Toray Industries, Inc.

INTELLECTUAL PROPERTY REPORT

FY 2010

April 1, 2010 — March 31, 2011

TORAY
Innovation by Chemistry

Introduction

In February 2011, Toray Group formulated "AP-Growth TORAY 2020," a long-term corporate vision that will serve as unified guidelines for our corporate activities over the next decade. Guided by this vision, Toray Group aims to actively contribute to the advancement of society and the preservation of harmony with the environment and to maintain high value as a corporate group for all stakeholders.

Under "AP-Growth TORAY 2020," we will further expand our global business as the economic scale of emerging countries is set to surpass that of developed countries. At the same time, we will focus more closely on expanding our Green Innovation Business that contributes to solving today's increasingly critical global environmental problems as well as resource and energy problems. By doing so, we aim to efficiently seize business opportunities and become a "corporate group that continually increases revenues and profits."

As the first stage of "AP-Growth TORAY 2020" long-term corporate vision, we formulated a medium-term management program "Project AP-G 2013," running over the three-year period from fiscal 2011. Key principle of "Project AP-G 2013" will be to strive for business expansion in growth business fields and regions while reducing costs to further strengthen our business footing. Under "Project AP-G 2013," our focus will be on strategies for each business and product while taking a cross-organizational approach in implementing group-wide projects, namely the "Green Innovation Business Expansion Project," "Asia and Emerging Country Business Expansion Project" and "Total Cost Reduction Project."

Among these three group-wide projects, we believe that innovation of technologies through R&D will be indispensable in promoting the "Green Innovation Business Expansion Project." Therefore, we promote the strengthening of our intellectual property capabilities as a crucial theme of this project based on our belief that intellectual property capability is one of the keys to innovation of technologies through R&D activities. Also, strengthening global intellectual property capabilities and intellectual property management will become a crucial issue in implementing the "Asia and Emerging Country Business Expansion Project." Additionally, we will make efforts to further strengthen various types of brands, beginning with our corporate brand, which are valuable intellectual property held by Toray Group.

In line with efforts to strengthen our intellectual property capabilities, the Intellectual Property Division, which is an independent organization under the direct control of the President, controls the strategic intellectual property activities for the entire Toray Group.

In this manner, Toray Group is adopting a trilateral integrated approach that incorporates its business strategies, R&D strategies and intellectual property strategies. Concurrently, while continually working to raise Toray Group's corporate value, we will strive to realize our corporate philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies and products."

Contents

Overview of Toray Group

Corporate Outline (as of March 31, 2011)

- Name: Toray Industries, Inc.
- Established: January 1926
- Paid-in Capital: ¥147,873 million
- No. of Group companies: 138 [Parent company and consolidated subsidiaries (59 Japanese and 79 overseas consolidated subsidiaries)]
- No. of employees: 38,740 (consolidated), 6,797 (non-consolidated)

Corporate Philosophy

Corporate Philosophy

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

Corporate Missions

For society
To establish ties and develop mutual trust as a responsible corporate citizen

For our shareholders
To provide our shareholders with dependable and trustworthy management

For our customers
To provide new value to our customers through high-quality products and superior services

For our employees
To provide our employees with opportunities for self development in a challenging environment

Corporate Guiding Principles

Safety and Environment	Placing top priority on safety, accident prevention and environmental preservation, ensuring the safety and health of our employees, our customers and local communities, and actively promoting environmental preservation
Ethics and Fairness	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
Customer Focus	Providing customers with new values and solutions, and achieving sustainable growth together
Innovation	Achieving continuous innovation in all corporate activities, and aiming for dynamic evolution and growth
Fieldwork and Initiative	Strengthening fieldwork abilities and initiative, the foundations of our corporate activities, through consistent learning from one another and constant self-driven efforts
Global Competitiveness	Pursuing competitiveness through global top quality standards and cost management, and achieving growth and expansion in the global marketplace
Global Coalition	Developing global coalition through integrated internal linkages and strategic alliances with external parties
Emphasis on Human Resources	Providing an environment where employees find value in their work, and building positive, energetic relationships between people and the organization

Main Businesses

Fibers & Textiles
Filament yarns, staple fibers, spun yarns, woven and knitted fabrics of nylon, polyester and acrylics; non-woven fabrics; man-made suede, apparel products, etc.

Plastics & Chemicals
(Excludes films and plastic products included in IT-related Products segment, listed below) Nylon, ABS, PBT, PPS and other resins and molded products; polyolefin foam; polyester, polypropylene, PPS and other films and processed film products; raw materials for synthetic fibers and plastics; zeolite catalysts; pharmaceuticals and agrochemical intermediates and other fine chemicals; veterinary medicines, etc.

IT-related Products
Films and plastic products for information- and telecommunication-related products; electronic circuit materials and semiconductor-related materials; LCD color filters and its related materials and equipment; materials for plasma display panels; magnetic recording materials; graphic materials and IT-related equipment, etc.

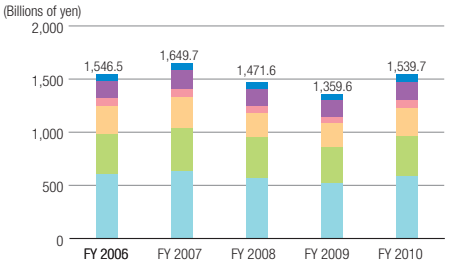
Carbon Fiber Composite Materials
Carbon fibers, carbon fiber composite materials and their molded products.

Environment & Engineering
Comprehensive engineering; condominiums; industrial equipment and machinery; environmental equipment; water treatment membranes and related equipment; materials for housing, building and civil engineering applications, etc.

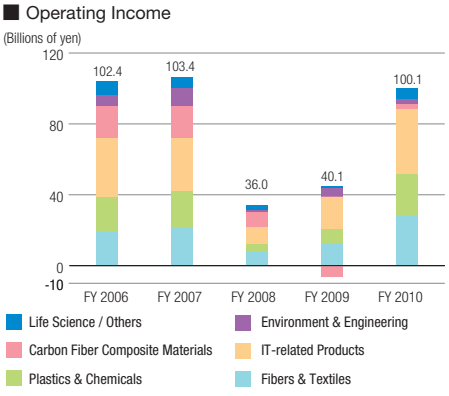
Life Science
Pharmaceuticals; medical products.

Others
Analysis, physical evaluation and research services, etc.

■ Net Sales



■ Operating Income



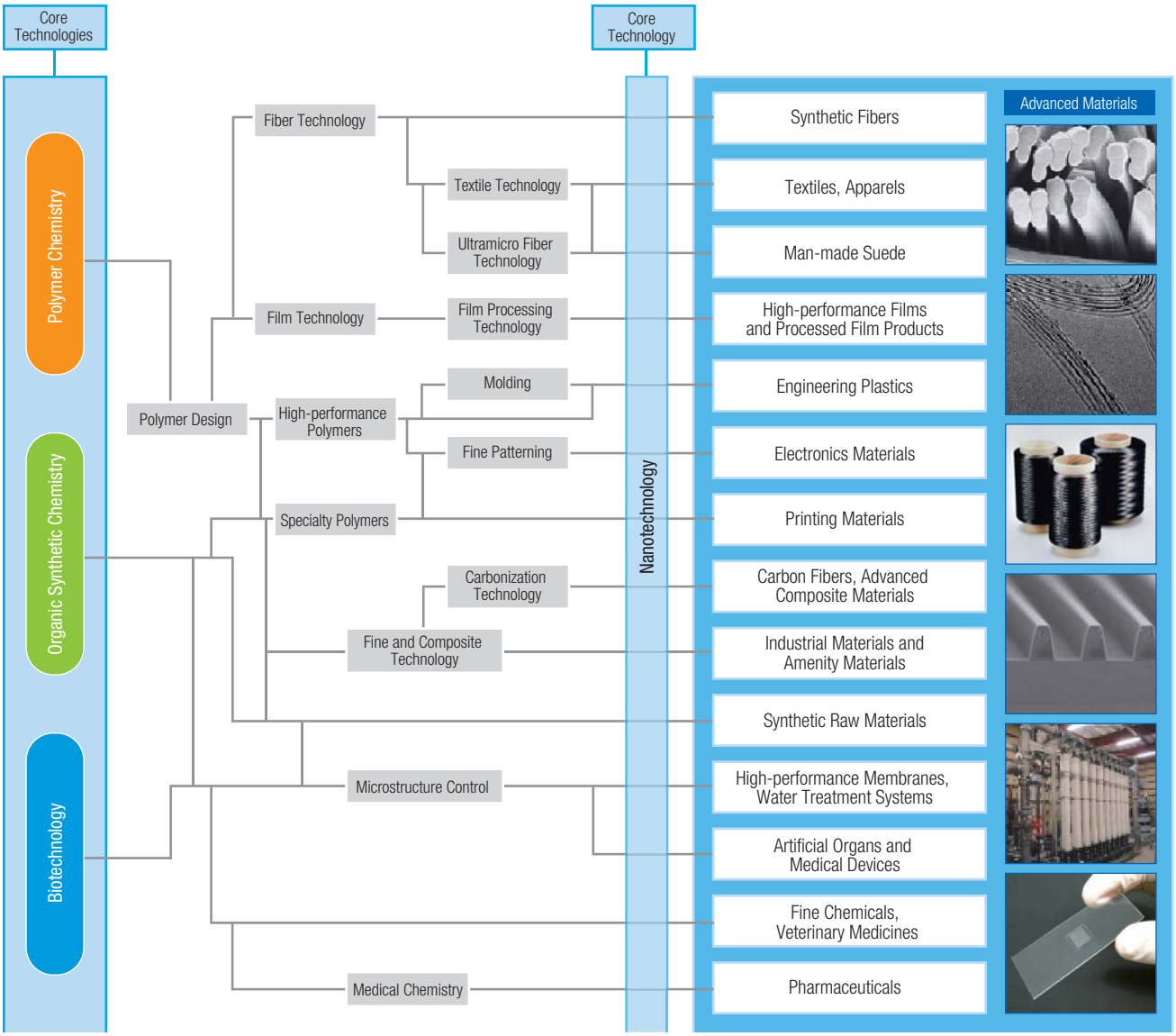
I Core Technologies and Management Strategies

