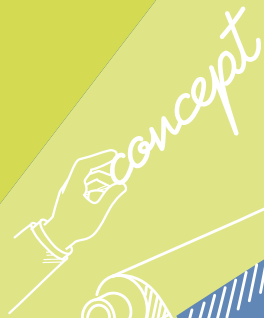


Progress report 2020

At the heart of textile evolution

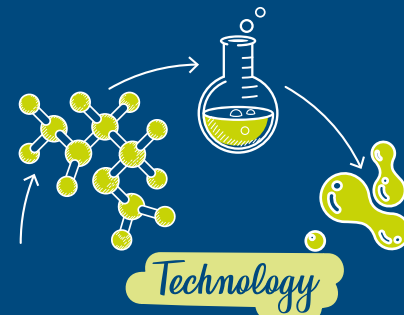


Collaborative

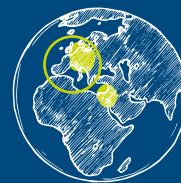


techtera

plan  success 



Business Idea



International



A word from the president



Dear members,

Our environment was seriously disturbed in 2020. This led us to rethink our lifestyle and ways of working. Adaptation and agility were essential to get through this difficult period together. I would like to thank you for the confidence you have kept in us. I also want to thank the team that took up this challenge; and which was always ready and available to help us.

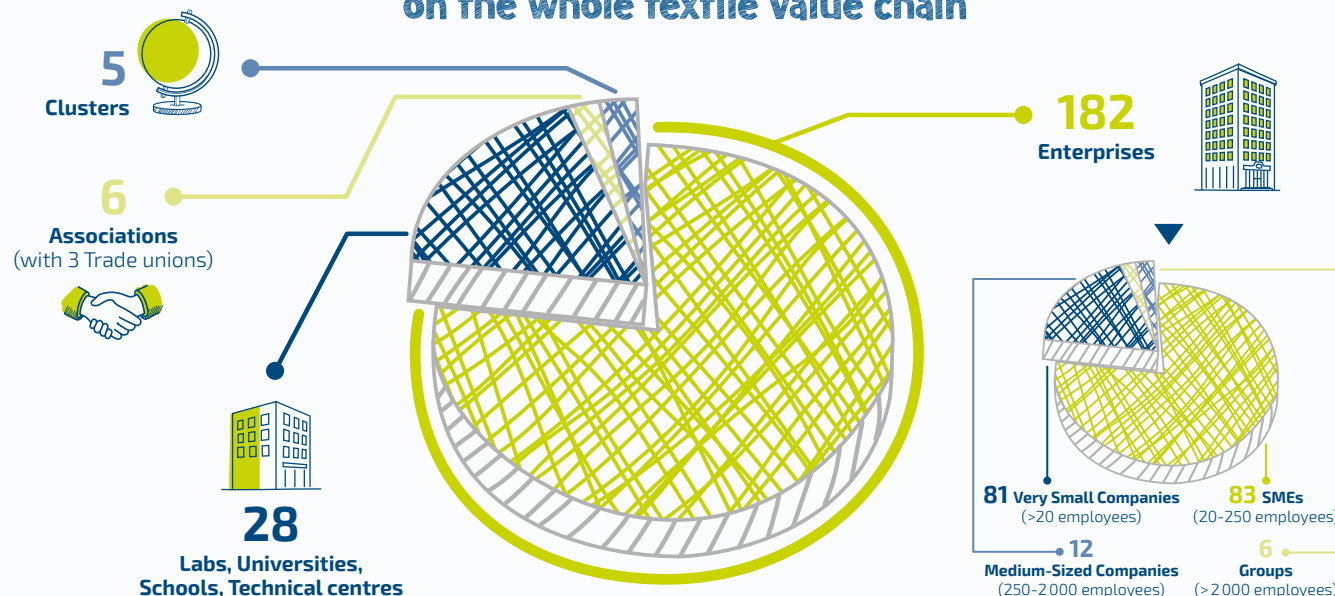
A few examples allowing us to measure the work accomplished:

- ✓ Against the backdrop of a pandemic, Techtera supported the textile industry in its efforts to find textile solutions to meet the country's urgent needs.
- ✓ Most of the events remained on the calendar in order to maintain the cluster's momentum; with topics as varied as the Circular economy, Connected objects, and the Factory of the future.

Figures of the year 2020



221 members, on the whole textile value chain



- ✓ Our Scientific and Technological Committee, a project endorsement body, has evolved into an Innovation Commission in order to integrate new skills and become international.
- ✓ Finally, the management has opened up to new organisations; in order to consolidate and unite our sector.

Techtera, drawing on its roots in Auvergne-Rhône-Alpes, is achieving its ambitions at national and international level. More than ever, the cluster, through innovation and united tactics, remains at your side to grasp new opportunities; through which growth and economic recovery will emerge.

