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PRESS RELEASE

PerPlacsBio Launched: Biodegradable Plastics Transform Agriculture and Forestry

University of Münster, Rottenburg University of Applied Forest Sciences and the nova-Institute launch PerPlacsBio project – Exploring bio-based and biodegradable plastics for agriculture and forestry

Hürth, 13 January 2026: The University of Münster, the University of Applied Forest Sciences Rottenburg and the nova-Institute have launched the project PerPlacsBio – Prospects for bio-based and biodegradable plastics in agriculture and forestry. The project is funded by the Agency for Renewable Resources (FNR) under the programme “Sustainable Renewable Resources”.

Background and project objective

The negative impacts of microplastics on ecosystems are widely recognised, yet farmers and foresters still lack clear, practical guidance on how to reduce plastic inputs into soils. At the same time, users often do not have sufficient information to assess where and when biodegradable alternatives are environmentally meaningful and technically feasible.

PerPlacsBio addresses this gap by analysing the potential of biodegradable plastics to reduce pollution, identifying appropriate applications in agriculture and forestry, and building knowledge among users and industry. All project results will be made publicly available to support evidence-based decisions in practice, policy and business.

Roles of the project partners

The nova-Institute will expand the existing knowledge base on bio-based and biodegradable plastics, particularly with regard to alternatives, standards, norms, certification schemes, political framework conditions and decision-making criteria. The Universities of Münster and Rottenburg will conduct surveys in the agricultural and forestry sectors to better understand user needs, perceptions and barriers to adoption.

Together with stakeholders from industry, academia and policy, the consortium will discuss the feasibility of alternative materials and measures. Throughout the project, the nova-Institute will organise several workshops to present findings, gather feedback and integrate practical experience into the project work.

Building on the BioSinn project

PerPlacsBio directly builds on the project BioSinn – Products for which biodegradation makes sense – funded by the Federal Ministry of Food and Agriculture (funding code 2219NR197). BioSinn identified 25 product types for which biodegradation is environmentally meaningful because collection, separation or recycling is not feasible in practice or economically.

The project produced a brochure with 25 fact sheets and extensive background information on biodegradation, addressing decision-makers in industry and politics as well as the general public. For each product, the brochure explains to what extent biodegradation is a sensible and feasible option, outlines technical substitution options for more sustainable material use, and evaluates product-specific policy frameworks, regulations and market volumes in Germany and the EU. These insights now form the basis for more targeted research into use cases in agriculture and forestry within PerPlacsBio.

Call for expert input

To strengthen the evidence base and ensure practical relevance, the project team is seeking external expert input on the following products:

- Binding yarn
- Flocculant aids
- Plant fastening clips and ties
- Controlled-release fertilisers and pesticides
- Mulch films
- Seed coatings
- Bird ringing products
- Tree shelters
- Other relevant applications in agriculture and forestry

The team welcomes, among others, information on new or updated standards and certification schemes, recent policy developments, market volumes in Germany and the EU, and new biodegradable alternatives on the market or in development. Experts who can contribute knowledge or data are invited to contact Pauline Ruiz (pauline.ruiz@nova-institut.de) at the nova-Institute.

Find all nova press releases, images and more free-for-press material at https://nova-institute.eu/news/pr/

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nova-Institut GmbH has been working in the field of sustainability since the mid-1990s and focuses today primarily on the topic of renewable carbon cycles (recycling, bioeconomy and CO_2 utilisation/ CCU).

As an independent research institute, **nova** supports in particular customers in chemical, plastics and materials industries with the transformation from fossil to renewable carbon from biomass, direct CO_2 utilisation and recycling.

Both in the accompanying research of international innovation projects and in individual, scientifically based management consulting, a multidisciplinary team of scientists at **nova** deals with the entire range of topics from renewable raw materials, technologies and markets, economics, political framework conditions, life cycle assessments and sustainability to communication, target groups and strategy development.

50 experts from various disciplines are working together on the defossilisation of the industry and for a climate neutral future.

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