanding its supply network, and is fully utilizing its global production facilities to provide nonwoven fabric for masks to locations in Japan. In tandem with implementing a system to expand production by leveraging its overseas bases, Toray upgraded its nonwoven fabric test facilities within its Shiga Plant, enabling monthly production of up to roughly 100 million units of nonwoven fabric for masks supplied to domestic manufacturers.

"TORAY VISION 2030"

Long-term Corporate Vision "TORAY VISION 2030" —Achieving Sound, Sustainable Growth and Creating Social Value

With an eye toward 2030, we have formulated our new long-term corporate vision, "TORAY VISION 2030" – Achieving Sound, Sustainable Growth and Creating Social Value. This vision serves as a guidepost in our efforts to be a high-value corporate group to all our stakeholders. We will promote the long-term strategies as laid out in "TORAY VISION 2030" and work to achieve our numerical targets for fiscal 2030 in order to realize the world as envisioned by Toray Group in 2050 as part of our "Toray Group Sustainability Vision."

Toray Group Sustainability Vision

Long-term Corporate Vision "TORAY VISION 2030"

Medium-term Management Program "Project AP-G 2022"

Toray Group Sustainability Vision

The Toray Group Sustainability Vision clarifies the four perspectives of the world in 2050 that Toray Group aims to achieve, as well as the initiatives that must be taken in order to realize them. More specifically, the Toray Group mission is to provide through innovative technologies and advanced materials the necessary solutions to the challenges facing the world in terms of both development and sustainability, including the issues of an ever-increasing global population, aging populations, climate change, water shortages, and resource depletion. With the declaration that "we will work to ensure that our own growth will not negatively impact global sustainability while doing our utmost with our business partners worldwide to address global issues, including the goals of the Paris Agreement and the United Nations Sustainable Development Goals (SDGs)," the Toray Group Sustainability Vision shows the path forward for Toray Group and forms the foundation for TORAY VISION 2030.

Achieving the Toray Group Sustainability Vision

In “AP-Growth TORAY 2020,” our previous long-term corporate vision, we divided our businesses into three categories: core growth driving businesses, strategically expanding businesses, and intensively developing and expanding businesses. Under “TORAY VISION 2030,” we are promoting cross-segment initiatives to improve earnings in the Green Innovation (GR) Business, which focuses on contributing to the resolution of global environmental, resource, and energy issues, and the Life Innovation (LI) Business, which aims to contribute to better medical care and longevity, the fostering of public health, and the support of personal safety. At the same time, we are working on the Future Toray-2020s Project (FT Project), a group-wide effort to focus resources in major themes on both a qualitative and quantitative basis and accelerate the creation and development of new businesses and achieving total sales of around ¥1 trillion in the 2020s.

The Growth Model for Achieving the Sustainability Vision



Long-term Growth Strategies in “TORAY VISION 2030”

Toray Group aims to achieve sound, sustainable growth while promoting a business model transformation by accurately identifying changing industrial trends brought about by demographic factors, environmental issues, and technological innovation. With this in mind, we are using active investment to promote a “**global expansion in growth business fields.**” To make this possible, we are working to maximize the value we can create over the medium- to long-term by “**strengthening competitiveness**” through ongoing business model innovations and total cost reductions, and by “**strengthening the management foundation**” to enable investment for growth based on enhanced investment efficiency and an improved financial structure.

Long-term strategies to achieve “sound, sustainable growth”

1. Global expansion in growth business fields

- Promote GR businesses that help solve global environmental issues as well as resource and energy issues
- Promote LI businesses that contribute to better medical care and longevity, foster public health, and support personal safety

2. Strengthening competitiveness

- Create new value through business advancement and high added-value creation, thereby providing solutions with a materials-oriented approach to customers and society
- Pursue dramatic cost reductions by setting challenging targets as well as strive to reduce environmental impact

3. Strengthening the management foundation

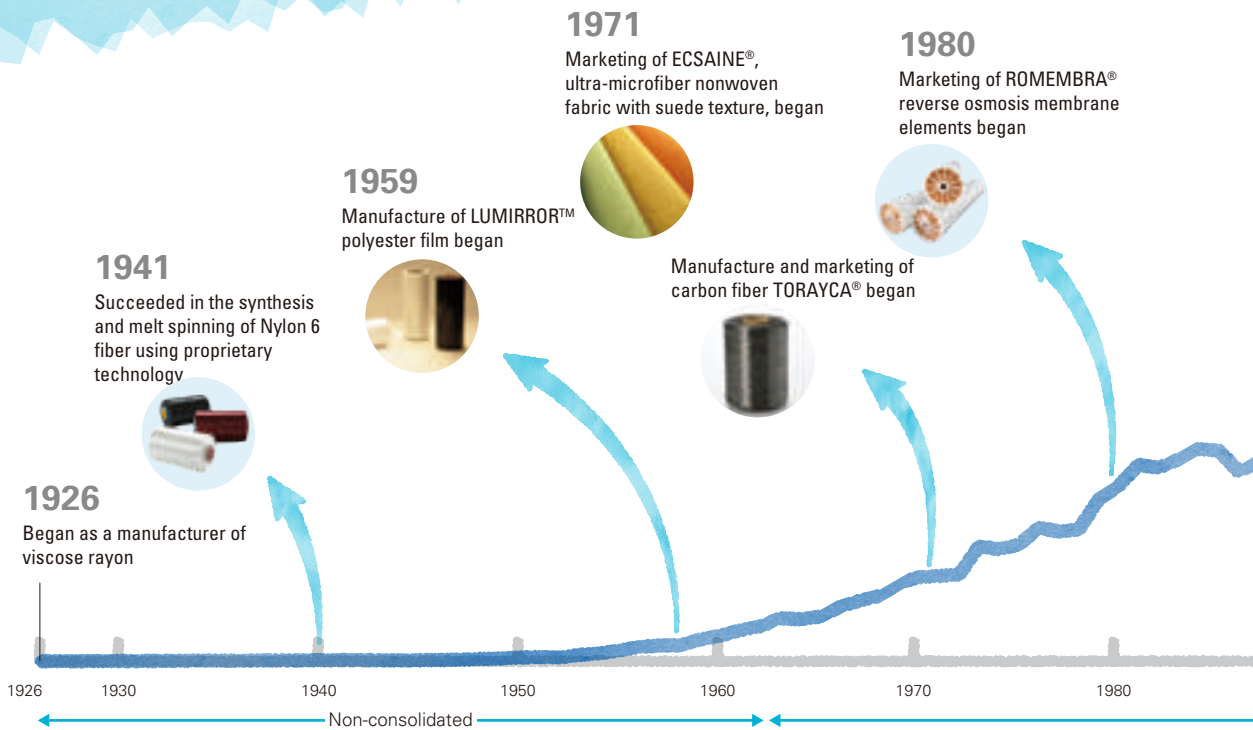
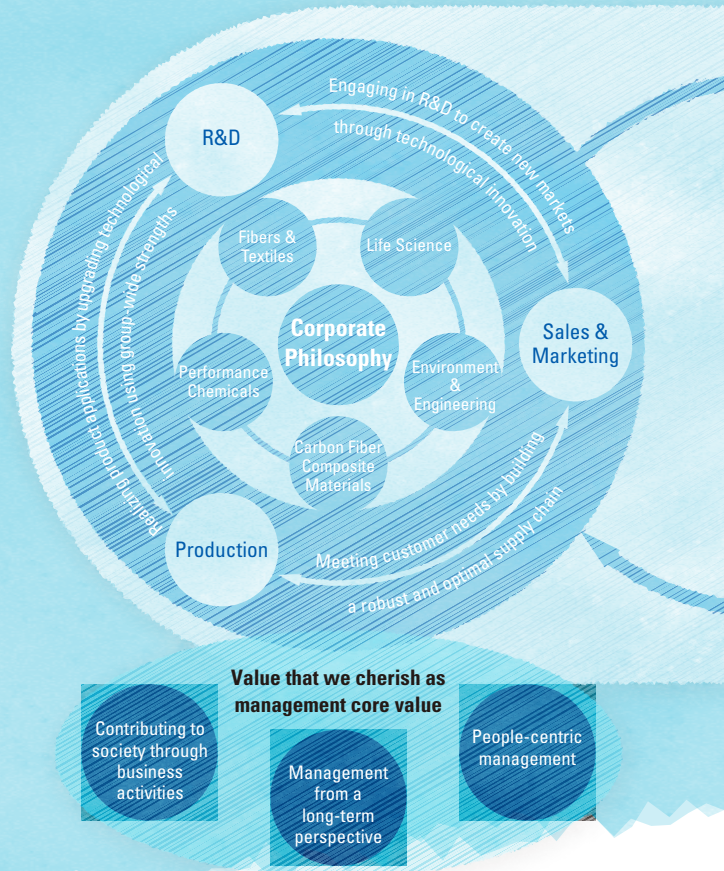
- Improve cash flow and capital efficiency, and balance financial soundness and growth investment
- Reform and revitalize the business and organizational structures of low-growth and low-profitability businesses

Quantitative Targets for FY 2030

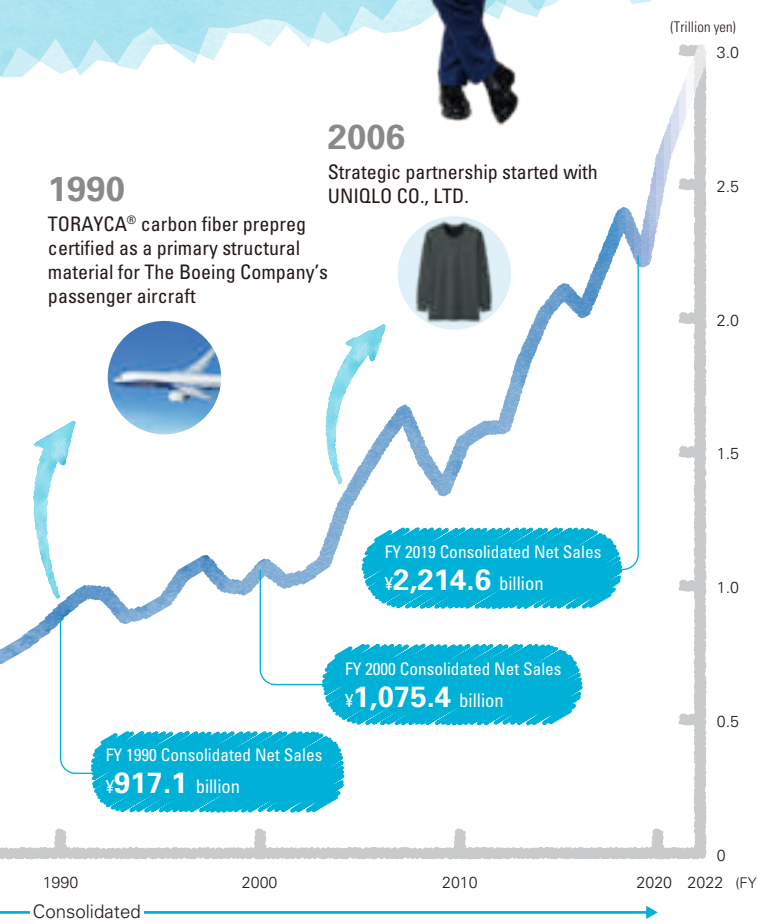
	FY 2013 Actual (baseline year) (J-GAAP)	FY 2030 Targets (compared to FY 2013) (IFRS)
GR Net sales/Revenue	463.1 billion yen	4 fold
LI Net sale/Revenues	119.6 billion yen	6 fold
Avoided CO ₂ emissions	40 million tons	8 fold
Contributed annual water filtration throughput	27.23 million tons/day	3 fold
Greenhouse gas emissions per unit of sales/revenue in production activities	33.7 tons/billion yen	30% reduction
Water consumption per unit of sales/revenue in production activities	1,520 tons/billion yen	30% reduction

The Toray Group Value Creation Process

Under "TORAY VISION 2030," we will continue to provide new value in society through mutual cooperation in R&D, sales and marketing, and production, the key strengths of Toray Group, based on the core values of "contributing to society through business activities," "management from a long-term perspective," and "people-centric management." At the same time, we will focus on fostering co-creation with our customers and supply chain partners, starting at the materials stage. In this way we will contribute to the realization of the four perspectives of the world as outlined in Toray Group Sustainability Vision.



"US GAAP" for 1964 - 1983, "Japanese GAAP" after 1984



Enhancing Long-term Corporate Value

Toray Group began as a manufacturer of viscose rayon in 1926. On top of all three major synthetic fibers such as nylon, polyester, and acrylic, the Company has continued to develop innovative technologies while creating a host of advanced materials and high value-added products in a broad range of films, chemicals, resins, electronics and information materials, carbon fiber composite materials, pharmaceuticals and medical products, water treatment, and environmental fields. With an eye toward how society will evolve in 2050 and how innovative technologies and advanced materials may be utilized as a driving force, we will adopt a long-term perspective toward enhancing our corporate value.

Review of “Project AP-G 2019”

An Aggressive Business Expansion

“Project AP-G 2019” was the medium-term management program we launched in April 2017. The program’s three basic strategies were “business expansion in growth business fields,” “expansion and advancement of global business,” and “strengthening competitiveness.” The program promoted a growth strategy centered on expanding our business in order to achieve our goals for business development outlined in “AP-Growth TORAY 2020,” our long-term corporate vision. We have at the same time been strengthening our efforts to create new sources of revenue that will contribute to sustainable growth and enhanced corporate value in 2020 and beyond.

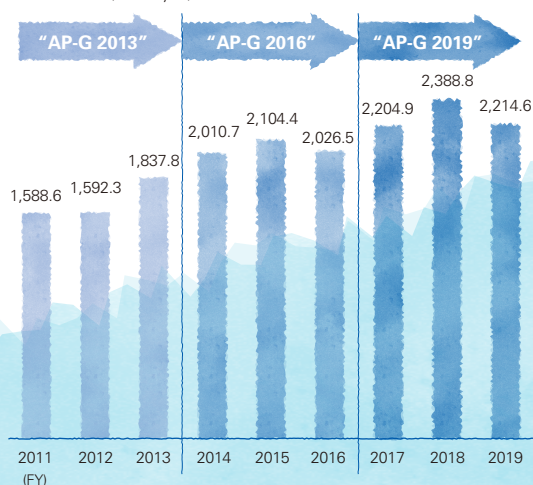
Against this backdrop, consolidated net sales reached record highs for the two consecutive years from fiscal 2017, with operating income also reaching a record high in fiscal 2017. However, net sales in fiscal 2019, the final year of “AP-G 2019,” was significantly below target due to factors such as deteriorating demand for automobiles and smartphones, a slowdown in the Chinese economy due to escalating trade friction between the U.S.A. and China, and a sharp contraction in the global economy due to the spread of COVID-19. While we worked to offset this by improving earnings through enhanced added value and reducing variable and fixed costs through total cost reductions, our main KPIs fell short of our “AP-G 2019” targets.

GR Project Annual Growth Rate at 9%

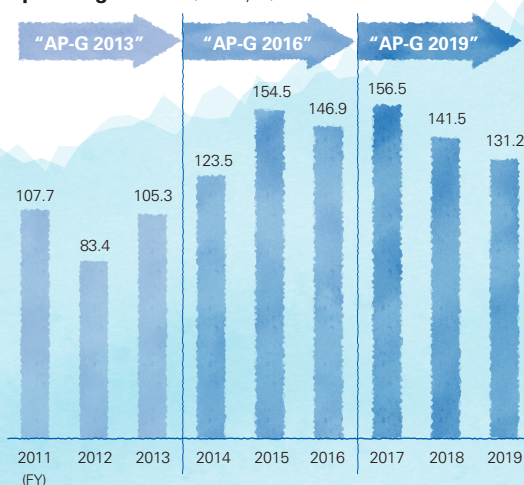
As part of our “business expansion in growth business fields” effort, we promoted our Green Innovation Business Expansion (GR) Project and our Life Innovation Business Expansion (LI) Project. In addition, as part of our “expansion and advancement of global business” strategy, we focused our efforts on the AE (Asia, Americas, Europe, and Emerging Regions) Project in order to capture earnings opportunities in countries and regions experiencing favorable economic growth.

As a result, sales for GR businesses expanded at an average annual rate of about 9%, largely in business areas focused on energy conservation and new energy, including carbon fiber composite materials and battery separator films. Sales for LI businesses expanded at an average annual rate of 4%, mainly in advanced materials such as nonwoven fabrics for hygiene products. In the AE Project, we were able to expand sales overseas by increasing investment and establishing new business locations in regions around the world that are expected to show favorable economic growth moving forward.

Net Sales (Billion yen)



Operating Income (Billion yen)



Exceeding the Target for Strengthened Competitiveness

In terms of “strengthening competitiveness,” we promoted the Total Cost Reduction Project (TC Project) throughout the Group, both in terms of reducing variable and fixed costs and fundamentally reducing costs through innovations in the production process. At the same time, we focused on strengthening our corporate structure and our sales and marketing. As a result, we were able to reduce costs over the three years covered by the program by ¥233.9 billion, exceeding the program target of ¥220.0 billion.

“AP-G 2019” Target and FY 2019 (Actual)

	FY 2016 Actual	FY 2019 Actual	“AP-G 2019” Target
Net Sales (billion yen)	2,026.5	2,214.6	2,700.0
Operating Income (billion yen)	146.9	131.2	250.0
Operating Income to Net Sales Ratio	7.2%	5.9%	9%
ROA	6.3%	4.8%	around 9%
ROE	10.1%	5.0%	around 12%
D/E Ratio	0.70	0.86	below 1 (guideline)

Exchange rate for “AP-G 2019” target : 100 yen / US\$

ROA = Operating Income / Total Assets

ROE = Net Income Attributable to Owners of Parent / Owners' Equity

Key Challenges for the Next Medium-term Management Program

Despite our efforts, we fell short of the KPIs set in “AP-G 2019.” Major shifts in the external environment, including a sharp rise in raw material and fuel prices, as well as trade friction between the U.S.A. and China, contributed to a downturn in demand as well as delays in the launches of new products. There was also an increase in costs associated with the launch of new projects and an increase in goodwill costs associated with M&A projects. We consider the challenge is to harvest the benefits from capital investments made under “AP-G 2019” in the early stage, and to comprehensively strengthen our corporate structure so that we can better address growing uncertainty.

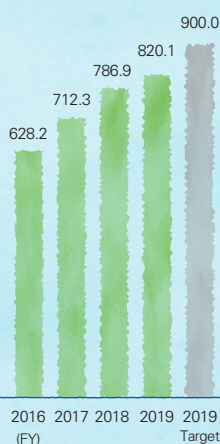
Difference between FY 2019 Actual and “AP-G 2019” Target (by Segment)

(billion yen)

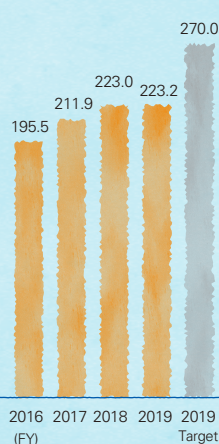
Net Sales	“AP-G 2019” Target	FY 2019 Actual	Changes
Fibers & Textiles	1,120.0	883.1	-236.9
Performance Chemicals	950.0	770.8	-179.2
Carbon Fiber Composite Materials	260.0	236.9	-23.1
Environment & Engineering	270.0	252.3	-17.7
Life Science	80.0	53.3	-26.7
Others	20.0	18.2	-1.8
Adjustments	—	—	—
Total	2,700.0	2,214.6	-485.4

Operating Income	“AP-G 2019” Target	FY 2019 Actual	Changes
Fibers & Textiles	92.0	60.7	-31.3
Performance Chemicals	103.0	58.7	-44.3
Carbon Fiber Composite Materials	45.0	21.0	-24.0
Environment & Engineering	20.0	11.2	-8.8
Life Science	9.0	1.6	-7.4
Others	3.0	3.4	+0.4
Adjustments	▲22.0	▲25.5	-3.5
Total	250.0	131.2	-118.8

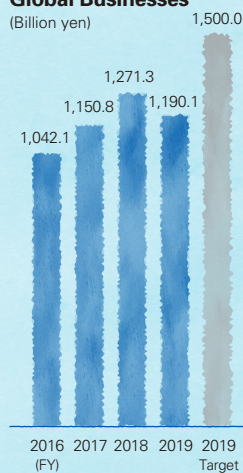
Net Sales of Green Innovation Businesses (Billion yen)



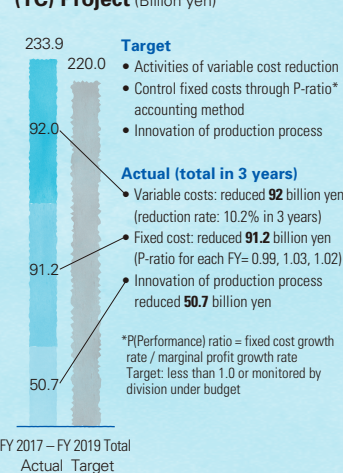
Net Sales of Life Innovation Businesses (Billion yen)



Net Sales of Expansion and Advancement of Global Businesses (Billion yen)



Reductions from the Total Cost Reduction (TC) Project (Billion yen)



Medium-term Management Program “Project AP-G 2022”

Resilience and Proactive Management—Sustainable Growth and New Development

We launched “Project AP-G 2022,” a medium-term management program covering the three years from fiscal 2020 to fiscal 2022, with the aim of achieving sound, sustainable growth outlined in “TORAY VISION 2030,” our long-term corporate vision. While maintaining our basic strategy of proactive investment to expand our business, we will work to maximize value which Toray Group creates over the medium- to long-term and build a strong business foundation for sustainable growth moving forward, specifically by strengthening our financial structure and promoting the business structural reforms necessary to advance our growth strategies.

Amid ongoing expectations for significant changes in the business environment due to demographic shifts, environmental issues, and technological innovations, we also note that there remains the potential for a fundamental transformation in the industrial structure and social systems. This could create business opportunities, but also risks, such as a narrowing in previously existing businesses. Amid such an environment, we believe it vital to further strengthen our competitiveness by accurately

understanding the changing trends in industry and accordingly reforming our business model.

With this in mind, we will continue to work to strengthen competitiveness by reducing total costs, expanding the Green Innovation (GR) Business and the Life Innovation (LI) Business, while following the basic “AP-G 2019” strategies of “global expansion in growth business fields” and “strengthening competitiveness” in “AP-G 2022.” On the other hand, in light of the challenges that emerged during the period covered by “AP-G 2019,” we will aggressively pursue structural reforms in our low-growth and low-profitability businesses while at the same time working to strengthen the management foundation to increase cash flow and improve capital efficiency. In addition to these basic strategies, we will also promote as key strategies within “AP-G 2022,” “initiatives for a circular economy,” “reduction of greenhouse gas emissions in the production stage,” “advanced business management through the use of digital technologies,” and “securing and developing human resources.” We aim to achieve our financial as well as sustainability goals based on these efforts.

Three Basic Strategies

1. Global Expansion in Growth Business Fields ▶ P24-25

By leveraging Toray Group’s strengths in advanced materials and core technologies, we will continue to develop on a global scale the Green Innovation (GR) Business Expansion project and the Life Innovation (LI) Expansion project as group-wide projects.

2. Strengthening Competitiveness ▶ P27

Through the Total Cost Reduction (NTC) Project, we aim to reduce costs by ¥150 billion over a period of three years. We are also focusing on business advancement and high added-value creation, while at the same time enhancing workplace competency in sales and marketing and production.

3. Strengthening the Management Foundation ▶ P28

With the goal of ensuring our financial soundness, we will operate our business with a focus on maintaining a balance in profit, cash flow, and asset efficiency. Moreover, in order to achieve new growth, we will promote structural reforms in low-growth and low-profitability businesses.

Key Challenges

1. Initiatives for a Circular Economy ▶ P68-73

Leveraging the various technologies of Toray Group, we will contribute to realizing a circular economy by means such as the promotion of recycling and utilization of biomass, the increased use of hydrogen and renewable energy, as well as recycling of water.

2. Reduction of Greenhouse Gas Emissions in the Production Stage ▶ P80-81

We launched the “Challenge 30 Project” as a group-wide project, and will formulate and execute specific action plans with the aim of reducing greenhouse gas (GHG) emissions and water usage per unit of revenue by fiscal 2030 by 30% compared to fiscal 2013.

3. Advanced Business Management Through the Use of Digital Technologies ▶ P74-75

The “Toray Digital Transformation (TDX) Project” is designed to improve the advancements in management in a variety of fields, including R&D, production, sales and marketing, finance and accounting, and purchasing and logistics through digital transformation (DX).

4. Securing and Developing Human Resources ▶ P30-33

Toray Group will secure, develop, and promote future management candidates and professional human resources with strong capabilities to lead on the frontlines of our operations.

Basic Strategies of "Project AP-G 2022"



"AP-G 2019"

3 Basic Strategies

- 1 Business expansion in growth business fields
- 2 Expansion and advancement of global business
- 3 Strengthening competitiveness

TORAY VISION 2030

3 Basic Strategies

- 1 Global expansion in growth business fields
- 2 Strengthening competitiveness
- 3 Strengthening the management foundation

"AP-G 2022"

Specific Measures

- (1) Green Innovation business expansion **GR Project**
- (2) Life Innovation business expansion **LI Project**
- (1) Total cost reductions **NTC Project**
- (2) Business advancement/high added-value creation
- (3) Enhancing workplace competency in sales & marketing and production
- (1) Strengthening financial structure by improving cash efficiency
- (2) Business structure reform of low-growth and low-profitability businesses

Financial Targets in FY 2022 (Billion yen)

	FY 2019 Actual (J-GAAP)	FY 2022 Target (IFRS)
Net Sales/Revenue	2,214.6	2,600.0
Operating Income/Core Operating Income	131.2	180.0
Operating Income to Net Sales/Core Operating Income to Revenue	5.9%	7%
ROA	4.8%	about 7%
ROE	5.0%	about 9%
Free Cash Flows	▲58.1 (in 3 years)	120 or more (in 3 years)
D/E ratio	0.86	around 0.8 (guideline)
Dividend Payout Ratio	—	about 30%

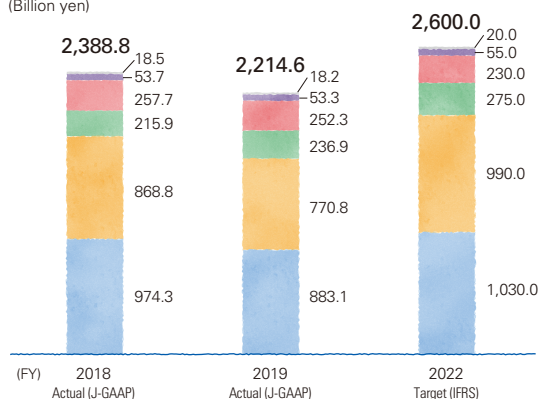
Exchange rate for "AP-G 2022" target : 105 yen / US\$
 ROA = Operating Income, Core Operating Income / Total Assets
 ROE = Net Income Attributable to Owners of Parent, Profit Attributable to Owners of Parent / Owners' Equity

Sustainability Targets in FY 2022

	FY 2013 Actual (baseline year) (J-GAAP)	FY 2019 Actual (compared with FY 2013) (J-GAAP)	FY 2022 Target (compared with FY 2013) (IFRS)
GR Net sales/Revenue	463.1 billion yen	820.1 billion yen	1,000.0 billion yen
LI Net sales/Revenue	119.6 billion yen	223.2 billion yen	300.0 billion yen
Avoided CO ₂ emissions	40 million tons	5.1 fold	5.3 fold
Contributed annual water filtration throughput	27.23 million tons/day	1.9 fold	2.4 fold
Greenhouse gas emissions per unit of sales/revenue in production activities	33.7 tons/billion yen	12% reduction	20% reduction
Water consumption per unit of sales/revenue in production activities	1,520 tons/billion yen	23% reduction	25% reduction

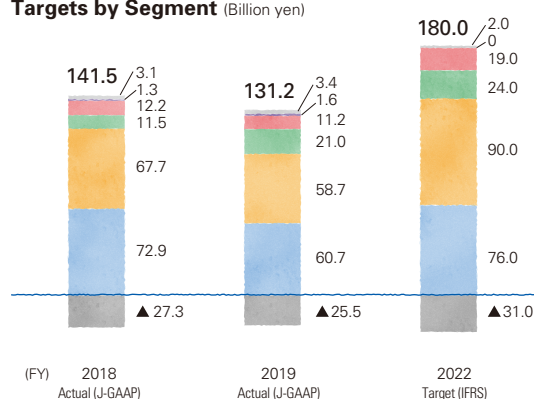
Net Sales/Revenue Targets by Segment

(Billion yen)



Operating Income/Core Operating Income Targets by Segment

(Billion yen)



■ Fibers & Textiles ■ Performance Chemicals ■ Carbon Fiber Composite Materials ■ Environment & Engineering ■ Life Science ■ Others ■ Adjustments

Basic Strategy 1: Global Expansion in Growth Business Fields



Green Innovation Business Expansion Project (GR Project)

Growth Business Fields

One of the key growth business fields in the GR Project is battery separator films for lithium-ion batteries, where high growth is expected in automotive applications, mainly in Europe. Moreover, with an expansion in the market for consumer applications, we will focus on expanding production capacity and promote cost reduction in order to capture this demand. In the field of carbon fiber products for wind turbine blades, placement restrictions have contributed to wind power facilities being increasingly installed in offshore and low-wind regions, and with an expected increase in blade size and the volume of carbon fiber used, we aim to expand our business by increasing production capacity at Zoltek Companies, Inc. In reverse osmosis (RO) membranes, we are focused on securing the leading global market share, and are

pursuing reduced costs and the development of highly functional new products while simultaneously building an enhanced global production system in response to growing demand in China, where environmental regulations are being tightened, and in the Middle East, where large seawater desalinations plants are being constructed.

Targeting Revenue of ¥1 Trillion

We are targeting revenue in the Green Innovation Business in fiscal 2022 of ¥1 trillion and will focus on capital investment and R&D in large scale themes such as lightweight materials, biomass-derived materials, recycled materials, battery separator films, large tow carbon fibers for wind turbine blade applications, water treatment membranes, and hydrogen and fuel cell-related materials.



Contribute to solving global environmental, resource, and energy issues



Carbon fiber for aircrafts



Carbon fiber for compressed vessels



Carbon fiber for wind turbine blades



Carbon fiber for automobiles



Resins for automobiles



Air filter



Water treatment membranes

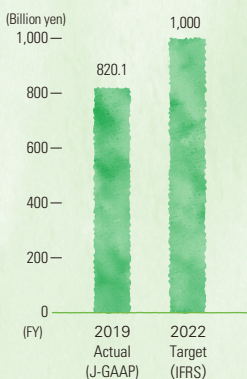


Battery separator film for lithium-ion batteries

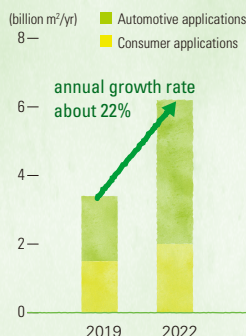


Toray Waterless Plate®

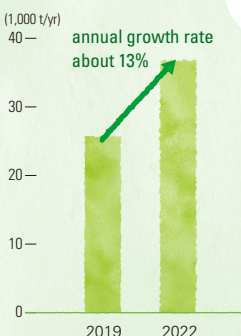
Net Sales/Revenue of Green Innovation Businesses



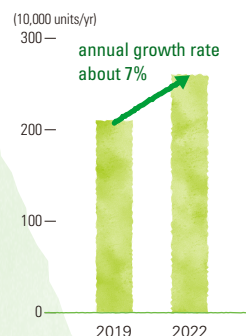
Demand for Battery separator films (Toray estimation)



Demand for wind turbine blades applications (Toray estimation)



Market size of RO membranes for industrial applications (Toray estimation)





Life Innovation Business Expansion Project (LI Project)

Growth Business Fields

Toray Group is committed to supporting the activities of daily living (ADL) and health of senior citizens and those requiring nursing care with its nonwoven fabrics for hygiene products and its carbon fiber that is used in facilitating access. In the medical field, we are developing and supplying not only pharmaceuticals, but through our advanced materials and innovative technologies products such as medical-use hitoe™, a wearable electrocardiogram monitoring system, dialyzers, and catheters. We will also be focusing on business expansions in fields supporting

personal safety in abnormal weather conditions and traffic accidents, including through the supply of heat shielding/light shielding/UV protective cloth SUMMER SHIELD™ products and LIVMOA™ protective clothing.

Targeting Revenue of ¥300 billion

In addition to the ideas of supporting health maintenance and longevity, as well as improving the quality of medical care and easing burdens on medical professionals, we are broadening the definition of life innovation to include products for personal safety, including in regard to threats such as abnormal weather and natural disasters, which appear to be increasing in recent years. Moreover, by providing solutions that are unique to the Group thanks to its expertise in materials, we aim to boost revenue in the Life Innovation Business to ¥300 billion.

Support health and longevity





Nonwoven fabric for hygiene products Materials for facilitating access Sportswear fabrics

Improve quality of medical-care, Ease burdens on medical professionals





Dialyzers Catheter Medical-use hitoe™

Support personal safety

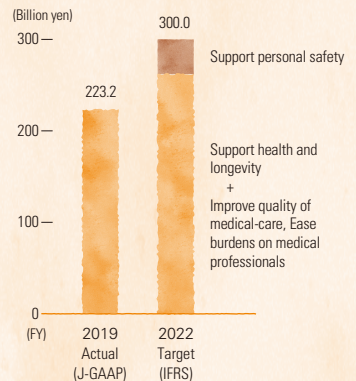




Heat-shielding/light shielding/UV protective SUMMER SHIELD™ Nonwoven fabric with flame-shielding property, GULFENG™ Protective clothing LIVMOA™



Net Sales/Revenue of Life Innovation Businesses



LIVMOA™ limited use protective clothing

Amid climate change and the increased movement around the world of people and goods, there is also a growing risk of infectious disease spreading around the world. Through combining the technologies of microporous films and nonwoven fabrics, Toray has developed a new type of protective clothing that can be worn comfortably while allowing moisture permeability but resisting blood and viral penetration, something that has been a contradictory issue in this type of product in the past. LIVMOA™ is an integrated, single-use protective garment which Toray Group covers almost all aspects from materials to finished products. The brand offers a range of products, including products for medical professionals working in harsh environments to products for workers in dusty and oily working environments and those working in clean rooms.



Initiatives to Support Growth

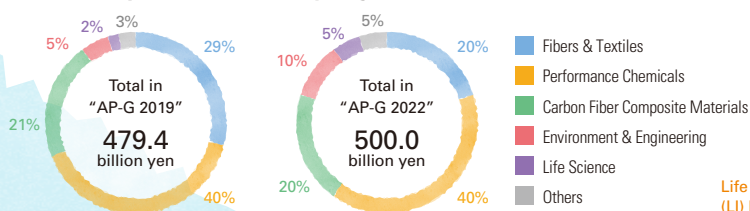


Capital Investment, R&D, Intellectual Property

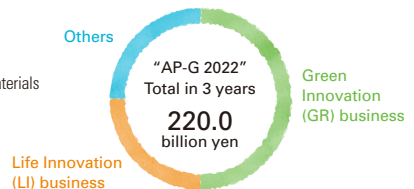
We are targeting capital investment over the three years from fiscal 2020 of ¥500 billion. Of this amount, we expect about half to focus on expanding growth, particularly in the Green Innovation Business and the Life Innovation Business. We intend to focus our investment in areas such as battery separator films, industrial carbon fibers, and RO membranes. We also intend to bolster revenue through efficient capital investment, risk minimization through the careful selection of projects, and the efficient use of existing facilities. In terms of M&A and alliances, Toray Group will conduct strategic M&A activity separate from capital investment, focusing on

fields where the leveraging of our expertise in advanced materials, our core technologies, and our global business base can be expected to generate synergies. We plan to allocate R&D resources to large-scale and highly profitable themes, with expected R&D investment over the three years from fiscal 2020 of about ¥220 billion. In intellectual property, we will raise the barriers to market entry through the filing of strategic patent applications and knowhow protections while at the same time bolstering global intellectual property capabilities through enhancements to the patent management systems of domestic and overseas affiliated companies.

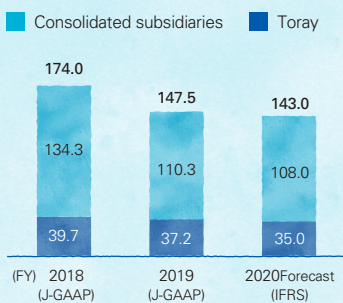
Capital Investment by Segment



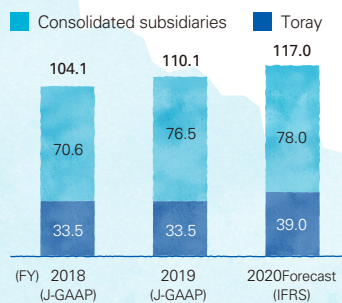
Breakdown of R&D Expenses



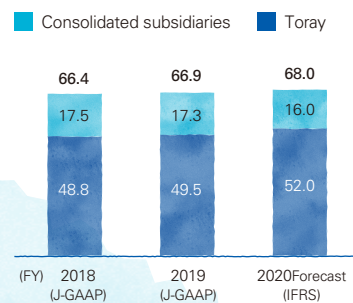
Capital Expenditures (Billion yen)



Depreciation (Billion yen)



R&D Expenses (Billion yen)



Major Capital Expenditure Projects

FY 2019	Alcantara S.p.A.	Alcantara® production facilities
	Zoltek Zrt.	Carbon fiber production facilities
	Toray Industries Hungary Kft.	Battery separator film SETELA™ production facilities
	Toray Industries, Inc.	Fuel cell electrode substrate production facilities
FY 2020	Toray Industries Hungary Kft.	Battery separator film SETELA™ production facilities
	Toray Plastics (America), Inc.	Polypropylene film production facilities
	Toray Plastics (Malaysia) Sdn. Berhad	ABS resin production facilities

Creating New Businesses

“AP-G 2022” establishes multiple large-scale themes to drive next-generation growth, including not only the GR Project and the LI Project, but also the company-wide “Future Toray-2020s Project (FT Project).” By focusing resources in these areas, we will accelerate the development of products and technologies as well as the formation of new business models as part of our goal of generating total sales of around ¥1 trillion in the 2020s.

Examples of themes in “AP-G 2022”



Hydrogen-fuel cell related materials
(Image provided by Toyota Motor Corporation)



Biomass-utilization products and processing technologies



Environmentally-friendly printing solutions



Hygiene, Health-care products



Sensing devices related materials

Basic Strategy 2: Strengthening Competitiveness

Strengthening Competitiveness through Maximization of Cost Reduction and Added Value

We will strengthen our competitiveness by promoting the “Total Cost Reduction Project (NTC Project),” reducing variable and fixed costs, and innovation of production process in order to achieve cost reductions of

¥150 billion over three years. We will also strengthen our competitiveness through business advancement and high added-value creation, and enhancing workplace competency in sales and marketing and production.



1. Total Cost Reduction

Total Cost Reduction Project (NTC Project) Target to reduce 150 billion yen in 3 years

Variable Cost Reduction

Target to reduce
100.0 billion yen
in variable costs
(annual target : over 3.7% YoY)

Fixed Cost Reduction

Target to reduce
35.0 billion yen
in production fixed costs

Innovation of Production Process

- Refine themes that directly link to substantial cost reduction
- Aim for reduction effects at 15 billion yen in 3 years

2. Business Advancement / High Added-value Creation

- Achieve advancement in products
- Add high-value by integrating and combining products and services
- Create new value in collaboration with external partners
- Pursue innovation in the value chain using Information and Communication Technology (ICT)

3. Enhancing Workplace Competency in Sales & Marketing and Production

- Lead the maximization of value-adding by strengthening the ability of the sales force to gather information, provide supply chain insight, the ability to make comprehensive sales proposals, and the ability to resolve issues
- Continually improve labor productivity by strengthening the ability to maintain equipment, resolve onsite problems, and the ability to resolve issues in order to meet customer requirements

Basic Strategies 3: Strengthening the Management Foundation



Strengthening the Financial Structure by Improving Cash Efficiency

In order to achieve sound, sustainable growth, we will strive to operate our businesses with a stronger awareness of cash flow, which can be seen as a return on investment, with an aim of generating free cash flow of more than ¥120 billion during the “AP-G 2022” period.

To this end, we will conduct thorough management of receivables, payables, and inventories across the

entire Group with the goal of reducing working capital and more efficiently using funds.

In terms of reform to our financial structure, we aim to reduce the D/E ratio from under 1.0 to about 0.8. Finally, we have a new dividend payout ratio target of about 30% with the goal of increasing dividends in line with performance.

Strengthening financial structure by improving cash efficiency

- Improve the certainty of return on investment
- Introduce management-based free cash flows internally
- Reduce working capitals
- D/E ratio around 0.8
- Set goals for dividend payout ratio (about 30%)

Total of FY 2020 - FY 2022

CASH-IN	Cash flows from operating activities	620 billion yen or more
CASH-OUT	Cash flows from investment activities	500 billion yen*
Free Cash Flows		120 billion yen or more

*exclude M&A

Business Structure Reform of Low-growth and Low-profitability Businesses

We promoted structural reforms in our businesses as part of our respective business strategies in “AP-G 2019,” but in “AP-G 2022” we will be selecting businesses in need of structural reforms as part of an overall Company strategy and promoting structural reform in low-growth and low-profitability businesses. Our goal is to restore these low-growth and low-profitability businesses through business and organizational reforms tailor-made to those

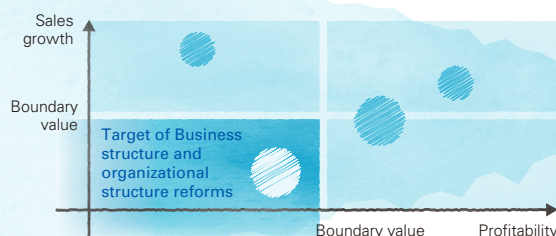
businesses. That said, we will also consider reducing or withdrawing from businesses where the potential for market growth is rather low or where it is difficult to make the most of Toray Group strengths.

Low-growth and low-profitability businesses are defined as businesses and companies that fall below growth and profitability thresholds and are selected on a once-a-year basis.

Business structure reform of low-growth and low-profitability businesses

- Conduct business structure and organizational structure reforms of low-growth and low-profitability businesses
- Will consider options including reducing or withdrawal from businesses with low market growth potential or where it would be difficult to make the most of Toray Group’s strengths in the future

Determine once a year of target businesses and companies that fall below boundary value for “sales growth” and “profitability,” and conduct business structure and organizational structure reforms



Fiscal 2020 Earnings Forecasts

Factoring in assumptions that the spread of COVID-19 will repeat the cycle of slowing down and re-spreading but eventually subside, and the economy in Japan and overseas would follow a gradual recovery trend, Toray Group targets fiscal 2020 revenue of ¥1.86 trillion, core

operating income of ¥80 billion, and profit attributable to owners of parent of ¥34 billion. Our consolidated earnings forecasts have been calculated based on IFRS, as Toray Group voluntarily adopted IFRS from the Japanese GAAP from fiscal 2020.

Consolidated Business Forecast for FY 2020

(Billion yen)

	FY 2020	YoY
Revenue	1,860.0	-11.1%
Core Operating Income	80.0	-36.3%
Profit Attributable to Owners of Parent	34.0	-59.6%

Consolidated Business Forecast by Segment

(Billion yen)

	Revenue (YoY)	Core Operating Income (YoY)
Fibers & Textiles	705.0 (-126.0)	36.0 (-23.6)
Performance Chemicals	695.0 (-66.2)	59.0 (+4.5)
Carbon Fiber Composite Materials	190.0 (-46.9)	▲7.0 (-29.6)
Environment & Engineering	202.0 (+11.2)	14.0 (+3.4)
Life Science	53.0 (-0.0)	1.0 (+0.5)
Others	15.0 (-3.2)	2.0 (-1.6)
Adjustments		▲25.0 (+0.8)
Total	1,860.0 (-231.2)	80.0 (-45.5)

Adoption of IFRS

Disclosure of Core Operating Income

As Toray Group seeks to further expand and advance its global business, we have decided to voluntarily adopt IFRS from fiscal 2020, from the Japanese GAAP, in order to improve the international comparability of our financial information, which we believe should contribute to enhanced convenience to our stakeholders. We also expect it to improve the management of our business by unifying accounting standards across the Group. The disclosure of ordinary business revenue and profit will be made by core operating income, as a measure of management performance, and the numerical targets for “AP-G 2022” is disclosed for this indicator. Core operating income is derived by adding non-operating income and expenses excluding net financial expenses and costs, and a portion of special credits and charges, to the operating income under Japanese GAAP.

All the account items in the non-operating income and expenses under Japanese GAAP, such as costs related to idle facilities and start-up of new facilities, will be included in the core operating income under IFRS. However, net financial expenses and foreign exchange gain or loss will be excluded. By adopting core operating income, the regular conditions of production facilities and the situation of operations will be reflected in the gain and loss without omission.

Ordinary business revenue and profit will be disclosed as “core operating income” as a measure of management performance

Profit and Loss Statement under Japanese GAAP	Profit and Loss Statement after IFRS adoption
Net sales	Revenue
Cost of sales	Cost of sales
Gross profit	Gross profit
Selling, general, admin. expenses	Selling, general, admin. expenses
Operating income	Other income / expenses
Finance income	Core operating income
Equity in earnings of affiliates	Special Items
Non-operating income and expenses	Operating income
Ordinary income	Finance income/costs
Special credits and charges	Equity in earnings of affiliates
Income before income taxes	Income before income taxes
Income tax	Income tax expenses
Net income	Profit
Net income attributable to owners of parent	Profit attributable to owners of parent
Net income attributable to non-controlling interests	Profit attributable to non-controlling interests

Non-operating income and expenses (including costs related to idle facilities, costs related to start-up of new facilities) and part of special credits and charges are included in the Japanese GAAP operating income



HUMAN RESOURCES STRATEGY

Interview with Senior Vice President, Human Resources Division



Toray will promote individuals who are adept at adapting to change as well as future management candidates and professionals with the capability to lead on the frontlines.

Senior Vice President, Human Resources Division
Shigeki Taniguchi



Interviewer
Manager, IR Department
Fujino Hirai

Toray's history begins with respect for harmony among people

What is behind Toray's idea of "people-centric management?"

The idea of "people-centric management" often spoken of by Toray President Akihiro Nikkaku has been passed down since the Company's founding in 1926. The corporate symbol created immediately after the Company's founding shows three interlocking rings, symbolizing the opportunities given by heaven, the advantages of the land, and the harmony amongst human beings. This is derived from the Book of Mencius in which the harmony of the earth is more important than heaven-sent opportunities, and the harmony amongst human beings is more important than the earth. Essentially, this means that when attempting something, there is no achievement if there is no harmony amongst human beings. And this philosophy is the starting point of Toray's history.



First company emblem (1926-1963)

After that, Asahiko Karashima, the first general manager of the Shiga Plant, set a principle that the plant should be a place for the cultivation of the human character. He noted that companies should not only manufacture products, but also help develop human resources. After becoming the Chairman of the Board, he also believed that people represented an asset that could not be posted on the balance sheet. 30 years later, the Chairman of the Board Shigeki Tashiro often stated that the development of human resources was the most important thing a company could do, and that it could not be done in a short period of time. In fact, he believed it was one of the most important long-term goals a company could have. Following this philosophy, the Company formulated educational and training standards and established a vocational school for on-site training.

The Company established the Toray Human Resources Development Center in 1996, with President Katsunosuke Maeda at the time stating that "People are what determine whether a business succeeds or fails, and it is people who pave the way to a company's future. The development of human resources at Toray therefore serves three purposes. First, it is to develop personnel who are trusted by society at large not only as contributing members but also business people who conduct their activities with fairness, a strong level of ethics, and a deep sense of responsibility. The second is to develop personnel who are aware of the roles they are expected to play, both inside and outside the Company, who strive to acquire a high level of

specialized knowledge and technological expertise, who continually foster their creativity, and who can solve problems by facing the situation directly and working with the spirit of self-improvement. The third is to develop leaders with foresight, leadership, and a sense of balance." This philosophy encapsulates Toray's thinking on human resources.

This shows how the idea of "people-centric management" has been passed down through the history of the Company. President Nikkaku often visits various job sites and speaks directly with the employees. I think he does this to see with his own eyes whether the employees are growing.

We need individuals who are adept at adapting to change

What are the key challenges in Toray's human resources strategy?

Toray is focused on actively expanding its business in the global market and further accelerating the creation of new businesses. Amid such an environment, there are a growing number of voices saying that they want a person with particular kind of skill, or that a transfer of a certain individual may cause potential problems, as the successor or successors have not been trained yet. This points to the securing and training of human resources as a key point to support this expected growth. The Company has also formulated its "Toray Group Sustainability Vision" for 2050. While it may seem a long time ahead, it is the generation of current new employees that will be driving this Company by that time. As such, proper training needs to be given to these future leaders. Given these circumstances, "AP-G 2022" focuses on the development of future management candidates and professional human resources with strong capabilities to lead on the frontlines.

