Introduction

Toray Group’s business environment is rapidly evolving, reflecting such factors as dramatic advances in the information and telecommunications industries, the rise of China and other emerging economies along with intensifying global competition, soaring prices for oil and petrochemical raw materials and greater awareness of fulfilling corporate social responsibilities such as addressing environmental issues. To achieve sustainable growth in adapting to the changes, Toray Group believes it must undertake fundamental reforms of its business structure by focusing on dynamic technological innovation while making unceasing efforts to strengthen competitiveness.

In working toward this goal, under the corporate slogan “Innovation by Chemistry,” in April 2006 Toray Group formulated the “AP-Innovation TORAY 21” long-term corporate vision. In keeping with this vision, Toray Group is rising to the challenge of innovation not only in technology but also in every aspect of our corporate activities, driven by an aspiration to become a “global top company of advanced materials.”

Subsequently, in October 2006 we commenced “Innovation TORAY 2010 (IT-2010),” a set of concrete mid-term business strategies for realizing our long-term corporate vision. As primary management issues, IT-2010 identifies five innovations: “Innovation of business structure,” “Innovation of technologies,” “Innovation of competitiveness,” “Innovation of business-awareness” and “CSR innovation.” By pursuing these five areas, we aim to dramatically shift the direction of our management toward “Innovation.”

Among these innovations, we regard “Innovation of technologies” as an extremely important issue for Toray Group in our role as a manufacturer. Moreover, the creation of innovative technologies is closely related to intellectual properties, particularly patents. With this in mind, we have designated the strengthening of our intellectual properties as one of the vital themes of the “R&D Capabilities Innovation Project,” and we are taking a proactive approach in this area. Regarding “Innovation of business-awareness,” with increasing awareness that a corporate brand has an impact on corporate image and value, we set up the “Corporate Brand Strengthening Project” to strengthen and maximize the value of our various brands, including the Toray corporate brand, which represents valuable intellectual properties of Toray Group.

In June 2007, we established the Intellectual Property Division as an independent organization under the direct control of the president as part of efforts to build a structure for further bolstering the intellectual property strategies of the entire Toray Group. These measures clearly underscore Group management’s strong emphasis on intellectual property.

Based on the measures for strengthening our structures and the various activities under IT-2010, Toray Group is adopting a trilateral integrated approach that incorporates its business strategies, R&D strategies and intellectual property strategies. Concurrently, while continually working to raise Toray Group’s corporate value, we will strive to realize our corporate philosophy of “Contributing to society through the creation of new values with innovative ideas, technologies and products.”

Product names with an asterisk ( * ) are trademarks of Toray Industries, Inc. or its subsidiaries or affiliated companies.

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Overview of Toray Group

**Corporate Outline (as of March 31, 2008)**

Name: Toray Industries, Inc.

Established: January 1926

Paid-in Capital: ¥96,937 million

No. of Group companies: Parent company and 144 subsidiaries (66 Japanese and 78 overseas subsidiaries)

No. of employees: 38,565 (Group), 7,234 (Parent company)

**Corporate Philosophy**

<table>
<thead>
<tr>
<th>Corporate Philosophy:</th>
<th>Corporate Guiding Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing to society through the creation of new value with innovative ideas, technologies and products</td>
<td>Safety and Environment</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>Ethics and Fairness</td>
</tr>
<tr>
<td></td>
<td>Obtaining the trust of society and meeting the expectations by acting fairly while maintaining high ethical standards and a strong sense of responsibility and maintaining transparency in management</td>
</tr>
<tr>
<td></td>
<td>Customer Focus</td>
</tr>
<tr>
<td></td>
<td>Providing customers with new values and solutions, and achieving sustainable growth together</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
</tr>
<tr>
<td></td>
<td>Achieving continuous innovation in all corporate activities, and aiming for dynamic evolution and growth</td>
</tr>
<tr>
<td></td>
<td>Fieldwork and Initiative</td>
</tr>
<tr>
<td></td>
<td>Strengthening fieldwork abilities and initiative, the foundations of our corporate activities, through consistent learning from one another and constant self-driven efforts</td>
</tr>
<tr>
<td></td>
<td>Global Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Pursuing competitiveness through global top quality standards and cost management, and achieving growth and expansion in the global marketplace</td>
</tr>
<tr>
<td></td>
<td>Global Coalition</td>
</tr>
<tr>
<td></td>
<td>Developing global coalition through integrated internal linkages and strategic alliances with external parties</td>
</tr>
<tr>
<td></td>
<td>Emphasis on Human Resources</td>
</tr>
<tr>
<td></td>
<td>Providing an environment where employees find value in their work, and building positive, energetic relationships between people and the organization</td>
</tr>
</tbody>
</table>

**Main Businesses**

**Fibers & Textiles**

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

**Plastics & Chemicals**

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

**IT-related Products**

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

**Carbon Fiber Composite Materials**

Carbon fiber, carbon fiber composite materials and their molded products

**Environment & Engineering**

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

**Life Science & Other Businesses**

Pharmaceuticals; medical products; analysis, physical evaluation and research services, etc.

**Net Sales**

(Billions of yen)

<table>
<thead>
<tr>
<th></th>
<th>FY Mar/04</th>
<th>FY Mar/05</th>
<th>FY Mar/06</th>
<th>FY Mar/07</th>
<th>FY Mar/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibers &amp; Textiles</td>
<td>1,088.5</td>
<td>1,298.6</td>
<td>1,427.5</td>
<td>1,546.5</td>
<td>1,649.7</td>
</tr>
<tr>
<td>Plastics &amp; Chemicals</td>
<td>811.1</td>
<td>831.0</td>
<td>1,024</td>
<td>1,024</td>
<td>1,024</td>
</tr>
<tr>
<td>IT-related Products</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
</tr>
<tr>
<td>Life Science &amp; Other Businesses</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
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</tbody>
</table>

**Operating Income**

(Billions of yen)

