The results of the FUNK-TEX project were disseminated through a presentation delivered at the 2nd International Textile and Fashion Congress (ITFC 2026), held at Istanbul Technical University in Istanbul, Türkiye, on 28–29 May 2026.

Within the FUNK-TEX project, dissemination and presentation of scientific research results were achieved through participation in The International Textile and Fashion Conference (ITFC 2026). A total of six full scientific papers were published as part of the conference proceedings. All papers resulted from research conducted by project collaborators and contribute to the development of sustainable and functional textile materials, in line with the project's research objectives.

The research results were further presented during the conference poster session, where four project collaborators personally introduced their work to the international scientific community.

The published papers covered various aspects of textile material research and their application in the development of next-generation composites:

Rebeka Solomun, Snježana Brnada, Ana Palčić, Ana Kalazić, and Sandra Flinčec Grgac presented the paper **"Evaluation of the Relationship Between Human Perception of Woven Fabric Roughness and Objective Measurements Using the Fabric Touch Tester"**, which investigates the relationship between subjective perceptions of woven fabric roughness and objective measurement methods. Such research is important for the development of functional textile components with enhanced performance properties. **The poster was presented by**

Snježana Brnada.

Sandra Flinčec Grgac, Martina Ivančić, Ana Palčić, and Snježana Brnada authored the paper **"Impact of Pretreatment Operations on the Success of Cotton/Polyester Fabric Functionalization with Chitosan"**. The study focuses on textile functionalization using the natural biopolymer chitosan, directly supporting the development of sustainable and functional materials envisaged within the projec.

Ivana Schwarz, Helena Schultheis Edgeler, and Tia Mihinjac published the paper **"Fermented Bioleather as a Sustainable Material for Textile and Fashion Applications"**, which explores the potential of fermented biomaterials as sustainable alternatives to conventional materials. This topic aligns with the project through its investigation of novel bio-based raw materials. **The poster was presented by Ivana Schwarz.**

Paula Štampalija and Dragana Kopitar published the paper **"Biodegradable Nonwoven Mulches as Agro-Foil Alternatives: Impacts on Soil and Crop"**. The research investigates the use of biodegradable nonwoven textiles as sustainable alternatives to plastic agricultural films, thereby contributing to the development of environmentally friendly textile solutions. **The poster was presented by Dragana Kopitar.**

Dragana Kopitar, Paula Štampalija, and Noa Ambs presented the paper **"Effect of Different Environmental Exposure Conditions on the Degradation of Cellulose-Based Nonwoven Fabrics"**, which examines the degradation behaviour of cellulose-based nonwoven materials under different environmental conditions. Such research is important for assessing the sustainability and life cycle of textile components. **The poster was also presented by Dragana Kopitar.**

Ružica Brunšek, Marijana Pavunc Samaržija, Edita Vujasinović, and Ivana Schwarz authored the paper **"Chemical Composition of Flax Bast Fibres for Sustainable Textile-Based Composite Materials"**, which analyses the chemical composition of flax fibres as a raw material for sustainable textile composites. This research focuses on the development of textile components for next-generation composites, representing one of

the central themes of the project. **The poster was presented by Ružica Brunšek.**

Participation in ITFC 2026 confirmed the interdisciplinary nature of the research conducted within the FUNK-TEX project and enabled the presentation of project results to the international scientific and professional community. The published papers addressed topics ranging from textile functionalization and characterization to the development of bio-based and biodegradable materials, thereby contributing to the project’s objectives of developing sustainable textile components for advanced composite systems.