1 Core Technologies

Since its foundation, Toray has cultivated "polymer chemistry," "organic synthetic chemistry" and "biotechnology" as core technologies. While developing these technologies, we have constantly expanded our businesses from fibers and textiles to films, chemicals and plastics. We have also developed businesses in the fields of electronics & information materials, carbon fiber composite materials, pharmaceuticals, medical products and water treatment. With the recent addition of "nanotechnology," we are now utilizing our four core technologies to develop and commercialize a diverse array of advanced materials for a wide range of industries.

Under the corporate slogan "Innovation by Chemistry," Toray will continue striving to contribute to society through the creation of new value by using its four core technologies and their integrated technologies.

Toray Technologies and Businesses



2 Management Strategies

Toray formulated Project IT-II, a medium-term management program focused on overcoming the economic crisis triggered by the collapse of Lehman Brothers in autumn 2008. Under this program, during the two-year period from April 2009 we implemented three group-wide projects: Total Cost Reduction Project, Action Program for Survival Project and Action Program for Growth Project. As a result of these initiatives, we were able to attain a large improvement in profit.

In view of this achievement, to gear up for further growth, in February 2011 Toray announced the long-term corporate vision, "AP-Growth TORAY 2020" and a new medium-term management program, "Project AP-G 2013."

Since the start of operations, Toray's managerial principles have been built on the concept that "a company exists to contribute to society." Under "AP-Growth TORAY 2020," which was formulated looking ahead to the next decade, we will hand down this concept and aim to become a "corporate group that continually increases revenues and profits", a "corporate group that proactively contributes to social development and environmental stewardship" and a "corporate group that provides high value to all stakeholders." In doing so, we will strive to realize our corporate philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies and products."

As the first stage of "AP-Growth TORAY 2020," in April 2011 we began undertaking "Project AP-G 2013," a new medium-term management program covering a three-year period. In accordance with "Project AP-G 2013," we will execute growth strategies needed for "business expansion in growth business fields and regions" based on the strong corporate structure we have built over the past two years through IT-II reforms. We will take advantage of economic growth of Asia and emerging countries as well as expand existing businesses and create new businesses in four major growing business fields (environment, water-related and energy; information, telecommunications and electronics; automobiles and aircraft; and life science). Among these, Toray Group will focus on comprehensively and vigorously undertaking the so-called Green Innovation Business that contributes to solving environmental problems and resource and energy problems, which will become increasingly urgent and important as global-scale issues. Additionally, Toray Group will strive to take advantage of economic expansion in high-growth Asia and emerging countries. At the same time, we will also focus on further strengthening our total cost competitiveness.

During the three-year period from fiscal 2011 through fiscal 2013 covered by "Project AP-G 2013," we plan to allocate 350.0 billion yen for capital investments and 160.0 billion yen for R&D expenses.

■ Key Principle and Basic Strategies of "Project AP-G 2013" Medium-Term Management Program

Key Principle

- Expand businesses in growth business fields and regions
- Establish a robust business footing by cost reductions

Basic Strategies

1. Business expansion in growth business fields
2. Business expansion in growth countries and regions
3. Capital investment strategy
4. M&A and business alliance strategies
5. R&D investment strategy
6. Developing and securing human resources
7. Bolstering competitiveness
8. Ongoing promotion of business structure reform

I Core Technologies and Management Strategies

As group-wide, cross-organizational themes of "Project AP-G 2013," we will comprehensively and proactively promote three projects, namely the "Green Innovation Business Expansion (GR) Project" that aims to expand business that contributes to solutions for global environmental problems and resource and energy problems; "Asia and Emerging Country Business Expansion (AE) Project" that strives to take advantage of economic expansion in the rapidly growing Asia and emerging countries and expand business in these countries and regions; and "Total Cost Reduction (TC-II) Project" to further reinforce our robust business footing.

Group-wide Projects to be Promoted through "Project AP-G 2013"

Green Innovation Business Expansion (GR) Project

Toray Group will use its "strengths in chemistry" to develop its Green Innovation Business on a global scale to provide solutions to global environmental issues and energy and resource issues, address the trend toward independence from petroleum resources and contribute to the realization of a sustainable low-carbon society.

Asia and Emerging Country Business Expansion (AE) Project

Toray Group will seek to aggressively develop and expand business in Asia and emerging countries in other regions that are expected to realize major economic growth and take advantage of economic expansion in these countries and regions.

Total Cost Reduction (TC-II) Project

Toray Group will continue cost-reduction initiatives to reinforce the robust business footing required to achieve its objective of becoming a corporate group that continually increases revenues and profits.

II Business Strategies and R&D Strategies

1 Basic Strategies by Business Categories

As a common task for Toray Group, we are working to expand our advanced materials businesses and businesses (Green Innovation Businesses) that can contribute to solving global environmental problems as well as resource and energy problems, with our efforts focused on four major growing business fields (environment, water-related and energy; information, telecommunications and electronics; automobiles and aircraft; and life science). At the same time, we are promoting each business by implementing strategies appropriate for the business categories below. Traditionally, we have referred to our Fibers & Textiles and Plastics & Chemicals businesses as Foundation Businesses because these are positioned as stable businesses that support Toray's foundation. However, we have repositioned this category as Foundation Businesses that drive Toray Group's steady business growth. Similarly, we renamed the previous Strategically Developing Businesses as the Intensively Developing and Expanding Businesses because these are positioned as businesses for concentrated development and for expanding business.

The Fibers & Textiles and Plastics & Chemicals businesses, positioned as Foundation Businesses, aim to actively expand business revenue and profits, mainly in growth business fields and regions, and will support a steady expansion of business for the entire Toray Group in the future.

IT-related Products and Carbon Fiber Composite Materials, designated as Strategically Expanding Businesses, strive to strategically and proactively expand business and drive a medium- and long-term expansion in revenue and profits by implementing measures that include intensively allocating management resources and strengthening responses to such growth markets as information and telecommunications, automobiles and aircraft, and new energy.

Life Science, which includes pharmaceuticals, medical products, and bio-tools, and Environment Businesses, centered on water treatment, are positioned as Intensively Developing and Expanding Businesses. We are making efforts to develop and expand these businesses through prioritized allocation of management resources to establish these businesses as our next pillar for revenue and profit growth to follow "Strategically Expanding Businesses."

■ Business Categories

Foundation Businesses	**Fibers & Textiles, Plastics & Chemicals**	Steadily drive business expansion and profit growth of the Group
Strategically Expanding Businesses	**IT-Related Products, Carbon Fiber Composite Materials**	Drive revenue and profit growth over the medium- and long-term and achieve strategic and aggressive business expansion
Intensively Developing and Expanding Businesses	**Environment (Water Treatment), Life Science**	Develop as the next driver for revenue and profit growth to follow IT-related products and carbon fiber composite materials

2 R&D Segments

The research and development activities of Toray Group are divided into seven segments, one for each business domain, as follows: Fibers & Textiles; Resins & Chemicals; Films; Electronics & Information Related Products; Carbon Fiber Composite Materials; Life Science (pharmaceuticals and medical products); and Water Treatment.

The "Business Categories, R&D Segments and Business Segments" chart shows the relationship between business categories and R&D/business segments.

■ Relationship between Business Categories and R&D/Business Segments

<table>
<tr><th>Business Categories</th><th>R&D Segments</th><th>Business Segments</th><th>Basic Materials</th><th>Advanced Materials</th></tr>
<tr><td rowspan="2">Foundation Businesses</td><td colspan="2">Fibers & Textiles</td><td>Fibers & Textiles</td><td rowspan="2">Synthetic Fibers
Resins
Chemical Materials
Films</td><td>High Function Fibers & Textiles</td></tr>
<tr><td>Resins & Chemicals</td><td>Films</td><td>Plastics & Chemicals</td><td>High Function Resins
Functional Particles
New Energy Materials</td></tr>
<tr><td rowspan="3">Strategically Expanding Businesses</td><td colspan="2" rowspan="2">Electronics & Information Related Products</td><td rowspan="2">IT-related Products</td><td rowspan="3"></td><td>High Density Recording Materials
High Function Films
Display Materials
Semiconductor-related Materials</td></tr>
<tr><td colspan="2">Carbon Fiber Composite Materials</td><td>Carbon Fiber Composite Materials</td><td>Carbon Fiber Composite Materials</td></tr>
<tr><td rowspan="2">Intensively Developing and Expanding Businesses</td><td colspan="2">Life Science</td><td>Life Science</td><td rowspan="2"></td><td>Pharmaceuticals and Medical Devices
Bio-tools</td></tr>
<tr><td colspan="2">Water Treatment</td><td>Environment & Engineering</td><td>High Function Separation Membranes, etc.</td></tr>
</table>

3 Research and Development Strategies

Under our medium-term management program, "Project AP-G 2013," we will promote R&D in accordance with the following basic strategies.

