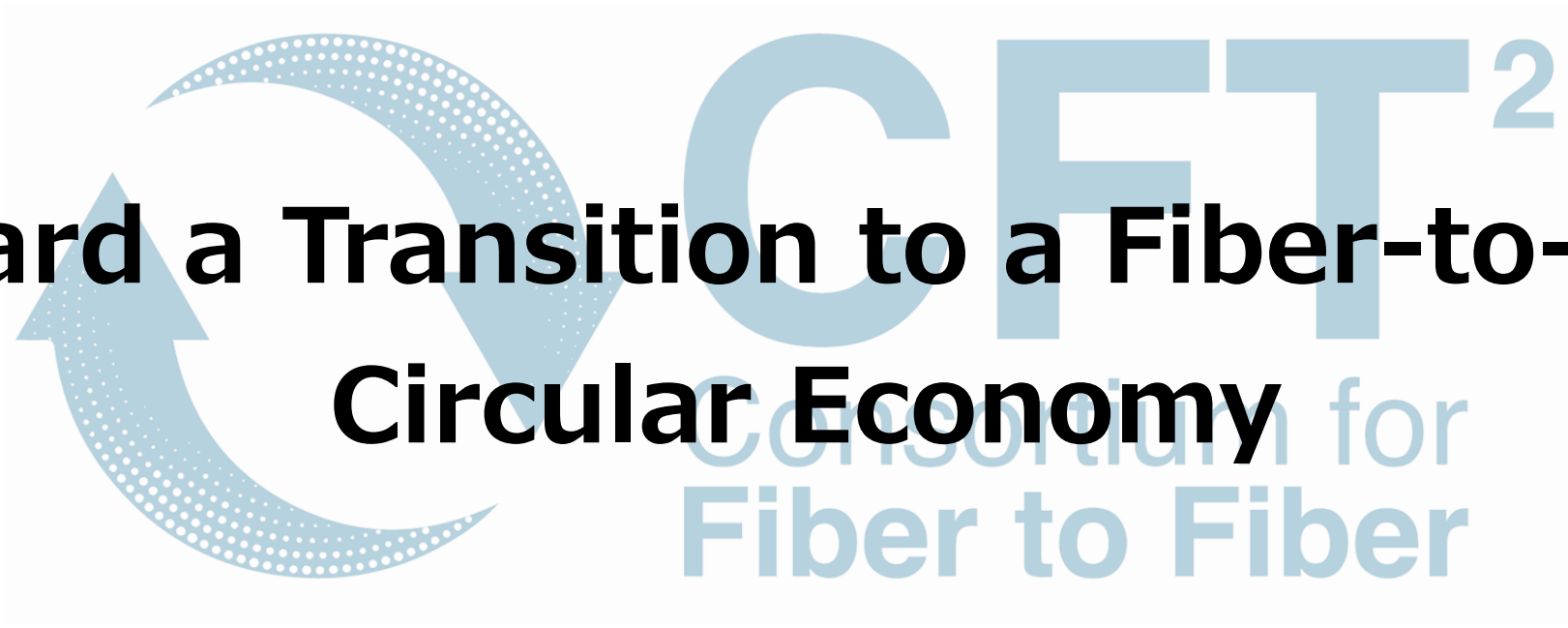




Toward a Transition to a Fiber-to-Fiber Circular Economy

October 8, 2026

TA FRONTIER CO., LTD.
Executive Staff : Sustainability
Yukihiro Shigemura

Business (Textiles & Apparel)

Developing a diverse range of businesses ranging from materials to finished products

Supported by our capacity for technological development, we are conducting global rollouts of clothing products and other materials that are used in a wide variety of garments that are necessary in many situations encountered in our daily lives, including our original Fibers and fabrics.

Fibers



Teijin Frontier is developing a diverse range of high-performance Fibers that are adjusted to fit a variety of needs and applications. We also offer environmentally friendly Fibers that contain recycled and plant-derived materials.