I hope to see you soon and I thank you all for your confidence in us.

Louis Vovelle - Président

CERTIFICATIONS:

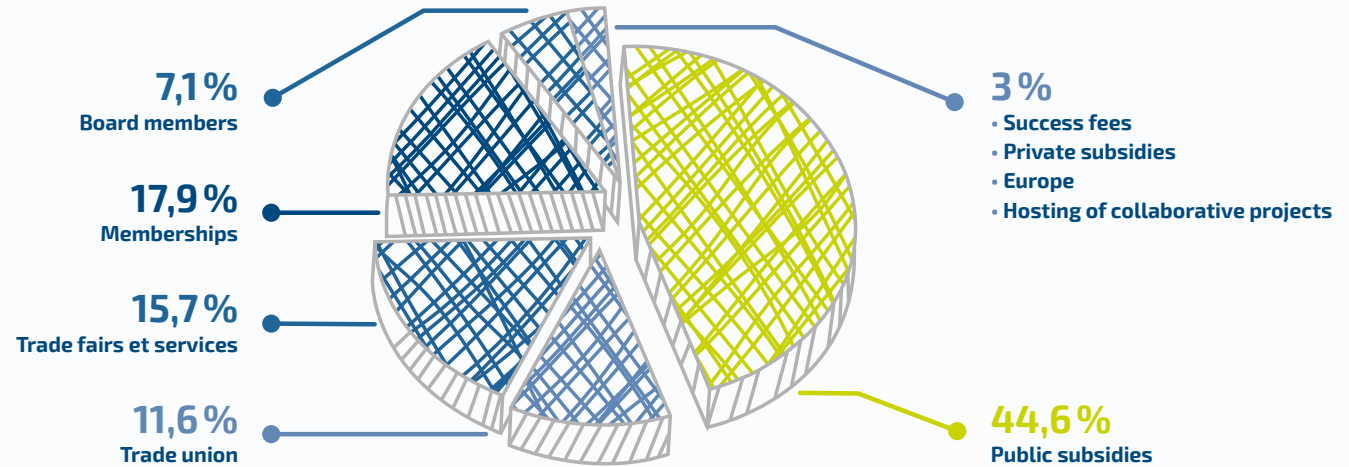


The ISO 9001 (2014) for Techtera's quality management system.

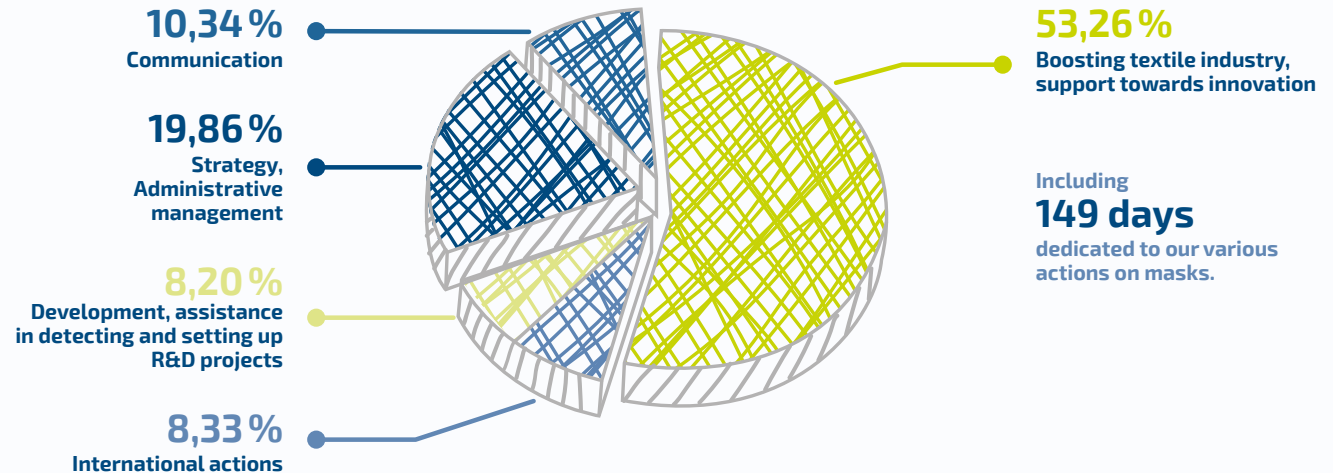


The European Cluster Management Excellence Label Gold for Techtera's highly sophisticated management and dedication to continuous improvement.

Ressources



Actions



Including
149 days
dedicated to our various actions on masks.

Do the groundwork

Keeping watch to facilitate the emergence of innovative projects!

