## KARMA2020 PARTNERS



#### CONTACT



## **Dissemination contact**



Patrizia Circelli p.circelli@ciaotech.com

Ciaotech s.r.l.



KARMA2020 is a project funded by the European Commission

This project has received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement  $n^\circ\,723268$ 



# Industrial Feather Waste Valorisation for Sustainable KeRatin-based MAterials



#### THE PROJECT

KaRMA2020, funded by SPIRE "Industrial technologies for the valorisation of European bio-resources into high added value process streams" aims to the industrial manufacture and exploitation of sustainable raw materials from feather waste to develop innovative green products for high impact cross-sectorial markets. lts technological breakthroughs significant will guarantee environmental and economic benefits.

In Europe 13.1 million tons of poultry meat are produced for year, with an estimated generation of 3.1 million tons of feather waste. Due to the raise in poultry meat consumption, this amount is expected to increase. The majority of the poultry feather waste in Europe is disposed in landfills or incinerated as only a minor part is being converted into low nutritional value animal food, becoming a problematic for the future. At present, the conversion and the use of the feathers as raw material in industrial applications is still very limited. Therefore, the development of industrial conversion methods and exploitation strategies for poultry feathers will increase the value of feathers as raw material as well as reduce the environment impact and health hazards associated to landfill.



The KaRMA2020 project aims at the industrial manufacture and the exploitation of such underutilized feather waste for the production of valuable raw materials that will be used to develop products for cross-sectorial applications, such as hydrolysed keratin, bioplastics, flame retardant coatings, spun bonded non-wovens and thermoset biobased resins.

The KaRMA2020 project was launched on January 1, 2017 for a period of three years.

Research partners involved in this project are: Cidetec (Coordinator), Aimplas, VTT, SP, Centexbel, Institute of Biopolymers and Chemical Fibres, University of Nice Sophia Antipolis. Companies Avantium, Daren Laboratories, Ciaotech srl, Vertech Group, Sioen Industries nv, Grupo Sada, SP Processum, Fertiberia and FKuR Kunststoff GmbH will bring the developed technologies from lab scale up to industrial level.