<table>
<thead>
<tr>
<th></th>
<th>FY Mar/04</th>
<th>FY Mar/05</th>
<th>FY Mar/06</th>
<th>FY Mar/07</th>
<th>FY Mar/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibers &amp; Textiles</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
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<tr>
<td>Plastics &amp; Chemicals</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
</tr>
<tr>
<td>IT-related Products</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
</tr>
<tr>
<td>Life Science &amp; Other Businesses</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
</tr>
<tr>
<td>Carbon Fiber Composite Materials</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
</tr>
<tr>
<td>Environment &amp; Engineering</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
<td>56.1</td>
</tr>
</tbody>
</table>
Core Technologies and Business Models

1. Core Technologies

Since its foundation, Toray has cultivated “polymer chemistry,” “organic synthetic chemistry” and “biotechnology” as core technologies. While developing these technologies, we have constantly expanded our businesses from fibers and textiles to films, chemicals and plastics. We have also developed businesses in the fields of electronics & information materials, carbon fiber composite materials, pharmaceuticals, medical products and water treatment. With the more recent addition of nanotechnology to our portfolio of core technologies, we are developing a variety of advanced materials used mainly in four major growing business fields: Information, Telecommunications and Electronics; Automobiles and Aircraft; Life Science; and Environment, Water-related and Energy.

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

Toray Technologies and Businesses
Business Models

April 2006 marked the 80th anniversary of Toray Group’s founding. On this occasion, we formulated a new long-term corporate vision called “AP (Action Program)-Innovation TORAY 21.” Envisioning the ideal image of Toray Group to be realized in 10 years, “AP-Innovation TORAY 21” calls for making unceasing efforts to strengthen competitiveness while rising to the challenge of “Innovation,” not just in technology but also in every aspect of our corporate activities, and to attain dynamic progress and sustainable growth. The corporate vision also encapsulates our fervent aspiration to be a global top company of advanced materials under the corporate slogan of “Innovation by Chemistry.”

To help realize this long-term corporate vision, in October 2006 Toray commenced its new mid-term business strategies called “Project Innovation TORAY 2010 (IT-2010).”

One main basic strategy of IT-2010 is “transformation to a highly profitable business group.” We aim to drive profit growth through “Strategically Expanding Businesses” such as IT-related Products and Carbon Fiber Composite Materials. Meanwhile, we will maintain earnings stability in our “Foundation Businesses” of Fibers & Textiles and Plastics & Chemicals. In parallel, we will nurture our “Strategically Developing Businesses” such as Life Science and water treatment, as we advance our business structure reforms.

The second basic strategy of IT-2010 is to expand our advanced material businesses across “four major growing business fields”: 1) Information, Telecommunications and Electronics; 2) Automobiles and Aircraft; 3) Life Science; and 4) Environment, Water-related and Energy. In these major fields, we will expand business, mainly for advanced materials, by developing advanced materials and accelerating cross-organizational initiatives to provide optimal solutions to our customers.

Four Major Growing Business Fields Targeted by Toray Group

| Information, Telecommunications and Electronics | > Expand business targeting the rapidly growing market for digital network-related products, including flat panel displays, cellular phones and personal computers  
> Develop and expand sales of innovative products through vertically integrated alliances with customers  
> Strengthen competitiveness by integrating various operations from plastic resins and films materials to components in a seamless manner |
| Automobiles and Aircraft | > Develop new products in response to the growing hybrid car and car electronics markets  
> Increase applications of carbon fiber composite materials and engineering plastics by taking advantage of expanding their functionality  
> Actively boost capital investment to meet growing demand for carbon fiber composite materials |
| Life Science | > Commercialize new drugs currently under development and broaden the new drug pipeline  
> Develop and commercialize high value-added medical devices  
> Create innovative bio-tools through the integration of biotechnology and nanotechnology |
| Environment, Water-related and Energy | > Develop applications for fibers & textiles, plastic resins and films made from non-petrochemical materials such as poly-lactic acid  
> Globally expand water treatment business, centering on high-performance separation membranes  
> Develop materials for next-generation energy sources, including solar cells, fuel cells and wind-power generation |
As a key issue under these basic strategies, IT-2010 sets five innovations: “Innovation of business structure,” “Innovation of technologies,” “Innovation of competitiveness,” “Innovation of business-awareness” and “CSR innovation.” To promote these innovations, we are implementing eight projects across the Group.

Regarding “Innovation of business structure,” Toray will undertake fundamental reforms of the Group’s business structure with the aim of transforming itself into a highly profitable business group. To realize this objective, we are implementing two projects. The first is the “Business Structure Innovation Project” aimed at transforming the business portfolio; creating and expanding high-profit, high-growth potential businesses; strategically allocating management resources; and taking appropriate steps in low-growth, low-profit businesses. The second project is the “Overseas Business Strengthening Project,” which aims at expanding and strengthening the profitability of overseas businesses.

“Innovation of technologies” serves as the driving force for promoting innovation of our business structure. In this area, we are undertaking three business projects. The first is the “Advanced Materials Business Expansion Project,” through which we are striving for business expansion in the previously mentioned four major growing business fields and working toward the rapid commercialization of new advanced materials. The second is the “R&D Capabilities Innovation Project,” which focuses on greater prioritization of R&D themes, creation of large-scale themes for the next generation and fortifying our research and technology foundation. The third is the “Manufacturing Technology Innovation Project,” which aims to realize the world’s best-in-class product quality and cost competitiveness by building strong manufacturing site capabilities and technology development capabilities.

“Innovation of competitiveness” focuses on further strengthening our corporate structure in all facets of production and marketing and sales. To attain this goal, we are implementing two projects. The first is the “Cost Innovation Project,” which focuses on such priority cost reduction measures as reviewing the manufacturing structure in existing businesses and achieving an appropriate level of fixed costs, while striving to reduce variable costs via groupwide initiatives such as expanding multiple sources and joint purchases, and fostering new suppliers. The project also aims to raise capital expenditure efficiency by improving equipment cost productivity and expanding overseas procurement. The second project is the “Marketing and Sales Innovation Project,” which calls for thorough customer-oriented and proposal-based marketing, emphasis on fundamentals of marketing and sales, and thorough flexible yet robust posture regarding profits.

