



# Textile circularity in Auvergne-Rhône-Alpes: implementing a 4-helix strategy

Introduction to the Hub, Interregional Focus Group and Presentations of SMEs

16 January 2025 • 10:30-11:30 • Online



# Webinar Procedures



The webinar is recorded and will be shared - in parts or entirely – with all consortium partners. By staying connected you agree to this. If you would not like to appear on the recording, please keep your camera and microphone off at all times.



Mute your  
microphone



Disconnect  
video



Type questions  
in the chat



Raise your hand  
when you wish  
to speak



When you are invited  
to speak, unmute mic  
and show video  
(if possible)

# Agenda

**Introduction**  
*Charlotte Denis,  
Textile ETP*

**Recyc'Elit**  
*Marine Perraud,  
Recycl'Elit*

**Auvergne-Rhône-  
Alpes Region's  
policy for the  
textile industry**

*Inès Lejeune,  
Delegation of  
Auvergne-Rhône-  
Alpes in Brussels*

**Conclusion**  
*Charlotte  
Denis, Textile  
ETP*

**AURA  
GreenHub**  
*Robin Odden,  
TECHTERA*

**Rovintex**  
*Robin Odden,  
TECHTERA*

**Q&A**





# COMMUNITY TALKS

**Online animation activities play a pivotal role in sustaining the engagement of SMEs within the digital ecosystem.** To stimulate interaction, a series of **14 intra-consortium webinars**, the RegioGreenTex Community Talks, are taking place throughout the duration of the project. **The RegioGreenTex Community Talks promote the latest progresses and results of the project, and well as encouraging dialogue and knowledge sharing in the textile sector, focusing on sustainability and the green transition.**

The RegioGreenTex Community Talks are organised as part of WP2 (T2.4 Animation of the Ecosystem) and managed by Textile ETP, with the support of Euratex, NE RDA, Ariadne Innovation, OOST NL and Techtera.



# AURA GreenHub

Robin Oddon, TECHTERA



Co-funded by  
the European Union

# AURA GreenHub

Textile circularity in Auvergne-Rhône-Alpes: implementing a 4-helix strategy

# Techtera

Innovation and competitiveness cluster  
dedicated to the French textile industry

## Missions

- Support collaborative innovation
- Contribute to the development of dynamic **ecosystems** that generate wealth, relying on a strong territorial foundation and leveraging existing structures such as industrial networks, campuses, collective infrastructures, etc.

Smart and high-performance materials

Circular economy

Factory of the future and new business models



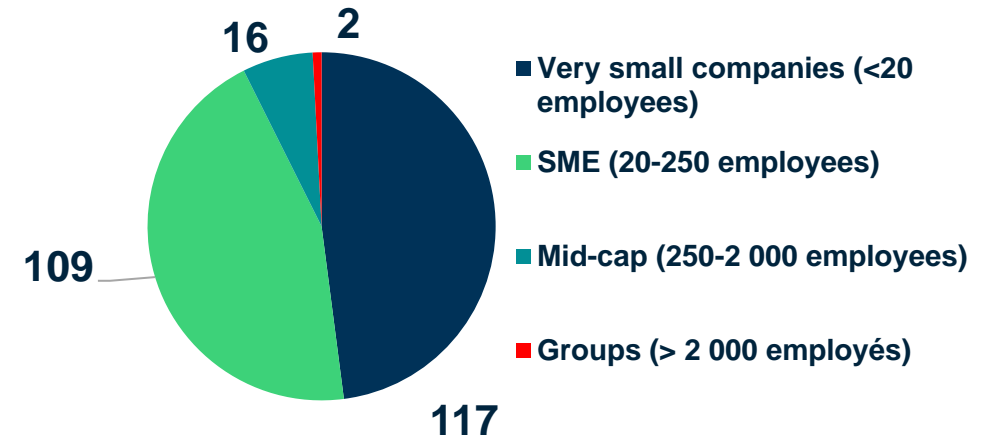
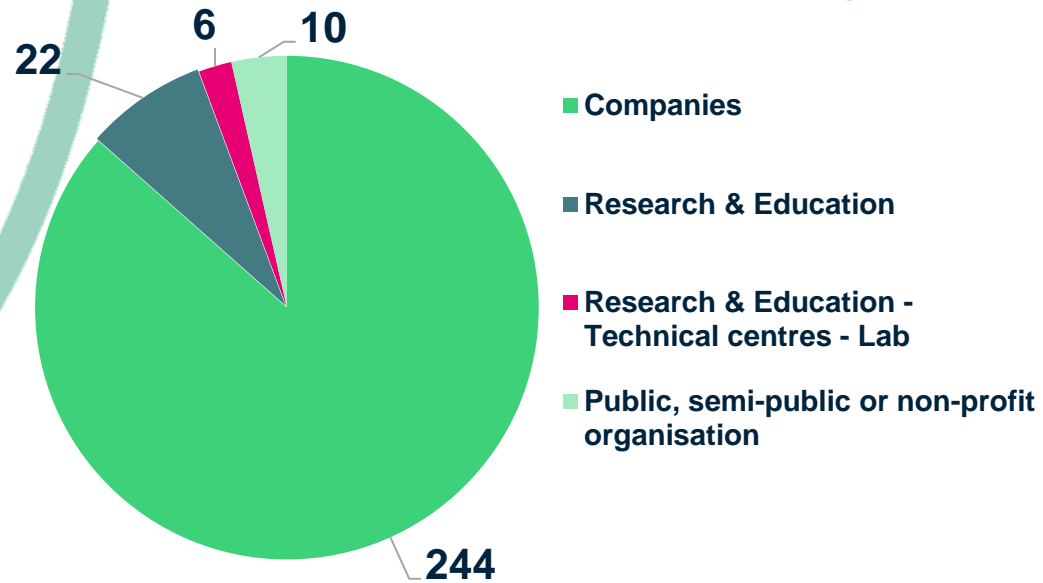
Co-funded by  
the European Union



