

TECHNICAL TEXTILES & FLEXIBLE MATERIALS **for medical, seniors, well-being & sports applications**



INNOVATION & TRADE MISSION

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TECHTERA

TECHTERA is the cluster dedicated to textiles and flexible materials of the AUVERGNE-RHÔNE-ALPES REGION, French leader in the technical textiles field. The cluster supports its 114 members – companies, research laboratories, technical centers, universities – in the emergence, structuration and implementation of their collaborative R&D projects.

Since its creation in 2005, TECHTERA approved **279 innovative R&D projects, among which 50% received funding. It represents a total R&D budget of 246 million euros.** These projects are under development or, for some of them closed, with eventually an innovation already available on markets of the technical textiles field: medical, individual protection, furnishing, clothing, buildings, transports...

THE OBJECTIVE OF TECHTERA IS TO INCREASE THE COMPANIES' COMPETITIVENESS VIA COLLABORATIVE INNOVATION BY:

- **Boosting** the development of collaborative and innovative R&D projects
- **Intensifying** European and international actions to stimulate global innovation
- **Supporting** the innovations business development
- **Communicating** on the performances of the textile and flexible materials industry

The excellence of TECHTERA has been recognized, as the cluster is now **ISO 9001** certified and thus is the 1st textile cluster to have obtained the **CLUSTER MANAGEMENT EXCELLENCE GOLD LABEL** from the European Cluster Excellence Initiative.



The ISO 9001 certification accounts for the **excellence** of TECHTERA's **quality management system**.



The Gold Label certifies that TECHTERA has demonstrated **highly sophisticated cluster management** and is committed to further improve its organizational structure and routines for the benefit of an even higher performance.

PARTICIPATING COMPANIES



BLUESTAR SILICONES offers a large range of elastomeric or fluid silicone products, notably made for the medical and paramedical markets and for textile coating.

Contact: Mr. Clément DES COURIERES,
clement.descourieres@bluestarsilicones.com



BOLDODUC is specialized in conceiving and manufacturing technical textiles. The company offers protection equipment for archery, equipment for transporting and sorting garments in medical laundries, and clothing adapted to senior citizens.

Contact: Mr. Jean-Charles POTELLE,
jcpotelle@boldoduc.fr



DTA MEDICAL is an expert company in wound treatment and offers a medical device that reduces the duration of wound healing and limits the chances of infection.

Contacts: Mr. François DUFAY,
francois.dufay@vistacare.fr
 Mr. Philippe GARNIER,
p.garnier@efiscience.com



FONTANILLE SCOP is a manufacturer of laces and bands with elastic properties, coated with silicone. These products are made for garments in the sectors of Health and Sports.

Contact: Mr. Rolland ARNAUD
rarnaud@fontanille.com



P3 INNOVATION is an expert company in the development and production of innovative textiles that have regenerative and painkilling properties thanks to mineral active ingredients.

Contact: Mr. Dominique PICARD,
dpicard@p3innovation.net



YCONE develops, produces and commercializes high-quality technical clothing for sports (cycling, running, skiing, etc.). These products are developed in their proper workshop.

Contacts: Mr. Christophe PODEVIN,
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 Mr. Raymond THAI,
commercial@ycone.fr



THE AUVERGNE-RHONE-ALPES REGION

TECHTERA's members provide many applications for advanced textile materials including **medical, seniors, well-being and sports** applications. The AUVERGNE-RHÔNE-ALPES REGION* is a very dynamic industrial area in these fields. Clusters like TECHTERA (textile) and others (health and sport clusters) help companies to be constantly innovative and competitive on an international level. The RHÔNE-ALPES REGION also benefits from the most advanced knowledge in advanced technologies (biotechs, nanotechs), which stimulates companies working on the targeted markets.