What are the key points involved in the development of core staff and professional human resources?

A long-term vision is something that does not change easily. Though, it is important to note that the business environment itself and the way we work are both changing rapidly. When I joined the Company in 1983, reports were handwritten and I was warned that those with sloppy writing could not do the job. Now, of course, PCs are used, with the speed of change completely different than when I was younger. So, rather than focusing only on what a person can do right now, we need to concentrate on training individuals who, when thrust into an entirely new situation, can think for themselves, seek solutions through trial-and-error, and pave the way

forward. If we cannot find and foster workers like these who are adept at adapting to change, I believe Toray as we know it may not exist in 30 years. I think this is the most important thing, in terms of both core staff and professional human resources. I think people can gain such abilities through various failures. With this in mind, I believe it important that younger people have these kinds of experiences as early as possible.

Introducing a new career sheet

Exactly what kind of measures are you considering?

One of the centerpiece features of “AP-G 2022” is the introduction of a new career sheet. It clarifies what should be achieved three, five, nine, and 15 years after hiring, before becoming managers or professionals, so that employees achieve the professional level at each stage. But it is not for the Company to control the employees unilaterally. The goal is to create the Company’s system in which each of the employees plans a career they wish to pursue by themselves and consider what to do for realizing it. In this process, their managers are also required to consider it with them as their own issue. I believe that when the milestones for an individual’s future become clear, it becomes easier for them to fall into the habit of thinking for themselves and solving problems on their own. We plan to create a new career sheet for each job type at Toray and increase the adoption rate from 20% in fiscal 2020 to 30% in fiscal 2021 and 100% in fiscal 2022.

Those ready to take on new challenges can build a career at Toray

How can Toray best retain those we have trained?

While I think the turnover rate at Toray is actually low compared to other companies, it appears to have been following a general upward trend since about 2015. In



particular, it seems the turnover rate for employees in their prime between the ages of 28 and 32 is moving higher. The reason for this, I imagine, is because this is an age group in which many experience a major life event and change their thinking in regard to their lives and work. That being said, those who have got over this point rather devote themselves to their work. With this in mind, I think it is important to follow up with employees about five years after they joined the Company and to provide them with support from their managers and senior coworkers. One of the most common reasons for people leaving the Company and those joining us mid-career, is the inability to actively develop their own careers. This makes it especially important to use the career sheet. I also believe it necessary to focus not only on providing opportunities for taking on new challenges through internal recruitment and the self-certification system, and also creating an atmosphere in which workers are encouraged to try new things without fear of failure.

What are your thoughts in regard to the Company’s overseas human resources strategies?

When establishing subsidiaries overseas, Japanese staff are at first stationed at the location to train the local employees. These employees are then gradually given positions before the Company ultimately delegates to them local authority. As a result, the core staff at the overseas subsidiaries are able to build an in-house career, contributing to relatively high retention rates at these locations. Meanwhile, we also provide regular training for executives and managers in order to facilitate at the worksite the management style that is unique to Toray. The Company aims to expand its business on a global basis, making it important for us to have a systemic process in place for hiring the most talented core staff as the national staff. With this in mind, we are working to create T-CAS*, which can centrally manage the core staff at Toray Group locations around the world. We aim to complete the construction of this system within the period covered by “AP-G 2022.”

* T-CAS: Toray Career Development Assistance System

Improving productivity through flexible workstyles

How is Toray promoting workstyle reforms?

Laws and regulations related to workstyle reforms in Japan have been steadily implemented since April 2019. These laws allow a variety of different workstyles based on the individual circumstances of the worker. In addition

to the introduction of flexible working arrangements, including telecommuting, these reforms include regulations limiting the amount of overtime work and measures designed to improve the working environment so that women can play an active role, promote the acceptance of overseas workers, employ senior workers, and assist workers in balancing their work with their child-care/nursing care responsibilities. These are areas in which the kindness of a company is tested, and where the sense of fulfillment on the part of the employees can be increased, thus contributing to the retention of the most talented employees and bolstering the strength of the Company. With this in mind, Toray has established numerical targets in this area and strengthened its efforts to achieve them.

While not planned at all, telecommuting has become increasingly common due to the COVID-19 pandemic. Many things can be accomplished by working from a remote location than we initially thought, and it is a good chance to review the working system itself and make changes in people's working styles. While some individuals may experience inconveniences, I expect improvements will come eventually, and these kinds of different working styles to become increasingly common as we move forward. On the other hand, Toray is still a company, so it does no good to think about improving the work environment and exploring flexible working styles if profitability cannot be improved. With this in mind, "AP-G 2022" includes the Total Cost Reduction (NTC) Project. The flip side to these efforts is that if the Company fails to work to improve productivity, it will almost certainly fall short of profitability, which makes it vital to create a robust operating structure that includes not only work-style reforms, but enhanced employee management.

Diversity cannot be realized by simply setting a numerical target

Please tell us your thoughts on diversity.

Diversity is one of the major focus points in the laws related to workstyle reforms. Of these, we have been quick in the hiring of senior workers. In fields where experience can make all the difference, many workers are over the age of 65, and while there is a mandatory retirement age of 60, we have been able to re-hire all applicants over the age of 60. On the other hand, we have taken a cautious stance on setting numerical targets for the ratio of women in management and executive positions. If we did so, the focus would be on meeting numerical targets and not on the original purpose. While the ratio of women in managerial positions



is still under 10%, it is steadily rising. It appears clear that there is a growing number of women in the core staff pool and we accordingly expect to see female officers arising from within the Company, which I also believe will be of great encouragement to our hard working and active female employees.

What are your thoughts on the strategy for human resources from an SDGs perspective?

In order to realize Toray's "Sustainability Vision" through the Green Innovation Business and the Life Innovation Business, we will need to foster the development of core staff and professional human resources that are adept at adapting to change. I believe the wholehearted efforts of each employee are vital to achieving the SDGs. I also believe that in addition to using the power of materials to resolve global issues, we can show the necessity of our existence by playing an important role in the world including the creation of employment opportunities, as well as the payment dividends to shareholders, and the payment of taxes. I think it is worth noting that several Toray employees use their vacation time to participate in volunteer activities in the community, which lead to the discovery of new social issues and the creation of new networks. I cannot help but wonder if the Company can further support these kinds of activities by our individual employees.

Fostering human resources that can pave the way ahead

As a final note, can you tell me a bit about your aspirations?

Toray since its founding, has been focused on "people-centric management." In line with this concept, I would like to see an increase in the number of employees who are adept in adapting to change and who can think and act on their own in not only their own work, but also in regard to creating goals for the Company and themselves as they pave the way forward for Toray.

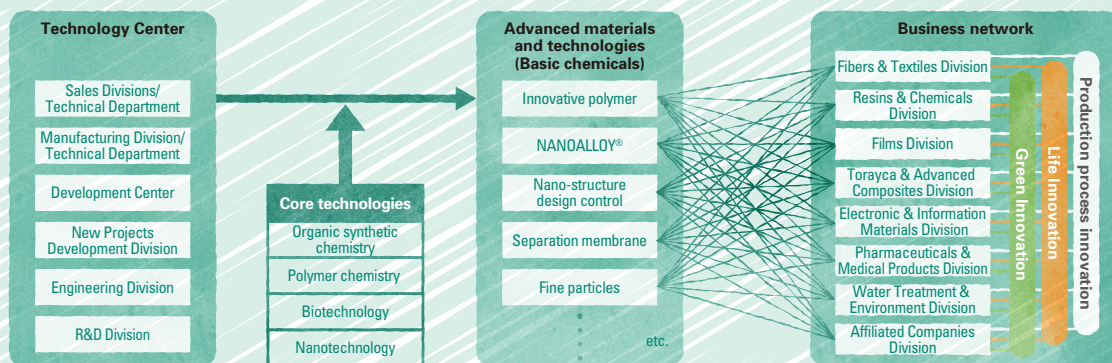
R&D PROVIDE THE KEY TO BUILDING THE TORAY OF TOMORROW

Over more than 90 years of its history, Toray has created advanced materials and technologies based on the firm conviction that “R&D provide the key to building the Toray of tomorrow,” and has expanded business through strategic collaborations and M&As that maintain synergy with these materials and technologies. In order to provide true solutions to the many societal and economic challenges of our times, including global environmental issues, there is no other way than the pursuit of technology innovation. Furthermore, without material innovation, there can never be final products that are attractive to the market. Looking back over the past, history proves it is advanced materials that have created next-generation industries. The Group will therefore continue to generate innovations that offer social and economic value through R&D based on a grand vision of the times and the needs of society.

An Undivided R&D Organization

Toray has centralized all of its R&D functions into the Technology Center. Bringing together specialists from many fields in this undivided R&D organization makes it easier to create new innovations by integrating technologies, and enables the Company to fully utilize its combined strength by actively exploiting technologies and knowledge from many fields to solve problems in a single business area. It also enables various advanced materials and technologies, including those developed for other fields, to be rapidly applied to multiple businesses. The reason the Group is capable of covering such a wide range of business fields with limited R&D investments is because it focuses the target of these investments on advanced materials and technologies at the same time it fully leverages this undivided R&D organization.

An Undivided R&D Organization



Establishing the R&D Innovation Center for the Future with an Eye on the Next 100 Years

As part of Toray's project to commemorate the 90th anniversary of its founding, in December 2019 it refurbished the former Central Research Laboratories building in Otsu City, Shiga, where the company was founded, and established the R&D Innovation Center for the Future as a base to further deepen and progress materials research, and to provide solutions to future societies. As a nexus of research for the future, the center comprises two sites: 1) Integrated Research Site, which has the function of idea creation as the core of R&D for the future, and 2) Experimental Research Site, which promotes development, evaluation, and demonstration of prototypes based on those ideas. In addition, the center pursues strategic open innovation through technological integration with academia and important partners in diverse fields, utilizing its innovation hub functions, such as an open lab.



WELCOME TO TORAY IR DAY

JUNE 4 TO JUNE 5, 2020

Toray IR Day

**Venue for the
Medium-term
Management Program
"Project AP-G 2022"
Business Briefing by
Segments**

Toray Group organized an event where the heads of each business directly outlined their thoughts on the new medium-term management program, "Project AP-G 2022," focusing on business strategies for the three years up to fiscal 2022. In addition to their diverse nature, the Company's businesses confront different operating environments. Our goal here is to outline the growth strategies of each business that were not fully explained in the overall presentation.

R & D STRATEGY AND ACTIVITIES FOR LIFE INNOVATION

R&D STRATEGY

An Undivided R&D Organization: The Technology Center

Toray Group has centralized all of its R&D functions into the Technology Center. Bringing together specialists from many fields in this undivided R&D organization makes it easier to create new innovations by integrating technologies, and enables the Group to fully utilize its combined strength by actively exploiting techniques and knowledge from many fields to solve problems in a single business area. It also enables various advanced materials and technologies, including those developed for other fields, to be rapidly applied to multiple businesses. In addition to technology fusion and combined strength, this approach also inherits the Group's DNA of pursuit of the ultimate limits and long-term continuity. This DNA enables the Technology Center to take a long-term perspective in managing R&D investments so that there is never a shortage of themes for today and seeds for tomorrow and beyond. As part of "AP-G 2022," the Group has established priority areas and major initiatives to maximize the return on R&D investments under the direction of the Technology Center as an undivided R&D organization.

Super Nanotechnology

As a core technology of Toray Group, nanotechnology exemplifies the pursuit of the ultimate limits. Among the various types, Toray Group considers its proprietary, original technologies of NANODESIGN®, NANOALLOY®, and Nano-layered Films (PICASUS™)

to be Super Nanotechnologies that have achieved improvements in the discontinuous characteristics of materials. These will first be deployed to core growth driving businesses to expand nanotechnology into a ¥50 billion business by fiscal 2025. At the same time, these Super Nanotechnologies will also be deployed to new Green Innovation and Life Innovation businesses.

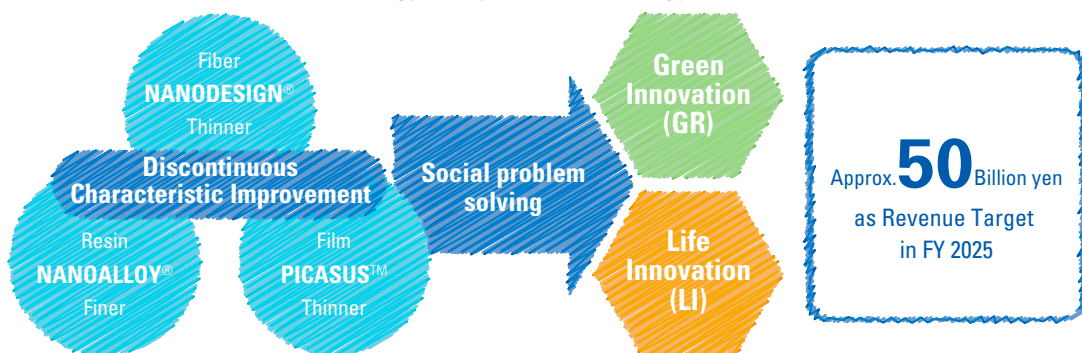
LIFE INNOVATION

Expanding the Life Innovation Business with Advanced Materials

This section introduces the initiatives aiming the expansion of Life Innovation (LI) business, which contributes to enhancement of medical care, health and longevity, diffusion and promotion of public health, and personal safety, with a target of increasing revenue six-fold by fiscal 2030 compared with fiscal 2013. Under "AP-G 2022," we will advance business expansion with the goal of reaching ¥300 billion in revenue. Of the business, we position the pharmaceuticals and medical devices businesses as in a period of incubation for the future, and we will take following actions for the future growth.

In the short-term, the pharmaceutical business aims sales expansion of the oral antipruritic drug REMITCH®* overseas to grow earnings. Meanwhile, the medical devices business will launch continuously original products such as HotBalloon to the market, expand domestic and global sales of highly valued (or functionalized) dialyzers, launch and promote sales of new product of dialysis machines, and enforce development of respiratory disease treatment columns. As

From Nanotechnology to Super Nanotechnology



to TORAYMYXIN™, which is used to treat patients with severe sepsis, its clinical study for the treatment of sepsis is conducted by our partner in North America. The U.S. Food and Drug Administration (FDA) approved inclusion of the patients with lung disorders associated with COVID-19 into this study, and Health Canada approved its temporary use for treatment.

In addition, we focus on the development of TRK-950 cancer immunotherapy and aim to commercialize and expand the DNA chip business.

As applications of advanced materials to the health-care field, we aim sales expansion of hygiene products including masks, functional textiles like hitoe™, and personal protective clothing LIVMOA™ including infection control clothing. Wearable monitoring systems utilizing hitoe™ enables electrocardiogram (ECG) measurements with high accuracy, and it facilitates an early detection of arrhythmia through the long-term use and continuous measurements. Data acquisition by hitoe™ with long-term use was completed in a clinical research “Long-term ECG measurement to detect atrial fibrillation” at University of Tsukuba. LIVMOA™ protective clothing balances safety, durability, and comfort together at high level to protect medical professionals and essential workers from occupational risks. In 2017, Toray Group donated 10,000 units of personal protective clothing to the Guinea Government as an Ebola countermeasure. We are currently addressing growth in demand for use as a COVID-19 countermeasure.

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

Aiming for Early Cancer Detection with DNA Chips

DNA chips are a type of biotool that can predict

the cause and status of disease by simultaneously investigating the expression of multiple genes. Toray Group launched its research into DNA chips in 2000 and developed DNA chips using a resin substrate with a unique structure in 2005. This development successfully increased the gene detection sensitivity 100-fold compared with conventional DNA chips. In 2007, it was later discovered that cancers release RNA fragments called microRNA into the blood at extremely low concentrations, yet still have markers that correspond to specific types of cancers. Toray Group’s DNA chips are the only technology that can detect these fragments in high sensitivity, so were adopted for a national project. We aim for the earliest possible commercial launch because there is no question society requires a means of early cancer detection.

Development of TRK-950 Cancer Immunotherapeutic

Toray Group’s TRK-950 cancer immunotherapeutic is expected to emerge as a first-in-class antibody drug. We anticipate that this will be useful against many types of cancers. TRK-950 has already been shown to be effective against tumors in animal models. In March 2017, we commenced Phase I clinical trials in the U.S.A. and France, which have reported that, at the present time, there are no issues with safety. However, these are not the final results. In April 2019, we expanded the number of clinical trial facilities currently studying the safety and efficacy of the drug in aims of applying for approval as a cancer treatment at the earliest possible time.

DAY ONE: 9:10-10:20

Koichi Abe

Executive Vice President &
Representative Member of the Board, CTO





DAY ONE:
10:30-11:10

Nobuyuki Inohara

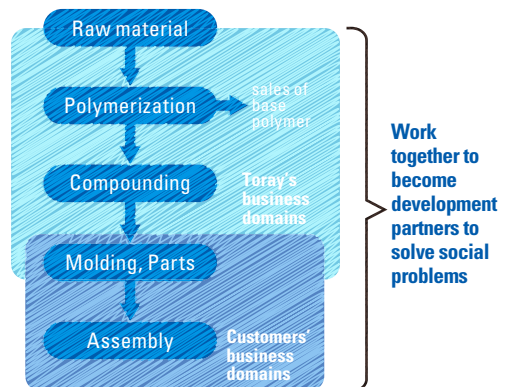
Vice President, General Manager,
Resins & Chemicals Division

Resins Business

Further Strengthening the Compounding Business

The resins business has commercialized amorphous resin such as ABS, and crystalline resin, such as nylon, PBT, PPS, liquid crystal polyester (LCP), and TI polymer, and also sells TORAYCA® resin, a resin made by blending these resins and polymers with carbon fiber. Nylon and PBT are used in many automotive parts, while PPS, which is high added-value and highly heat-resistant, is made into products that can replace metal parts. The resins business operates 19 bases in 10 countries around the world, and primarily engages in the compounding business in Asian countries. Since fiscal 2014, Toray has expanded production bases to Mexico, the Republic of Korea, and Hungary, and commenced compound production in India last year. The resins business policy during “AP-G 2022” continues to focus on further expanding these bases.

Value Chain of Resins Business



xEV and 5G Applications are Growth Markets

The production ratio of xEV (electric vehicles) is expected to reach 46% of total automobile production by 2025 (9% in 2020). PPS is used for xEV power control units, while nylon is used for hydrogen tank components. In addition, the evolution in advanced driver assistance systems (ADAS) is pushing greater sensor demand, which is in turn expected to increase demand for PBT. Moreover, the launch of 5G commercial services in Japan and other countries has led to anticipation for growth in low dielectric PBT with modest transmission loss and in highly heat-resistant PPS for 5G compliant smartphones and base stations. There is also an outlook for growth in demand for original LCP polymers developed by Toray for use in high-speed transmission flexible printed circuits (FPC).

RESINS & CHEMICALS

Maintaining the No. 1 Position in PPS and Expanding the High-performance ABS Business

Toray is the only integrated manufacturer of PPS monomers, polymers, and compounds in the world, and boasts the No.1 share of global PPS compound sales at 27%. PPS is expected to grow at 5% annually on the back of expanding demand from xEV, automotive electronic component, and light-weighting applications. During “AP-G 2022,” the Group will utilize its strengths of materials, integrated raw materials development capabilities, and a global network as a means of proposing total solutions that include design and processing methods, and of furthering business expansion.

In addition, Toray maintains a 37% share of the global transparent ABS market. The global market for high-performance ABS, including transparent ABS, is forecasted to grow at 5% annually, so the Company is working to increase production capacity in Malaysia. Moreover, Toray is aiming for No.1 in high-performance ABS resins through the expansion of transparent ABS for medical use, ABS for automobile painting, and engineering plastic alloys.

Promoting Chemical Recycling

Along with using recycled materials, the resins business is also addressing a sustainable society by improving its recycling capabilities through the development of chemical recycling technologies that produce the same quality as the original products. Over the medium- to long-term, Toray will also consider developing biomass plastics, as well as biodegradable and marine-biodegradable resins.

Chemicals Business

Expansion Centered on the Main Raw Materials Business

Centered on the main raw materials business, which handles the mainstay products of nylon and polyester used in fibers, resins, and films, the chemicals business deploys businesses that can utilize technologies in areas related to these products. These areas are broadly divided into three businesses. The basic chemicals business handles Caprolactam and terephthalic acid. The fine chemicals business handles

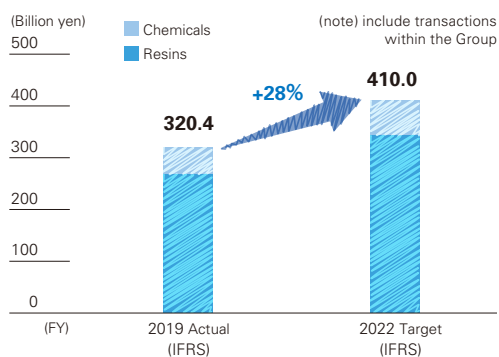
pharmaceutical and agrochemical raw materials, fine particles, veterinary medicines, DMSO solvents and cleaning agents, and THIOKOL™ sealants. The aromatic fine chemicals business handles products made by Soda Aromatic Co., Ltd., a joint-venture company with Mitsui & Co., Ltd., and those products are used in coffee, citrus drinks, and others.

Focusing on 3D Printers, Agriculture, the Environment, and Veterinary Medicines

In the growth business fields, Toray develops and commercializes PPS fine particles used in 3D printer modeling materials. With their superior powder properties and uniform powder size distribution, PPS fine particles are expected to find use in automotive and aerospace applications. M-Dichlorobenzene, a raw material for agrochemicals, is made from a by-product of PPS resin raw material. Its manufacturing process has a comparative advantage in terms of cost, safety, and the environment, and is the reason Toray maintains the No.1 global share. Moreover, the Company is working to create high-value for ammonium sulfate, a by-product of lactam that is used as a nitrogen fertilizer, by modifying it into a form that is suited to mechanized agricultural spraying.

In environment-related areas, Toray is focused on expanding THIOKOL™ sealants, which are used for high heat insulation multi-layered glass and contribute to energy-savings. In veterinary medicine, the Company is accelerating overseas deployment of the world's first feline interferon and a feline renal function decline inhibitor.

Revenue Targets in “AP-G 2022”



Pursuit of Ultimate Performance in High Value-added Products in Growth Business Fields

In the films business, we are advancing the expansion of business and increases in revenue and profit with polyester (PET) films and battery separator films (BSF) as the two supporting pillars of the business, in conjunction with broadening polypropylene (OPP) film sales by their use in capacitor and packaging material applications. Polyphenylene sulfide (PPS) films and aramid films are one-of-a kind, high-performance film products. We are also widely deploying a lineup that includes processed film products, such as self-adhesive protective films and clear metallized films. Based on the “polymer, design, and polymerization technologies,” “film design and control technologies,” and “film manufacturing process technologies” that underpin these products, we are pursuing properties, such as heat resistance, dimension stability, transparency and surface smoothness demanded of film products, and cost reductions to the utmost limits.

PET Film Focusing on MLCC and DFR

The PET film LUMIRROR™ is a core growth-driving business that boasts manufacturing and sales bases at six hub locations around the world and a No. 1 share of the market. This film is used in a wide range of applications, such as information and telecommunications, general industries, and packaging materials. Especially during the “AP-G 2022” period, armed with high quality control expertise in addition to the surface forming technologies cultivated with magnetic tapes in the 1990s, we are promoting business expansion of high-functional release PET films in fields where market growth can be expected, for example in multilayer ceramic capacitor (MLCC) release film and dry film photoresist (DFR) applications.

In addition to the increase in the number of ceramic layers and the number of units installed due to downsizing and higher capacity, further growth in MLCC demand is expected in the years to come against a backdrop of the increased functions of smartphones and the installation of additional base

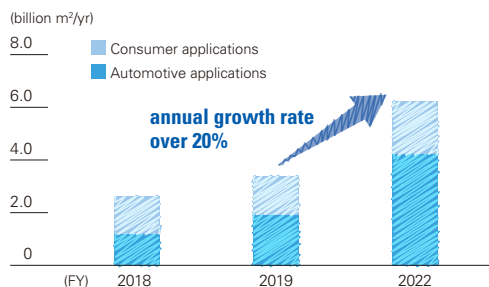
stations with the spread of 5G, expansion of xEV and automatic driving. We are also anticipating that demand for DFR will increase due to the downsizing of circuit substrates and increases in fine-pitch in wiring circuits. A photoresist formed by a photosensitive resin in a film form, DFR is a material used to form circuit boards for electronic components. Strict quality is required of the PET film used for DFR, such as high transparency that does not inhibit light, reduced surface micro-scratches, and the control of foreign substances inside the film. We will proceed with product differentiation and maintain a high market share by anticipating the increasing sophistication of those quality requirements.

Toray's proprietary nano-layering technology enables about 1,000 layers in PICASUS™ film. Stacking layers of different types enable this film to selectively reflect and transmit light of various wavelengths including ultraviolet, visible light and infrared rays. We will promote PICASUS™ film in a wide range of fields, such as blue-light reduction, sensor cover applications, such as in-vehicle emblems, and heat-reflecting window frame applications.

Strengthening Production Facilities of BSF in Europe for xEVs

Its strengths lying in a uniform fine pore structure based on polymer technology and an advanced film structure based on film fundamental technology, our SETELA™ battery separator film (BSF) contributes to the outstanding safety and high performance of lithium-ion batteries. In addition, our unique technologies in heat resistance and adhesive coatings have led to high safety, high reliability, and longer battery

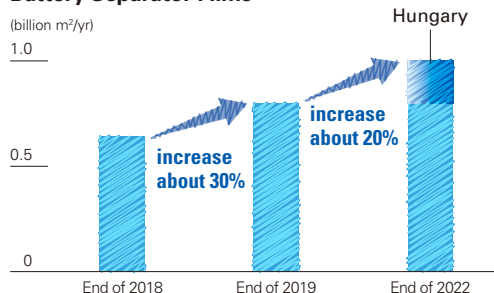
Demand for Battery Separator Films



F I L M S



Toray Group Production Capacity of Battery Separator Films



life. Since the demand for BSF in automotive applications is growing due to the expansion of xEVs in the European market, Toray plans to strengthen its production facilities in Hungary and start operations in 2021. In addition to IoT devices, the range of consumer applications is also expanding to include stationary fuel cells and power tools.

OPP Film: Strengthening Production Facilities in Automotive Capacitors

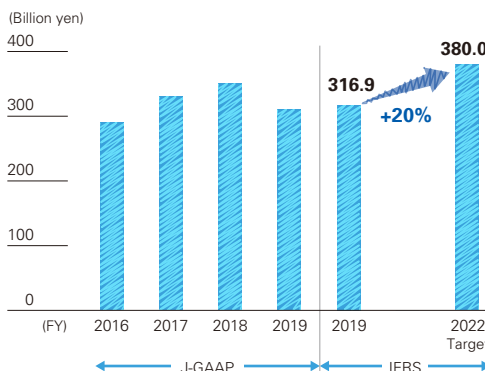
Combining the contradictory characteristics of thinness and the high voltage resistance, TORAYFAN™ polypropylene (OPP) film captured the top share in the automotive capacitor film market. There are strong needs for smaller and lighter power control units (PCUs) that drive xEV motors and film capacitors, and by 2022 we will increase the production capacity of films for automotive capacitors to 1.6 times the current scale. In addition, we will focus on high-functional packaging materials, having introduced the latest five-layer laminated, high-speed film production facility in the U.S.A. to meet the increasingly diverse and sophisticated customer needs in the food packaging market.

Enhanced Addressing of Sustainability

In the films business, we are working to establish a recovery system for release films to enhance sustainability. At the present time, removing the coating materials and resins from the release PET films has difficulties, and thus mainly waste treatment and thermal recycling are utilized. By establishing a recovery system, however, we will advance the construction of a circulation-type recycling system by utilizing the films for other materials, such as fibers, and encouraging their reuse as films.

In the market for packaging materials, needs are becoming more diversified and efforts to reduce food waste are increasing across the world, and thus the functions and quality required of packaging materials are becoming more sophisticated. By combining our film products and film processing technologies, we are providing optimal products for all packaging applications and contributing to the extended shelf lives of food products.

Revenue Targets in "AP-G 2022"



Implementing “The One” Strategy

Under “AP-G 2019,” we expanded businesses accompanying growth in OLED and semiconductor memory, electronic components for telecommunication, as well as greater use of flexible circuit substrates for large TVs. As for printing applications, we have pivoted to growth markets like label and packaging printing, in light of digitalization decreasing the use of general printing materials. Under “AP-G 2022,” we will implement “The One” Strategy, which consists of “First One:” early adoption of our products through rapid development using our wide range of advanced technologies and by identifying future customer needs based on our strong relationship of trust with them; “Only One:” the creation of high barrier-to-entry (intellectual property networks, high quality, stable supply, cost competitiveness, customer support); and “Number One:” the achievement of industry standardization by leveraging our track record and expertise worldwide.

Semiconductor & Electronic Component Field: Timely Launching New Products into Growth Business Fields

5G and IoT are now poised for rapid growth in the semiconductor and electronic component fields. High-frequency devices used in these areas require low dielectric constant materials. In response, we will aggressively expand our businesses using our advanced polymer design technologies and world-leading materials development capabilities.

STEMCO is a joint venture with the Samsung Group boasting advanced technologies and cost competitiveness that produces and sells flexible circuit board (chip on film). In addition, Toray Group is a leading maker of base films like Kapton® and sputtered/copper-plated Flexible Copper Clad Laminate (FCCL), and we have established a supply chain completely within the Group that includes a chip on film IC-mounting company.

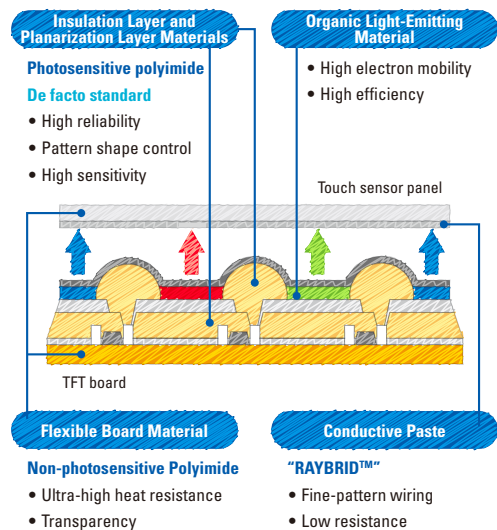
Leveraging these strengths, Toray will work to maintain and expand its market share while focusing on the development and launching of products that significantly contribute to weight, size and cost reductions, including multilayer flexible substrates, multilayer micro coils, and high-density flexible substrates that concentrate multiple functions into one package.

Display Field: Develop Wide-ranging Applications for Advanced Materials in the OLED Display Field

In the display field, Toray aims to increase sales of OLED display materials, for which demand is growing given the higher ratio of OLED displays used in smartphones and TVs. Toray’s photosensitive polyimide (featuring high reliability, pattern shape control, and high sensitivity) has become the industry standard as an RGB insulation and planarization material.

In addition, Toray is working to expand businesses for organic light-emitting materials, flexible board materials, and conductive paste while developing a wide array of applications for advanced materials in the OLED display field.

Advanced Materials for Improved OLED Displays



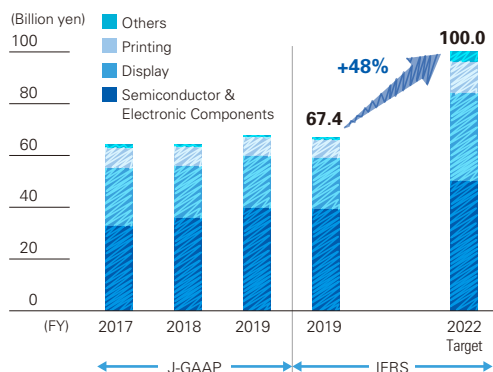
Printing Field: Making Printing Systems with Zero Environmental Impact the Global Standard

For printing applications, VOCs (volatile organic compounds) and organic solvent waste liquid have been highlighted as environmental issues. In response, our Waterless Plate significantly reduces VOC emissions compared to conventional printing methods. In addition, we are working to realize a shift to printing systems with low environmental impact by developing mainly water-soluble ink and aqueous cleaning solutions that enable completely VOC-free printing systems. We will steadily work to make printing systems with zero environmental impact as the global standard by earnestly marketing them to end-use customers and rapidly spreading their use based on printing company specifications.

Accelerate Expansion into the Life Innovation Growth Field

Toray will also focus on X-ray scintillator panels as a new growth field centered on Life Innovation. These panels use sensors to generate images by converting irradiated X-rays into visible light. However, conventional methods cause light dispersion at conversion layers, therefore impeding the generation of clear images. We have significantly improved image definition by using our proprietary pixelated scintillator to solve this problem. This will greatly contribute to the early detection of diseases such as breast cancer. In addition, we will aggressively promote various materials such as plastic optical fibers that feature high light transmission efficiency and are used for endoscope light guides, as well as materials for displays, sensors, and circuits that must be compact and lightweight for wearable devices.

Revenue Targets in "AP-G 2022"



DAY ONE:
12:20-13:00

Hiroshi Enomoto

Vice President, General Manager,
Electronic & Information Materials Division



DAY TWO:
9:30-10:20

Mitsuo Ohya

Senior Vice President,
General Manager, Fibers & Textiles Division

Fibers & Textiles Still a Growth Industry

Demand for fibers and textiles is expected to grow at a rate of 3% per year as the population grows, people's quality of life improves, and the consumption of middle-income demographic groups mainly in emerging countries increases. Fibers and textiles, which evolved not only for clothing but also for various applications, including industrial, civil engineering, agriculture, and life sciences, are a growth industry globally. Toray anticipates that the fibers and textiles industry will continue to grow, centering on polyester, at a rate that may outpace world population growth. Under these circumstances, the Company is ranked 15th in the world in terms of the production capacity of the three major synthetic fibers (nylon, polyester, and acrylic), but we estimate that we have the largest sales in the world in the synthetic fibers business which deploys textile business and integrated business from fiber and textiles to garments.

Growth by Three-dimensional Business Model

Toray Group's fibers and textiles business features the world's only three-dimensional business model that enables the provision of all kinds of solutions by freely combining its strengths which make three axes: (1) technological development and variety of products; (2) vertical integration in the supply chain; and (3) global business network. Based on this unique business model, "global business expansion in growth fields and regions," "business expansion by addressing sustainability" and "advancement of business model" are regarded as growth drivers under "AP-G 2022," and the Company will enhance "global business expansion," "materials development" and "value chain" at multiple levels. Specifically, we will strengthen the nonwoven fabric, nonwoven material created using ultra-fine fibers in an "island in the sea" configuration, and the airbag businesses as well as the integrated business from fiber and textiles to garments in the apparel-use, and aim to achieve sustainable growth through differentiation strategies.

Focus on Nonwoven Fabrics, Nonwoven Material created using Ultra-fine Fibers in an "island in the sea" Configuration, and Airbags, etc.

In a global nonwoven fabric market that is growing at an annual rate of 5%, we are promoting to develop differentiated products for key applications, including those for hygiene products, filters, and automobiles, with the aim of building "a unique business framework of nonwoven fabric, covering spunbond and staple nonwoven fabric." In the hygiene product applications, we will strengthen

FIBERS & TEXTILES

innovative product development through tie-ups with customers and build a local production for local consumption supply system that responds to increasing demand in various parts of Asia. In filter applications, we will work to improve the performance of polyester nonwoven fabric as an environmentally friendly material for use such as industrial dust collectors. In automotive applications, we will develop nonwoven fabrics for sound-absorbing materials, which contribute to noise reduction inside vehicles.

In the case of nonwoven material created using ultra-fine fibers in an “island in the sea” configuration, we will continue to enhance brand value with Ultrasuede® and Alcantara® at the core of two brand strategies, targeting the high-end markets for a variety of applications, such as automobiles, fashion apparel, and interiors. We will also increase environmental value by developing plant-based material, for example.

In airbags, given added impetus by more stringent installation regulations primarily in emerging countries and stronger collision safety regulations, we will proactively expand our business with a production and sales structure capable of providing airbag fabrics of same quality from six locations around the world in a timely manner. As we acquired Alva, an airbag cushion manufacturing company, in fiscal 2019, we will also firmly capture the needs for more compact and complex sewn products and incorporate Alva’s cushioning knowledge into the base fabric design to enhance our proposal capabilities.

Addressing Sustainability

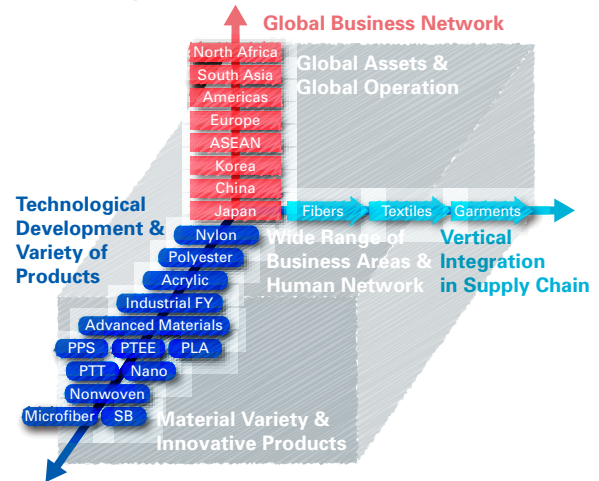
Based on the Toray Group Sustainability Vision, we will expand environmentally friendly materials from the perspectives of saving energy, new energy, plant-based, water treatment, air purification, low environmental impact, and recycling. In materials related to the medical and healthcare fields—based on the Sustainability Vision as well, from the three perspectives of improving the quality of medical care, health maintenance and

longevity, and personal safety—we aim to expand our business by addressing sustainability with hitoe™, the performance fabric that monitors workers and defend from heat, HugFit™ for breast cancer patients, and LIVMOA™ single-use protective clothing.

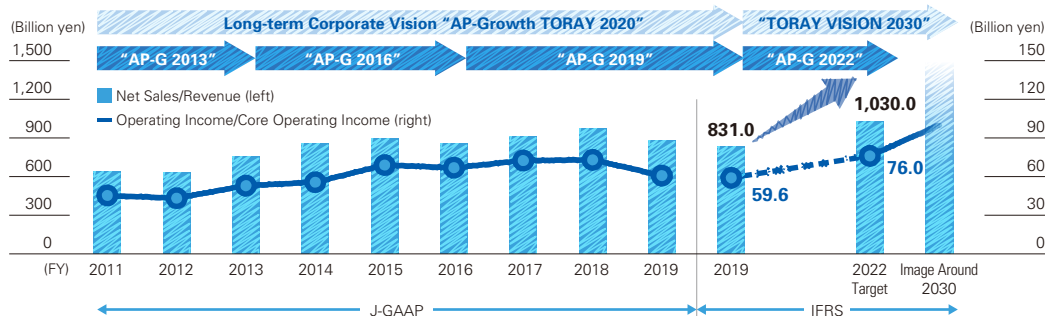
Strengthening the Integrated Business in the Apparel-use

With regard to the advancement of the business model, an important issue is to strengthen the “integrated business from fiber and textiles to garments” that enable us to continue to deepen our integrated supply chain for fibers and textiles based on applications and end customer needs, and we will continue to deepen our integrated supply chain in the Chinese market. In ASEAN countries, we will work to extend and upgrade the supply chain by making use of converting businesses in Vietnam, in addition to Indonesia, Malaysia, and Thailand. In South Asia, we will build a supply chain in anticipation of growth in the Indian market.

Our Strength: World’s only Three Dimensional Business Model



Revenue Targets in “AP-G 2022”



CARBON FIBER COMPOSITE MATERIALS

Expectations for New Business Opportunities

Although the coronavirus pandemic has become a major factor of volatility in the demand for carbon fiber composite materials, the revolution in mobility, expansion of new energy, and environmental needs allow Toray Group to anticipate new business opportunities. Likewise, the Group projects a return to a path for growth around 2022 and expansion through 2030 at a CAGR of around 8%. In parallel with the rise in demand for high-performance aircraft, aerospace applications are expected to see new demand emerge for

air taxis, large drones, and other “flying cars.” At the same time, North America is projected to lead growth in demand for rockets and satellites. Despite the maturation in demand for golf clubs and fishing rods seen in developed countries, bicycles are expected to drive growth in sports applications. Industrial applications are projected to see expanded use of carbon fibers as a result of larger wind turbine blades, which decrease power generation costs, as well as see compressed hydrogen gas (CHG) tanks and carbon fiber electrode substrates grow into major applications with the spread of fuel cell vehicles (FCVs).

Providing the Best Cost Performance

Toray Group possess a business structure capable of proposing and supplying regular tow carbon fibers with the world’s highest performance and large tow carbon fibers with dominating cost competitiveness. Likewise, the Group maintains the top global market shares* of regular tow at 48% and large tow at 51%, making up 49% share of the entire market. In addition to our rich experience in thermosetting matrix resins, the Group also has the technical development capabilities to design and propose next-generation thermoplastic resins with superior formability. Moreover, the Group has built strong ties of mutual trust with leading companies around the world based on 50 years’ worth of accumulated data and a global supply network.

Along with continuing to deliver easily moldable structural materials that exhibit their performance exactly as designed, the Group will propose high-performance solutions that cannot be achieved with other materials and competitor products. At the same time, the Group will provide materials with the highest level of cost performance by improving productivity through digital transformation (DX), developing new processes that realize higher added-value at a cost equal to or below that of existing products, and developing high-performance carbon fibers and new matrix resins. Moreover, the Group will propose pricing methods that reflect the economic value of carbon fibers with aims of providing a stable cost that makes it easy for customers to procure them over the long-term.

Carbon fiber demand outlook

Overall

Overall demand is expected to grow at a CAGR of 8% until 2030

Aerospace

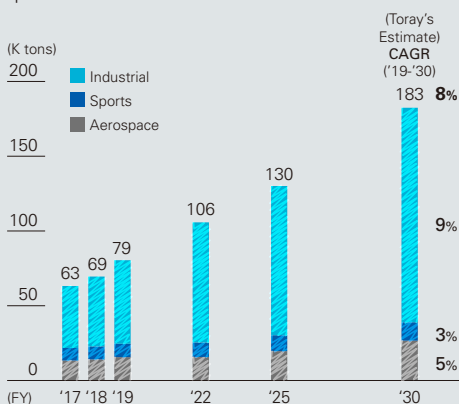
In addition to commercial aircrafts, demand will be created by the new market for “Flying Cars,” such as air taxis and large drones, and demand for rockets, satellites, etc. will grow mainly in North America

Sports

Bicycle will lead the growth while golf shafts and fishing rod applications will mature in developed countries

Industrial

In addition to increased adoption of carbon fibers for wind turbine blade applications due to its size increase, hydrogen tanks and FC substrates will grow into major applications with the spread of FCVs



* Market shares are accurate as of fiscal 2018

Applying Excess Capacity Due to the Impact of Reduced Boeing 787 Production Rates to other Applications and Making thorough Cost Reductions

During “AP-G 2022,” the impact of reduced Boeing 787 medium-sized passenger aircraft production rates will be inevitable. In response, Toray Group will divert the resulting excess capacity to satellites and CHG tank applications in order to minimize new capital expenditures. Meanwhile, the Group will go beyond structural components to enhance materials development for seats and other interior parts. Initiatives for capturing new aircraft programs will remain an issue of top priority. The Group will also strengthen its approach to start-ups developing small aircrafts because we see the growing need for further weight savings, particularly for single aisle aircrafts, as an opportunity.

Moreover, the Group will promote further cost competitive enhancements through radical cost reductions.

Accelerating Enhancements to Wind Turbine Blade Production Facilities

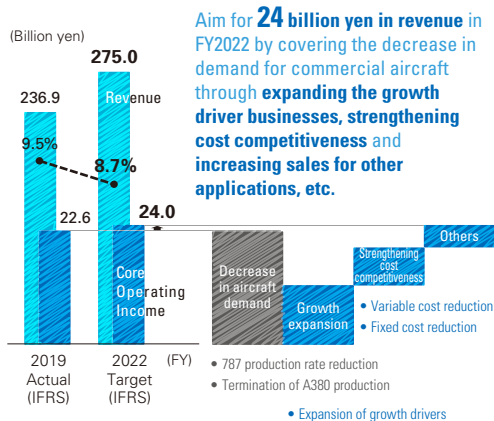
Carbon fibers for wind turbine blades, anticipated as a new growth driver, are projected to grow at a CAGR of 13% during “AP-G 2022.” The lengths of wind turbine blades are being extended as the most effective way of increasing wind power generation efficiency, so the adoption of light weight, highly rigid carbon fiber reinforced plastic (CFRP) blades is accelerating. Given its strengths of cost competitiveness and high-quality, Toray Group’s Zoltek holds an approximately 60% global share of the large tow carbon fiber market for wind turbine blade applications. The Group aims to further expand this business by actively participating in the Chinese market and the growing number of new offshore wind turbine programs.

Capturing Business and Promoting a de Facto Standard for CHG tanks and Electrode Substrates

With mass production of FCVs expected to begin around 2021 and onward, Toray Group foresees accelerating growth in demand for extra-high pressure tanks suited to hydrogen fuel refilling. Because hydrogen is highly flammable and transparent, this a growth business field where our products for pressure vessel applications with a nearly 20-year track record, commanding share, and earned trust can exhibit their strengths. Moreover, our molded carbon fiber materials have also led the world for use in FCV electrode substrates. Electrode substrates require a high functionality and reliability suitable for gas diffusion. Leveraging our strengths of 40 years of experience and the world’s largest supply capabilities, the Group will continue to promote joint developments in this area with leading automotive manufacturers.

Revenue Targets in “AP-G 2022”

Exchange rate: 105 JPY/USD (FY2022)



Minoru Yoshinaga

Deputy General Manager,
Torayca & Advanced Composites Division

DAY TWO: 10:30-11:20

Becoming an Excellent Company in the Water Treatment Business

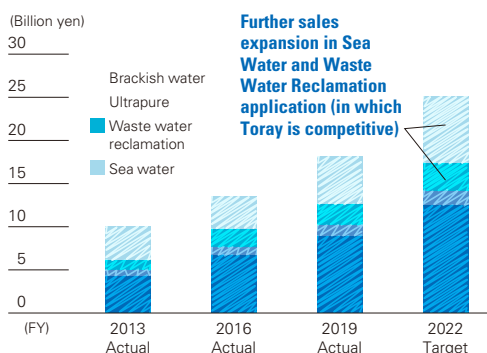
Because it is becoming more difficult to secure the required quantities and quality of water by natural purification due in part to rapid population growth, water treatment technologies have become essential in the 21st century. Water treatment membranes contain tiny pores and are categorized as RO (reverse osmosis), NF (nanofiltration), UF (ultrafiltration), and MF (microfiltration) membranes depending on the separation target. Toray Group develops, manufactures, and sells all of these membrane products in-house.

Used for seawater desalination and other applications, Toray Group has steadily expanded RO membranes as a core growth driving business by developing and launching new high-performance products to the market, enhancing global production and sales capabilities, extending synergy with former Woongjin Chemical, which was acquired in 2014, and establishing a stable production structure at a new location in the Middle East. Toray Group is also strengthening the business structure for UF and MBR (membrane bioreactor) membranes by developing new sales channels and launching new products to the market. In terms of the plant and equipment business, the Group is working to strengthen the structure of the EPC (Engineering, Procurement, Construction) sector centered on Suido Kiko. As a result, net sales in the overall water treatment business for fiscal 2019 grew 1.7 times compared with fiscal 2013. Notably, net sales in the RO membrane business grew 2.1 times. Under “AP-G 2022,” the Group aims to expand sales and business for UF and MBR products by leveraging the global sales network for RO membranes, which maintain one of the largest global shares, and to connect this growth to deployment of total solutions (IMS).

Increasing RO Membrane Production Capacity by 1.6 Times

Led by China and the Middle East, RO membrane market growth is projected to achieve a CAGR of approximately 7% in response to global water shortages and growing concerns over the environment. In China, Toray Group is seeing more wastewater treatment projects as a result of increasingly strict environmental regulations, and experiencing greater demand for advanced water treatment due to higher drinking water quality standards. Meanwhile, in the Middle East, the Group is seeing a dramatic increase in large-scale seawater desalination projects using energy efficient RO membranes in place of thermal distillation technologies in response to growing demand for water due to population growth and industrial promotion measures. Against this backdrop, Toray Group will increase RO membrane production capacity by 1.6 times compared with fiscal 2019 over the course of “AP-G 2022.” Moreover, the Group will continue to thoroughly enhance cost structures and non-price competitiveness, including proposal capabilities and technical services, in order to maintain our top global share.

