

Companies X [UP-tex + CLUBTEX]
= BUSINESS



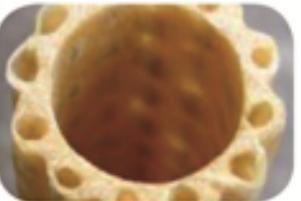
The right equation for textiles materials





CLUBTEX

(up)tex





Business facilitator

Animation

- 3 technological days / year
- 1 business lunch every month
- 1 techno dating day / year
- 2 end users meeting / year
- Futex Convention
- International prospecting missions and exhibitions

Le conseil

- Valorisation and promotion of member innovations individually or collectively in the target markets
- Technical studies and developments on request

(up)tex Innovation booster

Le projet et le produit

- Emergence and brainstorming workshops (from idea to project)
- Search for partners for collaborative projects
- Labeling of projects for fund raising
- Access to partnerships
- Assistance in the drafting and follow-up of projects in response to calls for tender
- Accompanying the marketing of products from projects

Business Intelligence

- An economic intelligence platform
- newsletters
- Customized technological watch on demand
- Studies on prospective markets and technologies

THEY TRUST US

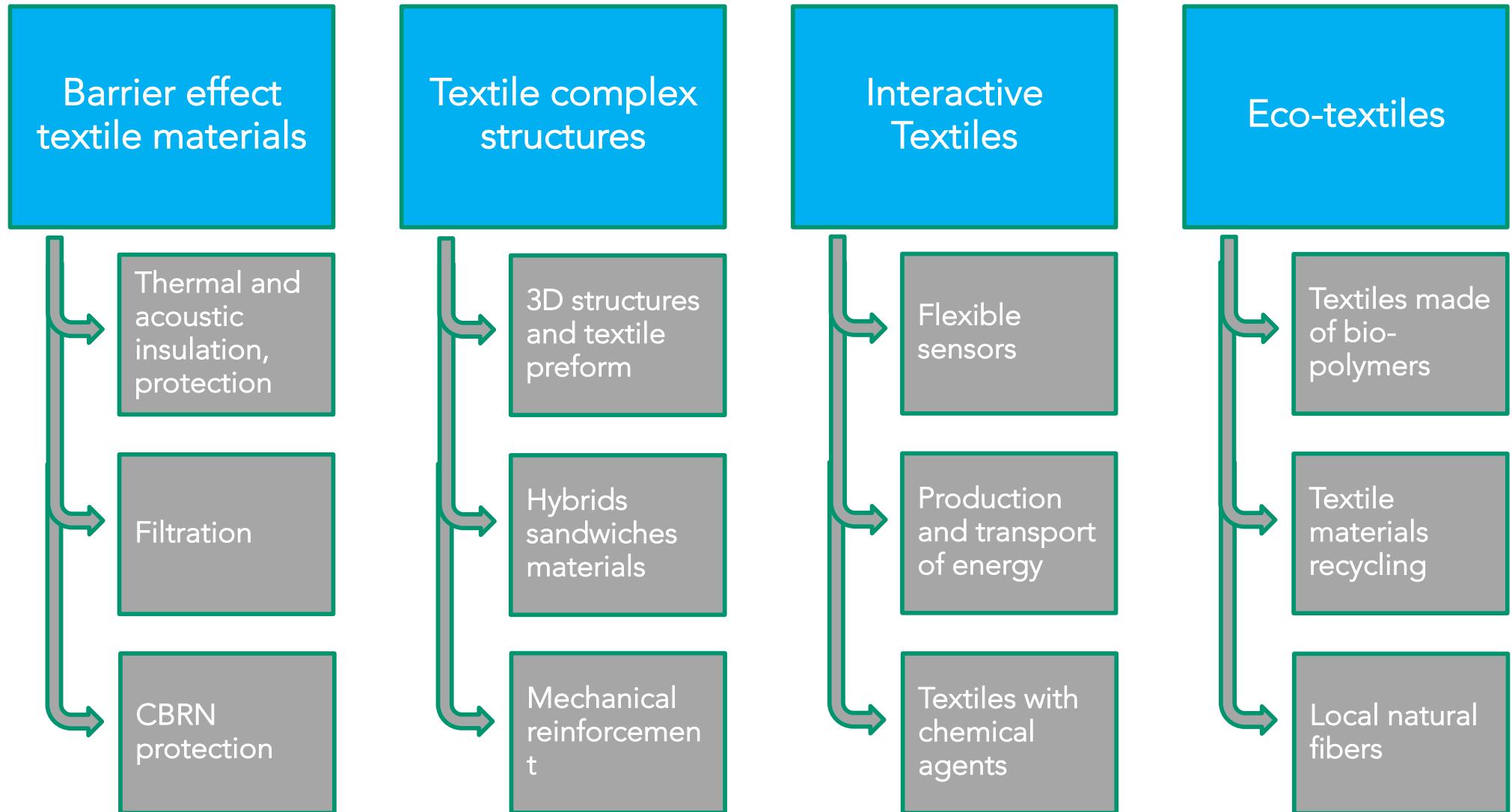
185 members

Companies



Research





E-TEXTILES @UP-tex



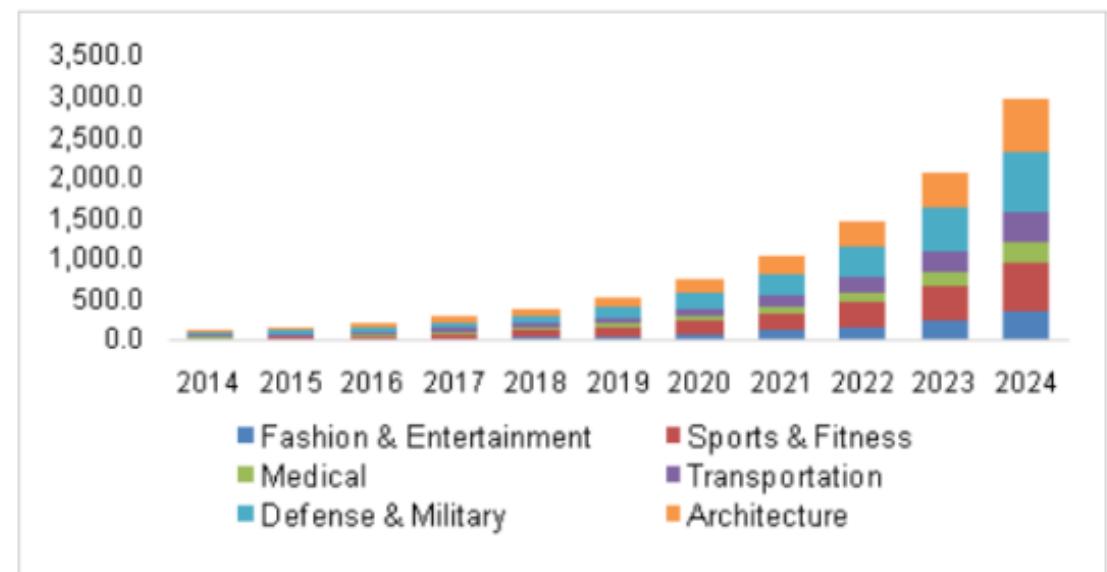
- The connected textiles (e-textiles) have developed strongly from basic research to prototyping ...
... all the industries close to the end users have clearly understood the potential development of e-textiles.

- The wearable market is estimated at around 150 Bn\$ by 2026
- The US and Asia introduce significant public / private investment:
 - AFFOA: US 325 M\$
 - Google Jacquard project
 - Asia development on electronics

... This market will represent in Europe up to **US 5.5 Bn\$** for 2024, i.e. **22000 employments**

(source: Kamitis Smart textile study 2016-2021)

Europe Smart Textiles Market By End-Use, 2014 - 2024 (USD Million)



→ The multidimensional challenge of e-textile innovation, driven by an impressive market potential

