Toray Industries, Inc.

FY 2012

Intellectual Property Report

April 1, 2012 — March 31, 2013

"TORAY"
Innovation by Chemistry

Introduction

In February 2011, Toray formulated the long-term corporate vision “AP-Growth TORAY 2020,” looking ahead to the next decade and a medium-term management program, “Project AP-G 2013,” covering a three-year period. In the “AP-Growth TORAY 2020” long-term corporate vision, we are aiming 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” by further expanding our global business to call for efficient approaches to business opportunities as the economic scale of emerging countries is set to surpass that of developed countries, and further concentrating our efforts on expanding our Green Innovation Business that contributes to the solution of increasingly critical global environmental problems as well as resource and energy problems.

As the first stage of the “AP-Growth TORAY 2020” long-term corporate vision, we are promoting a medium-term management program, “Project AP-G 2013,” running over the three-year period from fiscal 2011.

The key principles of “Project AP-G 2013” are to seek business expansion in growth business fields and regions and to boost competitiveness through cost reduction. Grounded in this basic idea, we are taking on issues we have selected for each business and product, but we are also pursuing three cross-organizational projects: our “Green Innovation Business Expansion Project,” “Asia and Emerging Country Business Expansion Project” and “Total Cost Reduction Project.”

Among these, we believe that innovation of technologies through R&D will be indispensable in promoting the “Green Innovation Business Expansion (GR) Project.” Therefore, we also 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 is a crucial issue in implementing the “Asia and Emerging Country Business Expansion (AE) Project.”

By adopting a trilateral integrated approach that incorporates its business strategies, R&D strategies and intellectual property strategies to realize sustainable growth, Toray Group will strive to realize our corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products,” while continually working to raise Toray Group’s corporate value.

Toray President Akihiro Nikkaku joined the Cabinet Intellectual Property Strategy Headquarters as an outside expert in March 2013, and participated in the drafting of the “Intellectual Property Vision” and the “Intellectual Property Strategic Program 2013.” Through his work as the chairman of the Committee on Intellectual Property of KEIDANREN (Japan Business Federation), Mr. Nikkaku will continue to make recommendations for Japan’s intellectual property policy.

Contents

Overview of Toray Group

Corporate Outline (as of March 31, 2013)

Name: Toray Industries, Inc.
Established: January 1926
Paid-in Capital: ¥147,873 million

No. of Group companies: 147 Parent company and consolidated subsidiaries (61 Japanese and 86 overseas consolidated subsidiaries)
No. of employees: 42,584 (consolidated), 7,097 (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

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 its 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; suede-texture artificial leather, 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; fine chemicals such as raw materials for pharmaceuticals and agrochemicals; veterinary medicines, etc.

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

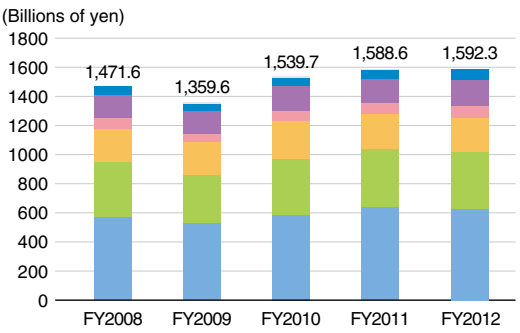
Carbon Fiber Composite Materials:
Carbon fibers, carbon fiber composite materials and their molded products

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

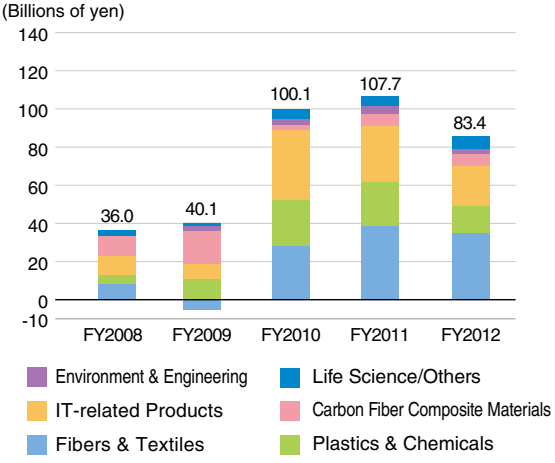
Life Science:
Pharmaceuticals; medical products, etc.

Others:
Analysis, physical evaluation, research and other services.

Net Sales



Operating Income



I Core Technologies and Management Strategies

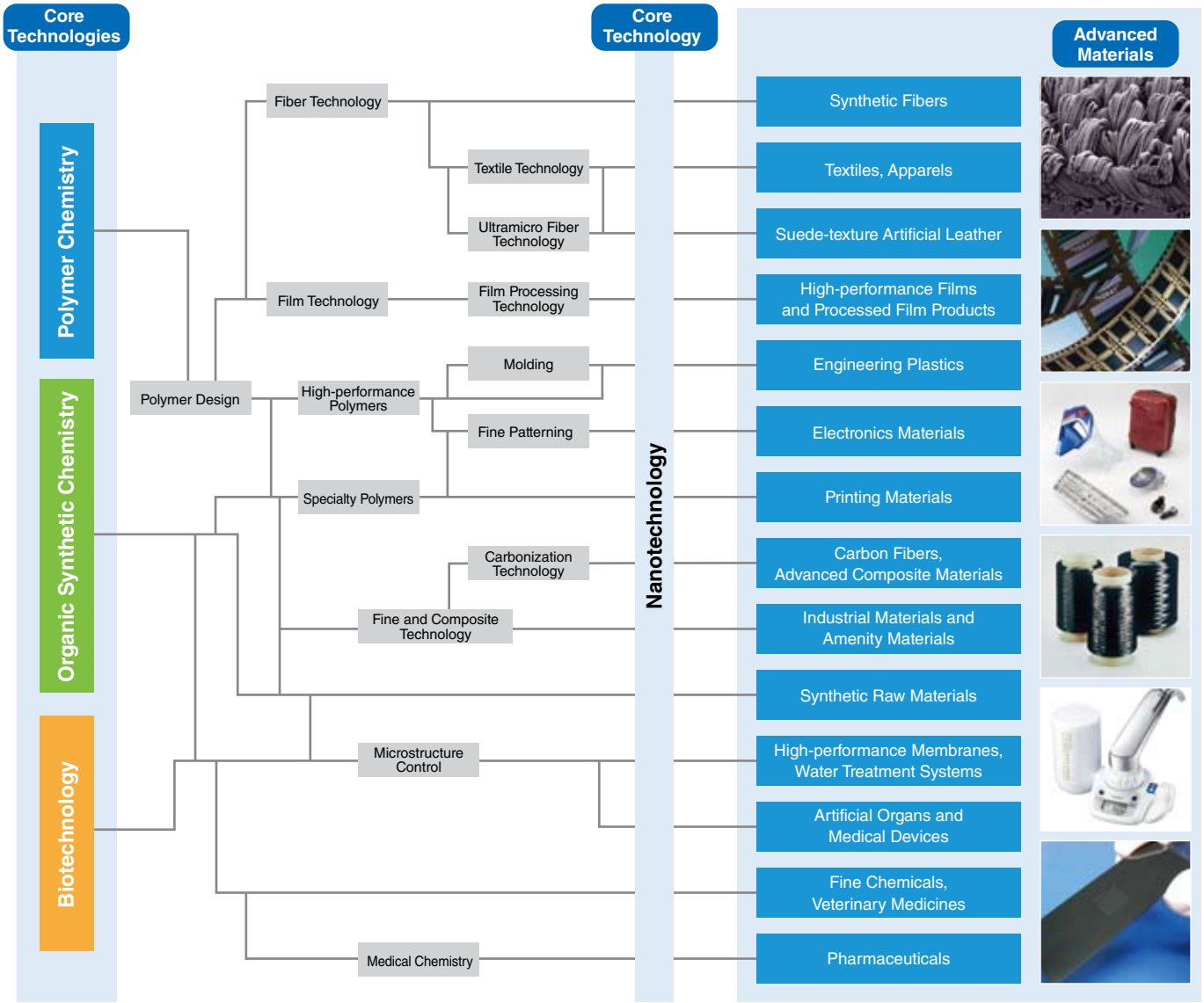
1 Core Technologies

Since its foundation, Toray has cultivated “organic synthetic chemistry,” “polymer 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.