The Region accounts for

- ❑ **70%** of the French textile production
- ❑ **170** companies with high added value production
- ❑ **18%** of European tonnage
- ❑ The integration of **all professions** of the industry
- ❑ A **unique concentration** in Europe regarding the production of PPE clothing and textiles with medical use

The Region is also a major player in the medical industry

- ❑ **4th** European region in research
- ❑ **20.000** students in life sciences and **3.600** researchers
- ❑ **600** SMBs in health and life sciences sectors
- ❑ **400** public and private healthcare institutions
- ❑ A health-related technology **research institute**
- ❑ **World leading** companies in human and veterinary medicines

As a very sportive area, the Region is also a great place for athletes and sport companies

- ❑ **1st** French Region in terms of sport equipment manufacturing
- ❑ **2nd** most sportive French Region with **3 million** sportspersons
- ❑ **110.000** employees
- ❑ **50%** of the French employees of the Sports sector

The outdoor sports sector in particular is of major importance

- ❑ **Leading companies** on the sports market
- ❑ More than **291** companies
- ❑ More than **700** brands
- ❑ **Long-standing** companies with **experience** and **expertise**
- ❑ 2.5 billion € revenue
- ❑ 2/3 of companies have an international activity

The French government has appointed the silver economy as a priority industry. It impacts both the country and the Region

- ❑ Between 2014 and 2020, **300.000** jobs will be created in France, **30.000** in the Region
- ❑ It is a **multi-industry** market, and some of these industries (health, high technologies) benefit from the know-how of **expert Rhône-Alpes companies**
- ❑ In 2015, the 50+ years old in France account for **64%** of health spendings
- ❑ In 2060, **1/3** of the French population will be over 65 years old

**Datas concern the Rhône-Alpes Region*

MARKET APPLICATIONS

Medical, seniors, well-being and sports are strategic areas of TECHTERA's actions. Advanced Textile Materials are essential to provide these markets with the necessary materials as many textile applications can be found.



The companies participating in the mission are of course using Advanced Textile Materials to make innovative French products able to satisfy the needs of these markets:

MEDICAL

- The large range of silicone products dedicated to healthcare like gels and foams offered by **BLUESTAR SILICONES**
- The equipment for transporting garments and linen in medical laundries by **BOLDODUC**
- The VISTACARE medical device to reduce the duration of wound healing and to limit the risk of infection by **DTA MEDICAL**
- The laces and elastic bands by **FONTANILLE SCOP**, that maintain support stockings
- The M INSIDE regenerative accessories of **P3 INNOVATION**: medical orthotic devices, textiles for pets that went through surgery

SENIORS & WELL-BEING

- The clothing made especially for the seniors and the disabled by **BOLDODUC**, that offers appropriate zipping systems and limit the number of manipulations to dress a person
- The M INSIDE regenerative accessories of **P3 INNOVATION**, that have painkilling properties: anti-osteoarthritis gloves, interior pajamas, baby garments that ease abdominal pain, painkilling pants against menstrual pain

SPORTS

- The "ERA" brand protective nets and equipments for archery by **BOLDODUC**
- The coated fabrics made for anti-sliding jerseys by **FONTANILLE SCOP**
- The high-end sport garments and accessories of **YCONE** made for the professionals of cyclism, skiing and running

R&D PROJECTS

The dynamics of innovation and competitiveness of Rhône-Alpes companies in these markets is supported by the R&D projects TECHTERA and its members are involved in, especially Health and Smart Textiles Projects.

ACTIPROTEX: Reduction of bacterial proliferation via protective textiles

- Create high-tech textiles preventing nosocomial infections and microbial contamination

COLOMATRIX: Tissular regeneration to prevent anastomotic colorectal fistulas from appearing

- Develop a biomaterial or a biocomposite stimulating the tissular regeneration of the colorectal wall

FELIPE: Improvement of synthetic threads with more elasticity, toughness and durability

- Develop multi filament synthetic threads by incorporating thermoplastic elastomers and ionic liquids to replace elastane-based threads

MATBIOTEX: Functionalized textiles from biosourced materials made for medical applications

- Develop new bio-textiles to be used as external medical devices for the treatment of recurrent wounds or as internal medical devices to be implanted in the patient's body

PASTA (Platform for Advanced Smart Textile Applications): Combines research on electronic packaging and interconnection technology with textile research to realize innovative smart textiles with unlimited possibilities (leaded by members of TECHTERA)