Fabrics



With foundational support from our original textile materials and our capacity for technological development, we are creating sophisticated textiles with high added value in apparel-related fields, including fashion, casual wear, sportswear and uniforms.

Products (OEM/ODM)



We are conducting a wide range of product development that includes the production of brand-name products (OEM) in the fields of fashion and sports apparel, as well as production that includes a design proposals (ODM).

Key original materials

ECOPET™
a material with reduced environmental impact



ECOPET™ is polyester products (fibers, textiles, garments, and goods) made from recycled sources; various types of polyester waste, through the mechanical or chemical recycle process. It enables the effective use of the limited natural resources. By effectively utilizing natural resources, we are helping to substantially reduce negative environmental impact.

SOLOTEX™
a high-performance fiber



SOLOTEX has multi-characteristics deriving from the unique molecular structure of the fiber, such as outstanding softness, excellent shape-retention, comfortable stretch, and so on. There are multifilament type, conjugate filament type, staple fiber type, and each type has different characteristics. Also, plant-derived ingredients are used for 37% of the polymers that make up SOLOTEX. Thus reducing consumption of fossil fuels and help cutting down on greenhouse gases, making it an eco-friendly fiber.

Octa™
Hollow, eight-fin polyester fibers



This polyester fiber features a hollow, eight-fin cross-section with a variety of characteristics that include excellent perspiration absorption and quick-drying properties, light weight, heat insulation, and bulkiness.



DELTAPEAK™ series
high-performance textiles



Through our DELTAPEAK™ series, we have made it possible to develop woven, knitted fabrics that offer flat fabric surfaces that contain the lowest possible amount of distortion, superior functionality and high-quality texture.

Business (Industrial Textiles and Materials)

Providing high-performance materials and products that support both industry and our daily lives

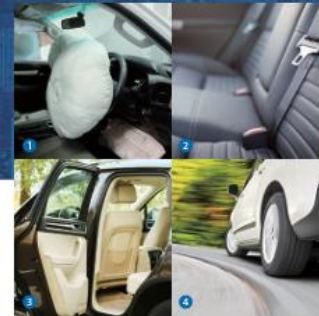
Teijin Frontier develops state-of-the-art materials and products that are essential to both industry and to our daily lives and makes them available in a wide variety of fields. We also ensure that our materials are procured and treated in the most appropriate locations. Furthermore, in the automotive field, we are establishing supply chains in Japan, China, the ASEAN region, Europe and the United States.



Environment and infrastructure

Contributing to environmental conservation and infrastructure development while supporting safe and secure living.

- 1 Energy conserving heat shield film
- 2 Disaster countermeasure products such as shelters that can be easily installed
- 3 Textile materials for civil engineering, including concrete reinforcing
- 4 Oil absorption materials useful for oil spills and waste oil treatment
- 5 Safe building materials for earthquakes



Mobility

We provide products that leverage our expertise in production and treatment, our sophisticated quality control and our global network.

- 1 Fabric for airbags
- 2 Seat fabric and fiber used in seat belts
- 3 Unwoven molding materials used in automobiles, including wadding and sound absorbing materials
- 4 Reinforce materials for automobile parts



Living materials

We are enriching people's lives with high-performance materials and products that are helpful in variety of settings.

- 1 Tent materials and products that sport high functionality and sophisticated design
- 2 Interior fabric that meets a wide range of customer needs
- 3 Products that fully utilize the capabilities of ultra-fine polyester fiber
- 4 Comfortable materials used in bedding and related products
- 5 Reusable dehumidifying agent with moisture absorption and release capabilities
- 6 Wiping cloth used in private homes and industrial applications



Healthcare

Using our high-performance materials, we contribute to people's health and beauty by offering a wide variety of commodities, ranging from sanitary materials to products related to sports, nursing care.