# Techtera

## Ecosystem context

282 members, including 244 companies and 109 SMEs



**Auvergne-  
Rhône-Alpes**

**600 COMPANIES**

**4,2 billion €**  
in turnover

**27% JOBS**

in Auvergne-Rhône-Alpes compared to the national level

**27% OF NATIONAL BUSINESS**



# RegioGreenTex Regional Hubs

## GOALS

The regional Hubs are effective communities of EU textile actors integrating collaborating to:



build a complete circular  
textile ecosystem



support SMEs upscale  
recycling technologies



attract investments for  
technological advance



create effective value chains  
at regional level

# Functionalities of the Greentex Hubs:

*The prime function of a RGT hub is to provide support to SMEs active in the circular textile value chain and that this support encourages investments and growth of these SMEs. Results in these functionalities:*

1. Creating a market by building circular textile value chains.
2. Attracting public and private investments by building consortia.
3. Attracting individual investments by connecting the financial sector.
4. Capacity building (competences).
5. Connecting SMEs to join forces.



# AURA GreenHub

## Key stakeholders and objectives

- SMEs upscaling
- Investment attraction
- Knowledge sharing
- Expertise pooling
- Systemic approach
- Focused on the specificities of the region
- Possibility to replicate best practices

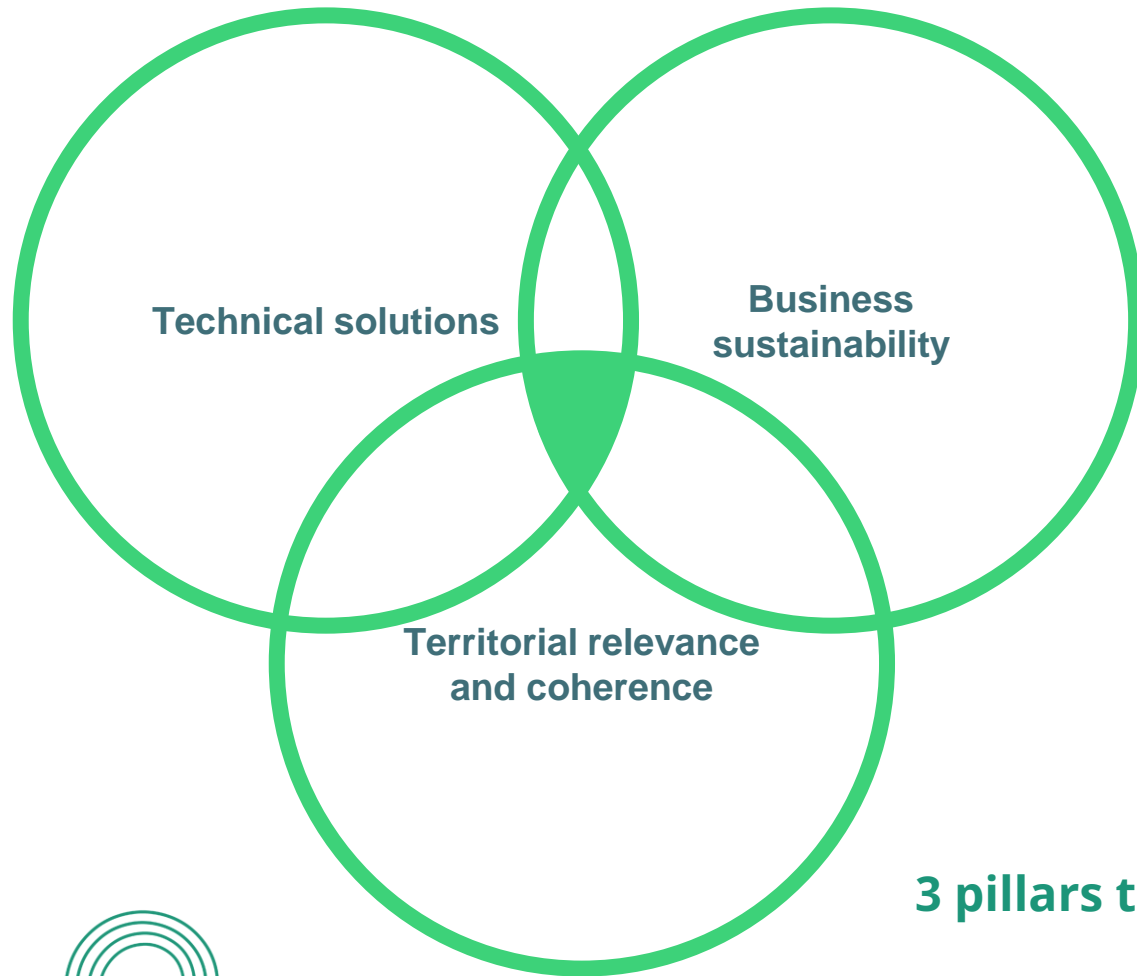


Techtera



# AURA GreenHub

## The place of a hub in building circular value chains



3 pillars to reach the goals of the AURA GreenHub




# AURA GreenHub

## The place of a hub in building circular value chains



Technical solutions

- Technology development
  - Upscaling
  - Connecting solution seekers and solution providers
  - Fostering technology transfer
  - Connecting industrial ecosystems
- 



