Progress Report 2022

At the heart of textile evolution
A word from the president

The year 2022 was a decisive one for the innovation clusters; a year which closes phase IV, marked by a particular context (health crisis, rise in energy and material prices); but also rich in opportunities to be seized by the textile industry. This year also confirms the trend towards a greater share of private funding and the loyalty of ever more members joining the innovation cluster dedicated to the textile sector.

Techtera has spared no effort and presence in supporting its members. The year 2022 was also a record for the number of projects submitted and financed with the approval of Europe, thanks to the renewal of its Gold label.

And of course, 2022 was also an exciting new year for me, taking over the reins of the Techtera cluster, to which I express my desire to continue working in the defence and promotion of a whole sector undergoing rapid transformation.

Philippe SANIAL – President

CERTIFICATIONS

The European Cluster Management Excellence Label Gold for Techtera’s highly sophisticated management and dedication to continuous improvement.

The ISO 9001 for Techtera’s quality management system
Textile industry stimulation in 2022

Perfecting

Discovery

15 Watch actions
263 organisations
441 participants

Trading

Excelling

21 Competitiveness Workshops
1287 organisations
1740 participants

Financing

- European Infodays for innovative SME
- Reception of the European delegation EXTRATEX
- SME DGA Tour (subcontracting of the armament industry)
- Lyon Pacte PME – IDEE Forum – Innovation Defence Enterprise
- Workshop for the preparation of international trade fairs
- Annual networking event of Techtera
- Changes in the textile and fashion industry
- Tomorrow’s textiles, along the circular economy (3 round tables):
  - Textile ecological transition & new skills
  - Circular economy - Regulations & financing
  - Textile recycling – Feedback

Sourcing

- Creative watch:
  - Decoration trends – Autumn/Winter Season 23-24 – Spring/Summer Season 24
  - Megatrends Season 1 and 2
- Market watch:
  - Textile opportunities in Mexico, Vietnam
  - Defence market in Japan, Indonesia, USA
  - State of the art of the German technical textiles market
  - Sustainable fashion symposium
- Scientific watch: Iberic Lab Tour

- European Defence Fund 2022
- Regional and national calls for projects
- Call for proposal on flexible protection
- Call for projects for sustainable transformation
- Call for projects France 2030
- Infoday on European funding

- New regulations: Extended Producer Responsibility – New French anti-waste law for a circular economy
- Cybersecurity workshop in partnership with Minalogic
- Consortium agreements

- 42 supplier searches
- 170 companies contacted to answer the different issues
- 50 organisations replied to requests
9 Innovation Workshops
326 participants

Initiating

3 Clubs
67 participating organisations

Conferences & congress

Support for
4 international joint missions

Support for
5 international trade fairs

Structuring

58 working groups
initiated to build R&D projects

Exporting

Workshop

European Infodays for innovative SMEs

Reception of the European delegation EXTRATEX

SME DGA Tour (subcontracting of the armament industry)

Lyon Pacte PME – Textile event

Lyon Pacte PME - IDEE Forum - Innovation Defence Enterprise

Workshop for the preparation of international trade fairs

Annual networking event of Techtera

Changes in the textile and fashion industry

Tomorrow's textiles, along the circular economy

(3 round tables):
- Textile ecological transition & new skills
- Circular economy - Regulations & financing
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Perfecting

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New regulations: Extended Producer Responsibility - New French anti-waste law for a circular economy

Cybersecurity workshop in partnership with Minalogic

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Regional and national calls for projects

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Discovering

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Creative watch:
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- Megatrends Season 1 and 2

Technical textile watch:
"Matérials" - "Industrie of the future" - "Circular Economy"

Market watch:
- Textile opportunities in Mexico, Vietnam
- Defence market in Japan, Indonesia, USA
- State of the art of the German technical textiles market
- Sustainable fashion symposium

Scientific watch:
Iberic Lab Tour

Support for
4 international joint missions

- Biomimicry
- Blockchain awareness
- Technical textiles for transport and energy
- Naval maritime (Sea cluster)
- Thermoregulation technical meeting with the French Directorate General of Armaments
- Hackathon (Tomorrow's Textiles: along the circular economy)
- Franco-Swedish research days
- Moisture-regulating fabrics
- Process for the production of fireproof cellulose

Biomimicry

Blockchain awareness

Technical textiles for transport and energy

Naval maritime (Sea cluster)

Thermoregulation technical meeting with the French Directorate General of Armaments

Hackathon (Tomorrow's Textiles: along the circular economy)

