

# R&D

Technological innovation is vital to ensuring sustainable corporate growth. We intend to deliver new value grounded in innovative technology to customers and markets, and thereby enrich people's daily lives and contribute to the advancement of society. Doing so is inseparable from enhancing the quality of life, as set forth in our Corporate Philosophy. With this in mind, we are working to sharpen our ability to develop technologies and to deliver solutions that create new value. This is being done by formulating a Group-wide R&D strategy, including basic research, in tandem with strengthening coordination between Group companies.

## Research and Development Strategy

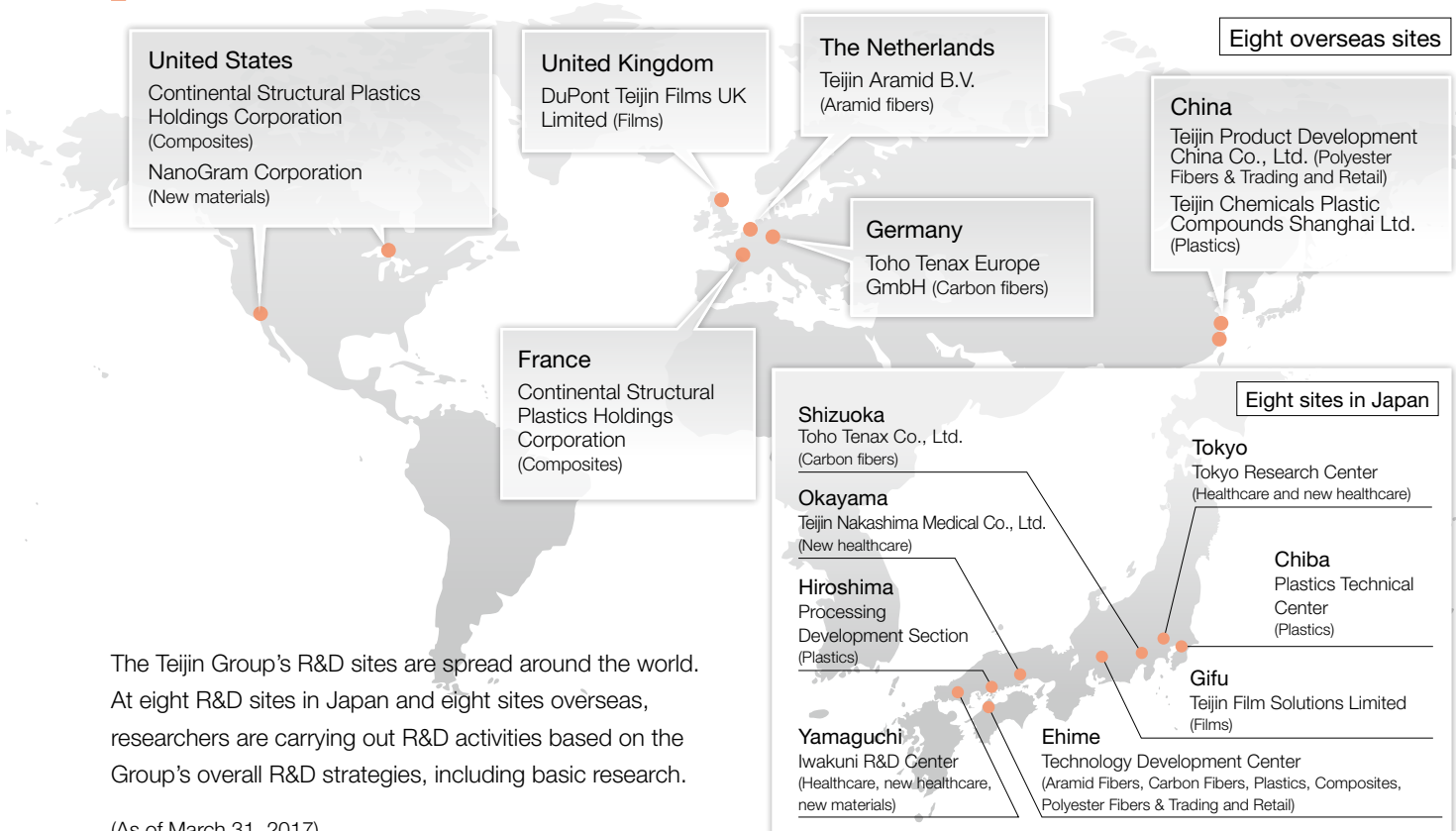
The Teijin Group has embraced a long-term vision laid out as follows: "Teijin aims to be an enterprise that is essential to tomorrow's society by continuously creating new value." To realize its aspirations for the Group ten years from now, Teijin is advancing research and development from a global perspective.

