

**Project Title:** PiñaFibre – Unlocking the Potential of Dual Purpose Crop: Utilization of Pineapple Leaf Fibres for Bio-Based Textiles

**Partners:**

- Institut für Textiltechnik der RWTH Aachen
- Forschungszentrum Jülich GmbH, Institut für Bio- und Geowissenschaften
- Forschungszentrum Jülich GmbH, IBG-4 Bioinformatics
- AGROSAVIA - Corporación Colombiana de Investigación Agropecuaria
- National Science and Technology Development Agency

**Duration:** 02/2022 – 01/2025

**Funding Agency:** Federal Ministry of Education and Research (BMBF)  
Project Management Agency: Projektträger Jülich (PTJ)  
Funding Code: 031B1211B

### **Mission Statement:**

The PiñaFibre project aims to utilize the pineapple leaf fibres (PALF) from a crop that is grown primarily for food production, conversely to all other natural fibre productions. The different markets for PALF will be studied and derived products, subsequently allowing the farmers to generate more income, reducing plant waste on farms, and offering industry a sustainable and renewable alternative in form of functional modified fibres, yarns, nonwoven and polymer-fibre composite. This also includes functional coating with hydrophobic, insect repellent, anti-UV, antibacterial, increased softness properties on derived textiles.

### **Approach:**

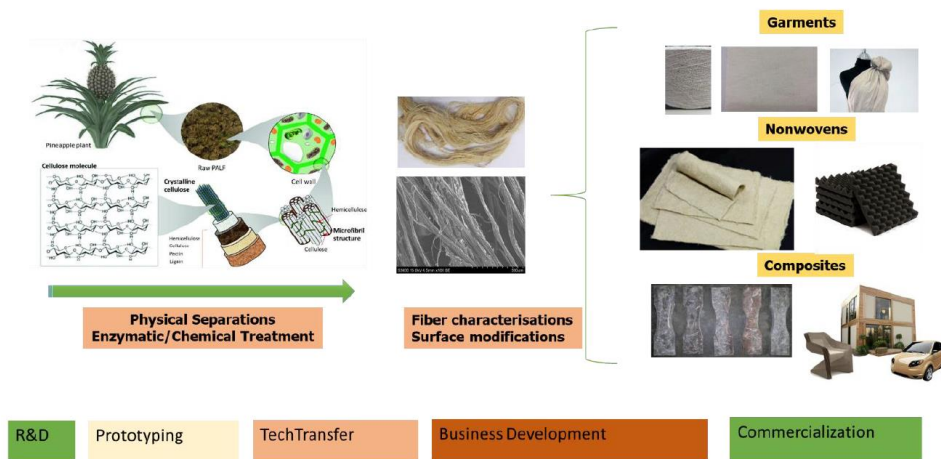
The value-chain and markets of PALF will be evaluated, exemplary products produced, and the results will be disseminated to identify stakeholders. For a sustainable production, we will support breeding of new cultivars, phenotyping and genotyping methods will be established and the underlying genetics of important economic traits identified for future targeted breeding and pro-

**Univ.-Prof.**  
**Prof. h.c. (Moscow State Univ.)**  
**Dr.-Ing. Dipl.-Wirt. Ing.**  
**Thomas Gries**  
Direktor

**Seyit Halaç**  
Research Associate

Ref.: SH  
**14.07.2022**

pagation of a dual purpose crop ‘fruit and fibre’ to stakeholders. The phenotypic and genotypic characterization of 100 Colombian / Thai cultivars, will increase our general understanding of pineapple traits. This information and plant material will be curated in germplasm banks. All data of the project will be integrated, visualized and provided (open access) to the scientific community, breeders, and will enable gene discovery for future crop improvement.



### Acknowledgement:

We would like to thank the Federal Ministry of Education and Research for funding the research project „PiñaFibre“.



### Contact:

Lukas Lechthaler, M. Sc.  
 Head of Department  
 Staple Fibre Technologies  
 ITA – Institut für Textiltechnik der  
 RWTH Aachen University  
 Otto-Blumenthal-Straße 1  
 52074 Aachen  
 Lukas.Lechthaler@ita.rwth-aachen.de

Seyit Halaç, M. Sc.  
 Research Associate  
 Staple Fibre Technologies  
 ITA – Institut für Textiltechnik  
 der RWTH Aachen University  
 Otto-Blumenthal-Straße 1  
 52074 Aachen  
 Seyit.Halac@ita.rwth-aachen.de