Franco-Swedish research days

Moisture-regulating fabrics

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Club RECIT (Circular Economy)
Club StEiW (Smart Textiles)
Club Industry of the future

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European Textile Mission to Mexico (Texglobal)
Security and Defence Mission to the USA (EU-Alliance)
Sustainable Composite Mission to the USA (REC-N-COMP)
Virtual mission with Vietnam companies (Texglobal)

38 companies supported

Heimtextil (Home textiles)
Techtextil (Technical textiles)
Performance Days (Sport, functional textiles) – Spring and autumn edition
JEC WORLD (Composites)
Natural Fiber Extraction (Sustainable textiles)

61 companies supported

USA
Mexique
Vietnam

Europe
Techtera is also a partner in interclustering projects:

- **Hub of cluster for the factory of the Future**: visit of the Digital Campus and visit of the Axel’One Innovative Processes platform,
- **EU-Alliance**: internationalisation of European SMEs technical textiles, connectivity, advanced technologies, advanced materials for the defence/security sector,
- **CONTEXT**: network of European technical textile experts,
- **REC–N–COMP**: recycled materials based composites,
- **Texglobal**: development of the innovation potential of European textile companies,
- **ECA (European Cluster Alliance)**: involvement in the European network of clusters.

**ALPTEXTYLES** — Develop collaborative solutions for the relocation of Alpine textile value chains, to make them sustainable, circular and innovative, and sensitive to heritage and consumers.

- **Markets**
- **Budget**: 2,979,602 €
- **Funding**: Europe interreg alpine space 2022

**EUROBOOSTEX** — Joint European initiative in support of the textile industry for European recovery through digital and ecological transition.

- **Market**
- **Budget**: 1,438,889 €
- **Funding**: Europe (euroclusters) joint cluster initiatives for europe’s recovery (smp-cosme-2021-cluster)
Since 2005, 267 Projects financed for an amount of 651,7 million euros.

**Défense Isl Porcher** — On a multi-scale, characterise and model the mechanical behaviour of a fabric subjected to ballistic impact.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 151 000 €
- Funding: Défense CIFRE

**Tibet** — Prototype clothing integrating an electronic system associated with a design optimised for collecting energy.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 26 210 €
- Funding: Worth

**ComposNet** — Develop compostable anti–insect agricultural netting.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 648 833 €
- Funding: R&D Booster Région AURA

**FhateX** — Make reliable and harmonise environmental traceability and labelling for the textile industry.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 250 270 €
- Funding: ADEME

**AurareFil** — Develop a closed–loop recycled polyester yarn made in the Auvergne–Rhône–Alpes region.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 147 720 €
- Funding: Challenge Refashion 2021

**Bio Sushy** — Replace perfluorinated products (PFAS).
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 5 237 937 €
- Funding: Europe – Horizon Europe

**R&D financed projects**

**Patenth** — Develop a support platform for the environmental transition of the Textile and Clothing sector.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 2 745 000 €
- Funding: PIA Régionalisé

**Jet Tronic** — In terms of application markets, diversify the alternative technology solution to metallisation developed by the enterprise.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 494 600 €
- Funding: PIA Concours d’Innovation

**Softwear III** — Train young researchers in the multidisciplinary science of soft actuators to be integrated within enhanced clothing and textiles.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 4 143 024 €
- Funding: Europe Horizon MSCA ITN 2021

**Calimero** — Improve the life–cycle durability of bio–based industries.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 3 518 902 €
- Funding: Europe Horizon–CL6–Zero Pollution–01–06

**Fomof** — Develop a French sector for functionalised textile products intended for military and civilian applications.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 3 810 34 €
- Funding: Défense – Rapid–Dual

**Texad** — Develop fluid treatment modules based on photocatalytic luminous textile technology.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 866 338 €
- Funding: ANR 2021

**Balarelance** — Develop an R&D platform serving the "Supply chain".
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 503 835 €
- Funding: Plan de Relance

**Convertir** — Develop a machine for carbon weaving.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 2 150 000 €
- Funding: Plan de Relance

**Pibe** — Develop a low–emissivity tent wall for camouflage and thermal comfort.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 671 000 €
- Funding: Défense – Rapid–Dual

**En.motion II** — Develop a new manufacturing process for flexible surfaces based on aerogel.
- Markets: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 7 367 636 €
- Funding: Europe H2020 EIC–SEMINST–2018–2020

**Mc4** — Develop European recycling value chains for glass and carbon fibre composites.
- Market: 🇫🇷 🇪🇺 🇬🇧 🇧🇪 🇨🇭
- Budget: 7 005 173 €
- Funding: Europe Horizon–CL4–2021–Resilience–01–01
Techtera renews its Gold Label: Fine recognition of our work within Europe!