## AURA GreenHub

### The place of a hub in building circular value chains



**Business  
sustainability**


- Efficiency of the process (productivity)
- Adapting solutions to the needs of the market
- Connecting the different steps of the value chain
- Fostering the co-design of solutions
- Evaluating the potential business impact

## AURA GreenHub

### The place of a hub in building circular value chains



Territorial relevance  
and coherence

- Involving public organisations and the civil society
  - Mixing ecosystems (e.g. industry and social economy)
  - Mixing public levels (from local to global)
  - Foster cooperation over competition
  - Encourage complementarity in the proximity, even across borders
  - Identify the right solution for the right territory
- 

# Best practices / teachings of the AURA GreenHub

Cooperation with public stakeholders

## Grenoble Alpes Métropole

2<sup>nd</sup> largest city in the region

Support to develop the territorial structuration for the end of life management of clothing/footwear/home textiles

## Métropole de Lyon

Region capital

Textile waste mapping – production scraps and dead stocks



**Bring appropriate territorial solutions for coherent circular value chains**



# Best practices / teachings of the AURA GreenHub

## Textile waste mapping

### Process

55 companies have entered the process

Quantifying and qualifying the waste

Establishing an overview of production scraps and deadstock of pre-consumer waste

Establishing connection with valorization pathways and public stakeholders

Organisation of a business convention

120 participants, 200+ business meetings

White paper about valorization pathways for industrial textile waste



## Best practices / teachings of the AURA GreenHub

Investment and financing support

### De-risking investment with the right connections, knowledge, and support

Working groups on R&D topics for the development of technical solutions

Consortia building for

- Technical solutions development (chemical recycling)
- Private/public cooperation (greasy wool valorization, improvement of waste management in the Alps)
- Joint ecosystems and interregional solutions development (social economy, upscaling of systemic solutions for the territorial development of a circular textile industry)

Workshop about private investment and financing for the textile industry



**Interreg**  
**Alpine Space**



Co-funded by  
the European Union

ASTER



**Develop solutions for the industry, public  
organisations, civil society, involving  
academia**



Co-funded by  
the European Union

## Best practices / teachings of the AURA GreenHub

Business development support

### Supporting market access

International trade fairs (Techtextil Frankfurt, ITMA)

Communication and dissemination

Building the activities around key players



**Connect solutions and markets**

## AURA GreenHub

### Conclusions and next steps

#### Main teachings

The hub has the capacity to address the 3 pillars of technical solutions, business relevance, and territorial relevance

It can bridge all components of the 4 helix

The 3 pillars must be addressed together

A leading organization must be the central point of this 4-helix cooperation

#### Next steps

Building sustainability for the hub

Improving the link with civil society

# Thank you!





# Recyc'Elit

Marine Perraud, Recycl'Elit



Co-funded by  
the European Union

# Recyc'Elit

## Regions of RegioGreenTex



## Recyc'Elit

Who are we?

Name:



Location: Vénissieux / Lyon (France)

Creation date: 2019

Know-how: **chemical recycling** of polyester textiles

Areas of innovation:



