

Intellectual Property Report 2005

April 1, 2004 - March 31, 2005



INTELLECTUAL PROPERTY REPORT 2005

Since April 2002, Toray Group has been engaged in "NT Reform," a structural reform project to transform itself into a "New Toray For The 21st Century." In "Project New TORAY21," the initial stage of the reform, we successfully laid the groundwork to transform into a highly profitable business structure by promoting radical steps to strengthen the corporate group. As of April 2004, Toray Group has moved on to the second stage of "NT Reform," mid-term management reform program "Project NT- II," which aims to lead the Group as a whole to become a highly profitable corporate group.

"NT Reform" is a project with an initiative to transform Toray's business model to meet the needs of the 21st century. This means we are no longer a Group that simply manufactures and sells products and services as companies did in the previous century. We are a Group that adds a broad range of expertise and know-how to "Products" and "New Services," bringing research, technology, production and distribution closer together to develop new materials, products, and supply chains that satisfy our customers and create new value. Toray aims to be a "New Value Creator of the 21st Century," a company that provides our customers the solutions they seek.

Contents

1.	Core Technologies and Business Models	… 03
2.	Direction of R&D Segment and Business Strategies	… 05
3.	Overview of R&D Segment and Intellectual Property	… 06
4.	Analyzing the Marketability and Competitive Advantages of Technologies	… 07
5.	R&D/Intellectual Property Organization Charts, Collaboration and R&D Partnerships	… 09
6.	Guidelines on Ownership & Management of Intellectual Property , Management of Classified Information, and Prevention of Technology Leakage (including implementation of guidelines)	… 10
7.	Contribution of Licensing-related Activities to Businesses	… 11
8.	Contribution of Patents to Businesses	… 11
9.	Policies for Intellectual Property Portfolio	… 13
10.	Information on Risk Management	… 13