RO Element for Industries Sales Volume (FY2013=100)



WATER TREATMENT



Doubling the UF Membrane Business with “New Tips”

UF membranes are used for a wide range of applications, including drinking and industrial water production, sewage and wastewater recycling, and pre-treatment for RO membrane seawater desalination. In response to growing global demand for sewage and wastewater treatment, the UF membrane market is projected to grow at a CAGR of approximately 10%. In the UF membrane business, we developed New Tips, a new product that reduces overall EPC costs for plants by 10%. “New Tips” was realized by increasing the membrane area by 25% for the same housing size based on a new technology that maintains the membrane strength even with thinner hollow-fiber membranes. With New Tips as a strategic product, Toray Group is strengthening collaboration with partner companies, especially in China and ASEAN, in aims of doubling business compared with fiscal 2019.

Doubling the MBR Business with “NHP”

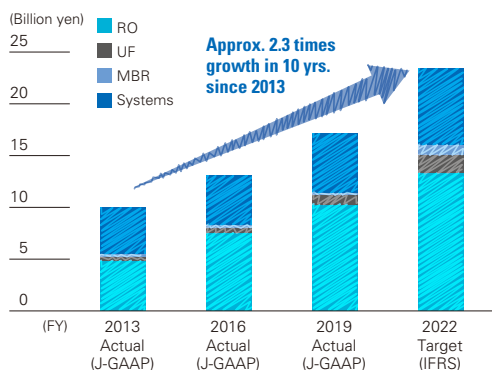
MBR membranes are a submerged type membrane module used in the membrane bioreactor process, an advanced sewage and wastewater treatment technology, and are increasingly being adopted for sewage and wastewater recycling. Therefore, the MBR membrane market is projected to see continued growth at a CAGR of approximately 10%. Although our MBR membranes have captured a growing share of the market due to their high permeability and durability, Toray Group is focused on expanding sales of “NHP,” a new product that saves space, reduces energy consumption by 30%,

offers easy on-site handling, and delivers price competitiveness. This move is aimed at firmly capturing replacement demand, which accounts for one-quarter of the entire market, as a means of more than doubling the MBR membrane business compared with fiscal 2019.

Leveraging Expertise to Accelerate IMS Deployment

More recently, the fields of water purification, seawater desalination, and sewage and wastewater recycling have focused their attention on IMS (Integrated Membrane System), an approach that combines various types of membranes. Toray Group develops all types of membranes in-house and has intimate knowledge on the characteristics of each, thereby providing us with the capability to design the optimal system for the water source and application, and to achieve the highest performance at low cost. Leveraging these strengths, the Group will steadily grow our IMS track-record.

Net Sales of Water Treatment Business (FY2013=100)



OUR FIRST IR DAY EVENT

We appreciate your continued understanding of our management and investor relations activities. In order to provide more information about our strategy for growth in each of our businesses based on “Project AP-G 2022,” our medium-term management program announced in May of this year, we recently held “TORAY IR Day: Medium-term Management Program, “Project AP-G 2022” Business Briefing by Segments,” our first ever such event.

Given the ongoing COVID-19 pandemic, we provided the event live over the Internet to an audience of some 150 viewers in total. We would like to take this opportunity to express our appreciation to all those who took time from their busy schedules to attend IR Day, and also to everyone who streamed the event from our homepage.

In our post-event participant survey, we received favorable comments to the effect of “I was able to renew my understanding of positioning



Hideki Hirabayashi
Corporate Vice President, Investor Relations

and medium-term strategy for respective businesses through this beneficial meeting.” On the other hand, other comments pointed out future challenges: “Issues such as the correlation between business strategy and profit growth, and verification of capital investment effectiveness were not sufficiently addressed.” We will reference these valuable opinions in our management and IR activities in the future.

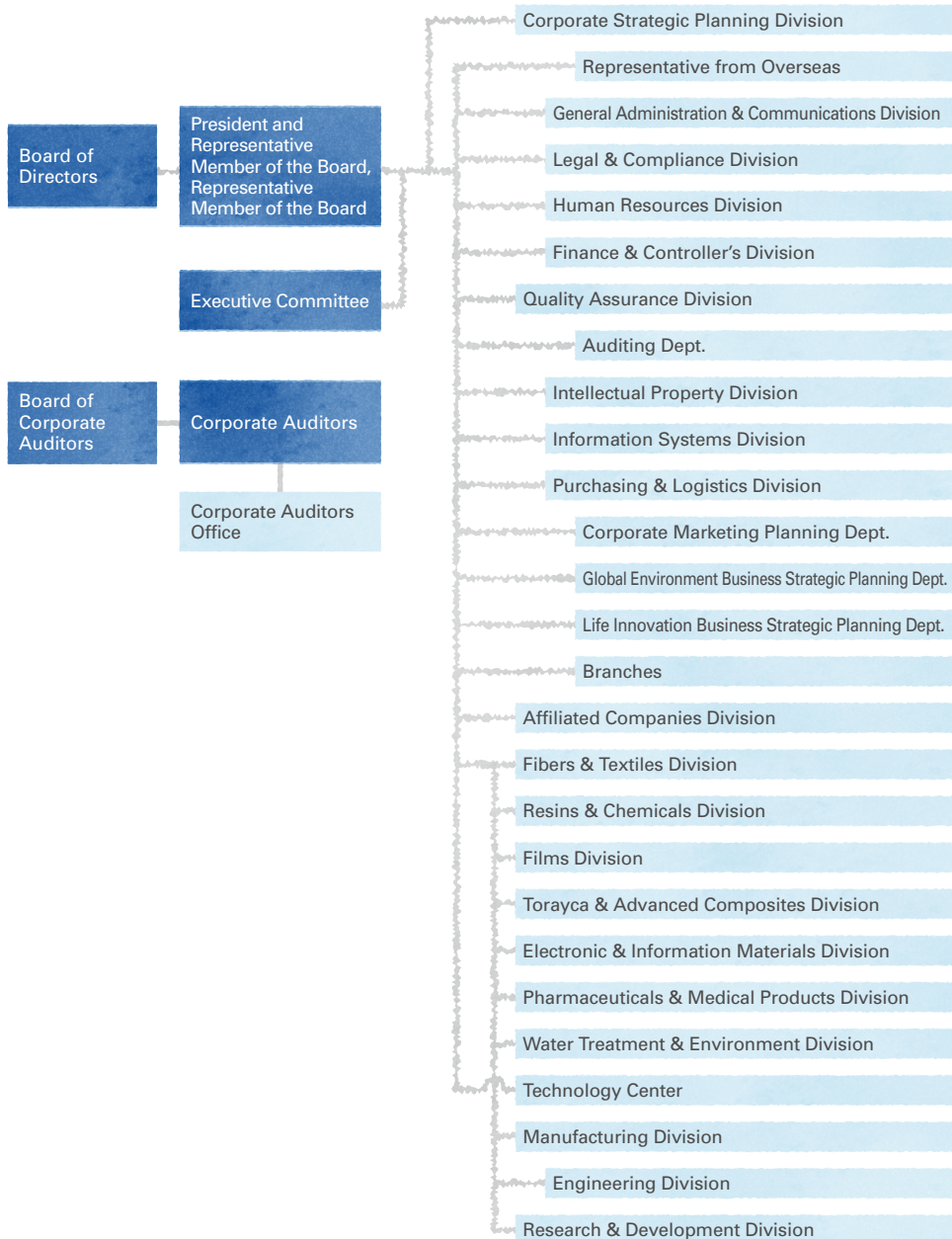
We would like continue to hold IR events and other activities that are opportunities for fulfilling dialogue with all of our shareholders and investors. We sincerely request your further support and understanding for our management and IR activities.

The titles and division names used throughout the article are those used on this recently held IR Day. There may be variations from the time of publication of this report.

MANAGEMENT SYSTEM

Organization

(As of July 1, 2020)



Members of the Board and Corporate Auditors

(As of June 23, 2020)



President and
Representative Member of the Board
Akihiro Nikkaku



Representative Member of the Board
Koichi Abe



Representative Member of the Board
Yukichi Deguchi



Representative Member of the Board
Mitsuo Ohya



Member of the Board
Satoru Hagiwara



Member of the Board
Kazuyuki Adachi



Member of the Board
Minoru Yoshinaga



Member of the Board
Masahiko Okamoto



Member of the Board (Outside)
Kunio Ito



Member of the Board (Outside)
Ryoji Noyori



Member of the Board (Outside)
Susumu Kaminaga



Member of the Board (Outside)
Kazuo Futagawa



Corporate Auditor
Shogo Masuda



Corporate Auditor
Toru Fukasawa



Corporate Auditor (Outside)
Toshio Nagai



Corporate Auditor (Outside)
Kazuya Jono



Corporate Auditor (Outside)
Hiroyuki Kumasaka

Management Team

(As of June 23, 2020)

Members of the Board

President and

Representative Member of the Board

Akihiro Nikkaku

1973 Joined the Company
2001 General Manager, Engineering Division;
General Manager, Second Engineering Dept.
2002 Vice President (Member of the Board)
2004 Senior Vice President (Member of the Board)
2006 Senior Vice President (Member of the Board &
Member of the Executive Committee)
2007 Executive Vice President and Representative
Member of the Board
2010 President and Representative Member of the Board
2020 President and Representative Member of the
Board, Chief Executive Officer, Chief Operating
Officer (incumbent)

Representative Member of the Board

Koichi Abe

1977 Joined the Company
2004 General Manager, Aichi Plant
2005 Vice President (Member of the Board)
2009 Senior Vice President (Member of the Board)
2011 Senior Vice President (Member of the Board &
Member of the Executive Committee)
2013 Senior Vice President and Representative
Member of the Board
2014 Executive Vice President and Representative
Member of the Board
2020 Executive Vice President (Representative
Member of the Board) (incumbent)

Representative Member of the Board

Yukichi Deguchi

1973 Joined the Company
2009 Assistant General Manager, Research &
Development Division
2009 Vice President (Member of the Board)
2012 Senior Vice President (Member of the Board)
2014 Senior Vice President (Member of the Board and
Member of the Executive Committee)
2018 Executive Vice President and Representative
Member of the Board
2020 Executive Vice President (Representative
Member of the Board) (incumbent)

Representative Member of the Board

Mitsuo Ohya

1980 Joined the Company
2009 General Manager, Industrial & Textile Fibers
Division
2012 Vice President (Member of the Board)
2014 Retired from Vice President (Member of the
Board)
President and Representative Member of the
Board, Toray International, Inc.
2016 Senior Vice President (Member of the Board &
Member of the Executive Committee)
2020 Executive Vice President (Representative
Member of the Board) (incumbent)

Member of the Board

Satoru Hagiwara

1981 Joined the Company
2012 General Manager, Industrial Films Division;
Chairman, Toray Films Europe S.A.S.; Chairman,
Toray Plastics Europe S.A.
2012 Vice President (Member of the Board)
2014 Senior Vice President (Member of the Board)
2017 President and Representative Member of the
Board, Toray Advanced Film Co., Ltd.
2020 Senior Vice President (Member of the Board)
(incumbent)

Member of the Board

Kazuyuki Adachi

1980 Joined the Company
2017 Director, Toray Industries (Thailand) Co., Ltd.;
President, Luckytec (Thailand) Public Company
Limited; Chairman, Thai Toray Textile Mills
Public Company Limited
2018 Senior Vice President (Member of the Board)
2020 Senior Vice President (Member of the Board)
(incumbent)

Member of the Board

Minoru Yoshinaga

1979 Joined the Company
2008 General Manager, Manufacturing Division
(Torayca & Prepreg Manufacturing, ACM
Technology Dept.)
2011 Vice President (Member of the Board)
2015 Chief Executive Representative for the Americas;
Chief Representative for the Americas;
Chairman, Toray Holding (U.S.A.) Inc.; President,
Toray Industries (America), Inc.; General
Manager, Torayca & Advanced Technology and
Manufacturing for the Americas
2019 General Manager, torayca & Advanced Composite
Division (Carbon Fiber Business Strategy)
2020 Senior Vice President (Member of the Board)
(incumbent)

Member of the Board

Masahiko Okamoto

1986 Joined the Company
2009 Vice President (Member of the Board), Toray
Industries (Malaysia) Sdn. Berhad; Vice
President (Member of the Board), Penfabric
Sdn. Berhad; General Manager on Special
Assignment, Finance & Controller's Division
(Finance & Controller's Chief for Malaysia)
2011 General Manager on Special Assignment,
International Division
2013 General Manager, Finance Dept.
2017 General Manager, Controller's Dept.
2020 Corporate Vice President (Member of the Board)
(incumbent)

Member of the Board (Outside)

Kunio Ito

2002 Dean, Graduate School of Commerce and
Management and Faculty of Commerce and
Management, Hitotsubashi University
2004 Executive Vice President and Board Member,
Hitotsubashi University
2013 Director, Kobayashi Pharmaceutical Co., Ltd.
(incumbent)
2014 Director, Seven & i Holdings Co., Ltd. (incumbent)
Vice President (Member of the Board) of the
Company
2018 Research Professor, Department of Business
Administration, Hitotsubashi University
Business School (incumbent)
2020 Member of the Board of the Company (incumbent)

Member of the Board (Outside)

Ryoji Noyori

1997 Dean, Graduate School of Science and School
of Science, Nagoya University
2001 Director, TAKASAGO INTERNATIONAL
CORPORATION (incumbent)
2003 President, RIKEN
2004 Special Professor, Nagoya University
(incumbent)
2015 Director-General, Center for Research and
Development Strategy, Japan Science and
Technology Agency (incumbent)
Vice President (Member of the Board) of the
Company
2020 Member of the Board of the Company (incumbent)

Member of the Board (Outside)

Susumu Kaminaga

1969 Joined Sumitomo Precision Products CO., LTD.
1995 Representative Director, Surface Technology
Systems Ltd.
2000 Director, Sumitomo Precision Products CO., LTD.
2002 Managing Director, Sumitomo Precision
Products CO., LTD.
2004 President, Sumitomo Precision Products CO., LTD.
2012 Senior Advisor, Sumitomo Precision Products
CO., LTD.; Representative Director, SK Global
Advisers Co., Ltd. (incumbent)
2012 Director, DEFTA Capital (incumbent)
2016 Outside Director, Olympus Corporation (incumbent)
2020 Member of the Board of the Company (incumbent)

Member of the Board (Outside)

Kazuo Futagawa

1980 Joined the Ministry of Health and Welfare
2012 Director-General of Minister's Secretariat, the
Ministry of Health, Labour and Welfare
2014 Director-General, Health Policy Bureau, the
Ministry of Health, Labour and Welfare
2015 Vice-Minister of Health, Labour and Welfare
2017 Retired from Vice-Minister of Health, Labour
and Welfare
2018 Special Advisor on Policy, Social Security
Reform Office, Cabinet Secretariat
2020 Member of the Board of the Company (incumbent)

Corporate Auditors

Corporate Auditor

Shogo Masuda

1975 Joined the Company
2006 Assistant General Manager,
Affiliated Companies Division;
General Manager, Affiliated
Companies Administration Dept.;
General Manager on Special
Assignment, Corporate Strategic
Planning Division
2007 Vice President (Member of the
Board)
2011 Senior Vice President (Member of
the Board)
2016 Senior Vice President (Member
of the Board and Member of the
Executive Committee)
2017 Corporate Auditor (incumbent)

Corporate Auditor

Toru Fukasawa

1978 Joined the Company
2003 Executive Officer, Chori Co., Ltd.
2005 General Manager on Special
Assignment, Corporate Strategic
Planning Division; General Manager
on Special Assignment,
Investor Relations Dept.
2006 General Manager, Controller's Dept.
2010 Chief Executive Representative for
Americas; Chief Representative for
America; Chairman, Toray Holding
(U.S.A.), Inc.; President, Toray
Industries (America), Inc.
2012 Vice President (Member of the Board)
2015 Senior Vice President (Member of
the Board)
2018 Senior Vice President (Member
of the Board and Member of the
Executive Committee)
2020 Corporate Auditor (incumbent)

Outside Corporate Auditor

Toshio Nagai

2008 Chief Research Officer, Supreme
Court
2012 President, Hiroshima High Court
2013 President, Osaka High Court
2014 Mandatorily retired
Registered as a lawyer (The Dai-ichi
Tokyo Bar Association)
Takyu Sogo Law Office
2015 Outside Corporate Auditor of the
Company (incumbent)
2016 Outside Corporate Auditor,
SUMITOMO CORPORATION
(incumbent)

Outside Corporate Auditor

Kazuya Jono

1977 Joined Mitsui Bank, Limited
2005 Executive Officer, Sumitomo Mitsui
Banking Corporation
2007 Managing Executive Officer,
Sumitomo Mitsui Banking
Corporation
2010 Senior Managing Director,
Sumitomo Mitsui Banking
Corporation
2012 Retired
Representative Director, President &
CEO, Citibank Japan Ltd.
2014 Retired
2015 Outside Corporate Auditor of the
Company (incumbent)
2019 Outside Corporate Auditor, Brother
Industries (incumbent)

Outside Corporate Auditor

Hiroyuki Kumasaka

1973 Joined FUSO Audit Corporation
(later MISUZU Audit Corporation)
2007 Chairs of the Board of Council;
Head, Tokyo Office, the Audit
Corporation
Representative Liquidator, the Audit
Corporation
2008 Outside Corporate Auditor,
MATSUDA SANGYO CO., LTD.
2011 External Corporate Auditor of the
Board, Japan Airlines Co., Ltd.
2015 Outside Audit and Supervisory
Committee Member, MATSUDA
SANGYO CO., LTD.
2019 Outside Corporate Auditor of the
Company (incumbent)



President, Vice Presidents, and Executive Fellow

President

Akihiro Nikkaku

President, Chief Executive Officer, Chief Operating Officer

Executive Vice President

Koichi Abe

Executive Vice President, Intellectual Property Division, Global Environment Business Strategic Planning Dept., and Life Innovation Business Strategic Planning Dept.; Technology Center; Toray Human Resources Development Center

Executive Vice President

Yukichi Deguchi

Executive Vice President, Corporate Strategic Planning Division; Quality Assurance Division; Legal & Compliance Division (Security Trade Administration Dept.), HS Business Development Dept.

Executive Vice President

Mitsuo Ohya

Executive Vice President, Vice President, Marketing and Sales; Corporate Marketing Planning Dept., and branches; Affiliated Companies Division

Senior Vice President

Hiroshi Otani

Senior Vice President, Water Treatment & Environment Division; Chairman, Toray Asia Pte. Ltd.; Chairman, Toray Membrane (Foshan) Co., Ltd.

Senior Vice President

Satoru Hagiwara

Senior Vice President, Films Division; Chairman, Toray Films Europe S.A.S.

Senior Vice President

Kazuyuki Adachi

Senior Vice President, Purchasing & Logistics Division; Manufacturing Division

Senior Vice President

Minoru Yoshinaga

Senior Vice President, Torayca & Advanced Composites Division; Chairman, Toray Carbon Fibers Europe S.A.

Senior Vice President

Yasuo Suga

Senior Vice President, Chief Representative for Europe; President, Toray Industries Europe GmbH

Senior Vice President

Hirofumi Kobayashi

Senior Vice President, Pharmaceuticals & Medical Products Division; Pharmaceuticals & Medical Products Division (Technology & Manufacturing)

Senior Vice President

Kazuhiko Shuto

Senior Vice President, Chief Representative for China; Beijing Office; Chairman and President, Toray Industries (China) Co., Ltd.; Chairman, Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.

Senior Vice President

Tetsuya Tsunekawa

Senior Vice President, Research & Development Division; Basic Research Center

Senior Vice President

Shigeki Taniguchi

Senior Vice President, Human Resources Division

Senior Vice President

Kenichiro Miki

Senior Vice President, Fibers & Textiles Division; Osaka Head Office

Corporate Vice President

Satoru Nishino

Corporate Vice President, Films Technology & Manufacturing Division

Corporate Vice President

Hideki Hirabayashi

Corporate Vice President, CSR & Investor Relations; Legal & Compliance Division; General Administration & Communications Division; Tokyo Head Office

Corporate Vice President

Hiroshi Enomoto

Corporate Vice President, Electronic & Information Materials Division

Corporate Vice President

Nobuyuki Inohara

Corporate Vice President, Resins & Chemicals Division

Corporate Vice President

Hajime Ishii

Corporate Vice President, Fibers & Textiles Division; Global SCM Division

Corporate Vice President

Hiroyuki Matsuda

Corporate Vice President, Information Systems Division; Engineering Division

Corporate Vice President

Masahiko Okamoto

Corporate Vice President, Finance & Controller's Division

Vice President

Young Kwan Lee

Vice President, Chief Representative for Republic of Korea; President, Toray Industries Korea Inc.; Chairman, Toray Advanced Materials Korea Inc.

Vice President

Teh Hock Soon

Vice President, Chief Representative for Malaysia; President, Toray Industries (Malaysia) Sdn. Berhad; Chairman, Penfabric Sdn. Berhad; Chairman, Toray Malaysia Systems Solution Sdn. Bhd.; Chairman, P.T. Century Textile Industry Tbk

Vice President

Yoshio Yamamoto

Vice President, Legal & Compliance Division

Vice President

Kazuaki Takabayashi

Vice President, Chief Representative for Thailand; President, Toray Industries (Thailand) Co., Ltd.; Chairman, Toray Textiles (Thailand) Public Company Limited

Vice President

Kei Shimaji

Vice President, Chief Representative for Americas; President, Toray Industries (America), Inc.

Vice President

Yuichiro Iguchi

Vice President, Electronic & Information Materials Division (Technology & Manufacturing)

Vice President

Osamu Tsuneki

Vice President, Purchasing & Logistics Division; Raw Materials Purchasing Dept.

Vice President

Kazuyuki Yakushiji

Vice President, Composite Materials Technology & Manufacturing Division

Vice President

Yasuo Fukuda

Vice President, Fibers & Textiles Technology & Manufacturing Division

Executive Fellow

Akihiko Kitano

Automotive & Aircraft Center; ACM Technology Division

CORPORATE GOVERNANCE

Basic Policy

From the outset, one of Toray Group's managerial principles has been that the purpose of a company is to contribute to society. The Group has developed the Toray Philosophy that incorporates this principle. The Group systematizes the Toray Philosophy as a Corporate Philosophy, Corporate Missions, Corporate Guiding Principles, etc. Among these, the Corporate Missions call for desirable relationships with stakeholders and enunciate the Group's commitment to shareholders "To practice sincere and trustworthy management." In addition, the Corporate Guiding Principles stipulate the Group's commitment to "acting with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations."

When establishing the corporate governance structure, the Group seeks to realize these philosophies as its basic policy.

Outline of Governance System and Reasons for Adopting the System

As Toray Group supplies a wide range of industries with basic materials and globally plays an active part in a broad scope of business fields, it is necessary to evaluate various risks multilaterally based on expertise relevant to the worksites, not only for management judgment and decision-making but also for oversight. To that end, the Board of Directors formulates a structure in which members of the Board familiar with Toray Group businesses oversee management and make decisions from various viewpoints.

Toray operates as a company with a Board of Corporate Auditors and Board of Directors. The Board of Directors, which includes outside directors, decides on the business

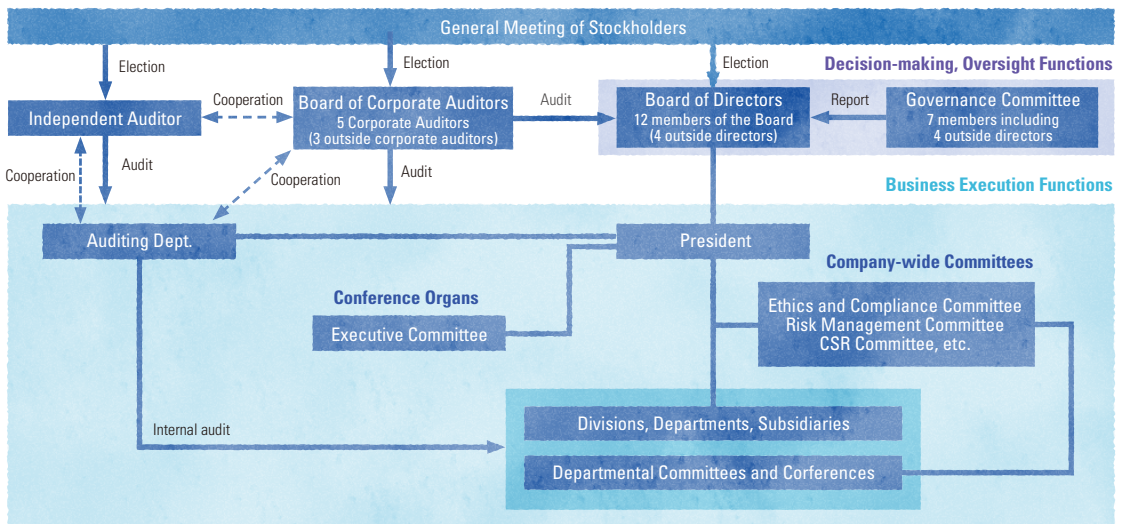
execution and supervises the execution of duties by the members of the Board. The Board of Corporate Auditors includes outside corporate auditors and independently audits the execution of duties by the members of the Board, separately from the Board of Directors and the executing organization. This framework is designed to secure the transparency and fairness of decision made by the Board of Directors. In addition, there is a Governance Committee, which serves as a voluntary advisory body to the Board of Directors. The Governance Committee deliberates on all matters relating to corporate governance, enhancing the effectiveness of governance by the Board of Directors.

Members of the Board and corporate auditors, as officers directly elected at the general meeting of stockholders, clearly recognize fiduciary responsibility to stockholders who have entrusted the management and appropriately fulfill their respective roles while discharging accountability about management status to stockholders and other stakeholders.

Strengthening the Governance Framework

In fiscal 2020, Toray Group set the number of members of the Board of Directors to 12 (seven less than the previous fiscal year) and the number of outside directors to four (two more than the previous fiscal year) in order to improve the effectiveness of the Board of Directors and to strengthen the business execution framework. The Group also introduced an executive officer system for the purpose of flexibly implementing management execution based on quick decision-making that accurately reflects the business environment and changes therein. The Board of Directors both establishes the scope of business execution entrusted to the vice presidents and supervises the

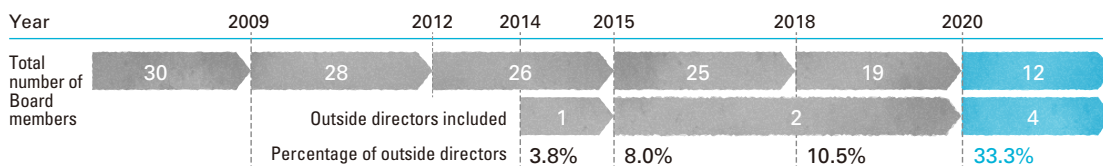
Corporate Governance Structures



execution of their duties. Moreover, the Group increased the number of Governance Committee members, which had consisted of one internal member of the Board and two outside directors until now, to three internal members

of the Board and four outside directors (the committee continues to be chaired by an outside director). As a result, this move ensures that discussions and reports by the Committee are made from a variety of perspectives.

Reduction in number of Members of the Board and change in its composition



Status of Outside Directors/Corporate Auditor Elections

At Toray, we ensure objectivity and transparency of corporate governance by establishing and disclosing standards for independence of outside directors and outside corporate

auditors. Based on these standards, the Company elects four outside directors and three outside corporate auditors, and submits notification regarding their status as independent officers to the Tokyo Stock Exchange.

The following table outlines the basis for election of our outside directors/corporate auditors and details of their independence

Kunio Ito Member of the Board	Mr. Ito was elected as an outside director and assigned independent officer status due to his highly specialized expertise in accounting and business administration as a university professor, and his extensive experience as a corporate outside director.
Ryoji Noyori Member of the Board	Mr. Noyori was elected as an outside director and assigned independent officer status due to his extensive experience as a university professor, his highly specialized expertise in organic synthetic chemistry, which is a core Toray technology, and his experience as a corporate outside director.
Susumu Kaminaga Member of the Board	Mr. Kaminaga was elected as an outside director and assigned independent officer status due to his extensive experience as a member of top management, his international perspective, and his experience as a corporate outside director.
Kazuo Futagawa Member of the Board	Mr. Futagawa was elected as an outside director and assigned independent officer status due to his extensive experience, knowledge, and deep expertise as an administrative officer.
Toshio Nagai Corporate Auditor	Mr. Nagai was elected as an outside corporate auditor and assigned independent officer status due to his excellent track record of high standing in the legal profession, his solid character and judgment, and his ability to appropriately audit the Group from an objective standpoint.
Kazuya Jono Corporate Auditor	Mr. Jono was elected as an outside corporate auditor and assigned independent officer status due to his having held key positions in the business world, his solid character and judgment, and his ability to appropriately audit the Group from an objective standpoint.
Hiroyuki Kumasaka Corporate Auditor	Mr. Kumasaka was elected as an outside corporate auditor and assigned independent officer status due to his advanced knowledge in accounting, his wealth of experience and established track record as a certified public accountant, his impeccable character and deep insight, and his ability to appropriately audit the Group from an objective standpoint.

Basic Policy on Internal Control System

To realize the Management Philosophy, the Company shall establish a structure to execute its business legally and effectively by improving its internal control system according to the following basic policy as a structure to enable it to appropriately establish organization, formulate regulations, communicate information, and monitor the execution of operations.

1. System to ensure that the execution of duties by the members of the Board and employees complies with laws and regulations and the Company's Articles of Incorporation

- Toray shall establish the Ethics and Compliance Committee,

as one of the company-wide committees to promote observance of corporate ethics and legal compliance, and shall take other measures to improve the required internal systems, including the establishment of dedicated organizations.

- Toray shall establish the Ethics & Compliance Code of Conduct as specific provisions to be observed by members of the Board and employees, and shall take other measures to improve the required guidelines, etc. Especially with regard to eliminating relations with antisocial forces, the Company shall act as one to stand firmly against them.
- Toray shall establish an internal reporting system (whistle-blowing system) for the reporting of the discovery of

Corporate Governance

violation of laws, regulations, or the Company's Articles of Incorporation.

- Toray shall establish Security Trade Control Program, one of the most important legal compliance issues, and establish an organization dedicated to security export control.

2. System to ensure the efficient execution of duties by the members of the Board and employees

- Toray shall establish the Authority of Top Management to stipulate matters with respect to which decision-making authority is reserved by the Board of Directors and matters with respect to which decision-making is delegated to the President, general managers, etc., from among matters necessary for decision-making.
- Toray shall establish the Executive Committee as deliberative organs for important matters decided by the Board of Directors or the President. The Executive Committee shall be responsible for the general direction of policy, and shall be in charge of issues related to implementation.

3. System for preserving and managing information pertaining to the execution of duties by the members of the Board and employees

- Toray shall establish regulations for important documents and important information related to management, confidential information and personal information, and appropriately preserve and manage them in accordance with the rules.

4. Regulations and other systems pertaining to controls over risks of loss

- Toray shall identify potential risks in business activities, promote company-wide risk management to strive to reduce the level of risk under normal business conditions, and prevent future crises, as well as improve regulations and establish an internal committee to enable immediate implementation in the event of a major crisis.
- Toray shall establish an internal control system for financial reporting that ensures the reliability of financial reporting.

5. System for ensuring appropriate business operations within subsidiaries

- To establish a system under which subsidiaries report to the Company on matters regarding the execution of duties by members of the Board, etc. of the subsidiaries, the Company shall provide regulations on the regular reporting of important management information to the Company and regularly hold conferences at which the Company's management receives direct reports on the status of the management of the subsidiaries.
- To establish regulations and other systems pertaining to controls over risks of loss for subsidiaries, the Company shall provide subsidiaries with guidance to help them to establish risk management systems appropriate for their respective business forms and business environments, and shall receive regular reports on the status of their activities.
- To establish a system for ensuring that members of the Board, etc. of subsidiaries effectively execute their duties,

the Company shall provide regulations on the scope under which the Company can reserve its authority over the execution of business operations. In addition, the Company shall endeavor to grasp management information in a unified manner and provide assistance and guidance necessary for subsidiaries by determining divisions, etc. with control over its respective subsidiaries.

- To establish a system for ensuring that the execution of duties by members of the Board, etc. and employees of subsidiaries complies with laws and regulations and the Articles of Incorporation, the Company shall thoroughly familiarize its subsidiaries with the Company's Ethics & Compliance Code of Conduct as a code of conduct in common for Toray Group. At the same time, the Company shall request the subsidiaries to establish their own codes of conduct, guidelines, etc. in consideration of the laws and regulations, business practices, business forms, and other factors in their respective countries. In addition, the Company shall direct its subsidiaries to establish systems under which the status of internal whistle-blowing by members of the Board, etc. and employees of the subsidiaries is appropriately reported to the Company.

6. System for reporting to corporate auditors and systems for ensuring that persons who report to corporate auditors are not treated disadvantageously because of their reporting

- Members of the Board, etc. and employees of Toray Group and corporate auditors of subsidiaries shall report matters regarding the execution of duties to corporate auditors in response to requests from the corporate auditors.
- Department in charge of the internal reporting system (whistle-blowing system) shall regularly report the status of internal whistle-blowing in Toray Group to the corporate auditors.
- Toray shall stipulate regulations to the effect that members of the Board and employees who report to corporate auditors shall not be subjected to any disadvantageous treatment because of the said reporting, and shall provide subsidiaries with guidance to help them stipulate the same regulations.

7. Items pertaining to the handling of expenses and liabilities arising from the execution of duties by corporate auditors

- Toray shall pay expenses, etc. incurred from the execution of duties by corporate auditors.

8. Items pertaining to employees assisting with corporate auditors' duties, items pertaining to the independence of said employees from members of the Board, and items pertaining to the assurance of effectiveness of instructions from the corporate auditors to said employees

- Toray shall assign a full-time employee to provide assistance if and when corporate auditors request assistance. The said employee shall exclusively follow the corporate auditors' commands and instructions, and the Company shall consult with corporate auditors in advance with respect to the personnel arrangements for the said employee.

9. Other systems for ensuring effective implementation of audits by corporate auditors

- Corporate auditors shall attend Board of Directors meetings and other important meetings so that they may ascertain important decision-making processes and the execution of operations.
- Corporate auditors shall hold regular meetings with members of the Board and management and conduct regular visiting audits of Toray offices, plants, and subsidiaries.

Remuneration for Members of the Board

Given their roles, remuneration for internal members of the Board consists of basic remuneration (monthly remuneration,) as well as a performance-based remuneration, a bonus and stock acquisition rights as stock options. Remuneration for outside directors consists of monthly remuneration only. Remuneration is set at a level that enables the Company to secure superior human resources and further motivate them to improve performance, referring to the results of a survey of other companies' remuneration by an external third-party organization.

With respect to monthly remuneration, the maximum limit of total remuneration is determined at general meetings of stockholders. Within the scope of the maximum limit, monthly remuneration of each member of the Board is determined by the President based on the Company's internal regulations resolved at the Board of Directors meeting.

The provision and the total amount of bonuses are determined each time at a general meeting of stockholders. Particulars of the agenda at the general meeting of stockholders are resolved by the Board of Directors

through conference among senior management, including the President, in consideration of the consolidated operating income for each fiscal year that best represents the results of the Company's global business operations, plus the historical record, etc. A bonus to each member of the Board is determined by the President according to each member's performance based on the Company's internal regulations with a resolution at a Board of Directors meeting.

The maximum limit of total number of Stock Acquisition Rights as well as the limit of remuneration relating to the granting of the Stock Acquisition Rights as stock options to members of the Board is resolved at the general meeting of stockholders, and within that limit, the total number of Stock Acquisition Rights to be allocated to the members of the Board shall be decided at the Board of Directors meeting based on the Company's internal regulations.

Given their roles, remuneration for corporate auditors consists of monthly remuneration only. Remuneration is set at a level that enables the Company to secure superior human resources, referring to the results of a survey of other companies' remuneration by an external third-party organization.

With respect to monthly remuneration, the maximum limit of total remuneration is determined at general meetings of stockholders. Within the scope of the maximum limit, monthly remuneration to each corporate auditor is determined through consultation by corporate auditors based on the Company's internal regulations.

The Governance Committee continuously reviews the remuneration system for members of the Board and corporate auditors.

Details of Remuneration in Fiscal 2019

Position	Total remuneration (millions of yen)	Total remuneration by type (millions of yen)			Recipients
		Basic	Bonuses	Stock options as remunerations	
Members of the Board (excluding outside directors)	1,130	787	154	188	18
Corporate auditors (excluding outside corporate auditors)	79	79	—	—	2
Outside directors	24	24	—	—	2
Outside corporate auditors	32	32	—	—	3

- Notes: 1. Recipients included one member of the Board (excluding outside directors) who retired during fiscal 2019.
2. Total amounts of remuneration do not include the ¥29 million paid in salaries to two employee-directors.

Total Remuneration Received by Members of the Board and Corporate Auditors

Name	Total consolidated remuneration (millions of yen)	Position	Status of company	Total consolidated remuneration by type (millions of yen)		
				Basic	Bonuses	Stock options as remuneration
Akihiro Nikkaku	153	Member of the Board	Filing company	104	25	23

Note: Total remuneration only includes persons receiving more than ¥100 million.

ANALYZING AND EVALUATING THE EFFECTIVENESS OF THE BOARD OF DIRECTORS

Process of Analysis and Evaluation

Over the period from late-March 2020 to mid-April 2020, Toray's Board of Directors conducted a "Questionnaire Survey to Evaluate the Effectiveness of the Board of Directors in fiscal 2019." The 24 survey respondents, who comprised all of the Board members and corporate auditors, answered questions on the following survey items and gave their names.

- (1) Management Philosophy and Corporate Missions
- (2) Size and structure of the Board of Directors
- (3) Segregation of oversight and business operations
- (4) Provision of information prior to Board of Directors meetings
- (5) Number of agenda at Board of Directors meetings
- (6) Proceedings at Board of Directors meetings
- (7) Management response to opinions, etc. at Board of Directors meetings
- (8) Authority of the Board of Directors
- (9) Appropriate response to conflicts of interest
- (10) Communication with stakeholders
- (11) Communication among members of the Board
- (12) Opportunities to acquire knowledge
- (13) Compliance promotion
- (14) Group governance
- (15) Overall evaluation

In addition to the questionnaire, Secretariat of the Board of Directors individually interviewed outside directors and outside corporate auditors (total of five persons) to hear their opinions in relation to their responses to the questionnaire.

The survey results were analyzed and evaluated at the Governance Committee held on June 11, 2020 and the results of the analysis and evaluation were deliberated at the Board of Directors meeting held on June 17, 2020. The overview of the results of the analysis and evaluation shown below describes the contents resolved at the Board of Directors meeting.

Overview of the Results of the Analysis and Evaluation

(1) In fiscal 2019, the Board of Directors performed oversight and decision-making based on a deep understanding and sympathy with the Management

Philosophy and Corporate Missions. As a result, we believe that the Board of Directors generally fulfilled its roles and responsibilities in indicating the direction of corporate strategies and other major courses of action in an appropriate manner.

- (2) In fiscal 2019, the Board of Directors held 14 meetings in total to perform oversight and decision-making in a timely and appropriate manner. Furthermore, it promoted reviews on the scope of delegating decision-making authority. Through these initiatives, we believe that the Board of Directors generally fulfilled its roles and responsibilities in establishing an environment conducive to appropriate risk-taking by the senior management in an appropriate manner.
- (3) With respect to the 14 Board of Directors meetings held in fiscal 2019, the attendance rate of the members of the Board was 100%. Outside directors made remarks mainly from their respective professional viewpoints. The opinions, etc. at the Board of Directors meetings, including the above mentioned remarks, were appropriately reflected in measures taken by the management. With respect to transactions causing possible conflicts of interest, internal procedures to handle them were appropriately carried out. In light of the above, we believe that the Board of Directors generally fulfilled its roles and responsibilities in carrying out the effective oversight of members of the Board and the management from an independent and objective standpoint in an appropriate manner.
- (4) Based on the above, we believe that the Board of Directors generally fulfilled its roles and responsibilities in an effective manner in fiscal 2019. With regard to the matter, "further activating discussions at the Board of Directors meetings," however, continuing from fiscal 2019, specific measures for improvement must be taken in fiscal 2020 and thereafter to further improve the effectiveness of the Board of Directors.
- (5) With respect to the opinions, etc. received from the members of the Board and corporate auditors in the course of evaluating the effectiveness of the Board of Directors, the Governance Committee shall deepen discussions based on those opinions with a view to further improving the effectiveness of the Board of Directors, as necessary.

COMPLIANCE

Basic Approach

In order to contribute to society by leveraging innovative technologies and advanced materials in line with its corporate philosophy, as well as by working to resolve major global issues, Toray Group must build and maintain relationships of trust with our various stakeholders. And in order to gain this trust, it is essential to comply with the laws and regulations related to our business activities in each country in which we operate and maintain the highest level of integrity in all our actions. Therefore, top management focuses on its leadership role in making compliance a priority, while both the Group and its suppliers are required to promote ethics and compliance.

Ethics and Compliance Structure

Toray has established an Ethics and Compliance Committee chaired by the President and consisting of vice presidents. At this committee, management and workers come together to consider and discuss policies related to ethics and compliance. Moreover, this Committee reports on the operational status of the whistle-blowing system established by Toray Group, including the number of reports (consultations) and other details, to members of the Board. During fiscal 2019, this Committee met twice to deliberate and discuss Toray Group's ethics and compliance activity results for fiscal 2018 and the activity plans and progress updates for fiscal 2019. This Committee also discussed individual measures, including a review of the Ethics & Compliance Code of Conduct.

Acting as leaders, divisional and departmental general managers at each workplace adopt a top-down approach toward promoting initiatives.

In initiatives for group companies around the world, Toray Group has established the Affiliate Companies' Compliance Meeting and the Overseas Affiliate Companies' Compliance Meetings under the Ethics and Compliance Committee. Through these committees, Toray Group is promoting compliance activities in each company, country and region.

Ethics & Compliance Code of Conduct

Toray reviewed the content of the Corporate Ethics and Legal Compliance Code of Conduct, and revised it as the Ethics & Compliance Code of Conduct in May 2020. The revised code summarizes the compliance helpline, the promotion framework for ethics and compliance,

and codes of conduct, which serve as a series of core rules that must be observed in different areas of business by Toray group companies and all executives and employees, including contracted, part-time and temporary workers, as a means of fully informing employees of these obligations and tools.

1. Compliance for safety and the environment

- (1) Building a safe working environment
- (2) Caring for the environment

2. Compliance for quality

- (1) Providing safe and satisfactory products to customers
- (2) Proper quality data management

3. Compliance for human rights

- (1) Respect for the character and individuality of employees
- (2) Preventing harassment and discrimination
- (3) Respect for the human rights of all stakeholders

4. Compliance for fair business activities

- (1) Competing fairly
- (2) Fair transaction and asset management
- (3) International trade control and security trade administration
- (4) Compliance with applicable laws in general

5. Compliance for intellectual property

- (1) Respect for intellectual property rights of others

6. Compliance for information management

- (1) Information management
- (2) Proper reporting and public disclosures

Corporate Ethics and Legal Compliance Education

Toray posts information on CSR and legal compliance on its corporate intranet. Toray Group circulates important information about legal and compliance matters that are highly relevant to its business in Japan and overseas. Group companies implement workshops to examine these matters and study cases of corporate misconduct in an effort to foster discussion in the workplace.

Since fiscal 2012, Toray has provided online training courses on corporate ethics and legal compliance for all executives and employees, including contracted, part-time and temporary workers. In fiscal 2019, the Company worked to raise awareness of human rights issues using case studies based on actual reports and consultations within Toray Group, reminding all

participants that issues can occur in any department. Group companies in Japan are using these materials to implement their own training.

Suido Kiko Qualification Misconduct Issue

Toray discovered in March 2020 that Suido Kiko, a subsidiary engaged in water and sewage facility engineering, had potentially allowed an employee to take the First Class Civil Engineering Works Execution Managing Engineer test despite not having satisfied the practical experience requirements for this test. Thereafter, a third-party committee was established and commissioned to investigate the facts and make recommendations on how to prevent a recurrence. On September 24, we received the report of the investigation by the third-party committee, and on September 25, we reported to the Ministry of Land, Infrastructure, Transport and Tourism on the content of the report and measures to prevent a reoccurrence.

Expanding the Whistle-Blowing System

Toray established the Corporate Ethics and Legal Compliance Helpline as a whistle-blowing system in fiscal 2003 and expanded the system to include all group companies in Japan in fiscal 2010. By introducing this system, the Company expects employees first to take the initiative in managing conduct with regard to corporate ethics and legal compliance, and to consult with a supervisor as soon as an issue arises. Recognizing that reporting or consulting with supervisors may be difficult, the Company ensures that

employees have access to alternative means of reporting and consulting such as via contact points at its offices, plants and labor unions or directly to the secretariat of the Ethics and Compliance Committee via phone or email.

In addition, each group company in Japan has established a Helpline contact point. Moreover, Toray has also created an external Helpline contact point shared by all group companies in Japan to make it easier for employees to report and consult.

Each group company outside Japan has also established a Helpline contact point (internal, outside, or regional contact points). These Helpline contact points have been in operation at all companies since fiscal 2017. There were reports in several countries and regions, and Toray Group is working to resolve the issues, while carefully confirming circumstances in interviews and investigations.

Since fiscal 2016, Toray has also maintained an additional whistle-blowing system for group companies to directly report serious misconduct such as violations of antitrust laws and bribery, and it is working to inform all Toray Group companies about the system.

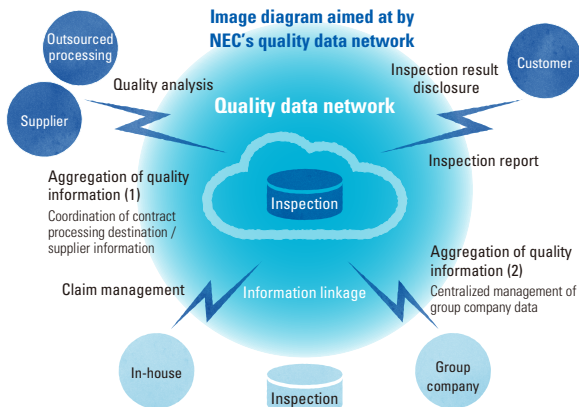
The number of inquiries (consultations) received through the hotline and the details of the cases are reported to the Board of Directors by the Ethics and Compliance Committee, which convenes twice a year.

Reinforcing Compliance in Product Quality Assurance

Toray Group is pursuing five major issues to reinforce product quality assurance compliance throughout the Group.

Sharing Quality Inspection Information Throughout the Supply Chain

Toray and NEC Corporation established a quality data network that collects and stores product quality inspection information sampled from inspection equipment as digital data, and shares this information throughout the supply chain. This sharing process does not require any human intervention, which helps to enhance the reliability of quality inspection information and to raise the efficiency of quality assurance operations.





1. Reinforcement of structures related to quality assurance systems of the entire Toray Group

The Group provides guidance to each division and group companies regarding their quality assurance system, and audits the effectiveness of these systems and the work done under them. Based on the formulated product quality assurance vision, the organizations design initiatives to close the gap between the vision and actual performance.

2. Development of human resources and creation of workplace culture not allowing any misconduct

The Group continues to provide education for all employees involved in product quality at Toray Group in order to maintain and improve the awareness of product quality assurance compliance.

3. Understanding of actual state of agreements with customers and establishment of guidelines related to product quality (assurance)

The Group is preparing guidelines for product quality assurance agreements and will use them to assess agreements and review their provisions as necessary.

4. Appropriate maintenance or control and modernization or fulfillment of measuring equipment

Toray prepared a risk assessment table for judging the necessity of upgrading or conducting maintenance on measuring equipment, and used them to identify devices in need of an upgrade.

5. Improvement of quality data management system to not allow any misconduct

The Group is developing data management systems that minimize human involvement, such as by automating measurement, transfer of measurement data, and issuance of inspection reports.

Inappropriate overwriting of product inspection report data by Toray Hybrid Cord

As a result of a compliance survey conducted during July 2016 at Toray Hybrid Cord (THC), a subsidiary engaged in processing tire cords, industrial-use cords, carpet pile threads and other fiber products for industrial materials, THC was found to have overwritten data during the period from April 2008 to July 2016. In this case, data that varied slightly above or below the values for quality standards settled upon with customers were overwritten in order to fit within these standards.

In response, the Group launched an investigation that focused on safety-related inspection

items as part of the first stage, and then expanded the scope of the investigation to cover inspection items that were not related to safety. Finally, the investigation queried all of the remaining measurement data (112,000 entries). As a result, 149 entries were found to have been overwritten. Therefore, in October 2017, the Group reported the facts of the case to all 13 companies covered by the investigation and requested each company to check for issues with safety upon verifying the impact on customer products. The Group also established an expert committee and held a press conference to make an announcement on the contents of the Expert Committee Report.