(1) We will vigorously promote R&D directly linked to businesses based on our business strategies in each business field. At the same time, we will strengthen basic research functions to obtain new fundamental technologies and deepen core technologies that lead to innovation. In particular, at the Advanced Materials Research Laboratories, we are undertaking innovative basic research of materials based on polymer chemistry to create innovative basic materials that provide solutions to problems related to the environment, energy and aging population with the declining birthrates. At the New Frontiers Research Laboratories, we aim to create large-scale business domains in biotechnology, nanotechnology and fields that integrate these two technologies.

(2) We have positioned the E&E Center (Environment & Energy Center) and the A&A Center (Automotive & Aircraft Center) as collaborative bases for technology development that are also open to outside institutions for the purpose of promoting Toray Group's new growth strategies for realizing a sustainable low-carbon society. These centers are promoting technological development that will drive a dramatic expansion of businesses in the fields of Environment and Energy and Automobiles and Aircraft.

(3) We strive to create innovative solutions by promoting open innovation that straddles industry, government and academia and extends globally and further promote collaboration and integration of research efforts with external organizations.

(4) We will strengthen the global development of R&D functions, collaborate with leading companies and institutions overseas, and utilize outstanding resources in each country and integrate different cultures to cultivate new research domain.

(5) We will strategically promote patent rights for the results of our R&D investments with initiatives that include promoting intellectual property capabilities and promoting global patent applications that emphasize constraints.

4 Scheme for R&D and Commercialization

Toray has consistently created and commercialized numerous advanced materials by utilizing strengths in R&D that include its 1) history and culture of creating innovative technologies (emphasis on basic research); 2) numerous specialist organizations; 3) integrated research and technological development organization; 4) technological integration through industry-government-academia joint research; and 5) advanced analytical capabilities (strong links to the Toray Research Center Inc.).

To fully utilize these strengths, since 1985 Toray has been building a "research and technological development organization centering on the Technology Center." The role of the Center is to plan company-wide strategies and key projects for research and technological development.

Each research and technological development department conducts research and development in its own responsible area. At the same time, they collaborate with each other and integrate their technologies across divisional boundaries in order to promote innovative research and deepen and deploy fundamental technologies, find solutions to urgent issues and take other pertinent actions. Additionally, utilizing high-caliber personnel, the development of global research bases is underway to further strengthen collaborations with advanced users and leading-edge research institutions worldwide.

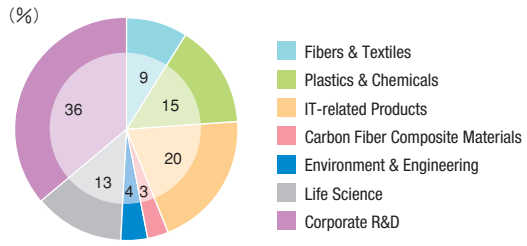
To speed up all processes, from development to commercialization, we will enhance functions to support processing technologies, facilities and equipment technologies and project management for our vital projects as we progress with the creation of large-scale businesses.

In undertaking the medium-term management program, "Project AP-G 2013," to promote Toray Group's new growth strategies for the realization of a sustainable and low-carbon society, we will strengthen initiatives for combining the total strengths of the Technology Center and for promoting collaboration and integrating research efforts.

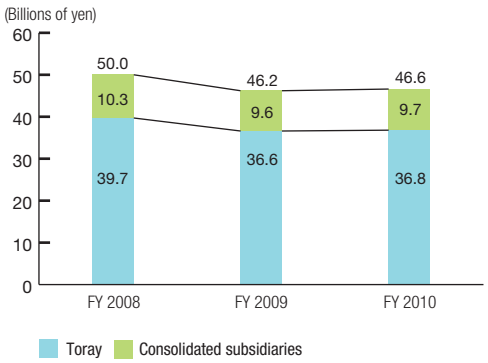
5 R&D Expenditures

In FY 2010, Toray Group R&D expenses amounted to ¥46.6 billion (total R&D expenses of Toray parent company were ¥36.8 billion). By business segment, we allocated approximately 9% of these expenditures to Fibers & Textiles, approximately 15% to Plastics & Chemicals, approximately 20% to IT-related Products, approximately 3% to Carbon Fiber Composite Materials, approximately 4% to Environment & Engineering and approximately 13% to Life Science and approximately 36% to corporate R&D.

FY 2009 R&D Expenses by Business Segment



R&D Expenditures (past three years)



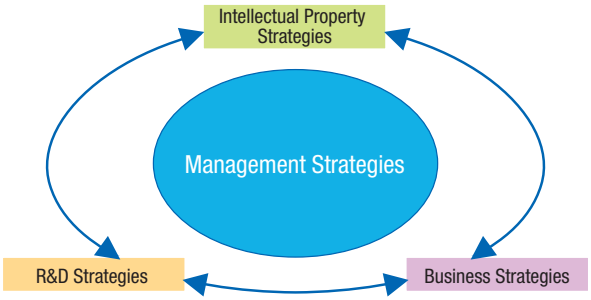
III Toray Group Intellectual Property Strategies

1 Basic Policies on Intellectual Property

Toray 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 regards intellectual property as one of its vital management resources. Based on this rationale, we believe that any intellectual property strategy cannot exist in isolation from business strategies and R&D strategies and that all three strategies must thus be mutually and organically integrated. Therefore, Toray has designated its intellectual property strategies as one of the most important elements of its management strategies.



(2) Promoting the procurement of rights

In terms of intellectual property, it is necessary to actively acquire patent rights to protect our products and technologies and ensure profits. Therefore, holding as many useful patent rights as possible and building patent portfolios are our most important tasks. At the same time, we also pay close attention to the efficient acquisition of patent rights by raising the quality of each patent and not making needless applications.

(3) Respecting the rights of others

Executing business while infringing on the patent rights of other parties is not legally permissible. In keeping with the spirit of adhering to such related laws and ordinances, for many years Toray has operated a system for comprehensively investigating the relations between its own products and technologies and the patents owned by other companies, and thoroughly educates employees to prevent infringement on the patent rights of other parties.

(4) Rightful enforcement of our own rights

When Toray's patent rights are infringed upon by another party, we take proper steps by exercising our patent rights. We not only claim that infringement be ceased, but depending on the circumstances we also receive monetary profits from licensing as well as use our patent rights for cross-licensing with the patent rights of other parties.

2 Promotion of Patent Applications and Procurement of Patens in Line with Our Business Strategies

Toray Group focuses concerted efforts on obtaining patents in all of its R&D segments, with the key focus on advanced materials.

Toray has conventionally concentrated its patent applications and procurement of patents on synthetic fibers, films and engineering plastics in the basic materials businesses, which have led to high market share and profitability.

In implementing the Green Innovation Business Expansion Project within the "Project AP-G 2013" medium-term management program, we are presently concentrating on patent applications and procurement of patents, particularly for businesses that provide solutions to problems that are increasingly urgent and important as global-scale issues, with focus on four major growing business fields (environment, water-related and energy; information, telecommunications and electronics; automobiles and aircraft; and life science). We are working to build patent portfolios with emphasis on these growth business fields. We expect the patent portfolios we build to support our businesses in these growth business fields in the future.

Additionally, we will build and execute intellectual property strategies that supports business expansion in growth countries and regions and that is linked to the R&D and businesses of Toray Group being carried out globally. Specifically, we will first of all promote Toray's overseas patent applications and patent procurements. In particular, under the Asia and Emerging Country Business Expansion (AE) Project within the "Project AP-G 2013" medium-term management program, we will proactively focus especially on patent applications and patent procurements in these regions where we aim to achieve business expansion in the future. In addition, we will promote patent applications and patent procurements from overseas affiliated companies to ensure the appropriate protection of inventions created in our R&D bases in each country under the promotion of globalization of our R&D.

In accordance with the intent of the Total Cost Reduction (TC-II) Project within the "Project AP-G 2013" medium-term management program, we will undertake various initiatives detailed below for continuing to enhance efficiency and promote our patent capabilities.

3 Selection and Concentration in Patent Administration

In the course of shifting to a "Selection and Concentration in Patent Administration" policy, Toray has designated "Rank-A Projects" as top priority issues in the administration of patents. Under this approach, we appoint a leader and supervising executive for each project and provide additional support through regularly scheduled follow-ups by technical division executives.

The following three "Rank-A Projects" categories are currently being pursued.

(1) "Rank-A Patent Procurement Projects," with the objective of establishing patent portfolios for new technologies and related peripheral technologies through applications and procurement of patents;

(2) "Rank-A Defense Projects," targeting early clarification of relations with patent rights owned by other companies that are influential on Toray's important research and technology development, and prompt determination of countermeasures to address patents of other companies having a major impact on Toray's business; and

(3) "Rank-A Rights Enforcement Projects," structured to cope with infringement of Toray patents by other companies through proper enforcement of Toray's rights, efforts to curb such infringement by other companies, and to obtain rightful compensation for practice of Toray's patented inventions by other companies.