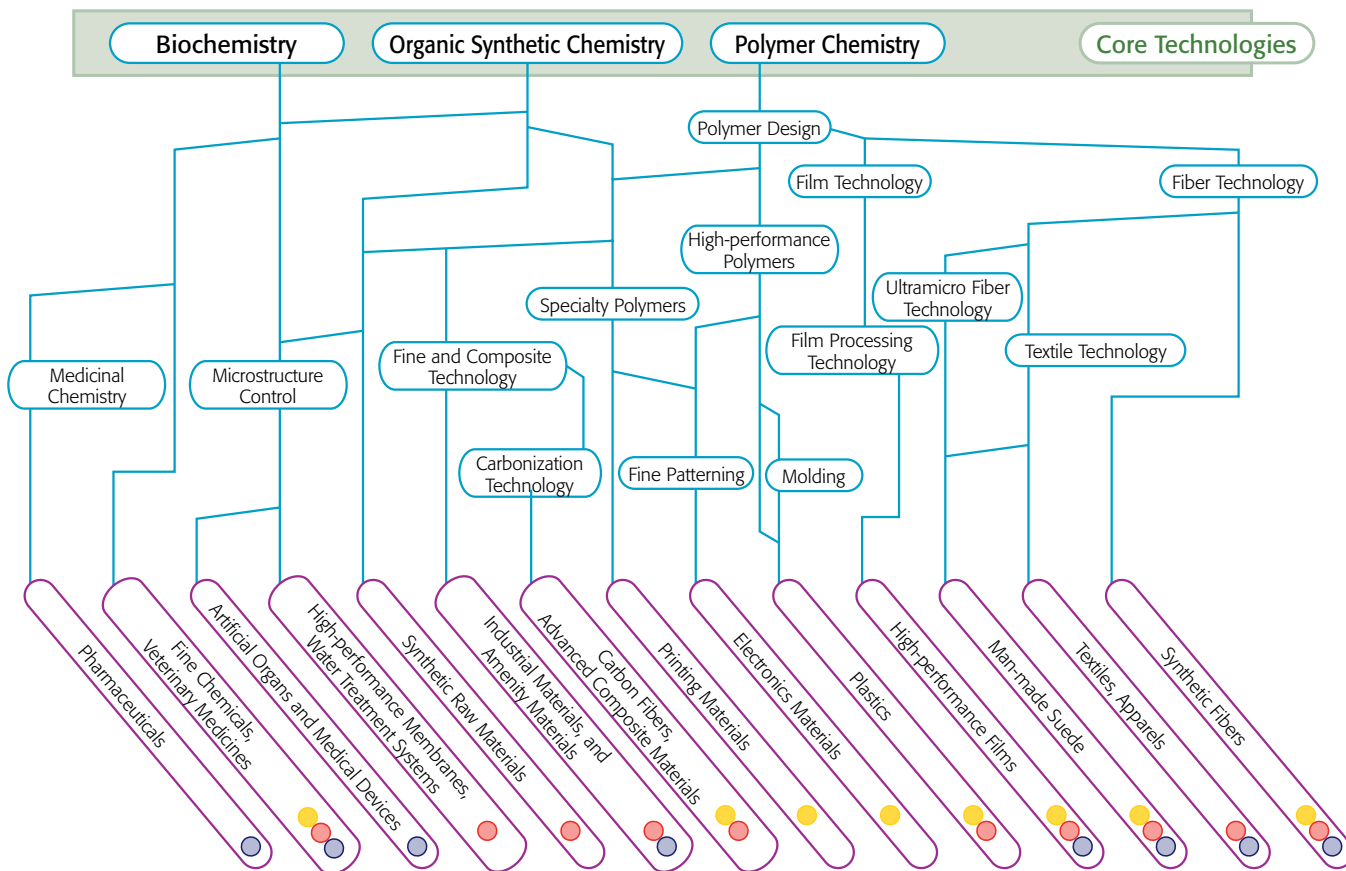
1 Core Technologies and Business Models

Ever since its foundation, Toray Group has believed that "research and development is the key to the Toray of tomorrow." Therefore, we have always placed great importance on basic research and basic technologies as critical business issues; continually invested in research & development; and vigorously engaged in inventing new technologies and expanding the fields of technologies. We consider polymer chemistry, organic synthetic chemistry, and biochemistry as our three core

technologies, and have developed and commercialized many advanced materials based on them.

Toray Group will expand its businesses from basic materials, to processed products, parts, equipments, mainly in the three growth area "IT related products," "Environment, Safety, and Amenity," and "Life Science," by seizing diversified and advanced needs promptly and appropriately. As a result, the Group will realize sustainable growth.

Toray's approach to the three growth areas with the core technologies and products



Life Sciences

< Segments on Consolidated Basis >
Pharmaceuticals & Medical Products
Plastics & Chemicals (fine chemicals)

Pharmaceuticals:
Natural Interferon-β preparation Feron*, prostacyclin derivative drug Dorner*

Medical Products:
Artificial kidney Filtryzer* and Toraysulfone*, blood purification device for treating septicemia Toraymyxin*

Fine Chemicals:
Pharmaceutical and agricultural intermediates,

New bio-products, health care and other products for ageing generation

Environment, Safety, and Amenity

< Segments on Consolidated Basis >
New Products and Others (carbon fibers)
Housing & Engineering (water treatment)
Fibers & Textiles, Plastics & Chemicals (for car and environmental uses)

Carbon Fiber Components: (Aircraft, automobile components, large scale structure, parapets, CNG tanks, etc.),

Separation membranes/systems,
water treatment systems incinerators,

Safety-related materials and products
(airbags, seatbelts, etc.),

Biodegradable polymers (fibers, resins, films)
Fibers and films for environmental business

IT-related Products

< Segment on Consolidated Basis >
IT-related Products

Circuit & Semiconductor Materials:
Circuit materials, electronics, films, capacitor films, release films, IC packaging-related materials, IC electronics resins, semiconductor-related materials, mounting equipment, electro-chemical products, etc.

Display Materials:
Optical PET films, LCD color filters, LCD color filter materials/equipment, PDP materials, organic EL materials, etc.

Data Storage Materials:
Data storage films, printing materials, etc.

Software, others:
CAD soft, Information System Development, etc.

Listed below are the three projects currently under way as part of the NT Reform Project.

1 Expanding advanced materials businesses

Toray Group intends to expand its existing advanced material businesses to increase operating revenues. At the same time, Toray develops and commercializes even more new advanced materials by utilizing such advanced technologies as ultimate performance technology, nanotechnology, and biotechnology which are based on our core technologies. Toray will strive to attain further operational expansion through these activities. In addition, Toray will allocate its managerial resources such as capital expenditure, R&D expense, and human resources for R&D, intensively on these advanced materials businesses.

2 Achieving revenue growth in Global No. One Businesses

In its long history, Toray Group has managed to create many unique operations: Global No. One Businesses, in which Toray proudly holds the top market share in the world; Global Only One Businesses, which can only be found at Toray; and Global First One Businesses, which Toray was the first to commercialize in the world. Toray Group will focus on these operations, which are our competitive strengths, and by expanding and further strengthening these operations we will increase revenue.

3 Expanding businesses outside Japan

Toray Group has carried out three basic policies for globalization: ① Establishing manufacturing sites in countries and regions with superior management resources ② Manufacturing in countries other than Japan to meet the needs of the markets ③ Manufacturing overseas with technology transfers to retain international harmony and cooperation. Toray today promotes global operations by ensuring organic linkages between the manufacturing sites both inside and outside Japan, determining the most productive locations for manufacturing and marketing. For

the growth of these multinational operations, deployed in 21 countries and regions including Japan, we will further promote structural reforms in our business and broaden the profit base as well as realize the "Strategic Expansion Project of Overseas Businesses" by developing of new businesses for further expansion of our operations.

2 Direction of R&D Segment and Operational Strategies

Using our "Core Technologies", polymer chemistry, organic synthetic chemistry and bio-chemistry, Toray Group has been able to combine processing technologies, such as microfabrication and structure design control technologies, to establish new operations in advanced materials.

