

At the hearth of textile evolution

Sport



Techtera is the French innovation cluster for the textile industry.

We support our **250 members** in the emergence, structuration and implementation of their collaborative R&D projects. Since 2005, we have approved and supported nearly **227 financed R&D projects**. We also provide services regarding the business development of our members: international actions (trade fairs, collective missions...), business launching projects for innovative products, identification of textile solutions for all industries, strategy support on trends and design.

Textiles and flexible materials are essential for sports (equipment, infrastructure, and clothing). They provide properties for resistance, security, and lightness while matching the required level of comfort to achieve the best performances.

Another important stake today is the smart/electronic functions for data sensing and analysis, and the growing importance of composites in the engineering of equipment and infrastructures.

Various **projects focused on textile applications for sports have been supported by Techtera**. They account for **a global budget of almost 20 million euros**.

5 to 10%

of the technical textiles production is dedicated to sports and leisure applications.

40%

of the textile production in France finds application in the sports industry.

Sources: Xerfi, DGCCRF.



European level certification

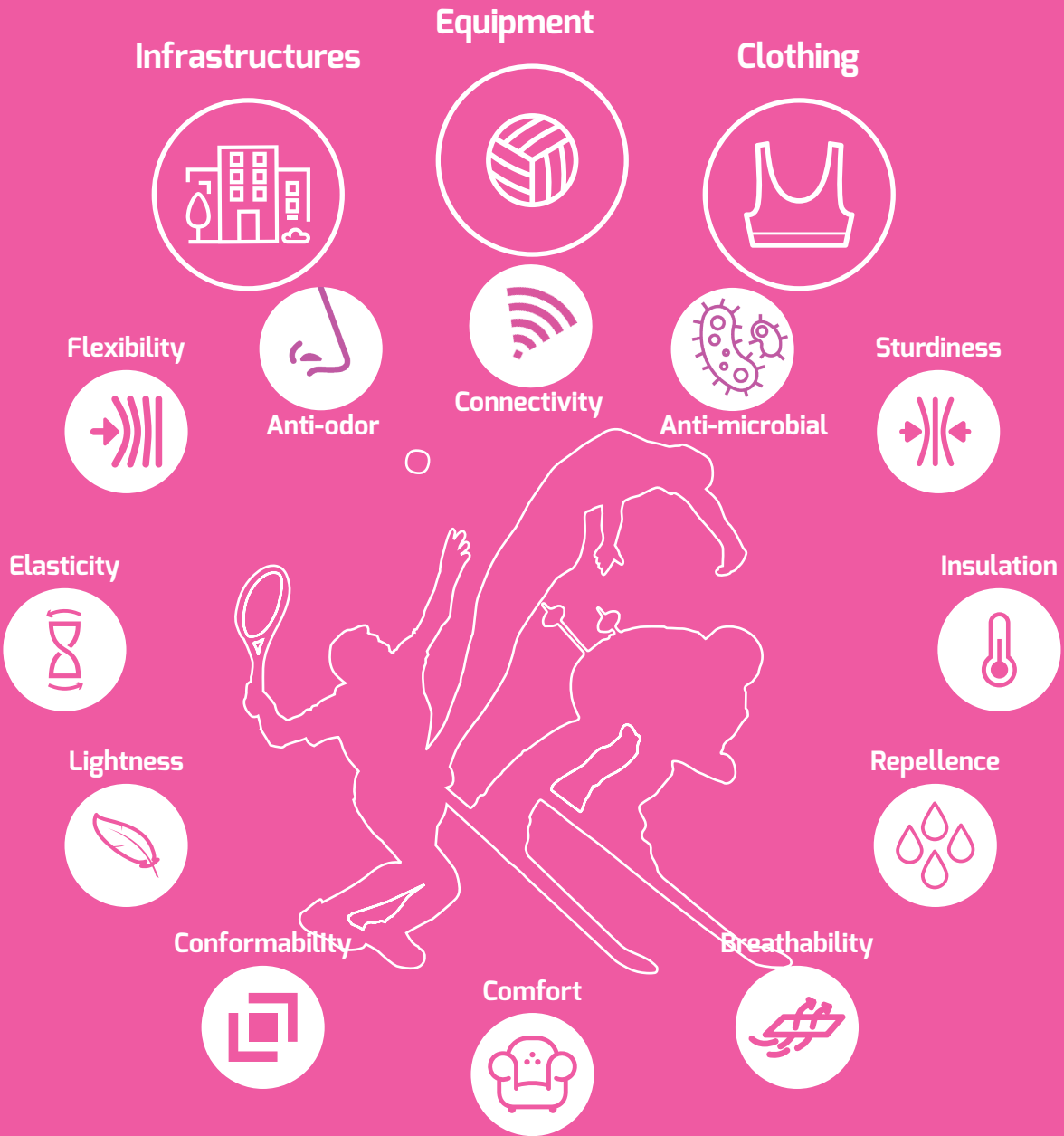
The “CLUSTER MANAGEMENT EXCELLENCE LABEL GOLD” is given by the EUROPEAN CLUSTER EXCELLENCE INITIATIVE. It acknowledges the highly sophisticated cluster management of Techtera, and the success and commitment of the cluster to further improve its organizational structure and routines. **Techtera is the first textile cluster to obtain the Label Gold.**