Rank-A Projects are established in many technologies in major fields which are typified by advanced materials businesses in the four major growing business fields (environment, water-related and energy; information, telecommunications and electronics; automobiles and aircraft; and life science) .

In filing new patent applications, including those covered by the Rank-A Projects, we stringently select inventions to file that can make contributions to the Company's business by means of strengthening collaboration between technical and/or sales and marketing departments, and the Intellectual Property Division.

4 Promotion of Patent Capabilities

To the present, Toray Group has been "promoting its patent capabilities" through initiatives to strengthen its research and technology foundation and has implemented such measures as increasing incentives, improving the quality of patents and enhancing and strengthening patent education.

Additionally, in keeping with the intent of the Total Cost Reduction (TC-II) Project within the "Project AP-G 2013" medium-term management program, we are carrying out new initiatives for curbing costs and promoting our patent capabilities.

(1) Increasing incentives for inventions

For invention incentives, Toray has long maintained a compensation system for employee inventions. This system includes fixed-sum compensations at the time of patent application and registration (including overseas patents in both cases) and performance compensations based on profits through the use of patented inventions and license fees. However, we have revised these internal rules to effectively respond to the amended Patent Law as well as recent trends in court rulings in areas concerning employee inventions.

Through this type of flexible internal system, we are raising incentives for inventions to promote the creation of excellent inventions and thereby enhance the Company's competitiveness.

In FY 2006, we established an award system for not only inventors but also others in Toray who make a valuable contribution to patent-related activities. We expect that our multifaceted system of incentives will lead to further vitalization of activities related to intellectual properties. Many of the affiliated companies have a similar compensation system.

(2) Improving the quality of patents

With a view toward the strict judgments rendered by courts and the Patent Office concerning inventive steps and quality of disclosure of patent specifications, Toray believes that high-quality patents should have patentability that can stand up to such judgments, have ease of enforcement at the same time and be useful as tools for executing business. From this viewpoint, Toray not only conducts thorough prior art searches before filing patent applications, but also it provides inventors with opportunities to communicate with patent practitioners to perfect patent application documents, and with various tools to facilitate improvements in the quality of the documents. For example, prior art searches are undertaken by patent searchers assigned to technical departments charged with the primary role of patent searches.

Of particular note, we enhanced education of the patent searchers and built a database for sharing know-how in performing searches more efficiently and thereby stringently select inventions for which to file patent applications based on their ability to stand up to the strict judgments of the Patent Office.

Our efforts extend beyond merely raising the quality of each individual patent and we have formulated and utilize the Manual for Building a Patent Portfolio that condenses know-how for raising the quality of the overall patent portfolio for protecting a specific theme.

To promote advantageous business development through the effective use of Toray's patents when another company enters one of our markets, we built a patent database arranged by product so that sales and marketing departments can easily ascertain Toray patents that could be used to defend against the entry of competitors.

(3) Enhancing and strengthening patent education

Multifaceted and multilevel education in patents is given to general managers through to new employees and frontline sales staff, with the aim of improving patent-consciousness and fostering practical skills of staff in the sales and marketing and technical departments.

To ensure the efficacy of this patent education, we conduct annually a Patent Operational Assessment Qualification Test for researchers and engineers. The test objectively assesses their legal knowledge of patents as well as practical skills. The results of the tests are reflected in the performance evaluations of employees working in technical areas.

(4) Cultivating Global Human Resources for Intellectual Property

Intellectual property-related problems are becoming increasingly sophisticated, complex and globalized, and the capability requirements of members of our Intellectual Property Division are thus becoming increasingly stringent.

Accordingly, to raise the legal and patent affairs capabilities of members of this division, Toray is encouraging the acquisition of a patent attorney qualification, which is a national license for handling procedures at the Patent Office and courts. Concurrently, to raise capabilities to deal with global issues as well as capabilities for supporting overseas affiliated companies, we are actively implementing such measures as providing support for strengthening the foreign-language capabilities of staff and dispatching staff to overseas affiliated companies.

5 Brand Strategy

In proactively undertaking its corporate brand strategy, Toray Group exercises strict control over all intellectual properties that symbolize Toray Group corporate activities. The intellectual properties include the "Toray Industries, Inc." company name, the "TORAY" corporate symbol, the "Toray" business trademark and the corporate domain names such as "toray.co.jp" and "toray.com" which represent the significance of our corporate existence and our originality.

Toray Group strives to elicit accurate social evaluations of its corporate image in order to raise its aggregate corporate brand value, with the aim of enhancing employee engagement and customer confidence and bolstering its ability to attract outstanding personnel.

To this end, we pursue the following three initiatives.

(1) Enhance employee brand awareness and employee loyalty.

(2) Strengthen and appeal our corporate brand and corporate image externally.

(3) Clarify corporate brand targets and coordinate business domain brands and product brands.

The corporate symbol "TORAY", denoting the drive and spirit of Toray Group, expresses the Company's willingness to communicate with internal and external members, together with its aspiration to excel as a distinctive presence within society. This symbol is registered as a trademark for the primary businesses of Toray Group in over 150 countries around the world for which we have established exclusive use rights. We have also adopted stringent defensive measures to deal with unauthorized use by third parties.

One of our missions is to forge a broad understanding by society of Toray Group's goals in preserving the global environment and contributing to the creation of a recycling-oriented society. To this end, we have established ecodream as a brand encompassing all of our business activities, products and services linked to the environment and recycling. Toray Group makes concerned efforts together to enhance environmental preservation activities.

In our quest to become a "global top company of advanced materials," we have also established TOREX as a brand expressing the promise of high quality and grade mainly for advanced materials in the area of fibers and textiles. We are actively utilizing and expanding this brand.

Toray Group has obtained and is properly managing some 1,300 product brands that are protected by approximately 9,800 trademark rights. In all of our businesses, we actively promote product brand strategies as an important part of strengthening our business foundation.

A collection of the Company's logos for our main products is shown below.

Ecodeal エコディア
HIGH-PERFORMANCE CARBON FIBER TORAYCA
ECSAINE エクセーヌ
torayvino
TORAYSEE トレシー
Lumirror
TOYOLAC
TORELIEF
3D-Gene

Ⅳ Analysis of the Marketability and Competitive Advantages of Technologies

TORAY
Innovation by Chemistry

With "Innovation by Chemistry" as its corporate slogan, Toray Group rises to the challenge of creating innovative new materials and technologies while promoting innovation in all of its business activities including R&D in aiming to become a global top ranked business group at the leading edge of industry through its strength in advanced materials.

Based on the core technologies of organic synthetic chemistry, polymer chemistry, nanotechnology and biotechnology, Toray Group will focus on strengthening its stable earnings foundation and expand revenues and profits in our Foundation Businesses of Fibers & Textiles and Plastics & Chemicals. At the same time, we will strive to expand advanced materials in four major growing business fields (environment, water-related and energy: information, telecommunications and electronics; automobiles and aircraft; and life science). Moreover, we will promote further growth by utilizing Toray Group's total capabilities and cultivating new avenues in order to provide solutions for curbing global warming and reducing the environmental burden.

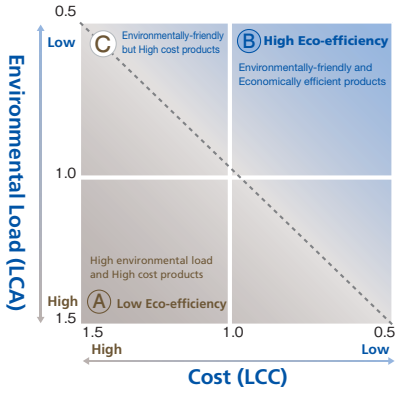
Regarding responses to global environmental problems, as a materials manufacturer, Toray takes a long-term perspective in carrying out environmental management based on the dual imperatives of undertaking production activities in harmony with the environment and developing and commercializing environmentally friendly products.

Taking the overall lifecycles of products, technology and services into consideration, the Company has adopted the Toray Eco-Efficiency Analysis (T-E2A) tool, which incorporates life cycle assessment (LCA) techniques to provide a comparative evaluation of the environmental load and economic efficiency of multiple products and processes. In specific terms, T-E2A helps to identify and analyze economic benefits and costs of the environmental load as the basis for determining business and management strategies to promote LCM based environmental management.

Under the new medium-term management program, "Project AP-G 2013," we launched the Green Innovation Business Expansion Project. In working to expand the Green Innovation Business, we are placing particular emphasis on positioning our Carbon Fiber Composite Materials business as a core business and will strive for dramatic expansion of this business by finding a diversity of applications such as aircraft, automobiles and windmills. Additionally, for business development, we are promoting the development of technologies and businesses for new materials and components (materials for lithium-ion batteries, fuel cells and solar cells) that solve environmental problems. Through these initiatives, we plan to further reduce CO_2 emissions by Green Innovation Products*1 to 200 million tons per year by around 2020.

*1:Improved CO_2 reduction, in other words "avoided emissions," by Green Innovation Products over the entire product lite cycle compared to alternative products.