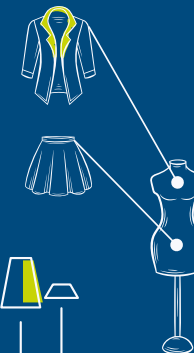
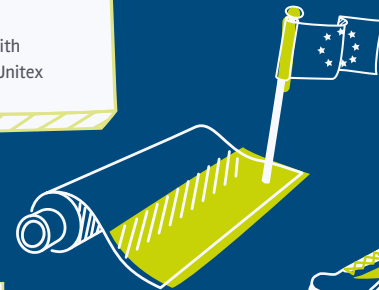
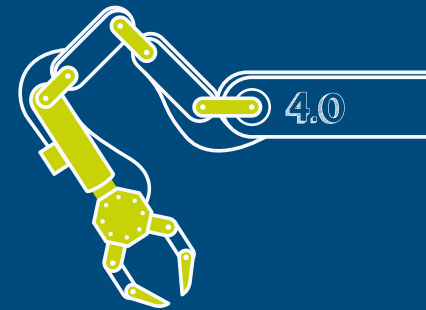
Innovation workshops Themes launched

- ✓ How to depollute the city with textiles?
- ✓ Vitrimers: Application opportunities in textiles
- ✓ Sustainable development, recycling and valorisation of flexible textile materials in partnership with the Pôle Textile Alsace
- ✓ How to answer to the massive customization issue (hub of cluster for the industry of the future)
- ✓ Tomorrow's textiles, through the circular economy with the CIRIDD, the Auvergne-Rhône-Alpes Region and Unitex

- ✓ **Materials watch:** Intelligent textiles for health, construction, PPE, sport and transport (CONTEXT project)

- ✓ **Defence watch:** Within the framework of the European ALLIANCE project (defence and security):
 - Mission to Japan
 - Market research report: South Korea

- ✓ **Funding watch:** Presentation of the "Green Deal" European call for projects.



- ✓ **Sport watch:**
 - Morning session on collaborative projects in collaboration with the OSV cluster
 - Performance Days exhibition (sport, functional textiles)



- ✓ **Creative watch:**
 - Trend programs:
 - Fashion trends
 - Décoration trends
 - Mégatrends
 - Première Vision trends Meetings
 - FashionTech: Agility of the textile sector in the pandemic period

Market exploration



Keeping watch to facilitate the emergence of innovative projects!

Keeping a watch on European funding

The textile industry will be a partner in the **Green Deal** launched in 2020. The **textile sector** has been identified as one of the “**priority value chains**” by the European Commission, in its industrial strategy for transition to the circular economy. It places particular emphasis on eco-design, upcycling and textile recycling, which should be **encouraged through innovation and new industrial applications**. Techtera identified these calls for projects as soon as they were published; then, gave its members the keys to respond to them during a webinar. There were nearly fifty participants and several submissions of projects.

Keeping a watch on markets and technologies

Thanks to the CONTEXT network (www.context-cost.eu), members benefited from five studies concerning smart-textile application markets. These studies result from the combined effort of experts in the field, working at European level.

During the “**Expert Talks**” at “**Performance Days**”, a fair dedicated to textile applications, Techtera published a report on the theme of this edition, “**Nothing to waste – Closing the loop**”, on closed-circuit products; designed to be recycled, recovered or reused, thereby reducing textile waste.

Keeping a watch on creation and FashionTech

The innovation cluster continued throughout the year to keep watch on events for the fashion, decoration and luxury sectors through **trend programmes** (Environnement-Maison®, Stratégie Mode and Ateliers 360°-Megatrends).

The six **annual meetings** were all maintained, sometimes remotely, bringing together more than **226 participants**.

With the central theme of “**The agility of the textile industry faced with the pandemic**”, the 2020 edition of **Fashion Tech Lyon** was an enormous success. It brought together companies from the textile, fashion and technical textiles sector; as well as higher education establishments dedicated to fashion.

Exploratory missions, sowing the seeds for international partnerships!

As part of the ALLIANCE project, in partnership with seven European clusters (France, Italy, the Netherlands), Techtera organised an exploratory mission regarding security and defence in Japan during February 2020. The various visits allowed us to consolidate the Memorandum of Cooperation with Japan. Thirty-one companies, two technical centres and one university were met during the Wearable Expo, a major event dedicated to wearables and related technologies, at which Techtera was also an exhibitor.

