

## Chapter 6

# Reaching for New Heights: 2007–2016

### **T**oray Group Action before and after the Lehman Shock (2007–2008)

Confusion in financial markets, triggered by the collapse of the housing bubble in the United States, led to the bankruptcy of major U.S. investment bank Lehman Brothers on September 15, 2008. The shockwaves rocked the world. The *Lehman shock* set off a vicious circle of credit contraction and economic decline, eventually resulting in a global crisis. Governments took swift action involving large-scale monetary easing and stimulus packages and the global economy started down a recovery path from around the spring of 2009. In Japan, the economic downturn was even more serious, due to a drop in exports combined with the effects of inventory adjustments and falling capital investment. The Japanese economy began to show signs of recovery in spring 2009, bolstered by subsequent government stimulus measures, such as eco-car subsidies and tax breaks and an eco-point system for home appliances, as well as the recovery of overseas markets.

Toray had been pushing to expand business and increase profits under Project IT-2010, launched in October 2006. As a result, net sales came to 1.650 trillion yen and operating income was 103.4 billion yen in consolidated financial results for fiscal 2007, record highs for the fifth and fourth years in a row respectively. Though the slowdown of the global economy was only moderate in the first half of fiscal 2008, the outlook was further deceleration. In August 2008, prior to the Lehman Brothers collapse, Toray acted on experience gained through Project NT21 to put in place a set of Group-wide Emergency Measures. The company proceeded with steps to pass on rise in raw materials prices to the sales price, urge a shift toward products with high added value, secure higher profits by lowering production costs, and reduce expenses. However, business conditions became worse after Lehman Brothers' failure the following month, prompting the transition to a second phase of Group-wide Emergency Measures in December. This included bold refocusing of priorities and changes in the areas of capital and R&D investment.

Economic conditions, though, subsequently deteriorated on a whole new level and cooling of final consumption demand triggered sharp inventory adjustments at each stage of the supply chain with major repercussions for the basic materials industry. Demand for Toray Group products took a massive hit, too, and because it was hard to predict a future recovery, overcoming the crisis became an urgent priority for the Toray Group. Toray decided to take bold action, leaving no aspect of operations free from scrutiny, except for firmly adhering to fundamental principles like ensuring safety, accident prevention and environmental preservation, and fulfilling its corporate social responsibility. Group-wide Emergency Measures moved to a third phase in February 2009. This involved

implementation of urgent measures, such as (1) reducing remuneration paid to executives; (2) reducing the year-end dividend; (3) reducing all kinds of costs; and (4) suspending group-wide events. In addition, numerical targets set under IT-2010 were frozen and a decision was made to pursue a new mid-term management program, Project IT-II, from April 1, 2009, with a focus on overcoming the economic crisis. It was such an extremely tough business environment that Toray's consolidated operating income for fiscal 2008 dropped as low as 36 billion yen and a net loss of 16.3 billion yen was recorded, partly due to a write-down of investment securities and losses from impairment of tangible fixed assets.

## **IT-II: Reforms with No Exception (2009–2010)**

Project IT-II was a program that sought to mobilize the Toray Group for two years concentrating on overcoming the economic crisis through reforms extending to all aspects of operations, without exception. Five basic principles were established: (1) total cost reduction; (2) maximization of earnings by “ensuring sales through every possible effort” (i.e. selling everything based on optimal price strategies); (3) optimization of the scale and systems of businesses in response to structural changes in the business environment; (4) reduction of capital expenditure and working capital; and (5) promotion of business structure reform to prepare for future growth. To advance these principles, three group-wide projects were formed.

(1) The Total Cost Reduction Project (TC Project) aimed to reduce costs by 100 billion yen in total—60 billion yen in fixed costs and 40 billion yen in variable costs—over the two fiscal years 2009 and 2010.

(2) The Action Program for Survival Project (APS Project) sought to maximize earnings by “ensuring sales through every possible effort,” and to optimize scale and systems for marketing and sales, production, and development functions based on mid-term business environment and scale forecasts.