"T-E2A (Toray Eco-Efficiency Analysis)" Eco-Efficiency Map



1 Fibers & Textiles

Toray has built a solid position in the Fibers & Textiles field, supplying a host of products—from filament yarns and staple fibers of three major synthetic fibers (nylon, polyester and acrylic) to textiles—for a wide range of applications from apparel to industrial.

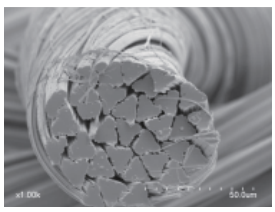
In this business field, we are strengthening our stable profit base and expanding profits as a Foundation Business. At the same time, R&D is focused on the creation and expansion of high-performance products and advanced fibers materials. As achievements in this area, we have developed and commercialized BODYSHELL DRY™, a fashion material with non-see-through properties and enhanced comfort. We also developed and launched SILLOOK LUMISTY™, a microsurface silky-touch material that is the latest material in the SILLOOK™ series. BODYSHELL DRY™ earned the Senken Shimbun Synthetic Fiber Award in the Materials category. Also, as the first new product utilizing the NANOMODY™ fiber modification technology through the use of nanotechnology, Toray developed and commercialized NANOAGE™, a new material for uniforms with deodorizing functions and outstanding washing durability compared with previous materials.

Toray Group is also progressing with global R&D, with China serving as a key center. Toray Fibers & Textiles Research Laboratories (China) Co., Ltd. developed the flame-resistant polyester filament UNFLA™ and Toray Fibers (Nantong) Co., Ltd., a production base for filament in China, commenced production of yarn for UNFLA®.

Determined to help prevent global warming and promote countermeasures for the depletion of resources, in recent years Toray has progressed with the development and commercialization of "polylactic acid" products and other non-petrochemical-based materials.

As one non-petrochemical-based material, we are working on the development of a nylon fiber using bio-based polymers. We discovered that nylon-56 fiber, which is a plant-derived material, possesses the same moisture-absorption capabilities as cotton. Meanwhile, nylon- 610 has low water-absorption properties and outstanding dimensional stability compared with ordinary nylon-6 and we are promoting its application in apparel such as sportswear and industrial materials that include various brushes. Our "development of nylon fibers using bio-based polymers" earned the Senken Shimbun Synthetic Textile Award in the Technical category.

SILLOOK LUMISTY™



2 Resins & Chemicals

In plastic resins and chemicals, Toray has exploited advances in polymerization and molecular designs, polymer alloys, polymer processing and other fundamental technologies to achieve excellent performance and function in ABS (acrylonitrile-butadiene-styrene), nylon, PBT (polybutylene-terephthalate), polyphenylene sulfide, liquid-crystalline polyester and other engineering plastics. This is paving the way for the use of such plastics in information and telecommunication devices, as well as automobile parts. Meanwhile, to respond to environmental concerns, we are focusing on the development of technologies that help curb global warming and solve the problem of resource depletion.

As a recent achievement, Toray in collaboration with Canon Inc., succeeded in developing the world's largest exterior part material, which uses the environmentally conscious ECODEAR® biomass plastic, for copiers and multifunction printers. In the development process, we aimed to improve the properties of the material by using Toray's material design technology that controls polymer structures on a nanometer-order scale and Canon's advanced molding technologies capable of forming large-scale parts. As a result, biomass plastics can now be substituted for large exterior part materials used in multifunction office systems for production printing.

Toray has also developed and commenced full-fledged sales of the new ECOTOYOLAC® EC75 as an environmentally friendly grade of TOYOLAC® ABS resin. Compared with general-purpose ABS resin, ECOTOYOLAC® EC75 is expected to help reduce fossil resource consumption by approximately 3% and reduce lifecycle CO_2 emissions over the product lifecycle by approximately 4%.

Moreover, Toray has succeeded in developing a groundbreaking structure control technology, NANOALLOY® that realizes a more-minute and uniform 3D continuous alloy structure in nano-order when polymerizing small-molecular compounds. The development of this technology enables a significantly wider range of choices for improving the properties of resins and there are also expectations for application in thermosetting resins.

■ Exterior Part Material which uses the Environmentally Conscious ECODEAR® Biomass Plastic

IV Analysis of the Marketability and Competitive Advantages of Technologies

3 Films

In films, Toray was the first in Japan to commercialize biaxially oriented polyester film and has been leading the world in the field of high-performance and high-function films by advancing the technologies of the polyester film together with biaxially oriented polypropylene film. We are also the global pioneer in the development and commercialization of biaxially oriented polyphenylene sulfide and aramid films. To date, we have utilized our original film thickness control technology; special stretching technology; surface forming technology backed by film laminating methods; coating, cleaning and static electricity control technologies; and NANOALLOY® technology. We have used these optimal functions to support various industrial applications in such areas as flat panel displays, packaging applications for retort foods and magnetic materials applications for computer memory backups.

As a recent achievement, Toray developed a "highly formed biaxially oriented PET film" using nanotechnology to maintain properties of polyester film while significantly improving formability. The film's thermal contraction rate, an indicator of heat resistance, is below 1.2% at 150° C. The film achieves an "H" level of surface hardness, which indicates the degree of scratch resistance on the film's surface, as well as fracture elongation of 280% at 150° C, thereby realizing high formability. In addition to responding to thick film of more than 100 microns, this film is expected to have applications in decorative molding of automobile parts and home appliances because of its high adhesion to hard coats and print.

Toray has also developed an ultra-high durability PET film that offers a significant improvement in moist heat resistance for use as an insulating material for such applications as solar cell back sheets and motors. We are accelerating development to achieve quick commercialization.

■ Highly Formed Biaxially Oriented PET Film

IV Analysis of the Marketability and Competitive Advantages of Technologies

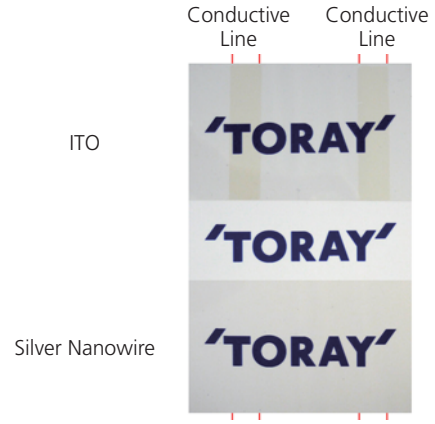
4 Electronics & Information Related Products

In Electronics & Information Related Products, Toray mobilizes its fundamental technologies in such areas as polymer design of thermal resistance properties and optical functionality, organic synthetics, particle dispersion, thin layer-film forming and photolithography to develop semiconductor buffer coatings, insulator and flexible substrate materials for optical devices and packaging fields, high-k insulator materials, ceramic substrate materials, color filters for liquid-crystal displays (LCDs), plasma display rear panel forming technology and smallmolecular organic electroluminescent (EL) light-emitting materials.

As a recent achievement, Toray developed a pre-application high-functional adhesive film for flip chip bonding. The film enables flip chip bonding of semiconductor chips after laminated forming in an uncured state on the circuit board or semiconductor wafer. This film allows the bonding surface to be minimized while enabling the electrical connection and the filling of resin for connection reinforcement to be performed simultaneously. Therefore, the mounting process can be also simplified compared with previous methods. This film is finding wide-ranging applications that include portable electronic devices such as smartphones that require high-performance, high-density bonding.

Toray Advanced Film Co., Ltd. has deployed a wet coating method to develop a transparent conductive film that attains the world's highest levels of transparency and conductivity in addition to possessing superior flexibility and providing natural coloration, durability and workability. The company expects to undertake mass production of this film. Through a strategic partnership with Cambrios Technologies Corp. (headquarters: Sunnyvale, California; President: Michael Knapp), a U.S.-based venture company that manufactures electronics materials, Toray Advanced Film combined Cambrios' high-transparency, high-conductivity silver nanowire ink technology with its own superior film processing technologies. By doing so, Toray Advanced Film realized a transparent conductive film boasting high transparency and conductivity in addition to having superior flexibility and invisible patterning properties. We expect this film to have applications in touch panels for mobile phones, smartphones and tablet PCs.

■ Transparent Conductive Film Using Silver Nanowire Ink



5 Carbon Fiber Composite Materials

Toray Group is the world's largest manufacturer of carbon fibers and supplies TORAYCA® carbon fibers and woven fabrics. We also supply intermediate materials such as prepregs and molding technologies of carbon fiber composite materials. Here, we target applications in the aircraft, sports equipment, civil engineering, construction, automobile, information devices and energy industrial instruments.

In the aircraft industry, carbon fiber composite materials have won high acclaim as the best-suited and most-effective material for improving fuel efficiency by realizing lighter weights. These materials are being used for more than 50% of the airframe structural weight of the new Boeing 787 passenger jet, including for the wings and fuselage, produced by Boeing in the United States.

Additionally, together with Mitsubishi Heavy Industries, Ltd., we are currently carrying out joint development of a new molding technology for CFRP parts for use in the tail assembly on the Mitsubishi Regional Jet (MRJ).

In the automobile field, Toray reached an agreement and concluded a joint venture contract with Daimler AG to establish a joint venture to manufacture and sell carbon fiber reinforced plastic (CFRP) automotive parts. Going forward, both companies will utilize the Short Cycle Resin Transfer Molding (RTM) technology, a revolutionary molding technology for CFRP developed by Toray, to promote the development of CFRP automotive parts and further expand applications for CFRP in automobile fields.