To achieve its long-term vision, Teijin will strengthen and utilize its basic technologies. At the same time, Teijin has positioned "Environmental Value," "Safety, Security, and Disaster Mitigation," and "Demographic Change and Increased Health Consciousness" as its core priority fields, and is steadily advancing research and

development to promote its transformation strategy for achieving innovation through the integration of technologies and organizational functions, and its growth strategy for maximizing earnings in existing businesses.

In regard to the organization, inter-business integration will be promoted by integrating materials-related businesses, which had previously been separated into several different parts, into one organization as the materials business. At the same time, coordination will be deepened by splitting up the New Business Development Business Unit into materials and healthcare business.

## Research and Development Sites



The Teijin Group's R&D sites are spread around the world. At eight R&D sites in Japan and eight sites overseas, researchers are carrying out R&D activities based on the Group's overall R&D strategies, including basic research.

(As of March 31, 2017)

## Investment in Research and Development

Teijin's policy is to continuously allocate approximately 5% of net sales to R&D. Under this policy, we intend to effectively allocate resources to R&D with an emphasis on core priority fields.

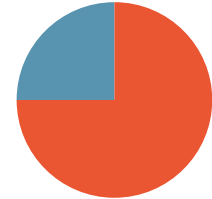
In fiscal 2016, ¥35.4 billion was spent on R&D, up ¥2.1 billion compared to the previous fiscal year.

Teijin will allocate around 25% of R&D expenses to the budget for its transformation strategies, including composites, LIB Separators, membranes and new healthcare, and around 75% to the budget for its growth strategies, including progress in the drug discovery and development phases and strengthening materials platform technologies.

### Fiscal 2017 Allocation Plan

■ Budget for growth strategies  
 Around 75%

■ Budget for transformation strategies  
 Around 25%



## Fostering R&D Personnel

Teijin is actively involved in holding forums gathering university professors and researchers primarily in the fields of composites and healthcare, a technical advisory council comprised of influential members of academia, research institutes; and a dispatch program that sends young researchers on assignment to

leading research institutions both in Japan and overseas.

Dr. Ei-ichi Negishi, awarded the Nobel Prize in Chemistry in 2010, on staff as a Teijin Group Distinguished Fellow and presently a special professor at Purdue University in the US, continues to offer consultation services to researchers in Japan.

## Open Innovation

Teijin has embraced an open innovation strategy to strengthen partnerships with researchers both within and outside the Company, in an effort to spur R&D activities aimed at creating new businesses. This is not confined to being only within R&D conducted in the Teijin Group. We are undertaking joint research

and exchanging information and personnel by forming networks in an expansive range of fields spanning industry, government and academia. By doing so, we aim to provide sophisticated solutions required by customers in a timely manner.

## Intellectual Property Strategy

Teijin is strengthening its execution of intellectual property activities from a strategic perspective, with a view to advance integrated management of business, technology and intellectual property strategies. In addition, we will continue to push ahead with initiatives to increase overseas patent applications as a percentage of total applications, in response to further globalization of our operations. At the same time, we will work

to reshape our intellectual property portfolio in line with our business portfolio transformation driven by the execution of our growth and transformation strategies. Besides protecting and utilizing patents, trademarks and other intellectual property, we are enhancing activities to protect knowledge and trade secrets throughout the company.

### Patent Applications in Japan in Fiscal 2016

■ Advanced Fibers and Composites	120
■ Electronics Materials and Performance Polymer Products	55
■ Healthcare	32
■ New Businesses and Others	91
<b>Total</b>	<b>298</b>



### Overseas Patent Applications as a Percentage of Total Applications (%)

