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Objectives of BioReCer

-  Complement current biological resources certification schemes by including new criteria for certifying biological resources' sustainability, origin and traceability and ensure applicability at the EU and global scale.
-  Increase transparency of the value chains for bio-based products by including information on environmental performance.
-  Track the traceability of biological feedstock in order to optimise supply chain processes, meet health and safety standards, assess environmental impact and promote biological feedstock in the market.
-  Increase social acceptance of bio-based products in new markets, thus contributing to environmentally conscious consumption decisions.
-  Reduce GHG emissions and water pollution.
-  Replace fossil-based resources with biological alternatives.

Project Coordinator

CETAQUA
WATER TECHNOLOGY CENTRE

Partners



Biological Resources Certifications Schemes

#BioReCer
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biorecer.eu

Background

A circular economy is sustainable if it is able to minimise waste and simultaneously maximise value from (organic) waste materials.

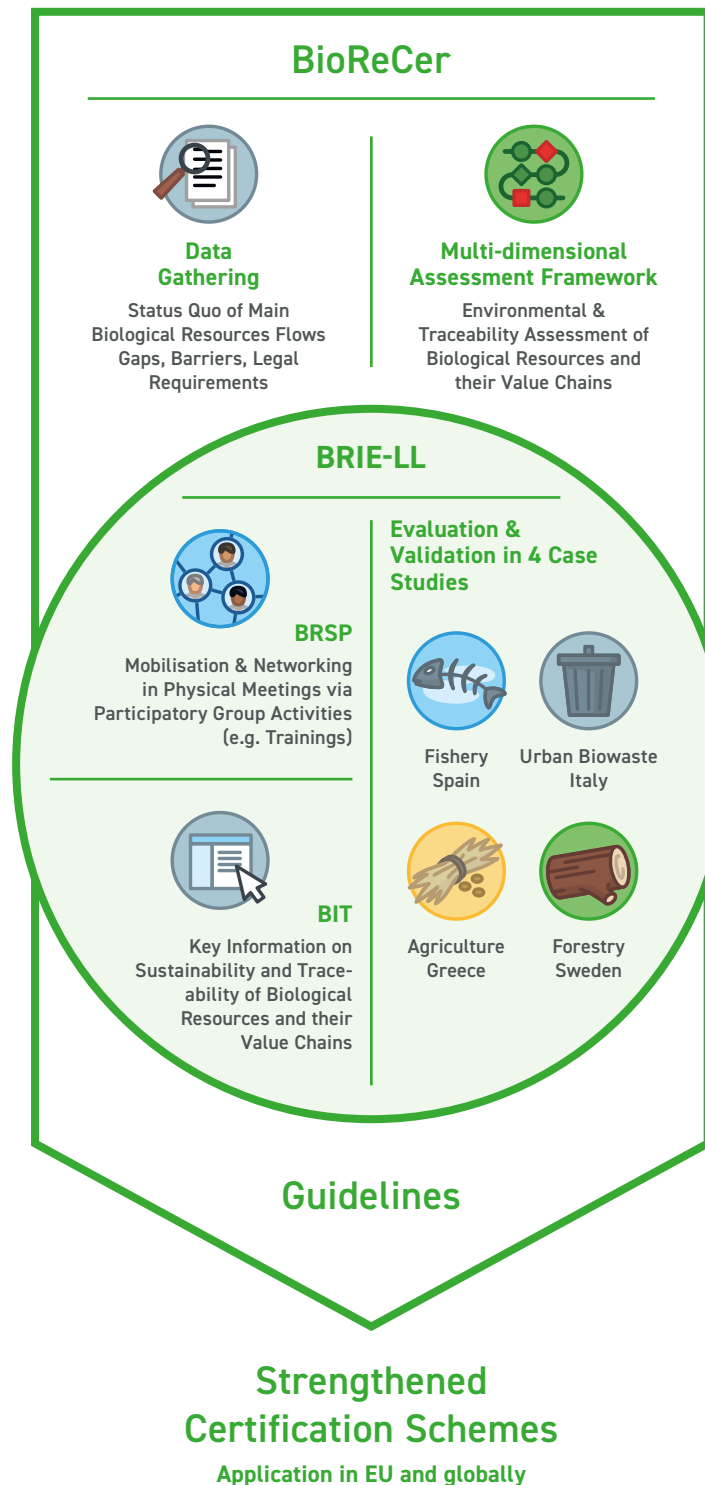
To realise this goal, organic waste materials require sufficient assessment. Further, the tracking and traceability of biological feedstock need to be guaranteed, and the respective bio-based value chains must be certified in a practical way.

However, current certification schemes need to be strengthened since not all of them sufficiently meet the specific requirements of organic resources.

BioReCer Course of Action

BioReCer will establish standardisation guidelines to strengthen current certification schemes. This will be done by developing a multidimensional assessment framework, which will allow an aggregated analysis of biological resources and their associated value chains.

BioReCer will test and evaluate the developed framework via integration into existing certification schemes. The methodologies of BioReCer will be validated by the BioReCer Innovation Ecosystem Living-Lab (BRIE-LL).



The BioReCer Innovation Eco-system Living-Lab (BRIE-LL)

For the assessment of environmental sustainability and tracking and traceability of biological resources, BioReCer will develop the innovative digital web portal BRIE-LL. It functions both as a virtual meeting place for the BioResources Stakeholders Platform (BRSP) and as a BioReCer ICT tool (BIT).

BRIE-LL will mobilise the BRSP through participatory group activities (e.g. workshops, networking and training capsules), while BIT is an auto-evaluation tool based on several machine and deep learning algorithms that provide stakeholders with key information on the environmental performance of bio-based value chains.

Case Studies

BioReCer will evaluate and validate the multi-dimensional assessment framework by BRIE-LL with four case studies in different EU countries.

These were selected based on their geographical distribution, biomass type and source, and associated bio-based value chains.

Case Study 1:

Fish canning industry and urban/industrial sewage sludge in Galicia, Spain.

Case Study 2:

Urban biowaste and wastewater from biorefineries in Lombardia, Italy.

Case Study 3:

Agricultural waste in Central Macedonia, Greece.

Case Study 4:

Residual streams from the forest industry in Västernorrland, Sweden.