As a recent achievement, Toray developed a new-concept composite material "cut-fiber composite," a CFRP that utilizes short-cut carbon fibers and thermoplastic resins and possesses isotropic properties. In developing this material, short-cut carbon fibers as short as a few millimeters are each laid out in random order to form a network of hardened mini-length fibers that is given additional reinforcement with a special thermoplastic resin. This material represents a departure from traditional short fiber composite materials and realizes significant improvements in such areas as divergence from theoretical strength, which was a major issue, as well as anisotropy. It also attains strength incidence comparable to prepeg as typified by CFRP for aircraft.

IV Analysis of the Marketability and Competitive Advantages of Technologies

6 Life Science

In pharmaceuticals, Toray has commercialized the natural interferon beta product FERON™ (based on biotechnology) and the world's first oral prostacyclin derivative product DORNER® (based on synthesis technology). In 2009, Toray had obtained manufacturing and marketing approval, and launched REMITCH®* CAPSULES 2.5 μg (generic name: nalfurafine hydrochloride), an oral antipruritus drug for the indication of improvement of pruritus in hemodialysis patients (only for cases resistant to conventional treatments). Torii Pharmaceutical Co., Ltd. has commenced sales of this drug.

In medical products, our offerings include FILTRYZER®, TORAYSULFONE® (hemodialysis membranes with excellent biocompatibility and high efficiency) and TORAYMYXIN® (hemoperfusion absorption column for removing endotoxin). These unique products are earning high admiration for their quality and performance.

In recent years, we developed a new protein analysis chip for diagnostics that has a high degree of sensitivity to enable the easy detection of minute amounts of disease marker proteins in blood. We are progressing with the commercialization of this chip as a new biological device for supporting clinical diagnostics and bio research. The development of this chip follows the launch of our 3D-Gene™ ultra-high sensitive DNA chip.

As a recent achievement, Toray formed an expanded cross-licensing agreement with U.S.-based bio-venture Apath LLC for a hepatitis C virus (HCV) culture system jointly developed by Toray, the National Institute of Infectious Diseases and the Tokyo Metropolitan Organization for Medical Research. The agreement enables the undertaking of consigned business in which Apath will use this HCV culture system in its HCV antibody screening. Through Apath, Toray will provide this system to pharmaceutical companies that develop HCV treatment agents with the aim of promoting the advance of R&D of antibody drugs that act on HCV.

In the medical products field, we developed TORAYLIGHT® NV, a new type of polysulfone membrane dialyzer that through nanotechnology attains dramatically enhanced capacity to limit platelet adhesion, which affects antithrombotic performance.

With TORAYLIGHT® NV, platelet adhesion (in-vitro testing) on the surface of the hollow fiber membrane of the dialyzer has been reduced to less than one-hundredth of the level that occurred with earlier Toray products and high antithrombotic performance was realized. By dramatically reducing platelet adhesion, TORAYLIGHT® NV maintains high dialysis performance throughout the procedure. It is also compatible with Toray's proprietary gamma ray crosslinked polymer sterilization technology, which minimizes elution. We also gave consideration to the environment in developing this dialyzer, as the material used for the case of TORAYLIGHT® NV, contains polypropylene, which emits only water and CO_2 even when incinerated.

■ TORAYLIGHT® NV

Toray and Shin Nippon Biomedical Laboratories, Ltd. (headquarters, Chuo-ku, Tokyo; President and CEO: Ryoichi Nagata, MD, PhD; hereafter: Shin Nippon Biomedical Laboratories) successfully developed a DNA chip system that can in a single procedure detect the expression of cytochrome P450 (CYP), a drug metabolism enzyme gene from the cynolmolgus monkey. The development of the chip system for detecting the cynolmolgus monkey CYP gene enables highly efficient and quick analysis of drug metabolism and the toxicity of pipeline compounds in safety evaluations for preclinical testing during drug development. In the future, Toray and Shin Nippon Biomedical Laboratories will jointly cultivate business for contracted preclinical testing that uses this system and plan to target domestic pharmaceutical companies and also develop this business overseas.

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

IV Analysis of the Marketability and Competitive Advantages of Technologies

7 Environment

In implementing the Green Innovation Business Expansion Project under "Project AP-G 2013," it will be essential to create innovative technologies through our R&D activities. Therefore, we have positioned the reinforcement of our intellectual property that will support these efforts as one crucial theme of this project and are making vigorous efforts in this area.

In new energy resources fields, such as solar cell-related materials and technologies, we are progressing with diverse research focused on the cells, back sheets and other solar materials, and their related equipment. Regarding cells, we combined our core technologies of polymer chemistry and organic synthetic chemistry to develop a new polymeric donor material, which is a key material in organic thin-film solar cells.

We are also further accelerating our R&D on key materials for fuel cells and rechargeable lithium-ion batteries, which will be crucial components in next-generation automobiles. These efforts include the establishment.

In water treatment, Toray targets scientific and technological solutions to water environment concerns. Responding to today's highly diversified water treatment needs, we are advancing programs to further expand the depth and breadth of our technologies. Such efforts focus on the outstanding polymer membrane technology perfected by Toray Group. We have deployed our own polymer structural control technologies to create innovative selective separation membranes, and offer all four types of membranes including reverse osmosis (RO), nanofiltration (NF), ultrafiltration (UF) and microfiltration (MF) membranes.

■ Solar Cell Demonstration Facility (image) at Toray E&E Center, an Integrated Technology Development Base for Environment and Energy Fields

As a recent achievement, we applied our original nanotechnlogy to develop a "highly durable reverse osmosis (RO) membrane" that maintains high water permeability and removal capabilities, which are the basic performance features of membranes, and thereby dramatically improved durability against such chemicals as acids, alkali and chlorine used during cleaning. This newly developed membrane can maintain high performance even during repeated cleaning when the membrane becomes dirty. Therefore, the membrane is expected to have applications especially for the desalination of brackish water and the reuse of sewage wastewater, for which high-frequency chemical cleaning is required because of the low quality of the raw water.

As an innovative technology that enables the manufacture of chemical products from non-edible biomass, Toray has combined its world top-level water treatment separation membrane technologies and its biotechnology to develop a membrane saccarification process for cellulosic sugar to obtain low-cost, high-quality sugar. Cellulosic sugar obtained from this technology can be used in biofuels and in the manufacture of a wide variety of general-purpose chemicals such as monomer chemicals used in polymers. Toray aims to establish an integrated bioconversion process ranging from cellulose-based biomass to general-purpose chemicals. Toray will combine its "membrane fermentation process" and "membrane purification process" with this technology to accelerate the practical application and development of a "membrane-based bioconversion technology for non-edible biomass."

V R&D and Intellectual Property Organization, R&D Collaboration and Partnerships

1 R&D and Intellectual Property Organization

As of 1985, Toray has built a research and technological development organization centering on its Technology Center. The role of the Center is to draft company-wide strategies and key projects for research and technological development.

Each research and technological development department conducts R&D in its own responsible area. At the same time, they collaborate with each other and integrate their technologies across divisional boundaries in order to promote innovative research and deepen and deploy fundamental technologies, probe solutions for urgent issues and take other pertinent actions.

As an independent organization under the direct control of the President, the Intellectual Property Division is strengthening the intellectual property capabilities of the entire Toray Group based on intellectual property strategies that are linked with management strategies.

(1) Renovating our basic research structure

In June 2010, Toray renamed its Basic Research Laboratories, which is the basic research department of the Research & Development Division, as the Basic Research Center and newly established the Advanced Materials Research Laboratories within the Center. Concurrently, at the Advanced Materials Research Laboratories, we set up four research units, namely, the New Energy Materials, Bio-based Polymers, Advanced Medical Materials and Basic Polymer units. We also reorganized a portion of the research functions at three domestic bases (Shiga, Nagoya and Mishima) and at two overseas bases (Shanghai, China and Seoul, Korea) into each of the aforementioned units. By organically uniting basic research functions in Japan and overseas through "research units," we build a structure capable of promoting basic research in materials fields under a company-wide unified strategy.

At the Advanced Materials Research Laboratories, under our global "research unit" structure, we will strive to strengthen our basic research capabilities in "polymer chemistry," which is one of our core technologies, and will promote basic research in next-generation advanced materials that will lead the paradigm shift in society that is typified by responses to global environmental issues as well as promote basic research in polymers for creating epoch-making key materials. Specifically, we will engage in the creation of new energy materials such as innovative battery components as well as non-fossil-resourcederived polymer materials and advanced medical materials and other innovative advanced materials.

We will promote growth strategies needed for business expansion in growth business fields and regions under the medium-term management program, "Project AP-G 2013." We will take advantage of economic growth in Asia and emerging countries while focusing particularly on four major growing business fields (environment, water-related and energy; information, telecommunications and electronics; automobiles and aircraft; and life science).

At the Basic Research Center, Toray will promote basic research in materials fields at the Advanced Materials Research Laboratories, basic research in biotechnology, nano-technology and fields where these are integrated at the New Frontiers Research Laboratories and groundbreaking drug discovery research at the Pharmaceutical Research Laboratories. Toray will strive to strengthen the Group's basic research capabilities and will work to create innovative advanced materials.