The focus quantified

6
technology-
watch
RESULTS

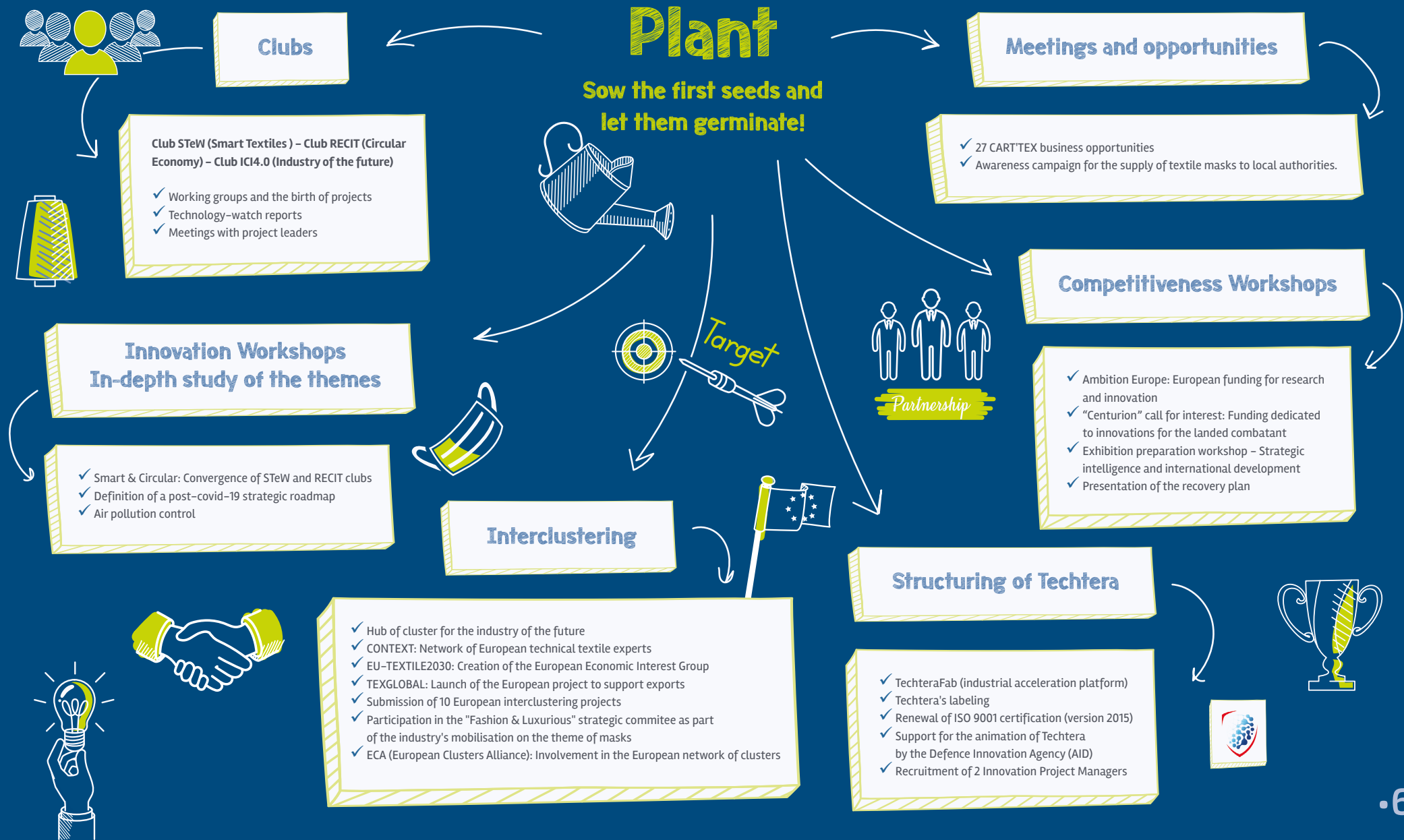


276
PARTICIPANTS
in the creative
watches



> 1,170
PARTICIPANTS
in “land clearing”
actions





The Techtera clubs: Gardeners of innovation!

3 clubs bring together members around 3 main themes:

Recycling and Circular Economy in the Textile Industry: Club RECIT (26 members) created in 2016.

Smart Textiles & Wearables: Club STeW (21 members) created in 2017.

Industry of the future with the launch of new Club ICI4.0 created in 2020.

In response to changes in business models of organisations, Techtera launched Club ICI4.0 – Industrial Club for Industry 4.0. Its aim is to boost exchanges in the textile industry around issues of digitisation, organisation, modernisation and flexibility. To do this, it relies on the complementarity of its members, notably by bringing together textile manufacturers, machine manufacturers and designers of digital solutions. (Already 14 members).

The clubs organise interventions by experts, feedback, and exchanges of good practices. These are aimed at promoting maturity, the integration of new technologies; and even the emergence of joint initiatives.

Techtera, partner of the European Texglobal project, fertiliser for internationalisation!