- 1 Nursing care products (Transfer slide sheets)
- 2 Nursing care products (Wheelchair support sheets)
- 3 Functional athletic supporters
- 4 Functional Mask

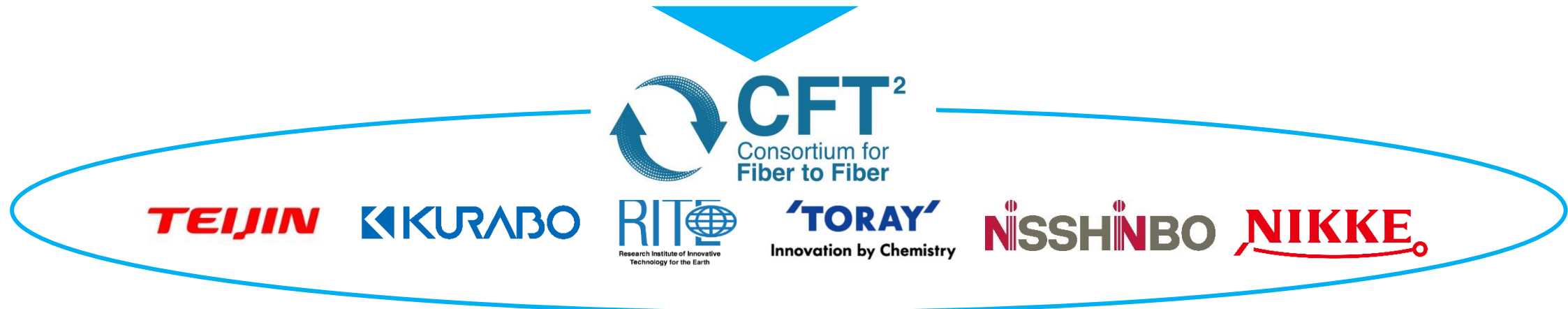
■ CFT² (Consortium for Fiber to Fiber)

Fiber-to-Fiber Circular Economy System

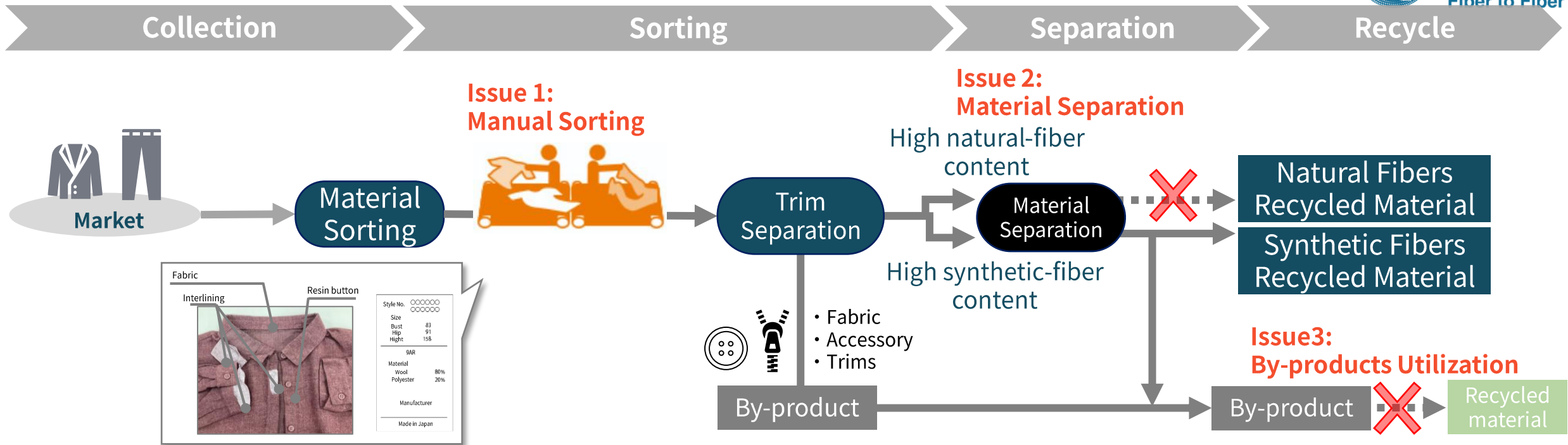


Source: Ministry of the Environment, FY2020 Survey on Fashion and the Environment (2020)

Many challenges remain beyond recycling technology development.



