



### New value chains from milk residues

The company Qmilch uses a new technology producing synthetic fibres, microbeads, biopolymers, and thousands of other materials that are biodegradable made of the milk protein called casein. The casein, which is the main resource of the products, is produced from raw milk that is not tradable and in accordance to legal regulations not be used as food. Although the milk is not suitable for consumption, the milk still contains valuable ingredients like casein, which offers a big potential for technical purposes. Furthermore, it is a raw material, which is inevitably accrued and thus only extend its product life cycle is used.

With over 3000 recipes, the company offers a wide range of modifications of thermoplastic elastomeric, but also properties of thermosets for different purposes. By customizable cross-linking the material leads to a good mechanical strength and chemical resistance for various technical areas of interest.

Because of the eco-efficient production technology and special recipe, new standards in fibre production were set, implying cost-reduction, minimum of waste and maximizes renewal. For example, for the production of 1 kg of fibre only 5 minutes and max. 2 liters of water are needed. This implies a particular level of cost efficiency and ensures a minimum of CO2 emissions. Qmilch fibre is biodegradable, without chemical additives and naturally antibacterial. For its characteristics, it brings many advantages for end-users. The new value chains can support dairy farmers of using the residues of raw milk and turning waste milk into a resource.

The company has the potential to be a sustainable replacement for petroleum based synthetic fibres, and certain types of plastic food packaging as well as numerous other applications that have yet to be fully explored.



Photo: Qmilch

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**BRANCHES**

**BOOSTING RURAL BIOECONOMY NETWORKS FOLLOWING MULTI-ACTOR APPROACHES**

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PRACTICE ABSTRACT



Photos: Qmilk

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## ABOUT BRANCHES

**BRANCHES** is a H2020 “Coordination Support Action” project, that brings together 12 partners from 5 different countries. The overall objective of **BRANCHES** is to foster knowledge transfer and innovation in rural areas (agriculture and forestry), enhancing the viability and competitiveness of biomass supply chains and promoting innovative technologies, rural bioeconomy solutions and sustainable agricultural and forest management.



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## THE PARTNERSHIP

