

Edito

South Korea & Japan: Digital technology at the service of textiles!

During a "Learning Tour" organised in November, Techtera explored Japan and South Korea; now considered an **El Dorado for distribution in the fashion and luxury sectors**, positioning themselves at the top of the worldwide ranking for consumption of luxury products for the year 2022.

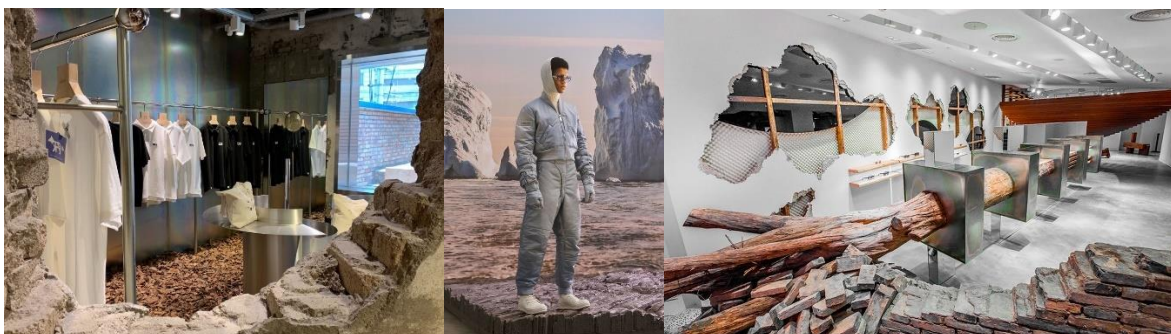
Together with [R3ilab](#), the [Fédération de la Maille](#) and the [Union des Industries Textiles](#), the group studied how South Korea has managed to become one of the **world leaders for innovation and technological development**.

Supported by a population, quick to adopt new technologies, South Korea encourages the development of many innovation projects and the rapid marketing of innovative products. Consequently, **Korea represents an ideal laboratory for brands to test new ideas**. For example, the country is working on the development of 6G, which should be deployed in 2028 – a Korean citizen spends on average 8 hours a day on the phone.

Thus, the Korean textile industry stands out for its use of **hyper-connected monitoring tools** and innovative production methods, such as **product digitalisation, automation and robotisation**.

In this context, distributors understand the **crucial importance of marketing and image**. They now influence in-store textile trends, shaping a **remarkable experience** before online purchase. The aim is to leave a **unique brand imprint**, going beyond merely generating revenue.

The in-depth visits to industries, brands, institutions and distributors highlighted the major influence of digital in Korean society, representing an essential advantage for the country.



Disruptive retail shops



Kitech Pilot : Plant monitoring system

Focus

Promising results for AEROTEX: Textile innovation with high thermal performance; a project initiated by Techtera

The AEROTEX project, led by the [FIBROLINE](#) company, initiated and certified by Techtera, and supported by the [Région Auvergne-Rhône-Alpes](#), is about to be finalised after two years of development as part of the regional **R&D Booster** call for projects.

In partnership with six major groups; [MILLET MOUNTAIN Group](#), [MARCK&BALSAN](#), [CETHIL](#) (CNRS), [PEG](#), [ENERSENS](#) and [FIBROLINE](#), the project aims to develop textiles with high thermal performance; mainly for PPE (*personal protective equipment*), outdoor sports and the construction industry. It is based on the use of **silica aerogel and the dry impregnation technology** patented by FIBROLINE.

The products developed **aim to bring significant progress in the field of insulation**. They are for markets that require both cutting-edge technology and materials highly adapted to each work procedure. They provide increased conformability, lightness and comfort. Furthermore, these products are easy to use.

During the project, several obstacles were removed by adapting technologies and raw materials. Heat transfer phenomena in multi-materials were analysed and modelled. **Several prototypes have been created** from the innovative thermal insulation wadding developed: a sleeping bag for sport, jacket and trousers for PPE; also, an acoustic and thermal insulation panel for the building industry.