(3) The Action Program for Growth Project (APG Project) advanced business strategies based on a new approach of contributing to society through solutions to globally constraining factors on future economic growth, such as environmental issues, natural resources and energy, and an aging population with a diminishing birth rate, and the standpoint of harnessing growth in the massive market of Asia, especially China.

The results were as follows.

(1) The TC Project achieved the overall target having cut overall costs by 102 billion yen.

(2) The APS Project managed to increase sales volume by “ensuring sales through every possible effort” based on optimal pricing strategies, and to improve product spread, leading to a steady increase in gross profit after hitting bottom in the fourth quarter of fiscal 2008. The project attempted optimization of production scale and location in businesses such as color filters for LCDs.

(3) The following are some of the activities of the APG Project.

- In the IT-related business, invested in a lithium-ion battery separator film (BSF) business pursued by ExxonMobil Group company TonenGeneral Sekiyu K.K. (now JXTG Nippon Oil & Energy Corporation), and established Toray Tonen Specialty Separator Godo Kaisha in January 2010;

- In the carbon fiber composite materials business, entered a joint development agreement relating to CFRP automobile parts with German automaker Daimler AG in April 2010, and a long-term basic agreement on the supply of carbon fiber prepreg for Airbus aircraft with European Aeronautic Defence & Space Company NV (now Airbus SE) in May 2010.
- In China, established water treatment membrane manufacturing and sales company Toray BlueStar Membrane Co., Ltd. (TBMC) in Beijing in July 2009 as a joint venture with China National BlueStar (Group) Co., Ltd., the core corporate group of the China National Chemical Corporation; established Cangzhou Toray Fine Chemicals, Co., Ltd. (TFCC) as a joint venture with Toray Fine Chemicals Co., Ltd. and Sinopec Group company Sinopec Assets Management Corporation in Cangzhou, Hebei Province, in July 2009 to manufacture and sell dimethyl sulfoxide (DMSO); and installed an additional system for producing highly functional polypropylene (PP) spunbond for hygiene products at Toray Polytech (Nantong) Co., Ltd. (TPN), which opened for business in March 2008.



Signing of the basic agreement to establish BSF joint venture (November 2009)



TBMC ground-breaking ceremony (August 2009)

While not a group-wide project, Toray also undertook comprehensive efforts to reduce capital expenditure and working capital, which was the fourth basic principle. Free cash flow improved dramatically as a result.

The above activities led to better final consolidated earnings for fiscal 2009 than originally planned, except in terms of net profit, with Toray posting a large consolidated net loss for the second year running due, for example, to losses on impairment of fixed assets. In fiscal 2010, Toray achieved large year-on-year increases in sales and profit, recording 1.540 trillion yen in net sales, operating income of 100.1 billion yen, and net income of 57.9 billion yen.

## **Capital Raised through Public Stock Offering to Advance Growth Strategy**

Toray's earnings deteriorated considerably in fiscal years 2008 and 2009 due to the effects of the global financial crisis stemming from the *Lehman shock*, and the company's debt-to-equity ratio, an indicator of financial strength, trended well above one. In order to aggressively develop business in fields and regions where growth was expected, Toray had to quickly turn finances around again, creating a financial structure that would allow it to invest in growth in a timely manner. This was the backdrop to Toray's procurement of additional funds through a public stock offering in June 2010, the objective being to finance expansion, primarily entry into the aforementioned BSF business. The amount of funds raised was 101.9 billion yen, half of which was added to paid-in capital, the other half to capital surplus. Toray's paid-in capital increased to 147.9 billion yen.

## Transition to New Leadership

Having mapped a course for surviving managerial crisis and shifting focus onto advancing a growth strategy, Sadayuki Sakakibara was replaced as president by Executive Vice President Akihiro Nikkaku in June 2010. Sakakibara became chairman and CEO. Nikkaku became president and COO (and assumed the position of CEO, too, in June 2011).