At the same time, the Group advanced measures aimed at preventing a recurrence, including strengthening the compliance systems related to product quality assurance, further improving data management systems, reviewing product quality standards, and improving the maintenance of measurement equipment. Moreover, the Group appointed a representative member of the Board (General Manager, Product Quality Assurance Division) to take responsibility for product quality assurance operations throughout the Toray Group, and established the Product Quality Assurance Division as a new division to oversee improvements to and the effectiveness of the quality assurance system in February 2018. The Group also promotes automation of data measurements as an additional effort to better ensure the effectiveness of product quality assurance operations throughout Toray Group.

Improving Security Trade Controls

Sharing the Latest Trends and Management Strategies for Security Trade Controls

Concerns about the spread of conventional mass weapons of destruction and changes in the international security balance necessitate risk management addressing security trade controls.

Toray convenes a Security Trade Administration Committee comprising officers of divisions that are involved in exports and technology transfer. In fiscal 2019, the committee decided on measures to implement for the fiscal year after considering pressing risks based on recent international circumstances and regulatory trends. The committee members also convene a

Compliance



Divisional Security Trade Administration Committee that communicates corporate measures and implements supplementary programs, such as precautions to be taken by departments and group companies under its supervision.

Practically Addressing Risks

Toray Group performs risk management of security trade controls with regard to the export of all products, devices, materials, and samples, as well as the transfer of technologies outside Japan. Particularly strict management is necessary for TORAYCA® carbon fiber and its composite materials, semiconductor coating agents, and water treatment membranes, which are listed as restricted items requiring export permission from the Japanese Minister of Economy, Trade and Industry.

The following measures to enhance risk management associated with security trade controls have been implemented based on conditions in and outside of Japan.

1. Enhanced employees' capacity for accurate judgment within Toray's divisions and group companies

Toray conducted training to provide the necessary practical knowledge to the mid-level employees that play a central role in implementing security trade controls, as well as training to newly appointed managers to encourage appropriate on-site management.

The Company also conducted a series of advanced courses for employees with specialized expertise. These hands-on courses were designed to better equip them with the skills necessary to conduct classifications, export transactions and technology transfers. A total of 127 employees participated in 2 courses.

In addition, the Company systematically encourages employees to take the exam authorized by the Center for Information on Security Trade Controls in Japan. A total of 221 Toray Group employees passed the exam in fiscal 2019, bringing the cumulative number of Toray Group employees who have passed the exam to 3,996 persons.

2. Conduct regular audits

Toray carried out paper audits and onsite audits of group companies, and provided individualized guidance based on the results to help group companies make improvements.

3. Enhanced information sharing and reporting

Toray integrated and centralized information on concerns such as suspicious trade inquiries, reported or consulted with the appropriate authorities as required, and took the appropriate measures. The Company also shared

suspicious trade information at various company meetings, and took steps to improve its risk management.

4. Improved inspection systems

Toray established a link between the security trade administration system and the sales backbone system as part of regular operations in order to improve the infrastructure for preventing mistaken shipments due to human error. Moreover, the Company supported innovative initiatives designed to improve the efficiency of administration through the use of these systems, and widely deployed cases that have produced results.

Competition Law Compliance, Anticorruption, and Antibribery

1. Competition Law Compliance

The Ethics & Compliance Code of Conduct, revised in May 2020, defines the code of conduct related to competition laws that must be observed by all Toray Group executives and employees. Educational materials related to competition laws have been prepared in Japanese and English for all Toray Group employees. Within Japan, the Group prepares and utilizes compliance training materials and gathers examples of compliance violations related to competition laws.

2. Anti-corruption and Anti-bribery

In January 2020, Toray Group formulated a new set of Anti-bribery Rules that explicitly prohibit offering and accepting bribes to or from public officials and business partners, and established the rules for approval and reporting when offering or receiving money or other benefits to or from public officials and business partners. Similar rules have also been introduced at both domestic and overseas group companies.

The Ethics & Compliance Code of Conduct defines the code of conduct related to anti-corruption and anti-bribery that must be observed by all Toray Group executives and employees. Educational materials related to anticorruption and anti-bribery have been prepared in Japanese and English for all Toray Group employees.

3. Protection of Personal Information

In order to comply with Japan's Act on the Protection of Personal Information, Toray has established Regulations for the Management of Personal Information, together with a management framework and practices to ensure each department manages personal information appropriately. Audits are regularly conducted into the management conditions in each department.



In fiscal 2019, the Company received no complaints concerning personal information and there were no data breaches. Major Toray Group companies in and outside Japan appropriately conduct management in accordance with the management systems and methods specified by the internal rules of each company.

Promotion of Mission B.E.A.R. Activities

In fiscal 2018, Toray Group launched a new initiative with the slogan “Have the integrity to do the right thing in the right way.” The initiative includes the following four principles for taking more effective action to ensure compliance.

Compliance Action Principles

- B:** Be fair, be honest and have integrity
- E:** Encourage respect and communication
- A:** Adopt a *genba* approach – Look to the facts!
- R:** Responsibility as a member of our excellent company



Under the name “Mission B.E.A.R.,” taking its acronym from the first word of each principle, Toray Group companies formulate declarations and action plans related to compliance, and implement initiatives that correspond to their individual situations. Toray Group implements periodic follow-ups for the initiatives of each company, shares the effective initiatives of each company within the Group, and encourages each company to take the initiative in evolving their compliance activities.

In fiscal 2020, Toray will continue to assist and monitor compliance initiatives at group companies. Moreover, actively sharing compliance initiatives and educational materials will strengthen risk response that emphasizes factors unique to each region and type of business while reinforcing Toray Group’s integrity-driven corporate culture.

Implementing Internal Legal Audits

In fiscal 2016, Toray Group adopted a group-wide system for self-inspections and mutual internal control audits. Designated divisions of Toray and designated group companies in and outside Japan must receive an

internal legal and compliance audit every other year.

In fiscal 2018, internal legal compliance audits were implemented for the designated divisions of Toray and its group companies in Japan. In fiscal 2019, the Company confirmed the improvement status of problems found in the audit, verifying that 100% of the companies had made improvements (including companies under improvement).

Moreover, in order to increase the effectiveness of audits related to high-priority items, including competition laws, bribery and corruption regulations, the whistle-blowing system and entry into agreements, in fiscal 2019 the Group reviewed the audit methods related to legal affairs and compliance, and plans to implement the results of this review in fiscal 2020 and beyond.

Tax Compliance

Toray Group is committed to meeting its tax responsibilities in accordance with local and national tax laws and related rules, as well as to meeting international standards such as OECD guidelines. With the growth of international transactions, transfer pricing is increasing in importance. The Group endeavors to suitably allocate its income by calculating transfer pricing based on the arm’s length principle. Under the awareness that it is important to fulfill its social responsibilities as a corporation by administering taxes in a highly transparent manner, the Group redefined its basic approach to tax policies with which each employee must comply, and established the Toray Group Tax Policy in order to reliably implement tax compliance related initiatives to a greater extent. This policy has been applied globally starting in May 2020.

Basic Policy

1. Toray makes efforts to pay taxes appropriately by complying with the tax laws of each country and international taxation rules.
2. Toray makes efforts to enhance corporate value and maximize shareholder value while minimizing tax risks and optimizing tax expenses.
3. Toray will not conduct arbitrary tax avoidance using tax havens or other methods.
4. Toray establishes good relationships with the tax authorities of each country.

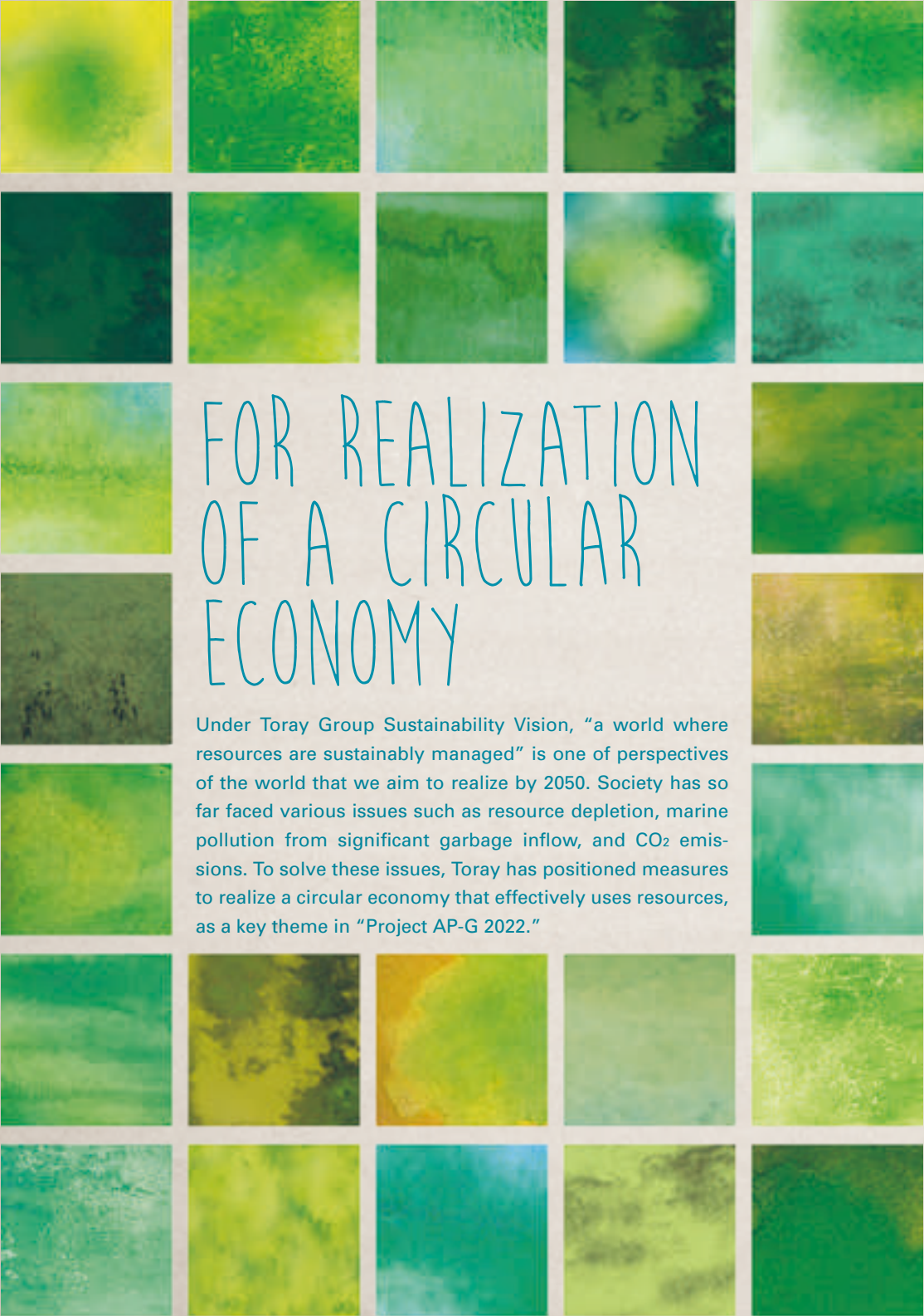


MATERIALS CHANGE OUR LIVES

Photo: Aozora Science School

In order to help children gain an interest in science, this program aims to have them enjoy a slightly unusual camp experience with a sense of excitement. As a two-night three-day hands-on, overnight classroom, this program is flush with contents that use mother nature as learning materials to instill a sense of curiosity that stirs up questions of how and why in the campers. Likewise, this program helps to create opportunities for the campers to truly find an interest in science under an open sky that differs from what they see every day. (Campers in 2019)





FOR REALIZATION OF A CIRCULAR ECONOMY

Under Toray Group Sustainability Vision, “a world where resources are sustainably managed” is one of perspectives of the world that we aim to realize by 2050. Society has so far faced various issues such as resource depletion, marine pollution from significant garbage inflow, and CO₂ emissions. To solve these issues, Toray has positioned measures to realize a circular economy that effectively uses resources, as a key theme in “Project AP-G 2022.”

Realizing a Circular Economy through Various Technologies and Products

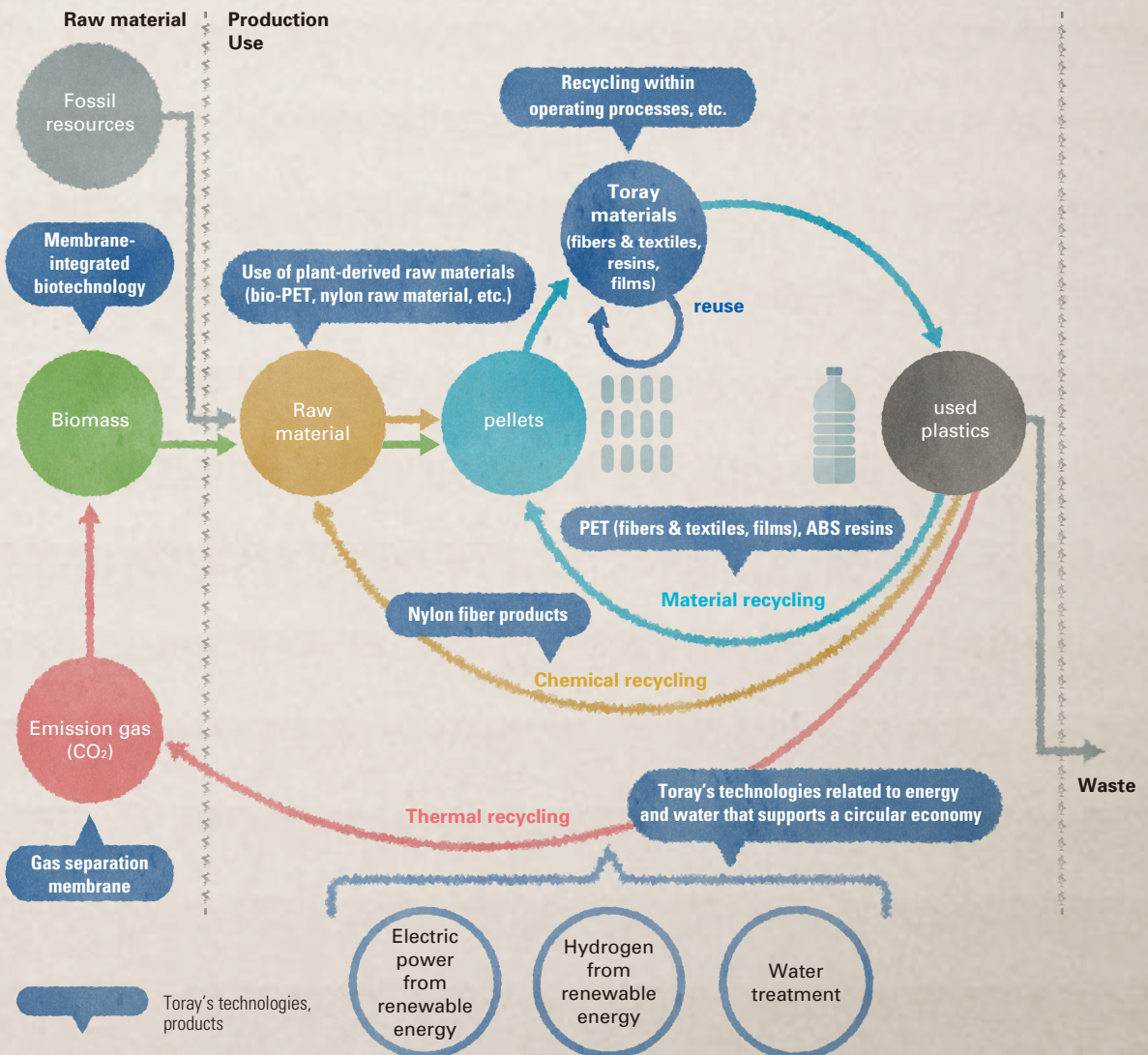
Toray is contributing to the realization of “a world where resources are sustainably managed”—the so-called circular economy—through various technologies in such areas as recycling of plastics, utilization of biomass in raw materials, use of renewable and hydrogen energy, and reuse of water. For example, Toray is engaging in material recycling*1 and recycling within our operating processes, which reuse plastic products such as fibers and textiles, resins, and films. In addition, we have already produced nylon fiber products through chemical recycling*2 that turns unrecyclable plastics into basic chemicals such as monomer and gas.

Furthermore, Toray is promoting the development of products made using plant-derived raw materials rather than petroleum, and membrane-integrated biotechnology that effectively produces these raw materials. Moreover, Toray technologies are being used in areas including materials for wind turbine blades that generate energy used in manufacturing processes, materials for equipment that produces hydrogen used to generate renewable energy, and water treatment membranes for recycling wastewater.

*1 Material recycling: a recycling process that uses heat to convert used plastic bottles and remnants produced during manufacturing processes into yarn, staple fiber, and other materials.

*2 Chemical recycling: a recycling process that breaks down through depolymerization used products and remnants produced during manufacturing processes into monomers that are manufactured back into chips and then recycled into yarn, staple fiber and other materials.

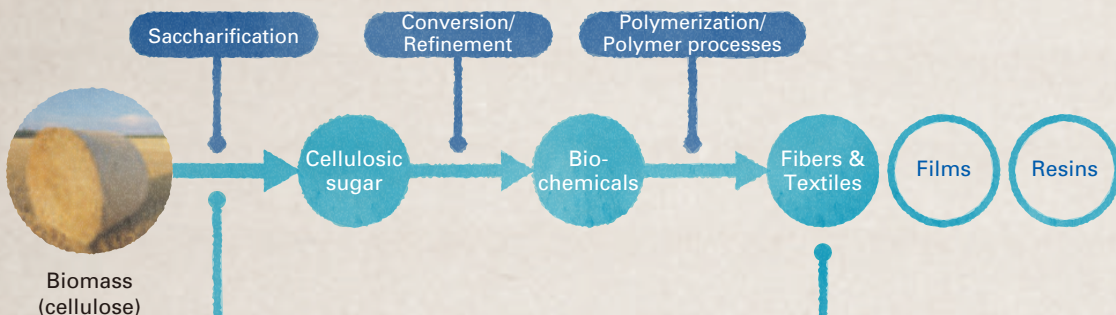
Contribute to initiatives including biomass plastics, recycling, promoting of renewable energy and the use of hydrogen, and water reuse



Using Biomass

Toray has developed processing technology that realizes energy and cost reductions by applying water treatment membranes to the biomass saccharification process, which produces cellulosic sugar from non-edible biomass, and is operating a demonstration plant on a trial basis. Toray is pursuing the creation of supply chains that make practical use of this process to manufacture materials and chemicals from non-edible biomass.

At the same time, Toray is mass producing partial bio-PET fiber, a biomass-derived fiber made from plant-based ethylene glycol that is used to make such products as Ultrasuede® PX, a nonwoven material created using ultra-fine fibers in an “island in the sea” configuration. At present, Toray has completed prototype production of 100% bio-PET fiber at its demonstration plant, positioning it as a top-level environmentally friendly material mainly for sportswear and automotive interior applications, and Toray aims for mass production as early as possible in the 2020s.



Membrane-integrated saccharification process

A processing technology that realizes cost reduction through energy-saving and recycling by applying water treatment membranes for the biomass saccharification process.



Installed demonstration plant for cellulosic sugar production in Thailand, started prototype evaluation by customers.

Partial Bio-PET fiber (already in mass production)



“Ultrasuede® PX,” a nonwoven material created using ultra-fine fibers made with plant-based raw materials

100% Bio-PET fiber

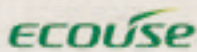


- Completed prototype production at the demonstration plant
- Positioning it as a top-level environmentally friendly material, started prototype evaluation mainly for sportswear and automotive interior applications
- Aim for mass production in the 2020s

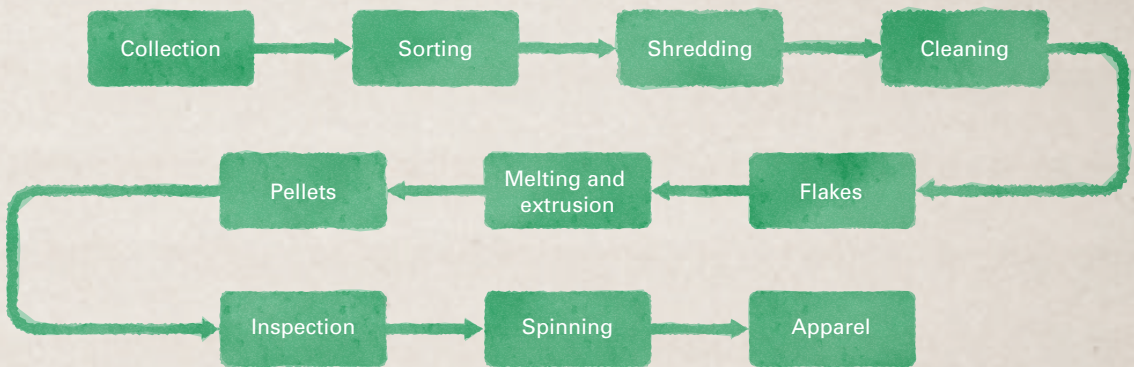
Promoting Recycling

Toray is expanding its ECOUSE™ regeneration type recycling material and CYCLEAD™ collection circulation type recycling system into a wide array of business fields including fibers and textiles, resins, and films. As for regeneration type recycling, in fiscal 2019, Toray kicked into full gear advanced initiatives to recycle collected plastic bottles to be used as raw materials for textiles and established the new textile business brand &+™ (And plus) with the aim of realizing a sustainable society. As for collection circulation type recycling, Toray has developed its proprietary material recycling system that collects and recycles used fiber and plastic, and is leveraging this system to pursue initiatives in this field.

Regeneration Type Recycling with ECOUSE™



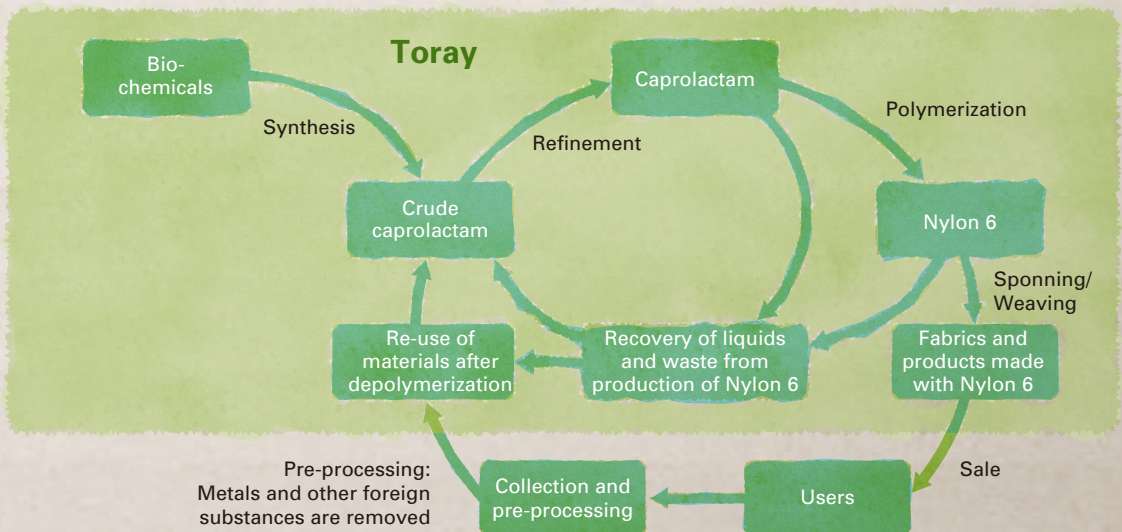
The reuse of production process wastes and used plastic bottles as raw materials is expected to reduce the use of fossil resources and reduce wastes



Collection and Circulation Type Recycling with CYCLEAD™



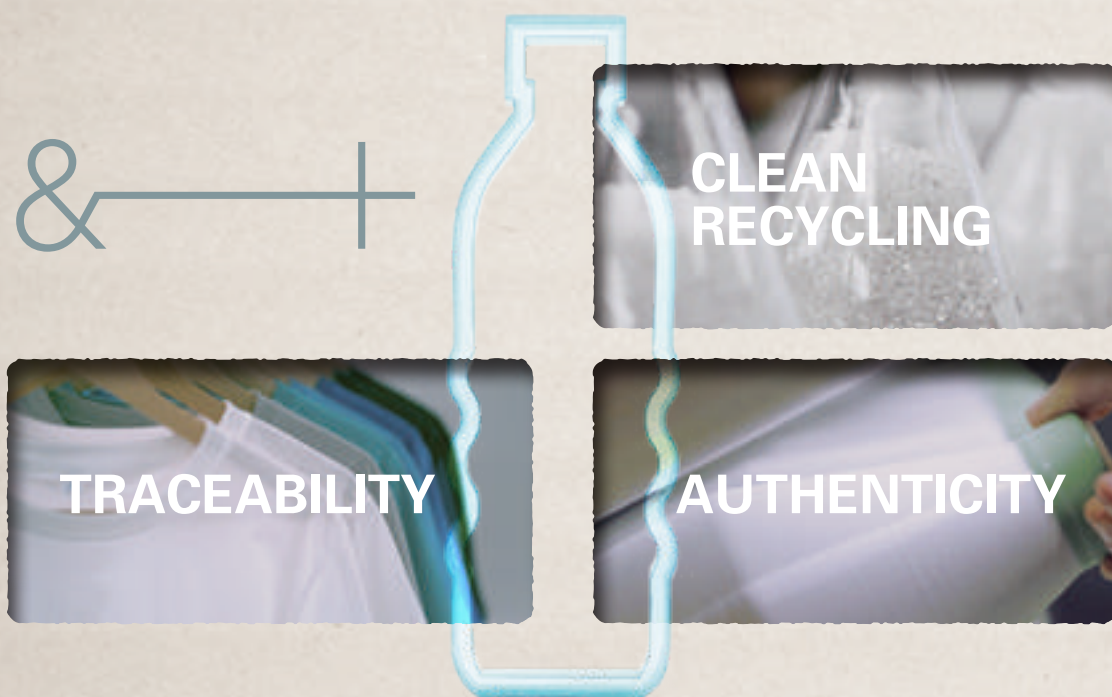
Products and collection system originally designed for collection and recycling after use



Fibers & Textiles

The New &+™ Fiber Brand Made from Recycled Plastic Bottles

Previously, plastic bottle derived-fibers were limited in variety due to contaminants mixed into raw materials, which made it difficult to produce special cross-sections and fine fibers, as well as issues posed by fiber whiteness being impaired by yellowing from plastic bottle degradation. In response, Toray together with Kyoei Industry Co., Ltd. developed contaminant filtering technology and advanced plastic bottle cleaning techniques to stabilize the supply of raw materials that are impurity-free. Combining these technologies with Toray's fiber production technology, it is possible to achieve diverse fabric applications with a degree of whiteness equivalent to fibers materials made directly from petroleum source. Moreover, Toray has commercialized its highly reliable polyester fiber under the &+™ brand by incorporating its proprietary traceability technology that can detect special additives premised in with plastic bottle-based raw materials. Full-scale sales of the &+™ products started in January 2020, and Toray targets sales of over ¥50 billion in 2025 by expanding the scope of sales by leveraging various supply chains (extending from yarn and staple fiber through to textiles and garments) and global production bases.



Promoting Recycling with UNIQLO

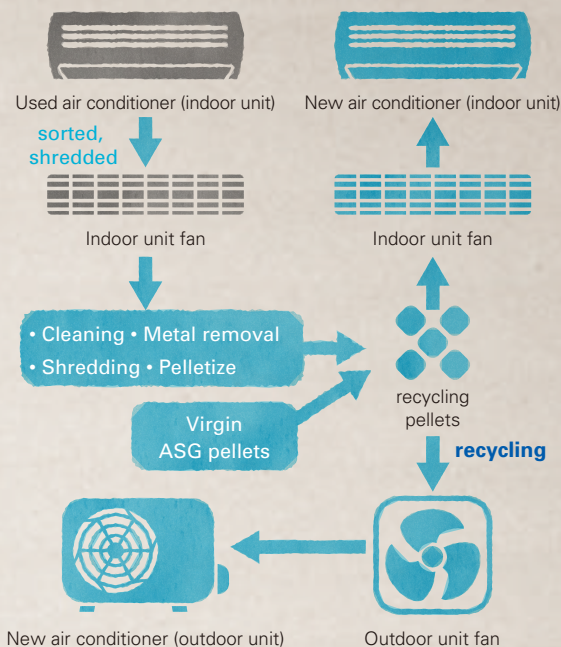
Together with UNIQLO CO., LTD., Toray is promoting new initiatives for sustainable products, with Toray supplying &+™ fibers made from recycled plastic bottles for UNIQLO's quick-drying wear DRY-EX brand polo shirts starting in 2020.

In addition, UNIQLO stores are collecting used down items from customers to recycle the feathers. Conventionally, the stuffing in duvets and other objects incorporating down is manually removed. Such processes are arduous with Ultra Light Down items because of their thin outer fabric and complex construction. By developing special extraction machinery, Toray has fully automated cutting, stirring and separating, and recovery, for 50-fold the process capacity of manual processes, thus greatly alleviating workloads. Toray and UNIQLO are jointly developing new recycling-based down products from recycled feathers.

Plastics

Air Conditioner Material Recycling

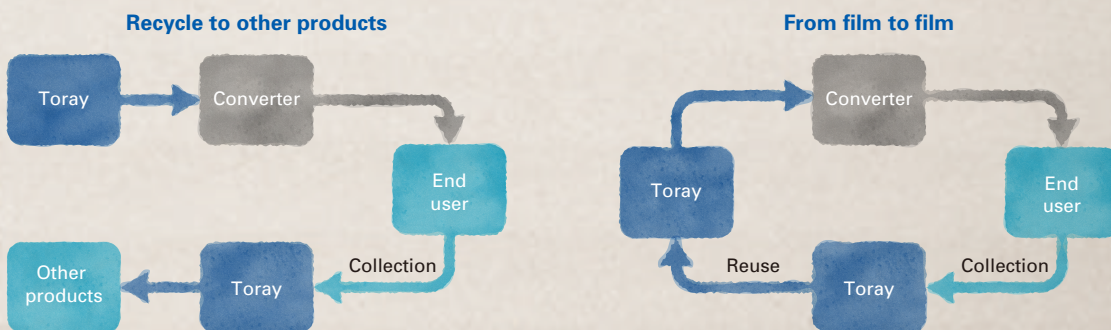
Toray provides recycled plastics using its proprietary processing design using remnants produced within production processes and materials derived from used products. Teaming up with customers, Toray has also developed a material recycling system that recycles fans inside used air conditions collected under Japan's Act on Recycling of Specified Kinds of Home Appliances into new fans. Fans installed in indoor air conditioners use glass fiber-reinforced acrylonitrile-styrene resins, and Toray's unique collection and foreign substance removal system and materials blending method solve such problems as contamination and glass breakage during recycling as well as realize physical properties nearly equivalent to virgin materials.



Film

Building Release Film Collection System

Currently, PET release films are mainly disposed or thermally recycled because of the difficulties associated with removing coating materials and resin used at each stage of the supply chain. Building a release film collection system, Toray aims to make use of the recycled films to fibers, films and other Group materials.



Carbon Fiber

Carbon fiber is viewed as an important contributor to solving global environmental problems, as its lightweight properties significantly reduce CO₂ emissions over the entire lifecycle of products in which it is used. As a result, demand for carbon fiber is expanding across a wide range of applications, including aircraft and automobile parts. In conjunction with the growing demand, market expectations for the development of carbon fiber recycling technologies are rising.

Teaming up with Toyota Tsusho Corporation, Toray in July 2017 began operating pilot plant built at a facility run by Toyota Tsusho's subsidiary Toyota Chemical Engineering Co., Ltd. in order to field test energy-efficient, recycled carbon fiber manufacturing technology. Toray is pursuing the development of recycled carbon fiber applications with an eye towards commercialization.

ADVANCED BUSINESS MANAGEMENT BY

The Group-wide Effort to Promote Digital Transformation

A key focus in “AP-G 2022” is promoting advancements in management through digital transformation (DX), which will strengthen competitiveness and transform business through the effective use of data and digital technologies. In order to facilitate reviews and discussions regarding group-wide efforts to promote DX, Toray established the TDX Promotion Committee, and under that the Technology Center DX Promotion Committee and the Business Division DX Promotion Committee. The Company is advancing the group-wide TDX Promotion Project in addition to conventional departmental initiatives.

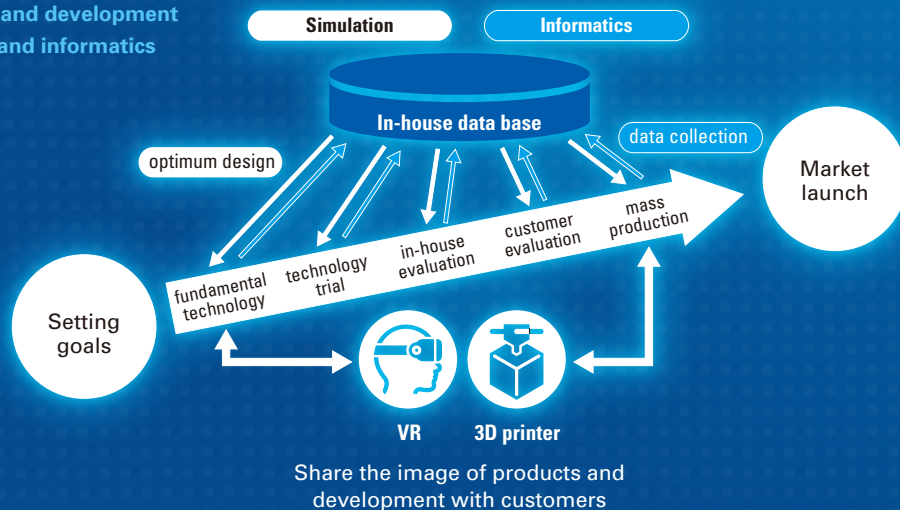


Examples of DX Initiatives

Research and Technological Development: Research of advanced materials through Digital *Monozukuri* (manufacturing)

Research and development used to require a great deal of trial and error, but efficiency has been greatly improved thanks to simulations and materials informatics, which make the best use of theoretical calculations and data science. Development images can be shared with customers through prototype systems using VR and 3D printers to achieve optimal designs that are consistent from the initial target settings.

Accelerate research and development through simulation and informatics



UTILIZING DIGITAL TECHNOLOGIES

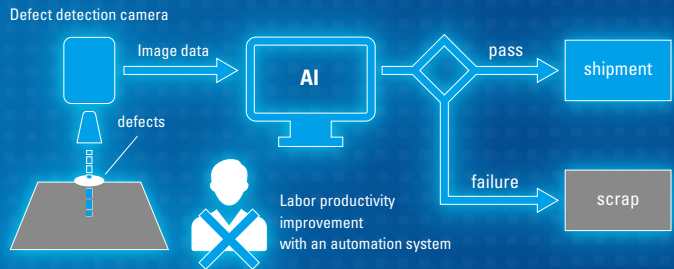


Toray was selected for “Digital Transformation Stocks (DX Stocks) 2020” by the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange, as a company actively engaged in DX efforts.

Production: Automatic monitoring system utilizing AI technology

AI-based image recognition technologies are used to replace visual-based monitoring and inspection work previously carried out by individual employees. This has contributed to a sharp reduction in man-hours and the prevention of abnormalities and defects. We are working to improve productivity by increasing the number of successful cases in which we apply AI technologies in production operations at each of our plants.

Substantially improve the detection of defects with AI technology



Sales: Holding on-line exhibitions of apparel textiles

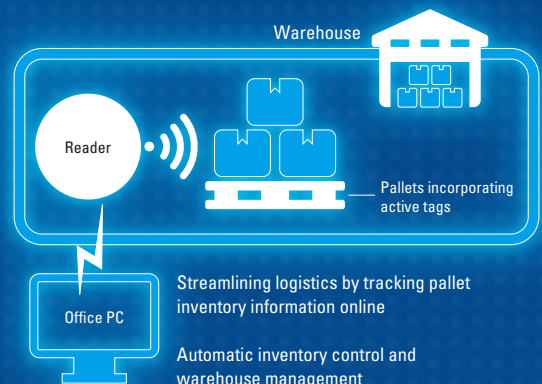
With many textile companies forced to cancel their exhibitions due to the COVID-19 pandemic, Toray was able to hold an online exhibition of its spring and summer textiles for men’s and women’s clothing for about 10 days. Materials attracting attention, including Kinari™, were divided into five concept categories, with 73 carefully selected products offered. Orders were accepted online with samples quickly delivered. The online exhibition attracted 652 visitors and won praise as among the first in the industry in using the Internet to select materials.



Logistics: Streamlining logistics by adopting labor-saving pallets with active tags

Toray is an industry leader in introducing the Smart Pallet®* pallets equipped with the active RFID tags of UPR Corporation to transport resin products in Japan. Without the need of manual inventory count, the system automatically keeps track of the number of pallets at the shipping source and makes it possible to use forklifts to load and unload pallets not only within the Company but also at each stage from the delivery company to the customer’s location, thus greatly reducing the burden of labor on women and the elderly.

* The Smart Pallet® was jointly developed by UPR Corporation and NTT Corporation. Its active tag uses technology that is state of the art and can transmit data to a reader up to 300 meters away. Smart Pallet® is a registered trademark of UPR Corporation.



RISK MANAGEMENT

Basic Approach

Toray Group regularly identifies potential management risks affecting the Group's management activities in order to mitigate risks and seeks to prevent a crisis. In addition, the Group strives to prevent damage from spreading and to promptly control and normalize the situation by ensuring quick and appropriate responses using the emergency quick response system it has established.

Structure

The risks affecting Toray Group are constantly changing, and the Group gives critical importance to reinforcing its system for responding to risks that materialize suddenly due to changes in the surrounding environment and for responding promptly when crises do occur. To this end, in April 2018, Toray established a dedicated organization to communicate closely with the Board of Directors and top management and to pursue risk management as an integral part of the management strategy. This organization manages overall risk under normal conditions and ensures a quick response when crises do occur.

The General Manager of the Corporate Strategic Planning Division periodically reports on the progress of risk management to the Board of Directors, and also reports on important emergency matters whenever such occur to the Board of Directors without fail.

Establishment of Risk Management Committee

In May 2018, Toray established the Risk Management Committee, which is chaired by the General Manager of

the Corporate Planning Division (Executive Vice President), tasking it with reviewing, discussing and promoting shared awareness of risk management across the entire Toray Group. This committee primarily carries out priority risk mitigation activities as part of regular risk management. In addition, the Overseas Crisis Management Committee and Local Crisis Management Committees, which manage employees' overseas travel under normal conditions and compile information on overseas risks, have also been made subordinate to the Risk Management Committee. Matters deliberated at and reported by the Risk Management Committee are periodically reported to the Board of Directors.

Strengthening the Emergency Quick Response System

Toray Group has established Risk Management Regulations, a set of clear fundamental principles that form the basis of a company-wide response in the event of a major crisis. The Group works to ensure the thorough implementation of these rules when required. Moreover, the Group reviews the rules as appropriate to prepare for new risks that emerge due to changes in the social environment.

In order to ensure quick management decisions especially in the event of a crisis, Toray Group has clarified the reporting channel from a department where a crisis has occurred, covering group companies in and outside of Japan.

In recognition of the fact that serious risks associated with employees' health and safety, as well as with business continuity, have grown dramatically following the emergence of COVID-19, the Group established a Company-wide Countermeasures Headquarters, for which the Executive Vice President (Representative Member of the Board) serves as chief, on February 7, 2020, based on the mechanisms of this Emergency Quick Response System. The Company-wide Countermeasures Headquarters has taken the lead on implementing the following measures in light of infection prevention instructions and requests made by the countries and local governments where the Group's business sites are located.

- Plan and execute measures to protect the safety of employees
- Ascertain the health of employees in each country, including Japan, and make an appropriate response when an employee becomes infected
- Provide appropriate support for domestic and overseas group companies, etc.

Risk Management System (After June 2019)



Risk Management Initiatives

1. Periodic risk management (priority risk mitigation activities)

Toray Group exhaustively identifies group-wide risks (climate change, natural disasters, legal violations, scandals, etc.) and identifies important risks after carrying out an assessment to determine the relative importance of each risk. Ultimately, priority risks are determined after consulting with the Risk Management Committee.

Priority risks are addressed with risk mitigation activities following the PDCA cycle over a three-year period. In the priority risk mitigation activities for the fourth cycle (fiscal 2018-2020), Toray set quality management, earthquake response, information management and socially responsible procurement, among others, as its priority risks. These efforts extend to the Group overall, including group companies in and outside Japan.

Toray assigns a department responsible for each priority risk and integrates group-wide activities using a three-year road map for risk mitigation activities as well as an annual activity plan. In addition, the results of the

annual activities for Toray Group overall are reported to the Risk Management Committee every year, and the status of progress status is monitored. Toray discusses and establishes an annual activity plan for the next fiscal year that addresses the monitoring results and any new risks that have materialized due to changes in the environment.

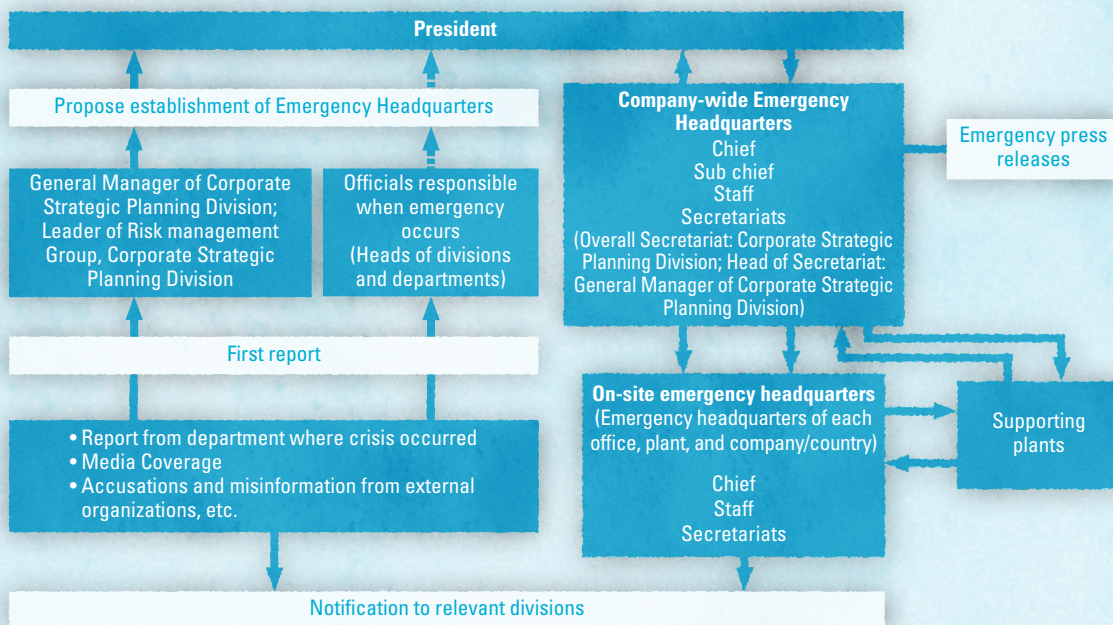
2. Routine risk management (monitoring trends in and outside Japan, identifying, assessing and monitoring risks)

Toray routinely monitors domestic and overseas trends and identifies risks that could have a major impact on Toray Group's management. When such risks are identified, the Company promptly develops a company-wide system to address them and takes the necessary group-wide countermeasures.

3. Response in the event of a crisis

Based on the Risk Management Regulations, a company-wide quick response system (Company-wide Emergency Headquarters) is formed to respond to the crisis that has occurred.

Emergency Quick Response System



Risk Management

Business Risks

Operational and other risks faced by Toray Group that could have a major influence on the decisions of investors are described below. Toray Group works constantly to avoid such potential risks, minimize their impact, and build a system to enable swift responses and accurate information disclosure on the occurrence of unforeseen situations.

Please note that the risks described below are not all of those identified by Toray Group, and do not represent all the operational and other risks that could affect Toray Group.

- Domestic and overseas demand and product market trends
- Rising prices of fuel and raw materials
- Capital expenditures, joint ventures, alliances and acquisitions, etc.
- Fluctuations in foreign currency, interest rate, and the securities market
- Changes in assumptions on which forecasts are based that might affect employee retirement benefit obligations and deferred tax assets
- Overseas operations
- Product liability
- Lawsuits
- Laws and regulations, taxes, competition policies, and internal controls
- Natural disasters and accidents
- Information security risks
- Environmental issues
- COVID-19

Addressing Fluctuations in Exchange Rates

Foreign currency exchange rate fluctuations affect Toray Group's consolidated financial statements when the financial statements of the overseas operations presented in local currencies are translated into yen. Toray Group takes measures, such as entering forward exchange contracts, to alleviate risks associated with transactions denominated in foreign currencies. However, unforeseen exchange rate fluctuations could have an impact on Toray Group's results of operations and financial conditions.

In response to currency rate fluctuations, Toray Group utilizes its strength of maintaining business bases throughout the world while encouraging local production for local consumption. At the same time, by flexibly

carrying out global operations, Toray Group is striving to build a management structure that is well-shielded from the impact of exchange rate fluctuations. Moreover, Toray Group works to gather information regarding currency movements in each country (region), while at the same time monitoring the exchange rate exposure of group companies and their hedge position as part of its efforts to mitigate currency exchange risk.

Addressing Risks Related to Overseas Operations

Toray Group is developing a broad geographical presence, with operations in various countries/regions such as Asia, Europe and the U.S.A. Some of the major potential risks associated with various regions are summarized below. If such risks were to become reality, Toray Group's results of operations and financial conditions could be negatively affected.

- (1) Unforeseen introduction, changes or abolition of laws and regulations, such as changes in taxation systems and tariffs which affect adversely
- (2) Unforeseen, disadvantageous economic or political events
- (3) Social upheaval, including acts of terror and war

When making decisions regarding investments related to the overseas operations, Toray Group collectively considers and carefully investigates the investment country (region) in terms of the current and long-term outlook for the political, economic, and social climate, the organizational status of the legal system, and the development status of the regional economic sphere. During the investment execution period, Toray Group also references the execution plan (progress schedule), which integrates the local political, economic, security, and legal system related risk items, that was formulated when the investment decision was made, and makes periodic follow-ups regarding the progress status of the project. Moreover, once the investment project is completed, the latest information for each region is acquired and information related to country risk, including safety issues, is shared throughout the Group.

Addressing Major Earthquakes

Toray Group maintains a business continuity plan (BCP) in case of a major earthquake, which has been identified as a priority risk to address.

Toray Group has established a basic policy for ensuring business continuity in the event of a major earthquake. Namely, Toray Group prioritizes the safety of its employees and preventing any impact on the local community, strives to prevent the further spread of damage and the event of secondary disasters, continues to supply key products and works toward a rapid recovery of business operations, and fulfills its social responsibility to continue supplying products. As part of this process, Toray Group continues to conduct evacuation drills in the event of an earthquake, make systematic quake-resistant upgrades to plant buildings, and draft BCPs.

In fiscal 2019, domestic and overseas group companies also created and began implementing BCPs for key products selected from each business in accordance with the procedures for developing BCPs for designated priority products in an earthquake.

In addition, Toray Group has conducted drills to establish a temporary group-wide headquarters based on a scenario involving a large-scale earthquake every year since fiscal 2012. Going forward, Toray Group will continue to enhance its ability to respond in the event of an earthquake through such drills.

Addressing Information Security Related Risks

Toray Group's information systems and networks are fundamentally essential elements in the execution of the Group's business operations and every security precaution is taken in their development and operation. However, if such an incident as a work stoppage, a loss of trust in the Group, and a leak of confidential information were caused by unauthorized access, data alteration, theft or deletion, an interruption of system operations, or any other information security threats, Toray Group's earnings and financial conditions could be negatively affected.

Toray formulated its Confidential Information Management Regulations and Regulations for the Management of Personal Information for the purpose of protecting confidential information and personal information owned by the Company, and of appropriately managing the confidential information and personal information entrusted by suppliers and stored by the Company.

Based on these regulations, the Company established the Group-wide Information Security Management Director as the officer responsible for the entire Group. The Group-wide Information Security Management Director discusses and coordinates measures related to enhancing information security with the related departments, and promotes the deployment of such. Under the Group-wide Information Security Management Director, the Group is working to enhance information security by defining the roles and responsibilities of each division and department, and by establishing an Information Security Committee in each department to promote these.

In terms of the electronic information security sector, which has been faced with growing risk of late, the Group formulated the Electronic Information Security Standards based on the Confidential Information Management Regulations in order to appropriately manage intellectual property and to implement measures designed to prevent information leaks.

Moreover, each group company formulates basic rules in accordance with Toray's regulations and standards, and promotes measures related to information security.