“Innovation of business-awareness” aims to further solidify the trust we have earned from stakeholders while raising the loyalty and spirit of employees. For this innovation, we are undertaking the “Corporate Brand Strengthening Project,” through which we are raising the level of corporate communications with stakeholders both qualitatively and quantitatively as well as raising brand awareness among employees, as we strive to maximize the value of the TORAY brand.

“CSR innovation” involves further promoting CSR initiatives. In doing so, we are strengthening our CSR line activities across the entire Toray Group, ensure security trade administration and started operation of a new internal control system for financial reporting.

### Five Innovations and Eight Projects

<table>
<thead>
<tr>
<th>Five Innovations</th>
<th>Eight Projects</th>
<th>Key Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Innovation of business structure</td>
<td>1) Business Structure Innovation Project</td>
<td>Transformation to a highly profitable group by innovative business portfolio change</td>
</tr>
<tr>
<td>2 Innovation of technologies</td>
<td>2) Overseas Business Strengthening Project</td>
<td>Enhancement of overseas business profitability and expansion of its business</td>
</tr>
<tr>
<td>3 Innovation of competitiveness</td>
<td>3) Advanced Material Businesses Expansion Project</td>
<td>Rapid commercialization of new advanced materials</td>
</tr>
<tr>
<td>4 Innovation of business-awareness</td>
<td>4) R&amp;D Capabilities Innovation Project</td>
<td>Continuous generation of large-scale R&amp;D themes</td>
</tr>
<tr>
<td>5 CSR innovation</td>
<td>5) Manufacturing Technology Innovation Project</td>
<td>Generation of world-leading quality with the lowest costs in the world</td>
</tr>
<tr>
<td>6 Cost Innovation Project</td>
<td>6) Cost Innovation Project</td>
<td>Cost reduction for intensified profitability</td>
</tr>
<tr>
<td>7 Marketing and Sales Innovation Project</td>
<td>7) Marketing and Sales Innovation Project</td>
<td>Thorough implementation of customer-oriented, proactive marketing and sales</td>
</tr>
<tr>
<td>8 Corporate Brand Strengthening Project</td>
<td>8) Corporate Brand Strengthening Project</td>
<td>Increase the value of the corporate brand</td>
</tr>
<tr>
<td>Promoting CSR line activities, strengthening security trade administration and establishing and operating internal control systems</td>
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</tbody>
</table>
R&D Segments and Directions of Business Strategies

1 R&D Segments

The research and development activities of Toray Group are divided into seven segments, one for each business domain. They are: Fibers & Textiles; Resins & Chemicals; Films; Electronics & Information Related Products; Carbon Fiber Composite Materials; Life Science (pharmaceuticals and medical products); and Water Treatment. The “Business Categories, R&D Segments, and Business Segments” chart shows the relationship between business categories and R&D/business segments.

Relationship between Business Categories and R&D/Business Segments

<table>
<thead>
<tr>
<th>Business Categories</th>
<th>R&amp;D Segments</th>
<th>Business Segments</th>
<th>Basic Materials</th>
<th>Advanced Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Businesses</td>
<td>Fibers &amp; Textiles</td>
<td>Fibers &amp; Textiles</td>
<td>Synthetic Fibers Chemical Materials Films</td>
<td>High Function Fibers &amp; Textiles</td>
</tr>
<tr>
<td></td>
<td>Films</td>
<td>Plastics &amp; Chemicals</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>High Function Resins Functional Particles</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>High Density Recording Materials</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>High Function Films</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Display Materials</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Semiconductor-related Materials</td>
</tr>
<tr>
<td>Strategically Expanding Business</td>
<td>Electronics &amp; Information Related Products</td>
<td>IT-related Products</td>
<td></td>
<td>Carbon Fiber Composite Materials</td>
</tr>
<tr>
<td></td>
<td>Carbon Fiber Composite Materials</td>
<td>Carbon Fiber Composite Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategically Developing Business</td>
<td>Life Science</td>
<td>Life Science</td>
<td>Pharmacological and Medical Devices Bio-tools</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water Treatment</td>
<td>Environment (water treatment)</td>
<td>High Function Separation Membranes, etc.</td>
<td></td>
</tr>
<tr>
<td>Foundation Businesses</td>
<td>Others</td>
<td>Engineering, Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Basic Strategies by Business Category

Toray Group divides its business operations into three categories—Foundation Businesses, Strategically Expanding Businesses and Strategically Developing Businesses—and has set clear basic strategies for each category.

In the Fibers & Textiles and Plastics & Chemicals segments, positioned as Foundation Businesses, we are targeting global expansion, pioneering of new products and new distribution channels as “New Value Creator,” and the promotion of downstream and processing business development to establish a stable earnings foundation. Through the expansion of advanced materials within these Foundation Businesses, meanwhile, we will strive to make these businesses advanced.

The IT-related Products and Carbon Fiber Composite Materials segments, positioned as Strategically Expanding Businesses, are projected to chart major growth over the years to come. Our goal in these areas is to become more responsive to growing markets, such as information, telecommunications and electronics, automobiles and aircraft. We will prioritize the allocation of management resources to achieve dynamic expansion in these businesses, which we regard as drivers of earnings.

Positioned as Strategically Developing Businesses are the Life Science (including pharmaceuticals, medical products and bio-tools) and Environment (centering on water treatment) segments. In our quest to transform these businesses into the next pillar of earnings expansion from 2010—the middle stage of our long-term corporate vision, “AP Innovation TORAY 21”—we will strategically develop and expand such businesses with prioritized allocation of management resources as well as corporate M&As and business alliances.

Overview of Business Categories

- **Foundation Businesses**
  - Fibers & Textiles, Plastics & Chemicals
    - ① Global business development
    - ② New Value Creator promotion
    - ③ Downstream, processing business development
    - ④ Advanced Materials expansion
    - Establish stable earnings base
    - Promote advancement of Foundation Businesses

- **Strategically Expanding Businesses**
  - IT-related Products, Carbon Fiber Composite Materials
    - ① Priority responses to growth markets (information and telecommunications, automobiles, aircraft)
    - ② Priority infusion of management resources
    - Aggressive expansion as earnings driving businesses

- **Strategically Developing Businesses**
  - Life Science, Environment (water treatment)
    - To create the next pillar of earnings expansion from year 2010:
      - ① Prioritized allocation of management resources
      - ② M&A and business alliances
    - Strategic development and expansion
Over the years, Toray has continued to create a variety of advanced materials through utilizing the following strengths.