Chemical  
recycling



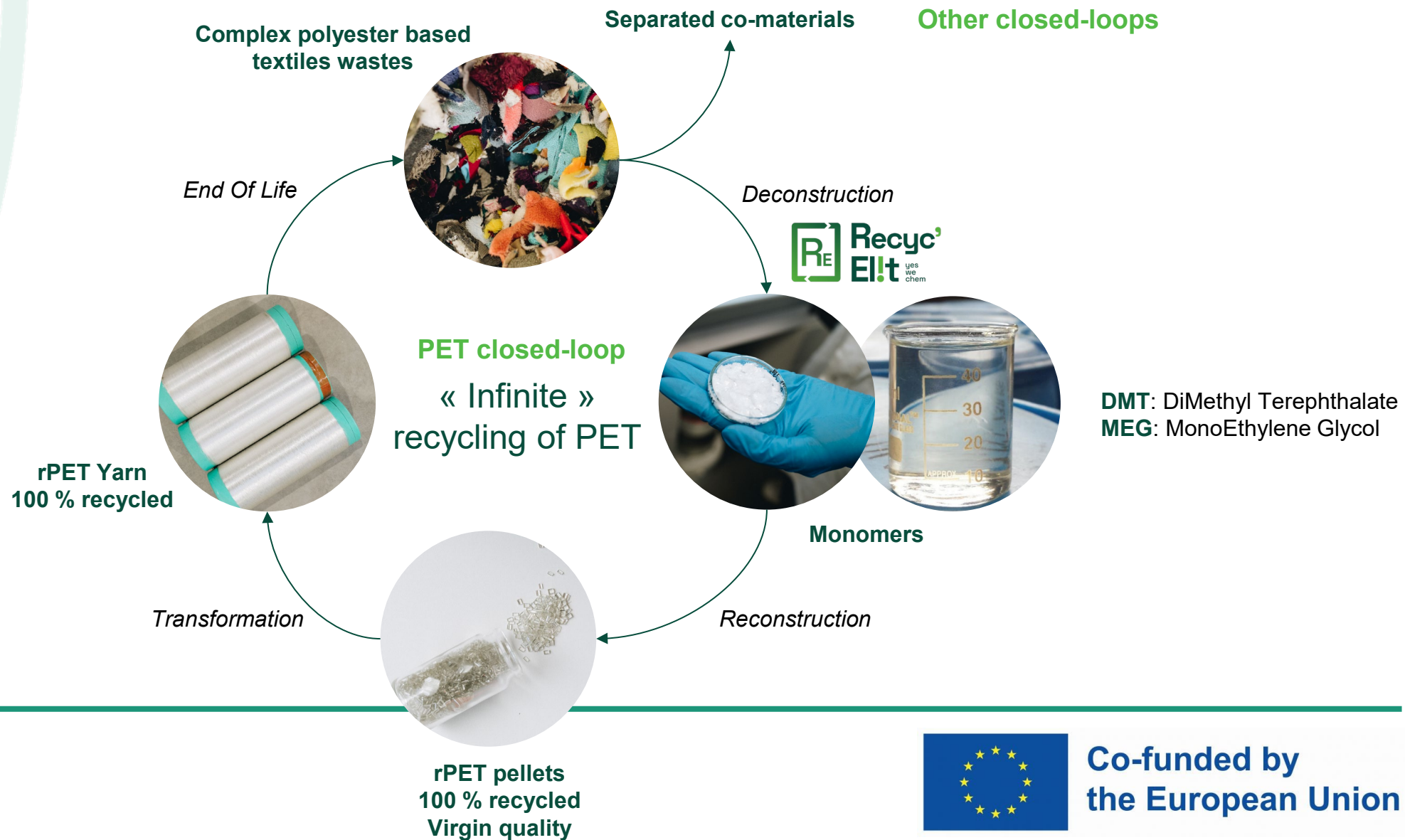
Zero waste  
approaches

Staff: around **15 employees** (SME)

Ambition: **Give an endless life to end-of-life complex polyester-based textiles!**

# Recyc'Elit

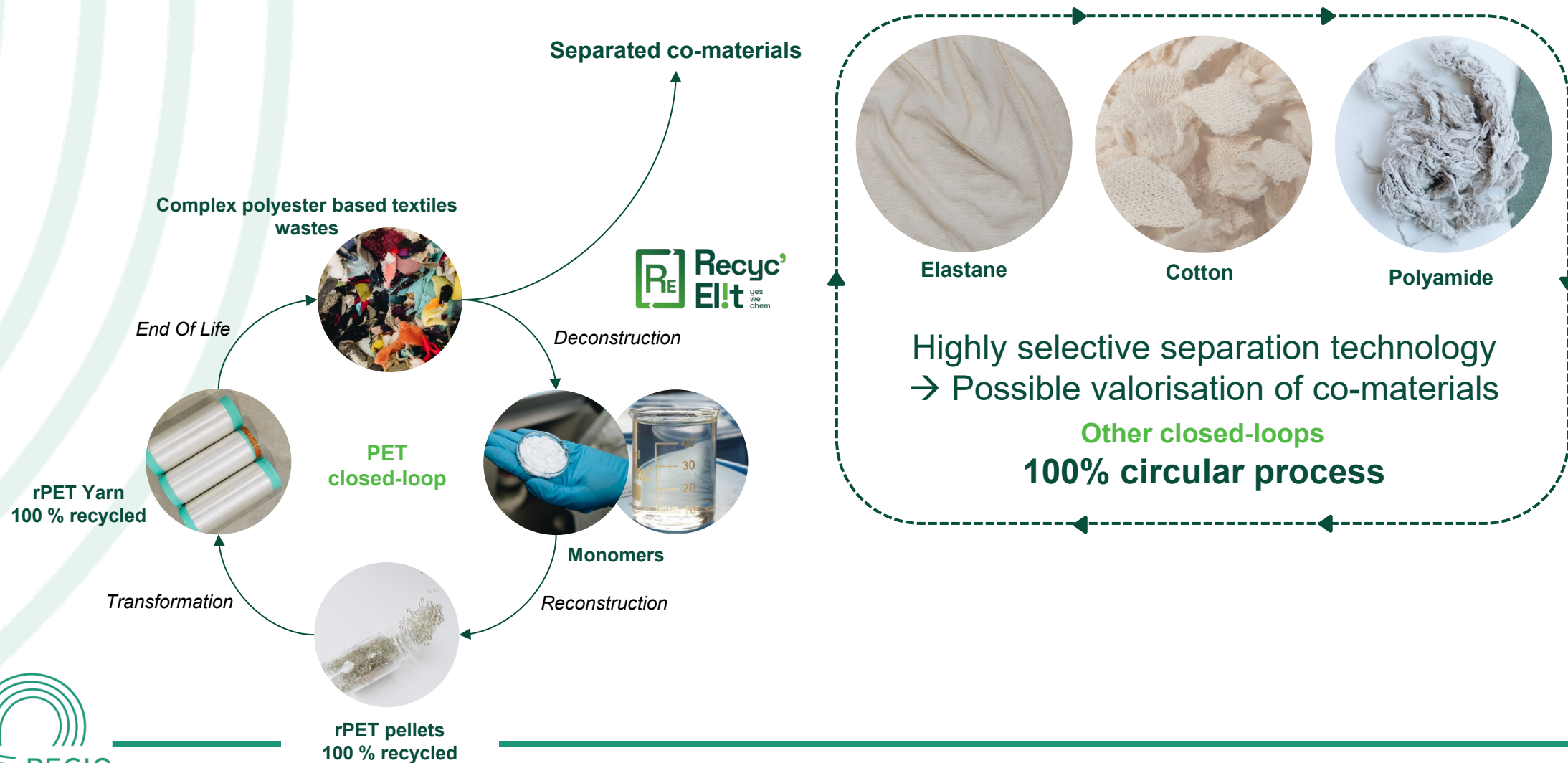
What is our process?