Techtera helps you to develop your network and finance your ideas for the development of products and/or services.

Textiles and flexible materials can be found in all kinds of sports, offering essential functions to provide the best possible conditions for practicing with their lightness, resilience, conformability and comfort.

Techtera supports collaborative projects aiming for the improvement of those functions.

Textiles for sports...



SMART TEXTILES

The evergoing development of information and communications technologies has a deep impact on our sport perception. With **the rise of the wearables market**, we can measure accurately our performances as a sport professional or a simple hobbyist.

Smart textiles are able to **react to different kinds of stimuli** to sensing/transmitting data or energy, they can measure and improve the performances or prevent medical issues while preserving all other textile properties.

Techtera supports the innovation in smart textiles with a dedicated Club of companies, universities and laboratories, and collective actions.

RECYCLING AND CIRCULAR ECONOMY

Previously, just a great idea! Now, the circular economy has rightly become a priority in all areas. The sports sector is no exception. Thus, work is needed at all stages of the value chain, to transform the sector.

There are many ways, including: finding new viable business models, developing recovery methods with low environmental impact (reuse, upcycling, sub-cycling), improving recycling technologies, developing new materials and eco-designed products.

Techtera runs the RECIT club to understand these issues and find ways to respond to them.

Our services

- **Support of collaborative R&D projects**, from inception to promotion
- **Sourcing – textiles & processes:**
CART'TEX, our innovative textiles database with more than 300 indexed skills.
Need for materials or relevant expertise: carttex@techetera.org
- **Sourcing – innovative fibers:** partnership with the Japan Chemical Fibers Association (JCFA) and catalogue of made in Japan fibers
- **International:** business development support for textile companies on trade fairs (ISPO, JEC World...) and collective business trips (Japan, USA)
- **Business launching of innovative products.**

R & D projects

ACTINAT: development of a new finishing process for natural fibers by dry process which enables more performance and durability. Use for sports equipment and clothing.

CONFORTEX: development of a comfort evaluation tool for health and sports clothing.

DEPERFLEX II: development of a repellant material (wet strength). Comfortable, sturdy and therefore, appropriate to sportswear. Eco-friendly thanks to the fluor free treatment of the fabric.

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.

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

ECOSILAC: development of eco-designed surface coatings offering new and/or multifunctional properties. The project intends to provide surface properties to supports such as plastic, glass and textiles, using eco-designed silicone acrylates.

FELIPE: development of new multi-filaments polymers with high elasticity, resistant to wear and tear and better adapted to dyeing. Use in racket stringing.

FILOGRAPH II: development of a smart textile with a graphene coated natural and/or biosourced yarn. The conduction properties will provide a free-battery equipment while preserving lightness, and flexibility.

NHYCCO: development of threads for composites materials. More fiber cohesion for high performances: thinner, better for reinforcement fibers.

NOFORMOL: find an alternative to textile finishing treatments containing formalin. These finishing treatments are commonly used in the textile industry to give wrinkle-resistant, dimensional stability and easy-to-maintain properties.

SINFONI: construction of the necessary environment for the large scale use of vegetal fibers by structuring the sector of technical vegetal fibers.

