

NEW SUSTAINABLE BREAKTHROUGH TECHNOLOGIES TO INNOVATE WOOD-TO-TEXTILE VALUE CHAIN AND TO PRODUCE NEW AND HIGH-QUALITY CELLULOSE-BASED TEXTILE FIBRES

GRETE, the *Green chemicals and technologies for the wood-to-textile value chain* - project, has been granted EUR 2,6 million by the Bio-Based Industries Joint Undertaking (BBI JU), which is a partnership between the EU and the Bio-based Industries Consortium. The main project objective is to improve the existing wood-to-textile value chain by developing breakthrough technologies that can open up the identified bottlenecks and enable increased production of man-made cellulose fibres in Europe.

The GRETE project aims to develop new and better technologies for **wood pulp modification, cellulose dissolution** and fibre quality generation complying sustainability requirements and market needs. Currently the raw material base for the production of man-made cellulose fibres is limited, as only dissolving grade wood pulps are used commonly. The project will tackle this by widening the sustainable raw material basis for man-made cellulose fibres.

“More sustainable textile fibres are in high demand. A highly potential route, in this respect, is wood-based textile fibres. With the GRETE project we aim to find improved technologies for the wood-to-textile fibre value chain“, explains CEO **Niklas von Weymarn**, Metsä Spring.

The solvent systems used for the production of commercially available man-made cellulose fibres are based on toxic and explosive chemicals, but the GRETE processing technologies will increase safety, sustainability and feasibility of man-made cellulose fibre manufacturing. In addition, currently there are several steps in the textile production value chain, e.g. finishing treatments and dyeing of textiles, which cause extensive freshwater pollution. Fibres with novel functional properties open up the possibility for targeted and water-scarce finishing treatments.

The Executive Director for Innovation and Technological Development at Altri S.A., **Gabriel Sousa**, describes their motivation for taking part in the project: “By participating in the GRETE project, Altri will gain understanding on the pulp-regenerated cellulose-textile value chain and technologies and also understand the key requirements and specs for pulp on future markets. Altri also aims to gain a clear view on the viability of the new technologies ionic liquids-use for cellulosic textile fibres.”

The issues to be solved in the project play a significant role in developing sustainable and green technologies for the European industry. The partners of the project are strongly committed to face the challenge and achieve the ambitious results, furthermore a separate stakeholder group has the aim to support strategic decision-making. The consortium is led by VTT - Technical Research Centre of Finland, and is built around many of the most distinguished research centres and universities acting in this field.

NOTES FOR EDITORS – GRETE PROJECT STATISTICS

Total budget: 2'555'243,75 €

Duration: 48 months

Start date: 1 May 2019

End date: 31 May 2023

8 partners from 5 countries

SUMMARY OF THE GRETE PARTNERS

Participant	Participant organisation name	Short name	Organisation type	Country
P1	Technical Research Centre of Finland Oy	VTT (Coordinator)	RTO	Finland
P2	University of Helsinki	UH	University	Finland
P3	University of Natural Resources and Life Sciences, Vienna	BOKU	University	Austria
P4	University of Aveiro	UAV	University	Portugal
P5	Metsä Spring Oy	METSA	Large Industry	Finland
P6	Celulose Beira Industrial SA	CELBI	Large Industry	Portugal
P7	Material Connexion Italia Srl	MCI	SME	Italy
P8	Vertech Group	VTG	SME	France

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