The AEROTEX project also made it possible to develop **super thermal insulators for electric vehicle batteries**. This very promising area will allow rapid initial exploitation of the project results.

"From the technical point of view, this project was challenging; but it also made possible a big advance in our aim to extend the use of FIBROLINE technologies and silica aerogels in the field of technical textiles", explains Sofien BOUZOUITA, Innovation Manager of FIBROLINE.

Contact: Clara LECLAIRE – cleclair@techtera.org

They are new members



AQ-TECH

The AQ-Tech mission is to construct the innovative ideas of its clients by bringing their projects to life through the use of the "Repeated Prototyping" method. With a team of more than 15 engineers, expert in mechanics, electronics, software, smart textiles and inflatables, AQ-Tech covers the entire development process, from feasibility study to mass

production.

This distinctive method, based on repeated prototyping, makes it possible to quickly develop functional prototypes; ensuring efficient marketing of innovative, reliable and certified products. AQ-Tech is equipped with internal facilities of more than 450 m² dedicated to prototyping, testing and assembling pre-series. Thanks to a network of industrial partners, AQ-Tech can provide large-scale industrialisation throughout France and internationally.

Anticipating developments in the smart textile market, the team is positioning itself as an expert with a new dedicated innovation unit. It can provide tailor-made technical solutions to develop an entire smart textile product.

Website: <https://www.aq-tech.fr>



TREMPLIN

Thanks to its textile division, Tremplin, a major player regarding integration through financial activity in Auvergne-Rhône-Alpes, has joined Techtera. The association has 430 employees, of which 260 have integration contracts. The organisation launched the project "Textile 360" at the end of 2022. The main collector for the region, Tremplin undertakes

to stop the export of used textiles and reduce the landfilling of waste textiles to less than 0.5% by 2025. Auvergne-Rhône-Alpes is the first French region to make this commitment.

To change the model, several strategies exist. Reusing textiles is a priority, with a target of 30%. Concerning the recycling of waste, an ecosystem of around fifteen industrial partners has been organised to find outlets for all this waste. Multi-partner experiments are being carried out to build sustainable recycling systems locally. The aim of Tremplin is to provide good quality textiles for upgrading; thus, making it possible to reinject recycled raw materials into production.

Website: <https://www.tremplin01.org/Collecte-et-recyclage>

Your appointments with the cluster

February 22, 2024 : Competitiveness workshop and micro-show: circularity in composites, textiles and wood (final event of the REC-N-COMP project) - Kortrijk , BELGIUM

Join us at the Circular Materials Center in Kortrijk on 22 February 2024 for the final event of the REC-N-COMP project on the recycling, reuse and circularity of composites, wood and textiles.

Discover circular business models, sustainable bonding technology and internationalisation opportunities.

Be inspired by innovative companies and develop your network at a half-day trade fair.

The event will include a dinner, and is open to any member company of one of the project partners, including Techtera.

[Inscription & programme](#)

Contact: Robin ODDON – roddon@techtera.org

March 12, 2024 : AlpTextyles – Research day: the living textile heritage of the Alps, the roots to a circular and sustainable future - Hôtel de région - 101 cours Charlemagne, 69002 LYON

As part of the European project [AlpTextyles](#), Techtera is co-organizing a research day hosted by the [Auvergne-Rhône-Alpes Region](#) on the subject of Alpine textile heritage.

This day will provide an initial update on the project's progress and will notably present the results of the mapping of Alpine textile heritage, covering know-how, aesthetics, consumer perception, and the cultural dimension of Alpine textiles. The full program will be published soon.

Join us for a journey centered around circularity, collaboration, and innovation. Explore AlpTextyles, a project co-financed by the EU, and immerse yourself in the mappings of the sector as well as textile value chains in the Alps.

Participation in this event is free, and registrations will open soon. As the number of seats is limited, you can already inform us of your interest by email.

A networking lunch and an exhibition space will be organized alongside the day's conferences. The event will be held under the patronage of Laurent Wauquiez, President of the Auvergne-Rhône-Alpes Region.