(2) Establishment of E&E Center an integrated technology development base for accelerating Green Innovation

In January 2011, Toray established the E&E Center (Environment & Energy Center) as an integrated technology development base for environment and energy fields. Toray set up the Environment and Energy Development Center within its Seta Plant (Otsu, Shiga Prefecture) to serve as the core organization of E&E Center.

In 2008, Toray initiated a new management policy: "Focus all business strategies on the global environment and work to contribute to the realization of a sustainable low-carbon society." Since then, Toray has executed environmental management based on the principles of LCM (Life Cycle Management), under which it promotes reductions in its greenhouse gas (GHG) emissions and offers solutions to global environmental issues from the perspective of lifecycles.

The establishment of E&E Center is part of measures for accelerating Green Innovation at Toray Group, with focus particularly on reinforcement of research and technological development in the environment and energy fields.

Toray positions E&E Center as an integrated collaboration base in the environment and energy fields for the entire group. It intends to strategically integrate the Group's R&D functions in these fields to fundamentally bolster its technological development capabilities that leverage the overall group strengths and push forward with the creation and expansion of new businesses.

E&E Center will collaborate with Toray's Global Environment Business Strategic Planning Department established in 2009 under the direct control of the President and promote Open Innovation (external collaboration), a strategic imperative in these fields, to accelerate dynamic creation of new businesses and innovation of business models.

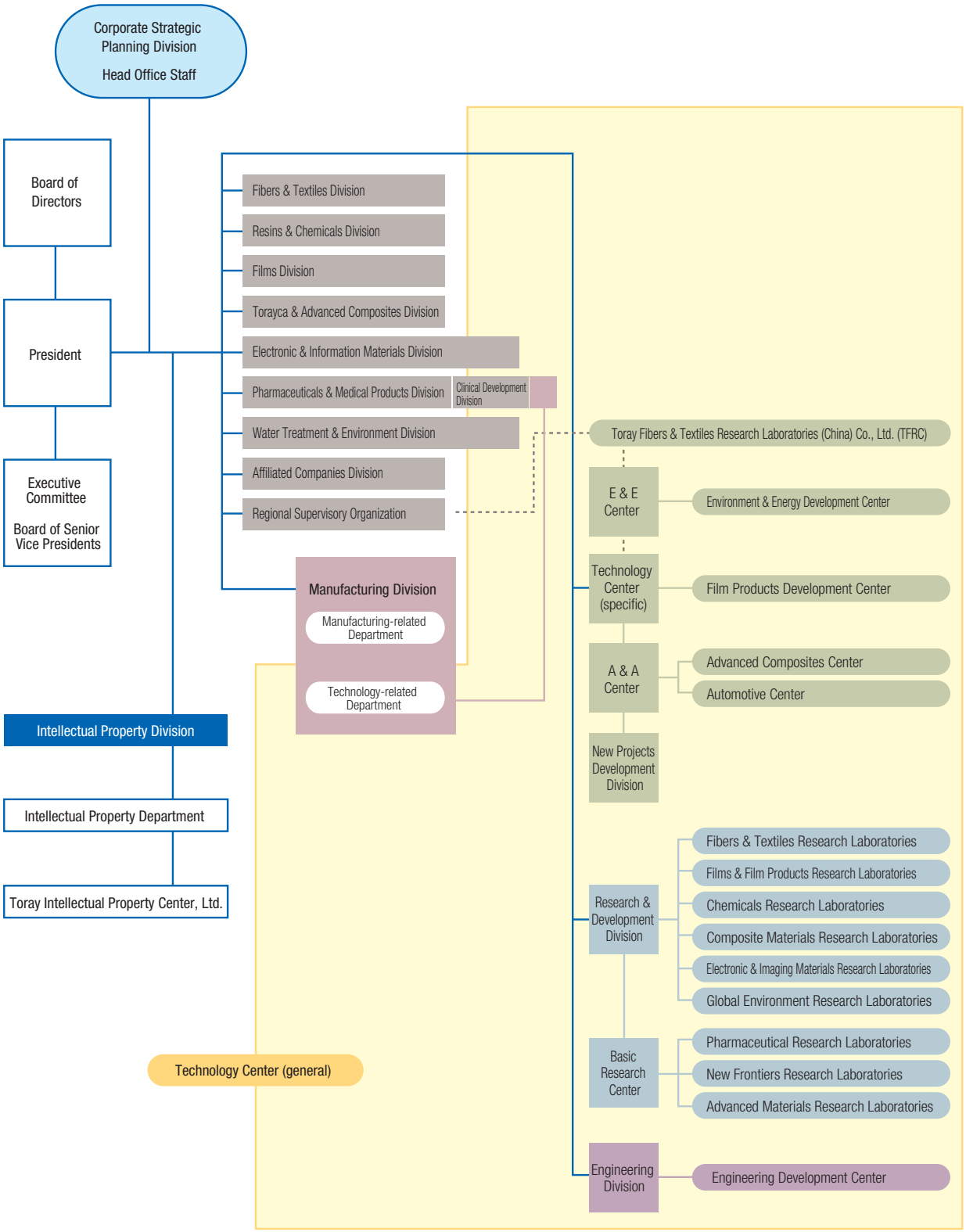
With the newly established Environment and Energy Development Center serving as the core organization, E&E Center will aggregate the research and technology development functions in the environment and energy fields at Toray Group that include the Advanced Materials Research Laboratories and Japanese and overseas group companies. The E&E Center will comprehensively consider the environment and energy-related technology issues faced by these divisions and future technology strategies from a multidimensional perspective, and formulate as well as promote strategies and concrete measures for expanding the Green Innovation Business.

The priority theme of the core organization Environment and Energy Development Center is the creation and expansion of businesses for "new environment-related materials" such as biomass materials and energy-saving housing materials as well as innovative new components related to "new energy," especially solar cells, fuel cells and lithium-ion batteries. The center will build a structure that enables the promotion of functions ranging from planning of technological development strategy to technological development-related affairs and technical marketing in an integrated manner.

Along with A&A Center (Automotive & Aircraft Center) completed in April 2009, Toray positions E&E Center as Toray Group's new growth engine for achieving a sustainable low-carbon society. Leveraging these centers, Toray will promote development and expansion of businesses in advanced materials and technologies in the core fields of automobiles and aircraft as well as environment and energy.

V R&D and Intellectual Property Organization, R&D Collaboration and Partnerships

Organization (As of June 2011)



VI Guidelines on Procurement and Management of Intellectual Properties, Management of Trade Secrets, Prevention of Technology Leakage

1 Procurement and Management of Intellectual Properties

For procurement and management of patents, Toray adheres to its Patent Management Regulations and Patent Management Standards. These rules are permanently accessible on our intranet. Trademarks are handled in a similar manner with internal rules, including Trademark Management Regulations; Trade Name, Corporate Symbol and Brand Management Regulations; and Trademark Management Standards. These rules are disclosed throughout the Company.

For patents, we have set up a "patent committee" within each business to discuss details and complete all required procedures. Participating in these committees are patent practitioners of Toray Intellectual Property Department and Toray Intellectual Property Center, Ltd., a subsidiary handling Toray Group's intellectual property issues, as well as members of the research, technology and business (sales) departments in each business sector. In this way, we adopt an integrated approach to the management of intellectual properties, research and technological development and business strategies.

The patent committees provide a particularly useful forum for making key policy decisions to determine the technological areas on which patent applications are focused, inventions for which applications should be filed, existing applications for which requests for examination are to be filed and patent rights that should be maintained or abandoned. Discussions likewise extend to the enforcement of existing patent rights and other key concerns.

2 Management of Trade Secrets and Prevention of Technology Leakage

In 2007, Toray established its own Confidential Information Management Regulations for making adjustments to previously existing information management systems. We took this step due to the need for measures to enable more strict and systematic information management and to prevent information leakage in response to the growing needs for 1) prevention of unfair competition; 2) protection of personal information; 3) security trade administration; and 4) protection of classified information.

We took this opportunity to also tighten our management of electronic information, which has become increasingly important to cope with risks in information leaks. These additional measures supplement our existing Electronic Information Security Standards. We also conduct regular internal audits and other measures to ensure the proper management of classified business information and technical information and prevent information leaks. Regular internal audits also permit effective management and prevent leakage of trade secrets. With the implementation of the Confidential Information Management Regulations, we have rearranged and strengthened details and are working to thoroughly manage and prevent the leakage of trade secrets and technical information.

VII Contribution of Licensing-related Activities to Businesses

Toray Group actively promotes the procurement and enforcement of intellectual property rights as a way to distinguish its products and technologies and establish a competitive edge in the marketplace. At the same time, we consider cross-licensing as an important strategy in maintaining continuity and expanding the sphere of our business.

As Toray promotes open innovation that globally involves industry, government and academia, Toray will more than ever before utilize its intellectual property as extremely valuable tools to maintain its advantageous position.

Although generating income through licensing is not considered to be an optimal approach for doing business, it bears mentioning that patent fee revenues have constituted a profitable arm of our corporate operations for many years.