Launched on September 30, 2020, TEXGLOBAL is a partnership of **five European textile clusters** representing **four countries** (Italy, Spain, France, Portugal). Its aim is to **support the competitiveness of European textile companies** over the long term in the **international export world**. Three countries are targeted by the project: **the United States, Mexico, and Vietnam**.



Partnership with OSV (Outdoor Sports Valley), growth factor for future cooperation!

Techtera and the OSV cluster, **devoted to outdoor sports**, have strengthened their cooperation to enrich the provision of services to their respective members regarding **innovation and access to markets**: By organising mutual events, sharing information derived from “technology” and “market” surveys. The two organisations have thus built the foundations for the emergence of collective projects.



The focus quantified

15
PROJECTS
labelled

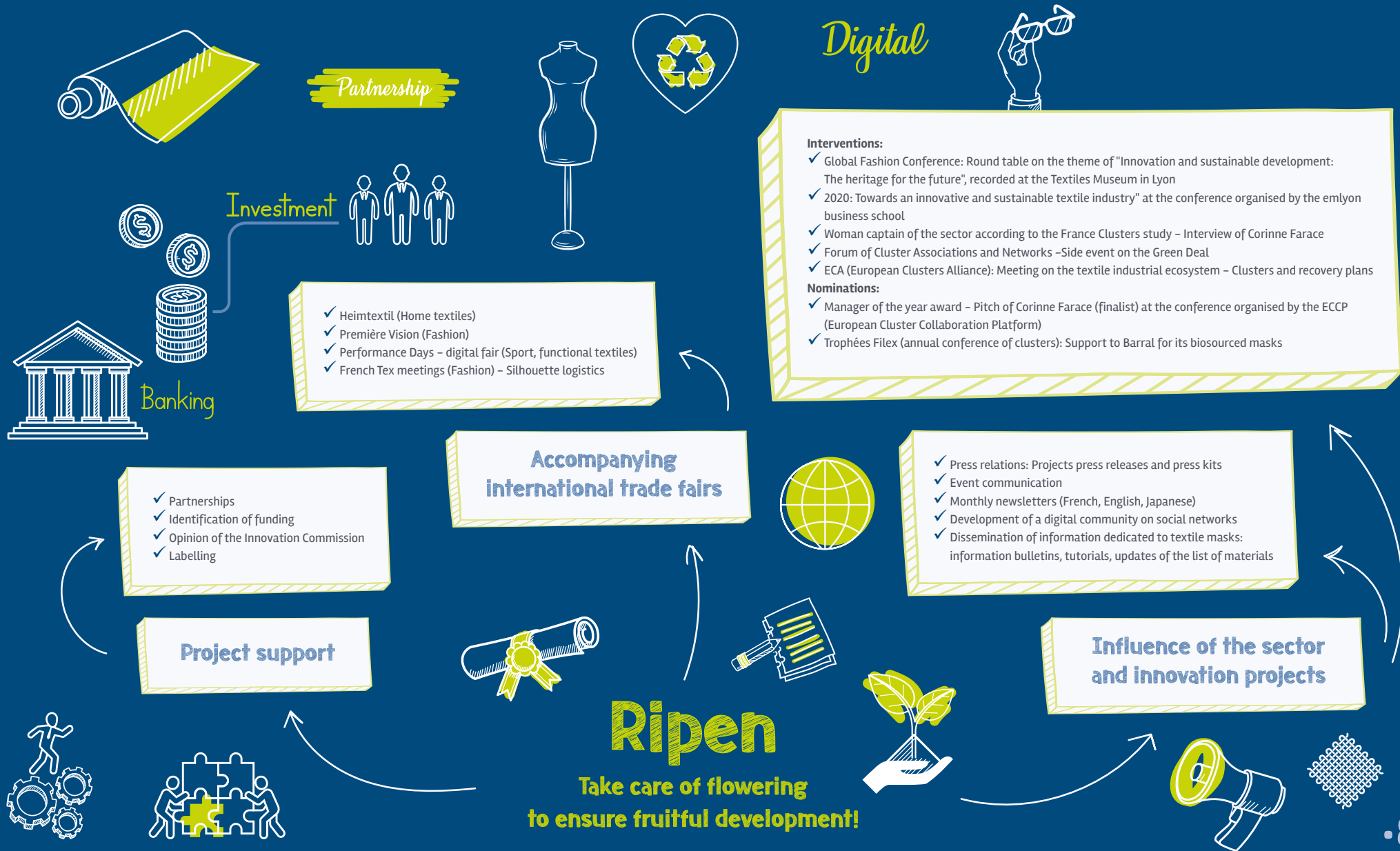


38
PROJECTS
including
23 EUROPEAN
PROJECTS
submitted



+/- 1,150
PARTICIPANTS
in the «planting»
actions





As close as possible to its ecosystem, to better nourish it!