This event will be conducted in both French and English, with simultaneous translation.

Website: <https://www.alpine-space.eu/project/alptextyles/>

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April 23-26, 2024 : Techtexil trade show (Technical textile) - KORTRIJK BELGIUM

Techtexil is the worldwide event for the technical and nonwoven textiles sector. It will take place from April 23 to 26, 2024 in Frankfurt.

Every two years, the show attracts more than 1,500 exhibitors – 46 countries are represented.

During the last edition, Techtera accompanied 30 firms and thus represented the first French delegation to the show – 360 m². On average per participant, the firms made 64 qualified contacts. This first French delegation to the show, with 360 m², resulted in 87% participant satisfaction.

In partnership with Business France, Techtera will once again be present to support French companies in the sector and optimise their participation, thanks to:

- Market support prior to the show
- Participation in the French pavilion cocktail
- Organisational support
- Many targeted communication actions to highlight the know-how of the participants

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Life of the members



New development at Sulitec: A pouch for portable electronic devices

Following the development of the treatment kit for alternative energy vehicles with the Monaco firefighters, Sulitec became interested in the problem of transporting portable batteries (bicycle, scooter, computer, etc). In fact, accidents linked to thermal leakage of lithium-ion batteries

are becoming increasingly frequent. Recently, phone batteries or electronic cigarettes have caught fire in airplanes, injuring people.

To deal with the risk of battery fire, which can lead to a dangerous release of toxic fumes or even explosions, Sulitec has developed a pouch using the insulating products in its range. This pouch is recommended for the storage and transport of portable electronic devices (PED) and spare and external batteries.

In the event of a failure, this makes it possible to **prevent and contain** any **risk of thermal leakage**.

To date, the civil security is in the process of acquiring protection to equip its helicopters and airplanes.

Website: <https://www.sulitec.com/>



Partnership agreement between the DITF and Saint-Gobain concerning ceramic fibres

Since 1990, the German Institutes for Textiles and Fibres (DITF) have been studying ceramic oxide fibres. They are currently working in collaboration with Saint-Gobain Advanced Ceramic Composites (France) to commercialise their technology on an industrial scale. These fibres are used

as reinforcement to improve the toughness of ceramic matrix composites (CMC); they can withstand temperatures above 1000°C.

Since 2018, the DITF has operated a pilot plant in Denkendorf (Germany) covering the entire manufacturing chain of these fibres. They entered into a partnership agreement with Saint-Gobain to market OxCeFi A99 (99% corundum) and OxCeFi M75 (96% mullite) fibres; thus, preparing for the start of industrial production in 2025. As part of this close collaboration, the DITF provides the know-how as well as the facilities in order to move this technology on to an industrial scale, while continuing to optimise the manufacturing process.

Website: <https://www.ditf.de/en/>



Ethicon launches a hemostatic patch impregnated with Fibroline solutions

Ethicon, a subsidiary of Johnson & Johnson MedTech, has obtained approval for its hemostatic solution, Ethisia, developed in partnership with Fibroline. This patch, based on unique synthetic polymer technology, is the first hemostatic material designed to be equally active and effective on both

sides.

For 80% of patients in the clinical trial, the patch stopped bleeding within 30 seconds, six times faster on average than patches currently on the market.

The patch has received the CE Mark approval. It will be launched in EMEA (*Europe Middle East & Africa*) in the first three months of 2024, following statutory approval, for key markets in North America, Asia Pacific and Latin America.

Website: <https://fr.fibroline.com/>



clim8 wins an ISPO Award for its new Digital Product Passport system: Digitag

clim8, supplier of personalised thermoregulation technologies dedicated to smart clothing, was rewarded at ISPO 2023 for its digital passport system: Digitag.

clim8 unveils its "digital product passport" at the A+A trade fair. This digital solution allows brands to create a digital twin of their textile products, accessible through a QR code or a specific integrated NFC chip for each item. By scanning them with a smartphone, consumers can view product information provided by the manufacturer, including composition, origin, washing instructions, usage tutorials, and more.