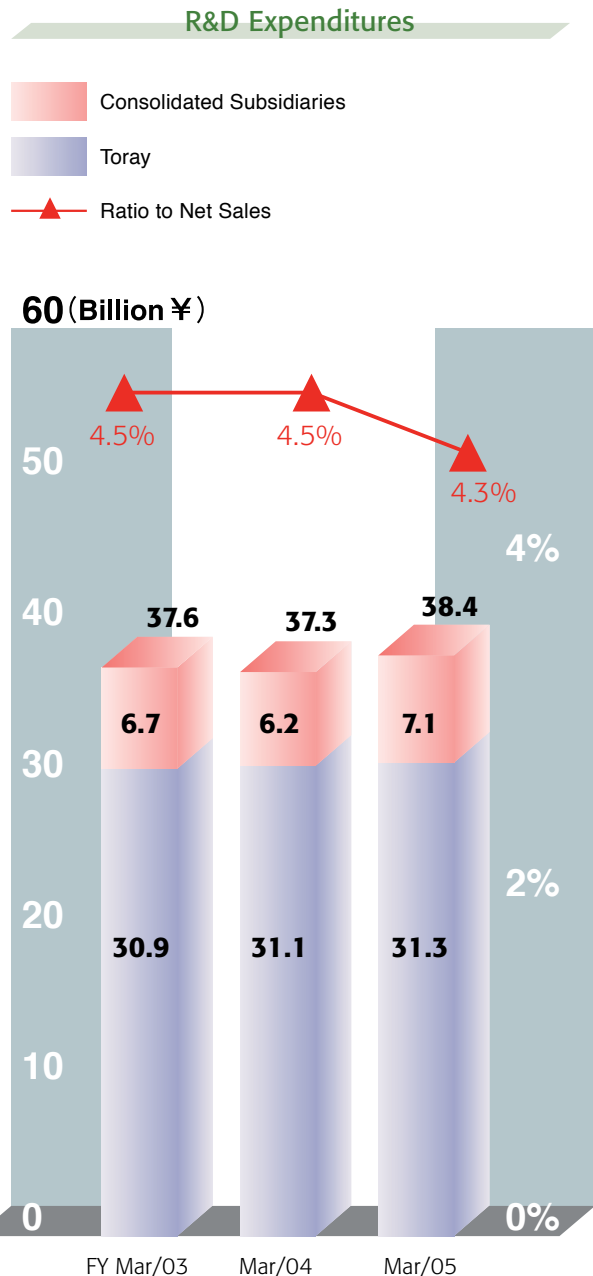
The R&D segment can be divided into units of research laboratories based on materials and technologies. Areas of research include Fibers and Textiles, Films, Plastics, Chemicals, IT-related Products, Water Treatment, Pharmaceuticals and Medical Products, and Composite Materials. However, for research of cross-departmental materials and technologies, the laboratories will cooperate to organize a project system to achieve the highest R&D results in the shortest possible time.

Regarding the three high-growth areas that we consider our strategically expanding business areas (IT-related Products, Environment, Safety and Amenity, and Life Sciences), Toray will apply existing fundamental technologies as well as add new R&D results, and by continuously utilizing the latest advanced materials, we will explore their opportunities as the next major business area. In our larger business segments such as Fibers and Textiles, Plastics, and Films, we plan to reinvigorate our key materials by applying leading-edge technologies such as nanotechnology and further expand our businesses by developing new materials that will contribute to the reduction of environmental burden.

Toray Group's consolidated R&D expenditures in FY Mar/05 totaled ¥38.4 billion (\$349 million) and represented 4.3% of net sales (excluding sales by our trading subsidiaries). About two-thirds of the total R&D expenditures was invested in strategically expanding businesses such as IT-related Products, Environment, Safety and Amenity, and Life Sciences. About two-thirds of our entire R&D personnel of about 2,800 are

currently engaged in operations and projects related to these three areas of strategic focus.

Also, to rapidly reflect the R&D results in our operations, we have integrated R&D Laboratories and Business Divisions in areas of concern to form an "Advanced Materials Projects" led by a dedicated project leader.



Ratio of R&D expenditures excluding the sales by following trading subsidiaries.

[Japanese]

Toray International, Inc. Chori Co., Ltd. Ichimura Sangyo Co., Ltd. Marusa Co., Ltd. Toray Ireeve Corp.

[Overseas]

TOMAC(U.S.A.), TEL(UK), TCH/THK(China), others

3 Overview of R&D Segment and Intellectual Property

Toray Group promotes the acquisition of patents in each R&D segment, especially patents for technologies that support the growth of advanced materials businesses.

In the past, Toray has acquired countless patents in our foundation businesses such as Fibers & Textiles and Plastics & Chemicals, and that has helped us achieve the largest market share and good profitability in our 30 Global No. One Businesses, including polyester, cotton-blended textiles, man-made suede, polyester films, and carbon fiber composite materials.