Akihiro Nikkaku

Stating that “as the basic building blocks for all products, materials have the power to intrinsically change society,” President Nikkaku stressed the need to pursue research and development from a long-term perspective in order to create such innovative materials. He also encouraged employees to go about their jobs with confidence and pride, repeatedly conveying to them his management approach—determined to stay directly involved by adhering to basics, visualizing how the company should be, and doing whatever had to be done, and always acting for the benefit of the company, while trying to foster a corporate group that is a sound, trusted partner of the whole of society.

## The Great East Japan Earthquake

On March 11, 2011, powerful tremors measuring up to level seven on the Japanese seismic intensity scale and the largest tsunami ever recorded in Japan caused immense damage primarily in the Tohoku and Kanto regions. This was the Great East Japan Earthquake. The Fukushima Daiichi Nuclear

Power Plant of the Tokyo Electric Power Company was also damaged, leading to the grave situation of the release of radioactive material.

The Toray Group was fortunate to have been spared human injury, but the scope and scale of the damage were vast, and secondary effects, such as power supply restrictions, also contributed to the disaster's enormous impact on the Japanese economy. However, Japan's economy returned to its pre-disaster level as early as July–September 2011 and improved moderately on the back of reconstruction-related demand into 2012.

## **Reform and Proactive Management (2011–2013)**

- **Formulation of AP-Growth TORAY 2020 and AP-G 2013**

Looking ahead a decade to 2020, Toray formulated AP-Growth TORAY 2020 (Vision 2020), outlining a new long-term corporate vision for the Toray Group, and embarked on business structure reform, with fulfillment of corporate social responsibility and business expansion side by side as central elements. Vision 2020 was announced in February 2011 along with mid-term management program Project AP-G 2013, to be implemented over three years from April 2011.

Under AP-G 2013, Toray aimed to shift over to a new growth track, switching to a proactive management stance while continuing the reforms it had implemented so far. In keeping with this basic objective, the company established and pursued the following eight-point basic strategy.

- (1) Business expansion in growth business fields: Establish and pursue the Green Innovation Business Expansion (GR) Project to help find solutions to global environmental issues and resources and energy issues that will become increasingly significant.

- (2) Business expansion in growth countries and regions: Establish the Asia and Emerging Country Business Expansion (AE) Project, aiming to harness the enormous economic growth anticipated in Asia and emerging countries.
- (3) Capital investment strategy: Plan 350 billion yen in capital investment over three years and allocate two thirds of this investment to growth and expansion, 60 percent of which would go toward green innovation business, and allocate 50 percent of the total amount to business in Asia.
- (4) M&A and business alliance strategies: Make strategic decisions on priority themes, with activities funded by an allocation separate from capital investment.
- (5) R&D investment strategy: Invest 160 billion yen in R&D over three years. The plan was to invest 50 percent of that amount into R&D relating to green innovation.
- (6) Developing and securing human resources: Develop and secure personnel who will lead the creation and implementation of key strategies, and employ and foster employees who can excel globally.
- (7) Bolstering competitiveness: Continue the TC Project pursued under IT-II. The Total Cost Reduction (TC-II) Project was set up.
- (8) Ongoing promotion of business structure reform: Address loss-generating and developing businesses both in Japan and overseas and advance structural reforms.

- **AP-G 2013 Achievements and Transition of Earnings**

- GR Project:

- Toray resolved in March 2012 to boost global carbon fiber production capacity by 6,000 tons annually and increase the Toray Group's overall

annual production capacity to 27,100 tons. The new lines were launched in turn between 2014 and 2015.

- In April 2013, Toray acquired all holdings of Dome Carbon Magic Ltd., representing the manufacturing arm of the Dome Group, a highly acclaimed racing car designer and manufacturer, and a 75-percent stake of a Dome production subsidiary in Thailand. They were renamed Toray Carbon Magic Co., Ltd. (TCM) and Carbon Magic (Thailand) Co., Ltd. (CMTH) respectively.
- Toray purchased American large tow carbon fiber manufacturer Zoltek Companies, Inc., making it a subsidiary in February 2014, thereby enhancing business for applications in fields such as wind energy and automobile structural parts.
- In the battery materials business, Toray made Toray Tonen Specialty Separator Godo Kaisha a wholly owned subsidiary in January 2012, establishing Toray Battery Separator Film Co., Ltd. (merged into Toray in April 2017).
- In the printing plate materials business, Toray established a new waterless plate production plant at Toray Textiles Central Europe s.r.o. (TTCE) in the Czech Republic, commencing production there in November 2013.