Since 2020, Techtera has offered its members the possibility of having a **special interlocutor in order to personalise the relationship with the cluster**. Thanks to listening attentively, requests will be sent to the right department, and appropriate information will be communicated regularly.

Agility, pro-activity, responsiveness and targeted support are the **levers for grasping opportunities** in terms of innovation and economic development.

A project support method that is bearing fruit!

Examples of funded projects:

➤ Coming from Techtera workgroups, support with setting up and approved by Techtera

MIROIR

Design semi-industrial solutions for the metallisation of innovative, resistant, flexible materials; for luxury and personal protection.

Markets: fashion, PPE

Funding: PSPC Régions – French state – Auvergne-Rhône-Alpes Region

Project budget: 3.18 million €



AEROTEX

Develop new industrial manufacturing processes for high-performance flexible textile materials for more efficient thermal insulation.

Markets: infrastructure, sport, PPE

Funding: R&D Booster – Auvergne-Rhône-Alpes Region

Project budget: 928 K€



➤ Support with setting up and approved by Techtera

SENSITELLE

Design a new non-slip structure with high performance grip, comfort and aesthetics.

Markets: health

Funding: R&D booster

– Auvergne-Rhône-Alpes Region

Project budget: 779 K€



TRIMETIS

Develop a new technology for the functionalisation of polymeric threads and filaments.

Markets: health, sport

Funding: PSPC Régions – French state

– Auvergne-Rhône-Alpes Région

Project budget: 2.89 million €



TIGER

Develop a prototype of current generation by triboelectricity using a textile yarn, with an electronic system and a flexible battery.

Markets: PPE, sport

Funding: RAPID – Directorate General of Armaments

Project budget: 917 K€



The focus quantified

12
PROJECTS
labelled by
Techtera financed



since 2005,

227
PROJECTS
financed



580.4
MILLION
euros
of projects
financed

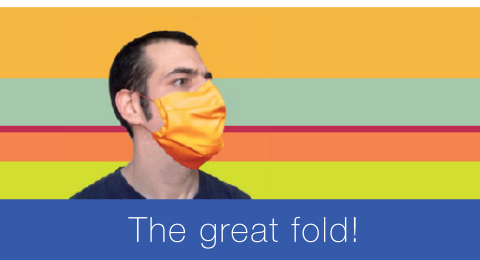


and also 2 mobility projects for researchers...

Supporting the textile industry

Mobilisation of the textile industry during the pandemic: Techtera's role

Since March 11, the Techtera and EuraMaterials **innovation clusters** and IFTH (French institute for textiles and clothing) have been **working hand in hand as regards the French economic "fabric"**. Triggered by the health crisis, a **tremendous momentum has highlighted the mutual aid between the various textile players and the excellent skills of French companies** searching for textile solutions to meet the country's urgent needs.



The right temperature!

Involved in several workgroups, Techtera helped **organise the textile industry's response**, particularly concerning the materials to be used for manufacturing masks, in close collaboration with EuraMaterials and IFTH. In partnership with Sable Chaud (specialist in the integration of new textile technologies) and the CTTN (research institute for maintenance and cleaning), it has set up a **disinfection and washing group** to define a cleaning cycle.

The innovation cluster also provided **support for the development of R&D projects** aimed at finding solutions to the current situation; as well as the validation of solutions and the search for manufacturers.

In addition, Techtera raised awareness within the EPCI (Public Establishments for Intercommunity Cooperation) by advocating **the need to supply textile masks** rather than disposable masks; and, at the same time, **communicating with the general public** (through tutorials, information).

The organisation has also provided **support to European countries** by providing information about **initiatives developed** in France.

These concrete actions have made it possible to **strengthen cooperation by pooling the know-how of the organisations** that form the textile ecosystem.



Credits: Sable chaud®

Research of masks manufacturers



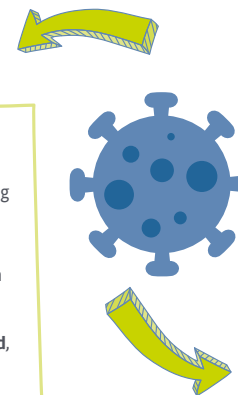
141 contacts identified and contacted.
Over 70 answers to specific demands.

Research projects

12 companies supported in the development of COVID-19 related projects.
49 responses to call of interest for the creation of a new production line for the manufacture of FFP2 masks.

Material studies for masks manufacturing

Over 2,000 material complexes analyzed by the working group on materials.
Over 1,200 reports from the Directorate General of Armaments analyzed on the material properties for filtration and breathability.
317 compositions of relevant material complexes identified, by the working group on materials.