Along with thoroughly implementing and enhancing existing initiatives, such as standardizing and automating computer settings and security measures, the Group is taking steps that include analyzing and monitoring the content of communications.

Simply taking steps against increasingly sophisticated cyber-attacks from the stance of IT is insufficient, however, so the Group also enhances education and training initiatives, which include conducting suspicious e-mail response training for all employees.

In addition to providing information security education for all employees on an annual basis, the Group conducts training specified for employees at different levels, including new employees and newly appointed managers, in aims of improving security awareness and skill-levels.

Before removing a computer or smartphone from an office, for example, employees must receive permission from a manager, and the actual device must be inspected monthly. Moreover, the Group has established approaches to dealing with the loss of such devices and other similar incidents, and has built mechanisms to minimize damage thereof.

TCFD-RELATED INITIATIVES

Support for the TCFD Recommendations

One of Toray's goals is to be a corporate group playing an active role in protecting the environment. With that in mind, the entire Group is committed to creating innovative technologies and advanced materials that provide the essential solutions to global environmental issues. The Group is also focused on reducing environmental impacts throughout the entire global supply chain, including at the production stage. In May 2019, Toray declared its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, and has been actively disclosing our progress toward meeting our climate change-related targets, as well as information regarding our Green Innovation business, research and technological development, and other topics.
 URL: <https://www.toray.com/sustainability/tcfd/>

Governance System

Three group-wide committees—the CSR Committee, the Risk Management Committee, and the Safety, Health, and Environment Committee—monitor, evaluate, and manage social challenges, including climate change, and the associated risks at Toray Group. Under this structure, the Board of Directors receives reports on committee discussions, overseeing committee practices and making decisions. In addition to this structure, the Global Environment Business Strategic Planning Department reports on global environmental initiatives and presents proposals for expanding Green Innovation businesses at meetings attended by the Board of Directors twice a year.

CSR Committee	Chaired by the Chief CSR Officer (Corporate Vice President), this committee discusses CSR-related issues centered on ESG and promotes Toray Group CSR-related activities. (Meeting held once a year)
Risk Management Committee	Chaired by the General Manager of the Corporate Strategic Planning Division Executive Vice President (Representative Member of the Board), this committee discusses critical risks that may affect Toray Group operations, including climate change, and promotes Toray Group risk management. (Meeting held once a year)
Safety, Health, and Environment Committee	Chaired by the General Manager of the Manufacturing Division (Senior Vice President), this committee discusses Toray Group policies and measures related to safety, health, accident prevention, and the environment and promotes Toray Group safety, health, accident prevention, and environmental activities, including the reduction of greenhouse gas emissions. (Meeting held once a year)

The expansion of our Green Innovation business, which contributes to the resolution of global environmental problems as well as energy and resource issues, is led on a company-wide basis by the Global Environment Business Strategic Planning Department, which operates under the control of an Executive Vice President (Representative Member of the Board).

In regard to reducing emissions at the production stage, under the leadership of the Corporate Vice President, General Manager of the Engineering Division, our goal is to reduce greenhouse gas emissions and water consumption per unit of sales by 30% compared to fiscal 2013 by fiscal 2030.

Toray Group Efforts in Response to Climate Change

In the Toray Group Sustainability Vision, Toray Group describes four perspectives of the world it envisions for 2050, including a “net zero emissions world, where greenhouse gas emissions are completely offset by absorption,” and also sets out issues to be addressed to achieve this and quantitative targets for fiscal 2030.

	FY 2013 Actual (baseline year) (J-GAAP)	FY 2030 Targets (compared to FY 2013) (IFRS)
GR Net sales, Revenue	463.1 billion yen	4 fold
LI Net sales, Revenue	119.6 billion yen	6 fold
Avoided CO ₂ emissions	40 million tons	8 fold
Contributed annual water filtration throughput	27.23 million tons/day	3 fold
Greenhouse gas emissions per unit of sales, revenue in production activities	33.7 tons/billion yen	30% reduction
Water consumption per unit of sales, revenue in production activities	1,520 tons/billion yen	30% reduction

Reducing Emissions at the Production Stage

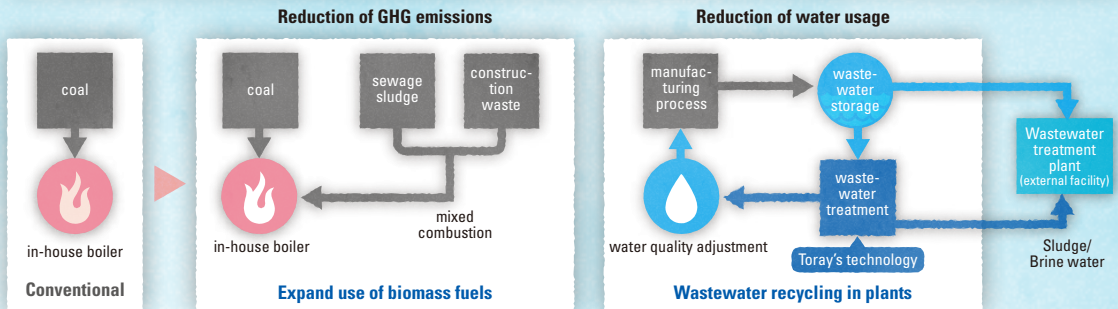
Numeric targets for achievement by 2030 in the Toray Group Sustainability Vision include reducing in greenhouse gas emissions and consumption per unit of sales by 30% compared to fiscal 2013, which we aim to achieve through the launch of the company-wide “Challenge 30 Project*.” We have also formulated and implemented specific action plans with the goal of reducing CO₂ emissions at the

production stage, including through the reduced use of coal, enhanced use of renewable energy, and reduced energy consumption through process improvements.

* The Challenge 30 Project is the successor to the in-house project Challenge 25, focused on Toray and its domestic affiliated companies. The project, expanded and promoted on a group-wide basis, adds a focus on water utilization and includes overseas affiliated companies.

Challenge 30 Project

- Implement regular energy-saving activities with stronger cooperation between sites in and outside Japan, and adopt successful case studies across the Group
- Reduce usage of coal by increasing the usage of biomass fuels etc.
- Promote wastewater recycling, etc. with Toray Group's water treatment technologies

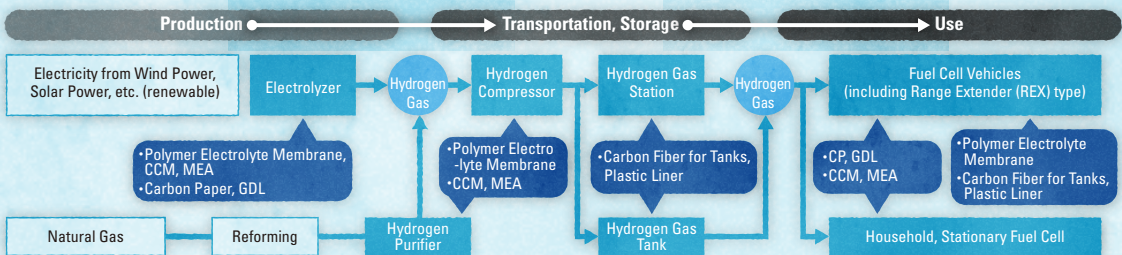


Research and Development to Realize a Hydrogen-based Society

The "AP-G 2022" plan aims to invest ¥220 billion in research and development for large-scale themes over the three years from fiscal 2020 to fiscal 2022. Half of that amount is allocated to the Green Innovation business, with one of the key themes being the promotion of research and technological development in hydrogen and fuel-cell materials. Toray is expanding its business through R&D in numerous products used in the

production, transport, storage, and utilization of hydrogen. As an example, in the field of polymer electrolyte fuel cells, which are used in fuel cell vehicles, Toray is upgrading production facilities for catalyst coated membranes (CCM) and membrane electrode assemblies (MEA), which are considered core components. Through the supply of these products and the development of their technologies, Toray aims to contribute to the realization of technologies for the manufacture and utilization, including in infrastructure, of hydrogen, and the creation of a sustainable low-carbon circular economy.

Promote R&D of various products for the realization of a low-carbon circular economy



Toray products & developing products CP: Carbon Paper, GDL: Gas Diffusion Layer, CCM: Catalyst Coated Membrane, MEA: Membrane Electrodes Assembly

Risk Management Initiatives

Because Toray's business is so diverse in terms of products and their applications, we are looking to focus our risk and opportunity analysis on product groups with strong revenue

and climate change-related applications. For assumptions regarding environmental changes through 2050, we will reference the reports from the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC).

ENVIRONMENTAL MANAGEMENT INITIATIVES

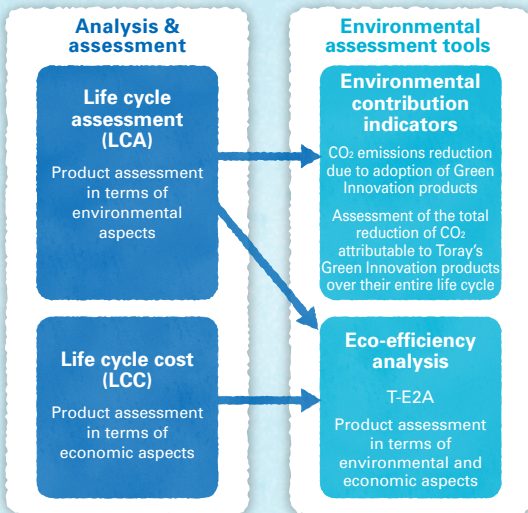
Promoting Life Cycle Management

In addressing global environmental issues, it is vital to consider the entire life cycle of products and services in order to reduce environmental impact while also delivering improved economic and social value. In this respect, Toray Group practices life cycle management (LCM). LCM is the basis for Green Innovation products, and the Group has adopted life cycle assessment*¹ and the Toray Eco-Efficiency Analysis (T-E2A)*² tool and is working to establish LCM as a tool to measure CO₂ reduction in the entire life cycle of products and services. Those products that are able to demonstrate objective evidence of providing an effective solution for global environmental issues are certified as Green Innovation products, only after the products are subjected to a two-stage screening process by the divisional committees and the group-wide Green Innovation Certification Committee.

*1 Life cycle assessment is a method for quantitatively assessing the resources that have gone into a product and the impact the product will have on the environment and ecosystems over its life cycle.

*2 T-E2A is an environmental analysis tool developed by Toray Industries, Inc. It produces a map of multiple products plotted along the axes of environmental impact and economic performance, enabling users to select the most environmentally friendly and economical products.

Toray's Life Cycle Management Approach

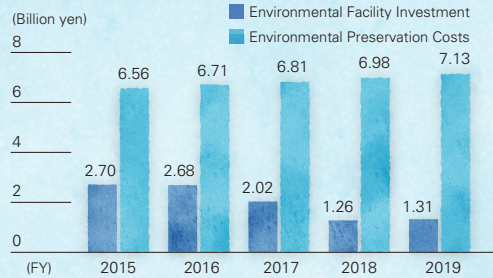


Environmental Accounting

Toray has been practicing environmental accounting since 1999, to track investments and gauge their cost effectiveness.

In fiscal 2019, the Company's environmental facility investment amounted to 1.31 billion yen, up 50 million yen compared to the previous fiscal year. Environmental preservation costs totaled 7.13 billion yen, up 0.15 billion yen compared to the previous fiscal year.

Environmental Facility Investment and Environmental Preservation Costs



Addressing Climate Change

Reduction of greenhouse gas emissions per unit of sales (compared to fiscal 1990)

31.8% reduction

Toray has established "Reducing more than 15% below the fiscal 1990 level, and maintaining that level until fiscal 2020" as its goal for reducing greenhouse gas emissions, and the Company is continuing to implement its targeted measures aimed at reducing emissions. In fiscal 2019, the Company reduced CO₂ emissions by 95,000 tons compared to the previous fiscal year. Toray has continued to meet its target for reduced emissions, with greenhouse gas emissions dropping 4.8% year-on-year to 1.86 million tons, which was a 27.1% reduction compared to fiscal 1990. While expecting increased production moving forward in line with an expansion in its business, the Company will continue to implement measures designed to ensure that it meets its reduction target until fiscal 2020.

With the goal of reducing greenhouse gas emissions by fiscal 2020 on a per unit of sales basis by 15% compared to the fiscal 1990 level, Toray and its group companies in Japan are committed to curbing climate change. Emissions of greenhouse gas by Toray and its group companies were down 5.6% in fiscal 2019 compared to the previous fiscal year. Greenhouse gas emissions per unit of sales improved 2.1 points compared to the previous fiscal year and were 31.8% below the level shown in the base year.

Fiscal 2019 greenhouse gas emissions for Toray Group worldwide were 5.76 million tons-CO₂ equivalent, up 2.3% compared to the previous fiscal year. All Toray Group manufacturing companies and plants will work to achieve the Group's goal of reducing the per-unit energy consumption rate* by 2% each fiscal year and strive to reduce greenhouse gas emissions throughout the Group.

*Energy consumption per converted unit of production volume

Energy Conservation Measures

Energy Consumption (year-on-year)

4.0% decrease

Toray is vigorously working on energy conservation activities with the goal of reducing its per unit energy consumption by 2% annually. In fiscal 2019, the Company's energy consumption was down 4.0% year-on-year due mainly to decrease in production volumes at some of its plants. Meanwhile, its per-unit energy consumption deteriorated 3.1% year-on-year (14.1% improvement compared to fiscal 1990 base year) as the ratio of fixed energy which do not contribute to production increased, due to lower production volumes.

Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances

Atmospheric Emissions of PRTR Law-specified Substances (compared to fiscal 2000)

73% reduction

VOC Atmospheric Emissions (compared to fiscal 2000)

76% reduction

As a corporate group that does business in the chemicals sector, Toray Group places the highest priority on reducing emissions of chemicals into the atmosphere in order to reduce its environmental impact. In fiscal 2019, Toray Group's atmospheric emissions of PRTR Law-specified substances were 720 tons, representing a 73% reduction compared to fiscal 2000, while VOC atmospheric emissions were 968 tons, representing a 76% reduction compared to fiscal 2000. As such, the company met its Fifth Medium-Term Environmental Plan target for a 70% reduction in emissions compared to fiscal 2000.

Initiatives to Prevent Air and Water Pollution

Toray Group implements ongoing initiatives at production sites to reduce sulfur oxide (SOx) emissions by installing desulfurization equipment and converting to cleaner fuels, and reduce chemical oxygen demand (COD) by expanding wastewater treatment facilities.

Management of Air Quality

For fiscal 2019, the Toray Group as a whole reported a 27% decrease in sulfur oxide (SOx) emissions compared to the previous fiscal year, but increases of 6% in nitrogen oxide (NOx) and 32% in dust emissions. SOx emissions improved thanks to the use of low-sulfur coal at overseas affiliated companies, while NOx and dust emissions increased due to increased production at certain plants.

Management of Water Resources

Through its water treatment business, Toray Group has been working to resolve water resource issues around the world. We are also working to appropriately manage and make effective use of water in our own business activities by promoting its recycling and reuse. When taking in and using water resources, we strive to follow the 3Rs (reduce, reuse, and recycle), and check the quality of water before discharging it into public water areas. In particular, overseas affiliated companies operating in drought areas are recycling cooling water and effluent water as they work to reduce industrial water consumption. In fiscal 2019, Toray Group used 230 million tons of water, about the same as in the previous fiscal year. Compared to the amount used per unit of sales in fiscal 2001, set to an index value of 100, usage in fiscal 2019 stood at 51.7 points, representing a deterioration of 0.7 points from the previous fiscal year. This is due to decrease in the net sales of the Group, while water usage remained at the same level.

Initiatives to Reduce Waste

Toray Group is carrying out zero emission initiatives as it works toward the realization of a sustainable, circular economy. Under the Fifth Medium-Term Environmental Plan, the Group worked to achieve its fiscal 2020 targets for rates of simply disposed waste^{*1}, landfill waste^{*2} and recycled waste^{*3}, which have been set as indicators for measuring progress toward attaining zero emissions.

In fiscal 2019, simply disposed waste increased by about 4,600 tons compared to the previous fiscal year in line with the effects from the narrowing down or suspension of operations at domestic affiliated companies' plants. As a result, the simply disposed waste rate in fiscal 2019 for Toray Group as a whole deteriorated 3.0 points from the previous fiscal year to 24.6%, which failed to meet the target of less than 22.5%. In addition, the landfill waste rate for the Toray Group as a whole was 8.3%, deteriorating from previous year's 7.3%. The

Environmental Management Initiatives

increase in simply disposed waste value appears a temporary development due to the removal of a production plant of a domestic affiliated company due to its termination of business, but this is confined to fiscal 2019. As such, the Company expects an improvement from fiscal 2020. While the recycling rate was impacted by the removal of a production plant of a domestic affiliated company due to its termination of business, ongoing efforts to promote recycling at overseas affiliated companies resulted in the Toray Group recycling rate improving 0.7 points from the previous fiscal year to 86.4%.

*1 Simply disposed waste rate = (incineration +landfill) / total waste

*2 Landfill waste rate = landfill waste / total waste

*3 Recycling rate = (recycled resources + resources with monetary worth) / (total waste + resources with monetary worth)

Biodiversity Initiatives

Toray Group views conservation of biodiversity as a critical global environmental issue that is of equal importance to reducing greenhouse gas emissions, as an important theme regarding global environmental problems, and pursues biodiversity initiatives in accordance with a three-year action road map and sets its priorities based on the Group's Biodiversity Initiatives. In fiscal 2019, the Company promoted activities aimed at reviewing raw materials containing biological ingredients.

Plants at Toray and Group companies in Japan operate greenery policies and plans through around 2020, guided by Toray Group Basic Policy for Increasing Green Areas*1. The plans encompass initiatives to conserve green areas as much as possible, including healthy natural forests*2, that have been protected since the plants began operating.

*1 Toray Group Basic Policy for Increasing Green Areas was established in 2012, evolving out of greenery policies that were first established in 1973.

*2 Natural groves or forestation by species based on potential native vegetation

Progress on the Fifth Medium-Term Environmental Plan

Toray Group is now implementing its Fifth Medium-Term Environmental Plan, which runs from fiscal 2016 to fiscal 2020. The plan aims to further reduce the Group's environmental impact. Amid further projected increases in production volumes for products such as high-performance films, the Group will continue to pursue environmental initiatives in order to achieve the challenging targets of the new plan. The Company announced the Toray Group Sustainability Vision in July 2018, and will continue in its efforts to reduce emissions from fiscal 2020, in order to achieve its targets.

Progress on the Fifth Medium-Term Environmental Plan Target

Area	Toray Group fiscal 2020 target	Fiscal 2019 results
Curbing global warming	Maintain greenhouse gas emissions at least 15% below the fiscal 1990 level (Toray)	27% reduction
	15% or greater reduction in greenhouse gas emissions per unit of sales compared to fiscal 1990 (Toray Group in Japan)	32% reduction
Management of chemical substances	Atmospheric emissions of PRTR Law-specified substances: Maintain at least 70% below the fiscal 2000 level (Toray Group)	73% reduction
	Atmospheric emissions of volatile organic compounds (VOCs): Maintain at least 70% below the fiscal 2000 level (Toray Group)	76% reduction
Waste reduction	Zero emissions goal: Achieve at 45 or more Toray Group plants	Achieved at 44 plants
	Simply disposed waste rate: 22.5% or lower (Toray Group)	24.6%
	Recycling rate: Maintain at 86% or more (Toray Group)	86.4%
	Landfill waste rate: 1.3% or lower (Toray Group in Japan)	8.3%

HUMAN RESOURCES MANAGEMENT

Committed to Human Rights

We at Toray Group believe respect for human rights is a mandatory management principle for ensuring the continuity of corporate activities and building positive relationships with all of the Group's stakeholders. Along with working to promote and raise awareness of human rights, the Group has declared its commitment to the respect of human rights in its Corporate Guiding Principles and Ethics & Compliance Code of Conduct. In the Code, discrimination of any kind based on race, creed, skin color, gender, religion, nationality, language, physical characteristics, socioeconomic status, place of birth, or any other personal characteristics, is strictly forbidden in every process from recruiting and hiring to work placement, treatment, training, and retirement. The Ethics & Compliance Code of Conduct also explicitly states that sexual, maternity, and power harassment in the workplace shall not be tolerated. The Group has also been tackling the issue of discrimination based on gender identification and sexual orientation. In January 2017, the Group established a dedicated hotline for LGBT (sexual minority) issues, Nijiro Consultation Service. In addition, as a global enterprise, the Group respects international norms such as the Universal Declaration of Human Rights, the International Labor Organization's conventions, and the UN Guiding Principles on Business and Human Rights. The Group has also established the Toray Group Policy for Human Rights, which lays out the Group's commitment to ensuring that it is not complicit in any human rights violations in the overall supply chain and to promptly and appropriately addressing issues if and when they arise.

Identifying, Assessing, and Preventing Human Rights Risk

Toray Group conducts surveys related to awareness, education, and other human rights promotion activities once per year at all offices and plants, major Group companies in Japan, and overseas subsidiaries and affiliated companies. The Group verifies the results of these through the Human Rights Promotion Committee in Japan and the Global Human Rights Promotion Committee. From among the results, the Group identifies human rights related issues and problematic points, as well as points of concern, and investigates and implements initiatives in accordance with the human rights promotion framework. Moreover, the Group has designed systems (Corporate Ethics and Legal Compliance Helpline in Japan and whistle-blowing contact offices at each overseas company) that enable Group employees to report and consult on human rights issues as part of its efforts to take prompt, appropriate action when a problem occurs and to help reduce human rights risk.

Securing and Developing Human Resources to Create New Value

Training Expenditures per Employee

96,821 yen (Toray, FY 2019)

The success or failure of a company is decided by its people—employees shape its destiny. Guided by this concept, Toray Group, both in and outside of Japan, regards human resources as the most important management resources and considers securing and developing outstanding human resources capable of performing on a global stage as a fundamental management priority. Based on the following four goals, Toray Group is promoting human resource development.

- **Development of fair-minded individuals who act with high ethical standards and a sense of responsibility**
- **Training of professionals with advanced expertise, technical skills and originality in problem solving**
- **Development of leaders who act with foresight and a sense of balance**
- **Development of individuals, professionals, and leaders who can play an active role in global business**

Systematic and Effective Training

Toray develops well-designed training programs and systematically executes diverse training programs to enhance management, sales and marketing, production technology, and specialized skills, and to better equip employees to address globalization. These programs cover all levels of employees and fields, aiming to develop future management candidates while expanding and educating the base of core staff ready to employ their strong capabilities to lead on the frontlines.

Development of Future Management Candidates

Toray Group implements training in order to systematically develop future management candidates. Numerous employees who have undergone the training are already active in management positions.

Since fiscal 2014, Toray Group has been working on a succession plan and personnel development plan based on a medium- and long-term perspective and drawing up a medium-term human resources plan and practicing systematic personnel assignment to ensure that core staff can tackle important business issues. The Group implements human resources strategies designed to support business strategies by verifying the availability of successor candidates for core positions and developing individualized development plans for future management candidates, including for national staff at group companies outside Japan. As a means of strengthening these efforts, in fiscal 2019 the Group began utilizing a new human resources information infrastructure in the formulation of its medium-term human resource plan.

Human Resources Management

Promoting Diversity

Toray Group is committed to securing outstanding human resources who have a high sense of ambition and who can play an active role in global business, regardless of gender, nationality, or career history at the time of hiring, as part of our efforts to build thriving workplaces in which a diverse range of individuals can fully demonstrate their potential.

Fostering an Organizational Culture Conducive to the Career Advancement of Women

Women in Management Positions

5.1% (Toray, FY 2019)

Toray has long advanced the creation of workplace environments in which women will feel comfortable in performing their duties. The number of female employees in upper-level positions has increased steadily, and as of April 2020, women held 9.7% of unit manager or higher positions, and 5.1% of section manager or higher positions. In fiscal 2016, based on Japan's Act on Promotion of Women's Participation and Advancement in the Workplace, enacted in that same year, Toray developed an action plan to increase the percentage of female employees promoted to managerial positions by focusing on making and steadily implementing individualized career plans and raising awareness of career development. Under this action plan, Toray has set as its immediate target to ensure an average promotion rate for women that is at least 80% that of men* for the five-year period from fiscal 2016 to fiscal 2020. This figure is the Japanese Ministry of Health, Labour and Welfare's yardstick for determining whether or not excessive discrepancy exists based on gender. Specifically, Toray will take the following measures to achieve this goal:

- Request individualized career plans each year to be faithfully followed;
- Conduct morale surveys every other year and follow up on issues requiring attention; and
- Bolster training designed to raise awareness of career building.

*Promotion rate of women to managerial positions compared to that of men = Percentage of female employees promoted to managerial positions / Percentage of male employees promoted to managerial positions
Percentage promoted to managerial positions = Individuals promoted to managerial positions / No. of employees who were initially hired into the G Course who are eligible for promotion to managerial position that year

Holding Career Advancement Seminars for Women Serving as Managers and Occupational Specialists, and Discussion Meetings

In 2014, women serving as general managers at the Toray Group developed and initiated a career advancement seminar for women serving as managers and occupational specialists, and it has now been held five times. Since fiscal 2016, the seminar participants have organized discussion meetings for women annually at all of Toray's offices and plants in Japan. Open to all women at Toray, the meetings offer an opportunity for women in all workplaces of various ages and at various stages of life to talk honestly about balancing work and home life, sharing and educating each

other about the challenges and issues they face.

Employment of Persons with Disabilities

Percentage of Companies Achieving Legally Mandated Employment Rate of Persons with Disabilities

61.3% (Toray Group (Japan), FY 2019)

Toray Group hires and employs persons with disabilities, from those with physical challenges to persons with intellectual and mental challenges. The Group is making workplace improvements to remove physical barriers for persons with handicaps as well as instituting safety measures. Additionally, the Group provides comprehensive training upon work placement and gathers feedback from persons with disabilities to make workplace improvements. Further, Toray meets Japan's legal minimum of 2.2% persons with disabilities, as do 61.3% of Toray Group companies in Japan. Group companies actively seek to hire persons with disabilities through public organizations and job placement agencies. However, some individual group companies do not meet the mandated legal requirement due to hiring difficulties.

Creating a Positive Workplace for Employees

Helping Employees Maintain Work-life Balance

Percentage of Available Annual Paid Leave Used by Employees

96.0% (Toray, FY 2019)

Toray has worked to further improve systems that help employees achieve a harmonious balance between work and family life by offering a wider variety of lifestyle options for both men and women. In particular, the systems Toray provides for childcare, family care, and maternity protection exceed the legally mandated minimums and have been improved for easy use. In 2007, Toray was certified as an employer that complies with the action plan standards under the Act on Advancement of Measures to Support Raising Next-Generation Children.

Toray has also been working on ongoing initiatives to cut overtime hours and to encourage employees to take annual paid leave.

Employee Health

Toray views employee health management as a management priority, and thus actively implements measures that encourage employee health, including sharing health information over the intranet, holding participatory events that utilize health related information sites, and organizing awareness seminars for the prevention of lifestyle-related diseases. Toray is also addressing mental health, and since fiscal 2011 the Company has been independently implementing employee stress check-ups through an external provider. Toray uses the results of these check-ups in helping employees to recognize their own stress levels, supporting approaches to dealing with stress, and improving the workplace environment. In recognition of these efforts, Toray has received Health and Productivity Management Organization certification since 2018.

CSR ROAD MAP 2022

Toray Group has designated implementation leaders for each of the 10 areas including corporate governance, ethics and legal compliance, safety, accident prevention, and environmental preservation, human rights, human resource development, and social contribution that comprise its CSR Guidelines. These Guidelines serve as guiding principles to be followed when engaging in CSR activities. Moreover, as a CSR promotion plan that is based on a PDCA cycle that in principle is implemented once every three years, we formulate a CSR

Road Map that outlines specific activity details and KPIs for each guideline. Details of our CSR Road Map 2022 were announced in September 2020. Toray Group will embody its Corporate Philosophy, which encompasses the Company Principle and values carried forward since its foundation while at the same balancing the need for sustainable development and contributing to the creation of a sustainable society by promoting these organized and systematic CSR activities together with the Group's management strategies in a uniform manner.

CSR Road Map 2022 and Key Performance Indicators

CSR Guidelines	Key performance indicators	FY 2020 Targets	CSR Guidelines	Key performance indicators	FY 2020 Targets
1 Corporate Governance	Discussions of Toray Group Business Strategies by the Board of Directors (times)	8 times	6 Communication	Number of corporate website page views (per month)	1.0 million page views
	Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)	90%		Interviews to assess the level of internal opinion exchange (Rate of progress)	40%
2 Corporate Ethics and Legal Compliance	Number of major violations of laws or ordinances	0		Number of interviews with major investors attended by top management	80 in total
	Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%)	Audits: Toray, its group companies in Japan and group companies outside Japan Percent that improved: 100% for all audits by the following fiscal year		Number of news releases	200
	Group companies providing information and implementing education on major laws, regulations and other compliance-related matters (%)	100%	7 Contributing Solutions to Social Issues through Business Activities	Revenue of Green Innovation products (IFRS)	1,000 billion yen (FY 2022 target)
3 Safety, Accident Prevention, and Environmental Preservation	Number of major accidents	0		Revenue of Life Innovation products (IFRS)	300 billion yen (FY 2022 target)
	Achieve world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time)	No more than 0.05		Avoided CO ₂ emissions in the supply chain	5.3 fold compared to FY 2013 (FY 2022 target)
	Number of fire and explosion accidents	0		Contributed annual water filtration throughput	2.4 fold compared to FY 2013 (FY 2022 target)
	Number of environmental accidents	0	8 Human Rights Promotion and Human Resources Development	Group companies implementing human rights education and training (%)	100%
	Reduction of greenhouse gas emissions per unit of sales (%)	20% lower than FY 2013 (FY 2022 target)		Group companies that have achieved legally mandated employment rate of persons with disabilities (%)	100%
	Reduction of water consumption per unit of sales (%)	25% lower than FY 2013 (FY 2022 target)		Career development of core staff using the new HR information system (implementation of the "career sheet") (Number of employees, %)	20%
	Reduction of atmospheric VOC emissions (%)	At least 70% lower than FY 2000		Return to work after childcare leave (%)	100%
4 Product Safety and Quality	Waste recycling rate (%)	At least 86% lower than FY 2000	Reduction in the number of employees who work 45 hours per month in excess of non-statutory work hours	Year-on-year disappearance	
	Conducting surveys on the palm oil included in raw materials (%)	Certified product usage survey: 100%	Annual leave taken by labor union members (%)	90%	
	5 Risk Management	Number of product accidents	0	9 Facilitating CSR Initiatives Throughout the Supply Chain	Number of group companies that have requested their suppliers to practice CSR
Group companies implementing product safety and quality assurance education (%)		100%	Suppliers whose CSR initiatives are consistent with those required by Toray Group (Number of companies, %)		More than 70%
Annual follow-up of Toray Group's priority risks (Number of companies, %)	100%	10 Social Contribution Activities	Reduction in CO ₂ emissions per unit of sales from distribution activities (year-on-year)		1%
	Risk management training (Rate of achievement compared with plans at the beginning of the period)		100%		Modal shift to sea or rail for transport across distances for 500 km or more (%)
Annual follow-up of Toray Group's priority risks (Number of companies, %)	100%		Expenditure on social contribution activities as a percentage of the average expenditure over the past six years	More than 100%	
	Risk management training (Rate of achievement compared with plans at the beginning of the period)		100%	Number of social contribution activities implemented	More than 2,500
				Number of employees receiving educational support including workshops and career training	More than 15,000



DISCOVERING SCIENCE
IN OUR EVERYDAY LIVES

Photo: Aozora Science School



Results by Segment for Fiscal 2019

Segments

Summary of Financial Results

Fibers & Textiles

All applications of the segment were affected by the weak market conditions reflecting the prolonged trade friction between the U.S.A. and China, the slowdown in the Chinese economy, and two consecutive years of warm winter.

In Japan, while shipment of apparel and industrial applications remained weak in general, Toray Group pursued sales expansion of materials for uniforms in Japan and for sports applications in the U.S.A. and Europe and focused on strengthening cost competitiveness.

Overseas, demand for apparel applications including garments and textiles as well as automotive applications, the mainstay of the industrial applications, remained sluggish, and Toray Group focused on business structure reform and strengthening of cost competitiveness.

The segment was also affected by the stagnation in production and consumption activities both in Japan and overseas due to the COVID-19 pandemic.

Performance Chemicals

In the resins business, sales of both automotive and home appliance applications were slow primarily due to the impact of the slowdown in the Chinese economy and stagnation of production activities due to the COVID-19 pandemic. The chemicals business was affected by the decline in the basic chemicals market. In the films business, sales of battery separator films for lithium-ion secondary batteries increased reflecting demand growth, while polyester films were affected by the inventory adjustment for optical as well as electronic parts related applications. The electronic & information materials business saw strong performance of OLED related materials and electronic circuit materials.

Carbon Fiber Composite Materials

The Carbon Fiber Composite Materials segment remained strong as a whole. There was an expansion of demand for aircraft application, strong performance industrial application in the environmental and energy-related fields such as compressed natural gas tanks and wind turbine, blades, and recovery in the demand for sports applications.

Environment & Engineering

In the water treatment business, demand for reverse osmosis membranes and other products grew strongly on the whole in Japan and overseas.

Among domestic subsidiaries in the segment, a construction subsidiary was negatively affected by the decline of high profit project orders, and an engineering subsidiary experienced decreases in the shipment of some electronics related equipment.

Life Science

In the pharmaceutical business, sales of orally active prostacyclin derivative DORNER® were affected by the introduction of its generic versions. While sales of pruritus treatment REMITCH®* were also influenced by the introduction of its generic versions, its shipment was strong partly due to the growth in the entire market.

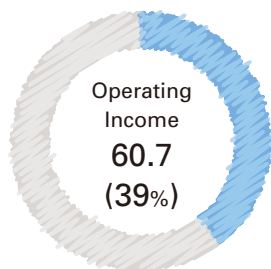
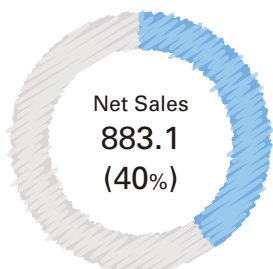
In the medical devices business, shipment of dialyzers grew strongly in Japan and overseas.

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

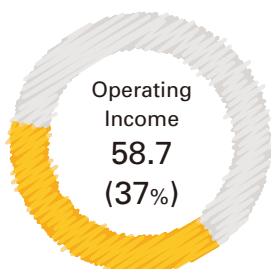
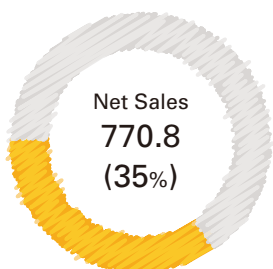
Performance (Billions of yen)

* The figures in parentheses of each segment are composition ratios by segment.

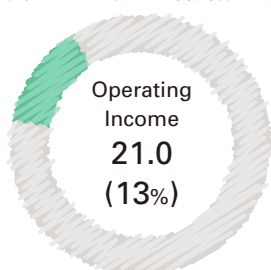
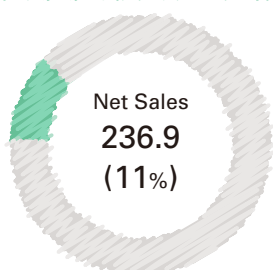
Main Products



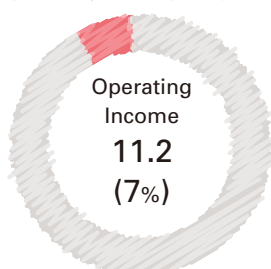
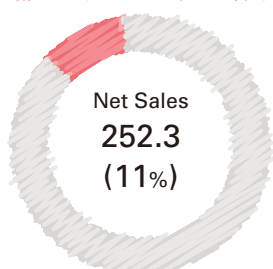
- Filament yarns, staple fibers, spun yarns, woven and knitted fabrics of nylon, polyester, acrylic, and others
- Nonwoven fabrics
- Nonwoven material created using ultra-fine fibers in an "Island in the Sea" configuration
- Apparel products, etc.



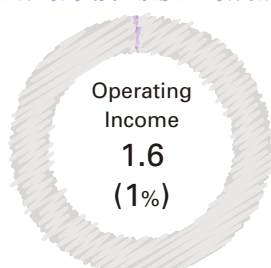
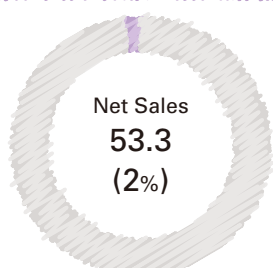
- Nylon, ABS, PBT, PPS, and other resins and molded products
- Polyolefin foam
- Polyester, polyethylene, polypropylene, and other films and processed film products
- Raw materials for synthetic fibers, and other plastics
- Fine chemicals
- Electronic and information materials, and graphic materials, etc.



- Carbon fibers, carbon fiber composite materials, and molded products from those materials, etc.



- Comprehensive engineering
- Condominiums
- Industrial equipment and machinery
- IT-related equipment
- Water treatment membranes and related equipment
- Materials for housing, building, and civil engineering applications, etc.



- Pharmaceuticals
- Medical devices, etc.

*Excludes other businesses, equivalent to ¥18.2 billion (1%) in net sales and ¥3.4 billion (2%) in operating income, and adjustment of operating income of -¥25.5 billion. The composition ratio by segment of operating income is calculated excluding the adjustment amount.

FIBERS AND TEXTILES

Net Sales
(Billion yen)

883.1

Operating Income
(Billion yen)

60.7

Operating Income to
Net Sales

6.9%

ROA
(Operating Income/Assets)

7.9%

Medium-term Management Program “Project AP-G 2022”

Business Environment

- Growing need for advanced materials contributing to the resolution of global environmental, energy, resource issues, and health and longevity
- Changing consumption trends: Greater importance on the “social value of and empathy for goods”
- Changes to the industrial structure: Advancement of the digital revolution

Basic Policies

- Continuously strengthen business structure and expand in growth regions and growth business fields
- Enhance profitability by promoting a differentiation strategy and addressing sustainability

Key Initiatives

Global business expansion (expand in growth regions and growth business fields and promote advancement in business models)

- Expand profitability driven by five businesses of textiles, nonwoven fabrics, airbags, nonwoven material created using ultra-fine fibers in an “islands in the sea” configuration, and integrated business from fiber to textiles and further to garments

Business expansion by addressing sustainability

- Expand materials that address global environmental issues
- Expand materials and products used for medical and healthcare applications

Promotion of global brand strategies

Strengthening business competitiveness, promotion of structural reform and business advancement

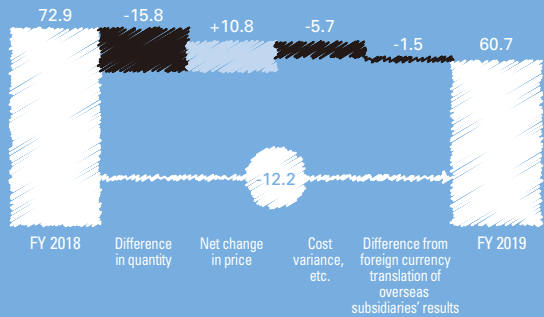
- Promote global re-engineering
- Expand value-added products and enhance the supply chains

Fiscal 2020 Outlook

- The fibers & textiles business will work to expand the integrated business from fiber and textiles to garments; however, due to the impact of the COVID-19 pandemic, demand for apparel applications and industrial applications, including those in the automotive field, is expected to decline. The pace of demand recovery is assumed to remain gradual as inventory adjustments will require time even after the COVID-19 pandemic subsides.
- Demand for nonwovens is expected to increase from hygiene products and mask applications.

Fiscal year ended March 31	2018 (J-GAAP)	2019 (J-GAAP)	Changes	2020 Forecast (IFRS)
Net Sales/ Revenue (billion yen)	974.3	883.1	-9.4%	705.0
Operating Income/ Core Operating Income (billion yen)	72.9	60.7	-16.7%	36.0
Operating Income to Net Sales/Core Operating Income to Revenue	7.5%	6.9%		

Changes in Operating Income (Billion yen)



Acquisition of Alva Sweden AB, a Manufacturer of Automotive Airbag Cushions

In January 2020, Toray acquired all shares of Alva Sweden AB (ASE), a manufacturer of cushions for automotive airbag systems. The global airbag market has seen steady growth in demand against a backdrop of tightening vehicle safety regulations in developed countries and increasing installation rates in emerging countries. Another factor is the rising demand for improved performance in next-generation airbags that stems from the need to address greater safety performance and from the dramatic changes in vehicle interiors being driven by advancements in self-driving and other new technologies.

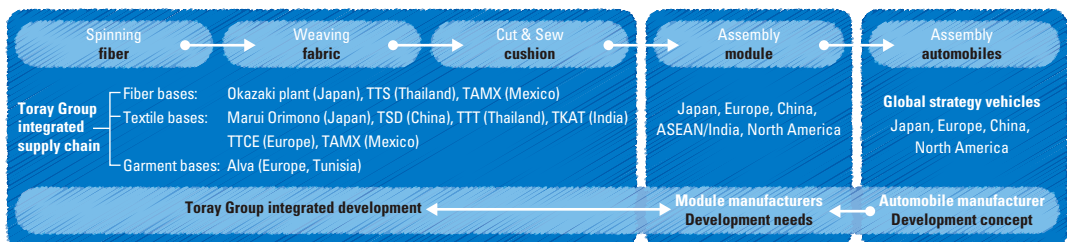
Toray's airbag business encompasses nylon fiber production operations in Japan, Thailand, and Mexico and fabric manufacturing sites in Japan, Thailand, China, the Czech Republic, India, and Mexico. And the Company is building a robust production and sales structure that offers competitive advantages based on integrated fiber and fabric capabilities. This structure maintains the ability to supply the same quality fabrics from all production sites in a timely manner.

Alva has manufactured cushions for automotive airbag systems in Europe since 1997, and has earned an

outstanding reputation among leading European module manufacturers for its proprietary sewing technologies, manufacturing expertise, and cost competitiveness. Although Toray has built positive ties with ASE over the years by supplying fabrics, Toray moved to acquire ASE as a subsidiary in order to extend its supply chain and increase the sophistication of its integrated operations by entering the cushion manufacturing business. This move is also aimed at more quickly responding to changes in the market.

This acquisition enables Toray to enhance direct relationships and dealings with module manufacturers and, through them, automakers, and enables the Company to swiftly and reliably identify the latest airbag development trends and customer needs. Toray also looks to incorporate Alva's cushion-manufacturing expertise into fabric design to bolster product development and proposal capabilities that draw on the Company's strength of fiber, fabric, and sewing integration. The Company thereby aims to help materialize high-performance airbags by heightening its presence among module manufacturers and automakers.

Global Supply Chain for Airbag Business



PERFORMANCE CHEMICALS

Net Sales
(Billion yen)

770.8

Operating Income
(Billion yen)

58.7

**Operating Income to
Net Sales**

7.6%

ROA
(Operating Income/Assets)

6.1%

Medium-term Management Program “Project AP-G 2022”

Business Environment

- Growing need for advanced materials contributing to the resolution of global environmental and energy, resource issues
- Mobility revolution, transformation in the automotive industry
- Advancement of the digital revolution and transition to fifth generation mobile communication systems (5G)

Basic Policies

- Expand sales of high value-added products in growth business fields, boost profitability by creating new products, and address sustainability

Key Initiatives

Resins & Chemicals Business

- Expand high value-added businesses in growth areas such as next generation mobility and 5G, etc., and in growth regions including India
- Strengthen upfront development capabilities, and total solution proposal capabilities

Films Business

- Expand sales of high value-added products in growth business fields including battery separator films, PET films for MLCC release films, and nano-layered films
- Create and expand new products and applications that meet the market changes

Electronic & Information Materials Business

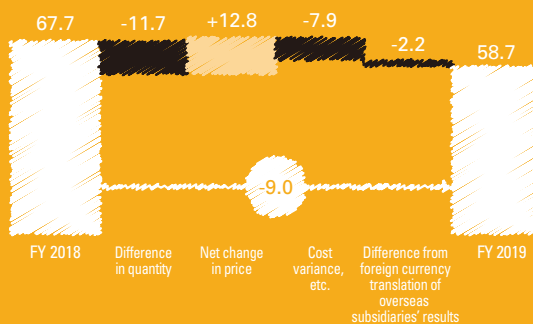
- Create high value-added electronics materials designed to match 5G and IoT by combining core technologies with the latest information in a prompt and timely manner
- Realize continuous business expansion by providing our customers with solutions through advanced materials

Fiscal 2020 Outlook

- The resins business will expand sales of transparent ABS resins and engineering plastics, while the films business will expand sales of high value-added products such as MLCC release films and battery separator films. However, due to the impact of the COVID-19 pandemic, demand mainly in automotive applications is expected to decrease.
- Although the effects of the COVID-19 pandemic will remain throughout the first half of the fiscal year, the electronic and information materials business is expected to see demand recover in the latter half of the fiscal year, and will expand sales of OLED related materials and semiconductor materials.

Fiscal year ended March 31	2018 (J-GAAP)	2019 (J-GAAP)	Changes	2020 Forecast (IFRS)
Net Sales/ Revenue (billion yen)	868.8	770.8	-11.3%	695.0
Operating Income/ Core Operating Income (billion yen)	67.7	58.7	-13.2%	59.0
Operating Income to Net Sales/Core Operating Income to Revenue	7.8%	7.6%		

Changes in Operating Income (Billion yen)



TOPICS

Established a New Battery Separator Film (BSF) Production Facility in Hungary

Toray decided to establish a new production facility for battery separator film (BSF) for lithium-ion secondary batteries (LIB) at Toray Industries Hungary Kft. (THU), which was established in April 2018. The new facility is scheduled to begin operations in July 2021 and thereby increase Toray Group's total BSF production capacity by approximately 20%.

Toray Group already has BSF production facilities at the Nasu Plant in Japan and in the Republic of Korea, where Toray Battery Separator Film Korea Limited (TBSK) engages in development, production and sale of BSF, while Toray BSF Coating Korea Limited (TBCK) handles coating processes. In 2017, Toray announced facility investments to expand capacity in these two locations and new lines have been started up since fiscal 2018.



Groundbreaking ceremony for new factory

Going forward, global demand for BSF is projected to expand rapidly, given steady expansionary trends in consumer applications like mobile electronics and energy storage systems, and the anticipated robust increase in automotive applications as electric vehicles (EV) become more popular. In Europe in particular, where environmental awareness is increasing, it is anticipated that eco-friendly EV vehicles will rapidly spread, and battery manufacturers are also actively entering European markets. Toray has taken the basic strategic approach of "local production for local consumption" in its overseas business development. By locating production facilities in areas close to customers, Toray aims to respond to growing demand and also to contribute to the economic development of local regions and communities.

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CARBON FIBER COMPOSITE MATERIALS

Net Sales
(Billion yen)

236.9

Operating Income
(Billion yen)

21.0

**Operating Income to
Net Sales**

8.8%

ROA
(Operating Income/Assets)

3.4%

Medium-term Management Program “Project AP-G 2022”

Business Environment

- Growing need for advanced materials contributing to the resolution of global environmental and energy, resource issues
- Mobility revolution, transformation in the automotive industry
- Expanding economic utilization of space and sky

Basic Policies

- Maintain the position as world’s No.1 by pursuing high-performance and quality reliability of the products
- Improve capital efficiency and return on investment by capturing market growth

Key Initiatives

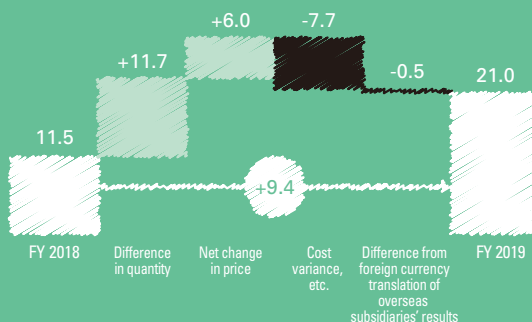
- Thorough recovery of prior investments for growth
- Capture growth in new applications in the mobility fields such as UAM (Urban Air Mobility)
- Capture growth in the expanding energy related fields such as wind turbine blades and fuel cell vehicles (tanks, electrode substrates) applications
- Strengthen solution proposal capabilities aimed to become a “best-in-class solution provider,” and implement appropriate price policies

Fiscal 2020 Outlook

- In addition to lower production volumes at major customers for aerospace applications due to the impact of the COVID-19 pandemic, automotive-related demand is also expected to decline.
- Sales of wind turbine blade applications are expected to be strong.