a dedicated animation



- ✓ 2016 Technical days on smart textiles



- ✓ FUTEX 2017



- ✓ 2017 Workshops with DGA about smart textile & defense requirements



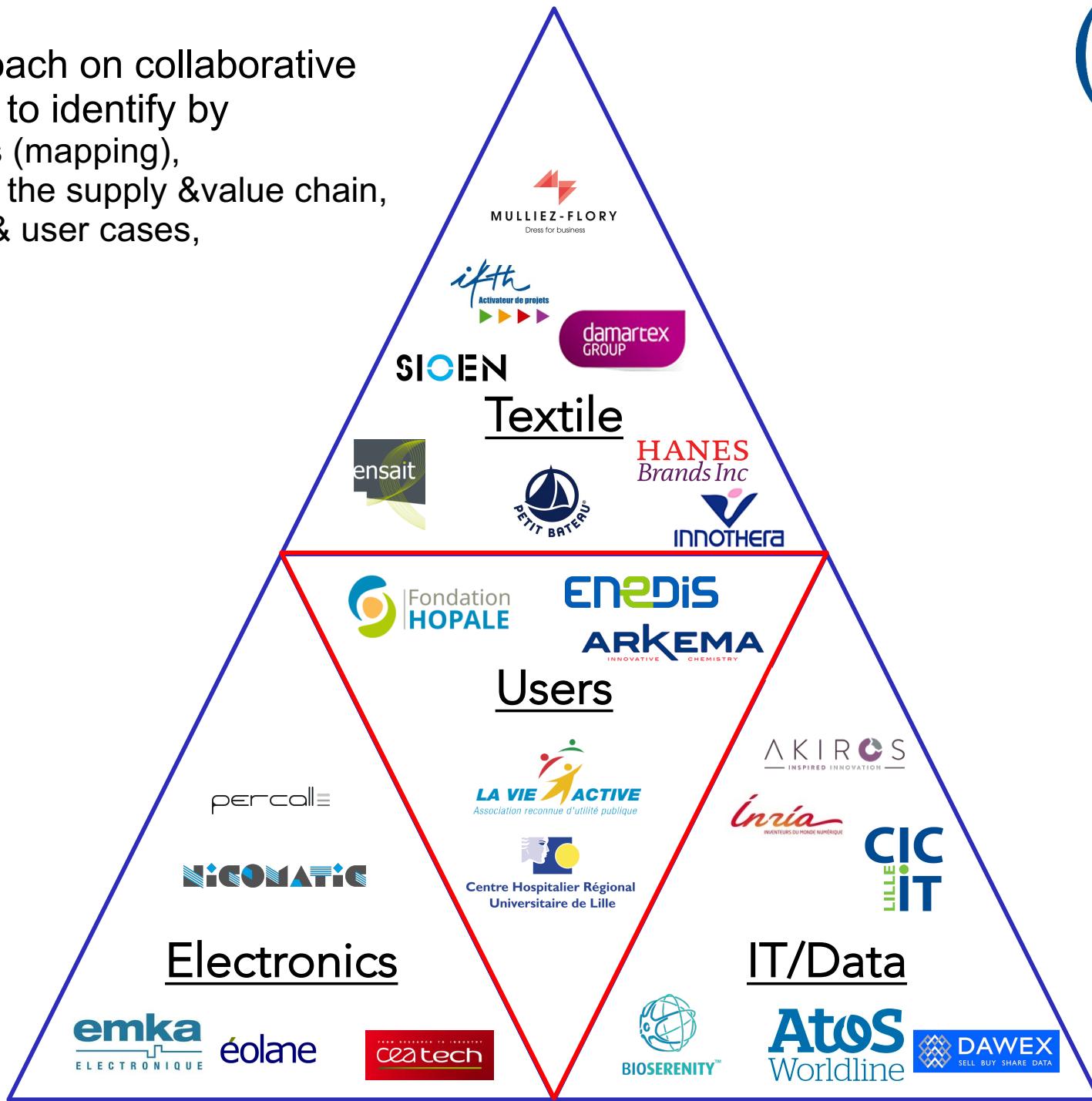
Total involvement of the industry ^{up}tex

- ✓ Since July 2016, working groups of industrials (>30 partners) focused on
 - ✓ evolution of industrial value chain,
 - ✓ manufacturing processes,
 - ✓ identification of partners (electronics, software, cloud, endusers...),
 - ✓ and evolution towards new business models.



Global Approach on collaborative innovation... to identify by

- expertise's (mapping),
- Position in the supply & value chain,
- Business & user cases,
- ...



- Optimal French and EU Ecosystem
 - **Technology push...** high know-how on several technologies



...

- **Market pull...**

→ Start-ups giving a new approach on product and service integrating e-textiles



...

- **Textile industrialization...**

→ Pure textile players with the ambition to create value with industrialization



...

Synthesis of the Working group

UPtex

Textile as a **sensors** & **actuators** factory...



Industry & Protection

- ✓ Predictive maintenance
- ✓ Protective equipment

- ✓ Technical challenge
- ✓ Business model (interest for industries...)



