

# Biological Resources Certifications Schemes

## The Problem

The transition to a bio-based economy is expected to deliver substantial environmental and economic benefits. However, bio-based production systems still entail significant environmental challenges, namely seasonality and high spatial distribution of available resources, variability on critical physicochemical properties, etc. As such, the current destination for most of the biological resources is a low added-value market. Besides that, the lack of traceability information continues to hinder resource's availability, use and profitability for the industry.

## BIORECER Overall Objective

BIORECER's principal aim is to complement the existing certification schemes and enhance the bio-based circular systems by endorsing the sustainability and trade of biological resources. In this regard, it is critical to create a solid foundation which will encompass current and emerging methodologies, concepts, and tools in order to facilitate the assessment of traceability and environmental sustainability of biological resources production and trades in bio-based systems. Additionally, a fundamental step is the development of an Environmental Sustainability Assessment framework (aligned with the EU Taxonomy Regulation criteria, EU Corporate due diligence and corporate accountability regulation) in order to be integrated into the current certification schemes and ultimately be applicable to different bio-based industries. A core element of this project is to validate the methodologies of the BIORECER assessment in four case studies. In this context, the potential of certification schemes will be presented to the consumers, while assessing the bio-based industry stakeholders' willingness-to-pay along with consumers' acceptance of bio-based products from different feedstocks.

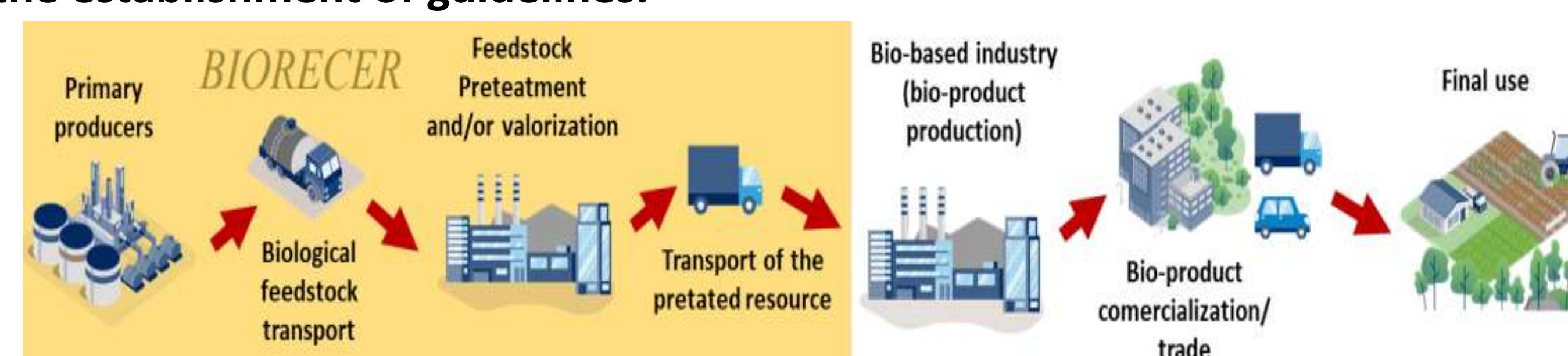
## The Project

BIORECER will ensure the correct environmental performance and traceability of the biological feedstock used by bio-based industries and to deploy guidelines in order to strengthen the current certification schemes. In this context, the impact of current and adapted certification schemes will be assessed from the consumers' perspective, along with the industries stakeholders' willingness-to-pay. Additionally, the assessment will be extended to industries and consumers' acceptance of new bio-value chains from biological feedstocks, including residual feedstock and waste. Within this approach, the added value, the use, as well as the social acceptance of bioproducts will be enhanced.



## The Approach

BIORECER will develop a multiapproach bioresource value chain analysis for mapping the current biological feedstock flows and trade, as secondary raw materials intended for industrial biobased systems, from a regional and EU point of view. Main actors will be identified and will serve as a basis for the creation of Bioresources Innovation Ecosystem living-lab. Additionally, an analysis of new environmental, tracking and traceability criteria and indicators is performed in order to successfully ensure the environmental performance and origin of the biological feedstocks. A fundamental step is the integration of the developed framework into current certification schemes through the establishment of guidelines.



Subsequently, the assessment framework and the guidelines for standardization will be integrated into the ICT tool with three approaches: i) an auto-evaluation tool for primary producers and bio-based industry main actors, ii) a repository for policy makers and consumers to check the environmental performance and traceability of biological resources and iii) a platform that will enable certification companies to have access to biological feedstocks environmental and traceability performance.

## Expected Impacts

- Develop a common methodology and define indicators to monitor, certify and assess the environmental sustainability, tracking and traceability of biological resources used in the bio-based systems,
- Enable primary producers, traders and certification schemes to trace environmental impacts and trade-offs of bioresources and thus boosting the responsible production
- Guide stakeholders to select optimal alternatives so as to establish circular bio-based systems through the creation of a BioResources Stakeholders Platform (BRSP).
- Enable bio-based main actors to analyze and certify biological resources impacts and trade-offs in different categories, such as GHG emissions; carbon footprint; eutrophication; land use; marine space use; biodiversity and ecosystem services; energy consumption water footprint through the integral and friendly ICT tool (BIT).

## The Project Partners



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