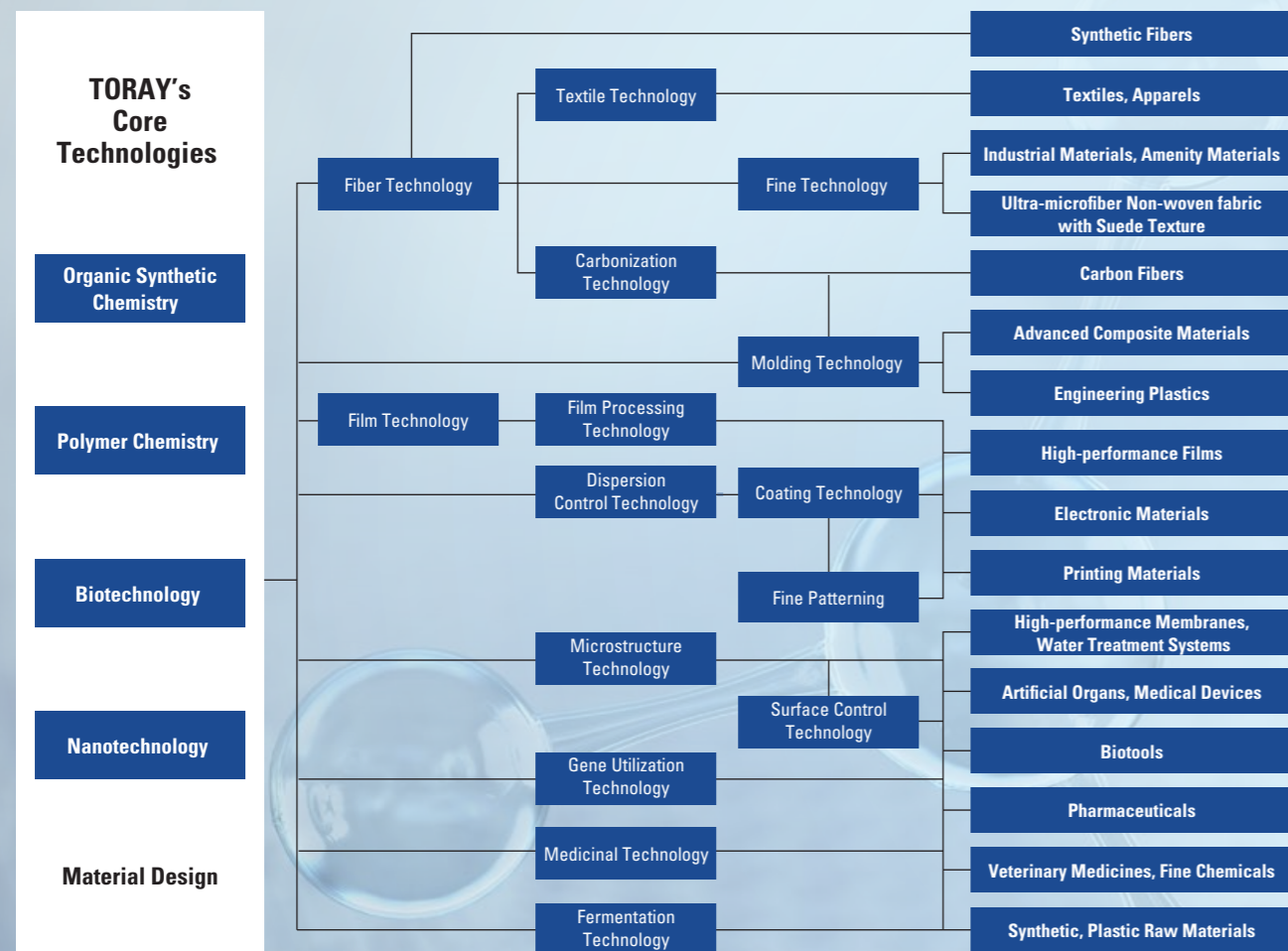


# R&D

Toray's corporate slogan, "Innovation by Chemistry," represents our pursuit of technological innovation in the core area of chemistry and our aim of being a global leading corporation in advanced materials. We plan to continue bolstering the Group's combined strengths and creating innovative advanced materials well into the future.

## Toray's Technical Fields

Toray Group's core technologies are "organic synthetic chemistry," "polymer chemistry," "biotechnology" and "nanotechnology." Based on these, we are working toward greater depth and fusion of fundamental technologies such as polymerization, fiber spinning, textile processing, film processing, and organic synthesis, while expanding our operations from fibers and textiles to films, chemicals, and resins. We are also creating advanced materials and developing businesses in the fields of electronics & information materials, carbon fiber composite materials, pharmaceuticals, medical devices, and water treatment.