Health

- ✓ Growth of connected health
- ✓ Ageing population

- ✓ Health data
- ✓ Complexity of the value chain & health industry



Sport

- ✓ democratisation of sports;
- ✓ Increase of quantified self equipments

- ✓ Price, Business model
- ✓ Discontinuity of using wearable...



Fashion tech

- ✓ Connectivity, communities, awareness...
- ✓ Knowledge of users...

Main Challenges so far ...

- Supply chain (raw materials, electronics...), processing & manufacturing chain (textile / electronics / IoT industry)...

→ How to allow a textile productivity related to the target market

- Business models, data management & monetization of data

...

→ How to turn a product sale into a service offering

A leadership in innovation



UP-tex is working in the ecosystems of interactive textile for several years...

As a cluster we are currently supporting :

- ✓ 23 innovative projects in interactive textiles
- ✓ 12 concern wearable-textile development

Between 2013 & 2016 , 7 large projects were funded

Which represent :

26,5 M€ of investment in smart textiles

PROJECT EXAMPLES





(UPtex)

SOMNONAUTE Project (FUI)

Somnographic Measuring Garment Design

SOMNONAUTE

ASSISTANCE
PUBLIQUE HÔPITAUX
DE PARIS

BIOSERENITY™

innothera

DGE
DIRECTION GÉNÉRALE
DES ENTREPRISES

bpi**france**

INVESTISSEMENTS
D'AVENIR

(UPtex)

dataiku

IMATTEC
International
Matériaux et textiles Techniques

ifth
Activateur de projets

LRCS

PEP
COMITÉ TECHNIQUE
DE LA PLASTURGIE
ET DES COMPOSÉS



Health – polysomnography measurement device



Actual measurements

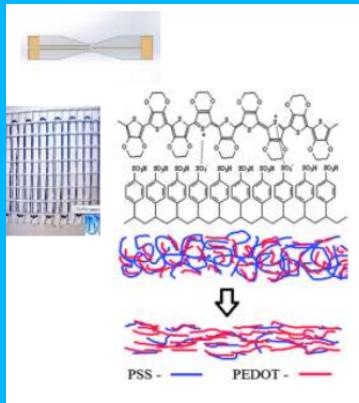
- 5% of the population suffers sleep apnea (3m),
- 700 000 People in France under machine,
- 79M € of costs Health system in France in measure.



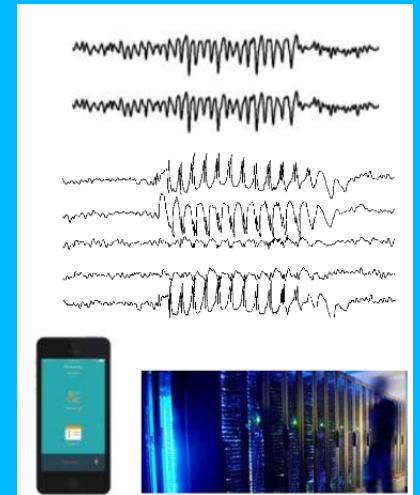
components

- Electrodes,
- Sensors,
- Battery.

Textile integration



Cloud & software





(UPtex)

TEXTRONIC Project (PIAVE)

Industrial platform of second skin e-textiles for the response to the needs of flexibility linked to heterogeneity of use and high volume need

TEXTRONIC

emka
ELECTRONIQUE

INNOTHERA

BIOSERENITY™

PETIT BATEAU®

damartex
GROUP

DGe
DIRECTION GÉNÉRALE
DES ENTREPRISES

bpi**france**

INVESTISSEMENTS
D'AVENIR

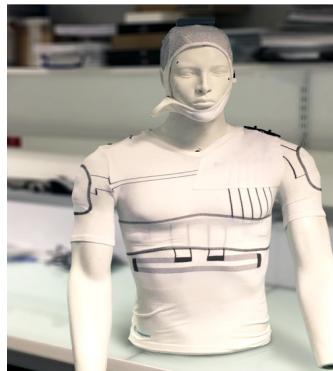
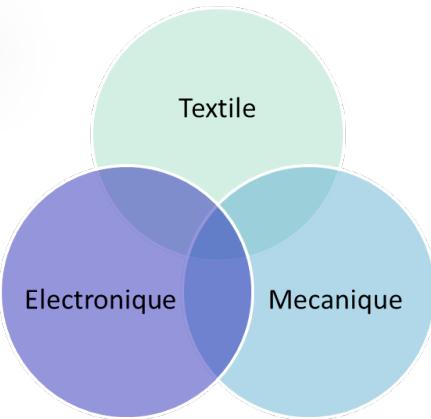
(UPtex)