In addition to “nanotechnology,” which represents a new core technology for us, Toray has developed and commercialized a diverse array of advanced materials by growing and combining these four core technologies in recent years.

With “Innovation by Chemistry” as the corporate slogan, 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



I Core Technologies and Management Strategies

2 Management Strategies

With Project IT-II, a medium-term management program, Toray overcame the economic crisis triggered by the collapse of Lehman Brothers in autumn 2008 and has significantly improved revenues since then.

In view of this achievement, in February 2011, Toray formulated the long-term corporate vision "AP-Growth TORAY 2020," looking ahead to the next decade and a new medium-term management program, "Project AP-G 2013," covering a three-year period.

In the "AP-Growth TORAY 2020" long-term corporate vision, we are aiming 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" by further concentrating our efforts on expanding our Green Innovation Business that contributes to solving global environmental problems as well as resource and energy problems and further expanding our global business.

As the first stage of "AP-Growth TORAY 2020," in April 2011 we began undertaking "Project AP-G 2013," covering a three-year period. In accordance with "Project AP-G 2013," we are executing growth strategies needed for "business expansion in growth business fields and regions" based on the strong corporate structure we have built through IT-II reforms over the past two years. We will take advantage of the 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. At the same time, we will also focus on further strengthening our total cost competitiveness.

Key Principles and Basic Strategies of "Project AP-G 2013" Medium-term Management Program

Key Principles

- 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 strategies
4. M&A and business alliance strategies
5. R&D investment strategies
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 issues and resource and energy issues; "Asia and Emerging Country Business Expansion (AE) Project" that strives to take advantage of economic expansion in 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 Business) 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.

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

II Business Strategies and R&D Strategies

2 R&D Segments

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

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

<table>
<tr><th>Business Categories</th><th>R&D Segments</th><th>Segments</th><th>Basic Materials</th><th>Advanced Materials</th></tr>
<tr><td rowspan="2">Foundation Businesses</td><td>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 / 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 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></td></tr>
<tr><td>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>Life Science</td><td>Life Science</td><td rowspan="2"></td><td>Pharmaceuticals and Medical Devices
Bio-tools</td></tr>
<tr><td>Water Treatment</td><td>Environment & Engineering</td><td>High Function Separation Membranes, etc.</td></tr>
</table>

3 R&D Strategies

Under our medium-term management program, "Project AP-G 2013," which began in April 2011, we are conducting R&D in accordance with the following basic strategies.

(1) We will contribute to the realization of a sustainable society by providing solutions to global-scale problems associated with the environment and an aging population with declining birthrates. These solutions will use the "power of chemistry" including the "polymer chemistry," "organic synthetic chemistry," "biotechnology" and "nanotechnology" we have cultivated since our founding. To do this, we will be a source of innovation derived from strong basic research with its core in five growth business fields: 1) making energy usage more efficient, 2) new energy resources, 3) bio-based polymers, 4) water treatment and 5) health care.

(2) We have positioned the A&A Center (Automotive & Aircraft Center) and the E&E Center (Environment & Energy 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 Automobiles and Aircraft and Environment and Energy.

(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 domains.

(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.

II Business Strategies and R&D Strategies

4 Scheme for R&D and Commercialization

Since its foundation, Toray Group has adhered to the philosophy that "R & D is the key to the Toray of tomorrow." With this in mind, we have consistently pursued R&D into advanced materials better in step with the times. Toray's strengths which allow it to draw on its R&D capabilities are: 1) a history and culture of creating innovative technologies (with an emphasis on basic research); 2) having numerous specialist organizations; 3) having an integrated R&D organization; 4) having the ability to integrate technology through industry-government-academia joint research; and 5) possessing advanced analytical capabilities (with strong links to the Toray Research Center Inc.). These strengths have enabled us to develop and commercialize a wide range of advanced materials.

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

Each R&D department conducts research and development in its own area of responsibility. 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.

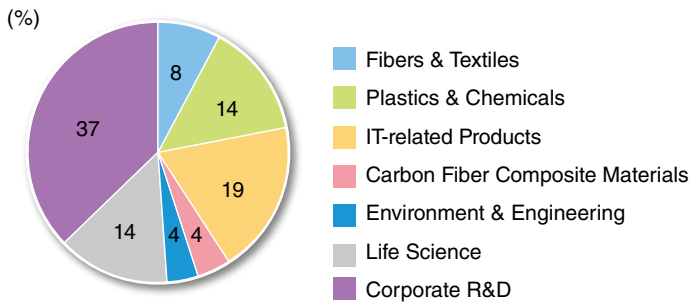
To speed up all processes, from development to commercialization, we will enhance functions to support processing technologies, facilities and equipment technologies and management for our vital projects as we progress with the creation of large-scale businesses.

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 are bolstering initiatives for combining the total strengths of the Technology Center and for promoting collaboration and integrating research efforts.

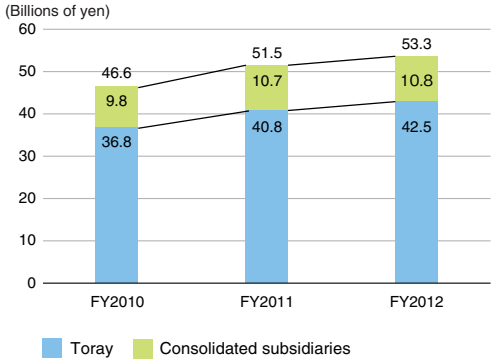
5 R&D Expenditures

In FY 2012, Toray Group R&D expenses amounted to ¥53.3 billion (total R&D expenses of parent company Toray were ¥42.5 billion). By segment, we allocated 8% of these expenditures to Fibers & Textiles, 14% to Plastics & Chemicals, 19% to IT-related Products, 4% to Carbon Fiber Composite Materials, 4% to Environment & Engineering, 14% to Life Science and 37% to corporate R&D (all percentages approximate).

FY 2012 R&D Expenses by Segment



R&D Expenditures (past three years)



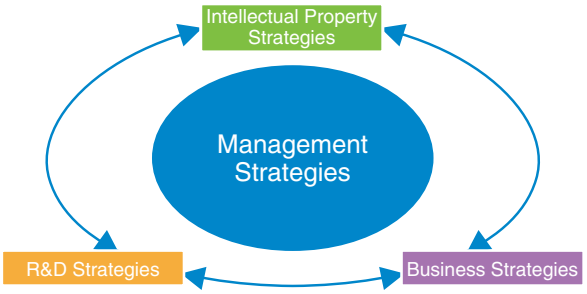
III Toray Group Intellectual Property Strategies

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 patent 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 patenting by raising the quality of each patent and not making needless applications.