1. History and culture of creating innovative technologies (emphasis on basic research)
2. Numerous specialist organizations
3. Non-segmented R&D organization (integrated operation of the Technology Center)
4. Technological integration through industry-government-academia joint research
5. Advanced analytical capabilities (strong links to Toray Research Center)

To accelerate the R&D process, we select research themes judged to have the greatest impact on future business from the many available themes. The selected themes, which we call top priority “APEX 40” themes, are targeted for pivotal allocation of management resources.

APEX 40 and Commercialization Processes

APEX 40
Strategic allocation of management resources to 40 top priority themes
APEX Challenge
Particularly difficult and challenging themes

Increase themes reaching the next stage

Commercialization Examination Stage
Advanced Materials Project
Divisions/Departments
Technical Departments, Manufacturing Departments

Strengthen intellectual property capabilities

Toray’s Global Research Bases

Toray has set up research bases in various regions and aims to build a globally focused research structure that incorporates basic research.

With regard to new major themes that have advanced from the R&D stage to the technology development stage, we assign dedicated leaders to coordinate all divisions, from research and technology to production and sales, from the initial stages of development. Under this format, we have set up “Advanced Materials Projects” with the goal of achieving early product launches within two years. Our goal is to speedily link the achievements of research and technology to the successful commercialization of specific themes.

Toray carries out wide-ranging business activities overseas and therefore operates technology development bases in many regions worldwide. In addition to the technology development functions of these bases, Toray will progress with the building of global research bases to strengthen collaboration with leading users and cutting-edge research facilities worldwide and utilize excellent human resources around the world in basic research fields.
4 R&D Investment Strategies

In FY Mar/08, Toray Group’s R&D expenses amounted to ¥45.8 billion, equal to 4.3% of net sales (excluding sales by trading subsidiaries). R&D expenses by each business segment as a percentage of total R&D expenses are shown in the pie chart below. In our IT-2010 mid-term business strategies, we have outlined a plan to spend a total of ¥240 billion on R&D over the five-year period from FY Mar/08 through FY Mar/11. We will allocate 80% of that total to the research and development of advanced materials. Of Toray Group’s 3,000 employees engaged in R&D, we will assign around two-thirds to work in advanced materials.

FY Mar/08 R&D Expenses by Business Segment

R&D Expenditures (Past Three Years)

R&D Investment Strategy under IT-2010

¥240.0 billion over five years

Intensive allocation for R&D in advanced materials

Core Technologies
- Organic Synthetic Chemistry
- Polymer Chemistry
- Biotechnology
- Nanotechnology

Advanced Materials
- Nano-tech New Materials
- Innovative Display Materials
- Innovative Materials for Automobiles / Aircraft
- Drug Discovery Advanced Bio-tools
- Low-environmental-impact Materials
- New Energy-related Materials etc.

Four Major Growing Business Fields
- Information / Telecommunications / Electronics
- Automobiles / Aircraft
- Life Science
- Environment / Water-related / Energy
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 thinking, we believe that any intellectual property strategies cannot exist in isolation from business strategies and R&D strategies and that all three strategies must therefore be mutually and organically integrated. Therefore, Toray has designated its intellectual property strategies as one of the most important elements of its management strategies.

(2) Promoting the procurement of rights

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

(3) Respecting the rights of others

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

(4) Rightful enforcement of our own rights

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

2 Reinforcing Patent Applications and Rights 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. This is particularly true of the Strategically Expanding Businesses and Strategically Developing Businesses, positioned as drivers of mid-term and long-term earnings growth, with vigorous patent applications filed both in Japan and overseas.

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

At present, we are enhancing patent applications and procurement of important patents in advanced materials expected to expand in the four major growing business fields: Information, Telecommunications and Electronics; Automobiles and Aircraft; Life Science; and Environment, Water-related and Energy. We consider this strategy instrumental in supporting our growing business fields over the years to come.

To firmly protect each business of Toray Group, which carries out its business globally, we notably strengthened our patent applications in overseas countries from FY Mar/07.
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 Project” categories are currently in force.

1. “Rank-A Patent Procurement Projects,” with the objective of establishing patent portfolios for new technologies and related peripheral technologies through applications and procurement of patents;
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3. “Rank-A Rights Enforcement Projects,” structured to cope with infringement of Toray patents by other companies through proper enforcement of Toray’s rights, efforts to curb such infringement by other companies, and to obtain rightful compensation for practice of Toray’s patented invention 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.

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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.

1. Increasing incentives for inventions

For invention incentives, Toray has long maintained a compensation system for employee inventions ingenuity. This system includes fixed-sum compensations at the time of patent application and registration (including overseas patents in both cases) and performance compensations based on profits through the use of patent inventions and license fees. However, in order to effectively address the amended Patent Law and recent trends in court rulings, we revamped these internal rules with a focus on assessment procedures and removal of the cap amount of compensations. The revised rules, which were enacted on April 1, 2005, have raised the amount of compensations for inventions from the previous levels, and are expected to promote outstanding inventions so that Toray’s competitive strength over the years to come will be raised.

In FY Mar/07, we established an award system for not only inventors, but also others in Toray who make a valuable contribution to patent-related activities. We hope that our multifaceted system of incentives will lead to further vitalization of activities related to intellectual properties. This same type of system has also been established at numerous affiliated companies.

2. Improving the quality of patents

With a view toward the strict judgments rendered by courts and the Patent Office concerning inventive steps and quality of disclosure of patent specifications, Toray believes that high-quality patents should have both patentability that can stand up to such judgments and easiness of enforcement at the same time. Accordingly, Toray provides various tools to facilitate improvements in the quality of patents. They include conducting thorough prior art searches before filing patent applications and providing opportunities that enable inventors to communicate with patent practitioners in preparation for new patent applications. For example, the prior art searches are undertaken by patent searchers assigned to technical departments charged with the primary role of patent searches.