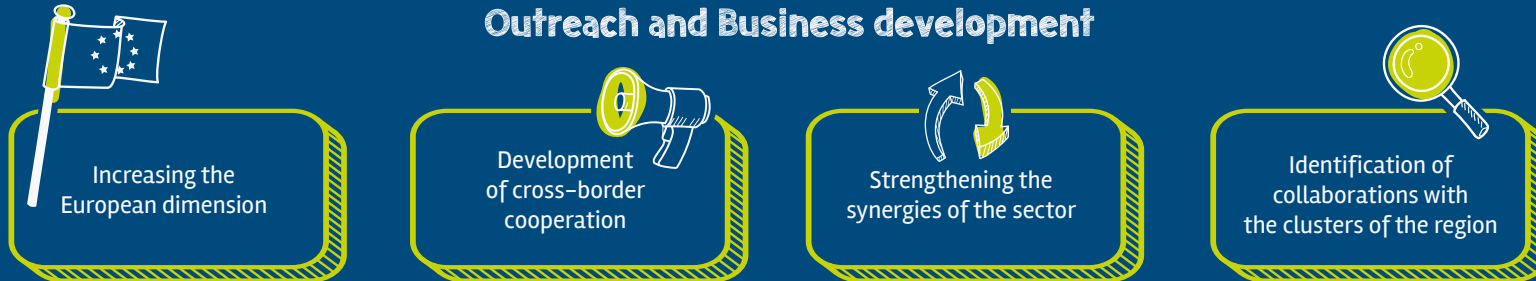
2020-2022 Techtera roadmap

Projects maker - 3 technological axes -



TechteraFab : industrial accelerator platform

Outreach and Business development



Expertise & solid organisation, the key words for a long-lasting innovative cluster



Members 2020

3F INNOVATION
ACTIVATION
AD MAJORIS
AE2M
AFELIM (ASSOCIATION FRANÇAISE DE L'ÉLECTRONIQUE IMPRIMÉE)
AFITEXINOV
AGENCE DU TRAVAIL D'INTERET GENERAL ET DE L'INSERTION PROFESSIONNELLE
AJ BIAIS
ALLIANCE MACHINES TEXTILES
ALPEX PROTECTION
ALSATHERM SERVICES
ALTHOFFER
ARMINES (ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES PROCESS INDUSTRIELS)
ASSOCIATION PREMIERE VISION
ASTRA
ATELIER SYSTEMES DE PROTECTION
AUTHENTIQUE BRODERIE
AXEL'ONE
BALAS TEXTILE
BARDUSCH
BARRAL
BELINAC
BG COUTURE
BLANCHARD TECH & YARNS
BLEUFORET - TRICOTAGE DES VOSGES
BOLDODUC
BROCHIER TECHNOLOGIES
CANOE (CENTRE TECHNOLOGIQUE NOUVELLE AQUITAINE COMPOSITES ET MATERIAUX AVANCES)
CARLHIAN
CAWE FTB GROUP
CETI (CENTRE EUROPEEN DES TEXTILES INNOVANTS)
CHAMATEX
CHAVANOZ INDUSTRIE
CHEMICA
CHOMARAT TEXTILE INDUSTRIE
CIMES
CLUSTER MONTAGNE
CNRS
CNRS INSTITUT CARNOT MICA
COLORATHUR
COMGRAF
CORDERIE MEYER-SANSBOEUR
COUBLANC TEXTILES
CROUVEZIER DEVELOPPEMENT
CTMI (COTTON TEXTILES MATERIAUX INNOVANT)

CTP (CENTRE TECHNIQUE DU PAPIER)
CTTN - IREN
DAR
DE FIL EN AIGUILLE
DENIS ET FILS
DIATEX
DITF (DEUTSCHE INSTITUTE FÜR TEXTIL- UND FASERFORSCHUNG DENKENDORF)
DMC
DOLLFUS & MULLER
DORIAN CAYOL / QUENTIN BARRALON
DS + M PORCHERET
DUTEL
E&T SYMBIOSE
ECOLE CENTRALE LYON
ECOLE NATIONALE DES TRAVAUX PUBLIC DE L'ÉTAT
ECO-MOBILIER
EFFBE FRANCE
EFI LIGHTING
ELKEM SILICONES FRANCE
EMANUEL LANG
ENERSSENS
ENISE
ENNOBLISSEMENT TECHNIQUE DE CERNAY (ETC)
ENSAD - ECOLE NATIONALE SUPERIEURE DES ARTS DECORATIFS
ENSAIT
ER2I INGENIERIE
EUROPROTECT FRANCE
EVENEMENTIEL EN VAL D'ARGENT
FESTO
FIBROLINE
FILATURE DE LAINE PEIGNEE D'AJOIE (FLASA)
FINAL ADVANCED MATERIALS
FK EUROPE
FOGALE NANOTECH
FONTANILLE SCOP
FREUDENBERG PERFORMANCE MATERIALS
FRIP'VIE
GARNIER-THIEBAUT
GENIUS OBJECTS
GEORGES G
H.T.H
HEIM TEXTILE CONCEPT ET DIFFUSION (HTCD)
HUGOTAG ENNOBLISSEMENT
IFTH (INSTITUT FRANÇAIS DU TEXTILE ET DE L'HABILEMENT)
INGENIERIE@LYON
INNOTHERA NOMEXY
INSA DE LYON
IPC (INNOVATION PLASTURGIE COMPOSITES)
ISABELLE LAURENT STYLE
ITA (INSTITUT FÜR TEXTILTECHNIK DER RWTH AACHEN UNIVERSITY)
ITECH
JACOB HOLM INDUSTRIES FRANCE