In areas where we expect strategic growth, we will utilize our leading-edge technologies such as ultimate performance technologies, nanotechnology, and biotechnology which is based on Toray's core technologies, in order to rapidly develop and commercialize new materials in an effort to transform the company as "Toray — The Leader in Advanced Materials," leveraging our financial resources on high-profit advanced materials businesses. At the same time, Toray will continue its efforts to acquire patents necessary for the strategic growth of these operations.

In highly-focused areas of businesses, Toray has set up the following three "Rank-A Projects" in order to intensively execute patent acquisition strategies:

- ① Rank-A Rights Acquiring Project, aimed at developing the patent network for new technologies and their peripheral technologies by filing patent applications and Prosecutions.
- ② Rank-A Defense Project, meant to clarify the rights of other companies to new technologies at an early stage, as well as to quickly determine measures to deal with related patents owned by other companies.
- ③ Rank-A Rights Execution Project, intended to protect and claim any rights of our company when and if they are infringed by others, or prevent such attempted infringements, and earn rightful compensation, thus contributing to the growth of our businesses.

Toray also promotes acquisitions of patents outside Japan in these highly-focused areas.

Toray Group aims to obtain competitive advantages in market and expands its businesses by developing advanced materials and creating innovative technologies. So far, we have introduced many polymer materials, including nylon, polyester, ABS, polyimide, aramid, PPS, liquid crystal polymer and carbon fiber, and based on those accumulated technologies, we successfully developed additional functions such as photosensitivity, preferential segregation, biocompatibility, and evolve the polymer processing technologies such as polymer alloys.

As noted before, we consider polymer chemistry, organic synthetic chemistry, and biochemistry to be Toray's three core technologies. In recent years, we have also added emphasis on advanced materials businesses applying nanotechnology, biotechnology and nano-biotechnology, and have committed to the three growth areas of IT-related Products; Environment, Safety and Amenity; and Life Sciences to boost the company's growth.

To further advance our studies of these leading-edge technologies, Toray opened the New Frontiers Research Laboratories in May 2003 as a mid- to long-term research facility.

1 Fibers and Textiles

Toray is highly acclaimed in the field of Fibers and Textiles, producing the processed products from yarn and staples to textiles based on the three major synthetic materials of nylon, polyester and acrylic. They are used in countless applications from apparel to industrial uses.

Recently, Toray has teamed up with U.S.-based Du Pont Co. to commercialize polytrimethylene terephthalate (PTT) fiber, a bio-conscious, environment-friendly fiber with excellent stretching ability created by Toray's original bicomponent technology. Also, partnering with U.S.-based NatureWorks, Toray has successfully developed and commercialized polylactic acid (PLA) fiber, a non-petrochemical fiber that uses corn as its raw material. With other plant-derived fibers such as bamboo composite fiber, Toray is engaged in the development of eco-friendly materials to better coexist with nature as a 21st Century company should.

Our fibers application processing technologies have contributed to the creation of many functional fibers and products by developing new materials and processing technologies including surface processing

to avoid pollen adhesion, high water permeable and resistant materials, lightweight highly-thermal hollow nylon 66 staple fiber, quick-drying swimsuit fabric, flat-cross section fiber fabric for automotive airbags, PPS bug filters, and high-performance static-absorbing filters.

2 Films

In the Films sector of Toray, many high-functional films and its processed products are lined up to be applicable for IT-related devices and industrial materials.

Lumirror*, a polyester film with the No. One share in the world, is utilized as material for flat panel displays, packaging material for retort pouches and magnetic materials, which take advantage of its unique thickness controllability, special stretching ability, surface forming technology by the method of film multilayer composition, coating, cleaning, electrostatic control, and nano-alloy technologies.

Toray recently developed a microstructure control technology, called Nano-Alloy, which enables different polymers to be dispersed as nano-scale alloys, thereby creating new polymer films based on polyester with significantly improved characteristics such as thermal resistance and shrinkage, compared to existing polyester films.

Toray also succeeded in developing a highly functional biaxially-oriented polyester film with high strength, high transparency, and high elongation. This film is created using the new film formation technology of highly precise nano-lamination using polymer alloys at the nano scale.

Our pioneering polyphenylene sulfide (PPS) films and polyolefin films with advantages for their thinness, are used in capacitors boasting the world's top market share.

3 Plastics

Toray produces a wide range of high-performance resins, including ABS resin, and engineering plastics such as nylon, PBT, PPS and liquid crystal polymer.

We have successfully developed new materials, which are wholly aromatic polyester liquid crystal polymer, nano-alloy technology-employed PBT resin, and eco-friendly PLA resin made from corn. They are expected to be used in electronics and automotive applications.

4 Chemicals

In the Chemicals sector, Toray employs basic raw materials businesses based on technologies such as photosynthesis, organic synthesis and air oxidation and also businesses of high-performance chemical materials based on organic synthesis, inorganic synthesis and businesses of veterinary medicine applying biotechnology of utilizing silkworm cocoons.

Toray expands opportunities in operations involving the development of carbon nano-tubes and new functionality polymers.