The ECEI (European Cluster Excellence Initiative) Label, issued by the ESCA (European Secretariat for Cluster Analysis), attests to the documented commitment to continuous improvement.

Out of more than 2,000 European clusters, Techtera is the only European cluster dedicated to the textile sector to receive this award.

The audit, carried out by two neutral experts, covers 31 indicators, making it possible to verify the level of excellence in terms of management, strategy, financing, services and organisation; also, efficiency and the strong European dimension.

This fourth renewal of the Gold Label is a strong message of recognition of the entire team’s work; real motivation to maintain continuous improvement at the heart of the association’s strategy. It is also a powerful tool for attracting industrial organisations, research and training centres and European authorities, in the service of projects for the French textile industry.

The appointment of Philippe Sanial, from the CHOMARAT group, as President of Techtera

Philippe Sanial succeeds Louis Vovelle, Senior Vice President Innovation and R&D at Elkem, who has been involved for 10 years in the cluster’s presidency. Philippe Sanial is Technical Director in charge of R&D, industrialization, and methods at CHOMARAT, the French industrial textile group specialized in reinforcements for Composite materials, reinforcements for Construction materials, coated textiles & technical films. The group has been a member of TECHTERA since its creation.

Philippe Sanial has initiated partnerships between the CHOMARAT group and national and international research centers. He has an in-depth knowledge of the levers of collaborative innovation, particularly for SMEs and ETIs.

He will also be able to rely on a solid base within TECHTERA, both in terms of structure and teams, and the governance bodies.

The highlights of 2022

Members of the Executive Board
Growth of Techtera’s activity in Europe

European research and innovation funding programmes give pride of place to textiles. As such, Techtera has supported its members and submitted several European projects.

Techtera is also a partner of European projects including EuroBoosTEX, Caliméro and MC4 funded in 2022.

EuroBoosTEX - Digital and ecological transition (2022-2025)

**EuroBoosTEX** aims to stimulate the environmental and digital transition of European textile small/medium enterprises, and to boost their competitiveness at an international level.

**How?**
- By promoting innovation by funding new products or services,
- By supporting the adoption of advanced digital technologies,
- By supporting requalification of the textile workforce and strengthening skills through training,
- By exploring international opportunities in Australia,
- By leading a European textile network for the resilience and the generation of growth opportunities for small/medium enterprises.

MC4 - Circularity and performance of carbon and glass fibre composite value chains (2022-2025)

Carbon and glass fibre composites are essential in many technical applications, for which their lightweight properties and high performance are particularly appreciated. However, the European value chains of these materials need to be optimised on two major levels: environmental impact and economic impact.

**MC4** aims to implement research and innovation action, which takes into account the specific needs of the two value chains.

**How?**
- By developing recycling processes concerning the matrix/fibre chemical separation for carbon fibre, and concerning a new type of resin for the direct reuse of the composite material for fibreglass,
- By implementing processes to achieve a 60% recycling rate in supply chains with the use of appropriate quality assessment of recycled material,
- By ensuring the possibility of correctly using recycled materials in different fields of application,
- By giving European industry the means to master and use these patented processes for manufacturing recycled materials.

Caliméro - Life cycles and biobased industries (2022-2025)

**CALIMERO** focuses on the transition to a sustainable traditional industry for five target sectors: construction, wood, textiles, paper, chemical additives.

The project is organised around three phases: collect all the data, analysis and processing (artificial intelligence models with life cycle analysis) – and application to practical cases.

**How?**
- By exchanging best practices between sectors with historical similarities,
- By identifying and defining impactful strategies for the use of bio-sourced materials
- By developing and disseminating models for analysing and taking impact parameters into account,
- By laying the foundations for economic and social life cycle analysis in the textile sector,
- By strengthening the skills of the ecosystem through training.
Techtera roadmap 2023-2026

3 levers to act on the 3 technological axes

1. Research, development, innovations
2. Economic development
3. Skills

Circular Economy and resources efficiency
- Bio-based materials and sustainable processes with low environmental and sanitary impacts

Digitalisation of the industry
- Materials and products – Manufacturing – Supply chain – Economic models

Smart and high-performance materials
- Smart Textiles – Multifunctionalization – Energy related solutions

Actions method of Techtera
- Do/Initiate
- Coach
- Support

Actions plan and partnerships