3. Enhancing 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 marketing & sales and technical departments. The efficacy of this patent education is tested annually when researchers and engineers take a Patent Operational Assessment Qualification Test. 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.
5 Brand Strategy

“Innovation of business awareness” is defined as a key objective of the Toray Group’s IT-2010 mid-term business strategies. To this end, we promote the “Corporate Brand Strengthening Project.”

This project exercises strict control over all intellectual properties that symbolize Toray Group corporate activities, with the aim of advancing effective corporate brand strategies. Such intellectual properties include corporate brands, indicating the reasons for the company’s existence and originalities, such as the “Toray Industries, Inc.” company name, as well as the corporate symbol, “TORAY”, “Toray” used as trademarks, and the corporate domain names e.g. “toray.co.jp” and “toray.com.”

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

1. Enhance employee brand awareness and employee loyalty.
2. Strengthen and appeal our corporate brand and corporate image externally.
3. Clarify corporate brand targets and coordinate business domain brands and product brands.

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

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

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

Toray Group has obtained and is properly managing some 1,200 patented product brands that are protected by approximately 8,000 trademark rights. In all of our businesses, we actively promote product brand strategies as an important part of strengthening our business foundation.
With “Innovation by Chemistry” as its corporate slogan, Toray Group rises to the challenge of creating innovative new materials and technologies, determined to become a global top ranked business group at the leading edge of industry through its strength in advanced materials.

As evidence of this commitment, Toray has introduced new product lines that have emerged as Foundation Businesses for synthetic fibers, high-performance films, engineering plastics and other products. We have likewise extended product lines that have forged new businesses in carbon fiber composite materials, electronics & information materials, printing materials, water treatment and medical high-performance membranes, fine chemicals, pharmaceuticals and veterinary medicines.

Toray Group will lead advanced industries of the 21st century by developing environmentally friendly new materials, innovative materials used to create new display, circuit and semiconductor technology, advanced materials for bio-tools, innovative pharmaceuticals and medical products, together with supplying solutions in our four major growing business fields (“Information, Telecommunications and Electronics,” “Automobiles and Aircraft,” “Life Science” and “Environment, Water-related and Energy”).

1 Fibers & Textiles

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

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

As a recent achievement in the field, Toray used its proprietary polymer design technologies to develop a conductive polyester polymer that realizes both high deformation response and high conductivity. As the first step in the application of this polymer, we succeeded in creating a new polyester fiber with outstanding conductivity that reaches the 10Ω/cm level of surface resistance, the world’s highest level attained by any such synthetic fiber. While retaining the excellent inherent features of polyester fibers such as flexibility and flexural recovery properties, this fiber developed by Toray can be used in a wide range of applications that include industrial uses, previously considered difficult to be used, such as antistatic tapes, high-level clean room suits and process materials used in high-level clean rooms.

In this field, Toray is also making use of its NanoMATRIX* technologies. By orderly sequencing and attaching photocatalytic particles, antibacterial agents, and functional antistatic resins onto individual monofilaments, we have created a new deodorizing material that combines a host of functions. Specifically, this material can decompose soiling using a photocatalyst, remove body odor and prevent perspiration odor by using antibacterial agents and eliminate static electricity. This material was used in the clothing worn by astronaut Takao Doi inside the Space Shuttle during a mission for transporting the Japanese Experiment Module known as Kibo, which will be attached to the International Space Station. This material was also used in the development of Mushon*, a spinoff new material with applications in regular clothing.

2 Resins & Chemicals

In plastic resins, Toray has exploited advances in polymerization and molecular designs, polymer alloy composites, molding processing and other fundamental technologies to achieve excellent performance and function in ABS (acrylonitrile-butadiene-styrene) resin and nylon, polybutylene-terephthalate, polyphenylene sulfide, liquid-crystalline polymer and other engineering plastics. This is paving the way for the use of such plastics in information and telecommunication devices, as well as automobile parts.

As a recent achievement in the field, we succeeded in the world’s first stable creation of an ABS resin/polycarbonate (PC) resin three-dimensional co-continuous structure. This structure was created using a “self-organizing nano-alloy,” an advanced proprietary nano-alloy technology that uses nano-order to optimally combine (alloy) two or more resins. This technology simultaneously realizes all of the outstanding properties of each resin, including the moldability and decorative qualities of ABS resins, in addition to the impact resistance and heat resistance of PC resins. The development of this technology dramatically enhances functions such as chemical resistance, previously considered a weakness of ABS/PC alloy resins, while helping overcome other deficiencies of PC resins such as wet heat resistance and impact resistance for thick molded products.

Performance Comparison of Developed Nano-alloy Material and Conventional Alloy (ABS/PC alloy resin)
Analysis of the Marketability and Competitive Advantages of Technologies

3 Films

In films, Toray was the first in Japan to commercialize biaxially oriented polyester film and has been leading the world in the field of high-performance and high-function films by advancing the technologies of the polyester film together with biaxially oriented polypropylene and aramid films. We are also the global pioneer in the development and commercialization of biaxially oriented polyphenylene sulfide and aramid films. To date, we have utilized our original film thickness control technology; special stretching technology; surface forming technology backed by film laminating methods; coating, cleaning and static electricity control technologies; and nano-alloy 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 in this field, Toray created a basic technology for single-step forming of optical interconnection film for optical transmission systems based on film-forming technologies that enable precise lamination of polymers at nano-levels. The application of this technology creates the potential for low-cost film-forming compared with conventional polymer-based interconnection film forming processes. Given these advantages, this technology is expected to serve as a new fundamental technology for the production of polymer-based interconnection films. Toray will strive to commercialize this technology and is continuing with related development.

Toray has also developed a reflective film for LCDs that boasts the world’s highest-level reflective performance. The creation of an innovative technology that realizes a dramatic rise in reflective performance is driving expectations that this reflective film will enable higher image quality of LCDs and lower power consumption compared with previously used products.

This technology earned the 54th (FY Mar/08) Okochi Memorial Production Prize presented by the Okochi Memorial Foundation.