# Recyc'Elit

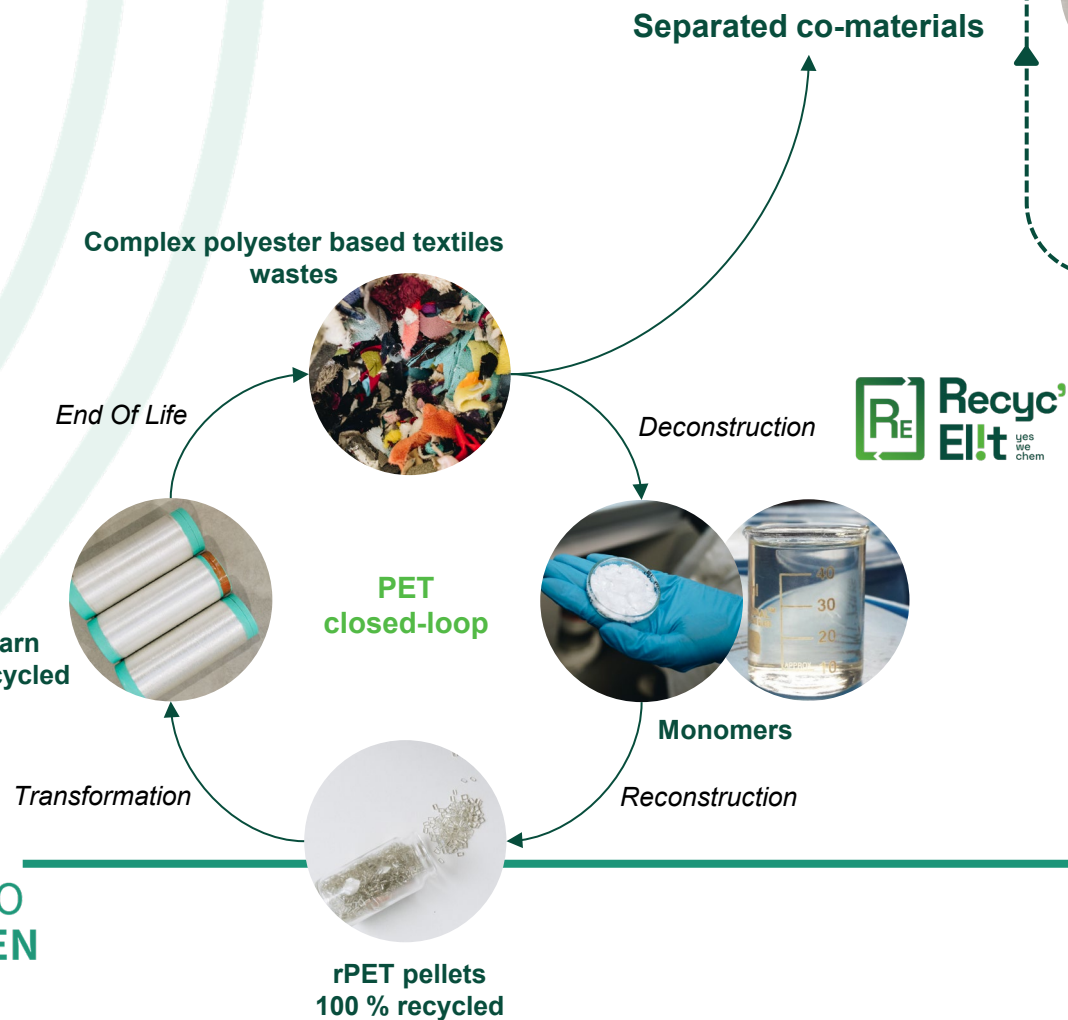
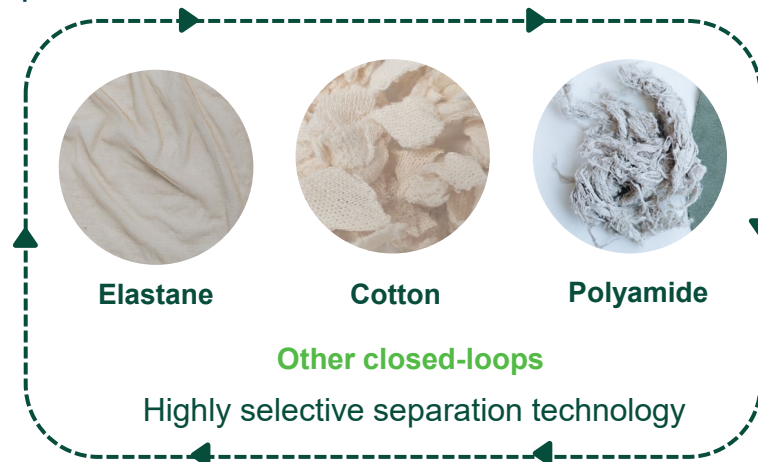
What is our process?





# Recyc'Elit

What is our process?



## BONUS

Running in **mild conditions** :

- Temperature ( $< 60\text{ }^{\circ}\text{C}$ )
- **Atmospheric** pressure

Requiring a **short reaction time** (~1h)

→ **A very fast & low environmental impact solvolysis process**

# Recyc'Elit

Where do we come from and where do we go?