CFT² promotes the development and demonstration of a Fiber-to-Fiber recycling system. 3



Develop separation technologies for both natural and synthetic fibers.

1. Automation of manual sorting

- AI-Based Textile Sorting
- Rapid Material & Trims Identification

2. Separation of garments into single-material

- Efficient bio-based separation and pretreatment

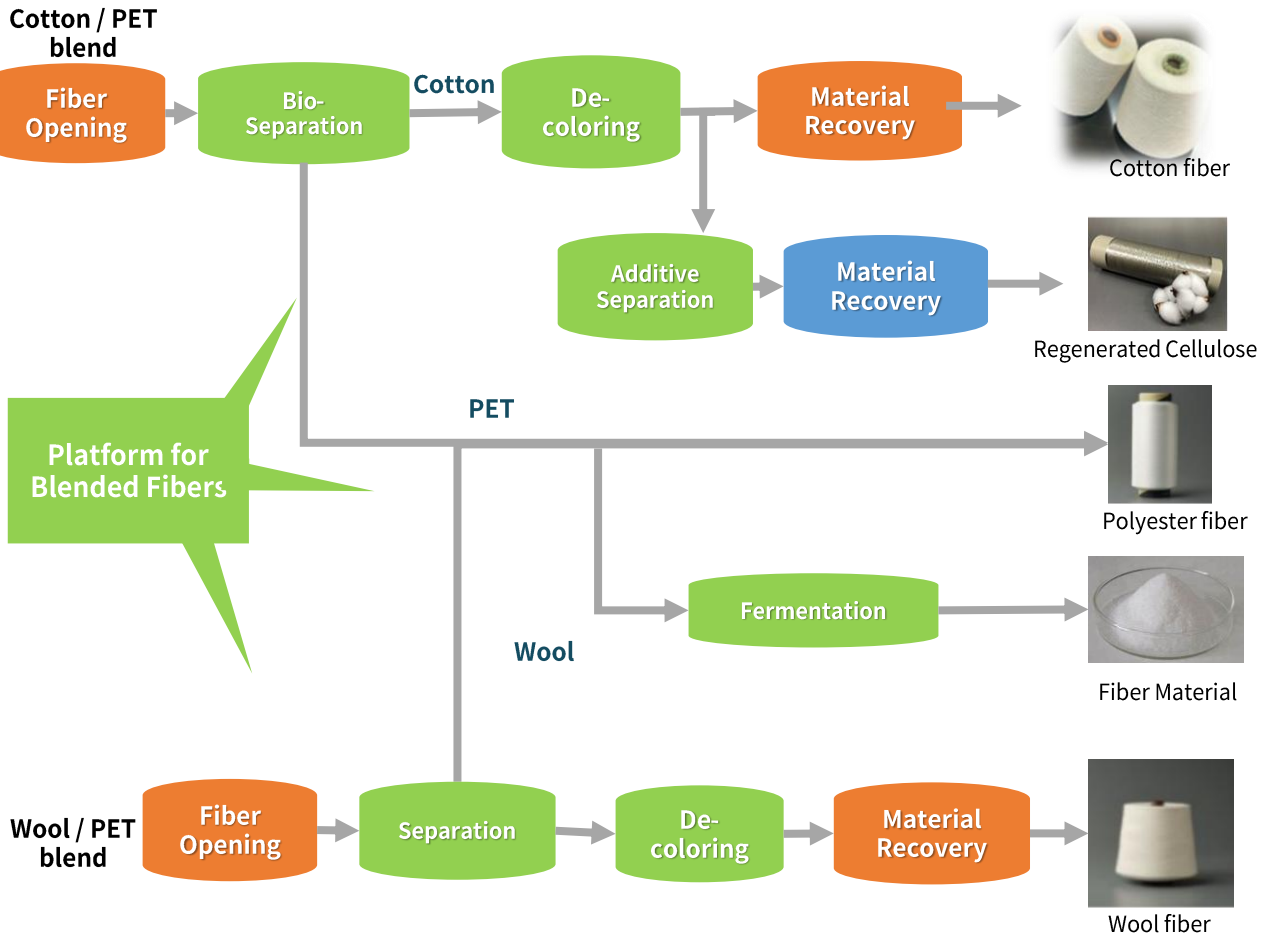
3. By-products Utilization

