

At the heart of textile evolution

Recycling and Circular Economy





Techtera, European innovation cluster for the textile industry.

Based in France, we support our **195 members** in the emergence, structuration and implementation of their collaborative R&D projects. Since 2005, we have approved and supported **237 R&D projects**. We also provide services regarding the business development of our members: international expansion (trade fairs, collective missions...), innovative products launching, identification of textile solutions for all industries...

Reducing the environmental impact is a major challenge for the textile industry. Techtera supports its members' **collaborative R&D projects** on the topics of **recycling**, **eco-efficient processes** and the development of **new biosourced materials**. Through these subjects, the cluster creates the link between players working with sustainable textiles.



Partners



EcoTLC: Eco-organisation for clothing, linen and footwear recycling



OREE: Organisation promoting environment responsibility of companies



CRECOF: Composites recycling committee in France



CIRIDD: International resources and innovation centre for sustainable development

The stakeholders network



The Techtera services

Club RECIT : Recycling and Circular Economy in the Textile Industry

The Club aims at organising a sector for recycling industrial textile waste. Techtera federates and heads the members of the Club, those involved in textile recycling, around various themes:

- Eco-design
- Recycling
- Upcycling
- Collection and sorting
- New business models

Actions undertaken:

- Creating, developing and mounting innovation projects
- Technology watch and benchmark
- Setting up joint action (listing industrial textile waste supplies)

R&D Projects

Textile recycling

ECOCHARGE: Exploiting end-of-life polyester/cotton type textile as fibrous reinforcing filler for plastic materials (polyolefins and polyamides).

TECHNYMAT: Developing materials from production and end-of-life textile waste to create plastic materials, insulation materials, and materials for the manufacture of synthetic yarns from recycling.

VALTEX: Developing a viable and sustainable recovery of end-of-life vehicle textiles and professional clothing for recycling into acoustic and thermal insulation.

Bio-sourced materials

AGROBOOST: Developing agro-sourced technical textiles, with complete, verifiable biodegradability, without fragmentation and meeting the requirements of future regulations.

BIOPAD: Qualify and bring to the market an innovative mulching product, 100% vegetal and biodegradable fibers-made, made in France following a patented spunlacing process, made from local by-products.

ECOLASTANE: Development of elastane fiber and bio-sourced polyester (70 to 100%) in order to substitute the usual process that includes oil. Use for sport clothing.

Eco-efficient processes

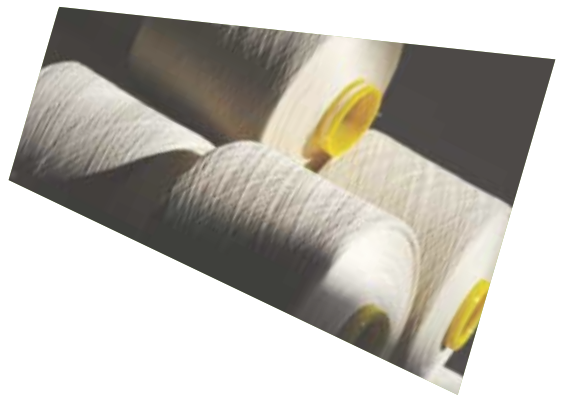
DEPERFLEX2: Develop a comfortable, sturdy, repellant material appropriate for sportswear, and eco-friendly thanks to a fluor free coating.

ECOMAT: Development of eco-aware silicones and polyurethanes (free mercury and stain catalysts). Use for automotive parts, sole and sport clothing.

ECOSILAC: New eco-designed process for synthetic silicone acrylates, conferring surface properties on various substrates (textile, plastic, glass).

FOMOTEX: Develop nonflammable coatings, in latexfree textile layers with multifunctional characteristics and meeting current regulations. The manufacturing process used will include impregnating dry powders, with a significant reduction in water and energy consumption.

PLUG&WET2: Improve productivity while reducing water and energy consumption for a more efficient weaving process.



Project “Chutes, on recycle!” (We recycle offcuts!)

In 2018, Techtera received the support of the Greater Lyon Metropolis as part of the call for an expression of interest in “Zero scrap, Zero Waste” for organising the “We recycle offcuts!” day.

The aim of this event was to link up textile manufacturers and designers in order to make use of production offcuts through upcycling. More than 100 participants, from the textile industry, were present at this day

Recycling and Circular Economy

Eco-design

GreenFil: Eco-designed yarn
— Groupe Sofitla

Mechanical recycling

Insulation made from textile scraps
— Blanchisserie Industrielle du Centre

Recycled cotton/polyester bag
— Indispensac

Chemical recycling

Technyl4earth: Racket moulded in REGAFIB
— Solvay

Upcycling

Racket moulded in REGAFIB
— Mapea

Textile made from selvedge
— Tisagés de Cherlieu

Applications



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