



SPIRE-03-2016

## **KARMA2020**

**Full Title:** Industrial Feather Waste Valorisation for Sustainable KeRatin based MAterials

**Aim:**

The overall objective of KaRMA2020 is the industrial exploitation of underutilized waste to obtain added value raw materials for the chemical sector: keratin, bioplastics, flame retardant coatings, non-woven and thermoset biobased resins.

**Concept:** This will be accomplished through either: i) innovative and sustainable approaches (already patented by some of KaRMA2020 partners), or ii) conventional and economic techniques. The obtained raw materials will be manufactured at industrial scale and further used for the production of novel bio-based products such as: slow release fertilizers, biodegradable food packaging plastics, flame retardant coated textiles and flame retardant thermoset biobased composites. The sustainability of the new raw materials and end-products will be evaluated through LCA assessment.

**Start date:** 01/01/2017

**End date:** 01/01/2020

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