(3) Respecting the rights of others

Executing business while infringing on 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 patents owned by other companies, and we thoroughly educate employees to prevent infringement on patent rights of other parties.

(4) Rightful enforcement of our own rights

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

2 Promotion of Patent Applications and Patenting 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 patenting 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 (GR) Project" within the "Project AP-G 2013" medium-term management program, we are presently concentrating on patent applications and patenting, 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 support business expansion in growth countries and regions and that facilitate the conducting of Toray Group R&D and businesses globally. Specifically, we will first of all promote Toray's overseas patent applications and patenting. 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 patenting in these regions where we aim to achieve business expansion in the future. In addition, we will promote patent applications and patenting 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 are undertaking various initiatives detailed below for continuing to enhance efficiency and promote our patent capabilities.

III Toray Group Intellectual Property Strategies

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 Patenting Projects," with the objective of establishing patent portfolios for new technologies and related peripheral technologies through applications and patenting;

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

(3) "Rank-A Utilization of Rights 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 Toray'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 R&D 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 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 acquired through the use of patented inventions and from 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 kind of flexible system, we are promoting the creation of excellent inventions inspired by enhanced incentives to innovate and invent to enhance Toray'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 our 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 since around 2000, Toray believes that high-quality patents should have patentability that can stand up to such judgments, be easy to enforce 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 R&D departments charged with the primary role of patent searches.

Of particular note, we have enhanced education of the patent searchers and built a database for sharing know-how in performing searches more efficiently and thereby stringently selecting 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.

III Toray Group Intellectual Property Strategies

(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 R&D departments

To ensure the efficacy of this patent education, we conduct an annual 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

Toray strictly controls the various corporate brands which represent our identification and originality, including the “Toray Industries, Inc.” corporate name, its corporate symbol*, business trademarks “TORAY”, etc., its domain names “toray.co.jp,” “toray.com,” and so on, as intellectual property that symbolizes Toray Group corporate activities. We make vigorous use of these names in our corporate brand strategy.

Toray Group is advancing a number of brand strategies to enhance employee engagement, customer confidence and strengthen our ability to attract outstanding personnel by enhancing the value of the corporate brand.

The quotation marks in Toray Group’s corporate symbol* express our willingness to engage in dialogue with all of our stakeholders through our people, our products and our technology. The quotation marks also speak of our aspiration to excel as a distinctive presence within society. This corporate symbol is registered as a trademark for the primary businesses of Toray Group in nearly 150 countries around the world in which we have established exclusive use rights. We have also adopted stringent defensive measures to deal with unauthorized use by third parties.

In 2009, Toray Group pledged to move forward in its corporate activities by focusing its entire business strategy on the global environment. Since 2011, Toray has advanced its Green Innovation Business Expansion (GR) Project. One example of a company-wide initiative is to make society at large aware of Toray’s contributions to environmental preservation and the goal of a low-carbon society through the ecodream® brand, which is a general brand name for the deployment of GR businesses and products.

Moreover, starting in fiscal 2013, Toray Group will intensify its global deployment of the integrated brand ecodear™ for its biomass-based polymer materials and products. The aim of setting up the integrated brand is to globally advance and establish the Toray’s strong determination to provide solutions to environmental issues through the use of biomass materials in fibers, resins, films and other individual products. They are focuses in Toray’s business activities within the broad concept underlying ecodream®.

On October 9, 2012, Toray announced its first technology brand, “NANOALLOY®,” an innovative microstructure control technology that vastly enhances the characteristics of polymers by making nanometer-order alloys of multiple polymers. Toray has started the full-scale development of commercial products based on this technology (http:// www.nanoalloy.jp/). NANOALLOY® is a ground-breaking technology for which Toray holds basic patents and major manufacturing and use patents. We are moving ahead with a strategy of enhancing the brand value by making the technology more visible and by working with our partner companies that are using Toray materials based on this technology.

Toray Group has obtained some 1,200 product brands that are protected by approximately 10,000 trademark rights. We actively pursue our brand strategy to strengthen the underpinnings of each of our business while advancing the appropriate management of our trademarks for these individual product brands.

A collection of Toray’s brands and logos is shown below.

*Corporate symbol

TORAY

GR products and activity brands

ecodream

Other main brands

ecodear Plant-based Product Solutions

NANOALLOY TECHNOLOGY

ultrasuede

TORAYCON

Lumirror

HIGH-PERFORMANCE CARBON FIBER TORAYCA

3D-Gene

torayvino

IV Analysis of the Marketability and Competitive Advantages of Technologies

TORAY
Innovation by Chemistry

With "Innovation by Chemistry" as its corporate slogan, Toray Group creates innovative new materials and technologies based on the core technologies of organic synthetic chemistry, polymer chemistry, biotechnology and nanotechnology to create new value and offer it to society. Our perspective is to protect our planet and ensure safety and confidence for people's lives.

Toray Group has established the "AP-Growth TORAY 2020" long-term corporate vision and, to achieve it, the three-year medium-term management program, "Project AP-G 2013." We launched both in April 2011.

Under "Project AP-G 2013," we are strengthening our stable earnings foundation and pursuing expanded revenues and profits from the Foundation Businesses of Fibers & Textiles and Plastics & Chemicals, and undertaking a growth strategy focusing on business expansion in growth business fields and regions. Based on this growth strategy, we are endeavoring to capture the economic growth of Asia and emerging countries and expand business in four major growing business fields (environment, water-related and energy; information, telecommunications and electronics; automobiles and aircraft; and life science).

As part of this growth strategy, Toray is moving ahead with the Green Innovation Business Expansion (GR) Project for contributing to solving environmental problems and resource and energy problems, which will become increasingly urgent and critical as global-scale issues. In the context of this project, Toray is pursuing technology and product development–with a target of increasing Toray Group products' contribution factor to reducing CO_2 (cumulative effect of reducing CO_2 emissions over the entire product life cycle) to 200 million tons/year by about 2020–along with sales growth. Moreover, we will comprehensively and vigorously undertake Green Innovation R&D (making energy usage more efficient, new energy resources, bio-based polymers and water treatment).

1 Fibers & Textiles

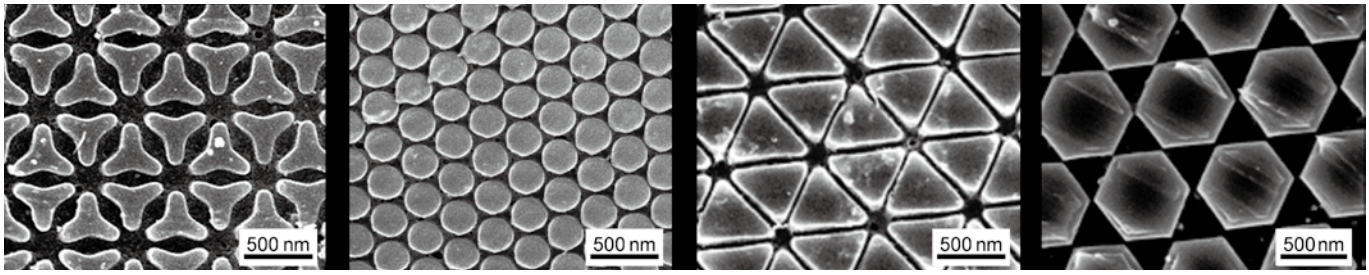
Toray has built a solid position in the Fibers & Textiles field, supplying a host of products—from filament yarns and staple fibers of three major synthetic fibers (nylon, polyester and acrylic) to textiles and garment products—for a wide range of applications from apparel to industrial. In this business 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 fiber and textile materials by pursuing ultimate performance.