Grand Est
ALSACE CHAMPAGNE-ARDENNE LORRAINE



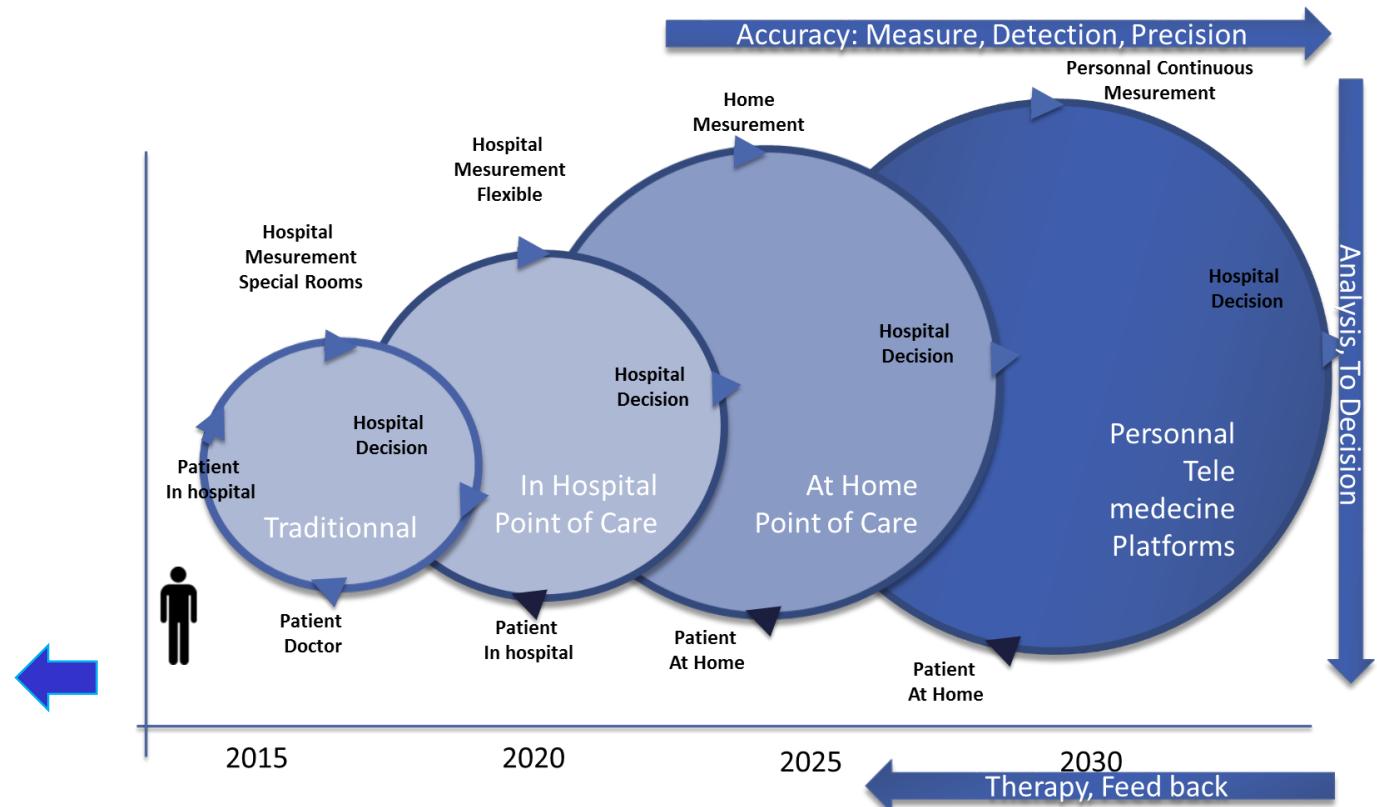


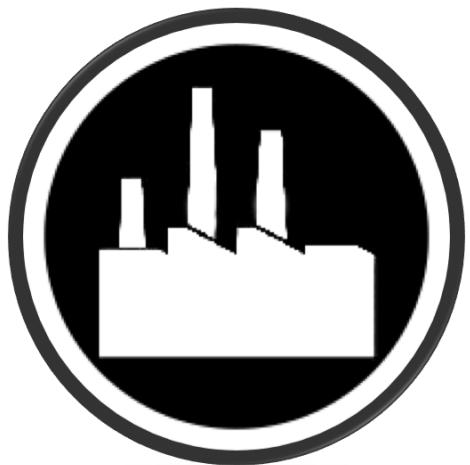
Health – Device Windows of Market Transformation