- Encourage the development of invisibly integrated lighting, better fitting prostheses by integrated strain monitoring, urine and sweat detection in bedlinen, integrated RFID-monitoring

REVAMED: Regeneration and evaluation of medical devices

- Develop innovative medical devices for the repair and regeneration of soft tissues and provide new quantitative assessment of tissue regeneration induced by these implanted devices

SMARTBANDAGE: Bandage with a biosensor that will reveal pathogenic bacterias involved in nosocomial infections

- Detect as quickly as possible wound infections by embedding a diagnostic solution in the bandage

TEXISENSE: Company that leaded an ANR Project to make connected socks

- Create and sell socks that can be used during post-surgical treatment, for diabetes treatment, ulcer prevention or to prevent seniors from falling

VIRTEX: Fighting against the risks of airborne contamination

- Create a textile solution able to destroy airborne micro-organisms by electromagnetic radiation and thermal effect

TECHTERA AND JAPAN

Japanese companies are known to be remarkable developers and manufacturers of innovative fibers. The objective of TECHTERA and French companies is to find market applications for these fibers and to make relevant final products that will be put on the Japanese and European markets.

In 2014, TECHTERA signed a **MEMORANDUM OF COOPERATION** that settled objectives regarding the **French-Japanese cooperation in the textile industry**. The Memorandum is a structural agreement that has been signed with the **FRENCH and JAPANESE MINISTRIES OF ECONOMY** and the **JAPAN CHEMICAL FIBERS ASSOCIATION** (JCFA). It defined 5 development areas:

- Carrying on with the current partnerships,
- Facilitate the French-Japanese collaborative projects,
- Increase the cooperation between research centers and business companies,
- Develop cooperation in the fashion industry,
- More generally, support the relationships between the French and Japanese governments.

Since then, the number of initiatives regarding the Japanese technologies and markets has grown significantly.

Today, the cluster is proud to have among its members a Japanese company working on healthcare applications of textile-made products. TECHTERA is one of the leaders in the FIBERTRONICS initiative, a French-Japanese working group on future textiles and fibers, and has contributed in the SOYEUX DESTINS retrospective and perspective on French-Japanese relations regarding the silk market.

This mission is the next step in TECHTERA's projects with Japan. It will support the participating French companies in their development in Japan, and it will allow Japanese companies to benefit from the exceptional know-how of the participants.

After this mission, **TECHTERA will continue developing new perspectives and actions** in order to reinforce its connections with Japan:

- Organizing a restitution workshop about the Japanese transports market,
- Participating in MOC working groups in France and Japan,
- Continuing the work on the Fibertronics initiative,
- Receiving Japanese key accounts in Lyon during the Textival business convention (June 2, 2016).

THE INNOVATION & TRADE MISSION

TECHTERA retained the FRENCH JAPANESE CHAMBER OF COMMERCE AND INDUSTRY as its business service provider to organize the trade part of this mission. TECHTERA has also activated its own contacts in Japan for the innovation and technological part.

It is supported by the AUVERGNE-RHÔNE-ALPES REGION and targets the medical, seniors, well-being and sports markets.

Objectives: to help participating companies building ties with Japanese companies in order to generate business opportunities, to help them gaining access to new technological knowledge boosting innovation, and to develop technological and commercial cooperation between Japan and the textile industry of the AUVERGNE-RHÔNE-ALPES REGION.

It is the natural follow-up of the recent initiatives leaded by TECHTERA regarding Japan. It will be profitable for both French and Japanese companies, as TECHTERA's members will gain better knowledge and business relations on the targeted markets and the Japanese companies will benefit from the exceptional know-how of the participants.

The Innovation & Trade Mission targets the Medical, seniors, well-being and sports markets with 3 different actions:

- ❑ **Individualized business meetings** with the participating companies and Japanese companies aiming to create business opportunities.
- ❑ **Visits of locations** related to the targeted markets like the hospitals of technological showroom in order for the participants to develop their network and knowledge of the markets.
- ❑ **Technological watch** on the last Japanese innovations especially Connected Textiles, that will allow companies to be fully aware of both the most recent evolutions and the next technological perspectives on the markets.