Through these efforts, Toray has developed the world's thinnest filament nanofibers with a diameter of 150 nanometers (nm*), as well as Y-shaped modified cross-section nanofibers. By pressing forward with the development of innovative nanofiber technology, Toray has succeeded in reducing the limit of fiber fineness by half, from 300 nm to 150 nm. Fibers with increased specific surface area have greater absorbent properties, and Toray is planning to deploy these nanofibers for use in filter materials and other applications. And by working with the cross-sectional shapes of these fibers, Toray has designed ultra-precise processing techniques that make it possible to form nanofibers having an indented cross-section. With this technology, we have succeeded at making nanofibers that are Y-shaped in cross-section (fiber diameter of 500 nm), in addition to the triangular and polygonal fibers that have been available.

We have also developed POLILOFT™ NP polyester fiber, a fiber that can be dyed at 98°C at normal pressure, by increasing molecular mobility through precise polymer design. As a result, this fiber can be easily blended with wool, polyurethane, and other fibers that cannot be dyed at high temperatures, and can be used in a wide range of applications. Also, whereas conventional polyester must be dyed at high pressures and high temperatures (approximately 130°C), we can achieve reductions in CO_2 emissions of nearly 25% by reducing the amount of energy needed in the dyeing process.

* nm=one billionth of a meter

Cross-sectional Photos of Fiber Produced Using Innovative Nanofiber Technology



Ⅳ Analysis of the Marketability and Competitive Advantages of Technologies

2 Resins & Chemicals

In plastic resins, Toray has exploited advances in polymerization and molecular designs, polymer alloys, composites, polymer processing and other fundamental technologies to achieve excellent performance and function in ABS (acrylonitrile butadiene styrene) resin, nylon resin, PBT (polybutylene terephthalate) resin, PPS (polyphenylene sulfide) resin, liquid-crystalline polyester resin and other engineering plastics. This is paving the way for the use of such plastics in electric and information devices, as well as automobile parts. In the field of chemicals, we offer chemical solutions that contribute to new product development and Toray Group's advanced materials through synthesis of carbon nanotubes (CNTs), polymer particles, fine polymers and so on, based on the fundamental technologies of organic synthesis, inorganic synthesis and catalysts.

One of the more recent products of Toray R&D has been the development of "high plant grade" ecodear™, a plant-derived biomass resin product having polylactic acid content of over 50%. Conventionally, the polylactic acid content needed to ensure good physical properties had been approximately 30%, but through the use of Toray's proprietary morphology control technology using compatibilizers, we have succeeded in achieving significantly higher polylactic acid ratios by uniformly dispersing ABS resin in the polylactic acid while maintaining excellent physical properties.

Toray has also developed "ultra-high foaming technology" for TORAYPEF®, a polyolefin foam, in which reductions in the melt viscosity of the resin are achieved by controlling the temperature of the foam-forming process. This technology yields expansion ratios of nearly 60 times, the world's highest, compared to conventional methods that have expansion ratios of up to only around 40 times. This increase in flexibility makes it possible for the material to be formed into a wider range of shapes, and Toray will start full-scale sales of 0S ("Zero S") Grade, a high-performance polyolefin foam. With its high conformability, the product will find wide use in bathrooms, kitchens and other areas requiring waterproofing.

Environmentally-sensitive Grade Polyolefin Foam TORAYPEF®

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 drawing 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, one of Toray's Group company, Toray Advanced Film Co., Ltd., has begun sales of TUFTOP® SR1, a several dozen microns-thick self repairable layer coated polyethylene terephthalate film which has excellent

Olefin Release Film

self-repairability and formability. Repairability mechanisms and coating film formation behavior were analyzed in the development of this film. Toray performed optimization design to develop this material, and the product is expected to find wide application as a protective film with properties that make it ideal for smart phones and tablet devices.

Ⅳ Analysis of the Marketability and Competitive Advantages of Technologies

Moreover, Toray has developed the world's first olefin based release film that provides mutually exclusive properties of the heat resistance and the ease of forming by applying our proprietary NANOALLOY® technology and accurate laminating technology in the forming process. These release films resist deformation when customers use them in their manufacturing processes, even when these processes involve high temperatures in coating and drying. They also provide the ability to form into complex shapes at low forming temperatures, and they are easy to remove after use. Toray will develop these products as forming transfer film substrate for decorative use in information and telecommunication devices like smart phones, as well as in home appliances, automobile interiors, and other areas where we see an increasingly wide range of designs.

4 Electronics & Information Related Products

In Electronics & Information Related Products, Toray mobilizes its fundamental technologies in such areas as polymer design of thermal resistance 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, high-k insulator materials, ceramic substrate materials, color filters for liquid-crystal displays (LCDs), plasma display rear panel forming technology and organic electroluminescent (EL) light-emitting materials.

For these efforts, Toray received the 2012 "Invention Prize" at the National Commendation for Invention for its invention of photosensitive paste for plasma display barrier ribs. Plasma displays consist of a system which induces emission within so-called discharge cells which are formed by barrier ribs coated with RGB (red blue green) phosphors. It is extremely difficult to form the inorganic materials in 3D which constitute the barrier ribs with a high degree of precision over a broad surface area. The greatest challenge was to do so in the process of plasma display manufacturing. This technology pertains to the world's first photosensitive glass paste that can be formed into barrier rib shapes with high accuracy and at high aspect ratios. The technology represents a significant contribution to the manufacturing of 42 inch full high-definition, 3D display, and jumbo plasma displays of over 100 inches.

Toray has also developed a composite consisting of our own proprietary semiconducting polymers and single-walled CNT (carbon nanotube), and has invented the world's highest-performance CNT-TFT (CNT-thin film transistor). By creating a composite of semiconducting polymer and single-walled CNT developed using new molecular design principles, Toray has succeeded at increasing single-walled CNT dispersibility without impeding conductivity. TFTs manufactured with coating methods using these materials have on-off ratios that are more than one order of magnitude (10 times) higher than those of the prior art, while maintaining high mobility. Currently, research is going forward to validate the technology in transistors for display applications, and our efforts toward commercialization that is coordinated with materials development are accelerating.

Moreover, in October 2012, Toray installed semiconductor mounting R&D equipment (the PS Lab) in the same Shiga Plant as the R&D department with the objective of increasing the efficiency and speed of research into and development of semiconductor mounting materials. This facility is operated as an open laboratory that can accommodate 300 mm wafers (maximum size) for the development of materials that reflect customer needs while performing Toray's own material development. The goal is to perform R&D concurrently with our customer companies beginning at the material design phase.

Open Lab

Ⅳ Analysis of the Marketability and Competitive Advantages of Technologies

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 fields of aircraft, aerospace, sports equipment, civil engineering, construction, automobile, electronic & information devices and energy industry instruments. Under "Project AP-G 2013," this is a core business area for Green Innovation, which is contributing to global CO_2 reductions as it makes aircraft and automobiles lighter and therefore more fuel efficient, produces clean energy from windmills, and also reduces the weight of high-pressure tanks for natural gas and hydrogen.