An accessible market estimated at 4 Bn€ in 2020 Expected growth

With a case of uses with high added value, cross fertilization of the textile, electronics, software, and users





(UPtex)

AUTONOTEX Project (PIAVE)

Industrial development of autonomous e-textiles
for different using (industrial, health, and military
applications)


MULLIEZ-FLORY
Dress for business


Eminence
POUR HOMME


TDV
INDUSTRIES


NICOMATIC


percall Implement Technology, Support People


ARKEMA
INNOVATIVE CHEMISTRY


MINES
ParisTech


canoe
Composites / Organic Nanostructures


iemn
U.M.R. C.N.R.S. 8520
Recherche Formation Transfert


INSTITUT
Mines-Télécom


ensait


MINES
Saint-Étienne


CETI
CENTRE EUROPÉEN DES TEXTILES INNOVANTS


DGE
DIRECTION GÉNÉRALE
DES ENTREPRISES

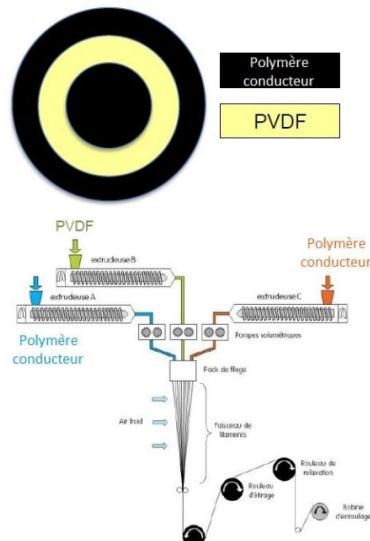

bpifrance


**INVESTISSEMENTS
D'AVENIR**


(UPtex)



... Based on a technology development of specific filaments

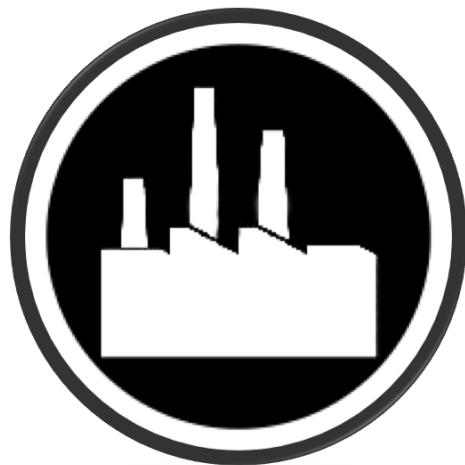


... Different functions

- Enable High Visibility Lighting
- Detect dehydration,
- Prevent the appearance of bedscores
- Control and validate sleep quality,
- Measure Stress and Fatigue

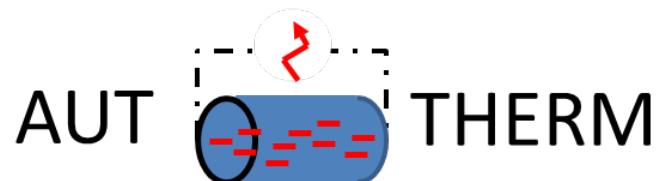
... Different using

- Personal Protective Equipment (PPE)
- Medical safety sheets
- Equipment for military and security personnel



AUTOTHERM Project (FUI)

Industrial development of autonomous & thermoregulated second skin textile



Autoregulated
underwear

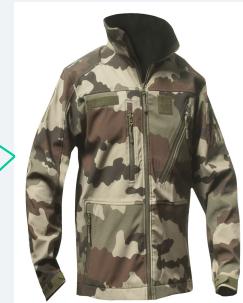
+

Energy
harvesting
vest

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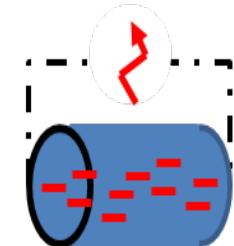
An autonomous &
autoregulated heated
system

Health market
(thermotherapy)



PPE & Military
applications

AUT



THERM²



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LES PÔLES DE COMPÉTITIVITÉ
MOTEURS DE CROISSANCE ET D'EMPLOI