Fiscal year ended March 31	2018 (J-GAAP)	2019 (J-GAAP)	Changes	2020 Forecast (IFRS)
Net Sales/ Revenue (billion yen)	215.9	236.9	+9.7%	190.0
Operating Income/ Core Operating Income (billion yen)	11.5	21.0	+81.6%	▲7.0
Operating Income to Net Sales/Core Operating Income to Revenue	5.3%	8.8%		

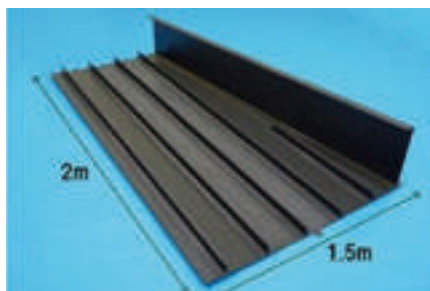
Changes in Operating Income (Billion yen)



TOPICS

Developed Vacuum Pressure Molding Prepreg for Aircraft

Toray developed an innovative prepreg for primary structural aircraft components that enables high-grade carbon fiber reinforced plastic (CFRP) molding with excellent mechanical characteristics without using an autoclave as an intermediate material. The Company will further deepen this new technology to expand demand for high performance CFRP components with low processing cost in various applications including aircraft, vehicles and general industrial use.



An example of a simulated aircraft tail components

In general, CFRP primary structural components, used for commercial aircraft wings and fuselages, are manufactured using an autoclave process that laminates multiple sheets of prepreg composed of carbon fibers impregnated with epoxy resin on a mold and cures the resin by applying heat and high pressure in an autoclave. Although the autoclave method offers the advantage of stable molding of high performance, high-grade CFRP components, it requires high initial capital investments of more than billions of yen and therefore increases the production cost of CFRP components.

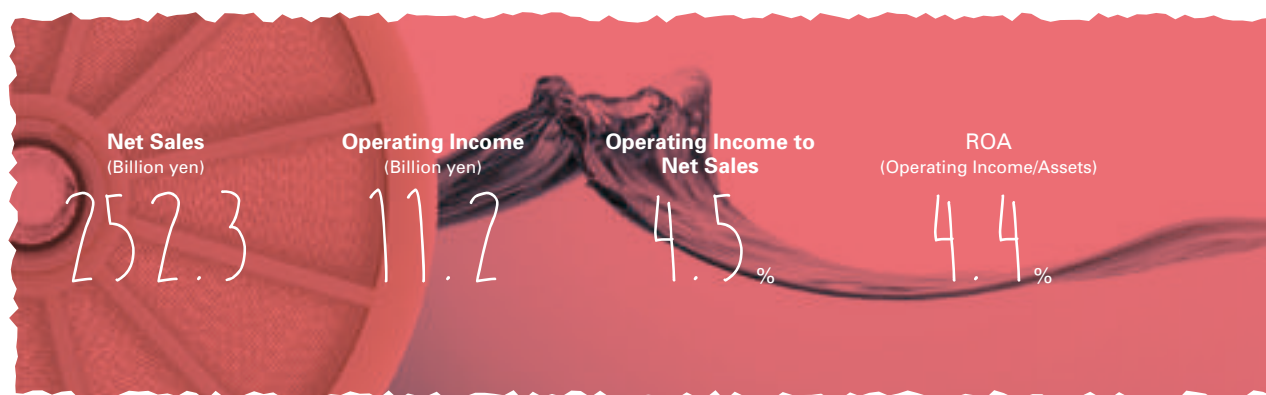
As an alternative to the autoclave method, in 2018

Toray developed a vacuum pressure molding technology in which CFRP is manufactured entirely at atmospheric pressure under vacuum suction and without heating. Toray also recently developed a prepreg that is suitable for this vacuum pressure molding technology. The new prepreg, enabled by a newly developed matrix resin, has a mechanical

performance—post-impact compression strength and tensile strength—equivalent to that of primary structural aircraft components made from existing prepreg molded with the autoclave method. The results of a molding test for a 2m component that simulates a part from an existing aircraft tail assembly and molded using the new prepreg confirmed that such CFRP components are of a level that can clear strict quality control standards for aircraft components.

Part of this successful development is attributable to the “Innovative Structural Materials (Cross-ministerial Strategic Innovation Promotion Program (SIP),” a strategic innovation program of the Council for Science, Technology and Innovation (managed by Japan Science and Technology Agency).

ENVIRONMENT & ENGINEERING



Medium-term Management Program “Project AP-G 2022”

Business Environment

- Growing need for advanced materials that can contribute to the resolution of global environmental and energy, resource issues, and related machinery to manufacture them
- Growing need for safe air and water

Basic Policies

- Expand business in the growth business fields centering on water treatment membranes and engineering

Key Initiatives

Water Treatment Business

- Enhance global production and sales system in response to markets that are expanding over the medium and long term
- Accelerate new product development and expand sales of products that meet the needs of each region and customers
- Thoroughly strengthen business structure

Engineering Business

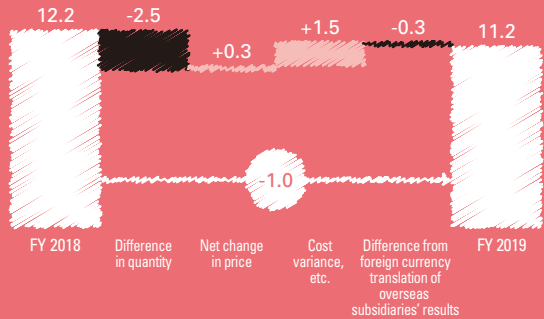
- Expand plant construction business and electronics-related machineries (in the fields of life science and semiconductors)
- Enhance technical capabilities and cost competitiveness by strengthening the Group’s unified operations

Fiscal 2020 Outlook

- In the water treatment business, will promote sales expansion with a focus on RO membranes
- An engineering subsidiary expects sales expansion of electronics related equipment

Fiscal year ended March 31	2018 (J-GAAP)	2019 (J-GAAP)	Changes	2020 Forecast (IFRS)
Net Sales/ Revenue (billion yen)	257.7	252.3	-2.1%	202.0
Operating Income/ Core Operating Income (billion yen)	12.2	11.2	-8.1%	14.0
Operating Income to Net Sales/Core Operating Income to Revenue	4.7%	4.5%		

Changes in Operating Income (Billion yen)



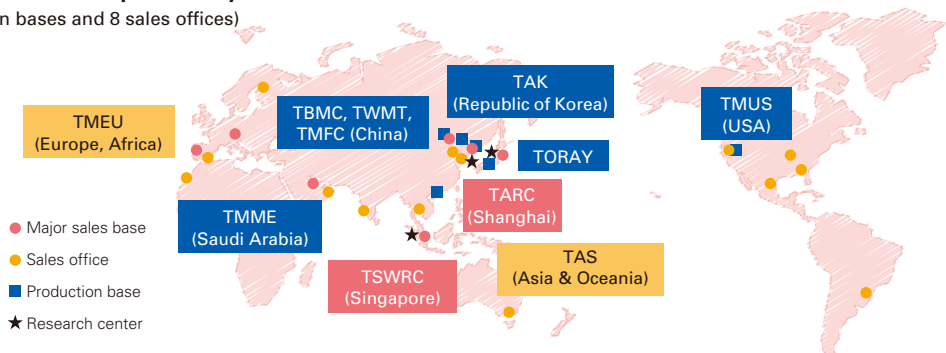
Established a New Water Treatment Membrane Company in China

In June 2019, Toray established Toray Membrane (Foshan) Co., Ltd. (TMFC), a new company that will engage in the production and sale of RO and other water treatment membrane products, in Foshan, China. Construction is currently underway towards commencement of plant operations in 2021.

Demand for water treatment membranes has been rapidly expanding in China in recent years. To date, in addition to promoting the use of household water purifiers, Toray has contributed to improving the water environment and solving water scarcity issues in China by providing various kinds of water treatment membranes for waterworks and industrial water treatment, seawater desalination, and wastewater treatment and recycling.

Guangdong Province is moving to strengthen industry-academia partnerships and is systematically promoting research and development in advanced technologies. Foshan City is located in the center of the Guangdong Province Pearl River Delta economic zone and has a long track record of attracting Japanese companies of all sizes to engage in business partnerships in the region. Toray already has water treatment membrane production and sales companies in operation in Beijing and Yancheng. The establishment of a new base in Foshan will enable Toray to respond nimbly to the rapidly expanding water treatment membrane market in China, where environmental improvement efforts are being energetically promoted.

Consolidated Global Operation System for Production and Sales of Water Treatment Membranes (5 production bases and 8 sales offices)



LIFE SCIENCE



Medium-term Management Program “Project AP-G 2022”

Business Environment

- Growing need for pharmaceuticals and medical devices that help improve medical care quality, raise patient QOL, and ease the burden on medical professionals
- Growing need for prevention and diagnosis
- Japanese government’s promotion of generic products, as well as ongoing reductions in medical fees, drug prices, and insurance reimbursement prices

Basic Policies

- Reinforce the business foundation and structure through overseas business development, expansion of indications and introduction of improved products of existing product lineup, in addition to cost reduction

Key Initiatives

Pharmaceutical Business

- Maintain the business and profit foundation through overseas business development of oral drug REMITCH®* as pruritus improver

Medical Devices Business

- Expand sales by continuously developing and introducing to market improved products of the existing product lineup such as HotBalloon for ablation treatment
- Expand global sales of highly value-added dialyzers, and launch and promote newly renovated dialysis machines in Japan

New Business

- Establish and launch the business of the test kit to detect protein markers of pancreatic cancer

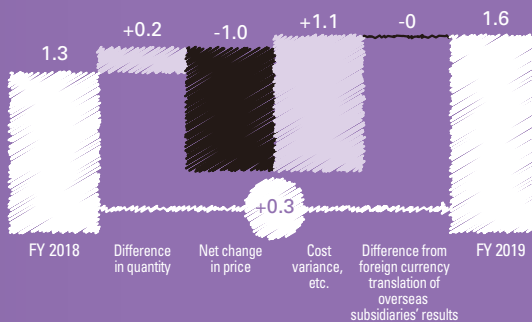
*REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.

Fiscal 2020 Outlook

- The medical devices business is expected to see sales expansion in dialyzers and new models of HotBalloons released to the market, while the pharmaceutical business is expected to be affected by drug price revisions and generic drugs.

Fiscal year ended March 31	2018 (J-GAAP)	2019 (J-GAAP)	Changes	2020 Forecast (IFRS)
Net Sales/ Revenue (billion yen)	53.7	53.3	-0.8%	53.0
Operating Income/ Core Operating Income (billion yen)	1.3	1.6	+24.9%	1.0
Operating Income to Net Sales/Core Operating Income to Revenue	2.4%	3.1%		

Changes in Operating Income (Billion yen)



TOPICS

Commercial Launch of the New HEMOFEEL™ SNV Continual and Gentle Blood Filtration Device

Toray launched commercial sales of HEMOFEEL™ SNV in July 2019. Developed as a slow continuous hemofiltration device*1, HEMOFEEL™ SNV prevents membrane clogging as a result of an improved antithrombogenic performance*2 and is thus expected to enable longer usage durations than conventional devices.



to substantially improve the anti-thrombotic performance. In addition to the superior substance separation performance of polysulfone membranes*4, in vitro testing has shown that their ability to improve the antithrombotic performance also reduces deterioration in the filtration performance over time. This NV Polymer technology has also been adopted in Toray's hemodialyzers and hemodialysis

In order to minimize the burden as possible on the bodies of patients with acute kidney damage and other severe kidney damage affiliated with multiple organ failure and sepsis, treatments are applied that remove substances from slowly circulated blood. With this treatment approach, however, the blood flows slowly, which both increases the treatment duration and tends to induce clot formation reactions*3. In particular, there has been a steady demand to increase the antithrombotic performance of the membranes themselves used in slow continuous hemofiltration devices employed during emergency and intensive care.

filters, and has already achieved a long track-record in clinical use. Toray has also deployed this technology to the emergency and intensive care field for the first time, and thereby contribute to reducing the burden on medical professionals and patients during long treatments.

In response to feedback from these medical settings, Toray successfully applied its proprietary NV Polymer to the surface of hollow-fiber membranes

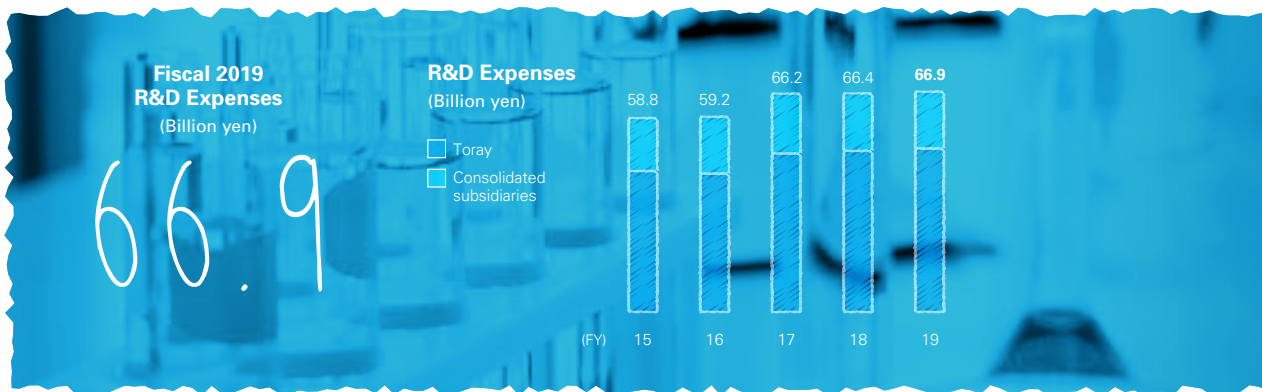
*1 Slow continuous hemofiltration: A medical treatment used to remove substances from blood slowly over time.

*2 Antithrombotic performance: The ability to prevent blood coagulation (blood clots) as required by medical materials that come into contact with blood.

*3 Clot formation reaction: When blood contacts contaminants, it undergoes a biological defense reaction whereby proteins in the blood gather around and adhere to the surface of the contaminants. This reaction serves to induce a clot formation reaction.

*4 Polysulfone membrane: A semitransparent membrane made using a heat-resistant polymer, or polysulfone resin as the basic material.

R&D



Fiscal 2019 R&D Achievements

Fibers & Textiles

Using NANODESIGN®, a composite spinning technology that enables free and highly precise control over the cross-sectional geometry of composite fibers, Toray developed a new Nylon textile that achieves a good balance between low environmental burden and durable water-repellent properties at a high level, and Kinari™, a silky material that combines natural silk properties such as glossiness, bulkiness, and the sound of natural silk with easy-care properties such as pleat retention and wrinkle resistance. The Company also developed PET-recycled version of Primeflex™, a material with the same stretchable properties as virgin PET, by realizing a fiber made from a combination of approximately 68% environmentally-friendly substances, namely plant-based polytrimethylene terephthalate (PTT) and recycled PET.

Performance Chemicals

Toray developed PICASUS™ VT, a nano-layered film designed to deliver completely new functionality by offering frontal light transparency while

reflecting oblique light using high-precision control of the resin refractive index based on a new optical design. The Company developed polyimide materials suitable for application in high-frequency electronic components for millimeter-wave radar devices applied mainly in 5G communication and automatic driving. Moreover, Toray is currently expanding deployment of NANOALLOY®, a technology that realizes discontinuous characteristic improvement of materials by enabling fine dispersion of multiple polymers on the nano level, to automotive safety components and many other applications.

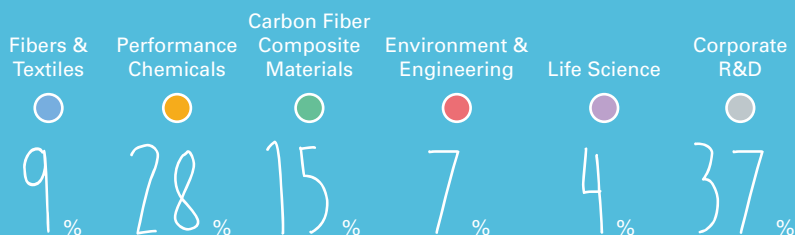
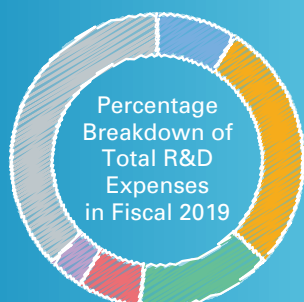
Carbon Fiber Composite Materials

Toray's collaborative development with Boeing launched in November 2014 has progressed smoothly and is starting to produce results as a CTO Project. As part of an agreement concluded with Boeing and announced by the Ministry of Economy, Trade and Industry in January 2019, Toray was the only company to be nominated from the composite materials sector. The Company has commenced

collaborations (including R&D projects entrusted by the national government) for creating fundamental technologies for the next-generation mobility industry in Japan. The Company also developed a new prepreg for primary structural aircraft components that enables high-quality molded carbon fiber reinforced plastic parts with superior mechanical properties without the use of an autoclave.

Environment & Engineering

Toray developed a reverse osmosis (RO) membrane for seawater desalination that balances high water-quality with the world's highest level of water production capacity. The Company also created the world's highest-level nanofiltration (NF) membrane that triples the permeation performance of conventional models while achieving a superior selective ion and organic matter separation. In addition, Toray conducted joint research with RIKEN and identified the relationship between water molecule diffusion behavior and the strength of interacting networks formed by the polyamide molecules that enable water permeability and



substance removal capabilities in RO membranes. Toray will draw on these analysis results to accelerate development of innovative, energy-saving RO membranes and other advanced separation membranes.

Life Science

Toray expanded its clinical study sites for TRK-950, which had been undergoing a cancer immunotherapeutic study at two sites in the U.S.A. and one site in France. Specifically, in April 2019, the expanded study was started at five sites in the U.S.A. and one site in France to confirm the safety and efficacy of the drug and has been still ongoing to apply for marketing approval at the earliest possible time. Meanwhile, TORAYMYXIN™, a hemoperfusion cartridge for removing endotoxins from the blood during the treatment of sepsis, has been approved by the U.S. Food and Drug Administration (FDA) for clinical study enrollment of patients with sepsis caused by COVID-19. Similarly, Toray obtained interim permission for use in the treatment of patients infected with COVID-19 in Canada from the Canadian Authority, Health Canada.

TOPICS

Commendation for Science and Technology from the Minister of Education, Culture, Sports, Science and Technology Awarded for Developing a Polyimide Coating

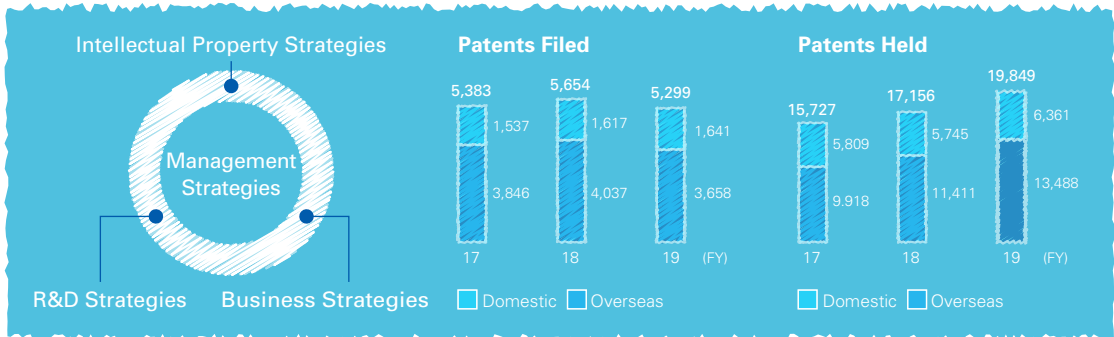
Toray received the 2020 Commendation for Science and Technology from the Minister of Education, Culture, Sports, Science and Technology regarding its development of a polyimide coating for organic electroluminescent (EL) insulating films. The award recognizes Toray's efforts over the years to deepen its photosensitive polyimide technology capabilities and for developing a positive photosensitive polyimide that dramatically enhances the luminous reliability and productivity of OLED displays. These results will contribute to the mass production and broader adoption of OLED displays, and significantly reduce coating waste losses, thereby lowering environmental impact.

Academy of Pharmaceutical Science and Technology, Japan (APSTJ) Asahi Kasei Pharmaceutical Technology Award Received for Developing Film Technologies and OD Tablets

Toray received the Academy of Pharmaceutical Science and Technology, Japan (APSTJ) Asahi Kasei Pharmaceutical Technology Award for its development of a high-performance film technology for orally disintegrating (OD) tablets and REMITCH®* OD tablets. This is the first time Toray has been honored with the award, which is granted to outstanding research into the fundamentals and application of drug formulation and creation developments that address the transformations in approaches to pharmaceutical quality on the international stage. The award was received in recognition of our contribution to new developments in formulation technology through its success in perfecting RADIFIL®, a fast-dissolving film coating technology applied to OD tablets and pharmaceutical film formulations as a means of helping to improve quality of life for those whose intake of liquids is restricted and elderly people with diminished swallowing functionality.

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

INTELLECTUAL PROPERTY



Basic Policies on Intellectual Property

Toray Group has formulated and executes the following four intellectual property strategies as its basic policies on intellectual property.

1. Intellectual property strategies, as a part of the strategy trinity, that conform to management principles

Toray Group regards intellectual property as one of its vital management resources. We integrate our intellectual property strategies mutually and organically with our business strategies and R&D strategies, and as part of this "trinity," we designate intellectual property strategies as one of the most important elements of our management strategies.

2. Promoting the procurement of rights

In order to protect Toray Group's products and technologies and to ensure profits in terms of intellectual property, we hold as many useful patent rights as possible and build patent portfolios. At the same time, we are committed to patent rights acquisition made efficient by enhancing the quality of individual patents.

3. Respecting the rights of others

Toray has operated a system for comprehensively investigating the relations between its own products and technologies and patents owned by other companies, and we thoroughly educate employees to prevent infringement on patent rights of other parties.

4. Rightful enforcement of our own rights

When Toray Group's patent rights are infringed upon by another party, we take proper steps depending on the circumstances by exercising our patent rights, such as demanding that infringement cease, receiving monetary profits from licensing, and using our patent rights for cross-licensing with the patent rights of other parties.

Intellectual Property Strategies in Line with Management Strategies

Under "AP-G 2022," we formulated a medium-term management program not only for R&D, but also for intellectual property, promoting the following five measures.

1. Strengthening Toray Group's intellectual property capabilities to address global business expansion

Under the guidance of Toray's Executive Vice President in charge, we are advancing intellectual property activities through the construction of a framework in which we manage intellectual property for group companies in and outside of Japan. We pay particular attention to nurturing group companies that play a central role in respective regions, and to supporting affiliated companies that have newly joined the Group.

2. Strategic patent application and building barriers to entry by protecting our knowhow

Considering the risk of imitations that arises following the publication of applications, we are reinforcing a scheme whereby we put in place barriers to entry by creatively leveraging patent applications and the protecting our knowhow. Moreover, we continue to work toward boosting the quality of patent specifications, which we have always poured efforts into, together with undertaking initiatives to strengthen patent applications and patenting of rights outside of Japan.

3. Promoting intellectual property strategies that contribute to our long-term corporate vision

We promote intellectual property activities that work to achieve sound, sustainable growth espoused in the long-term corporate vision "TORAY VISION 2030" announced in May of this year.

4. Establishing an environment to support the promotion of efficient intellectual property strategies

By digitizing and streamlining workflow for business tasks, such as internal and external contacts, queries and responses, or the paperwork involved in forms for circular-type consultations, we are promoting the transition to paperless offices and enhancing efficiency in intellectual property operations.

5. Developing intellectual property-focused human resources

Toray is developing experts capable of promoting our intellectual property strategies across the Group, specific to business areas and regions. In particular, we are elevating the intellectual property competency and capabilities of human resources at affiliated companies, including national staff at group companies outside of Japan, while pursuing patent applications and patenting of rights across the Group, and promoting effective and efficient infringement prevention activities.

Toray Takes Top Spot on Patent Result's Ranking for Fiber, Paper and Pulp Industry

The "2019 Ranking of Capability to Prevent Other Companies from Obtaining Patent Rights," published annually by Patent Result Co., Ltd., is an advanced patent application index that compiles the number of patents by a company that were cited as reasons for rejection of another company's patent application in the course of the patent deliberation process, in any particular year. Toray was ranked No. 1 in the fiber, paper and pulp category for the seventh consecutive year. As the same index benchmarks are used, if "fiber, paper and pulp," and "chemicals" categories are treated as a single industry, Toray's ranking becomes No. 3.

FINANCIAL SECTION

CONTENTS

106	Ten-Year Summary of Selected Financial Data
108	Management's Discussion and Analysis
112	Consolidated Balance Sheets
114	Consolidated Statements of Income
115	Consolidated Statements of Comprehensive Income
115	Consolidated Statements of Changes in Net Assets
116	Consolidated Statements of Cash Flows
117	Notes to Consolidated Financial Statements
146	Independent Auditor's Report

Ten-Year Summary of Selected Financial Data

Toray Industries, Inc. and Consolidated Subsidiaries
Years ended March 31

	2011	2012	2013*1
Net sales	¥ 1,539,693	¥ 1,588,604	¥ 1,592,279
Fibers & Textiles	584,115	638,375	632,150
Performance Chemicals	—	—	—
Carbon Fiber Composite Materials	67,018	69,914	77,620
Environment & Engineering	178,183	170,247	178,355
Life Science	52,430	55,554	56,599
Others	13,621	13,295	14,127
Plastics & Chemicals	382,299	397,815	395,835
IT-related Products	262,027	243,404	237,593
Operating income	100,087	107,721	83,436
Income before income taxes	82,893	101,091	77,828
Net income attributable to owners of parent	57,925	64,218	48,477
Net cash provided by operating activities	129,214	104,410	100,815
Depreciation and amortization	70,479	67,443	67,588
Capital expenditures	55,942	98,384	99,135
Total assets	1,567,470	1,581,501	1,731,933
Property, plant and equipment, net	531,595	561,923	627,240
Interest-bearing liabilities	493,509	481,906	532,002
Net assets	640,970	674,149	778,626

Per share of common stock:

Net income attributable to owners of parent:

Basic	¥ 36.41	¥ 39.41	¥ 29.75
Diluted	34.43	37.46	28.90
Cash dividends	7.50	10.00	10.00
Net assets	363.90	384.90	444.45

Ratios:

Operating income to net sales	6.50	6.78	5.24
Net income attributable to owners of parent to net sales	3.76	4.04	3.04
Equity ratio	37.8	39.7	41.8
Return on equity	10.9	10.5	7.2
Debt/equity ratio (times)	0.83	0.77	0.73

Common stock price range:

High	¥ 643	¥ 631	¥ 654
Low	420	511	421

Number of employees

38,740	40,227	42,584
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*1 Certain overseas subsidiaries adopted IAS 19 "Employee Benefits" (revised on June 16, 2011) effective from the year ended March 31, 2014. The related figures for the year ended March 31, 2013 are retrospectively restated accordingly.

*2 Toray Group changed the reportable segments effective from the year ended March 31, 2018. The related figures for the year ended March 31, 2017 are retrospectively restated accordingly.

*3 "Partial Amendments to Accounting Standard for Tax Effect Accounting" (Accounting Standards Board of Japan (ASBJ) Statement No. 28, February 16, 2018) is applied from the year ended March 31, 2019 and onward. The related figures for the year ended March 31, 2018 are retrospectively restated accordingly.

Millions of yen

2014	2015	2016	2017 ²	2018 ³	2019	2020
¥ 1,837,778	¥ 2,010,734	¥ 2,104,430	¥ 2,026,470	¥ 2,204,858	¥ 2,388,848	¥ 2,214,633
755,474	856,676	892,039	856,124	913,610	974,265	883,137
—	—	—	724,648	803,310	868,847	770,814
113,342	158,365	186,196	161,608	177,949	215,913	236,922
180,197	179,988	183,324	212,548	238,256	257,673	252,282
58,205	57,039	55,841	54,150	53,803	53,653	53,250
14,277	14,321	14,720	17,392	17,930	18,497	18,228
470,542	496,370	521,238	—	—	—	—
245,741	247,975	251,072	—	—	—	—
105,253	123,481	154,480	146,893	156,464	141,469	131,186
97,760	114,469	137,808	139,012	136,612	127,419	94,046
59,608	71,021	90,132	99,418	95,915	79,373	55,725
161,455	141,282	196,142	173,958	129,180	176,239	225,767
78,743	81,480	91,168	89,073	95,815	101,711	107,382
118,207	124,929	136,556	152,039	153,324	172,696	140,767
2,119,683	2,357,925	2,278,386	2,396,785	2,575,910	2,788,351	2,650,687
781,235	855,593	830,612	881,434	927,029	996,876	1,006,509
654,163	700,258	704,253	716,399	816,325	976,251	938,913
944,625	1,080,757	1,024,909	1,100,176	1,169,188	1,213,944	1,179,572
Yen						
¥ 36.59	¥ 44.33	¥ 56.38	¥ 62.17	¥ 59.97	¥ 49.61	¥ 34.83
35.70	44.28	56.31	62.10	59.90	49.56	34.58
10.00	11.00	13.00	14.00	15.00	16.00	16.00
527.32	616.70	591.50	638.64	681.92	706.95	683.61
%						
5.73	6.14	7.34	7.25	7.10	5.92	5.92
3.24	3.53	4.28	4.91	4.35	3.32	2.52
40.5	41.8	41.5	42.6	42.3	40.6	41.3
7.5	7.7	9.3	10.1	9.1	7.1	5.0
0.76	0.71	0.74	0.70	0.75	0.86	0.86
Yen						
¥ 786	¥ 1,057.5	¥ 1,146.0	¥ 1,027.5	¥ 1,208.0	¥ 1,035.5	¥ 848.5
584	626	871.7	854.0	903.1	705.1	397.4
45,881	45,789	45,839	46,248	45,762	48,320	48,031

Management's Discussion and Analysis

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

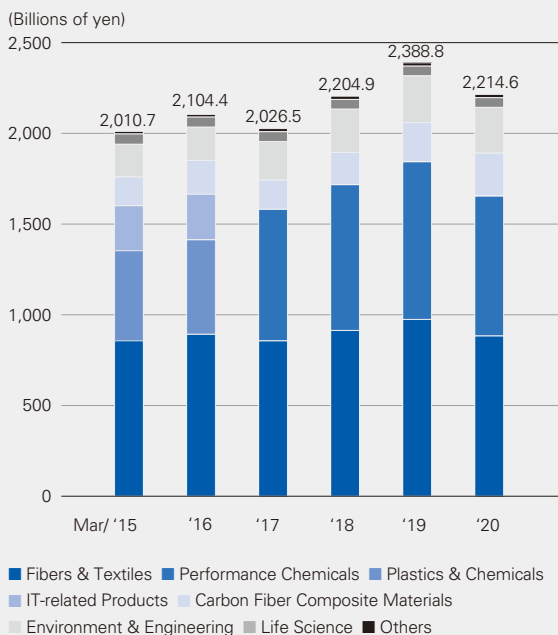
The consolidated financial statements of Toray Group are prepared in accordance with the accounting principles generally accepted in Japan. The significant accounting policies employed to prepare the consolidated financial statements are disclosed in Note 1. SIGNIFICANT ACCOUNTING POLICIES in the Notes to the Consolidated Financial Statements. The process of preparing consolidated financial statements involves accounting estimates that affect the reported amounts of assets, liabilities, revenue and expenses. Reasonable judgments are made to determine these estimates by taking several factors including past records into consideration; however, as these estimates are subject to uncertainty, the actual outcome may differ.

The assumptions on the novel coronavirus pandemic are disclosed in Note 1. SIGNIFICANT ACCOUNTING POLICIES
p) Assumptions on the novel coronavirus pandemic for accounting estimates in the Notes to the Consolidated Financial Statements.

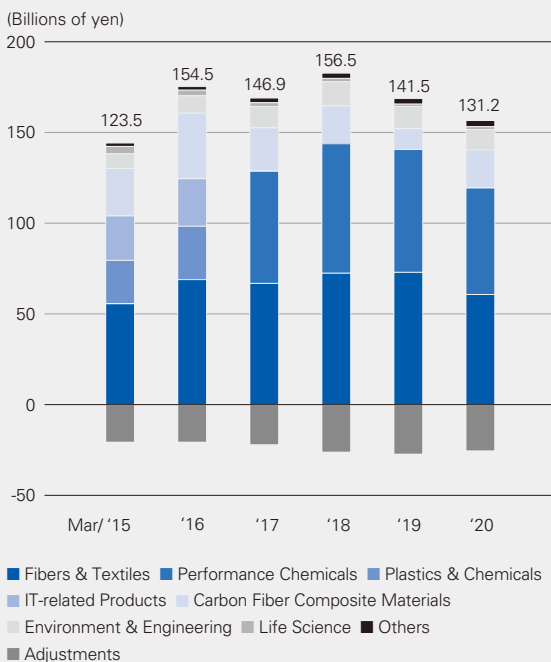
OVERVIEW OF BUSINESS PERFORMANCE

For the year ended March 31, 2020, the global economy slowed down due to strong uncertainties caused by concerns regarding the intensifying trade frictions between the U.S. and China, the rising geopolitical risks in areas such as the Middle East, and the political confusion over Brexit in Europe. The Japanese economy was relatively steady but lacked strength, affected by typhoons and other natural disasters as well as the increase in the consumption tax rate. Meanwhile, the novel coronavirus disease spread globally in 2020 greatly disrupting the economies of Japan and elsewhere, and production and consumption activities, which were stagnating, started to rapidly decelerate. Under such circumstances, Toray Group, since April, 2017, worked on the medium-term management program "Project AP-G 2019" that spans over three years through fiscal year 2019 and implemented a growth strategy with focus on taking advantage of growth business fields, pursuing business expansion in growth countries and regions as well as further bolstering its cost competitiveness.

Net Sales by Segment



Operating Income by Segment



*1 Toray Group changed the reportable segments effective from the year ended March 31, 2018. The related figures for the year ended March 31, 2017 are retrospectively restated accordingly.

*2 Operating income by segment that is not attributable to any segment is included in "Adjustments."

INCOME ANALYSIS

Net Sales

Net sales for the year ended March 31, 2020 were ¥2,214.6 billion, down by ¥174.2 billion (7.3%) from the previous year. Regarding the sales by business segment, net sales in the Carbon Fiber Composite Materials segment increased, while those in the other segments decreased.

Costs and Expenses

The ratio of total costs and expenses to net sales for the year ended March 31, 2020 was 94.1%, same as that of the previous year.

Net sales and the cost of sales declined from the previous year by 7.3% and 8.2%, respectively. As a result, the cost of sales ratio declined by 0.8 percentage points to 80.2%.

Selling, general and administrative expenses declined by ¥4.7 billion (1.5%) to ¥307.2 billion. The ratio of selling, general and administrative expenses to net sales increased by 0.8 percentage points to 13.9%.

R&D expenses increased by ¥0.5 billion (0.8%) to ¥66.9 billion.

Operating Income and Net Income

Operating income fell by ¥10.3 billion (7.3%) year on year to ¥131.2 billion. The ratio of operating income to net sales by 5.9%, unchanged from the previous year. Operating income by business segment increased in the Carbon Fiber Composite Materials, Life Science and Others segments while decreasing in the Fibers & Textiles, Performance Chemicals and Environment & Engineering segments.

In net other income (expenses), Toray Group reported net expenses of ¥37.1 billion in the year ended March 31, 2020, up by ¥23.1 billion (164.3%) from the previous year. Interest and dividend income increased by ¥0.1 billion (2.0%) to ¥7.0 billion. As a result, net financial expense of ¥0.2 billion was recorded in the year ended March 31, 2020, down ¥0.1 billion compared with the previous year. Net loss on sales and disposal of property, plant and equipment amounted to ¥3.2 billion, a loss of ¥12.9 billion from the previous year. Loss on impairment of fixed assets declined by ¥10.8 billion (58.9%) to ¥7.6 billion. Net gain of ¥2.4 billion on sales and write-down of investment securities was recorded, ameliorated by ¥3.0 billion year on year.

As a result of the aforementioned, income before income taxes declined by ¥33.4 billion (26.2%) year on year to ¥94.0 billion. After deductions for income taxes and net income attributable to non-controlling interests, net income attributable to owners of parent amounted to ¥55.7 billion, down ¥23.6 billion (29.8%) year on year.

Net income per share was ¥34.83, a decrease of ¥14.78. In light of profit conditions for the year ended March 31, 2020 and outlook for the next year, the total annual dividend for the year ended March 31, 2020 was set at ¥16.00 per share. This comprised an interim cash dividend of ¥8.00 per share and a year-end cash dividend of ¥8.00 per share.

Business Performance by Segment

Fibers & Textiles

All applications of the segment were affected by the weak market conditions reflecting the prolonged trade friction between the U.S. and China, the slowdown in the Chinese economy, and two consecutive years of warm winter.

In Japan, while shipment of apparel and industrial applications remained weak in general, Toray Group pursued sales expansion of materials for uniform in Japan and for sports applications in the U.S. and Europe and focused on strengthening cost competitiveness.

Overseas, demand for apparel applications including garments and textiles as well as automotive applications, the mainstay of the industrial applications, remained sluggish, and Toray Group focused on business structure reform and strengthening of cost competitiveness.

The segment was also affected by the stagnation in production and consumption activities both in Japan and abroad due to the novel coronavirus pandemic.

As a result, overall sales of Fibers & Textiles segment declined 9.4% to ¥883.1 billion compared with the previous year and operating income fell 16.7% to ¥60.7 billion.

Performance Chemicals

In the resins business, sales of both automotive and home appliance applications were slow primarily due to the impact of the slowdown in the Chinese economy and stagnation of production activities due to the novel coronavirus pandemic. The chemicals business was affected by the decline in the basic chemicals market. In the films business, sales of battery separator films for lithium-ion secondary batteries increased reflecting demand growth, while polyester films were affected by the inventory adjustment for optical as well as electronic parts related applications. The electronic & information materials business saw strong performance of OLED related materials and electronic circuit materials.

As a result, overall sales of Performance Chemicals segment declined 11.3% to ¥770.8 billion compared with the previous year. Operating income fell 13.2% to ¥58.7 billion.

Carbon Fiber Composite Materials

The Carbon Fiber Composite Materials segment remained strong as a whole. Demand for aircraft application as well as performance of industrial applications in the environment and energy-related fields such as compressed natural gas tanks and wind turbine blade remained strong, and recovery in the demand for sports applications.

As a result, overall sales of Carbon Fiber Composite Materials segment increased 9.7% to ¥236.9 billion compared with the previous year and operating income rose 81.6% to ¥21.0 billion.

Environment & Engineering

In the water treatment business, demand for reverse osmosis membranes and other products grew strongly on the whole in Japan and overseas.

Among domestic subsidiaries in the segment, a construction subsidiary was negatively affected by the decline of high profit project orders, and an engineering subsidiary experienced decreases in the shipment of some electronics related equipment.

As a result, overall sales of Environment & Engineering segment declined 2.1% to ¥252.3 billion compared with the previous year and operating income declined 8.1% to ¥11.2 billion.

Life Science

In the pharmaceutical business, sales of orally active pro-cyclin derivative DORNER® were affected by the introduction of its generic versions. While sales of pruritus treatment REMITCH®* were also influenced by the introduction of its generic versions, its shipment was strong partly due to the growth in the entire market.

In the medical devices business, shipment of dialyzers grew strongly in Japan and overseas.

As a result, overall sales of Life Science segment declined 0.8% to ¥53.3 billion compared with the previous year, while operating income rose 24.9% to ¥1.6 billion.

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

Others

Net sales declined by ¥0.3 billion (1.5%) from the previous year to ¥18.2 billion, and operating income increased by ¥0.3 billion (10.1%) to ¥3.4 billion.

FINANCIAL POSITION

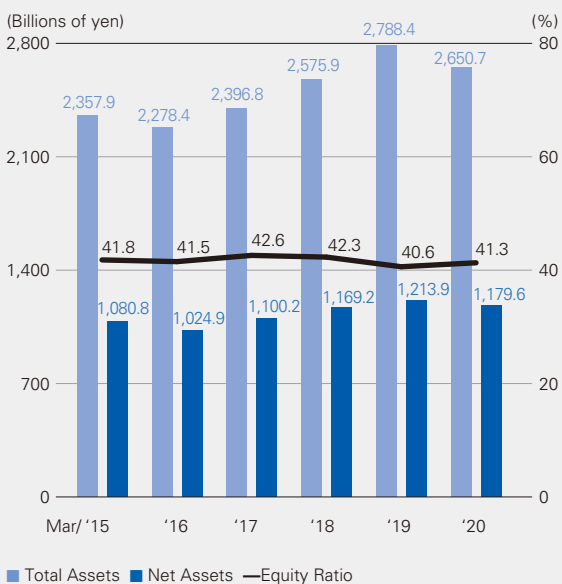
Analysis of Assets, Liabilities and Net Assets

As of March 31, 2020, Toray Group's total assets stood at ¥2,650.7 billion, down ¥137.7 billion from the end of the previous year. Current assets fell ¥62.9 billion as trade receivables declined, and non-current assets fell ¥74.8 billion due primarily to a decline in investment securities.

Total liabilities declined ¥103.3 billion from the end of the previous year to ¥1,471.1 billion, owing mainly to declines in trade payables and long-term debt.

Net assets decreased by ¥34.4 billion compared with the end of the previous year to ¥1,179.6 billion, reflecting a change in foreign currency translation adjustments. Net assets less non-controlling interests and stock acquisition rights stood at ¥1,093.7 billion. The equity ratio at March 31, 2020 came to 41.3%, a 0.7 percentage-point increase compared with the level at the end of the previous year.

Total Assets and Net Assets



* "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, February 16, 2018) is applied from the year ended March 31, 2019 and onward. The related figures for the year ended March 31, 2018 are retrospectively restated accordingly.

CASH FLOWS

For the year ended March 31, 2020, net cash provided by operating activities exceeded net cash used in investing activities by ¥83.4 billion. Meanwhile, net cash used in financing activities came to ¥67.6 billion owing mainly to the decrease in interest-bearing liabilities. As a result, after counting exchange rate changes, cash and cash equivalents as of March 31, 2020 amounted to ¥183.7 billion, up by ¥10.6 billion (6.1%) compared with the end of the previous year on a consolidated basis.

Cash Flows from Operating Activities

Net cash provided by operating activities increased by ¥49.5 billion (28.1%) compared with the previous year to ¥225.8 billion. Looking at major movements, the decrease in trade receivables was held to ¥37.2 billion compared with the increase of ¥33.6 billion in the previous year. In the year ended March 31, 2020, the Group reported a decrease in inventories of ¥18.1 billion compared with a decrease of ¥28.4 billion for the previous year and a decrease in trade payables of ¥23.6 billion compared with a decrease of ¥11.8 billion in the previous year.

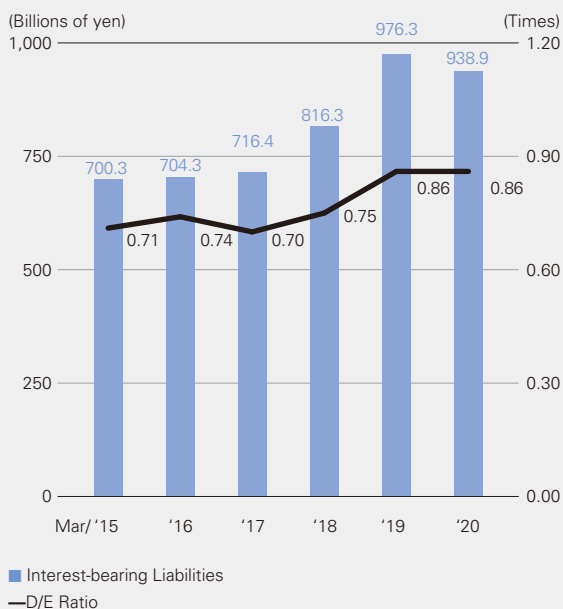
Cash Flows from Investing Activities

Net cash used in investing activities totaled ¥142.4 billion, down ¥117.9 billion (45.3%) compared with the previous year. This largely reflected the absence of payments for the purchase of shares in subsidiaries that resulted in a change in the scope of consolidation, which were recorded ¥114.6 billion in the previous year.

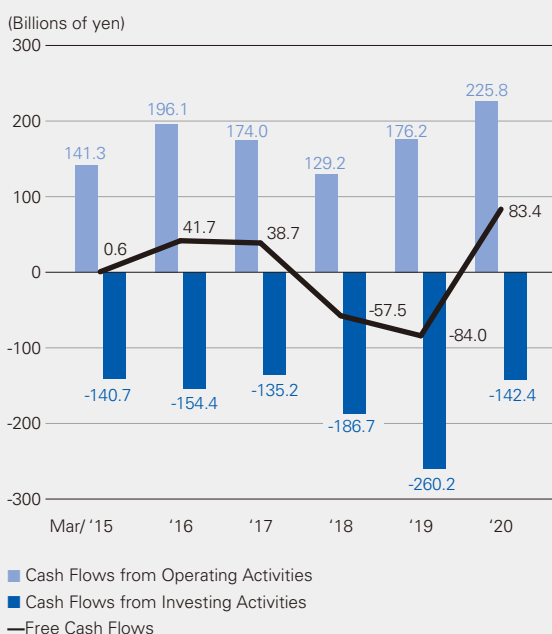
Cash Flows from Financing Activities

Net cash used in financing activities came to ¥67.6 billion, down by ¥186.5 billion compared with the net cash inflow of ¥118.9 billion in the previous year. Major cash-decreasing factors included a decrease of ¥147.5 billion (62.9%) in proceeds from long-term debt of ¥87.0 billion compared with ¥234.5 billion for the previous year, and an increase in repayment of long-term debt of ¥91.6 billion, up by ¥24.7 (37.0%) billion from the previous year.

Interest-bearing Liabilities and D/E Ratio



Cash Flows



Consolidated Balance Sheets

Toray Industries, Inc. and Consolidated Subsidiaries
March 31, 2020 and 2019

Assets	Millions of yen		Thousands of U.S. dollars (Note 2)
	2020	2019	2020
Current assets:			
Cash (Note 5)	¥ 142,496	¥ 140,701	\$ 1,309,706
Time deposits (Notes 4 and 5)	31,202	27,806	286,783
Trade receivables (Notes 5 and 7):			
Notes receivable	53,856	56,346	495,000
Accounts receivable	429,905	474,712	3,951,333
Inventories (Note 3)	393,655	419,527	3,618,153
Prepaid expenses and other current assets (Notes 5 and 6)	79,907	74,517	734,439
Allowance for doubtful accounts	(2,569)	(2,280)	(23,612)
Total current assets	1,128,452	1,191,329	10,371,801
Property, plant and equipment (Notes 4 and 13):			
Land	72,566	77,687	666,967
Buildings	666,509	651,084	6,126,002
Machinery and equipment	1,994,262	1,989,553	18,329,614
Construction in progress	134,496	143,847	1,236,176
Other	147,128	121,512	1,352,279
	3,014,961	2,983,683	27,711,039
Accumulated depreciation	(2,008,452)	(1,986,807)	(18,460,037)
Property, plant and equipment, net	1,006,509	996,876	9,251,002
Intangible assets (Note 13):			
Goodwill	71,950	85,712	661,305
Other	78,741	85,537	723,722
Total intangible assets	150,691	171,249	1,385,028
Investments and other assets:			
Investments in unconsolidated subsidiaries and affiliated companies (Note 5)	149,339	163,052	1,372,601
Investment securities (Notes 4, 5 and 6)	152,956	188,000	1,405,846
Long-term loans receivable	5,579	2,477	51,278
Deferred tax assets (Note 10)	18,215	21,978	167,417
Other (Notes 4 and 8)	41,437	56,171	380,855
Allowance for doubtful accounts	(2,491)	(2,781)	(22,895)
Total investments and other assets	365,035	428,897	3,355,101
Total assets	¥ 2,650,687	¥ 2,788,351	\$ 24,362,932

See accompanying notes to consolidated financial statements.