5 Electronics & Information-related Products

In this sector, we develop electro-coating materials, color filters for liquid crystal displays and flexible circuit materials by adding functionality to polyimide, such as photosensitivity and heat resistance. Photosensitive materials are used in rear plate barrier ribs of plasma display panels, a business that is expanding as the electronics industry grows.

Aside from the materials business, we develop high-performance manufacturing and test equipments for semiconductors and FPDs that support the electronics and information industry.

6 Water Treatment

In an effort to resolve many issues surrounding water resources with scientific technology, Toray Group strives to evolve the technologies and respond to many water treatment needs with systems and solutions using our polymer membrane separation technologies. We have applied our polymer processing technologies enabling preferential segregation to membranes for seawater desalination, ultra-filtration, water purification and sewage treatment. Some of these innovative separation membranes address today's water and environmental issues.

Toray is also incorporating these high-performance membranes in high-efficiency yet low-cost water treatment systems and in water treatment systems using biotechnology.

7 Pharmaceuticals and Medical Products

In the pharmaceuticals sector, Toray has provided many breakthrough products of biotechnology, such as Japan's first natural interferon- β preparation, Feron*, and the world's first orally active prostacyclin preparation, Dorner*.

In the medical products sector, our product line includes Filtryzer* and Toraysulfone*, dialysis treatment devices with added biocompatibility and separation capabilities, and Toraymyxin*, a blood purification device for treating septicemia. These unique and original instruments are highly acclaimed in their fields.

8 Advanced Composite Materials

With the largest production volume in the world, Toray's carbon fiber Torayca* is used in a wide range of applications, from aerospace and sports to industrial use. By combining the expertise in carbon fibers and plastics with our molding technology, Toray is expanding its businesses in the composite field as well.

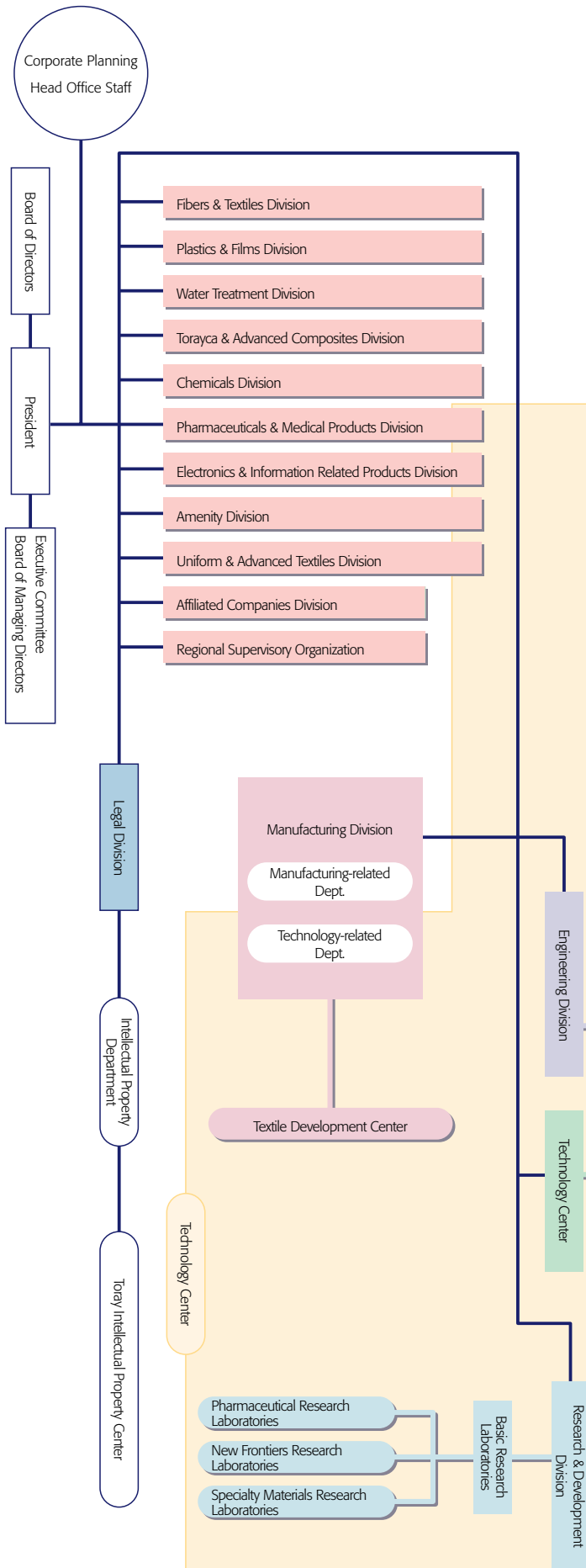
In the aircraft industry, Boeing Co. first used carbon fiber in 1982. Since then, we have earned this client's trust through many years of solid track record and low-cost, high-intensity technologies, and were chosen as the sole supplier of a sheet-form carbon fiber prepeg, as the primary structural material to be used in the new Boeing 787 aircraft expected to go into service in 2008.

Also, our three-dimensional structure forming technology using carbon fiber laminates are being applied to laptop PCs as lightweight, highly rigid chassis materials.