As a result of these efforts, Toray's Composite Materials Research Laboratories received the "11th Japan Innovator Grand Prize" from Nikkei BP, Inc. The Japan Innovator Award is an award that was established by Nikkei BP, Inc. in 2002 to stimulate innovation in Japan by spotlighting creative individuals in Japanese industry. With this award, Toray received recognition for, "significant contributions in the wide adoption of carbon fiber typified by their use in passenger aircraft. The Composite Materials Research Laboratories has made significant contributions toward the development of these materials." Moreover, Toray was honored at the "Innovation in Japan-US Business and Technology Awards" with the "2012 SunBridge 'World Changer-Japan' Award." These awards recognize Toray's world leadership in successfully commercializing carbon fiber materials as well as Toray's extensive industrial innovation in advancing long-term R&D and the development of applications for these materials in products ranging from sporting goods to transportation equipment like the Boeing 787.

To expand our carbon fiber composite materials business, including its applications in the automobile industry, Toray has purchased the entire stake in Dome Carbon Magic Ltd. (DCM) from the DOME Group. The DOME Group is highly regarded in the automobile industry for its work in racecar design and manufacturing. Toray renamed the company (currently Toray-Carbon Magic Co., Ltd.). Moreover, Toray has purchased a 75% stake in Dome Composites (Thailand) Co., Ltd., DOME Group's Thailand subsidiary. The acquisition of DCM dramatically enhances Toray's CFRP parts design technology prowess and the synergy effects with its existing various CFRP molding technologies would strengthen the Toray Group's ability to rapidly respond to customer demands. Moreover, by securing a manufacturing foothold in carbon fiber composite materials for the first time in Thailand, which is the center of ASEAN auto industry and a nation whose government is planning to attract aircraft-related industries, Toray will not only have a competitive global supply chain to offer to its customers but will also benefit from the economic growth of the region.

■ Carbon Fiber Reinforced Plastic Automobile Parts (including motorcycle parts)

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 organic synthesis technology). We furthermore developed TRK-820, an antipruritus drug that is a highly selective κ (kappa) opioid receptor agonist. Toray is an authorized manufacturer and dealer of the drug, which is sold in Japan through Torii Pharmaceutical Co., Ltd. under the trade name REMITCH®* CAPSULES 2.5 μg, an oral antipruritus drug for hemodialysis patients.

Toray Group was awarded the "Okochi Memorial Technology Prize" by the Okochi Memorial Foundation for Toray's REMITCH® CAPSULES 2.5 μg. The prize is given to individuals or groups who exhibit outstanding achievement in invention and the conspicuous contributions made to industry. This award recognizes Toray's successful development and commercialization of REMITCH® CAPSULES 2.5 μg, the world's first oral antipruritic drug that is a selectively active opioid-K receptor agonist, as a therapy for the refractory itching associated with hemodialysis. Toray received an Invention Prize for the invention relating to REMITCH® at the National Commendation for Invention in fiscal 2013.

Also in the medical field, Toray will add new facilities for the manufacture of TORAYMYXIN®, a hemoperfusion absorption column for selectively removing endotoxin in the bloodstream, at Toray's Okazaki Plant to existing facilities at our Shiga Plant. With these new facilities, Toray will effectively double its manufacturing capacity for this product. TORAYMYXIN® has found wide application in improving the symptoms of severe sepsis and associated multiple organ failure since it first went on the market in 1994. Going forward, Toray is undertaking the full-scale development of the TORAYMYXIN® in Europe and the US, as well as other markets around the world.

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

Okochi Memorial Technology Prize Awards Ceremony

7 Environment/Water Treatment

To solve the water shortages and the water pollution problems around the world, we are working in the water treatment field by developing reverse osmosis (RO), nanofiltration (NF), ultrafiltration (UF) and microfiltration (MF) membranes, based on organic synthetic chemistry, polymer chemistry and nanotechnology, for such uses as producing ultrapure water and seawater desalination achieved by making selective separation possible. We are also endeavoring globally to propose sustainable water resource systems.

As one achievement, Toray succeeded in getting orders from two member states of the United Arab Emirates for water treatment membranes for a seawater desalination plant in 2012. Following on that success, we have signed contracts for seawater desalination plant water treatment membranes. This plant will produce the largest quantities of water in Asia and will make use of Toray's reverse osmosis membranes.

Moreover, for Toray, the global environment is a pivotal part of our overall business strategy. As such, we are conducting R&D on biomass-origin polymers and expanding our business in biomass-origin materials, especially polylactic acid (PLA), in order to help achieve a sustainable low-carbon society.

One outcome of these initiatives will be to increase the scale of the experimental application of polylactic acid (PLA) fibers in desert greening projects led by the government of the People's Republic of China. In this project, PLA fibers are used to create tube-knitted fabric (hose knit) having a diameter of approximately 10 cm. The fabric is then filled with sand to produce "SAND SAUSAGE™" which are laid in a grid pattern in the desert. These "SAND SAUSAGE™" control wind erosion of the earth and sand. Tube-knitted fabric of the biodegradable PLA fibers is an environmentally friendly material that can be degraded by microorganisms after desert greening has taken place.

Tests of Desert Erosion Prevention Using Materials made of PLA

V R&D, Intellectual Property Organization/R&D Partnerships

1 R&D and Intellectual Property Organization

As of 1985, Toray has built an R&D organization centering on its Technology Center. The role of the Center is to draft company-wide strategies and key projects for R&D.

We are also reinforcing global R&D capabilities to deal with changes in the business environment in recent years, and further globalizing ourselves as the growth markets of emerging countries become more and more important. This means not just the type of business expansion that entails moving production from Japan, but transforming overseas bases into "independent development enterprises" that pursue development in line with local needs.

As our R&D is becoming increasingly global, so is our Intellectual Property Division. As an independent organization under the direct control of the President, the Intellectual Property Division is strengthening the intellectual property capacity of the entire Toray Group based on intellectual property strategies that are linked with management strategies.

(1) Building our basic research structure

In 2010, Toray established the new Advanced Materials Research Laboratories within the Basic Research Center, which is the basic research department of the Research & Development Division. We set up four research units, namely, 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, Republic of Korea) into the aforementioned units. At the Advanced Materials Research Laboratories, under our global research unit structure, we are striving to strengthen our basic research capabilities in "polymer chemistry," which is one of our core technologies, and promoting 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 promoting 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-resource derived 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."

At the Basic Research Center, Toray will promote basic research in materials fields at the Advanced Materials Research Laboratories, basic research in biotechnology, nanotechnology 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 as 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. The Environment and Energy Development Center was completed within the Seta Plant (Otsu, Shiga Prefecture) to serve as the core organization of the E&E Center.

The establishment of the E&E Center is a part of measures for accelerating Green Innovation at Toray Group, with focus particularly on reinforcement of R&D in the environment and energy fields. Toray positions the 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 under the direct control of the President and promote open innovation, a strategic imperative in these fields, to promote dynamic creation of new businesses and innovation of business models.

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 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), Toray positions E&E Center as Toray Group's new growth engine for achieving a sustainable low-carbon society. Leveraging these centers, Toray will develop and expand businesses in advanced materials and technologies in the core fields of automobiles and aircraft as well as environment and energy.

