



BBioNets

Boosting the adoption
of Bio-Based Technologies

BBioNets Online Knowledge Platform

A Digital Tool to Accelerate the Uptake of Bio-Based Technologies in Agriculture and Forestry

MAŁGORZATA WYDRA & MAGDALENA BORZĘCKA,
IUNG

JANUARY 2026



Funded by
the European Union

Article information

Title	BBioNets Online Knowledge Platform - A Digital Tool to Accelerate the Uptake of Bio-Based Technologies in Agriculture and Forestry
Authors	Magdalena Borzęcka - IUNG Małgorzata Wydra - IUNG
Brief summary	The article describes contents and functionalities of the BBioNets Online Knowledge Platform – one of the main results of the BBioNets project. The Platform is a free online repository available at https://bbionets-platform.eu/ which integrates all relevant project outcomes with the aim to facilitate knowledge transfer and promote circular and sustainable management of agricultural and forest biomass.
Article date	08/01/2026
Edition	V1
BBioNets Work Package	WP3 - Knowledge creation & transfer

Introduction

The BBioNets Online Knowledge Platform is a free online repository created in the framework of the [BBioNets project](#), offering open and easy access to the material produced by the project consortium through a user-friendly, intuitive interface. It integrates all relevant project outcomes which include the catalogue of **Bio-Based Technologies**¹ (BBTs), the BBTs assessment tool, a high-level analysis of the dynamics of BBioNets' Represented Regions, as well as educational and training material, provided to encourage and facilitate the uptake of BBTs among agriculture and forestry stakeholders. The Platform can be accessed at <https://bbionets-platform.eu/>.

By making these resources publicly available, the consortium aims to promote the existing technologies and initiatives, and support knowledge sharing with respect to circular and sustainable management of agricultural and forest biomass.

BBioNets Online Knowledge Platform - contents and functionality

The contents of the BBioNets Platform are structured into four sections (Figure 1):

The **BioBased Technology Inventory** is a collection of innovative solutions – **BBTs** - developed by recently completed and ongoing **EIP-AGRI Operational Groups (OGs)** and other EU-funded projects & initiatives, focusing on **valorisation of agricultural and forestry residues**, and supporting circular bioeconomy principles. BBTs are presented in a table with filtering options: OG country, relevant sector of BBT application, dedicated feedstock, and area of the BBT's impact, to help users select relevant solutions. Each solution/technology is presented in detail on a separate BBT card providing information on the problem addressed, process outcome, final product, technology readiness etc., as well sustainability assessment, thus allowing users to make informed choices and select practices which are financially viable while conserving resources and protecting ecosystems.

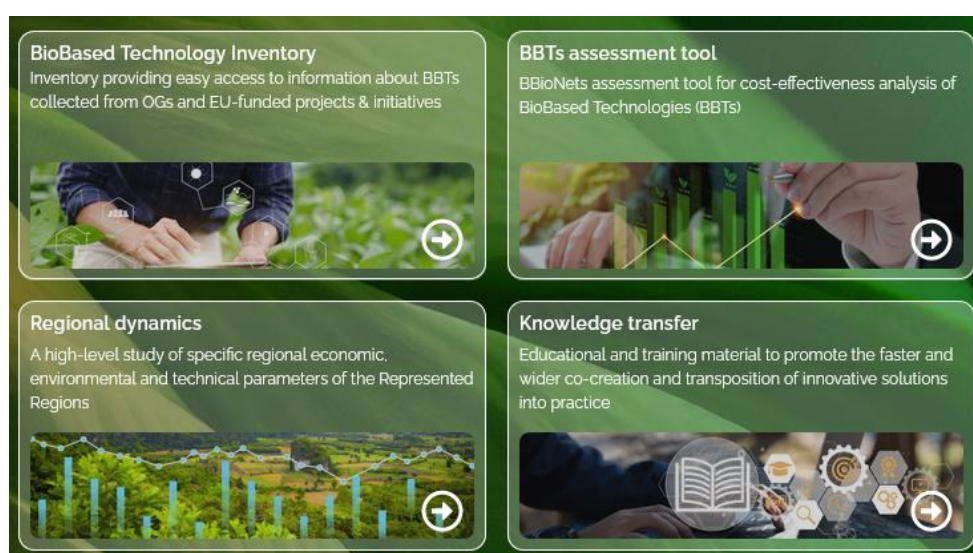


Figure 1: BBioNets Online Knowledge Platform structure

¹ Technologies or practices that use non-food feedstock, circularity principles or both to deliver diverse products.

The **Regional dynamics section** showcases the results of the *High-level study of regional dynamics* performed for the six Represented Regions² regarding **region-specific insights** on biomass potential, technological gaps, and innovation challenges. The study explores economic, environmental and technical parameters with special focus on the **agriculture and forestry sectors**, state of the art of biomass valorisation, as well as analysis of OGs in the region. Presented findings identifying and understanding specific regional parameters, actual implementation of BBT-related practices and level of awareness as to their economic and environmental benefits may help identify investment priorities, support **regional development strategies**, and smart specialisations in rural areas.