9 Leading Technologies

Nanotechnologies such as nano-fibers and polymer nanoalloys allow innovative and unprecedented capabilities through their remarkable nano-effects, and are also applied in research into genes and proteome analysis. Hypersensitive DNA chips integrating biotechnology and nanotechnology are recognized for their innovative results.

R&D/Intellectual Property Organization Charts, R&D Collaboration and Partnerships



Toray's R&D organization consists of the Research & Development Division, New Projects Development Division, departments under direct management of the Technology Center, Engineering Development Center, technical departments of each plant, and others. Each department is engaged in its own R&D activities, but cooperates vertically when necessary with integrated projects, fundamental technology developments and other urgent matters. The New Projects Development Division designates an "Advanced Materials Project," appointing recipients of the results developed by the R&D, and integrates the teamwork of research, technology, manufacturing and marketing toward the commercialization of new projects. A dedicated project leader is responsible for "Advanced Materials Project" and clarify the due date to complete the project.

In an effort to promote R&D collaboration and partnerships, Toray no longer values the concept of independent R&D and instead holds 150 partnerships and is engaged in 31 national projects as of March 2005.

New Frontiers Research Laboratories has made open laboratory space to promote collaboration with external research institutions. Through these events, we have invited a branch lab of the 21st Century COE program from the Institute of Scientific and Industrial Research of Osaka University, and are currently studying the protein synthesis and analysis chip as part of an advanced nano/bio device project run by NEDO (New Energy and Industrial Technology Development Organization). Also in the area of fullerene composite research, we are working with RIKEN in an "Integrated Collaborative Research Program with Industry" to pursue newly formed partnerships.

6 Guidelines on Ownership & Management of Intellectual Property, Management of Classified Information, and Prevention of Technology Leakage (including implementation of guidelines)

For matters concerning the acquisition and management of patents, we follow our "Patent Management Regulations" and "Patent Management Standards." These rules are disclosed on our internal intranet and are always open to access. We handle trademarks in a similar manner, with "Management Regulations," "Trade Name, Corporate Symbol and Brand Management Regulations," and "Trademark Management Standards" in place and disclosed company-wide.

Regarding patents, we have the "Patent Committee" in all sectors to thoroughly discuss patent-related issues. Members from the Intellectual Property Department and the Toray Intellectual Property Center, as well as departments related to R&D, technology and sales of each sector take part in this committee to carry out the Toray's collaborative strategies of intellectual property, research and technology development, and business operations. The committee determines patent policies including theme selection, application and examination request for patents, what rights to keep holding or abandon, and deliberates on other issues of critical importance such as defensive matters and utilization of the company's rights.

Toray adopted a system of special incentives or bonuses many years ago to reward invention and innovation. This system includes fixed compensation upon application and acquisition of a patent (including overseas applications) as well as variable bonuses compensating for profit and licensing revenues a patent brings to the company. But as of April 1, 2005, we have completely renewed this system to comply with the new revised Patent Law (enacted the same day) and related trends of court decisions. We now have new standards for the assessment process as well as new incentive criteria, including limitless incentive payments and reinforcement of the incentive system in case of cross-licensing. Through these changes, we are highlighting the incentives, which we hope will result in an outburst of creative invention and innovation that will improve Toray's competitiveness.

Management of Classified Information and Prevention of Technology Leakage

Toray has "Classified Information Management Standards" for classified information and technological details in paper documents, and "Security Standards for Electronic Information" for critical information stored in PCs to ensure secure information management within our offices. We also conduct occasional internal audits to prevent any management violations or security breaches.

Brand Strategy

Toray Group's most valued corporate brand, "**TORAY**" is a registered trademark for Toray's key businesses in over 150 countries around the world, and Toray owns exclusive rights to the use of this brand name. The company manual states specific rules on how to handle the corporate brand as the symbol of Toray's corporate philosophy and corporate identity. Toray conducts thorough training in all the businesses throughout the Group and is determined to take severe action against violations, such as selling of copied products by a third party, in order to ensure and maintain a certain brand image around the world.

Toray Group has registered a new brand name, "**TOREX**" for its high-quality products and services in the advanced materials businesses, and has already started brand appeal in the fibers and textiles industry of Japan and China. We are considering the deployment of this brand name to other business fields to position it as a global product brand, providing new value not only to customers of business-to-business transactions but to our end-consumer, as well.

Furthermore, the Group uses an encompassing brand — "**ecodream**" as its symbol for promoting overall recycling activities in the fibers & textiles, and plastics businesses to publicize the company's philosophy of contributing to environmental preservation and the creation of a recycling-oriented society.

7 Contributing of Licensing-related Activities to Businesses

Toray Group promotes the ownership and utilization of Intellectual Property Rights to differentiate Toray's products and services from our competition and to achieve competitive advantages in market. But at the same time, we consider cross-licensing to be an important strategy to ensure continuing deployment and expansion of our businesses. In 2002, we established the Licensing Committee to further promote licensing activities of non-exercisable and exercisable rights within the Group in an effort to improve the Group's overall profitability.