(3) Building an R&D System in China

Toray has built its R&D bases in Shanghai and Nantong to strengthen the R&D system essential to growing our business in China.

We established headquarters for the Chinese R&D base Toray Fibers & Textiles Research Laboratories (China) Co., Ltd., or TFRC, in 2002 in Nantong, followed by a Shanghai branch in 2004, and have conducted R&D at these two locations since then. On January 1, 2012, we spun the Shanghai branch into an independent entity, known as Toray Advanced Materials Research Laboratories (China) Co., Ltd., or TARC. Thus research is taking place at the two companies TFRC (in Nantong City, Jiangsu) and TARC (Shanghai).

V R&D, Intellectual Property Organization/R&D Partnerships

The chief functions of TARC are 1) to conduct R&D that will expand our Chinese business (i.e., provide product development and technical service for Chinese customers) as based on Group strategies in each business field except Fibers & Textiles, and additionally 2) to serve as the China branch of our Advanced Materials Research Laboratories (in Shiga), which performs basic research.

To promote further growth of Toray Group business in the Chinese market, which we expect to grow dramatically in the future, our local staff are paying close attention to Chinese customers' unique needs and working to develop new products and technologies suited to local needs. We are additionally strengthening our customer response with technological support. To do this, we are not only further strengthening research fields we have long engaged in (resins, films, water treatment, amenities, etc.), but also doing film processing research and starting new R&D services in carbon fiber composite materials, electronics & information materials and so on.

We hire excellent research talent from China to do basic research. They work closely with our Advanced Materials Research Laboratories in Japan to create advanced materials.

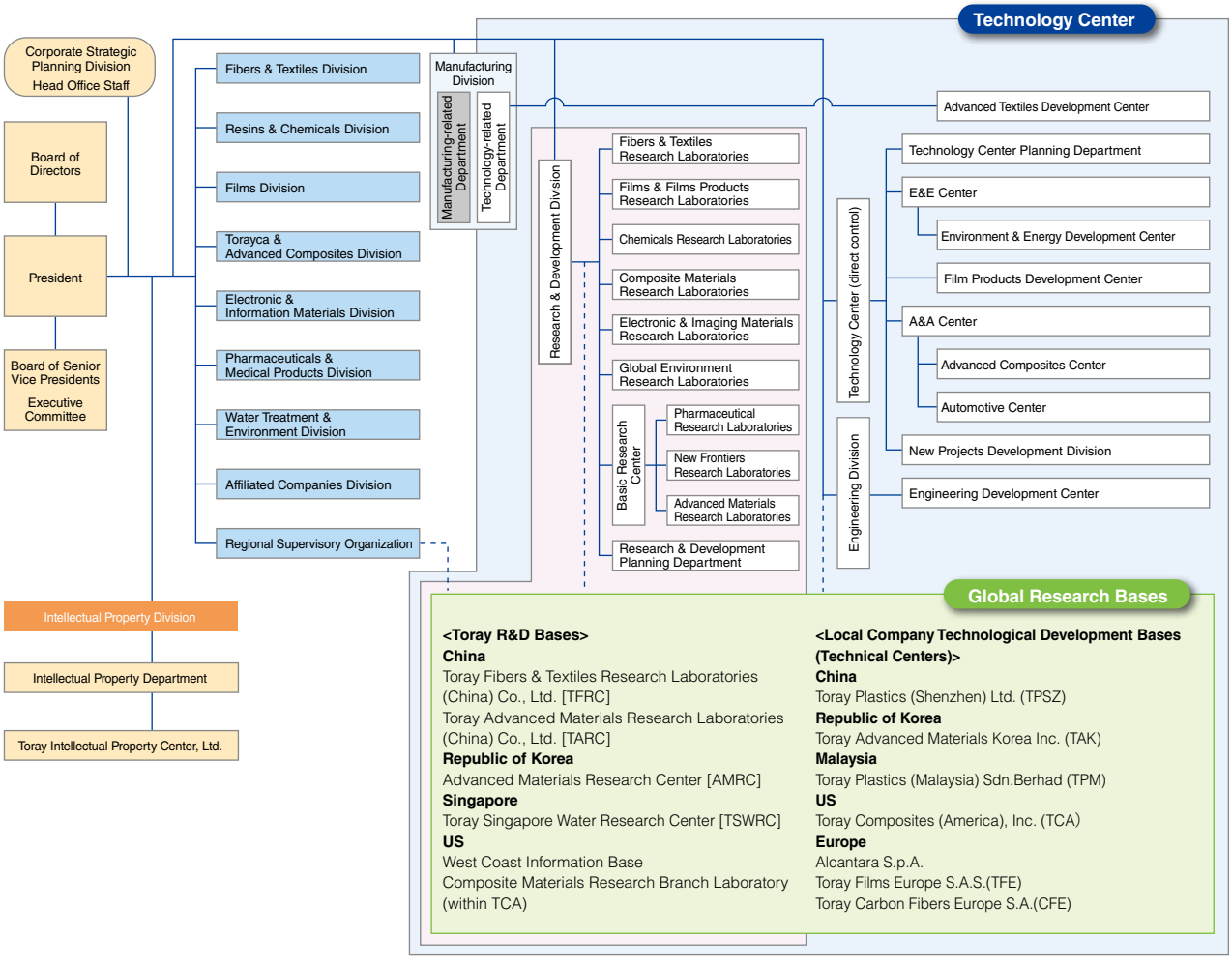
Because our Shanghai base offers relatively easy access to important Chinese customers and many elite universities are close to the base, we will further strengthen its organization as an R&D center in China in fields other than Fibers & Textiles.

We are also enhancing TFRC and positioning it to specialize as a Fibers & Textiles R&D base. Toray has established an organization in Nantong that brings production and R&D together, and we will take advantage of this integrated entity in our R&D.

As a result of these initiatives, TARC and TFRC have produced a large number of inventions, and the two organizations together file more than 100 patent applications in China annually.

In the medium-term management program "Project AP-G 2013" that we are currently pursuing, Toray seeks to turn itself into a corporate group with sustainably growing business revenues and profits. One of our basic strategies is charted in the "Asia and Emerging Country Business Expansion (AE) Project," which works to capture the growth of Asia and emerging countries in other areas where major growth is expected to occur. We are taking up the challenge of the AE Project in part through the recent reform of our R&D organization in China as we endeavor to expand business in fields and regions that will grow remarkably in the future.

Organization (As of June 2013)



V R&D, Intellectual Property Organization/R&D Partnerships

2 R&D Partnerships

Through open innovation, the practice of making full use of the advanced technologies we have developed and advanced materials we have created and working in partnership with a variety of organizations, Toray offers solutions to its customers. At the A&A Center and E&E Center, which were established as integrated technological development bases in the growth fields of Environment and Energy and Automobiles and Aircraft, we bring together the Group's collective strength to conduct faster R&D and work with customers in development partnerships that facilitate new product development, commercialization and business growth.

In the news for fiscal 2012, Toray signed an agreement in April with the China National Sand Control and Desert Industry Society, which is promoting desert greening activities in China, to begin experiments on desert stabilization and greening using Toray's polylactic acid (PLA) fiber ecodear™.