4 Electronics & Information Related Products

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

As a recent achievement, Toray used its proprietary organic/inorganic nano-hybrid technologies to successfully develop a new athermal polymer optical interconnect material. The material is notable for extremely small fluctuations in optical path length that are caused by temperature changes and enables forming of an optical interconnect on conventional printed circuit boards. It is expected to realize low-cost photoelectrical circuit boards (circuit boards that combine both optical interconnections and electrical wiring). In the future, we will accelerate development as we aim for commercialization.

Organic EL displays possess various features, including self-emission with superior visibility, suitability for slim products and excellent high-speed responses, and are attracting widespread attention as a next-generation flat panel display. Toray has already succeeded in developing red light emitting layers with low driving voltage and high efficiency as well as electron transport layers. We have been mass-producing these materials commercially and a number of panel manufacturers are using them in their products.

Recently, the combining of Toray’s proprietary molecular design technology and nano-dispersion technology has enabled the maximum use of the electrical energy from electrodes, resulting in the successful development of blue light emitting materials. These materials boast the world’s best light emitting performances, with luminescent efficiency of 6 cd/A (candela/ampere) and color purity of (CIE(x,y) = (0.14,0.10)).
## 5 Carbon Fiber Composite Materials

Toray Group is the world’s largest manufacturer of carbon fibers and supplies carbon fibers and woven fabrics, intermediate materials such as prepregs and molding technologies of carbon fiber composite materials. Here, we target applications in the aircraft, sports, civil engineering and construction, automobile, electronics and information devices and energy industries.

Carbon fiber composite materials (carbon fiber reinforced plastic (CFRP)) recognized as advanced materials, weigh approximately one-fifth that of steel (one-third that of aluminum), yet have five times the tensile strength. Thanks to such advantages, these materials are approaching a period of drastic increases in demand. In the aircraft industry, carbon fiber composite materials have won high acclaim as the best-suited and most-effective material for improving fuel efficiency by realizing lighter weights.

CFRP are being used for more than 50% of the new Boeing 787 passenger jet, including for the wings and fuselage. Additionally, together with Mitsubishi Heavy Industries, Ltd., we are currently carrying out joint development of a new molding technology for CFRP parts for use in the tail assembly on the Mitsubishi Regional Jet (MRJ).

In the automobile industry as well, we are striving to contribute to the realization of lighter vehicle bodies by progressing with technology development focused mainly on using thermoplastic components, which have excellent recyclability, for outer panels, exterior parts and substructural members. To measure CO2 reductions resulting from the use of carbon fiber in automobiles and aircraft, Japan Carbon Fiber Manufacturers Association has made lifecycle assessment (LCA) calculations that span production, usage and disposal. These calculations reveal that although the production of one ton of carbon fiber results in 20 tons of CO2 emissions, when this one ton of carbon fiber is used in vehicles, the lighter weight of the carbon fiber yields a 50-ton reduction in CO2 emissions over a 10-year period, while use in aircraft enables a 1,400 ton reduction of CO2 over the same period. As evidenced by these figures, the use of carbon fibers in vehicles and aircraft is expected to make a significant contribution to reductions in CO2 emissions.

### Reductions in CO2 Per Ton of Carbon Fiber

<table>
<thead>
<tr>
<th>Automobiles</th>
<th>Adoption of CFRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2 emission during production of carbon fiber</td>
<td>20 tons</td>
</tr>
<tr>
<td>Lifecycle CO2 reductions (including production)</td>
<td>-50 tons</td>
</tr>
</tbody>
</table>

<table>
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<th>Aircraft</th>
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</tr>
<tr>
<td>Lifecycle CO2 reductions (including production)</td>
<td>-1,400 tons</td>
</tr>
</tbody>
</table>

## 6 Life Science

In pharmaceuticals, Toray has commercialized the natural interferon-B preparation Feron* (based on biotechnology) and the world’s first oral prostacyclin derivative preparation Dorner* (based on synthesis technology). In medical products, our offerings include Filtryzer* and Toraysulfone* (artificial kidneys with polymer biocompatibility and separation function) and Toraymyxin* (extra-corporeal blood purification column). These unique products are earning high admiration for their quality and performance.

As a recent achievement, Toray and Astellas Pharma Inc. have jointly marketed Careload® LA Tablets 60µg (generic name: beraprost sodium), the world’s first oral prostacyclin (PGI2) derivative prolonged release agent, indicated for pulmonary arterial hypertension (PAH).

Toray has successfully cultivated the hepatitis C virus (HCV) and is progressing with the development of an HCV vaccine using this technology. In experiments using mice, Toray has successfully confirmed for the first time in the world that inactivated HCV particles produced deploying this innovative HCV culture system have the potential for practical use as an HCV vaccine. Toray will continue to progress with R&D in this area to optimize the HCV particles for a vaccine and establish a culture method appropriate for industrial production directed toward quick commercialization of an HCV vaccine.

At the New Frontiers Research Laboratories, we are progressing with research that combines nanotechnologies and biotechnologies and have developed a protein analysis chip that can quickly detect disease-related proteins in minute blood samples. This plastic chip, which is half the size of a business card, performs all steps of protein analysis, including pre-treatment of specimens, separation and analysis that are necessary for detecting disease marker proteins. This card can perform protein analysis within 15 minutes, a task that previously required several hours.
In water treatment, Toray targets scientific and technological solutions to water treatment problems. Responding to today’s highly diversified water treatment needs, we are advancing programs to further expand the depth and breadth of our technologies. Such efforts focus on the outstanding polymeric separation technology perfected by Toray Group. We have deployed our own polymer processing technologies to create innovative selective separation membranes, and offer all four types of membranes, including reverse osmosis (RO) for use in seawater desalination and ultrapure water production, nanofiltration (NF), ultrafiltration (UF) and microfiltration (MF) membranes.

Toray is also actively developing high-efficiency, low-cost water treatment systems, which use these high-performance membranes and incorporate the latest breakthroughs in biotechnology.

