

FORSCHUNGSPROJEKT

KaRMA2020

Industrial Feather Waste Valorisation for Sustainable KeRatin-based Materials.

Weblink

www.karma2020.eu

Projektträger



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Zusammenfassung

The poultry industry generates huge amounts of waste each year. Worldwide 24 billion chickens are consumed annually and around 8.5 billion tons of poultry feather are produced. According to European Commission, 13.1 million tons of poultry meat was produced only in the European Union (EU-28) in 2014 with an estimated generation of 3.1 million tons feather waste. Furthermore, these figures are expected to increase in the following years due to the raise in poultry meat consumption in the EU countries as forecasted by the Association of Poultry Processors and Poultry Trade. Despite their high availability and their exploitation in countries such as USA or New Zealand, in Europe there is still a very limited use of feathers as raw material in industrial applications. The main reasons for such situation are the lack of proprietary efficient technologies for the processing, isolation and purification of keratin, the main component of feathers, as well as the lack of already established routes of exploitation for the introduction of such products. As a consequence, at present the majority of the poultry feathers are disposed in

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landfills, incinerated, or a minor part converted into low nutritional value animal food. The disposal of feathers in landfill sites or incinerators is set to become increasingly problematic in the future. Therefore, the development of alternative industrial conversion methods and exploitation strategies for poultry feathers will not only increase the value of feathers as raw material but also reduce environment impact and health hazards associated to landfill in line with the Landfill directive. In this context, the aim of KaRMA2020 Project is the industrial manufacture and exploitation of sustainable raw materials from feather waste to develop innovative green products for high impact cross-sectorial markets. This main objective will be reached through the following steps:

- Improving feather waste pre-treatment and conditioning processes
- Optimizing the isolation of keratin and other feather-based raw materials
- Validation of the feather-based raw materials for bio-based end products

Kontakt

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