Zoltek's plant in Mexico



Opening of TTCE's new waterless plate plant (January 2014)

## AE Project:

- Regarding China, Toray (1) commenced production of dialysis machines (May 2012), and made and announced a decision to build a new artificial kidney plant (January 2012; production began in April 2014); (2) established a third PP spunbond machine (August 2012); and (3) commenced resin compound production in Chengdu (August 2013).
- Regarding Korea, Toray (1) acquired a stake in Woongjin Chemical Co., Ltd., a manufacturer of fibers, textiles, and water treatment products, making it a consolidated subsidiary (February 2014; renamed Toray Chemical Korea Inc. (TCK) in April); (2) made and announced a decision to build a new polyphenylene sulfide (PPS) resin plant (October 2013; compound production began in October 2015, PPS resin production in April 2016); and (3) established an additional lithium-ion battery BSF facility (2012).
- Commenced PP spunbond (June 2013) and resin compound (November 2013) production in Indonesia.
- Made and announced a decision to bolster facilities for producing fiber for automobile airbags in Thailand (April 2013; production began in December 2014).



Dialysis machines and artificial kidney plant of Toray Medical (Qingdao) Co., Ltd. (TMQ) (China)



Completion ceremony for TAK's new PPS resin plant (Korea, July 2016)

- Other achievements include (1) establishing an office in India (September 2011); (2) expanding operations in Brazil (November 2012); and (3) opening an office of Toray International, Inc. in Turkey (July 2012).

The Great East Japan Earthquake had a huge impact at the start of fiscal 2011, but the domestic economy recovered quickly and the business environment was generally firm. Toray's consolidated operating income for the fiscal year reached a record 107.7 billion yen. Viewing the two halves separately, however, profit in the second half declined dramatically in contrast with the first half. This was due to the effects of deceleration of the global economy from the second half of the fiscal year, as well as the floods in Thailand during the latter half of 2011. In fiscal 2012, economic conditions were tough both in Japan and abroad. Factors such as the Thailand floods and slump in the market for flat panel televisions also had an impact on consolidated results of the Toray Group, with all profit indicators suffering year-on-year declines. In fiscal 2013, slowdown continued in China and other emerging economies, but U.S. and European economies entered a recovery phase, albeit a mild one. Domestically, there was a hint of brightness ahead and the economy improved, again mildly, as conditions in currency, stock and other markets picked up as a result of the *Abenomics* economic package pursued by the second administration of Shinzo Abe, formed in December 2012. Meanwhile, Toray posted year-on-year sales and profit increases in fiscal 2013, recording 1.838 trillion yen in net sales, 105.3 billion yen in operating income, and 59.6 billion yen in net income. The net sales figure was a new all-time high, while operating income and net income results were at second-highest levels.

## **T**ransition to a New Growth Phase (2014–2016)

- **Formulation of AP-G 2016 (FY2014–2016)**

In February 2014, Toray announced a new mid-term management program, Project AP-G 2016, to be implemented over three years from April 2014 as the second stage of its Vision 2020. AP-G 2016 specified the eight basic strategies below, based on the basic strategies of AP-G 2013, with measures advanced incorporating fresh perspectives.

(1) Business expansion in growth business fields: Newly establish the Life Innovation Business Expansion (LI) Project to go alongside the existing Green Innovation Business Expansion (GR) Project. Under the LI Project, make the most of Toray's technology and business platform to enhance deployment of LI businesses, identified as businesses that help raise the quality of healthcare, ease the burden on medical institutions, or contribute to people's health and longevity.

(2) Business expansion in growth countries and regions: With the addition of business expansion in the Americas, pursue activities through the Asia, Americas and Emerging Country Business Expansion (AE-II) Project.