The **BBTs assessment tool** is an online tool for **cost-effectiveness analysis** of BBTs, based on specific regional needs and resources. Its objective is to facilitate the process of matching the available technologies to the needs and resources of agricultural and forestry stakeholders. The Tool uses quantitative (investment costs, operational costs, processing capacity, etc.) and qualitative (added value, process complexity, etc.) variables to analyse the costs and benefits of the mapped technologies and propose a **BBT prioritisation** for each Represented Region (static version, Figure 2). The dynamic version of the Tool allows for adjusting this prioritisation basen on user-provided data (Figure 3).

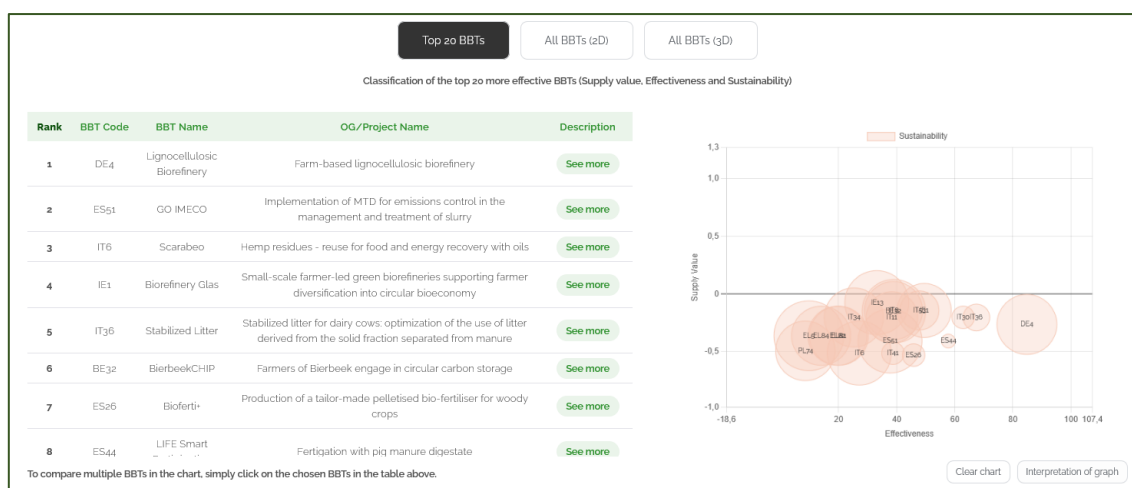


Figure 2: BBT prioritisation for Ireland (static version)

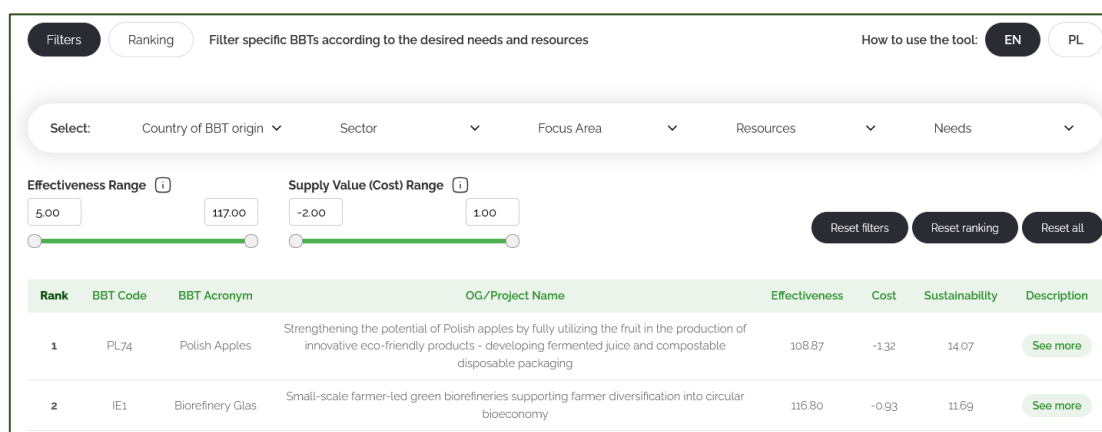


Figure 3: Filtering and ranking options available in the dynamic version of the BBTs assessment tool for Poland

² Regions represented by the BBioNets project partners: Ireland, Spain, Greece, Italy, Poland and the Czech Republic

The [Knowledge transfer section](#) consists of educational and training materials designed to **widespread the knowledge** on existing bio-based solutions and sustainable practices, and **accelerate their adoption** among rural stakeholders. The materials are presented in accessible formats: practice abstracts, infographics, factsheets, BBT-descriptive videos etc., tailored to the needs of the Represented Regions, and translated into the consortium's national languages, whenever relevant for each country, to allow dissemination beyond linguistic barriers.

