BBioNets

Boosting the adoption of Bio-Based Technologies

36 MONTHS | ~2 MLN | 9 PARTNERS | 6 FANs

The aim of **BBioNets** is to support farmers and foresters in implementing Bio-Based Technologies (BBT) and to promote the reuse of biomass in order to enhance resilience to climate change through mitigation of GHG emissions, circular economy and zero-waste principles.



The BBioNets Platform and BBTs Assessment Tool: supporting the resilience of rural areas and sustainable food systems in Europe

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The challenge: supporting the resilience of rural areas and sustainable food systems in Europe

Europe faces interconnected challenges, from climate change mitigation and food and energy security to achieving the Green Deal objectives and adapting to new financial frameworks. At the same time, large quantities of agricultural and forest residues generated across European regions remain underexploited, despite their potential to create added value for rural economies. The main barrier to unlocking this potential is often not a lack of innovation or technological solutions, but fragmented knowledge, limited transfer to end users, and a mismatch between available solutions and diverse regional conditions. This is particularly evident in case of agricultural and forest biomass, where valuable knowledge and results generated by European projects and initiatives often fail to reach the practitioners and local communities that could implement them. Bridging this gap requires better valorisation and dissemination of existing knowledge, supported by practical tools that connect available technologies with locally available biomass resources and regional needs.



Figure 1: The BBioNets Knowledge Platform: homepage

The BBioNets Online Knowledge Platform

The BBioNets Platform was designed to address these challenges, by supporting the sustainable utilisation of agricultural and forestry residues. It brings together knowledge, results, and practical experience from European research and innovation activities, and promising Bio-Based Technologies (BBTs) demonstrated by over 150 EIP-AGRI Operational Groups (OGs), to make them accessible to a wide range of practitioners and help identify suitable pathways for converting underutilised residues into valuable bio-based outputs.

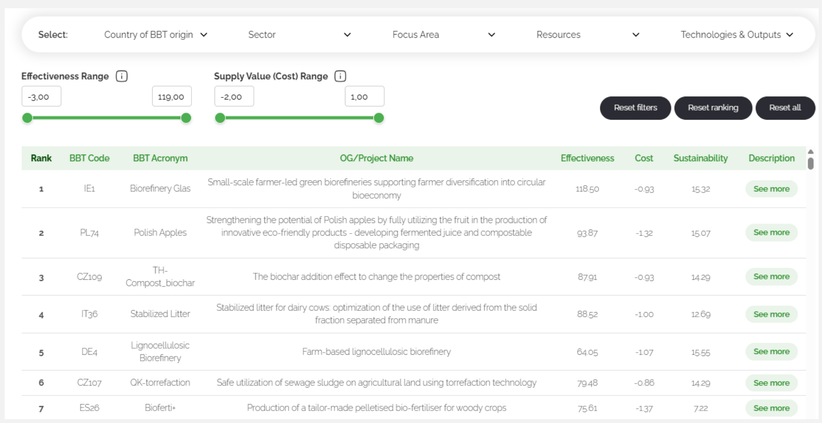
bbionets-platform.eu

The Platform provides structured information on biomass-based technologies and solutions, including feedstock requirements, potential benefits and limitations, and practical implementation examples, facilitating comparison of presented technologies and assessment of their suitability for specific regional contexts.

The BBTs Assessment Tool

The central element of the BBioNets Platform is the BBTs Assessment Tool – a tool analysing the cost-effectiveness of bio-based technologies using a set of quantitative and qualitative indicators. The tool draws on an inventory of BBTs collected from recently completed and ongoing OGs and other EU-funded projects & initiatives. It provides a ranking of their economic and contextual suitability for regional conditions based on the available local biomass resources and priorities reported by stakeholders from each region/country through a series of structured surveys. Additionally, the interactive version of the tool presented below allows users to filter and rank the results according to selected variables (Figure 2) to better match their individual preferences.