This digital passport aims to ensure greater transparency in the product's lifecycle and composition, anticipating the transition from traditional textile labels to more comprehensive digital labels as desired by the European Union and the United States. Future regulations are expected to require more transparency for consumers, displaying exhaustive information about the countries involved in the product's manufacturing (not just the assembly country), potentially allergenic components, authenticity, and more, all in multiple languages, with updates based on regulatory changes.

Website: <https://myclim8.com/fr/>



IFTH (French textiles and clothing institute) / OEKO-TEX® labels: a limit value for fluorine is introduced

Exclusive representative of the international OEKO-TEX® association in France, IFTH announces the introduction by OEKO-TEX® of a limit value for total fluorine. It will replace the limit value previously used for extractable organic fluorine.

This limit value of 100 mg/kg will apply to the STANDARD 100, ECO PASSPORT, LEATHER STANDARD and ORGANIC COTON labels. It will come into force on **January 1, 2024**.

The widespread use of per-and polyfluoroalkyl substances (PFAS) in the textile and leather industries highlights the need for rapid action due to the threat these chemicals pose to human health and the environment. Furthermore, this ensures that OEKO-TEX® certificates remain in compliance with American regulations concerning PFAS.

Website: <https://www.ifth.org/>



EXTRACTHIVE: winner of the ADEME call for projects on the theme of recycling composites

Extracthive is winner of the France Relance 2030 Plan concerning the call for a project dedicated to "Innovative solutions for improving the recyclability, recycling and reincorporation of composite materials".

Extracthive has thus obtained funding of €2.9 million to support the industrialisation of its patented technology, called PHYre® – a more virtuous solution for the recycling of carbon fibres from composite waste.

Objectives:

- Develop the French sector for recycling post-production and end-of-life composites
- Increase the volume of carbon fibre available on the market
- Provide a treatment solution for composite waste

Composite materials, containing a reinforcement (carbon fibre), to provide mechanical strength and a matrix, usually a plastic material to ensure cohesion of the structure, represent a major challenge in terms of recycling. This is where PHYre® technology comes in, using a mixture of solvents at moderate temperatures to degrade the matrix of composites and recover fibres with mechanical properties similar to virgin fibres – but with 10 times lower GHG (*Greenhouse Gas*) impact.

Website: www.extracthive-industry.com - www.phyre-recycling.com



Nouvelles Fibres Textiles (New Textile Fibres): Inauguration of the automated extra-sorting plant for end-of-life textiles – an initiative of the RECIT club

At the end of November, Nouvelles Fibres Textiles, the result of the collaboration between Les Tissages de Charlieu and Synergies TLC, inaugurated the first French industrial pilot for automated sorting and dismantling of end-of-life textile clothing. This 2,500 m² unit allows automatic sorting of clothing by colour and composition, while eliminating hard spots and pre-rag tearing. At the end of the line, Nouvelles Fibres Textiles produces a secondary raw material for the fraying, spinning, nonwovens and composite materials industries.

This project came to fruition thanks to applied industrial research work carried out with partners Andritz and Pellenc ST. The results will guide the creation of a second factory in 2025, capable of processing 25,000 tonnes of post-consumer textiles annually, generating around thirty direct jobs.

This advance positions France as a producer of textile fibres, highlighting the country's ability to upgrade its post-consumer textiles.

Website: <https://www.nouvellesfibrestextiles.com/fr/home-francais/>

Calls for projects

EUROPEAN AND INTERNATIONAL CALLS FOR PROJECTS

LIFE Programm - *More information:* [here](#)

Horizon Europe - *More information:* [here](#)

European Defence Fund - *More information:* [here](#)

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CART'TEX

Call for applications for the CART'TEX chart (reserved for TECHTERA members)

Textile companies wishing to join "CART'TEX", the chart of textile skills created by TECHTERA, can make themselves known to Issam CHAOUKI.

The CART'TEX database is the daily tool of the cluster for managing the search for partners for all projects, and for the response to business opportunities.

Contact: ichaouki@techtera.org

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