SOLENT: development of new materials for sails making.

TEXACTIV: development of a new generation of functionalised textiles with long-term action on well-being, beauty and health.

Textiles & flexible materials for sports applications

Skis

Suits

Gliders

Orthoses

Sportswear

Rackets and stringings

Composites for bike frames

Automotive compartment

Avalanche airbags

Stadium roofs

Harnesses

Wingsuits

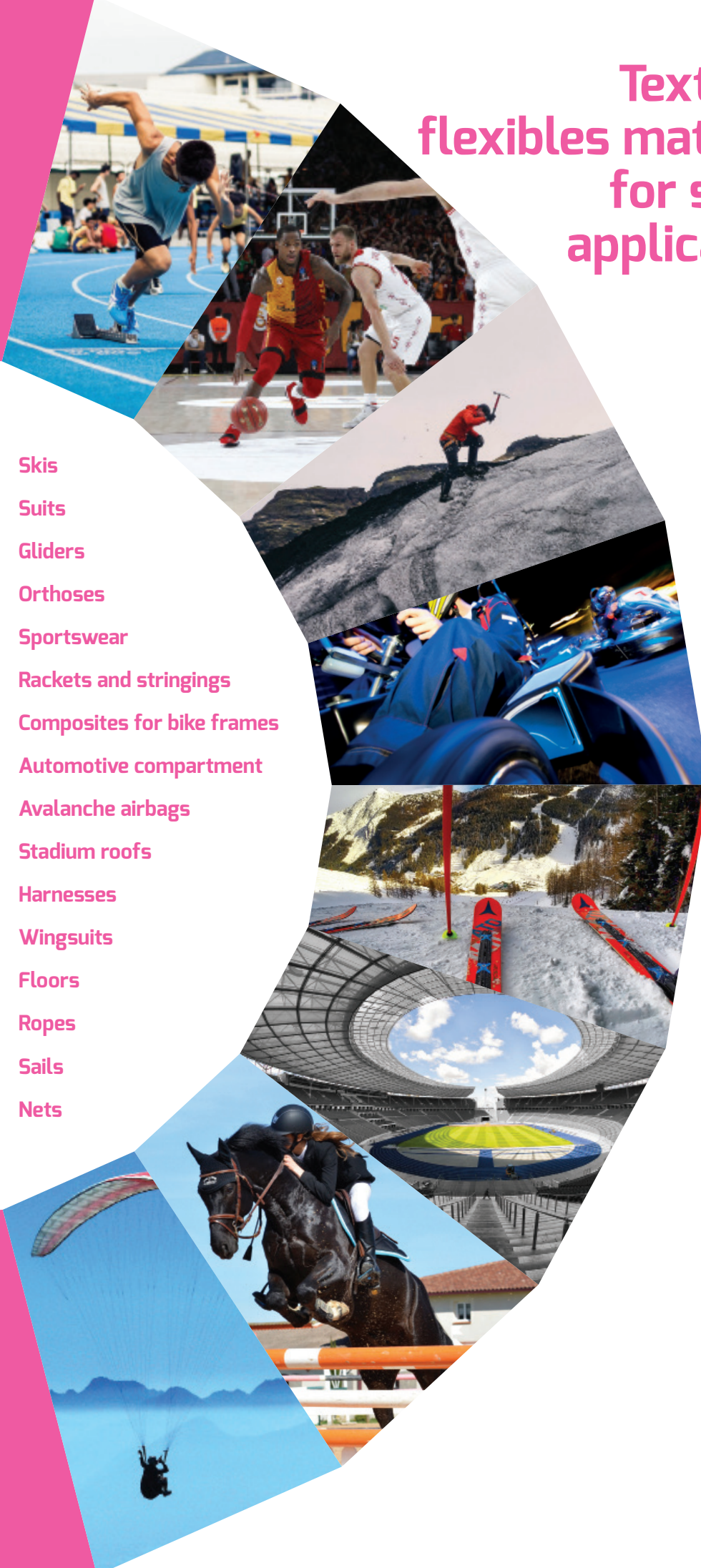
Floors

Ropes

Sails

Nets

Markets & applications





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Techtera is supported by:

