

GREEN CHEMICALS AND TECHNOLOGIES FOR THE WOOD-TO-TEXTILE VALUE CHAIN

GRETE PROJECT RESULTS PRESENTED TO TEXTILE INDUSTRY STAKEHOLDERS AT INTERNATIONAL CELLULOSE FIBRES CONFERENCE

March 2023



On March 9th the GRETE achievements were celebrated by sharing them publicly with a high-profile audience. 220+ stakeholders of the cellulose value chain attended the 4th Cellulose Fibres Conference in Cologne, Germany. The project results were disseminated through different media: media: several oral presentations allowed the GRETE experts to expose the outcomes first-hand, while scientifically relevant details of the research work were illustrated through a total of 4 posters. Furthermore, a large exhibition set up in the conference foyer offered space for the GRETE samples, catching the interest of the attendees and stimulating the conversation with the present consortium members.

The innovative technologies developed in GRETE respond to the increasing demand for sustainable textile fibres. The work carried out in the research and innovation initiative commits to reducing the environmental footprint of the textile industry. The GRETE project has developed new and better technologies for wood pulp modification, cellulose dissolution and generation of high-quality textile fibres, complying with sustainability requirements and market needs.

Today, the textile industry is one of the most polluting industries globally, and the demand for textile fibres is estimated to nearly double by 2030 due to population growth. Man-made fibres based on **natural polymers** are a valuable alternative to fossil-based synthetic fibres and controversially sourced natural fibres. Accessing wood pulp, especially paper-grade pulp as a raw material for man-made cellulosic fibres may open up the current bottlenecks and enable a sustainable textile industry.

"Metsä Group makes use of every part of the tree for the purpose it is best suited for – logs are delivered to our sawmills, while pulpwood is used for pulp, biochemicals and further processing into other bioproducts. Thanks to the GRETE research we're able to look at integrating the production of textile fibres into paper pulp production." Consortium partner Metsä Spring - Metsä Group

Contact details & further information:

info@greteproject.eu www.greteproject.eu/press-kit CORDIS - EU research results portal

Open Webinar
March 29th
11:00 – 13:00 CEST
Register here!

After almost four years of intense collaboration amongst the eight consortium members, GRETE is presenting innovative green chemicals for man-made cellulosic fibres manufacturing that are based on **novel liquid salts**. Thanks to chemical and enzymatic modification procedures for **softwood and hardwood Kraft pulp**, a **novel raw material** for biobased textiles is made accessible. The **fibre modification treatments** developed enable introduction of fire-retardant and improved dyeing properties to the regenerated fibres.

"We aim to implement processes for the continuous improvement of environmental performance, reducing our ecological footprint, increasing the operational efficiency of our industrial units and raising productivity through the promotion of sustainable forest management. If the paper-grade pathway developed in GRETE will be further explored and scaled up, it will be a true breakthrough for the whole industry."

Consortium partner Celbi - Altri Group

GRETE enhances the utilisation of wood biomass from sustainable European sources for the textile industry. Pulp manufacturing is already a highly competitive and sustainable bio-based industry in Europe. Combining novel cellulose-based textile manufacturing with such a solid platform is a key element in **re-introducing extensive European manmade cellulosic fibre production**. The industrial exploitation of the achieved results is expected to happen throughout the next decade.

The achieved results are going to be shared via the GRETE final webinar on March 29th 11:00 - 13:00 CEST. The online presentation is open and freely accessible upon registration, and offers the opportunity for a first-hand question & answer exchange with the experts involved in the research project.