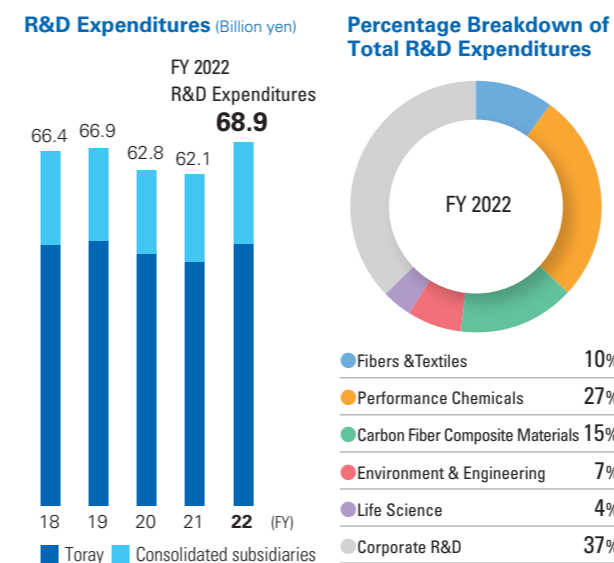
### Won The Chemical Society of Japan Award for Technical Development for 2022 for development of advanced, highly functional textiles by precise control of fiber cross-section morphology at the nano-level

Toray received the The Chemical Society of Japan Award for Technical Development for 2022 for the development of highly functional textiles by precise control of fiber cross-sections. This was the second straight year for Toray to receive recognition for its advances in nanotechnology.

The award recognizes the creation of NANODESIGN™, an innovative conjugate spinning technology that employs a new technology to freely and precisely control the cross-sectional shape of composite fibers, and the successful commercialization of advanced fibers leveraging NANODESIGN™. Specifically, Toray has leveraged NANODESIGN™ to make it possible to develop fibers and textiles for comfortable clothing that combine natural texture with the functionality of synthetic fibers. Conventional fibers cannot match these capabilities. These advances include Kinari™, a fabric that realized the multiple characteristics of natural silk. Another is Camifu™, a new textile material that combines excellent water absorption and quick-drying performance with a natural feel. There is also Qticle™, a stretch fabric with outstanding colorability.



## Research and Technological Development Provide the Key to Building the Toray of Tomorrow



### R&D Basic Policy and Organization

Toray's Technology Center serves as the headquarters for driving research and technological development into advanced materials based on the firm conviction that research and technological development provide the key to building the Toray of tomorrow.

Developing and commercializing materials requires a certain amount of time. Thus, the strength of Toray Group's R&D lies in our ability to recognize the value of materials and our commitment to distant long-term continuity, as well as pipeline management from a long-term perspective not only for themes that generate profits today, but also for the ones in the near and distant future. Moreover, Toray R&D teams inherit the idea of "The Deeper, the Newer"—a concept that digging deep into something will result in new discoveries and inventions—the DNA of "pursuit of the ultimate limits." Based on a grand vision of the times and the needs of society, Toray aims to drive innovation that possesses social and economic value.

Toray Group has centralized all of its R&D functions into the Technology Center. Bringing specialists from many fields together in this undivided R&D organization makes it easier to create new innovations by integrating technologies. This also enables the Group to fully utilize its combined strength by actively exploiting techniques and knowledge from many fields to solve problems in a single field of business.

### Establishing New Research Facility That Will Foster Sustainable Economic Progress Based on "Fusion of Green and Nano-based Technologies" Concept

Toray is setting up a new research facility at Nagoya Plant with the aim of accelerating R&D in response to green transformation (GX) and next-generation mobility. The Company will build a framework to promote integrated material development, process design, and customer proposals. The facility is scheduled for completion in FY 2026.

This facility will bring together polymer, chemicals, and carbon fiber composite materials researchers, as well as digital transformation professionals and developers with chemical engineering expertise. They will be driving advances in nanotechnology, such as incorporating materials informatics (MI) and computational chemistry in areas that will include polymer design, nanostructure control, and composite material design. The facility itself is being designed to integrate nanotechnology with green technologies, such as recycling and biorefining. At the same time, by working to reduce environmental impact from process perspectives, the facility will be bolstering materials development that will help achieve a sustainable society.

By locating the facility adjacent to the Environment and Mobility Development Center and the Advanced Composites Center, both of which engage in mobility-related development and evaluations, the Company is also expecting to generate synergies while promoting integrated R&D and digital solutions proposals. Toray will reinforce open innovation internally and externally by creating an open laboratory for cocreation with customers and academia while deploying a framework to deepen communication among researchers and encourage ideas to emerge.



Exterior of new research facility