2019

Laboratory  
test

2020 - 2023

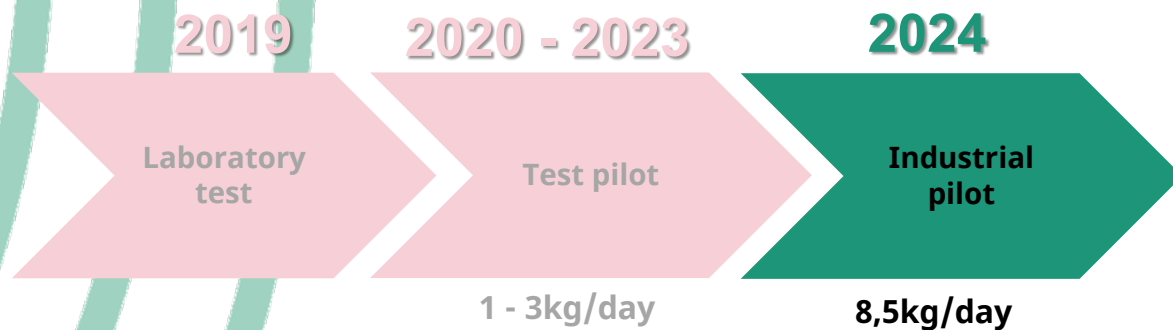
Test pilot

1 - 3kg/day



# Recyc'Elit

Where do we come from and where do we go?



Investments in the framework of



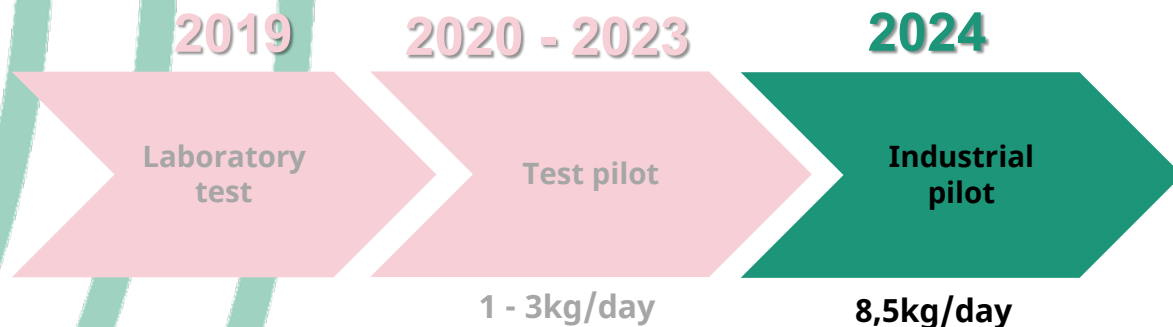
Pilot running since summer 2024



Co-funded by  
the European Union

# Recyc'Elit

Where do we come from and where do we go?



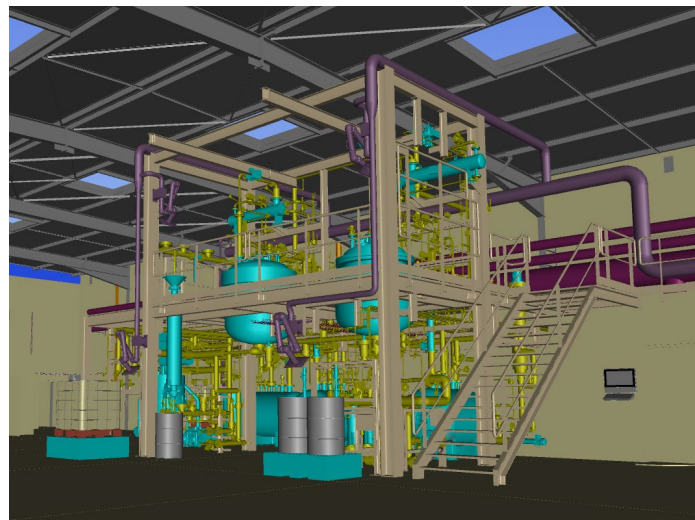
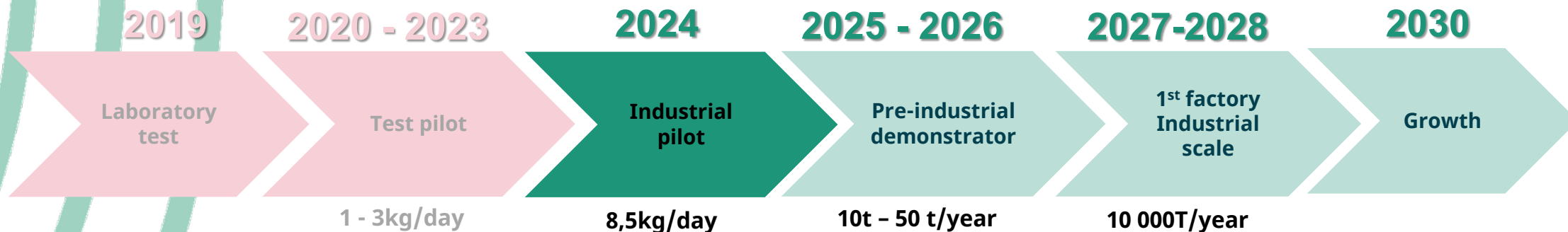
Main activities done during RegioGreenTex project and associated deliverables:

- Design of the pilot
- Selection + Purchase of equipment
- Assembly + commissioning
- Trials on several use cases multifiber and colored textiles
- Purified monomer production
- Recycled resin of PET
- Recycled polyester yarn



# Recyc'Elit

Where do we come from and where do we go?



Pre-industrial demonstrator available from spring 2025



# Recyc'Elit

How to know more about us?