In recent years, the market for RO membranes has continued expanding at a rapid annual rate of 10%, mirroring such factors as chronic water shortages worldwide as well as demands for securing water resources in consideration of the environment. In the future as well, this market is expected to continue growing steadily, primarily in the United States, Europe, the Middle East, North Africa and China. In response to market needs, Toray has developed high-performance RO membranes, including the “high boron rejection RO membrane” and a “low-fouling RO membrane.” Toray has secured large-scale orders for such conventional applications as desalination of seawater and brackish water as well as large orders in new markets for applications such as recycling urban wastewater.

<table>
<thead>
<tr>
<th>Size</th>
<th>0.001 µm</th>
<th>0.01 µm</th>
<th>0.1 µm</th>
<th>1 µm</th>
<th>10 µm</th>
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<tbody>
<tr>
<td>Separation Materials</td>
<td>Low, low molecular weight organics</td>
<td>High molecular weight polymers</td>
<td>Colloids</td>
<td>Clay</td>
<td>Cryptosporidium</td>
</tr>
<tr>
<td>Types</td>
<td>RO / NF</td>
<td>MF</td>
<td>UF (Ultrafiltration)</td>
<td>MF (Microfiltration)</td>
<td></td>
</tr>
<tr>
<td>Toray’s Membrane Products</td>
<td>RO membrane</td>
<td>NF membrane</td>
<td>UF membrane</td>
<td>MF membrane</td>
<td>MBR</td>
</tr>
</tbody>
</table>

**Water Resource and Example of Membrane Technology Application**
In 1985, Toray has built a research and technological development organization centering on its Technology Center. The role of the Center is to draft companywide strategies and key projects for research and technological development.

Each laboratory and technology development department conducts R&D keyed to its own business operations. At the same time, they focus on collaborative and combined approaches that cut across divisional borders to promote innovative research and deepen and deploy fundamental technologies, probe solutions for emergency problems and take other pertinent actions.

To speed up all processes, from development to commercialization, we have established “Advanced Materials Projects” within the New Projects Development Division. Under this arrangement, we can clarify which business units should become the recipients of research and technological development outcomes, with dedicated project leaders stepping in to determine the term of the project. We have fully integrated the research, technology, production, and marketing and sales functions in order to expedite the work required to complete and commercialize the plans.

Toray is strengthening its company-wide approach to Automobiles and Aircraft, one of our major growing business fields, and as part of these efforts has established the Automotive Center (AMC) as a technology development base for automobile applications to provide cross-organizational solutions to customers. We will also establish the A & A Center (Automotive & Aircraft Center), a comprehensive technology development base for automobiles and aircraft, which will combine its efforts with the Advanced Composite Center scheduled for opening in 2009. By consolidating our development and production functions in both fields within the Chukyo region, where the automobile and aircraft industries are achieving strong growth, we can fully utilize the advantageous location of our Nagoya Plant, which are in close proximity to our main customers, as well as upgrade and strengthen our development of advanced materials for automobiles and aircraft.

In 2002, we established Toray Fibers & Textiles Research Laboratories (China) Co., Ltd. (TFRC) in Nantong, Jiangsu Province, the first foreign R&D Company focusing on fibers and textiles in China. The activities of TFRC reflect the importance we attach to promoting R&D activities in China, a country with huge human resources and market growth potential. In 2004, we established a research facility in Shanghai to conduct research on water treatment and polymer materials using nanotechnologies, and this facility is making various achievements.

Toray’s intellectual property organization was strengthened in 2007 by the establishment of the Research and Technology Property Division under the direct control of the president. Under the Group’s IT-2010 mid-term business strategies, the new division affirms the importance attached to intellectual property by those both inside and outside the Group. It also ensures even greater links between management strategies and intellectual property strategies.

Based on the policy that future research and technology development expands opportunity through outside R&D cooperation, Toray uses strategic outside partnerships to advance optimum technology mixes. In pursuing innovation in our four major growing business fields, we are promoting a collaborative and integrated approach centered on 1) acquiring advanced technologies from universities and public research institutions; 2) emphasizing strategic collaboration with leading companies; 3) introducing innovative technologies from venture companies; and 4) actively participating in national research projects. True to this conviction, we are promoting dynamic collaboration with outside sources through 150 partnerships and active participation in 35 national projects (as of June 2008).

Toray has developed a highly sensitive DNA chip for detecting contaminant degrading microorganisms. This chip was developed by combining Toray-developed highly sensitive DNA chip technology with information on microorganisms that are effective in soil and groundwater remediation developed jointly by Matsushita Environmental & Air-conditioning Engineering Co., Ltd., Gifu University and the Human Stress Signal Research Center, National Institute of Advanced Industrial Science and Technology.

We have also made achievements in the development of an HCV vaccine by promoting joint research with the National Institute of Infectious Diseases and the Tokyo Metropolitan Institute for Neuroscience, Tokyo Metropolitan Organization for Medical Research (see page 15).

In industry-academia collaboration, we are progressing with research on advanced textile materials together with Toray Synthetic Textile Cluster, an industry group, and have introduced electron beam irradiation equipment at a new textile processing testing facility at the University of Fukui’s open laboratory. This electron beam irradiation equipment provides increased performance and new functions through the use of high-energy electron beams.
1 **Procurement and Management of Intellectual Properties**

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

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

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

2 **Management of Trade Secrets and Prevention of Technology Leakage**

In 2007, Toray established its own Confidential Information Management Regulations, arranging earlier information management systems. We took this step due to the need for measures to enable more strict and systematic information management and to prevent information leakage in response to the growing needs for 1) prevention of unfair competition, 2) protection of personal information, 3) security trade administration and 4) protection of classified information. We took this opportunity to also tighten our management of electronic information, which has become increasingly important to cope with risks in information leaks. These additional measures supplement our existing Electronic Information Security Standards. We also conduct regular internal audits and other measures to ensure the proper management of classified business information and technical information and prevent information leaks. Regular internal audits also permit effective management and prevent leakage of trade secrets. Along with the recent implementation of the Confidential Information Management Regulations, we have rearranged and strengthened details and are working to thoroughly manage and prevent the leakage of trade secrets and technical information.

