EUROPÄISCHE UNION
REACT-EU
Europäischer Fonds
für regionale Entwicklung

Ministerium für Wirtschaft, Innovation,
Digitalisierung und Energie
des Landes Nordrhein-Westfalen

EFRE.NRW
Investitionen in Wachstum
und Beschäftigung

Development of an innovative process chain for processing german hemp and recycled wool into textile products

In the “CannaReWool” project, sustainable, knitted, textile molded parts are being developed from a novel combination of German hemp fibers and pure recycled wool. Due to the expected positive properties in terms of durability, wearing comfort, longevity, coziness and electrostatic charging, it is possible to imagine its use in many areas. These include the office (at work or at home), theaters, mobility, restaurants and acoustic textiles. Comfortable, effective, functional, natural, healthy and sustainable materials are more important today than ever before.

Yarns are spun from german hemp fibers and pure recycled wool. Hemp is considered one of the most environmentally friendly fibers known to man. The combination of german hemp and recycled wool is new for various reasons. Firstly, the hemp grown in Germany is not used for the production of textiles. Secondly, pure wool recycling is not yet state of the art. Research in this area is necessary because the two fibers have very different fiber lengths, which makes the spinning process considerably more difficult. The use of petroleum-based raw materials is avoided in order to produce a completely biodegradable, recyclable and pollutant-free product. The challenge here is to develop functionally technical products despite replacing synthetic materials with natural ones. The yarns developed are processed into textile surfaces using the innovative “double face” knitting technology.

The aim is to cover the entire textile process chain, resulting in functional, sustainable products that strengthen the regional agricultural and circular economy.

Duration

01.03.2022 – 28.02.2023

Project partners

Das Vorhaben wird in Kooperation mit der Brain of Materials AG durchgeführt.

Acknowledgement

The project (funding code RU_1-1-023) is funded by EFRE (European Regional Development Fund) as part of the REACT-EU "InnovationUmweltwirtschaft.NRW" program of the Ministry of the Environment, Agriculture, Nature Conservation and Consumer Protection of the State of North Rhine-Westphalia. We would like to thank you for this!

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