Follow us on LinkedIn



Recyc'Elit

Visit our website



[www.recyc-elit.com](http://www.recyc-elit.com)

## Recyc'Elit

Who are your contacts in the framework of RegioGreenTex project?



**Dr. Raouf MEDIMAGH**  
Co-Founder & CEO

[r.medimagh@recyc-elit.com](mailto:r.medimagh@recyc-elit.com)

- Professor INRAP Biotechpole
- 14 years' experience in R&D management
- PhD, Eng. 2 gold medals



**Marine PERRAUD**  
Innovation project manager

[m.perraud@recyc-elit.com](mailto:m.perraud@recyc-elit.com)

- Chemical Engineer CPE LYON
- MBA IAE LYON

# Thank you!



# Rovintex

Robin Oddon, TECHTERA



Co-funded by  
the European Union

# Rovitex



## Rovitex

Innovative and multifunctional complex developer



Service  
lamination

Family  
business

Laminates of  
flexible and  
rigid materials

Technical and  
traditional  
markets

## Rovitex

Improving sustainability in lamination



Laminated complexes mostly rely on glue for assembling

Glue maintains a high level of technical property for the final product

Meets the requirements of markets such as aerospace, defense...

## Rovitex

Investment in ultrasonic lamination/padding  
(2023, RegioGreenTex)



US weld  
materials

Combination of  
pneumatic  
pression and US  
vibration

Pattern  
performed by a  
custom roller

Quilted layers  
and uniform  
finish

Diversity of  
visual aspects,  
seamless

## Rovitex

### Advantages of ultrasonic lamination

#### Lesser energy consumption

- About 50%

#### No VOC emissions

- Improvement of the working environment

#### Reduction of waste

#### Adapted to recycled fabrics and natural fibres





## Rovitex

Example of application – Sleeveless down jacket



US padding and assembling by Rovitex

Performant/sustainable materials

- Recycled polyester
- Wool
- Waterproof

Proximity and territorial relevance

- Made in France
- Valorization of greasy wool



# Thank you



Website



Co-funded by  
the European Union

# Auvergne-Rhône-Alpes Region's policy for the textile industry

Inès Lejeune, Delegation of the Auvergne-Rhône-Alpes Region in  
Brussels



Co-funded by  
the European Union



**La Région**  
Auvergne-Rhône-Alpes

## Auvergne-Rhône-Alpes Region's policy for the textile industry

Inès Lejeune, Delegation of Auvergne-Rhône-Alpes Region in Brussels



Co-funded by  
the European Union

# Textile industry in Auvergne-Rhône-Alpes : Between heritage and innovation

**Long textile tradition in the region** - Silk weaving for the fashion and decoration markets as craftsmanship and manufacturing of excellence since the 19th

## First employment region for the French textile industry

- 27% of the companies at national level located in the region (2021)
- Some intermediate-sized-enterprises but **mainly SMEs and very small enterprises**, representing 90% of companies in the sector

## Regional companies covering all activities of the textile sector...

- Yarn procurement and processing
- Textile manufacturing (weaving, knitting, braiding, non-wovens)
- Finishing (dyeing, printing, finishing)
- Cutting, confection, assembly

## ... and active on all markets:

- Fashion/clothing (45%)
- Decoration/furniture (10%)
- Technical and functional textiles (45%)



## French leader in technical and functional textiles

- **Wide variety of applications**, notably for healthcare, sports and leisure, aeronautics, PPE, industry and civil engineering .
- Technical textiles produced in the region represent **45% of the French production**



# Smart Specialisation Strategy (S3) Auvergne-Rhône-Alpes : Textile industry as priority sector for support to R&I

## Textile industry is identified as one of the key sectors in the Regional Plan for Economic Development, Innovation and Internationalization (SRDEII)

- The textile industry is therefore **one of the sectors that the Region intends to foster the development of as a priority**.
- As the SRDEII constitute the reference framework for the application of intelligent specialization (S3), the textile industry is therefore **identified as one S3 sector**, for which priority should be given to mobilizing European funds managed by the Region (ERDF) in support of innovation.

## Textile industry also covered in the 4 regional sectors of excellence

- **4 sectors of excellence** that the Auvergne-Rhône-Alpes Region intends to support more specifically: Health industry, Sustainable materials, Microelectronics and AI, Hydrogen.
- The textile industry as a sector of activity included in the broader **sustainable materials sector of excellence**: challenge of energy and environmental transition, especially recycling.

## S3 Partnership “Smart Regional Investments in Textile Innovation”

- Auvergne-Rhône-Alpes region is **one of the regions participating in the partnership**, established in 2015.



Co-funded by  
the European Union



# Current challenges for the textile industry in Auvergne-Rhône-Alpes and its transition towards circular economy

## General challenges

- **Increased supply of raw materials**, both synthetic and natural
- Increasing demand for recycled materials and eco-designed products
- **Need to reduce the impact on aquatic environments**, as well as on human health and the environment
- **Growing awareness** among citizens and consumers **of the environmental impact** of products, leading to changes in their consumption habits
- **Strengthening of regulatory frameworks** and public policies in favor of the ecological transition of the textile sector (at national and European level), identified as a priority sector due to the high potential for circularity, sustainability and innovation in its value chain.

## Circular economy challenges for the regional textile industry

- **Increasing recycling rates:** textile recycling rates remain very low compared to other sectors (less than 5% post-production and 33% post-consumer);
- **Improve recyclability** and the integration of recycled raw materials in new products;
- Manage and increase the **efficiency of resource consumption** in textile production (water, raw materials, energy);
- **Enhancing the industry's image with the general public:** a better, more virtuous image would make the industry more attractive to young people and job-seekers.