- Biotechnology-Driven Recycling Technologies for Textile Materials

Consortium for Textile Circularity

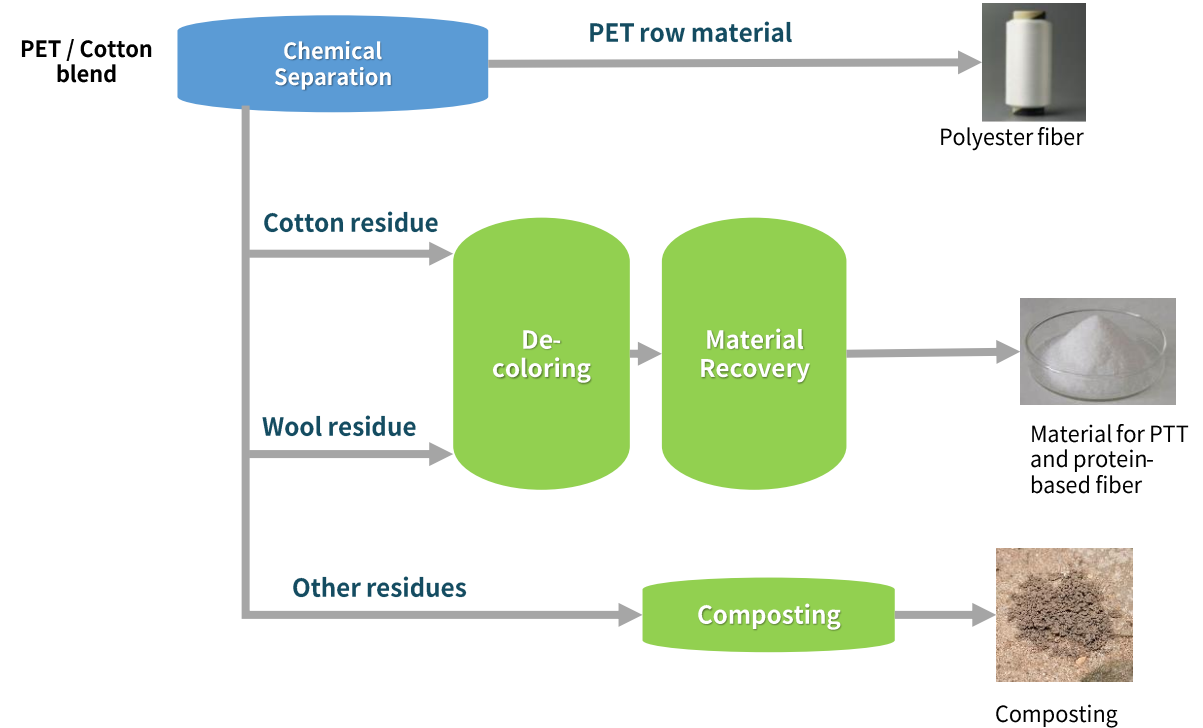
Collecting → Sorting → Separation → Material Recovery

Natural-fiber-rich blends



Collecting → Sorting → Separation → Material Recovery

Synthetic-fiber-rich blends



Technology

Bio

Mechanical

Chemical

Material-specific separation requires cross-company collaboration.