JEPLAN, INC.
JET METAL TECHNOLOGIES
JRC REFLEX
JULIEN FAURE
KAYSER FILTERTECH
KERMEL
KEYBOP CONSEIL
KURARAY CO LTD
LA FABRIQUE
LABONAL
LABORATOIRE INTERUNIVERSITAIRE DE BIOLOGIE DE LA MOTRICITE
LABORATOIRE ITODYS, INTERFACES
TRAITEMENTS ORGANISATION ET DYNAMIQUE DES SURFACES - UMR CNRS 7086
LABORATOIRES INNOTHERA
LES ATELIERS DE FRANCA
LES MOULINAGES DE RIOTORD
LES TISSAGES DE CHARLIEU
LESAGE PARIS
LONA PHARMA
LPMT (LABORATOIRE DE PHYSIQUE ET MECANIQUE TEXTILES LPMT)
LYON INGENIERIE PROJETS
MAILLE VERTE DES VOSGES
MANUFACTURE FRANCAISE DES PNEUMATIQUES
MANUFACTURE HARTMANN - EURO TF
MANUFACTURES DE MODE
MAPA
MAPEA
MARCK & BALSAN
MARDUEL
MASSEBEUF TEXTILES
MATERIELS INDUSTRIELS DE SECURITE
MDB TEXINOV
MECANIUM SARL
MILLET MOUTAIN GROUP
MITWILL TEXTILES EUROPE
MOBIL ELASTO FRANCE
MONTDOR
MOULINAGE DU SOLIER
MOULINAGES ET TEXTURATION REUNIS
N. SCHLUMBERGER
NATHALIA MOUTINHO
NCV INDUSTRIES (PORCHER INDUSTRIES)
NDS ELECTRONICS
NORMALU
NOSC
O.E.A. (OURDISSAGE ENCOLLAGE D'AMPLEPUIS)
ORION
OTEGO
OUATINAGE D'ALSACE
OUTDOOR SPORTS VALLEY
PALO IT LYON
PARADOX
PHILEA TEXTILES
PLASTIPOLIS

PMG ARDECHE
POCKUS CONSEIL
POLE TEXTILE ALSACE
PORCHER INDUSTRIES
PORCHER TISSAGES
PRONEEM
PROTECHNIC
ROBERT LEVY
ROVITEX
R-STAT
SABLE CHAUD
SAERTEX
SAMAYA
SASYTEX
SATAB
SCF (SOCIETE CHOLETAISE DE FABRICATION)
SCHAEFFER PRODUCTIQUE
SCHAPPE TECHNIQUES
SCHENKER STORES
SCIENCE ET SURFACE
SEMPATAP
SENFAT
SERGE FERRARI
SERICENTER
SIGVARIS
SIMP ORTHO
SME SOFT MATERIALS ENGINEERING
SOCIETE NOUVELLE ART MARTIN
SOFILA
SOFILETA
SOFRADIM PRODUCTION
STEVTISS
SULITEC
SUPPLEO
TDV INDUSTRIES
TECHNI SANGLES
TENTHOREY
TEXT'IN (LYCÉE LA MARTINIÈRE-DIDEROT)
TEXTI SONICS
THANN TEXTILES
THUASNE
TISSAGE DU MOULIN
TISSAGES L. RECORBET & FILS
TISSUS GISELE
TLC SYNERGIES
TOPTX CUBE
TRIUM TECHNOLOGY
UFIMH (UNION FRANCAISE DES INDUSTRIES MODE ET HABILEMENT)
UIT (UNION DES INDUSTRIES TEXTILES)
UNIVERSITE CLAUDE BERNARD LYON 1
UNIVERSITE SAVOIE MONT BLANC
UP'TEXTILE
VELCOREX
VERNE & CLET



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MINISTÈRE
DES ARMÉES