

Contract No: **H2020-641942-RESYNTEX**

Title: **A New Circular Economy Concept for Textiles and Chemicals**

Duration: **01/06/2015 – 31/05/2019**

Abstract:

RESYNTEX created a new circular economy concept for the textile and chemical industries and successfully demonstrated the generation of secondary raw materials from textile waste through industrial symbiosis. In particular, the RESYNTEX project:

- created a strategic design for a complete value chain from textile waste collection through to the generation of new feedstock for chemicals and textiles
- identified different post-consumer textile collection approaches and their potential improvement
- increased public awareness of and social involvement with the issue of textile waste
- collected data to evaluate the performance of the new value chains by means of life cycle assessment (LCA) and life cycle costing (LCC), compared to existing end-of-life scenarios
- developed innovative business models for the chemical and textile industries
- demonstrated an automated sorting and cleaning of textiles as input for biochemical processes as well as a complete reprocessing line for basic textile components, including liquid and solid waste treatment.

The project has received funding from the European Union's Horizon 2020 research and innovation programme.

The objective of CHIMAR work in the project was the development of the technology for the production of new protein based thermosetting polymers suitable to be used as adhesives in the production of wood-based panels, using the proteins derived from textile waste.