(3) Bolstering competitiveness: Undertake this through the Total Cost Reduction (TC-III) Project, incorporating the new perspectives of production process innovation and total cost reductions in sales and marketing operations.

(4) Strengthening sales and marketing: Devise business strategies taking into account the entire supply chain and establish new supply chains.

(5) R&D strategy and intellectual property strategy: Invest 180

billion yen in R&D over three years from fiscal 2014, allocating 50 percent to R&D related to green innovation and 20 percent to life innovation.

(6) Capital investment strategy: Plan 400 billion yen in capital investment over three years from fiscal 2014, allocating around 60 percent to growth fields and, by region, around 60 percent to Asia, emerging countries, and the Americas.

(7) M&A and business alliance strategy: Consider M&A and business alliances as options for achieving growth strategies, and invest funds separate from the capital investment allocation based on strategic decisions.

(8) Human resources strategy: Plan optimal assignment of employees to important areas, and secure and develop diverse human resources, including locally hired employees of operations worldwide.

To advance AP-G 2016, Toray launched Proactive Management Program (PMP) by Daily Management as a group-wide initiative. Under AP-G 2013, the operating income target was missed, with fluctuating market conditions among the external factors. Internal factors were also to blame as Toray was unable to achieve self-imposed tasks as planned, including expansion of sales of products with high added value and new product development. Toray initiated the PMP after reflecting on these shortcomings and referencing the case examples of Penfabric Sdn. Berhad (PAB) in Malaysia and TPA in the U.S. When their earnings deteriorated for various external and internal reasons, PAB and Toray Plastics (America), Inc. (TPA) had carried out fundamental reforms that resulted in dramatically improved earnings. The PMP was activity that

sought to firmly entrench daily implementation of the PDCA cycle for profit improvement through highly accurate daily monitoring and sharing of key production and sales, and management indicators.

## AP-G 2016 Achievements

GR Project achievements include:

- In the carbon fiber composite materials business, Toray reached a basic agreement with the Boeing Company about supplying carbon fiber prepreg as a material for the main wings of a new aircraft, the Boeing 777X, signing a memorandum of understanding in November 2014. A comprehensive long-term supply agreement was entered in October 2015, extending the existing agreement to supply carbon fiber composite materials for the Boeing 787 to include the Boeing 777X. The total value of materials to be supplied to the Boeing 787 and 777X is expected to exceed 11 billion U.S. dollars (1.3 trillion yen based on the exchange rate at the time).
- Toray started supplying carbon fiber material selected for Toyota Motor Corporation's 'Mirai' fuel cell vehicle, launched in December 2014, and another fuel cell vehicle, Honda Motor Co., Ltd.'s 'Clarity Fuel Cell,' launched in March 2016.
- Design, prototype production, and mass production requests received by TCM and CMTH jumped after



Joint press conference with Boeing (November 2014)

they joined the Toray Group following their purchase in April 2013. Therefore, TCM constructed a new building in December 2014 to expand prototype and low-volume production functions, while CMTH built a new integrated mass production plant covering operations from molding through to coating, with work finishing in February 2016.

- Through M&A activity in January and September 2015, Toray acquired carbon fiber woven fabric and prepreg production and distribution bases in Italy, establishing an integrated supply chain for carbon fiber composite materials in Europe
- Zoltek in the U.S. doubled the large tow carbon fiber production capacity of its Mexico plant in April 2016 so that it reached 5,000 tons annually. In February 2017, a plan to double annual production to a little over 10,000 tons by the end of 2017 was announced.
- In the battery materials business, Toray actively bolstered lithium-ion BSF facilities in Japan and Korea, and acquired BSF coating equipment from LG Chem, Ltd. in Korea in August 2015.
- Toray purchased a company that develops, produces and distributes materials for fuel cells and water electrolysis systems in Germany, and set up Greenerity GmbH (GNT) in July 2015.

LI Project achievements include:

- Deployment of “hitoe,” a functional material capable of continuously collecting physiological data simply by wearing it, began in fiscal 2014 with applications in training support services, followed by worker monitoring service applications in August 2016, and medical applications in September 2016.
- PP spunbond facilities were expanded in China, Indonesia, and Korea.