Liabilities and Net Assets	Millions of yen		Thousands of U.S. dollars (Note 2)
	2020	2019	2020
Current liabilities:			
Short-term bank loans (Notes 4 and 5)	¥ 132,358	¥ 175,567	\$ 1,216,526
Current portion of long-term debt (Notes 4, 5 and 7)	108,131	94,094	993,851
Commercial paper (Note 5)	10,000	—	91,912
Trade payables (Notes 5 and 7):			
Notes payable	36,482	38,824	335,313
Accounts payable	175,841	201,730	1,616,186
Income taxes payable (Note 10)	11,185	13,578	102,803
Accrued liabilities	59,937	64,850	550,892
Other current liabilities (Note 4)	96,841	107,850	890,083
Total current liabilities	630,775	696,493	5,797,564
Non-current liabilities:			
Long-term debt (Notes 4, 5 and 7)	673,068	702,761	6,186,287
Deferred tax liabilities (Note 10)	33,916	48,758	311,728
Net defined benefit liability (Note 8)	100,575	100,730	924,403
Other non-current liabilities (Note 4)	32,781	25,665	301,296
Total non-current liabilities	840,340	877,914	7,723,713
Total liabilities	1,471,115	1,574,407	13,521,278
Net assets (Note 11):			
Stockholders' equity:			
Common stock:			
Authorized—4,000,000,000 shares	147,873	147,873	1,359,127
Issued—1,631,481,403 shares			
Capital surplus	118,062	117,760	1,085,129
Retained earnings	849,268	817,263	7,805,772
Treasury stock, at cost	(20,308)	(20,358)	(186,654)
Total stockholders' equity	1,094,895	1,062,538	10,063,373
Accumulated other comprehensive income:			
Net unrealized gains (losses) on securities	44,096	64,662	405,294
Net deferred gains (losses) on hedges	1,162	75	10,680
Foreign currency translation adjustments	(44,114)	896	(405,460)
Remeasurements of defined benefit plans	(2,291)	2,862	(21,057)
Total accumulated other comprehensive income	(1,147)	68,495	(10,542)
Stock acquisition rights (Note 9)	1,602	1,338	14,724
Non-controlling interests	84,222	81,573	774,099
Total net assets	1,179,572	1,213,944	10,841,654
Total liabilities and net assets	¥ 2,650,687	¥ 2,788,351	\$ 24,362,932

Consolidated Statements of Income

Toray Industries, Inc. and Consolidated Subsidiaries
Years ended March 31, 2020 and 2019

	Millions of yen		Thousands of U.S. dollars (Note 2)
	2020	2019	2020
Net sales	¥ 2,214,633	¥ 2,388,848	\$ 20,355,083
Costs and expenses:			
Cost of sales (Notes 3, 8, 13 and 14)	1,776,276	1,935,486	16,326,066
Selling, general and administrative expenses (Notes 8, 9, 13 and 14)	307,171	311,893	2,823,263
	2,083,447	2,247,379	19,149,329
Operating income	131,186	141,469	1,205,754
Other income (expenses):			
Interest expenses	(7,235)	(7,161)	(66,498)
Interest and dividend income	7,024	6,883	64,559
Equity in earnings (losses) of unconsolidated subsidiaries and affiliated companies (Note 15)	(10,805)	9,619	(99,311)
Gain (loss) on sales and disposal of property, plant and equipment, net	(3,163)	9,751	(29,072)
Loss on impairment of fixed assets (Note 16)	(7,569)	(18,414)	(69,568)
Gain (loss) on sales and loss on write-down of investment securities, net	2,383	(625)	21,903
Gain on return of assets from retirement benefits trust	—	2,532	—
Settlement package	—	(864)	—
Other, net	(17,775)	(15,771)	(163,373)
	(37,140)	(14,050)	(341,360)
Income before income taxes	94,046	127,419	864,393
Income taxes (Note 10):			
Current	28,201	37,293	259,200
Deferred	930	2,338	8,548
	29,131	39,631	267,748
Net income	64,915	87,788	596,645
Net income attributable to non-controlling interests	9,190	8,415	84,467
Net income attributable to owners of parent	¥ 55,725	¥ 79,373	\$ 512,178

See accompanying notes to consolidated financial statements.

Consolidated Statements of Comprehensive Income

Toray Industries, Inc. and Consolidated Subsidiaries
Years ended March 31, 2020 and 2019

	Millions of yen		Thousands of U.S. dollars (Note 2)
	2020	2019	2020
Net income	¥ 64,915	¥ 87,788	\$ 596,645
Other comprehensive income (Note 17)			
Net unrealized gains (losses) on securities	(20,488)	(9,579)	(188,309)
Net deferred gains (losses) on hedges	1,037	1,064	9,531
Foreign currency translation adjustments	(44,857)	(4,767)	(412,289)
Remeasurements of defined benefit plans	(5,083)	(1,325)	(46,719)
Share of other comprehensive income of unconsolidated subsidiaries and affiliated companies accounted for by the equity method	(2,904)	(605)	(26,691)
Total other comprehensive income	(72,295)	(15,212)	(664,476)
Comprehensive income	¥ (7,380)	¥ 72,576	\$ (67,831)
Total comprehensive income attributable to:			
Owners of parent	¥ (13,917)	¥ 65,491	\$ (127,914)
Non-controlling interests	6,537	7,085	60,083

See accompanying notes to consolidated financial statements.

Consolidated Statements of Changes in Net Assets

Toray Industries, Inc. and Consolidated Subsidiaries
Years ended March 31, 2020 and 2019

	Millions of yen												
	Stockholders' equity					Accumulated other comprehensive income							
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total stockholders' equity	Net unrealized gains (losses) on securities	Net deferred gains (losses) on hedges	Foreign currency translation adjustments	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Stock acquisition rights	Non-controlling interests	Total net assets
Balance as of April 1, 2018	¥ 147,873	¥ 117,572	¥ 763,504	¥ (20,631)	¥ 1,008,318	¥ 74,290	¥ (901)	¥ 4,830	¥ 4,158	¥ 82,377	¥ 1,334	¥ 77,159	¥ 1,168,188
Changes in:													
Dividends			(25,608)		(25,608)								(25,608)
Net income attributable to owners of parent			79,373		79,373								79,373
Purchase of treasury stock				(2)	(2)								(2)
Disposal of treasury stock		14		273	287								287
Change in equity attributable to parent arising from transaction with non-controlling shareholders		174			174								174
Other			(6)	2	(4)								(4)
Items other than stockholders' equity, net						(9,628)	976	(3,934)	(1,296)	(13,882)	4	4,414	(9,464)
Total changes	—	188	53,759	273	54,220	(9,628)	976	(3,934)	(1,296)	(13,882)	4	4,414	44,756
Balance as of March 31, 2019	¥ 147,873	¥ 117,760	¥ 817,263	¥ (20,358)	¥ 1,062,538	¥ 64,662	¥ 75	¥ 896	¥ 2,862	¥ 68,495	¥ 1,338	¥ 81,573	¥ 1,213,944
Balance as of April 1, 2019	¥ 147,873	¥ 117,760	¥ 817,263	¥ (20,358)	¥ 1,062,538	¥ 64,662	¥ 75	¥ 896	¥ 2,862	¥ 68,495	¥ 1,338	¥ 81,573	¥ 1,213,944
Changes in:													
Dividends			(25,612)		(25,612)								(25,612)
Net income attributable to owners of parent			55,725		55,725								55,725
Purchase of treasury stock				(1)	(1)								(1)
Disposal of treasury stock		10		51	61								61
Change in equity attributable to parent arising from transaction with non-controlling shareholders		292			292								292
Other			1,892		1,892								1,892
Items other than stockholders' equity, net						(20,566)	1,087	(45,010)	(5,153)	(69,642)	264	2,649	(66,729)
Total changes	—	302	32,005	50	32,357	(20,566)	1,087	(45,010)	(5,153)	(69,642)	264	2,649	(34,372)
Balance as of March 31, 2020	¥ 147,873	¥ 118,062	¥ 849,268	¥ (20,308)	¥ 1,094,895	¥ 44,096	¥ 1,162	¥ (44,114)	¥ (2,291)	¥ (1,147)	¥ 1,602	¥ 84,222	¥ 1,179,572

	Thousands of U.S. dollars (Note 2)												
	Stockholders' equity					Accumulated other comprehensive income							
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total stockholders' equity	Net unrealized gains (losses) on securities	Net deferred gains (losses) on hedges	Foreign currency translation adjustments	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Stock acquisition rights	Non-controlling interests	Total net assets
Balance as of April 1, 2019	\$ 1,359,127	\$ 1,082,353	\$ 7,511,608	\$ (187,114)	\$ 9,765,974	\$ 594,320	\$ 689	\$ 8,235	\$ 26,305	\$ 629,550	\$ 12,298	\$ 749,752	\$ 11,157,574
Changes in:													
Dividends			(235,404)		(235,404)								(235,404)
Net income attributable to owners of parent			512,178		512,178								512,178
Purchase of treasury stock				(9)	(9)								(9)
Disposal of treasury stock		92		469	561								561
Change in equity attributable to parent arising from transaction with non-controlling shareholders		2,684			2,684								2,684
Other			17,390		17,390								17,390
Items other than stockholders' equity, net						(189,026)	9,991	(413,695)	(47,362)	(640,092)	2,426	24,347	(613,318)
Total changes	—	2,776	294,164	460	297,399	(189,026)	9,991	(413,695)	(47,362)	(640,092)	2,426	24,347	(315,919)
Balance as of March 31, 2020	\$ 1,359,127	\$ 1,085,129	\$ 7,805,772	\$ (186,654)	\$ 10,063,373	\$ 405,294	\$ 10,680	\$ (405,460)	\$ (21,057)	\$ (10,542)	\$ 14,724	\$ 774,099	\$ 10,841,654

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows

Toray Industries, Inc. and Consolidated Subsidiaries
Years ended March 31, 2020 and 2019

	Millions of yen		Thousands of U.S. dollars (Note 2)
	2020	2019	2020
Cash flows from operating activities:			
Income before income taxes	¥ 94,046	¥ 127,419	\$ 864,393
Adjustments to reconcile income before income taxes to net cash provided by operating activities:			
Depreciation and amortization	107,382	101,711	986,967
Loss on impairment of fixed assets	7,569	18,414	69,568
Interest and dividend income	(7,024)	(6,883)	(64,559)
Equity in losses (earnings) of unconsolidated subsidiaries and affiliated companies	10,805	(9,619)	99,311
Interest expenses	7,235	7,161	66,498
Loss (gain) on sales and disposal of property, plant and equipment, net	3,163	(9,751)	29,072
Loss (gain) on sales and write-down of investment securities, net	(2,230)	666	(20,496)
Increase (decrease) in net defined benefit liability	(999)	(1,451)	(9,182)
Decrease (increase) in trade receivables	37,191	(33,582)	341,829
Decrease (increase) in inventories	18,116	28,427	166,507
Increase (decrease) in trade payables	(23,582)	(11,843)	(216,746)
Other, net	(6,851)	(464)	(62,969)
Subtotal	244,821	210,205	2,250,193
Interest and dividends received	16,420	15,704	150,919
Interest paid	(5,550)	(7,098)	(51,011)
Income taxes paid	(29,924)	(42,572)	(275,037)
Net cash provided by operating activities	225,767	176,239	2,075,064
Cash flows from investing activities:			
Capital expenditures	(140,147)	(169,630)	(1,288,116)
Purchase of investment securities	(7,317)	(4,131)	(67,252)
Proceeds from sales of property, plant and equipment	6,018	19,254	55,313
Proceeds from sales of investment securities	8,372	8,387	76,949
Acquisition of shares of consolidated subsidiaries resulting in change in scope of consolidation (Note 18)	—	(114,564)	—
Other, net	(9,290)	437	(85,386)
Net cash used in investing activities	(142,364)	(260,247)	(1,308,493)
Cash flows from financing activities:			
Net increase (decrease) in short-term debt	(30,024)	(18,596)	(275,956)
Proceeds from long-term debt	87,026	234,530	799,871
Repayment of long-term debt	(91,581)	(66,843)	(841,737)
Cash dividends paid	(28,934)	(29,875)	(265,938)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	(274)	(344)	(2,518)
Other, net	(3,807)	19	(34,991)
Net cash provided by (used in) financing activities	(67,594)	118,891	(621,268)
Effect of exchange rate changes on cash and cash equivalents	(5,206)	(327)	(47,849)
Net increase (decrease) in cash and cash equivalents	10,603	34,556	97,454
Cash and cash equivalents at beginning of year	173,078	134,315	1,590,790
Beginning balance of cash and cash equivalents at subsidiaries not previously included in consolidation	—	4,207	—
Cash and cash equivalents at end of year	¥ 183,681	¥ 173,078	\$ 1,688,244

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Toray Industries, Inc. and Consolidated Subsidiaries
Years ended March 31, 2020 and 2019

1. SIGNIFICANT ACCOUNTING POLICIES

a) Basis of Presenting Consolidated Financial Statements

The accompanying consolidated financial statements of Toray Industries, Inc. (the Company) and its consolidated subsidiaries have been prepared in accordance with the provisions set forth in the Financial Instruments and Exchange Act of Japan and its related accounting regulations, and in conformity with accounting principles and practices generally accepted in Japan, which are different in certain respects as to application and disclosure requirements of International Financial Reporting Standards (IFRS).

For the preparation of consolidated financial statements, the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should be unified, in principle. However, financial statements prepared by overseas subsidiaries in accordance with IFRS or the generally accepted accounting principles in the United States tentatively may be used for the consolidation process. In addition, some items should be adjusted in the consolidation process so that net income is accurately accounted for, unless they are not material.

Certain items presented in the original consolidated financial statements in Japanese have been reclassified for the convenience of readers outside Japan.

b) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and substantially all of its subsidiaries.

Assets and liabilities of the consolidated subsidiaries are revalued to fair market value when the Company acquires control over the subsidiaries.

Investments in unconsolidated subsidiaries and affiliated companies are accounted for by the equity method.

All intercompany accounts and transactions have been eliminated in consolidation. The difference between the consideration transferred and the net identifiable assets of the subsidiaries is recognized as goodwill and amortized principally over its estimated useful life not exceeding twenty years on a straight-line method.

c) Cash and Cash Equivalents

Cash and cash equivalents at March 31, 2020 and 2019 include cash, short-term time deposits which may be withdrawn on demand without diminution of principal and highly liquid investments with original maturities of three months or less.

Cash and cash equivalents consisted of:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Cash	¥142,496	¥140,701	\$1,309,706
Time deposits	31,202	27,806	286,783
Less—Time deposits with maturities of over 3 months	(4,788)	(2,841)	(44,007)
Marketable securities with original maturities of 3 months or less	14,771	7,412	135,763
Cash and cash equivalents	¥183,681	¥173,078	\$1,688,244

d) Financial Instruments

Derivatives:

All derivatives are stated at fair value, with changes in fair value included in net income or loss for the period in which they arise, except for derivatives that are designated as “hedging instruments” (see Hedge Accounting below).

Securities:

Held-to-maturity debt securities that the Company and its consolidated subsidiaries have the intent to hold to maturity, are stated at cost after accounting for premium or discount on acquisition, which are amortized over the period to maturity.

Other securities for which market quotations are available are stated at fair value. Net unrealized gains or losses on these securities are reported as a separate item in net assets at a net-of-tax amount.

Other securities for which market quotations are unavailable are stated at cost, except as stated in the paragraph below.

In cases where the fair value of held-to-maturity debt securities or other securities has declined significantly and such impairment of the value is not deemed temporary, those securities are written down to fair value and the resulting losses are included in net income or loss for the period.

Hedge Accounting:

Gains or losses arising from changes in fair value of derivatives designated as “hedging instruments” are deferred as a separate item of net assets at a net-of-tax amount and included in net income or loss in the same period during which the gains and losses on the hedged items or transactions are recognized.

The derivatives designated as hedging instruments by the Company and its consolidated subsidiaries are principally interest rate swaps and forward foreign exchange contracts. The related hedged items are trade accounts receivable and payable, long-term bank loans and debt securities issued by the Company and its consolidated subsidiaries.

The Company and its consolidated subsidiaries have a policy to utilize the above hedging instruments in order to reduce their exposure to the risk of interest rate and foreign currency fluctuations. Thus, their purchases of the hedging instruments are limited to, at maximum, the amounts of the hedged items.

The Company and its consolidated subsidiaries evaluate the effectiveness of hedging activities by reference to the accumulated gains or losses on the hedging instruments and the related hedged items from the commencement of the hedges.

e) Allowance for Doubtful Accounts

In the Company and its domestic consolidated subsidiaries, an allowance for doubtful accounts, including receivables and loans, is determined from the amounts considered unlikely to be recovered, estimated from past actual bad debt ratio records for general receivables and from studying the probability of recovery in individual cases where there is concern over claims.

f) Inventories

Inventories are stated at the lower of acquisition cost, principally determined by the moving average method, or net selling value to reflect any decreased profitability of inventories.

g) Property, Plant and Equipment

Property, plant and equipment are stated at cost.

Depreciation for property, plant and equipment (except leased assets) is principally computed by the straight-line method at rates based on estimated useful lives that are as follows:

Buildings	3–60 years
Machinery and equipment	3–15 years

Right-of-use assets are depreciated using the straight-line method over the shorter of the useful lives of the assets or the lease terms. The depreciation method of other leased assets under finance leases is principally identical to the method applicable to its own fixed assets.

h) Income Taxes

Income taxes of the Company and its domestic consolidated subsidiaries consist of corporate income taxes, local inhabitants taxes and enterprise taxes. Deferred income taxes are determined using the asset and liability approach, where deferred tax assets and liabilities are recognized for temporary differences between the tax basis of assets and liabilities and their reported amount in the financial statements. The Company also provides for the anticipated tax effect of future remittances of retained earnings from subsidiaries and affiliated companies.

The Company and some of its consolidated subsidiaries file consolidated tax returns in their respective countries.

With regard to items to be transitioned from the consolidated taxation system to the group tax sharing system instituted in the “Act for Partial Amendment of the Income Tax Act, etc. (Act No. 8 of 2020)” and items to be amended in the non-consolidated taxation system in line with the transition to the group tax sharing system, the Company and some of its domestic consolidated subsidiaries did not apply the provision of Paragraph 44 of the “Implementation Guidance on Tax Effect Accounting (Accounting Standards Board of Japan (ASBJ) Guidance No. 28, February 16, 2018),” pursuant to Paragraph 3 of the “Practical Solution on the Treatment of Tax Effect Accounting for the Transition from the Consolidated Taxation System to the Group Tax Sharing System (PITF No. 39, March 31, 2020).” Accordingly, the amounts of deferred tax assets and deferred tax liabilities are stated based on the provisions of tax acts in effect before the amendments.

i) Consumption Taxes

Transactions subject to consumption taxes are recorded at amounts exclusive of consumption taxes.

j) Retirement Benefits

The Company and some of its consolidated subsidiaries have unfunded lump-sum benefit plans, funded contributory pension plans and/or defined contribution pension plans covering eligible employees.

Under the terms of the unfunded lump-sum benefit plans, eligible employees are entitled under most circumstances, upon mandatory retirement or earlier voluntary severance, to indemnities based on compensation at the time of severance and years of service.

The funded contributory pension plans and the defined contribution pension plans provide, in general, pension payments for life commencing from age 60.

To provide for the payment of retirement benefits to employees, net defined benefit liability is recognized at an amount equal to the expected retirement benefit obligations net of the fair value of pension assets at the end of the period.

Past service cost is amortized as incurred using the straight-line method over a certain period within the employees’ average remaining years of service (primarily 12 years).

Actuarial gains and losses are amortized from the following fiscal year after recognition using the straight-line method over a certain period within the employees’ average remaining years of service (primarily 12 years).

Unrecognized actuarial gains and losses and unrecognized past service cost are recognized in remeasurements of defined benefit plans in accumulated other comprehensive income under the net assets section, net of deferred taxes.

An allowance is separately provided against retirement benefits for the members of the boards of some consolidated subsidiaries and is included in “other non-current liabilities” on the consolidated balance sheets. The amount is calculated based on the internal company policies as the estimated amount that would be payable if all such board members were to retire at the balance sheet date.

k) Appropriation of Retained Earnings

Cash dividends are recorded in the fiscal year when the proposed appropriation of retained earnings is approved by the Board of Directors and/or stockholders.

l) Foreign Currency Transactions

All monetary assets and liabilities denominated in foreign currencies, whether long-term or short-term, are translated into Japanese yen at the exchange rates prevailing at the balance sheet date. Resulting gains and losses are included in net income or loss for the period.

m) Translation of Foreign Currency Financial Statements

Translation of foreign currency financial statements of overseas subsidiaries into Japanese yen for consolidation purposes is made by using the current exchange rates prevailing at their balance sheet dates, with the exception that the translation of stockholders' equity is made by using historical rates. Revenue and expense accounts are principally translated at the average exchange rates during the year. Differences in yen amounts arising from the use of different rates are presented as "foreign currency translation adjustments" in net assets except for the portion belonging to non-controlling shareholders, which is included in "non-controlling interests" in net assets.

n) Changes in Accounting Policies

Leases (IFRS 16)

Effective from the year ended March 31, 2020, overseas subsidiaries subject to IFRS have applied IFRS 16 "Leases." Accordingly, those subsidiaries recognize assets and liabilities for all leases in which they are lessees, in principle, and some of the assets that have been included in "Investments and other assets" are reclassified to "Property, plant and equipment." When applying IFRS 16, the cumulative effect of the application is recognized at the beginning of application, in accordance with transitional provisions.

As a result, "Other" in "Property, plant and equipment," "Other current liabilities" in "Current liabilities," and "Other non-current liabilities" in "Non-current liabilities" as of March 31, 2020 increased by ¥20,735 million (\$190,579 thousand), ¥2,676 million (\$24,596 thousand), and ¥8,971 million (\$82,454 thousand), respectively, and "Other" in "Investments and other assets" decreased by ¥9,278 million (\$85,276 thousand). The effect of the changes on the profit or loss for the year ended March 31, 2020 is immaterial.

o) Standards Issued but Not Yet Adopted

Accounting Standard and Implementation Guidance on Revenue Recognition

- Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, March 31, 2020)
- Implementation Guidance on Accounting Standard for Revenue Recognition (ASBJ Guidance No. 30, March 31, 2020)

(1) Overview

This is a comprehensive accounting standard for revenue recognition. The standard establishes the following five-step model that an entity applies when recognizing revenue from customers:

Step 1: Identify the contract(s) with a customer.

Step 2: Identify the performance obligations in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligations in the contract.

Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.

(2) Scheduled Date and Impact of Adoption

The Company will not adopt the standard and implementation guidance nor has it evaluated the impact of adoption because the Company plans voluntary adoption of IFRS starting from the first quarter of the year ending March 31, 2021.

Accounting Standard for Fair Value Measurement, etc.

- Accounting Standard for Fair Value Measurement (ASBJ Statement No. 30, July 4, 2019)
- Implementation Guidance on Accounting Standard for Fair Value Measurement (ASBJ Guidance No. 31, July 4, 2019)
- Accounting Standard for Measurement of Inventories (ASBJ Statement No. 9, July 4, 2019)
- Accounting Standard for Financial Instruments (ASBJ Statement No. 10, July 4, 2019)
- Implementation Guidance on Disclosures about Fair Value of Financial Instruments (ASBJ Guidance No. 19, March 31, 2020)

(1) Overview

ASBJ developed "Accounting Standard for Fair Value Measurement" and "Implementation Guidance on Accounting Standard for Fair Value Measurement," which provide guidance for fair value measurement in order to improve comparability with internationally recognized accounting standards. The accounting standard and implementation guidance apply to the fair value of financial instruments and trading inventories.

In addition, "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" was revised to include the provisions that require entities to disclose the fair value of financial instruments by level of the fair value hierarchy.

(2) Scheduled Date and Impact of Adoption

The Company will not adopt the standards and implementation guidance nor has it evaluated the impact of adoption because the Company plans voluntary adoption of IFRS starting from the first quarter of the year ending March 31, 2021.

Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections

- Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections (ASBJ Statement No. 24, March 31, 2020)

(1) Overview

This revised standard establishes a disclosure requirement of the outline of accounting principles and procedures applied by an entity in cases where directly relevant accounting standards are not available.

(2) Scheduled Date and Impact of Adoption

The Company will not adopt the standard nor has it evaluated the impact of adoption because the Company plans voluntary adoption of IFRS starting from the first quarter of the year ending March 31, 2021.

Accounting Standard for Disclosure of Accounting Estimates

- Accounting Standard for Disclosure of Accounting Estimates (ASBJ Statement No. 31, March 31, 2020)

(1) Overview

This standard stipulates guidance on disclosure that provides users of financial statements with information to understand the accounting estimates that relate to the amounts stated in the financial statements of a year and that may have a material impact on the financial statements of the subsequent year.

(2) Scheduled Date and Impact of Adoption

The Company will not adopt the standard nor has it evaluated

the impact of adoption because the Company plans voluntary adoption of IFRS starting from the first quarter of the year ending March 31, 2021.

p) Assumptions on the novel coronavirus pandemic for accounting estimates

The Company's evaluation of goodwill and other accounting estimates were premised on the assumption that the world economy, which was severely stalled by the novel coronavirus pandemic, would begin recovering from the second half of the year ending March 31, 2021, but that the recovery would be slow and would not be complete until the year ending March 31, 2022 or later.

2. U.S. DOLLAR AMOUNTS

The Company and its domestic consolidated subsidiaries maintain their accounting records in yen. The U.S. dollar amounts included in the accompanying consolidated financial statements and notes thereto represent the arithmetic results of translating yen into U.S. dollars at the rate of ¥108.8 to \$1.00, the approximate exchange rate prevailing on March 31, 2020.

The inclusion of such U.S. dollar amounts is solely for the convenience of readers outside Japan and is not intended to imply that the assets and liabilities that originated in yen have been or could be readily converted, realized or settled in U.S. dollars at this or at any other rate.

3. INVENTORIES

At March 31, 2020 and 2019, inventories consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Merchandise and finished goods	¥ 214,957	¥ 228,480	\$ 1,975,708
Work in process	79,520	85,880	730,882
Raw materials and supplies	99,178	105,167	911,563
	¥ 393,655	¥ 419,527	\$ 3,618,153

Losses recognized and charged to cost of sales as a result of valuation at March 31, 2020 and 2019 were ¥4,696 million (\$43,162 thousand) and ¥4,502 million, respectively.

4. SHORT-TERM BANK LOANS, LONG-TERM DEBT AND LEASE OBLIGATIONS

Short-term bank loans at March 31, 2020 and 2019 represented bank overdrafts and short-term notes. The Company is not required to pay commitment fees on unused balances of the bank overdraft agreements.

Long-term debt and lease obligations at March 31, 2020 and 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Loans principally from banks and insurance companies with interest rates primarily from 0.06% to 11.50%, maturing serially through 2032:			
Unsecured	¥ 490,860	¥ 456,402	\$ 4,511,581
Secured	339	453	3,116
Lease obligations maturing serially through 2050:			
Unsecured	15,356	3,829	141,140
Yen notes with an interest rate of 0.93% due 2022	20,000	20,000	183,824
Yen notes with an interest rate of 1.01% due 2023	20,000	20,000	183,824
Yen notes with an interest rate of 0.25% due 2024	40,000	40,000	367,647
Yen notes with an interest rate of 0.24% due 2025	40,000	40,000	367,647
Yen notes with an interest rate of 0.38% due 2027	60,000	60,000	551,471
Yen notes with an interest rate of 0.38% due 2028	40,000	40,000	367,647
Yen notes with an interest rate of 0.83% due 2038	20,000	20,000	183,824
Zero coupon convertible bonds due 2019	—	50,000	—
Zero coupon convertible bonds due 2021	50,000	50,000	459,559
	796,555	800,684	7,321,278
Less amounts due within one year	111,254	94,493	1,022,555
	¥ 685,301	¥ 706,191	\$ 6,298,722

At March 31, 2020, assets pledged as collateral were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2020	2020
Time deposits	¥ 908		\$ 8,346
Property, plant and equipment, net	247		2,270
Investment securities	1,236		11,360
Others	655		6,020
	¥ 3,046		\$ 27,996

The annual maturities of long-term debt and lease obligations subsequent to March 31, 2020 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2020	2020
Years ending March 31:			
2021	¥ 111,254		\$ 1,022,555
2022	102,076		938,199
2023	97,297		894,274
2024	106,021		974,458
2025	50,500		464,154
2026 and thereafter	329,407		3,027,638
	¥ 796,555		\$ 7,321,278

5. FINANCIAL INSTRUMENTS

Conditions of Financial Instruments

a) Policy in Relation to Financial Instruments

The policy of the Company and its consolidated subsidiaries is to manage funds only by short-term deposits, etc. and to raise funds by borrowing from banks and issuing corporate bonds. The Company and its consolidated subsidiaries use derivatives to hedge risks associated with foreign currency exchange rates and fluctuations of borrowing interest rates and do not enter into derivative transactions for speculative or trading purposes.

b) Contents and Risk of Financial Instruments and Risk Management System

Trade receivables are operating receivables and therefore are exposed to customer credit risk. Under its internal regulations, the Company carefully manages the payment periods for receivables and outstanding balances of all customers and regularly monitors the credit standing of major clients. Consolidated subsidiaries also monitor and manage the credit standings of their clients. Operating receivables and payables denominated in foreign currencies that arise from the global business operations are also exposed to foreign currency exchange risk. The Company and its consolidated subsidiaries hedge this risk mainly through the use of forward exchange contracts against positions after netting receivables and payables denominated in the same foreign currencies. Likewise, the Company and its consolidated subsidiaries mainly use currency swaps to hedge the foreign currency exchange risk of bank loans denominated in foreign currencies.

Investment securities are mostly the shares of corporations with which the Company and its consolidated subsidiaries have business relationships and are exposed to the risk of market price fluctuations. The fair value of the investment securities and financial positions of the issuing entities (clients) are regularly monitored.

Trade payables are operating payables, most of which are due and payable within one year.

Short-term bank loans and commercial paper are financing instruments mainly for operating transactions, while long-term bank loans and bonds are primarily for capital expenditures. Bank loans and bonds are exposed to the risk of interest rate fluctuation. Those with floating rates bear the risk of higher nominal interest expenses when interest rates rise, whereas those with fixed rates bear the risk of higher real interest expenses when interest rates fall. The Company and its consolidated subsidiaries use derivative transactions (interest rate swap transactions) to minimize the risk of interest rate fluctuation, taking into consideration the balance between fixed interest rates and floating interest rates.

Hedging instruments, hedged items, the policy for utilizing such hedging instruments and the method for evaluating the effectiveness of hedging activities are described in Note 1. SIGNIFICANT ACCOUNTING POLICIES d) Financial Instruments, Hedge Accounting in the Notes to the Consolidated Financial Statements.

Derivative transactions are executed and managed in accordance with the internal regulations prescribing the authorization for transactions. To mitigate credit risk, the Company and its consolidated subsidiaries carry out derivative transactions only with highly rated financial institutions.

c) Supplemental Explanation on Fair Value of Financial Instruments

The fair value of financial instruments is based on market prices, or reasonable estimate of fair value for instruments for which market prices are not available. Estimates of fair value are subject to fluctuation because they employ various factors and assumptions. In addition, the contract amount of derivatives in Note 7. DERIVATIVES in the Notes to the Consolidated Financial Statements is not an indicator of market risk associated with derivative transactions.

Fair Value of Financial Instruments

Carrying value, fair value and unrealized gain (loss) as of March 31, 2020 and 2019 were as follows.

In addition, financial instruments, for which it is extremely difficult to measure the fair value, are not included. (Please refer to Note 2 below)

	Millions of yen		
	2020		
	Carrying value	Fair value	Unrealized gain (loss)
Cash and time deposits	¥ 173,698	¥ 173,698	¥ —
Trade receivables	483,761	483,761	—
Investment securities			
Held-to-maturity debt securities	78	81	3
Investment securities in subsidiaries and affiliated companies	50,503	39,022	(11,481)
Other securities	164,176	164,176	—
Assets	¥ 872,216	¥ 860,738	¥ (11,478)
Trade payables	¥ 212,323	¥ 212,323	¥ —
Short-term bank loans	132,358	132,358	—
Commercial paper	10,000	10,000	—
Bonds	290,000	289,746	(254)
Long-term bank loans ^{*2}	491,199	491,182	(17)
Liabilities	¥ 1,135,880	¥ 1,135,609	¥ (271)
Derivative transactions ^{*3}			
Hedge accounting is not applied	¥ (450)	¥ (450)	¥ —
Hedge accounting is applied	1,837	1,837	—
Derivative transactions	¥ 1,387	¥ 1,387	¥ —

	Millions of yen		
	2019		
	Carrying value	Fair value	Unrealized gain (loss)
Cash and time deposits	¥ 168,507	¥ 168,507	¥ —
Trade receivables	531,058	531,058	—
Investment securities			
Held-to-maturity debt securities	101	105	4
Investment securities in subsidiaries and affiliated companies	73,940	62,426	(11,514)
Other securities	188,586	188,586	—
Assets	¥ 962,192	¥ 950,682	¥ (11,510)
Trade payables	¥ 240,554	¥ 240,554	¥ —
Short-term bank loans	175,567	175,567	—
Commercial paper	—	—	—
Bonds ^{*1}	340,000	345,092	5,092
Long-term bank loans ^{*2}	456,855	456,478	(377)
Liabilities	¥ 1,212,976	¥ 1,217,691	¥ 4,715
Derivative transactions ^{*3}			
Hedge accounting is not applied	¥ (587)	¥ (587)	¥ —
Hedge accounting is applied	779	779	—
Derivative transactions	¥ 192	¥ 192	¥ —

Thousands of U.S. dollars

	2020		
	Carrying value	Fair value	Unrealized gain (loss)
Cash and time deposits	\$ 1,596,489	\$ 1,596,489	\$ —
Trade receivables	4,446,333	4,446,333	—
Investment securities			
Held-to-maturity debt securities	717	744	28
Investment securities in subsidiaries and affiliated companies	464,182	358,658	(105,524)
Other securities	1,508,971	1,508,971	—
Assets	\$ 8,016,691	\$ 7,911,195	\$ (105,496)
Trade payables	\$ 1,951,498	\$ 1,951,498	\$ —
Short-term bank loans	1,216,526	1,216,526	—
Commercial paper	91,912	91,912	—
Bonds	2,665,441	2,663,107	(2,335)
Long-term bank loans ^{*2}	4,514,697	4,514,540	(156)
Liabilities	\$ 10,440,074	\$ 10,437,583	\$ (2,491)
Derivative transactions ^{*3}			
Hedge accounting is not applied	\$ (4,136)	\$ (4,136)	\$ —
Hedge accounting is applied	16,884	16,884	—
Derivative transactions	\$ 12,748	\$ 12,748	\$ —

*1 Bonds include bonds due within one year.

*2 Long-term bank loans include long-term bank loans due within one year.

*3 Receivables and payables arising from derivative transactions are indicated in net amounts. Total net payables, if any, are shown in parentheses.

Notes:

1. Estimation method for fair value of financial instruments and items related to securities and derivative transactions

Assets

Cash and time deposits and Trade receivables

Carrying value is used for fair value since the items will be settled within the short term and the fair value is approximately equal to the carrying value.

Investment securities

Equity securities are valued at quoted market price. Debt securities, etc. are valued at quoted market price or at the price provided by financial institutions. For information on securities classified by holding purpose, please refer to Note 6. SECURITIES of the Notes to the Consolidated Financial Statements.

Liabilities

Trade payables, Short-term bank loans and Commercial paper

Carrying value is used for fair value since the items will be settled within the short term and the fair value is approximately equal to the carrying value.

Bonds

The fair value of bonds is based on market price. However, for floating-rate bonds and fixed-rate bonds converted to floating using interest rate swaps accounted for under the special accounting method for interest rate swaps, the fair value is approximately equal to the carrying value because the interest rates are adjusted periodically. Therefore, the fair value is based on the carrying value.

Long-term bank loans

The fair value of long-term bank loans is estimated by discounting the principal amounts and interest based on estimated interest rates if similar new loans were entered into in the current period. The fair value of long-term bank loans for which the special accounting method for interest rate swaps is applied is estimated by discounting the total principal amount and interest (accounted for together with the interest rate swaps) based on estimated interest rates if similar new loans were entered into in the current period. For long-term bank loans at floating interest rates, however, the fair value is approximately equal to the carrying value because the interest rates are adjusted periodically. Therefore, the fair value is based on the carrying value.

Derivative transactions

Please refer to Note 7. DERIVATIVES in the Notes to the Consolidated Financial Statements.

2. Financial instruments for which it is extremely difficult to determine the fair value

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unlisted equity securities	¥ 87,012	¥ 78,466	\$ 799,743

These securities have no quoted market price and the fair value is extremely difficult to determine. Therefore, they are not included in the preceding table.

3. Redemption schedule for receivables and investment securities with maturities at March 31, 2020 and 2019

	Millions of yen			
	2020			
	Due within one year	Due after one year through five years	Due after five years through ten years	Due after ten years
Cash and time deposits	¥ 173,698	¥ —	¥ —	¥ —
Trade receivables	483,684	77	—	—
Investment securities				
Held-to-maturity debt securities	6	59	13	—
Other securities	17,068	10	50	—
	¥ 674,456	¥ 146	¥ 63	¥ —

	Millions of yen			
	2019			
	Due within one year	Due after one year through five years	Due after five years through ten years	Due after ten years
Cash and time deposits	¥ 168,507	¥ —	¥ —	¥ —
Trade receivables	531,058	—	—	—
Investment securities				
Held-to-maturity debt securities	32	58	11	—
Other securities	7,412	12	53	—
	¥ 707,009	¥ 70	¥ 64	¥ —

	Thousands of U.S. dollars			
	2020			
	Due within one year	Due after one year through five years	Due after five years through ten years	Due after ten years
Cash and time deposits	\$ 1,596,489	\$ —	\$ —	\$ —
Trade receivables	4,445,625	708	—	—
Investment securities				
Held-to-maturity debt securities	55	542	119	—
Other securities	156,875	92	460	—
	\$ 6,199,044	\$ 1,342	\$ 579	\$ —

4. The redemption schedule for long-term debt is disclosed in Note 4. SHORT-TERM BANK LOANS, LONG-TERM DEBT AND LEASE OBLIGATIONS of the Notes to the Consolidated Financial Statements.

6. SECURITIES

At March 31, 2020 and 2019, information on securities classified as held-to-maturity debt securities was as follows:

	Millions of yen				Thousands of U.S. dollars			
	2020				2020			
	Carrying value	Fair value	Unrealized gains	Unrealized losses	Carrying value	Fair value	Unrealized gains	Unrealized losses
Held-to-maturity debt securities	¥ 78	¥ 81	¥ 4	¥ 1	\$ 717	\$ 744	\$ 37	\$ 9

	Millions of yen			
	2019			
	Carrying value	Fair value	Unrealized gains	Unrealized losses
Held-to-maturity debt securities	¥ 101	¥ 105	¥ 4	¥ 0

At March 31, 2020 and 2019, information on securities classified as other securities was as follows:

	Millions of yen				Thousands of U.S. dollars			
	2020				2020			
	Carrying value	Acquisition cost	Unrealized gains	Unrealized losses	Carrying value	Acquisition cost	Unrealized gains	Unrealized losses
Other securities	¥ 164,176	¥ 102,409	¥ 72,077	¥ 10,310	\$ 1,508,971	\$ 941,259	\$ 662,472	\$ 94,761

	Millions of yen			
	2019			
	Carrying value	Acquisition cost	Unrealized gains	Unrealized losses
Other securities	¥ 188,586	¥ 97,348	¥ 96,192	¥ 4,954

7. DERIVATIVES

The Company and its consolidated subsidiaries had the following derivative contracts outstanding at March 31, 2020 and 2019:

Hedge accounting is not applied

	Millions of yen			Thousands of U.S. dollars		
	2020			2020		
	Contract amount	Fair value	Unrealized gain (loss)	Contract amount	Fair value	Unrealized gain (loss)
Forward foreign exchange contracts:						
Buying U.S. dollar	¥ 10,168	¥ 183	¥ 183	\$ 93,456	\$ 1,682	\$ 1,682
Buying euro	1,854	(6)	(6)	17,040	(55)	(55)
Buying Thai baht	593	(30)	(30)	5,450	(276)	(276)
Buying Malaysian ringgit	218	0	0	2,004	0	0
Buying Australian dollar	1	0	0	9	0	0
Buying Japanese yen	3,712	(3)	(3)	34,118	(28)	(28)
Selling U.S. dollar	16,558	(140)	(140)	152,188	(1,287)	(1,287)
Selling euro	4,036	(8)	(8)	37,096	(74)	(74)
Selling Chinese yuan	1,648	(39)	(39)	15,147	(358)	(358)
Selling Indonesian rupiah	78	3	3	717	28	28
Selling Japanese yen	3,666	(123)	(123)	33,695	(1,131)	(1,131)
Foreign currency swaps:						
Receiving U.S. dollar, paying Thai baht	3,529	(287)	(287)	32,436	(2,638)	(2,638)
	¥ —	¥ (450)	¥ (450)	\$ —	\$ (4,136)	\$ (4,136)

	Millions of yen		
	2019		
	Contract amount	Fair value	Unrealized gain (loss)
Forward foreign exchange contracts:			
Buying U.S. dollar	¥ 6,481	¥ 24	¥ 24
Buying euro	10,298	(28)	(28)
Buying Thai baht	375	4	4
Buying Malaysian ringgit	649	4	4
Buying Japanese yen	4,453	(19)	(19)
Selling U.S. dollar	15,505	(102)	(102)
Selling euro	1,777	17	17
Selling Chinese yuan	931	(25)	(25)
Selling Thai baht	87	0	0
Selling Indonesian rupiah	136	0	0
Selling Japanese yen	8,331	(114)	(114)
Foreign currency swaps:			
Receiving U.S. dollar, paying Thai baht	3,688	(348)	(348)
	¥ —	¥ (587)	¥ (587)

Hedge accounting is applied

Millions of yen

		2020		
Hedge accounting method	Type of contract and primary hedged items	Contract amount	Fair value	Estimation method for fair value
Deferral hedge method	Forward foreign exchange contracts:			
	For trade receivables and trade payables			
	Buying Japanese yen	¥ 1,379	¥ 12	Forward foreign exchange quotes
	Selling U.S. dollar	4,035	(1)	
	Selling euro	938	(58)	
	Selling Chinese yuan	492	2	
	Foreign currency swaps:			
	For long-term bank loans			
	Receiving U.S. dollar, paying Korean won	2,482	233	Prices provided by financial institutions
	Receiving Japanese yen, paying Korean won	7,084	927	
Interest rate swaps:				
For long-term bank loans			Prices provided by financial institutions	
Floating-rate receipt, fixed-rate payment	99,785	224		
Special accounting method for interest rate swaps	Interest rate swaps:			
	For long-term bank loans			
	Floating-rate receipt, fixed-rate payment	486	— ^{*1}	—
	Floating-rate receipt, floating-rate payment	26,900		
Allocation method for forward foreign exchange contracts	Forward foreign exchange contracts:			
	For forecast transactions denominated in foreign currencies			
	Buying U.S. dollar	17,727	355	Forward foreign exchange quotes
	Buying euro	13,020	8	
	Buying Chinese yuan	544	2	
	Buying Korean won	237	10	
	Selling U.S. dollar	15,884	64	
	Selling euro	3,636	1	
	Selling British pound	9	0	
	Selling Chinese yuan	1,606	40	
	Selling Hong Kong dollar	1,123	18	
	Forward foreign exchange contracts:			
	For trade receivables and trade payables			
	Buying U.S. dollar	9,994		
	Buying euro	166		
	Buying Chinese yuan	98		
	Buying Thai baht	16		
	Buying Korean won	24		
	Buying Japanese yen	1	— ^{*2}	—
	Selling U.S. dollar	26,299		
	Selling euro	7,240		
	Selling British pound	21		
Selling Chinese yuan	8			
Foreign currency swaps:				
For long-term bank loans				
Receiving U.S. dollar, paying Japanese yen	127,703	— ^{*2}	—	
		¥ —	¥ 1,837	

Millions of yen

Hedge accounting method	Type of contract and primary hedged items	2019		
		Contract amount	Fair value	Estimation method for fair value
Deferral hedge method	Forward foreign exchange contracts:			
	For trade receivables and trade payables			
	Buying Japanese yen	¥ 1,638	¥ (2)	Forward foreign exchange quotes
	Selling U.S. dollar	1,150	(11)	
	Selling euro	647	3	
	Selling Chinese yuan	182	1	
	Foreign currency swaps:			
	For long-term bank loans			
	Receiving U.S. dollar, paying Korean won	4,900	80	Prices provided by financial institutions
	Receiving Japanese yen, paying Korean won	7,782	225	
Interest rate swaps:				
For long-term bank loans				
Floating-rate receipt, fixed-rate payment	40,000	29	Prices provided by financial institutions	
Special accounting method for interest rate swaps	Interest rate swaps:			
	For bonds and long-term bank loans			
	Floating-rate receipt, fixed-rate payment	504		
	Floating-rate receipt, floating-rate payment	26,900	—*1	—
Fixed-rate receipt, floating rate payment	40,000			
Allocation method for forward foreign exchange contracts	Forward foreign exchange contracts:			
	For forecast transactions denominated in foreign currencies			
	Buying U.S. dollar	23,887	376	Forward foreign exchange quotes
	Buying euro	730	(8)	
	Buying Chinese yuan	537	(4)	
	Buying Thai baht	426	111	
	Buying Korean won	2,158	(20)	
	Selling U.S. dollar	21,422	(9)	
	Selling euro	649	8	
	Selling British pound	10	0	
	Selling Thai baht	1	0	
	Selling Japanese yen	52	0	
	Forward foreign exchange contracts:			
	For trade receivables and trade payables			
	Buying U.S. dollar	12,383		
	Buying euro	217		
	Buying British pound	1		
	Buying Chinese yuan	72		
	Buying Japanese yen	4		
	Selling U.S. dollar	28,612	—*2	—
	Selling euro	3,685		
	Selling British pound	13		
	Selling Chinese yuan	44		
Selling Thai baht	6			
Foreign currency swaps:				
For long-term bank loans				
Receiving U.S. dollar, paying Japanese yen	129,389	—*2	—	
	¥ —	¥ 779		

Thousands of U.S. dollars

Hedge accounting method	Type of contract and primary hedged items	2020		
		Contract amount	Fair value	Estimation method for fair value
Deferral hedge method	Forward foreign exchange contracts:			
	For trade receivables and trade payables			
	Buying Japanese yen	\$ 12,675	\$ 110	Forward foreign exchange quotes
	Selling U.S. dollar	37,086	(9)	
	Selling euro	8,621	(533)	
	Selling Chinese yuan	4,522	18	
	Foreign currency swaps:			
	For long-term bank loans			
	Receiving U.S. dollar, paying Korean won	22,813	2,142	Prices provided by
	Receiving Japanese yen, paying Korean won	65,110	8,520	financial institutions
Interest rate swaps:				
For long-term bank loans			Prices provided by	
Floating-rate receipt, fixed-rate payment	917,142	2,059	financial institutions	
Special accounting method for interest rate swaps	Interest rate swaps:			
	For long-term bank loans			
	Floating-rate receipt, fixed-rate payment	4,467	— ^{*1}	—
Floating-rate receipt, floating-rate payment	247,243			
Allocation method for forward foreign exchange contracts	Forward foreign exchange contracts:			
	For forecast transactions denominated in foreign currencies			
	Buying U.S. dollar	162,932	3,263	Forward foreign exchange quotes
	Buying euro	119,669	74	
	Buying Chinese yuan	5,000	18	
	Buying Korean won	2,178	92	
	Selling U.S. dollar	145,993	588	
	Selling euro	33,419	9	
	Selling British pound	83	0	
	Selling Chinese yuan	14,761	368	
	Selling Hong Kong dollar	10,322	165	
	Forward foreign exchange contracts:			
	For trade receivables and trade payables			
	Buying U.S. dollar	91,857		
	Buying euro	1,526		
	Buying Chinese yuan	901		
	Buying Thai baht	147		
	Buying Korean won	221		
	Buying Japanese yen	9	— ^{*2}	—
	Selling U.S. dollar	241,719		
	Selling euro	66,544		
	Selling British pound	193		
	Selling Chinese yuan	74		
Foreign currency swaps:				
For long-term bank loans				
Receiving U.S. dollar, paying Japanese yen	1,173,741	— ^{*2}	—	
	\$ —	\$ 16,884		

*1 The fair value of interest rate swaps to which a special accounting method is applied is included in the fair value of bonds and long-term bank loans in Note 5. FINANCIAL INSTRUMENTS of the Notes to the Consolidated Financial Statements because such interest rate swaps are accounted for together with the corresponding bonds and long-term bank loans.

*2 The fair value of forward foreign exchange contracts to which the allocation method is applied, except for forecast transactions, is included in the fair value of trade receivables, trade payables and long-term bank loans in Note 5. FINANCIAL INSTRUMENTS of the Notes to the Consolidated Financial Statements since such forward foreign exchange contracts are accounted for together with the corresponding trade receivables, trade payables and long-term bank loans.