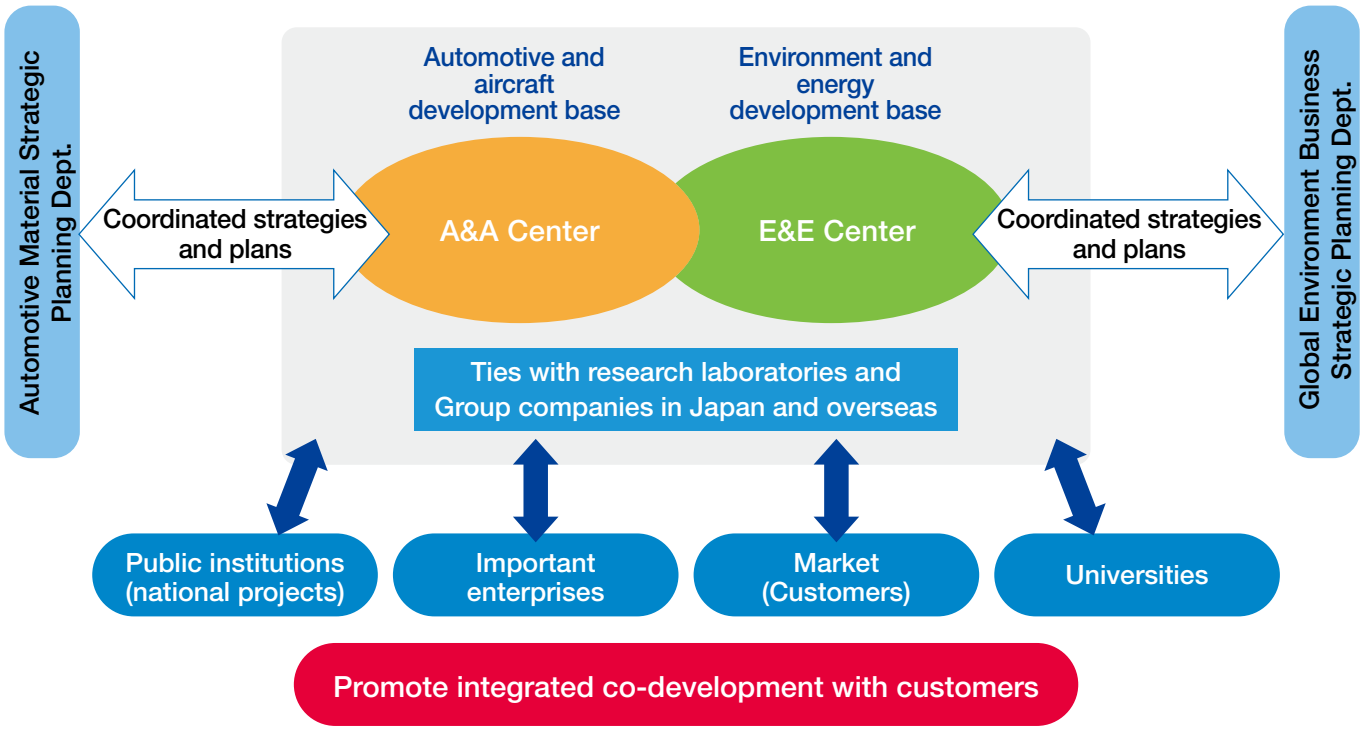
Also, in June, Toray announced to the public a joint development effort with the Japan Environmental Management Association for Industry (JEMAI) to expand the functionality of the JEMAI's lifecycle assessment (LCA) support software, "MiLCA," for Toray's environmental analysis tool "T-E2A (Toray Eco-Efficiency Analysis)," a tool that is used to perform integrated assessments of the environmental impact of products and services.

Moreover, in September, 7 companies; Toray Industries, Inc., Mitsui Chemicals, Inc., Mitsui & Co., Ltd., C-TECH Corporation, Toagosei Co., Ltd., Toshiba Corporation, and Mitsui Engineering & Shipbuilding Co., Ltd. entered into an official agreement to build Japan's largest photovoltaic and wind power generation facility in Tahara City, Aichi Prefecture after feasibility and commercialization studies for the project based on the fundamental agreement that had been concluded in 2011.

In October, we also installed the PS Laboratory, a semiconductor mounting R&D facility, at the Shiga Plant (Otsu City, Shiga Prefecture), to improve the efficiency and speed of R&D relating to semiconductor materials and the expansion of semiconductor material applications.

Also, we have established the Carbon Fiber Recycling R&D Partnership consisting of Toray, Toho Tenax Co., Ltd., and Mitsubishi Rayon Co., Ltd. The mission of the Partnership is to establish mass production technologies for the recycling of carbon fibers, materials whose use is expanding in aircraft, automobiles and other industries, as well as in sporting goods.

Initiatives for Technology and Product Development at A&A Center and E&E Center



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 Toray.

For patents, we have set up a patent committee within each business to discuss details and complete all required procedures. Participants 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, R&D and business (sales) departments in each business sector. In this way, we adopt an integrated approach to the management of intellectual properties, R&D 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.

We also established a brand committee system as the organization overseeing important trademarks and brands in our business fields. The general managers in each of Toray's business divisions serve as brand managers as well as members of Toray's Intellectual Property Department and other operational staff participate in managing brand strategies of each sales and marketing division. The Technology Brand Committee serves as the organization charged with reviewing and setting policy for the promotion and management of technology brands of which NANOALLOY® is a representative example.

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 stricter and more 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.

Since the implementation of the Confidential Information Management Regulations, we continue to rearrange and strengthen 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 45 Japanese and overseas affiliates at the end of March 2013)

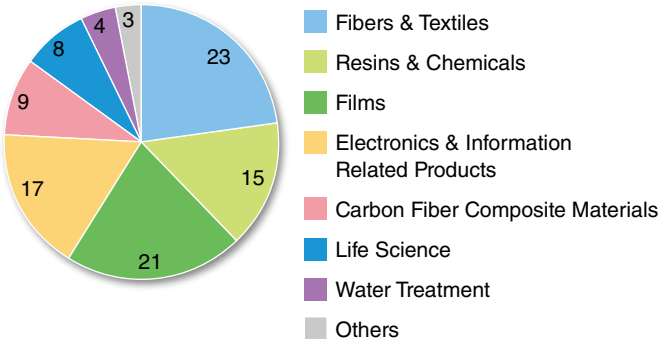
Toray Group takes an aggressive approach to obtaining patents with high potential for use in developing advanced materials, and will firmly maintain this stance in the future.