Toray also decided to install PP spunbond development equipment at its Shiga Plant, announcing the move in March 2017.

- In the pharmaceuticals and medical products business, Toray was granted permission to manufacture and sell a catheter ablation system for treatment of paroxysmal atrial fibrillation in November 2015, and was given approval to begin clinical trials of a cancer drug in the U.S. in February 2017.



Garment made with hitoe

AE-II Project achievements include:

- Establishment of a fourth PP spunbond machine in China (December 2014) and a joint venture for MBR water treatment membranes (June 2016)
- Making and announcing a decision to establish a sixth PP spunbond machine in Korea (June 2016; operations scheduled to begin in 2018)
- Establishment of a second PP spunbond machine in Indonesia (September 2016)
- Making and announcing a decision to establish a new integrated carbon fiber and prepreg production facility in a new business zone in South Carolina, in the U.S. (November 2015; production scheduled to begin in 2018 or later in line with demand expansion)
- In Mexico, (1) commencing resin compound production (February 2015); (2) bolstering large tow carbon fiber facilities (April 2016), and making and announcing a decision to further bolster facilities (February

- 2017; production scheduled to begin in late 2017); and (3) making and announcing a decision to establish a new integrated plant for automobile airbag fiber and fabric (July 2016; production scheduled to begin in 2018)
- Commenced production of automobile airbag fabric in India (October 2016)
- Commenced production of RO membrane elements in Saudi Arabia (April 2015)

In the TC-III Project, Toray reduced variable and fixed costs by a combined 194.9 billion yen over the three years 2014 to 2016, almost reaching the project target.



Opening ceremony for the automobile airbag fabric plant of Toray Kusumgar Advanced Textile Private Limited (TKAT) in India (February 2017)



Signing ceremony for the establishment of a water treatment membrane joint venture with Abunayyan Holding of Saudi Arabia (February 2014)

### • Transition of Earnings (FY2014–2016)

Over the three fiscal years 2014 to 2016, the global economy was generally firm, following a trend of moderate expansion. The Japanese economy returned to a recovery trend from autumn 2014 after a longer-than-expected slump in demand resulting from a hike in the consumption tax rate from five to eight percent that took effect in April 2014. A moderate

recovery continued on the back of not only strong exports, but also factors including an increase in capital investment revolving around rationalization and labor-saving efforts.

In this business environment, Toray's consolidated earnings progressed well according to plan. In fiscal 2014, net sales broke through the two trillion yen mark for the first time and all profit indicators hit new all-time highs. Operating income came to 123.5 billion yen. Net sales and profit records were broken again in fiscal 2015, with operating income reaching 154.5 billion yen. Having broken the two trillion yen mark for net sales and making it to the 150 billion yen range for operating income, it could be said that the Toray Group had entered a new growth phase along the road toward realization of Vision 2020. In fiscal 2016, too, Toray actively pursued business expansion in growth business fields and regions, and bolstering of competitiveness in the final fiscal year covered by AP-G 2016, but the Japanese yen was even stronger against major currencies than in the previous year and earnings were therefore affected by drops in sales and profit of overseas subsidiaries after conversion into yen. As a result, net sales came to 2.026 trillion yen and operating income came to 146.9 billion yen in consolidated results, representing year-on-year sales and profit declines. Net income, however, increased from the previous year to 99.4 billion yen, a new record, due, for example, to a drop in tax expenses.

## **Internal Controls and Governance**

As globalization of the economy continued, Toray was strongly advised of the need to establish rules for the entire Toray Group, including subsidiaries, and to strengthen governance.

In fiscal 2016, Toray adopted a group-wide system for self-inspection and mutual inspection of internal controls. Complementing already existing controls performed by operations managers, monitoring by administrative staff at Head Office and other locations, and internal audits by the Auditing Department, this inspection system was meant to strengthen cross-organizational risk management within the Toray Group and improve business processes.