As stated above, revenue from licensing is not considered the best means of profit-making, but the balance of royalty payments has been a profitable operation for many years.

8 Contribution of Patents to Businesses

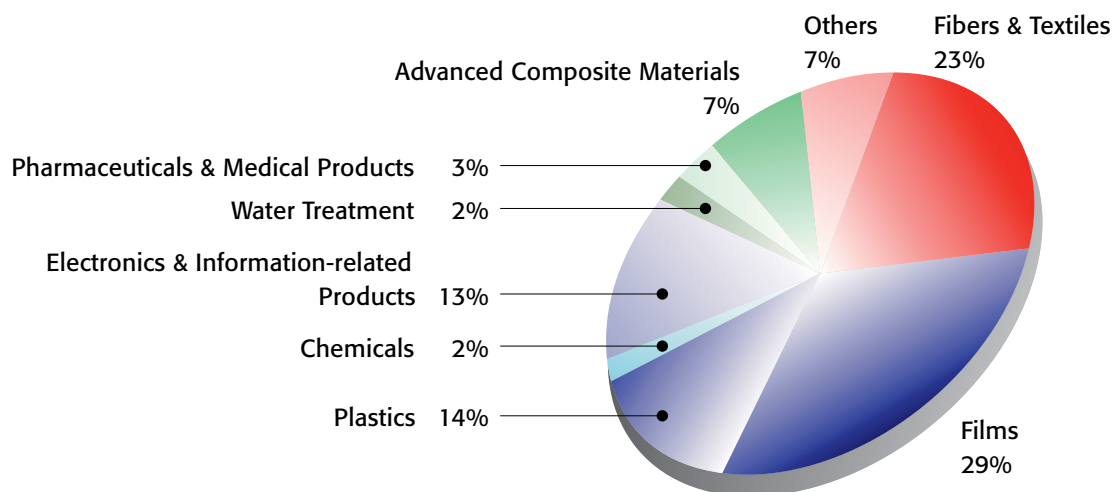
1 Domestic Patent Acquisitions

(total of Toray Industries, Inc. and Toray Engineering Co., Ltd. as of end of March 2005)

Toray Group aggressively promotes prosecution of patents in prospective business fields such as advanced materials and plans to continue supporting this policy. In recent years, there has been a heightened focus on the shift from quantity to quality, resulting in an even more thorough consideration process of cost and efficiency when applying for a patent, requesting assessment, or deciding to retain or release a right.

At the end of March 2005, the number of domestically acquired patents was 3,235, with 1,225 patents (40%) are already practiced, 1,201 (37%) expected to be practiced in the future, and 745 patents (23%) being defensive patents and others. Below is a chart of the R&D segment.

Number of Domestic Patent Acquisitions as of end of March 2005



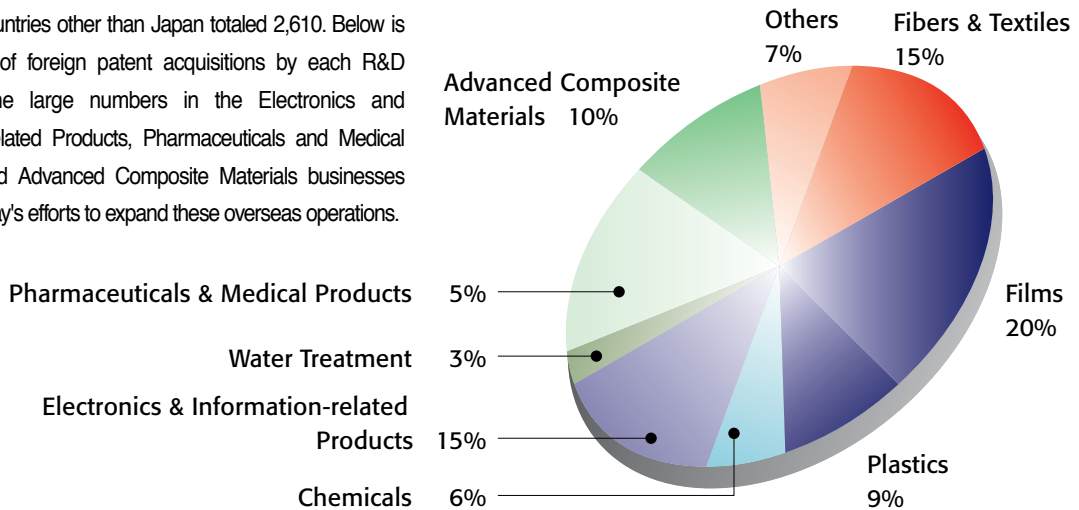
R&D Segment	Fibers & Textiles	Films	Plastics	Chemicals	Electronics & Information-related Products	Water Treatment	Pharmaceuticals & Medical Products	Advanced Composite Materials	Others	Total
Number of Domestic Patent Acquisitions	752	912	449	62	410	80	106	235	229	3,235

2 Foreign Patent Acquisitions

(total of Toray Industries, Inc. and Toray Engineering Co., Ltd. as of end of March 2005)

At the end of March 2005, the number of acquired patents in countries other than Japan totaled 2,610. Below is the number of foreign patent acquisitions by each R&D segment. The large numbers in the Electronics and Information-related Products, Pharmaceuticals and Medical Products, and Advanced Composite Materials businesses underline Toray's efforts to expand these overseas operations.