The Online Knowledge Platform is interconnected with the [EU-FarmBook Platform](#) to guarantee long-term maintenance of the collected practical knowledge, as well as its wide dissemination among all relevant stakeholders. To ensure access to the latest technologies, it will be regularly updated by the project partners and enriched on a permanent basis with input provided by relevant initiatives.

Added value of the Platform: integration of education, data, and decision support

The Platform's key strength is the integration of three crucial components: **educational material, knowledge resources, and decision-making tools**. By combining them into one coherent system, the platform transforms fragmented information into actionable guidance for users.

Educational value: The platform offers accessible educational materials presenting bio-based technologies and solutions **tailored to non-academic audiences** such as farmers and foresters, thus bridging the knowledge gap between research outputs and practical implementation. The assessment tool, by integrating findings from the high-level study of regional dynamics and data collected in the BBT inventory, translates complex analyses into **user-friendly guidelines**. Continuous updates of the tool ensure users stay informed about the latest technologies and able to make well-informed choices.

Data integration: The inventory **consolidates information** on biomass types, processing technologies, and market-ready solutions from OGs and other European sources, collected by project partners and validated with the support of [BBioNets' Forest and Agriculture Network \(FAN\)](#) members. Regional data on biomass availability, innovation readiness, and socio-economic conditions provide essential context for understanding local bioeconomy. This structured data environment promotes comparability, and scalability, encouraging cross-fertilisation and collaboration between regions.

Decision support tool: The platform's interactive tool enables users to match biomass resources with suitable technologies to obtain desired products. Decision parameters (e.g., feedstock type, production cost, desired output, effectiveness range) allow for making evidence-based, sustainable choices while reducing risk and improving resource efficiency.

The integration of these three layers empowers rural stakeholders with evidence-based knowledge and access to ready-to-use solutions. Without the need for deep technical expertise, users can explore, learn, choose, and implement – all within **one digital ecosystem**.

Conclusion

The Platform enables primary producers to implement sustainable, circular, and innovation-driven practices tailored to their needs. While guiding users toward resource-efficient technologies, it helps reduce waste, emissions, and environmental impact. This approach accelerates the uptake of innovation, and creates opportunities for farmers and foresters to participate in the circular bioeconomy.

References

CREA. (2024) Deliverable D2.1: Methodological framework for knowledge compilation. BBioNets, Horizon Europe Programme, Project No. 101133904. Available at: https://bbionets.eu/wp-content/uploads/2025/07/D2.1_Methodological_framework_for_knowledge_compilation_fn.pdf

CTA. (2024) Deliverable D2.4: High-level study of regional dynamics for the use of Bio-based Technologies (BBTs). BBioNets, Horizon Europe Programme, Project No. 101133904. Available at: https://bbionets.eu/wp-content/uploads/2025/07/D2.4_High_level_study_regional_dinamics_BBTs_fn.pdf

IUNG. (2024) Deliverable D3.1: BBioNets online knowledge platform - initial version. BBioNets, Horizon Europe Programme, Project No. 101133904. Available at: https://bbionets.eu/wp-content/uploads/2025/07/D3.1_Knowledge_platform-v1_fn.pdf

MTU. (2024) Deliverable D2.2: Bio-Based Technologies Assessment Tool – v1. BBioNets, Horizon Europe Programme, Project No. 101133904. Available at: https://bbionets.eu/wp-content/uploads/2025/07/D2.2_BBT_Assessment_tool-v1_fn.pdf

TEAGASC. (2024) Deliverable D1.5: Identified regional needs and challenges. BBioNets, Horizon Europe Programme, Project No. 101133904. Available at: https://bbionets.eu/wp-content/uploads/2025/07/D1.5_Regional_Needs_Challenges_fn.pdf

Document information

Title	BBioNets – Creation and promotion of Forest and Agriculture Networks to boost Bio-Based Technologies adoption and Value Chain development (GA No 101133904)
Start – end date	1/11/2023 – 31/10/2026 (36 months)
Project type	Coordination and Support Action
Programme	Horizon Europe – Cluster 6
Funding	1,998,636.20 €
Coordinator	Munster Technological University Ms. Carmen Girón Domínguez (carmen.dominguez@mtu.ie)
Project overview	BBioNets constitutes a thematic network that relies on, promotes, and further advances the work carried out by EIP-AGRI Operational Groups (OGs) with respect to management and/or processing of agricultural and forest biomass with Bio-Based Technologies (BBTs) . The project has set up 6 regional Forest and Agriculture Networks – FANs (IE, ES, IT, EL, PL, CZ) that identify local needs, prioritise specific BBTs and share BBT knowledge ready for practice to farmers and foresters, boosting the (re)definition of value chains, stimulating cross-fertilisation beyond borders, and bringing Europe to the forefront of farming, forestry and bioeconomy with economically viable and sustainable practices.

Consortium



 info@bbionets.eu

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