8. RETIREMENT BENEFIT PLAN

The changes in the retirement benefit obligation during the years ended March 31, 2020 and 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Retirement benefit obligation at beginning of the year	¥ 184,139	¥ 190,262	\$ 1,692,454
Service cost	7,010	7,171	64,430
Interest cost	1,434	1,549	13,180
Actuarial gains and losses	1,133	(109)	10,414
Retirement benefit paid	(12,764)	(14,225)	(117,316)
Past service cost	279	(294)	2,564
Other	(2,195)	(215)	(20,175)
Retirement benefit obligation at end of the year	¥ 179,036	¥ 184,139	\$ 1,645,551

The changes in the plan assets at fair value during the years ended March 31, 2020 and 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Plan assets at beginning of the year	¥ 107,849	¥ 117,288	\$ 991,259
Expected return on plan assets	2,053	2,417	18,869
Actuarial gains and losses	(8,990)	(2,154)	(82,629)
Contributions	7,039	7,547	64,697
Retirement benefit paid	(7,958)	(8,858)	(73,143)
Return of assets from retirement benefits trust	—	(7,867)	—
Other	(1,749)	(524)	(16,075)
Plan assets at end of the year	¥ 98,244	¥ 107,849	\$ 902,978

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheets as of March 31, 2020 and 2019 for the Company's and its consolidated subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Funded retirement benefit obligation	¥ 85,272	¥ 90,262	\$ 783,750
Plan assets at fair value	(98,244)	(107,849)	(902,978)
	(12,972)	(17,587)	(119,228)
Unfunded retirement benefit obligation	93,764	93,877	861,801
Net liability for retirement benefits in the balance sheets	80,792	76,290	742,574
Net defined benefit liability	100,575	100,730	924,403
Net defined benefit asset (included in other non-current assets)	(19,783)	(24,440)	(181,829)
Net liability for retirement benefits in the balance sheets	¥ 80,792	¥ 76,290	\$ 742,574

The components of retirement benefit expense for the years ended March 31, 2020 and 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Service cost	¥ 7,010	¥ 7,171	\$ 64,430
Interest cost	1,434	1,549	13,180
Expected return on plan assets	(2,053)	(2,417)	(18,869)
Amortization of actuarial gains and losses	2,727	2,465	25,064
Amortization of past service cost	267	(36)	2,454
Gain on return of assets from retirement benefits trust	—	(2,532)	—
Retirement benefit expense	¥ 9,385	¥ 6,200	\$ 86,259

In addition to the above, special severance payments of ¥1,687 million (\$15,506 thousand) and ¥1,705 million were recognized for the years ended March 31, 2020 and 2019, respectively. Contributions to defined contribution pension plans of ¥7,323 million (\$67,307 thousand) and ¥7,118 million were recognized for the years ended March 31, 2020 and 2019, respectively.

The components of remeasurements of defined benefit plans included in other comprehensive income (before tax effect) for the years ended March 31, 2020 and 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Past service cost	¥ (19)	¥ 258	\$ (175)
Actuarial gains and losses	(7,254)	(2,114)	(66,673)
Total	¥ (7,273)	¥ (1,856)	\$ (66,847)

The components of remeasurements of defined benefit plans included in accumulated other comprehensive income (before tax effect) as of March 31, 2020 and 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unrecognized past service cost	¥ (193)	¥ (212)	\$ (1,774)
Unrecognized actuarial gains and losses	3,358	(3,896)	30,864
Total	¥ 3,165	¥ (4,108)	\$ 29,090

The fair value of plan assets, by major category, as a percentage of total plan assets as of March 31, 2020 and 2019 was as follows:

	2020	2019
Bonds	14%	9%
Stocks	40%	45%
General accounts of life insurance companies	31%	27%
Cash and time deposits	15%	16%
Other	0%	3%
Total	100%	100%

The expected rate of return on plan assets is determined based on the current and anticipated allocation of plan assets and the current and expected long-term returns on diverse assets that compose the plan assets.

The key assumptions used in accounting for the above plans were as follows:

	2020	2019
Discount rate	primarily 0.6%	primarily 0.6%
Expected rate of return on plan assets	primarily 2.0%	primarily 2.0%
Expected rate of salary increase	primarily 5.9%	primarily 5.9%

9. STOCK OPTION PLANS

1. Stock option expenses included in selling, general and administrative expenses amounted to ¥325 million (\$2,987 thousand) and ¥290 million for the years ended March 31, 2020 and 2019, respectively.

2. Information on stock options issued

The following table summarizes the stock options outstanding as of March 31, 2020.

Company name		Toray Industries, Inc.		
		No.1 Stock Option Plan	No.2 Stock Option Plan	No.3 Stock Option Plan
Position and number of grantees	Members of the Board of the Company	28	26	26
	Directors of the Company	32	32	26
Class and number of shares to be issued upon exercise	Common stock	747,000 shares	844,000 shares	583,000 shares
Grant date		August 20, 2011	August 4, 2012	August 10, 2013
Vesting conditions		Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period
Vesting period		June 24, 2011-June 22, 2012	June 22, 2012-June 26, 2013	June 26, 2013-June 25, 2014
Exercise period		August 21, 2011-August 20, 2041	August 5, 2012-August 4, 2042	August 11, 2013-August 10, 2043

Company name		Toray Industries, Inc.		
		No.4 Stock Option Plan	No.5 Stock Option Plan	No.6 Stock Option Plan
Position and number of grantees	Members of the Board of the Company	25	23	23
	Directors of the Company	27	31	30
Class and number of shares to be issued upon exercise	Common stock	569,000 shares	358,000 shares	381,000 shares
Grant date		August 9, 2014	August 22, 2015	August 20, 2016
Vesting conditions		Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period
Vesting period		June 25, 2014-June 24, 2015	June 24, 2015-June 28, 2016	June 28, 2016-June 27, 2017
Exercise period		August 10, 2014-August 9, 2044	August 23, 2015-August 22, 2045	August 21, 2016-August 20, 2046

Company name		Toray Industries, Inc.		
		No.7 Stock Option Plan	No.8 Stock Option Plan	No.9 Stock Option Plan
Position and number of grantees	Members of the Board of the Company	23	17	17
	Directors of the Company	31	35	44
Class and number of shares to be issued upon exercise	Common stock	374,000 shares	387,000 shares	500,000 shares
Grant date		August 19, 2017	August 18, 2018	August 17, 2019
Vesting conditions		Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period
Vesting period		June 27, 2017-June 26, 2018	June 26, 2018-June 25, 2019	June 25, 2019-June 23, 2020
Exercise period		August 20, 2017-August 19, 2047	August 19, 2018-August 18, 2048	August 18, 2019-August 17, 2049

The following table summarizes movements of stock options during the year and price information on stock options as of March 31, 2020. The number of stock options are translated into the number of shares.

(1) Number of stock options

Company name	Toray Industries, Inc.		
	No.1 Stock Option Plan	No.2 Stock Option Plan	No.3 Stock Option Plan
Stock acquisition rights not yet vested			
As of March 31, 2019	—	—	—
Granted	—	—	—
Forfeited	—	—	—
Vested	—	—	—
As of March 31, 2020	—	—	—
Stock acquisition rights already vested			
As of March 31, 2019	159,000	216,000	194,000
Vested	—	—	—
Exercised	5,000	6,000	5,000
Forfeited	—	—	—
As of March 31, 2020	154,000	210,000	189,000

Company name	Toray Industries, Inc.		
	No.4 Stock Option Plan	No.5 Stock Option Plan	No.6 Stock Option Plan
Stock acquisition rights not yet vested			
As of March 31, 2019	—	—	—
Granted	—	—	—
Forfeited	—	—	—
Vested	—	—	—
As of March 31, 2020	—	—	—
Stock acquisition rights already vested			
As of March 31, 2019	236,000	193,000	271,000
Vested	—	—	—
Exercised	5,000	11,000	9,000
Forfeited	—	—	—
As of March 31, 2020	231,000	182,000	262,000

Company name	Toray Industries, Inc.		
	No.7 Stock Option Plan	No.8 Stock Option Plan	No.9 Stock Option Plan
Stock acquisition rights not yet vested			
As of March 31, 2019	—	110,000	—
Granted	—	—	500,000
Forfeited	—	—	—
Vested	—	110,000	348,000
As of March 31, 2020	—	—	152,000
Stock acquisition rights already vested			
As of March 31, 2019	313,000	277,000	—
Vested	—	110,000	348,000
Exercised	20,000	19,000	—
Forfeited	—	—	—
As of March 31, 2020	293,000	368,000	348,000

(2) Price information

Yen

Company name	Toray Industries, Inc.		
	No.1 Stock Option Plan	No.2 Stock Option Plan	No.3 Stock Option Plan
Exercise price	¥ 1	¥ 1	¥ 1
Weighted average price at exercise	824	824	824
Fair value per share at the grant date	513	394	546

Yen

Company name	Toray Industries, Inc.		
	No.4 Stock Option Plan	No.5 Stock Option Plan	No.6 Stock Option Plan
Exercise price	¥ 1	¥ 1	¥ 1
Weighted average price at exercise	824	824	824
Fair value per share at the grant date	605	987	902

Yen

Company name	Toray Industries, Inc.		
	No.7 Stock Option Plan	No.8 Stock Option Plan	No.9 Stock Option Plan
Exercise price	¥ 1	¥ 1	¥ 1
Weighted average price at exercise	824	824	—
Fair value per share at the grant date	899	710	684

U.S. dollars

Company name	Toray Industries, Inc.		
	No.1 Stock Option Plan	No.2 Stock Option Plan	No.3 Stock Option Plan
Exercise price	\$ 0.01	\$ 0.01	\$ 0.01
Weighted average price at exercise	7.57	7.57	7.57
Fair value per share at the grant date	4.72	3.62	5.02

U.S. dollars

Company name	Toray Industries, Inc.		
	No.4 Stock Option Plan	No.5 Stock Option Plan	No.6 Stock Option Plan
Exercise price	\$ 0.01	\$ 0.01	\$ 0.01
Weighted average price at exercise	7.57	7.57	7.57
Fair value per share at the grant date	5.56	9.07	8.29

U.S. dollars

Company name	Toray Industries, Inc.		
	No.7 Stock Option Plan	No.8 Stock Option Plan	No.9 Stock Option Plan
Exercise price	\$ 0.01	\$ 0.01	\$ 0.01
Weighted average price at exercise	7.57	7.57	—
Fair value per share at the grant date	8.26	6.53	6.29

3. Estimation method and assumptions used for the per share fair value of stock options

- (1) Estimation method
Black-Scholes model
- (2) Assumptions used for the per share fair value of stock options

Company name	Toray Industries, Inc. No.9 Stock Option Plan
Expected volatility ^{*1}	24.079%
Expected holding period ^{*2}	6 years
Expected dividend ^{*3}	¥16 per share (\$0.15)
Risk-free rate ^{*4}	(0.347)%

*1 The expected volatility is based on actual share prices during 6 years from August 18, 2013 to August 16, 2019.

*2 The expected holding period is calculated based on the service period of past members of the Board.

*3 This is based on the dividend for the year ended March 31, 2019.

*4 The risk-free interest rate is the yield on Japanese government bonds for the period that corresponds to the remaining life of the option.

Because it is difficult to reasonably estimate the number of options that will expire in the future, only the number of options that have actually forfeited is applied.

10. INCOME TAXES

The statutory tax rate in Japan for the years ended March 31, 2020 and 2019 was 30.6%.

At March 31, 2020 and 2019, significant components of deferred tax assets and liabilities were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Deferred tax assets:			
Accrued bonuses	¥ 6,544	¥ 6,496	\$ 60,147
Depreciation and impairment loss	10,542	10,379	96,893
Net defined benefit liability	31,402	31,035	288,621
Net operating loss carryforwards (Note)	15,367	14,924	141,241
Unrealized intercompany profits	15,104	15,362	138,824
Other	35,360	36,944	325,000
	114,319	115,140	1,050,726
Valuation allowance for net operating loss carryforwards (Note)	(13,397)	(12,673)	(123,134)
Valuation allowance for deductible temporary differences	(13,180)	(15,213)	(121,140)
Total valuation allowance	(26,577)	(27,886)	(244,274)
Total deferred tax assets	87,742	87,254	806,452
Deferred tax liabilities:			
Reserve for tax purpose reduction entry	5,803	6,157	53,336
Depreciation	20,869	21,195	191,811
Undistributed earnings of subsidiaries and affiliated companies	22,637	22,154	208,061
Unrealized gains on securities	21,665	28,990	199,127
Acquisition-related basis differences	17,814	19,746	163,732
Other	14,655	15,792	134,697
Total deferred tax liabilities	103,443	114,034	950,763
Net deferred tax assets (liabilities)	¥ (15,701)	¥ (26,780)	\$ (144,311)

Note: Breakdowns of net operating loss carryforwards and valuation allowance by expiry date as of March 31, 2020 and 2019 are as follows:

Millions of yen							
2020							
	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	Total
Net operating loss carryforwards*	¥ 365	¥ 897	¥ 487	¥ 857	¥ 619	¥ 12,142	¥ 15,367
Valuation allowance	(341)	(403)	(335)	(785)	(376)	(11,157)	(13,397)
Deferred tax assets	¥ 24	¥ 494	¥ 152	¥ 72	¥ 243	¥ 985	¥ 1,970

Millions of yen							
2019							
	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	Total
Net operating loss carryforwards*	¥ 1,108	¥ 537	¥ 841	¥ 591	¥ 1,105	¥ 10,742	¥ 14,924
Valuation allowance	(1,106)	(434)	(401)	(522)	(891)	(9,319)	(12,673)
Deferred tax assets	¥ 2	¥ 103	¥ 440	¥ 69	¥ 214	¥ 1,423	¥ 2,251

Thousands of U.S. dollars							
2020							
	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	Total
Net operating loss carryforwards*	\$ 3,355	\$ 8,244	\$ 4,476	\$ 7,877	\$ 5,689	\$ 111,599	\$ 141,241
Valuation allowance	(3,134)	(3,704)	(3,079)	(7,215)	(3,456)	(102,546)	(123,134)
Deferred tax assets	\$ 221	\$ 4,540	\$ 1,397	\$ 662	\$ 2,233	\$ 9,053	\$ 18,107

* The amount is determined by multiplying the corresponding net operating loss carryforwards by the effective statutory tax rate.

The reconciliation of the statutory tax rate and the effective income tax rate is omitted because the difference between the statutory tax rate and the effective income tax rate was less than 5% of the statutory tax rate for the years ended March 31, 2020 and 2019, respectively.

11. NET ASSETS

The Corporation Law of Japan provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the earned reserve) be transferred to the capital reserve and the earned reserve, respectively, until the sum of the capital reserve and the earned reserve equals 25% of the capital stock account. Such distributions can be made

at any time by resolution of the stockholders, or by the Board of Directors if certain conditions are met.

At the June 2020 annual stockholders' meeting, stockholders approved the payment of cash dividends of ¥8.00 per share, aggregating to ¥12,806 million (\$117,702 thousand) which has not been reflected in the accompanying consolidated financial statements for the year ended March 31, 2020.

12. COMMITMENTS AND CONTINGENT LIABILITIES

At March 31, 2020, commitment line of credit to unconsolidated subsidiaries and affiliated companies was as follows:

	Millions of yen	Thousands of U.S. dollars
	2020	2020
Total commitment line of credit	¥ 380	\$ 3,493
Loans receivable outstanding	207	1,903
Balance	¥ 173	\$ 1,590

This commitment does not necessarily imply that the unused amount may be fully utilized.

At March 31, 2020 and 2019, contingent liabilities were as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
As guarantors of loans to:			
Unconsolidated subsidiaries and affiliated companies	¥ 7,708	¥ 6,579	\$ 70,846
Other	2,791	3,341	25,653
	¥ 10,499	¥ 9,920	\$ 96,498
Notes discounted	¥ 1,977	¥ 1,550	\$ 18,171
Export bills discounted	8,156	6,140	74,963
Notes endorsed	1,160	1,755	10,662
Contingent liabilities associated with securitization of receivables	¥ 552	¥ 1,187	\$ 5,074

13. LEASES

Right-of-use assets

Certain overseas subsidiaries capitalize leases of, mainly, buildings and land use rights in accordance with IFRS 16.

Finance leases

The Company and its consolidated subsidiaries hold certain buildings, machinery and equipment and intangible assets by leases.

Operating leases

Future minimum lease payments under uncapitalized non-cancellable operating leases subsequent to March 31, 2019 were as follows:

	Millions of yen
	2019
Due within one year	¥ 903
Due after one year	5,535
Total	¥ 6,438

The figures for the year ended March 31, 2020 are not disclosed due to the decrease in materiality.

14. RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses included in cost of sales and selling, general and administrative expenses for the years ended March 31, 2020 and 2019 were ¥66,881 million (\$614,715 thousand) and ¥66,355 million, respectively.

15. EQUITY IN EARNINGS (LOSSES) OF UNCONSOLIDATED SUBSIDIARIES AND AFFILIATED COMPANIES

Equity in earnings (losses) of unconsolidated subsidiaries and affiliated companies for the year ended March 31, 2020 includes a lump amortization charge of ¥18,668 million (\$171,581 thousand) in connection with the goodwill of an equity-accounted investee, Pacific Textiles Holdings Limited, recognized in accordance with "Practical Guidelines on Accounting Standard for Investments Using the Equity Method (JICPA Accounting Practice Committee Statement No. 9, February 16, 2018)" and "Practical Guidelines on Accounting Standards for Capital Consolidation Procedures in Preparing Consolidated Financial Statements (JICPA Accounting Practice Committee Statement No. 7, February 16, 2018)."

16. LOSS ON IMPAIRMENT OF FIXED ASSETS

The Company and its consolidated subsidiaries grouped operating assets based on the classification under the management accounting. For assets to be disposed of and idle assets, each individual asset is considered to constitute a group.

For the year ended March 31, 2020, the carrying value of operating assets with declining profitability, assets to be disposed of and other assets was written down to the recoverable amount.

As a result, the Company and its consolidated subsidiaries recognized loss on impairment in the amount of ¥7,569 million (\$69,568 thousand).

The major assets for which the loss on impairment was recognized were as follows:

Location	Use	Classification	Millions of yen	Thousands of U.S. dollars
			Loss on impairment	Loss on impairment
Markgröningen, Germany, etc.	Composites production facilities	Machinery and equipment	¥ 905	\$ 8,318
		Construction in progress	180	1,654
		Other	645	5,928
Gumi, Gyeongsangbuk-do, Korea	Film production facilities	Machinery and equipment	¥ 1,331	\$ 12,233
		Other	4	37
Saint-Maurice-de-Beynost, France	Film production facilities	Machinery and equipment	¥ 1,266	\$ 11,636
Tokai, Aichi, Japan	Research and development facilities	Machinery and equipment	¥ 1,031	\$ 9,476

The recoverable amount of the above assets was measured at value in use and net selling price. The value in use was calculated by discounting the future cash flows at discount rates of 7% to 8%. The net selling price of assets available for sale was calculated based on the appraisal value and others, and that of assets difficult to convert to other uses or sell was assessed at zero.

For the year ended March 31, 2019, the carrying value of goodwill, intangible assets and other assets of some consolidated subsidiaries was fully written down because the originally anticipated income was not expected any longer.

As a result, the Company and its consolidated subsidiaries recognized loss on impairment in the amount of ¥18,414 million.

The major assets for which the loss on impairment was recognized were as follows:

Location	Use	Classification	Millions of yen
			Loss on impairment
Seoul, Korea, etc.	Fibers & Textiles	Machinery and equipment	¥ 840
		Goodwill	6,054
		Other intangible assets	5,154
Yokohama, Kanagawa, Japan	Environment & Engineering	Goodwill	¥ 1,654

The recoverable amount of the above assets was measured at value in use, and that of goodwill and other intangible assets was assessed at zero.

17. OTHER COMPREHENSIVE INCOME

The following table presents reclassification adjustments and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2020 and 2019.

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Net unrealized gains (losses) on securities:			
Amount arising during the year	¥ (26,443)	¥ (12,196)	\$ (243,042)
Reclassification adjustments for gains and losses included in net income	(3,001)	(1,296)	(27,583)
Before tax effect	(29,444)	(13,492)	(270,625)
Tax effect	8,956	3,913	82,316
Net unrealized gains (losses) on securities	(20,488)	(9,579)	(188,309)
Net deferred gains (losses) on hedges:			
Amount arising during the year	1,809	1,414	16,627
Reclassification adjustments for gains and losses included in net income	(362)	(25)	(3,327)
Basis adjustments for assets	51	130	469
Before tax effect	1,498	1,519	13,768
Tax effect	(461)	(455)	(4,237)
Net deferred gains (losses) on hedges	1,037	1,064	9,531
Foreign currency translation adjustments:			
Amount arising during the year	(44,857)	(4,767)	(412,289)
Remeasurements of defined benefit plans:			
Amount arising during the year	(9,982)	(1,753)	(91,746)
Reclassification adjustments for gains and losses included in net income	2,709	(103)	24,899
Before tax effect	(7,273)	(1,856)	(66,847)
Tax effect	2,190	531	20,129
Remeasurements of defined benefit plans	(5,083)	(1,325)	(46,719)
Share of other comprehensive income of unconsolidated subsidiaries and affiliated companies accounted for by the equity method:			
Amount arising during the year	(2,923)	(422)	(26,866)
Reclassification adjustments for gains and losses included in net income	19	(183)	175
Share of other comprehensive income of unconsolidated subsidiaries and affiliated companies accounted for by the equity method	(2,904)	(605)	(26,691)
Total other comprehensive income	¥ (72,295)	¥ (15,212)	\$ (664,476)

18. SUPPLEMENTARY CASH FLOW INFORMATION

In the year ended March 31, 2019, the Company acquired TenCate Advanced Composites Holding B.V. (now known as Toray TCAC Holding B.V.) and its subsidiaries. The following table shows the breakdown of assets and liabilities at the date of initial consolidation and the reconciliation of the net payments and consideration transferred with regard to the acquisition.

	Millions of yen
	2019
Current assets	¥ 11,422
Non-current assets	72,566
Goodwill	65,783
Current liabilities	(13,864)
Non-current liabilities	(18,940)
Foreign currency translation adjustment	150
Consideration transferred	¥ 117,117
Cash and cash equivalents	(2,553)
Net payments for acquisition	¥ 114,564

19. SEGMENT INFORMATION

1. Outline of reportable segments

The reportable segments of the Company and its consolidated subsidiaries are components for which discrete financial information is available and whose operating results are regularly reviewed by the Board of Directors to make decisions about resource allocation to the segments and assess performance.

The Company identifies the following five segments according to the nature of the products and market for their products.

Reportable segment	Main products
Fibers & Textiles	Filament yarns, staple fibers, spun yarns, woven and knitted fabrics of nylon, polyester, acrylic and others; nonwoven fabrics; nonwoven material created using ultra-fine fibers in an "Island in the Sea" configuration; apparel products
Performance Chemicals	Nylon, ABS, PBT, PPS and other resins and molded products; polyolefin foam; polyester, polyethylene, polypropylene and other films and processed film products; raw materials for synthetic fibers and other plastics; fine chemicals; electronic and information materials and graphic materials
Carbon Fiber Composite Materials	Carbon fibers, carbon fiber composite materials and their molded products
Environment & Engineering	Comprehensive engineering; condominiums; industrial equipment and machinery; IT-related equipment; water treatment membranes and related equipment; materials for housing, building and civil engineering applications
Life Science	Pharmaceuticals, medical devices, etc.

2. Measurement of sales, income, assets and other material items of reportable segments

The accounting policies for the reportable segments are the same as those described in Note 1. SIGNIFICANT ACCOUNTING POLICIES. The figures of segment income are based on operating income. Intersegment sales are determined based on consideration of the market price and related information.

3. Information on sales, income, assets and other material items of reportable segments

Millions of yen									
2020									
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others ^{*1}	Total	Adjustments ^{*2}	Consolidated Total ^{*3}
Sales to outside customers	¥ 883,137	¥ 770,814	¥ 236,922	¥ 252,282	¥ 53,250	¥ 18,228	¥ 2,214,633	¥ —	¥ 2,214,633
Intersegment sales	1,226	17,297	848	65,033	1	26,829	111,234	(111,234)	—
Total sales	¥ 884,363	¥ 788,111	¥ 237,770	¥ 317,315	¥ 53,251	¥ 45,057	¥ 2,325,867	¥ (111,234)	¥ 2,214,633
Segment income	¥ 60,686	¥ 58,736	¥ 20,959	¥ 11,246	¥ 1,625	¥ 3,395	¥ 156,647	¥ (25,461)	¥ 131,186
Segment assets	¥ 748,047	¥ 935,396	¥ 605,939	¥ 254,833	¥ 65,965	¥ 91,531	¥ 2,701,711	¥ (51,024)	¥ 2,650,687
Depreciation and amortization	28,951	42,602	27,477	4,565	2,420	1,898	107,913	(531)	107,382
Investment in unconsolidated subsidiaries and affiliated companies accounted for by the equity method	58,711	52,932	1,677	14,567	2,956	8,920	139,763	(362)	139,401
Capital expenditures ^{*4}	37,853	64,397	22,764	10,532	2,508	1,986	140,040	727	140,767

Millions of yen									
2019									
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others ^{*1}	Total	Adjustments ^{*2}	Consolidated Total ^{*3}
Sales to outside customers	¥ 974,265	¥ 868,847	¥ 215,913	¥ 257,673	¥ 53,653	¥ 18,497	¥ 2,388,848	¥ —	¥ 2,388,848
Intersegment sales	1,372	18,985	820	74,960	—	26,536	122,673	(122,673)	—
Total sales	¥ 975,637	¥ 887,832	¥ 216,733	¥ 332,633	¥ 53,653	¥ 45,033	¥ 2,511,521	¥ (122,673)	¥ 2,388,848
Segment income	¥ 72,880	¥ 67,702	¥ 11,542	¥ 12,236	¥ 1,301	¥ 3,084	¥ 168,745	¥ (27,276)	¥ 141,469
Segment assets	¥ 795,382	¥ 1,002,305	¥ 640,161	¥ 255,338	¥ 70,792	¥ 83,764	¥ 2,847,742	¥ (59,391)	¥ 2,788,351
Depreciation and amortization	29,342	39,099	25,042	4,531	2,638	1,416	102,068	(357)	101,711
Investment in unconsolidated subsidiaries and affiliated companies accounted for by the equity method	76,464	50,969	1,611	12,205	2,849	8,248	152,346	(318)	152,028
Capital expenditures ^{*4}	51,726	67,004	43,079	7,621	2,126	3,430	174,986	(2,290)	172,696

Thousands of U.S. dollars									
2020									
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others ^{*1}	Total	Adjustments ^{*2}	Consolidated Total ^{*3}
Sales to outside customers	\$ 8,117,068	\$ 7,084,688	\$ 2,177,592	\$ 2,318,768	\$ 489,430	\$ 167,537	\$ 20,355,083	\$ —	\$ 20,355,083
Intersegment sales	11,268	158,980	7,794	597,730	9	246,590	1,022,371	(1,022,371)	—
Total sales	\$ 8,128,336	\$ 7,243,667	\$ 2,185,386	\$ 2,916,498	\$ 489,439	\$ 414,127	\$ 21,377,454	\$ (1,022,371)	\$ 20,355,083
Segment income	\$ 557,776	\$ 539,853	\$ 192,638	\$ 103,364	\$ 14,936	\$ 31,204	\$ 1,439,770	\$ (234,017)	\$ 1,205,754
Segment assets	\$ 6,875,432	\$ 8,597,390	\$ 5,569,292	\$ 2,342,215	\$ 606,296	\$ 841,278	\$ 24,831,903	\$ (468,971)	\$ 24,362,932
Depreciation and amortization	266,094	391,563	252,546	41,958	22,243	17,445	991,847	(4,881)	986,967
Investment in unconsolidated subsidiaries and affiliated companies accounted for by the equity method	539,623	486,507	15,414	133,888	27,169	81,985	1,284,586	(3,327)	1,281,259
Capital expenditures ^{*4}	347,914	591,884	209,228	96,801	23,051	18,254	1,287,132	6,682	1,293,814

*1 "Others" represents service-related businesses such as analysis, physical evaluation and research.

*2 a) "Adjustments" of segment income for the year ended March 31, 2020 of ¥(25,461) million (\$ (234,017) thousand) includes intersegment eliminations of ¥203 million (\$1,866 thousand) and corporate expenses of ¥(25,664) million (\$ (235,882) thousand). "Adjustments" of segment income for the year ended March 31, 2019 of ¥(27,276) million includes intersegment eliminations of ¥(1,018) million and corporate expenses of ¥(26,258) million. The corporate expenses consist of the headquarters' research expenses that are not allocated to each reportable segment.

b) "Adjustments" of segment assets for the year ended March 31, 2020 of ¥(51,024) million (\$ (468,971) thousand) includes intersegment eliminations of ¥(75,977) million (\$ (698,318) thousand) and corporate assets of ¥24,953 million (\$ (229,347) thousand). "Adjustments" of segment assets for the year ended March 31, 2019 of ¥(59,391) million includes intersegment eliminations of ¥(79,609) million and corporate assets of ¥20,218 million. The corporate assets consist of the headquarters' research assets that are not allocated to each reportable segment.

*3 "Segment income" is reconciled to operating income.

*4 "Capital expenditures" do not include the increase in assets resulting from inclusion of subsidiaries in consolidation.

4. Related information

a) Geographic information on sales to outside customers

Millions of yen					
2020					
	Japan	Asia		North America, Europe and other areas	Total
		China	Others		
Sales to outside customers	¥ 961,742	¥ 391,797	¥ 425,305	¥ 435,789	¥ 2,214,633

Millions of yen					
2019					
	Japan	Asia		North America, Europe and other areas	Total
		China	Others		
Sales to outside customers	¥ 1,085,701	¥ 426,788	¥ 454,401	¥ 421,958	¥ 2,388,848

Thousands of U.S. dollars					
2020					
	Japan	Asia		North America, Europe and other areas	Total
		China	Others		
Sales to outside customers	\$ 8,839,540	\$ 3,601,075	\$ 3,909,053	\$ 4,005,414	\$ 20,355,083

Sales amounts are allocated to countries or regions according to the customers' location.

b) Geographic information on property, plant and equipment

Millions of yen						
2020						
	Japan	Asia		North America, Europe and other areas		Total
		Republic of Korea	Others	U.S.A.	Others	
Property, plant and equipment, net	¥ 326,860	¥ 200,018	¥ 172,597	¥ 134,290	¥ 172,744	¥ 1,006,509

Millions of yen						
2019						
	Japan	Asia		North America, Europe and other areas		Total
		Republic of Korea	Others	U.S.A.	Others	
Property, plant and equipment, net	¥ 331,978	¥ 212,713	¥ 166,506	¥ 131,848	¥ 153,831	¥ 996,876

Thousands of U.S. dollars						
2020						
	Japan	Asia		North America, Europe and other areas		Total
		Republic of Korea	Others	U.S.A.	Others	
Property, plant and equipment, net	\$ 3,004,228	\$ 1,838,401	\$ 1,586,369	\$ 1,234,283	\$ 1,587,721	\$ 9,251,002

5. Loss on impairment of fixed assets by reportable segment

Millions of yen								
2020								
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate ^{*1}	Total
Loss on impairment	¥ 901	¥ 3,844	¥ 1,779	¥ 5	¥ 9	¥ —	¥ 1,031	¥ 7,569

Millions of yen								
2019								
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate	Total
Loss on impairment	¥ 13,322	¥ 1,145	¥ 776	¥ 2,395	¥ 776	¥ —	¥ —	¥ 18,414

Thousands of U.S. dollars								
2020								
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate ^{*1}	Total
Loss on impairment	\$ 8,281	\$ 35,331	\$ 16,351	\$ 46	\$ 83	\$ —	\$ 9,476	\$ 69,568

*1 "Elimination & Corporate" of loss on impairment for the year ended March 31, 2020 of ¥1,031 million (\$9,476 thousand) includes loss on impairment of corporate assets that are not allocated to each reportable segment.

6. Amortization and balance of goodwill by reportable segment

Millions of yen								
2020								
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate	Total
Amortization of goodwill	¥ 24	¥ 4,312	¥ 6,292	¥ 314	¥ —	¥ —	¥ —	¥ 10,942
Balance of goodwill	57	6,367	64,385	1,141	—	—	—	71,950

Millions of yen								
2019								
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate	Total
Amortization of goodwill	¥ 1,297	¥ 4,384	¥ 5,054	¥ 864	¥ —	¥ —	¥ —	¥ 11,599
Balance of goodwill	81	10,705	73,337	1,589	—	—	—	85,712

Thousands of U.S. dollars								
2020								
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate	Total
Amortization of goodwill	\$ 221	\$ 39,632	\$ 57,831	\$ 2,886	\$ —	\$ —	\$ —	\$ 100,570
Balance of goodwill	524	58,520	591,774	10,487	—	—	—	661,305

20. AMOUNTS PER SHARE

Basic net income per share is computed based on the net income attributable to owners of parent available for distribution to stockholders of common stock and the weighted-average number of shares of common stock outstanding during the year.

Diluted net income per share is computed based on the net income attributable to owners of parent available for distribution to the stockholders and the weighted-average number of shares of common stock outstanding during the year after giving effect to the dilutive potential of shares of common

stock to be issued upon the exercise of warrants and stock acquisition rights.

Amounts per share of net assets are computed based on the net assets available for distribution to the stockholders and the number of shares of common stock outstanding at year end.

Cash dividends per share represent the cash dividends proposed by the Board of Directors applicable to the respective years together with any interim cash dividends paid.

	Yen		U.S. dollars
	2020	2019	2020
Net income attributable to owners of parent:			
Basic	¥ 34.83	¥ 49.61	\$ 0.32
Diluted	34.58	49.56	0.32
Cash dividends applicable to the year	16.00	16.00	0.15
Net assets	683.61	706.95	6.28

21. RELATED PARTY TRANSACTIONS

Year ended March 31, 2020

No items to be reported.

Year ended March 31, 2019

No items to be reported.

Independent Auditor's Report

The Board of Directors Toray Industries, Inc.

Opinion

We have audited the accompanying consolidated financial statements of Toray Industries, Inc. and its consolidated subsidiaries (the Group), which comprise the consolidated balance sheet as at March 31, 2020, and the consolidated statements of income, comprehensive income, changes in net assets, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management, the Corporate Auditor and the Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as required by accounting principles generally accepted in Japan, matters related to going concern.

The Corporate Auditor and the Board of Corporate Auditors are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with accounting principles generally accepted in Japan.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Corporate Auditor and the Board of Corporate Auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Corporate Auditor and the Board of Corporate Auditors with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2020 are presented solely for convenience. Our audit also included the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 2 to the consolidated financial statements.

Ernst & Young ShinNihon LLC
Tokyo, Japan

June 23, 2020

/s/ Kazuhiko Suzuki
Designated Engagement Partner
Certified Public Accountant

/s/ Takeshi Isogai
Designated Engagement Partner
Certified Public Accountant

/s/ Tsuyoshi Nakano
Designated Engagement Partner
Certified Public Accountant

Stakeholder Engagement

Toray Group has established Basic Policies to Promote Dialogue with Stakeholders. We are proactively communicating with various stakeholders in all aspects of our corporate activities, and periodically report on and discuss the content of these activities with management. With the goal of strengthening our system for engaging with stakeholders, we established a new organization to supervise communications in general in April 2018, and we are working on centralizing the function of information transmission for both internal and external of the Company.

✓ Engaging with Stockholders and Investors

The Group actively communicates with institutional investors and securities company analysts by providing information materials when requested and holding same-day results briefings when quarterly earnings are announced. In addition to IR materials, including integrated annual reports, the Group also provides a wide range of information on management policies and strategies, as well as financial and earnings information in the Investor Relations section of the Toray website.

We also hold briefings on business for stockholders in order to deepen their understanding of Toray Group.

In fiscal 2019, Toray held four results briefings and held 543 meetings with investors and analysts.

✓ Engaging with Employees

Using in-house newsletters, the company intranet, and company-wide bulletin boards, Toray Group actively promotes communication with its employees to not only disseminate information on company policies and issues, but to improve cohesion of the Toray brand and heighten each employee's sense of belonging.

In addition to messages from the President being provided in all media, in-house newsletters are published in Japanese, English, and Chinese, with the goal of sharing information and promoting understanding of current projects and key management and business topics.

In addition, in 2017, we established TORAY NAVI Lite, an intranet site geared toward Group companies in and outside of Japan, representing the construction of global infrastructure for the sharing of information.

✓ Engaging with Customers

Toray believes that the customer comes first. We closely communicate with our customers, mainly through our marketing and sales departments, and periodically conduct customer satisfaction surveys. The results of these surveys are shared internally at Board meetings and through in-house newsletters as we strive to provide even higher quality customer service.

We have also established showrooms at a number of locations, including the head office in Tokyo, the Toray Shiga Plant, and the Toray Human Resources Development Center in Mishima, Shizuoka Prefecture, showing our businesses and product applications in an easy-to-understand manner to the public so as to deepen their understanding of Toray Group's stance toward contributing to solving various problems by creating and providing innovative technologies and cutting-edge materials.

✓ Engaging with the Mass Media

Toray recognizes that public relations and corporate communication activities have a role in fulfilling responsibilities for information disclosure as well as influencing public opinion. Accordingly, Toray's Corporate Communications Department actively engages with a wide range of media organizations, acting as the public's point of contact with the Company.

Based on Toray's Information Disclosure Principles, the department provides fair and impartial information, even if it may cast the Company in a bad light, in a timely and appropriate manner. In fiscal 2019, the Company issued 160 press releases and responded to 298 media requests for information.

✓ Engaging with Business Partners

While providing materials and products as a manufacturer of advanced materials, Toray Group must engage in upstream management of its supply chains to better fulfill the needs of its customers, including the areas of production facilities and procured raw materials and resources. Accordingly, the Group has established its Basic Purchasing Policies and Basic Distribution Policies to emphasize this approach and ensure fair business activities. Throughout the Group we are promoting proper and fair transactions, adherence to laws, environmental preservation, respect for human rights, improvements in quality and other policies in initiatives with regard to corporate responsibility in procurement, purchasing, and distribution.

✓ Engaging with Local Communities

In addition to holding informal gatherings for discussion regularly, Toray Group strives to engage in more active dialogue with nearby residents in a variety of other settings, including by participating in events sponsored by local governments and inviting local residents onto plant grounds for summer festivals.

Following Toray Group Social Initiative Policies, we aim for our social contribution activities to contribute to sustainable development while meeting the expectations of local communities.

Specifically, we also proactively engage in CSR activities organized together with NPOs, including Arakawa River Clean-aid Forum and Biwako Trust.

External Evaluation

Toray was included in the following SRI indices as of September 30, 2020.

Included in the Dow Jones Sustainability Index Asia Pacific

Toray is included in the Asia Pacific Index of the Dow Jones Sustainability Indices (DJSI), an SRI index administered by U.S.-based Dow Jones and Switzerland-based RobecoSAM.



Included in the MSCI ESG Indexes

Toray is included in the MSCI ESG Indexes. MSCI provides institutional investors (from pension funds to hedge funds) across the globe with various tools to support investment decisions.



Included in the Ethibel Pioneer & Excellence Registers

Toray is included in the Ethibel Pioneer and Ethibel Excellence investment registers of Forum Ethibel, a Belgian non-profit organization that promotes socially responsible investment.



Selected for Inclusion in the FTSE4Good Index Series

Toray was selected for inclusion in the FTSE4Good Index Series. The FTSE4Good Index Series was developed by UK-based FTSE Russell. Those companies that implement outstanding ESG practices are selected for this index series.



Selected for Inclusion in the SOMPO Sustainability Index

This Index is used for SOMPO Sustainable Management, a responsible investment product for pension funds and institutional investors that invests in a wide range of companies with a strong reputation for ESG (Environmental, Social, Governance).



Selected for Digital Transformation Stocks (DX Stocks) 2020

Jointly organized by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange, companies that proactively engage in digital transformation (DX) are selected and announced as Digital Transformation Stocks.



Integrated Annual Report Award List

TORAY REPORT 2019 received the Gold Award during the 2020 International ARC Awards, the world's largest annual report competition.



TORAY REPORT 2019 received the Gold Award during the 2020 International ARC Awards, the world's largest annual report competition.



TORAY REPORT 2019 received the Bronze Award in the Corporate Activity Report category during the 41st Japan BtoB Advertising Awards in 2020.

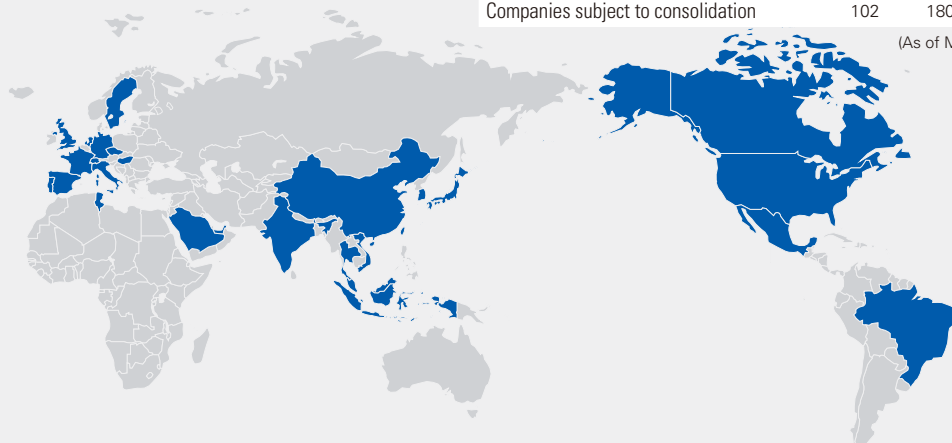


Toray Group Worldwide Network

Toray Group operates businesses in 29 countries and regions including Japan.

	Japan	Overseas	Total
Consolidated subsidiaries	62	123	185
Subsidiaries accounted for by equity method	27	34	61
Total subsidiaries	89	157	246
Affiliates accounted for by equity method	13	23	36
Companies subject to consolidation	102	180	282

(As of March 31, 2020)



Japan

Consolidated Subsidiaries

- Ichimura Sangyo, Co., Ltd.
- Toray Plastics Precision Co., Ltd.
- Toray Fine Chemicals Co., Ltd.
- Soda Aromatic Co., Ltd.
- Toray Advanced Film Co., Ltd.
- Suido Kiko Kaisha, Ltd.
- Toray Construction Co., Ltd.
- Toray Engineering Co., Ltd.
- Toray Medical Co., Ltd.
- Toray Systems Center, Inc.
- Toray Enterprise Corp.
- Toray International, Inc.
- Chori Co., Ltd.

Affiliates Accounted for by Equity Method

- Du Pont-Toray Co., Ltd.
- Toray Opelontex Co., Ltd.
- Japan Vilene Company, Ltd.
- Dow Toray Co., Ltd.
- Sanyo Chemical Industries, Ltd.

United Kingdom

Consolidated Subsidiaries

- Toray Textiles Europe Ltd.

Italy

Consolidated Subsidiaries

- Alcantara S.p.A.

France

Consolidated Subsidiaries

- Toray Films Europe S.A.S.
- Toray Carbon Fibers Europe S.A.

China

Consolidated Subsidiaries

- Toray Fibers (Nantong) Co., Ltd.
- Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.
- Toray Polytech (Nantong) Co., Ltd.
- Toray Industries (H.K.) Ltd.
- Toray Plastics (China) Co., Ltd.
- Toray Industries (China) Co., Ltd.

Affiliates Accounted for by Equity Method

- Pacific Textiles Holdings Ltd.

Republic of Korea

Consolidated Subsidiaries

- ■ ■ Toray Advanced Materials Korea Inc.
- Toray Battery Separator Film Korea Limited
- STEMCO, Ltd.

Affiliates Accounted for by Equity Method

- STECO, Ltd.

Malaysia

Consolidated Subsidiaries

- Penfabric Sdn. Berhad
- Penfibre Sdn. Berhad
- Toray Plastics (Malaysia) Sdn. Berhad

Indonesia

Consolidated Subsidiaries

- P.T. Indonesia Toray Synthetics
- P.T. Toray Polytech Jakarta

Thailand

Consolidated Subsidiaries

- Toray Textiles (Thailand) Public Company Limited
- Thai Toray Synthetics Co., Ltd.

U.S.A.

Consolidated Subsidiaries

- Toray Plastics (America), Inc.
- Toray Resin Co.
- Toray Composite Materials America, Inc.
- Zoltek Companies, Inc.
- Toray Advanced Composites USA Inc.

Others

- Fibers & Textiles
- Performance Chemicals
- Carbon Fiber Composite Materials
- Environment & Engineering
- Life Science
- Others
- Trading

Major Offices and Plants in Japan

Osaka Head Office

Branches

Nagoya, Hokuriku, Kyushu, Tohoku, Chugoku & Shikoku

Plants

Shiga, Seta, Ehime, Nagoya, Tokai, Aichi, Okazaki, Mishima, Chiba, Tsuchiura, Gifu, Ishikawa, Nasu

Overseas Offices

U.S.A.

Toray Industries (America), Inc.

Germany

Toray Industries Europe GmbH

China

Toray Industries, Inc., Beijing Office

Republic of Korea

Toray Industries Korea Inc.

India

Toray Industries (India) Private Limited

Brazil

Toray do Brasil Ltda.

Investor Information (As of March 31, 2020)

Common Stock:

Issued: 1,631,481,403 shares
(including treasury stock)

Number of Stockholders: 203,269

Annual General Meeting:

The annual general meeting of stockholders is normally held in June in Tokyo.

Listings:

Common stock is listed on the Tokyo Stock Exchange.

Independent Auditor:

Ernst & Young ShinNihon LLC

Transfer Agent:

Sumitomo Mitsui Trust Bank, Limited
1-4-1, Marunouchi Chiyoda-ku, Tokyo
100-0005, Japan

Cash Dividends Per Share

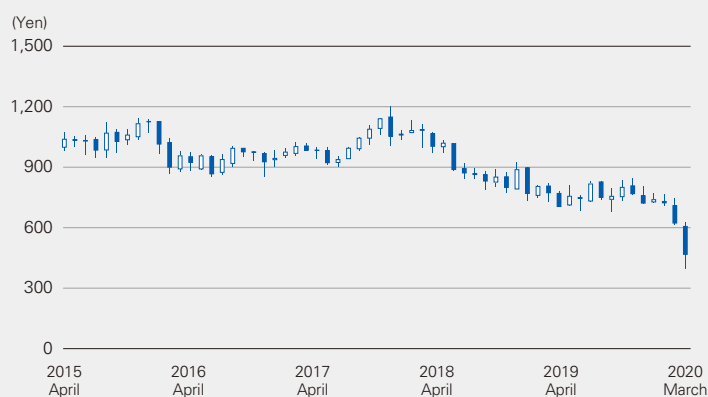
	FY 2019	FY 2018
Total for the year	¥16.00	¥16.00
Interim	8.00	8.00

Principal Stockholders

	Shares held	Percentage of shares held*
The Master Trust Bank of Japan, Ltd. (Trust Account)	136,884,100	8.55
Japan Trustee Services Bank, Ltd. (Trust Account)	106,705,100	6.67
Nippon Life Insurance Co., Ltd.	71,212,250	4.45
Taiju Life Insurance Co., Ltd.	35,961,000	2.25
Japan Trustee Services Bank, Ltd. (Trust 7 Account)	33,635,400	2.10
National Mutual Insurance Federation of Agricultural Cooperatives	32,193,000	2.01
Japan Trustee Services Bank, Ltd. (Trust 5 Account)	28,900,900	1.81
JP Morgan Chase Bank 385151	26,571,366	1.66
Sumitomo Mitsui Banking Corporation	25,522,000	1.59
Japan Trustee Services Bank, Ltd. (Trust 4 Account)	24,769,300	1.55

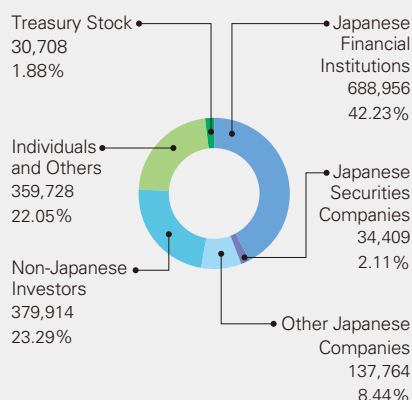
* Percentage of shares held is calculated excluding 30,707,673 shares of treasury stock.

Stock Price Range



Composition of Stockholders

(Thousands of shares)



Corporate Data (As of March 31, 2020)

Toray Industries, Inc.

Head Office

Nihonbashi Mitsui Tower, 1-1,
Nihonbashi-Muromachi 2-chome,
Chuo-ku, Tokyo 103-8666, Japan
Telephone: 81 (3) 3245-5111
Facsimile: 81 (3) 3245-5054
URL: www.toray.com

Established:

January 1926

Paid-in Capital:

¥147,873,030,771

Number of Employees:

48,031

Parent company: 7,568
Japanese subsidiaries: 10,430
Overseas subsidiaries: 30,033



Innovation by Chemistry

Toray Integrated Annual Report 2020

April 1, 2019–March 31, 2020

Toray Industries, Inc.

1-1, Nihonbashi-Muromachi 2-chome,
Chuo-ku, Tokyo 103-8666, Japan

Telephone: 81(3)3245-5111

Facsimile: 81(3)3245-5054

URL: www.toray.com

For questions about this report:

IR Dept.

Telephone: 81(3)3245-5113

Facsimile: 81(3)3245-5459



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