7 **Contribution of Licensing-related Activities to Businesses**

Toray Group rigorously 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 the continuity and expanding the sphere of our business. To improve overall business profitability, we vigorously promote licensing operations not only for rights on technologies that are not used within the Group but also for those that we do use internally. 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.
Contribution of Patents to Businesses

1 Valid and Enforceable Japanese Patents

Total for Toray Industries, Inc. and 30 Japanese and overseas affiliates at end of March 2008

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 stress on improving the quality patents. This has resulted in a more stringent focus on cost awareness and operational efficiency for determination of whether or not to file patent applications or to file a request for examination for our patent applications as well as when rendering judgments on whether to maintain or abandon existing patent rights. At the end of March 2008, the number of valid and enforceable patents in Japan was 3,469, of which 1,501 (43.3%) were currently used within the Group; 1,447 (41.7%) were scheduled to be used in the future; and 521 (15.0%) 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 End of March 2008**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Patents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibers &amp; Textiles</td>
<td>896</td>
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<tr>
<td>Resins &amp; Chemicals</td>
<td>524</td>
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<tr>
<td>Films</td>
<td>862</td>
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<tr>
<td>Electronics &amp; Information Related Products</td>
<td>507</td>
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<tr>
<td>Carbon Fiber Composite Materials</td>
<td>253</td>
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<tr>
<td>Life Science</td>
<td>103</td>
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<tr>
<td>Water Treatment</td>
<td>102</td>
</tr>
<tr>
<td>Others</td>
<td>222</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,469</td>
</tr>
</tbody>
</table>

2 Valid and Enforceable Foreign Patents

Total for Toray Industries, Inc. and 30 Japanese and overseas affiliates at end of March 2008

At the end of March 2008, the number of our valid and enforceable patents in countries other than Japan was 3,798, with the following chart breaking down these patents by specific R&D segment. The large proportion of foreign patents for 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 End of March 2008**

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<td>Others</td>
<td>146</td>
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<tr>
<td><strong>Total</strong></td>
<td>3,798</td>
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</table>

3 Japanese Patent Applications

During FY Mar/08, the number of applications for Japanese patents filed by Toray Industries, Inc. and 30 Japanese and overseas affiliates was 2,059, with the following chart breaking down these applications by R&D segment. The relatively large proportion of patent applications in Electronics & Information Related Products, Carbon Fiber Composite Materials, Life Science and water treatment compared with that of the patents owned in those areas reflects Toray Group’s policy of actively applying for new patents in its Strategically Expanding Businesses and Strategically Developing Businesses.

**Number of Japanese Patent Applications FY Mar/ 08**

<table>
<thead>
<tr>
<th>Segment</th>
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<tr>
<td>Others</td>
<td>141</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,059</td>
</tr>
</tbody>
</table>
## Track Record of Industry Awards

### Awards Received in FY Mar/08

#### Invention Commendations

<table>
<thead>
<tr>
<th>Name of award</th>
<th>Region</th>
<th>Awarded for</th>
<th>R&amp;D segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Encouragement Prize for Invention</td>
<td>Chubu</td>
<td>Transalkylation catalyst and reaction method thereof</td>
<td>Resins &amp; Chemicals</td>
</tr>
<tr>
<td>The Encouragement Prize of the Commissioner of Japan Patent Office</td>
<td>Kinki</td>
<td>Easily formable biaxially oriented PET film</td>
<td>Films</td>
</tr>
<tr>
<td>The Encouragement Prize for Invention</td>
<td>Kinki</td>
<td>CMP pad for semiconductor planarization</td>
<td>Electronics &amp; Information Related Products</td>
</tr>
<tr>
<td>The Encouragement Prize for Invention</td>
<td>Kinki</td>
<td>Waterproof materials for wear and waterproof wear that offer outstanding comfort</td>
<td>Fibers &amp; Textiles</td>
</tr>
<tr>
<td>The Encouragement Prize of the Chairman of HATSUMEI KYOKAI</td>
<td>Shikoku</td>
<td>Long carbon fiber-reinforced pellets and electric device casing using the same</td>
<td>Carbon Fiber Composite Materials</td>
</tr>
<tr>
<td>The Encouragement Prize for Invention</td>
<td>Shikoku</td>
<td>Carbon fiber and manufacturing method thereof</td>
<td>Carbon Fiber Composite Materials</td>
</tr>
</tbody>
</table>

#### Other External Awards

<table>
<thead>
<tr>
<th>Name of award</th>
<th>Name of institution</th>
<th>Awarded for</th>
<th>R&amp;D segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Award</td>
<td>The Japanese Society of Printing Science and Technology</td>
<td>Development of low environment impact waterless CTP plate (Waterless CTP plate)</td>
<td>Electronics &amp; Information Related Products</td>
</tr>
<tr>
<td>Production Award</td>
<td>Okochi Memorial Foundation</td>
<td>Development of high-performance polyester reflective film for LCD backlight unit (ultra-white reflective film)</td>
<td>Electronics &amp; Information Related Products</td>
</tr>
<tr>
<td>Technology Award</td>
<td>The Society of Chemical Engineers, Japan</td>
<td>Development of membrane filtration process with PVDF hollow fiber membrane module</td>
<td>Water Treatment</td>
</tr>
<tr>
<td>Grand Prix Technical Award Category</td>
<td>Senken Shimbun Co., Ltd.</td>
<td>Technology development of cellulose fiber Foresse* with melt spinning method</td>
<td>Fibers &amp; Textiles</td>
</tr>
<tr>
<td>JSME Young Engineers Award</td>
<td>The Japan Society of Mechanical Engineers</td>
<td>Development of impact analysis technology for composite hoods of automobiles</td>
<td>Carbon Fiber Composite Materials</td>
</tr>
<tr>
<td>JSME Young Engineers Award</td>
<td>The Japan Society of Mechanical Engineers</td>
<td>Development of high-speed yarn winding technologies</td>
<td>Fibers &amp; Textiles</td>
</tr>
</tbody>
</table>
Policies for Intellectual Property Portfolio

As noted in Part 3 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 grasp technologies and patents of other companies, and establishment of subsequent strategies for enforcement of the patent rights.

Information on Risk Response

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

Note

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

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