VIII Valid and Enforceable Patents, Patent Applications, External Commendations

1 Valid and Enforceable Japanese Patents (Total for Toray Industries, Inc. and 40 Japanese and overseas affiliates at the end of March 2011)

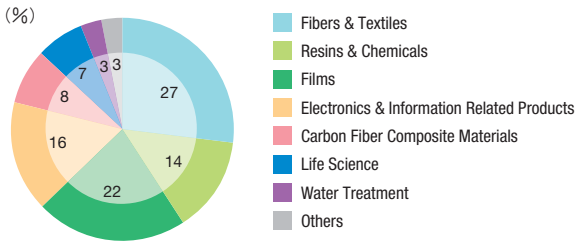
Toray Group takes an aggressive approach to obtaining patents with high potential for use in developing advanced materials, and will firmly maintain this stance in the future.

In recent years, we have engineered a pronounced shift in emphasis from quantity to quality, which translates into greater emphasis on improving the quality of patents. This has resulted in a more stringent focus on cost awareness and operational efficiency in determining of whether or not to file patent applications or to file a request for examination for our patent applications as well as when rendering judgments on whether to maintain or abandon existing patent rights.

At the end of March 2011, the number of valid and enforceable patents in Japan is 3,720, of which 1,634 (44%) have been currently used within the Group; 1,560 (42%) are scheduled to be used in the future; and 526 (14%) are patents for defense and other purposes. The following chart breaks down these patents by specific R&D segment.

■ Number of Valid and Enforceable Japanese Patents at the End of March 2011

Fibers & Textiles	995
Resins & Chemicals	537
Films	810
Electronics & Information Related Products	600
Carbon Fiber Composite Materials	302
Life Science	255
Water Treatment	120
Others	101
Total	3,720



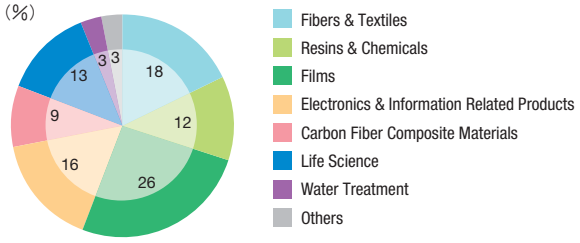
2 Valid and Enforceable Foreign Patents (Total for Toray Industries, Inc. and 40 Japanese and overseas affiliates at the end of March 2011)

At the end of March 2011, the number of our valid and enforceable patents in countries other than Japan was 3,803, with the following chart breaking down these patents by specific R&D segment.

The large proportion of foreign patents for Films, Carbon Fiber Composite Materials and Life Science compared with that of Japanese patents owned in those areas reflects Toray's goal of expanding its operations globally in these businesses.

■ Number of Valid and Enforceable Foreign Patents at the End of March 2011

Fibers & Textiles	667
Resins & Chemicals	467
Films	975
Electronics & Information Related Products	628
Carbon Fiber Composite Materials	350
Life Science	483
Water Treatment	123
Others	110
Total	3,803



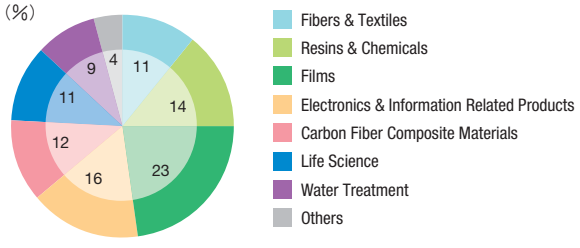
3 Japanese Patent Applications (Total for Toray Industries, Inc. and 40 Japanese and overseas affiliates in FY 2010)

During FY 2010, the number of applications was 1,335, with the following chart breaking down these applications by R&D segment.

The relatively large proportion of patent applications in Films, Carbon Fiber Composite Materials, Life Science and Water Treatment compared with that of the domestic patents owned in those areas reflects Toray Group's policy of actively applying for new patents in its Strategically Expanding Businesses and Strategically Developing Businesses.

■ Number of Japanese Patent Applications in FY 2010

Fibers & Textiles	151
Resins & Chemicals	186
Films	308
Electronics & Information Related Products	216
Carbon Fiber Composite Materials	163
Life Science	151
Water Treatment	115
Others	45
Total	1,335



VIII Valid and Enforceable Patents, Patent Applications, External Commendations

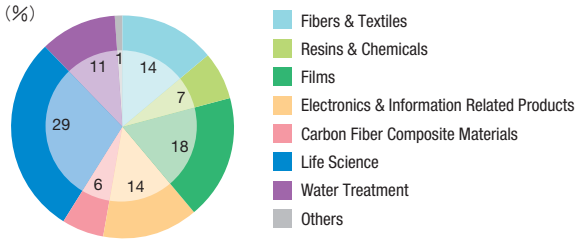
4 Foreign Patent Applications (Total for Toray Industries, Inc. and 40 Japanese and overseas affiliates in FY 2010)

During FY 2010, the number of applications for overseas patents was 2,103, with the following chart breaking down these applications by R&D segment.

Particularly noteworthy, the relatively large proportion of patent applications in Life Science and Water Treatment compared with domestic patent applications are an indication that we aim to expand our global business in these fields.

Number of Foreign Patent Applications in FY 2010

Fibers & Textiles	299
Resins & Chemicals	142
Films	386
Electronics & Information Related Products	300
Carbon Fiber Composite Materials	125
Life Science	613
Water Treatment	219
Others	19
Total	2,103



5 External Commendations

Commendation Received in FY 2010

National Commendation for Invention

Commendation	Matter for Commendation	R&D Segment
The Prize of the Chairman of Japan Chamber of Commerce and Industry	Development of waterless CTP plate	Electronics & Information Related Products

Local Commendations for Invention

Commendations	Region	Matters for Commendations	R&D Segment
The Encouragement Prize for Invention of the Minister of Education, Culture, Sports, Science and Technology	Shikoku	Carbon fiber reinforced plastics	Carbon Fiber Composite Materials
The Prize of the Director-General of Kansai Bureau of Economy, Trade and Industry	Kinki	Positive type photosensitive polyimide for organic electroluminescent insulation film	Electronics & Information Related Products
The Encouragement Prize for Invention	Kinki	Pants effective for firming up hips	Fibers & Textiles
The Encouragement Prize for Invention	Kinki	Slit-dye coater	Electronics & Information Related Products
The Encouragement Prize for Invention	Kinki	Next generation antistatic film	Films
The Encouragement Prize for Invention	Chubu	Nylon hollow fiber	Fibers & Textiles
The Encouragement Prize for Invention	Chubu	Method for manufacturing of polybutylene terephthalate resin	Resins & Chemicals
The Encouragement Prize for Invention	Chubu	Structure of hollow-fiber membrane-type artificial kidney	Life Science

VIII Valid and Enforceable Patents, Patent Applications, External Commendations

Other External Awards

Name of Award	Awarding Institution	Awarded for	R&D Segment
JSMS Award for Technical Development	The Society of Materials Science, Japan	Low-cost/High-performance CFRP by nano/micro structural control	Carbon Fiber Composite Materials
SAMPE Japan Technical Award	SAMPE Japan	Development of low-cost CFRP for aircraft primary structure	Carbon Fiber Composite Materials
JSAC 2010 Award for Advanced Analytical Technology, JAIMA Award	The Japan Society for Analytical Chemistry	Development of near-field Raman spectral device with ultraviolet excitation	TORAY RESEARCH CENTER
Original Award in the 48th Annual Meeting of the Japanese Society for Artificial Organs	The Japanese Society for Artificial Organs	Development of antithrombotic hemodialysis membranes using a new polymer	Life Science
Nanotech Award, Biotechnology Award	Nanotech Executive Committee	Protein analysis chip	Life Science
41st Senken Shimbun Technical Award	Senken Shimbun	Bio-based nylon	Fibers & Textiles
41st Senken Shimbun Material Award	Senken Shimbun	BODYSHELL DRY™	Fibers & Textiles
The Chemical Society of Japan Award for Young Chemists in Technical Development for 2010	The Chemical Society of Japan	Development of efficient fermentation processes of D-lactic acid using membrane-continuous fermentation technology	Life Science

IX Policies for Intellectual Property Portfolio

As noted in Part III of this report, Toray Group manages its intellectual property portfolio with a close eye on the future profitability and technical innovation of each technology and product.

We have established "Rank-A Projects" for technologies assigned particularly high importance, with invention activities promoted on a prioritized basis. These projects promote activities of the formation of patent portfolios through the creation of patent maps to thoroughly comprehend technologies and patents of other companies, and establishment of subsequent strategies for enforcement of the patent rights.

X Information on Risk Response

As part of its defense-oriented intellectual property activities, Toray regularly research and examines the patents of its competitors in each technology. Our policy likewise requires mandatory confirmation of competitors' patents before any new product is commercialized and judgments of whether we could infringe on any of the patents. If any patents having an impact on our business are identified, the next step is to plan and execute countermeasures to remove such impacts. At the present time, there are no intellectual property related lawsuits in the courts judged capable of exerting a serious impact on the business interests of Toray Group.

Note

The plans, prospects and strategies referred to in this report are merely assumptions based on available information at the time of issuance of this report. They are subject to revision in the event of changes to Toray Group's operating conditions, the emergence of new technical innovations and changes to the intellectual property environment.

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Contact us at: Toray Industries, Inc.
Investor Relations Department
1-1, Nihonbashi-Muromachi 2-chome,
Chuo-ku, Tokyo 103-8666, Japan
Phone: +81-3-3245-5113
Fax: +81-3-3245-5459