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 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 2013, the number of valid and enforceable patents in Japan was 4,935, of which 1,938 (39.3%) were in current use within the Group; 2,347 (47.6%) were scheduled to be used in the future; and 650 (13.2%) were 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 2013

Fibers & Textiles	1,151
Resins & Chemicals	755
Films	1,024
Electronics & Information Related Products	818
Carbon Fiber Composite Materials	459
Life Science	392
Water Treatment	185
Others	151
Total	4,935

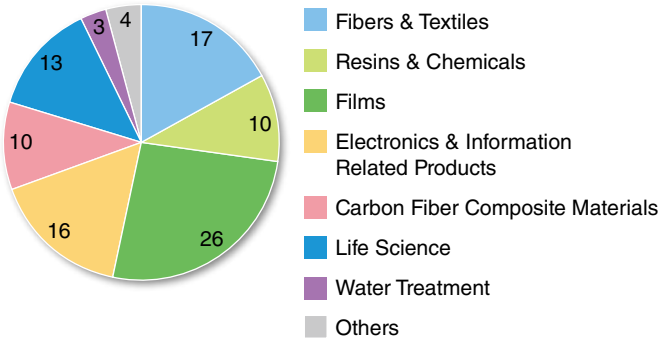


2 Valid and Enforceable Foreign Patents (Total for Toray Industries, Inc. and 45 Japanese and overseas affiliates at the end of March 2013)

At the end of March 2013, the number of our valid and enforceable patents in countries other than Japan was 5,171, with the following chart breaking down these patents by specific R&D segment. The large proportion of foreign patents for Films, Electronics & Information Related Products, 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 2013

Fibers & Textiles	873
Resins & Chemicals	533
Films	1,365
Electronics & Information Related Products	847
Carbon Fiber Composite Materials	535
Life Science	688
Water Treatment	132
Others	198
Total	5,171



Ⅷ Valid and Enforceable Patents, Patent Applications, External Commendations

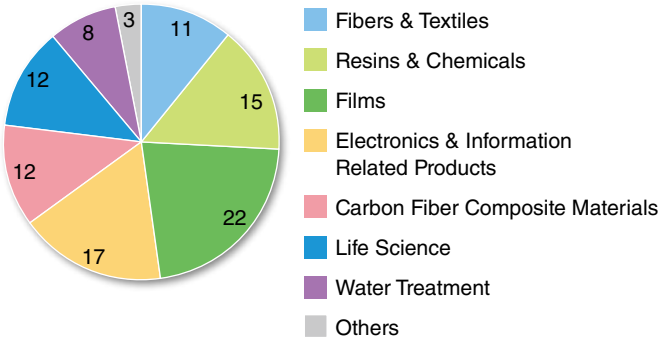
3 Japanese Patent Applications (Total for Toray Industries, Inc. and 45 Japanese and overseas affiliates in FY 2012)

During FY 2012, the number of applications was 1,664, with the following chart breaking down these applications by R&D segment.

The relatively large proportion of patent applications in Films, Electronics & Information Related Products, 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 Intensively Developing and Expanding Businesses.

Number of Japanese Patent Applications in FY 2012

Fibers & Textiles	186
Resins & Chemicals	246
Films	359
Electronics & Information Related Products	291
Carbon Fiber Composite Materials	204
Life Science	194
Water Treatment	136
Others	48
Total	1,664



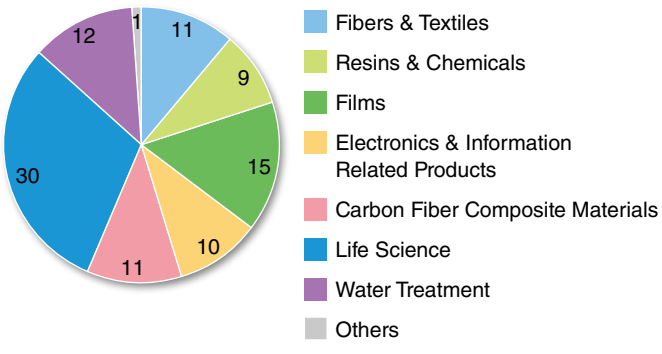
4 Foreign Patent Applications (Total for Toray Industries, Inc. and 45 Japanese and overseas affiliates in FY 2012)

During FY 2012, the number of applications for overseas patents was 4,177, 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 is an indication that we aim to expand our global business in these fields.

Number of Foreign Patent Applications in FY 2012

Fibers & Textiles	464
Resins & Chemicals	376
Films	637
Electronics & Information Related Products	410
Carbon Fiber Composite Materials	474
Life Science	1,258
Water Treatment	520
Others	38
Total	4,177



Ⅷ Valid and Enforceable Patents, Patent Applications, External Commendations

5 External Commendations

Commendations Received in FY 2012

National Commendations for Invention

Commendation	Subject of Commendation	R&D Segment
Invention Prize	Invention of photosensitive paste for plasma display barrier ribs	Electronics & Information Related Products

Local Commendations for Invention

Commendation	Region	Subject of Commendation	R&D Segment
The Encouragement Prize of the President of Japan Patent Attorneys Association	Kinki	Waterproof and non-wetting knitted fabric	Fibers & Textiles
The Encouragement Prize for Invention	Kanto	Chemical-resistant transparent ABS resin	Resins & Chemicals
The Encouragement Prize for Invention	Kanto	Production of infectious hepatitis C virus in cell culture	Life Science
The Encouragement Prize for Invention	Shikoku	Epoxy resin composition for high strength and high heat resistant FRP	Carbon Fiber Composite Materials
The Encouragement Prize for Invention	Chubu	Method of producing a carbon fiber reinforced plastics	Carbon Fiber Composite Materials
The Encouragement Prize for Invention	Chubu	Polyphenylene sulfide resin composition	Resins & Chemicals
The Encouragement Prize for Invention	Kinki	Process for producing silicone materials for ophthalmic lenses	Life Science

As indicated earlier, Toray received the National Commendation for Invention in fiscal 2013 for the invention of REMITCH®. Following the Prime Minister Prize in fiscal 2009, the Prize of the Chairman of the Japan Chamber of Commerce and Industry in fiscal 2010 and the 2012 Invention Prize, this marks the fourth time in five years Toray has been so honored.

Other External Commendations

Commendation	Awarding Institution	Subject of Commendation	R&D Segment
The 41st Japan Industrial Technology Grand Prize Prime Minister's Award	Nikkan Kogyo Shimbun Co., Ltd.	Development of carbon fiber and prepreg for Boeing 787	Carbon Fiber Composite Materials
JEC Asia Innovation Award Automotive Category Joint award as a NEDO Project (with Tokyo University and others)	Journals and Exhibitions on Composites	Development of innovative carbon fiber-reinforced thermoplastic technologies for mass production cars	Carbon Fiber Composite Materials
The 26th Dokusosei o Hiraku Advanced Technology Award Special Award	FujiSankei Business i	Research and development of innovative molding technology of CFRP, A-VaRTM, for aircraft parts	Carbon Fiber Composite Materials
11th Japan Innovator Grand Prize	Nikkei BP Inc.	Adoption of a large quantity of carbon fibers for aircraft	Carbon Fiber Composite Materials
The 43rd Senken Gosen Award Grand Prix	Senken Shimbun Co., Ltd.	Development and sales of "ULTRA LIGHT DOWN" = UNIQLO, Toray	Fibers & Textiles
The 43rd Senken Gosen Award Materials Division Prize	Senken Shimbun Co., Ltd.	Development of "AIRLISSIMO™"	Fibers & Textiles
The 43rd Senken Gosen Award Ecology Division Prize	Senken Shimbun Co., Ltd.	Development of synthetic fiber from plant resources	Fibers & Textiles
The 43rd Senken Gosen Award Marketing Division Prize	Senken Shimbun Co., Ltd.	Development and sales of "SILVERTEX®" = Toray Synthetic Textile Cluster	Fibers & Textiles
61st Chemical Technology Prize	The Chemical Society of Japan	Commercialization of composite materials for lightweight aircraft	Carbon Fiber Composite Materials
59th Annual Okochi Memorial Technology Prize	Okochi Memorial Foundation	Discovery of CNS acting antipruritic drug for intractable itch, Nalfurafine Hydrochloride	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 patent rights.

X Information on Risk Response

As part of its defense-oriented intellectual property activities, Toray regularly researches 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 might 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 deemed capable of having 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.

Product names marked with ® or ™ are registered trademarks.

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