**La Région**  
Auvergne-Rhône-Alpes



**Co-funded by  
the European Union**

# Auvergne-Rhône-Alpes Regional agreement for the textile industry

Supporting the environmental transition of textile industry actors

## Ambition and general objective

- Create the conditions that will encourage the transition of the textile sector to the **circular economy**, in order to provide effective and economically attractive solutions.

## Six priorities identified

1. Set up collective actions to support textile companies in their environmental strategy
2. Support companies in implementing innovative solutions;
3. Identify and characterize waste deposits;
4. Optimize the collection of post-production textile waste streams for reuse or recycling;
5. Contribute to the development of a recycling industry in the Auvergne-Rhône-Alpes Region, thereby creating added value and jobs;
6. Supplying French textile industries with high-quality recycled materials, while ensuring their traceability.

## A comprehensive program built around four strategic pillars

### REGIONAL AGREEMENT PARTNERS

- **Auvergne-Rhône-Alpes Region** → *Regional authority*
- **Union Interentreprises Textiles Auvergne-Rhône-Alpes – UNITEX** → *Professional organization for the textile industry in Auvergne Rhône-Alpes*
- **Techtera** → *Textile cluster*
- **Institute Français du Textile et de l'Habillement – IFTH** → *French technology center for industrial companies and brands in the Textile and Fashion sectors*



Co-funded by  
the European Union

# Auvergne-Rhône-Alpes Regional agreement for the textile industry

4 strategic pillars and 8 operational actions

## Pillar 1: Encouraging companies to make the transition to a circular economy

- **Action 1 - Raising awareness and training companies** (directors, managers, project leaders, etc.) - Information and training workshops on the various topics/aspects of circular economy.
- **Action 2 – Share • Days around the present Agreement** - Two days are planned to mobilize textile companies around the circular economy + Week "Demain le textile"

## Pillar 2: Manage and recover/recycle post-production textile materials (waste)

- **Action 3 - Identify and characterize post-production textile waste in the Auvergne-Rhône-Alpes Region** – Conduct of a study prior to setting up channels for collecting and recovering textile production off-cuts, in order to identify and qualify the textile industrial waste deposit in the region among a representative sample of 25% of regional companies.
- **Action 4 - Study of the feasibility of material recovery solutions for post-production textile waste in the region** - Conduct of an initial technical and economic analysis of local opportunities for reuse and recycling. A handbook of practices for reducing volumes of non-recoverable waste will be published and distributed to all regional textile companies.



Co-funded by  
the European Union

# Auvergne-Rhône-Alpes Regional agreement for the textile industry

4 strategic pillars and 8 operational actions

## Pillar 3: Develop eco-design and prevent waste

- **Action 5 - Focus on eco-design in textile companies** (*Level 1*) – Collective activities to raise awareness for companies and specific training for the teams of TECHTERA, UNITEX and IFTH to enable them to provide first level of support.
- **Action 6 - Support for the implementation of eco-design projects in companies** (*Level 2*) - More intensive support for companies wishing to experiment with innovative eco-designed solutions

## Pillar 4: Sobriety and energy and water efficiency in the textile industry

- **Action 7 - Promoting the decarbonization of companies** - Possible mobilization of various schemes to help manufacturers rethink their processes and means of production in response to the challenges of the energy transition and decarbonization.
- **Action 8 - Developing water-saving solutions** - Prospective action dedicated to water recycling savings, with the aim of identifying pilot processes that are efficient in terms of water consumption and recycling; Identification of the best existing international technologies and conduct workshops with willing regional companies

# ASTER Project

Promoting the transition to a circular and resource efficient economy in the textile and plastic industries of the Alpine regions

## Auvergne-Rhône-Alpes as Lead partner of the ASTER Project

Alpine Solutions for the Transition of the textile and plastic Equipment industry and the harmonization of interregional 5R strategies

### Objectives

- **Gather textile and plastic ecosystems to promote the transition to a circular and resource efficient economy**
- Evaluate the current framework and solutions for waste prevention and management;
- Develop common practices, policies and regulations tailored for the Alps;
- Improve the prevention and management of textile and plastic waste in the Alps by providing pathways to harmonise policies and regulations across the region.

### 3 group of activities

- Characterizing waste prevention and management
- Alpine pathways to better prevent and manage waste: prototype and test the circular principles (5R)
- Solutions transfer to the ecosystem

### ASTER

- Interreg Alpine Space project
- 3 years

### 11 partners

- \* Germany \* Italy \* France
- \* Slovenia \* Austria

### Auvergne-Rhône-Alpes

- **Auvergne-Rhône-Alpes Region** → *regional authority*
- **Techtera** → *textile cluster*
- **Polymeris** → *plastics cluster*
- **Cluster Montagne** → *mountain development cluster*



ASTER



Co-funded by  
the European Union



# Q&A

# Thank you

*For more information about the RegioGreenTex Community Talks,  
contact: [charlotte.denis@textile-platform.eu](mailto:charlotte.denis@textile-platform.eu)*



Co-funded by  
the European Union



GOING GREEN TRAININGS

# Green Claims Directive: What It Means for Your Business

13 February 2025 • 10:30-11:30 • Online







# Building a circular textile value chain: Portugal GreenTex Hub

Introduction to the Hub, Interregional Focus Group and Presentations of SMEs

13 March 2025 • 10:30-11:30 • Online