In addition, revisions to Japan's Companies Act incorporated provisions relating to corporate governance urging the appointment of outside directors. This was followed by the formulation of the Corporate Governance Code, which has applied to listed companies since June 1, 2015. Contributing to communities has been a corporate philosophy right from the outset for the Toray Group, which put in place and strengthened a governance system in line with one of its Corporate Guiding Principles: "Obtaining the trust of society and meeting the expectations by acting fairly while maintaining high ethical standards and a strong sense of responsibility and maintaining transparency in management." To reflect the intentions of the Companies Act revisions, which would come into force in May 2015, and the Corporate Governance Code to be applied to listed companies in June, Toray appointed its first outside director in June 2014 (an additional outside director was appointed in June 2015; as of July 2017, Toray has two outside directors) and further enhanced its governance framework through other moves, such as setting up the Governance Committee in December 2015. The Governance Committee provides an advisory function to the Board of Directors on all matters tabled relating to corporate governance. Members are the company's chairman and president, and multiple outside directors. An outside director is selected to chair the committee.

## **A Foundation for Sustained Growth—Formulation of AP-G 2019 (FY 2017–2019)**

In February 2017, Toray announced the third stage of its Vision 2020, a new mid-term management program, Project AP-G 2019, launching it in April.

AP-G 2019 specifies three basic strategies and five key initiatives. The first basic strategy is business expansion in growth business fields, which will continue to be advanced through existing GR and LI group-wide projects. The second basic strategy is expansion and advancement of global business, which is to be pursued through the Asia, the Americas, Europe, and Emerging Regions (AE) Project, revamping the AE-II Project from AP-G 2016 to cover all overseas business, including Europe. The third basic strategy is strengthening competitiveness, to be implemented as before through the Total Cost Reduction (TC) Project.

The five key initiatives are (1) new business creation; (2) R&D and intellectual property; (3) capital investment; (4) M&A and business alliances; and (5) human resources. One of the initiatives, R&D and intellectual property, involves a plan to invest 220 billion yen in R&D expenses over three years with half to be allocated to green innovation and one quarter toward life innovation. The plan for capital investment is to spend 500 billion yen over three years, allocating around 60 percent to growth fields and, by region, around 60 percent outside Japan.

## **Toward 100 and Then 200 Years**

In his speech during a ceremony held at the Shiga Plant in April 2016 to commemorate Toray's 90th anniversary, President Nikkaku talked

about fundamental aspects of Toray management, including research and technology development efforts, global management, management with a view to the long term, management built around people, self-improvement, and a hands-on approach. He concluded with the following.



90th anniversary ceremony (April 15, 2016)

“The Toray Group is an advocate of the idea that ‘materials have the power to intrinsically change society.’ As a manufacturer of materials, it has been Toray’s management approach, upheld over all these years, to develop... and supply innovative materials that change the world, and in doing so, to win through, contributing to society while prevailing over competitors... Naturally, we have to make steady progress toward realizing our immediate financial targets, but instead of being easily swayed by share price fluctuations over the short term, it is important, from a mid-to long-term outlook, to pursue gains in corporate value. I am not, by any means, saying that western ways are bad, but Japan has its very own social backdrop, norms, employment practices, and corporate history and we should not, without correctly understanding this intrinsic nature, let ourselves simply drift with the times, engaging in a style of management whereby only superficial results are appraised... Using the merits of a Japanese style of management based on high ethical standards effectively to our advantage, we will continue to develop our business worldwide, bearing in mind that we should adapt to the times based on a long-term vision, identifying the real nature of matters rather than simply

going along with the trends of the day... Remembering the Corporate Philosophy of the Toray Group—‘Contributing to society through the creation of new value with innovative ideas, technologies and products’—and that we wish to realize it for our stakeholders, the Toray Group will make every effort to remain a corporate group respected the world over, achieving sustained growth through to our centennial, and then our bicentennial years.”

Chapters 7 and 8 respectively elaborate on the Toray Group’s global business expansion and research and development.



Toray Advanced Materials Exhibition 2016  
(October 2016)