



RESET
Interreg Europe



European Union
European Regional
Development Fund

Methodologies and Tools for Eco-Creativity, Natural Fibers, Short Value Chains

CORK-A-TEX YARN

Eco-Creativity in Home Textiles with Cork

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CORK-A-TEX YARN

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Cork

The bark of the oak cork tree, that lives on average 200 years. Is extracted every 9 years, without hurting the tree.

A sustainable, recyclable, 100% natural material, with qualities unmatched by any other material that will be used in an infinite number of forms and purposes.

The cork forest can absorb up to 14 Million Tons of CO₂ per Year.

Cork main features:

- . Extremely light, elastic and compressible
- . Impermeable to liquids and gases
- . Excellent acoustic and thermal isolation
- . Slow burn and abrasion resistant
- . Hipoallergenic, with a smooth touch



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Sedacor

Sedacor is a company of the JPS Cork Group, a worldwide reference in cork business, that since 1924 has constantly evolved with innovative and sustainable solutions in cork for a wide variety of sectors such as Wines (*cork stoppers*), Construction (*cork insulation materials*), Decoration ,Textiles & Footwear (*cork fabrics, cork wall coverings, cork floors*), among others.

We are dreamers. We are Innovators.

Like the cork, we evolve... in a sustainable balanced way!



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Sedacor

- . 3 Factories
- . Vertical integration – from the cork forest to the consumer
- . 84000 m² of production area
- . 90 people
- . Exports for 50 countries
- . Several Innovation Awards on Textile and Footwear clusters
- . Recycle more than 90% of the production waste
- . Re uses cork waste to produce energy (aprox. 15 % of energy needs)
- . www.ipscorkgroup.com



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The idea

→ To develop innovative and differentiating products that foster new business opportunities in more demanding and specialized markets and in emerging economies



→ To Join 2 industries: Cork and Textile (“Sedacor” and “Têxteis Penedo”)
Together with a Tech. Center and a University (“Citeve” and “Porto University”)



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Motivation

Cork is a natural, recyclable, reusable and environmentally friendly product, presenting itself as a solution of value and differentiation in markets such as architecture, fashion and furniture, being the target of increasing demand in the global market.



In recent years cork has inspired designers, artists, stylists, architects and other professionals that believe in eco-design and sustainability, and that have become interested in natural materials.

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Motivation

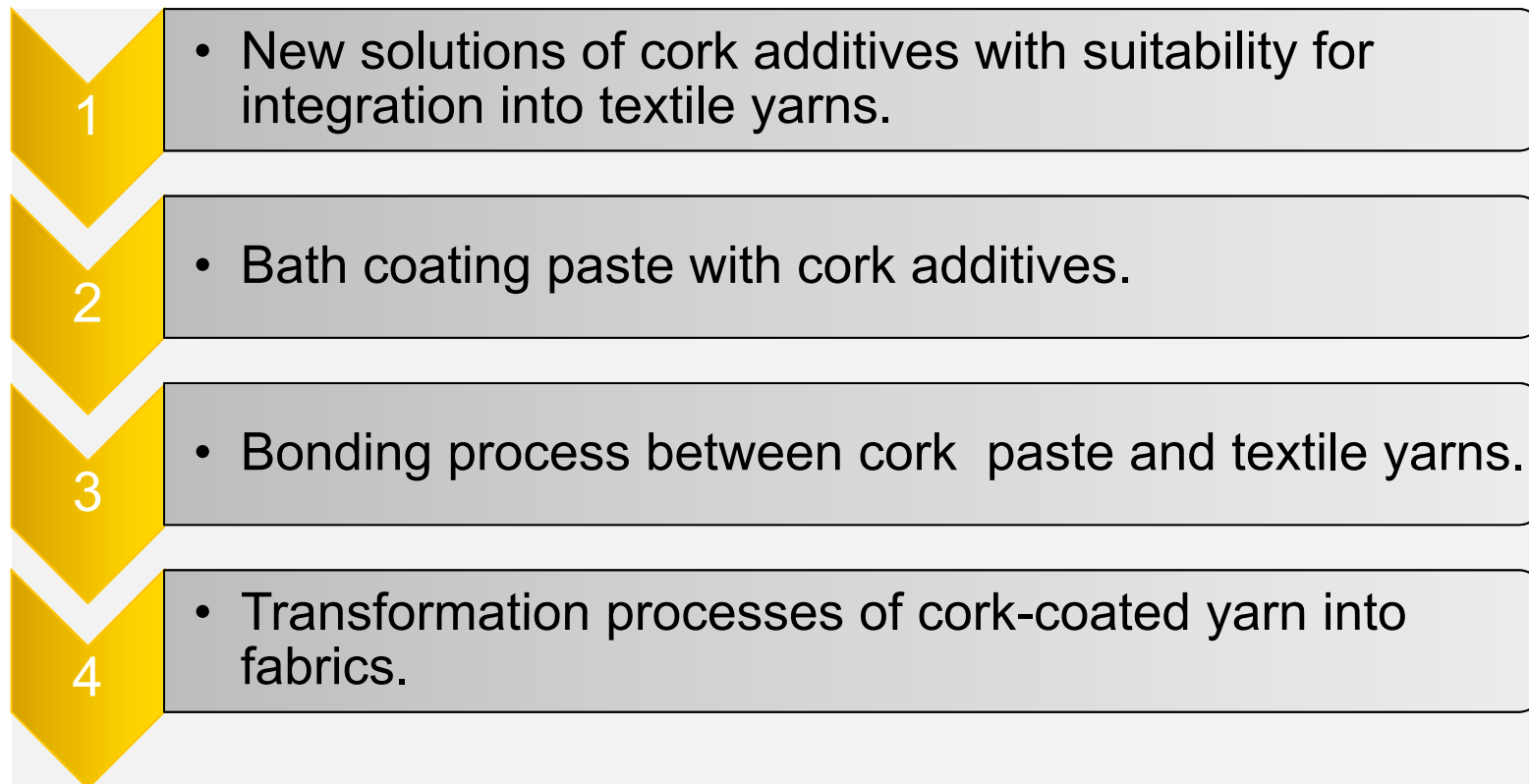
Cork.a.Text-Yarn rises in this context with the main motivations:

- To re-use cork waste from cork stoppers and other applications for a new textile solution
- To develop and scale-up **textile yarns incorporation cork** through chemical bonding, **that can be transformed into textile structures**, while maintaining the characteristics of the textiles and the added value of cork.
- Stimulate and promote the **eco-design and “made in Portugal” product concept.**
- Create goods and services with higher added value, with a strong export component.

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The process



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The process



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The difficulties

- Uniformity of application of pastes along the yarn
- Release of particles in the production process
- Industrialization and increase of the production capacity
- Composites balance and right chemical bonding
- Particles stability.

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The products

→ Textile yarns coated with cork additives



→ Fabric structures obtained by the transformation of the coated yarn



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The results

→ A sustainable and disruptive product to leverage the Portuguese and European textile industry (international patent in progress).

→ Several applications: possibility to produce cork-a- tex yarn several options through knitwear and fabrics for several textile markets, such as:

- ❖ decoration (home textiles - duvets, blankets, covers, etc.)
- ❖ fashion (clothing, footwear and accessories).
- ❖ increasing “vegan” market across the world



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The opportunity for transferability

- To implement a demonstrator project
- With international patent approval, it will be possible to transfer the production technology from Portugal and Portuguese companies to other European or worldwide textile industries.



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Thank you!

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Questions welcome



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