Number of Foreign Patent Acquisitions as of end of March 2005



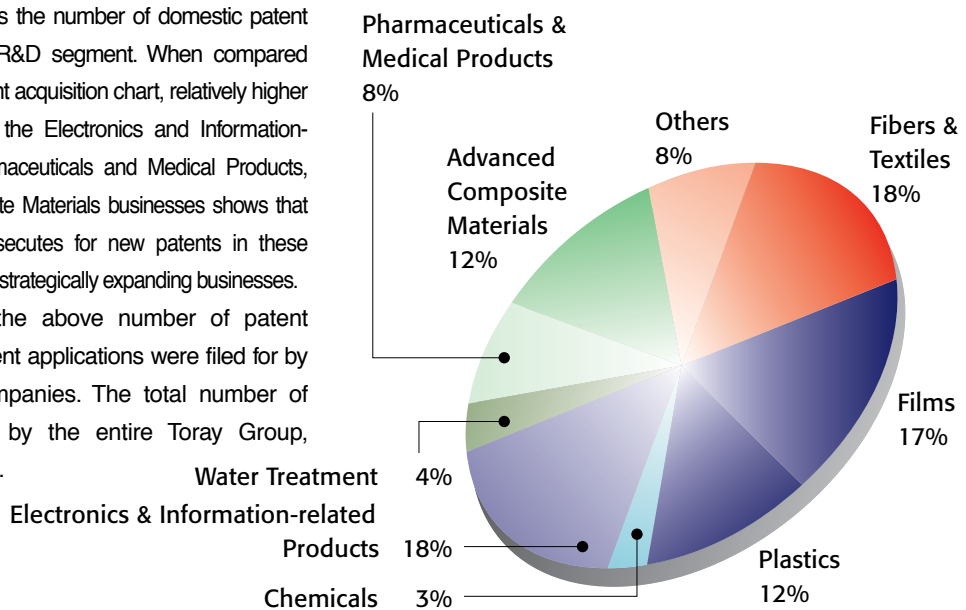
R&D Segment	Fibers & Textiles	Films	Plastics	Chemicals	Electronics & Information-related Products	Water Treatment	Pharmaceuticals & Medical Products	Advanced Composite Materials	Others	Total
Number of Foreign Patent Acquisitions	392	509	227	167	403	70	383	271	188	2,610

3 Japanese Patent Applications

In fiscal year to March 2005, Toray and Toray Engineering filed for 1,470 Japanese patent applications. The chart below shows the number of domestic patent applications by each R&D segment. When compared with the Japanese patent acquisition chart, relatively higher rate of applications in the Electronics and Information-related Products, Pharmaceuticals and Medical Products, and Advanced Composite Materials businesses shows that Toray aggressively prosecutes for new patents in these businesses, Toray put as strategically expanding businesses.

In addition to the above number of patent applications, 185 patent applications were filed for by Toray's affiliated companies. The total number of patents applied for by the entire Toray Group, therefore, totals 1,655.

Number of Japanese Patent Applications in FY 2004



R&D Segment	Fibers & Textiles	Films	Plastics	Chemicals	Electronics & Information-related Products	Water Treatment	Pharmaceuticals & Medical Products	Advanced Composite Materials	Others	Total
Number of Domestic Patent Applications	272	258	171	46	261	63	112	176	111	1,470

Policies for Intellectual Property Portfolio

Toray Group manages its Intellectual Property portfolio based on each technical field and product. Technologies and products of special interest are ranked as Rank-A Projects and the research activities are vigorously supported. Collecting information on technologies and patents of our competitors to build a patent network along with making a patent map, strategies to obtain the patents rights, and exercising those rights are included in such activities.

Information on Risk Management

As a defensive action for our Intellectual Property portfolio, we regularly conduct patent watches of our competitors in each technical field, and check on our competitor's patent list at least once before introducing a new product into the market. If a competitor has a patent that interferes with our business, we plan and execute countermeasures to eliminate obstacles.

Currently, there is no report of any major intellectual property-related lawsuit with a magnitude to affect the management of Toray Group.

Final Notes

The plans, prospects and strategies referred to in this report are merely assumptions based on currently available information. They are likely to change if and when the operational environment of our company changes, a technical innovation takes place or the conditions surrounding intellectual properties alter.

* is a registered trademark of Toray Industries, Inc. and Toray Group.

Date of Issue: September, 2005

Contact us at: Toray Industries, Inc.

Investor Relations Department

1-1 Nihonbashi-Muromachi 2-chome,
Chuo-ku Tokyo, Japan 〒103-8666

Phone: +81-3-3245-5113

F A X : +81-3-3245-5459