The BBTs Assessment Tool supports farmers, foresters and other interested stakeholders in making informed investment decisions by offering a quick comparison of selected technologies, reducing uncertainty and investment risk, and thus accelerating the uptake of economically viable and sustainable practices. It also facilitates knowledge transfer across regions and stakeholder groups throughout the biomass value chain.



Rank	BBT Code	BBT Acronym	OG/Project Name	Effectiveness	Cost	Sustainability	Description
1	IE1	Biorefinery Glas	Small-scale farmer-led green biorefineries supporting farmer diversification into circular bioeconomy	118.50	-0.93	15.32	See more
2	PL74	Polish Apples	Strengthening the potential of Polish apples by fully utilizing the fruit in the production of innovative eco-friendly products - developing fermented juice and compostable disposable packaging	93.87	-1.32	15.07	See more
3	CZ109	TH-Compost_biochar	The biochar addition effect to change the properties of compost	87.91	-0.93	14.29	See more
4	IT36	Stabilized Litter	Stabilized litter for dairy cows: optimization of the use of litter derived from the solid fraction separated from manure	88.52	-1.00	12.69	See more
5	DE4	Lignocellulosic Biorefinery	Farm-based lignocellulosic biorefinery	64.05	-1.07	15.55	See more
6	CZ107	OK-torrefaction	Safe utilization of sewage sludge on agricultural land using torrefaction technology	79.48	-0.86	14.29	See more
7	ES26	Bioferti+	Production of a tailor-made pelletised bio-fertiliser for woody crops	75.61	-1.37	7.22	See more

Figure 2: Prioritisation of BBTs tailored to the region's needs and resources: Poland (interactive version)

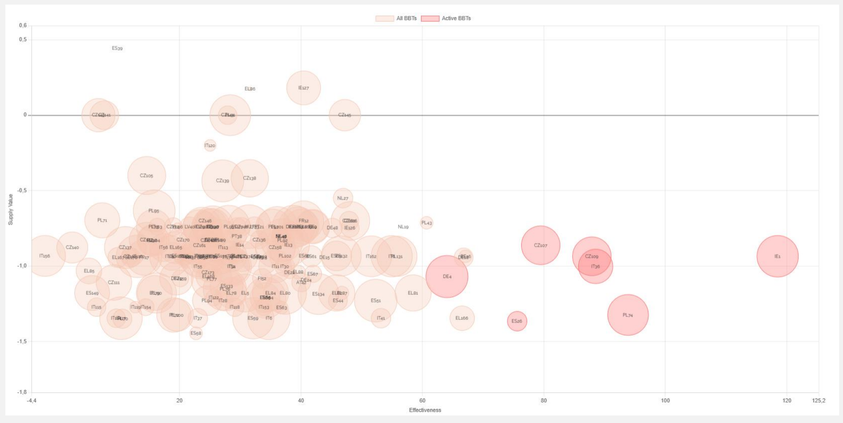


Figure 3: Distribution of BBTs across the chart based on effectiveness, and supply value calculated for Poland; the size of the points is based on sustainability values

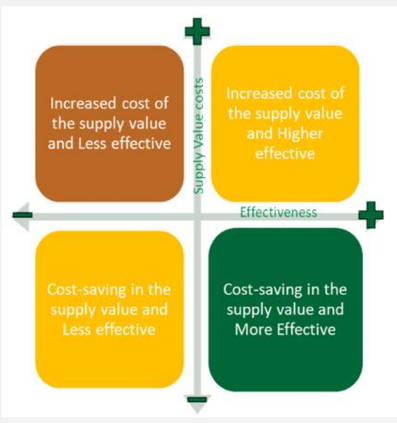


Figure 4: Interpretation of the graph presented in Fig. 3

Conclusions

By linking biomass-resource potential with suitable technology options, the BBioNets Platform can support the transition towards more resilient, circular and resource efficient rural systems. It can contribute to better management and valorisation of surplus biomass, and support the development of new regional bioeconomy value chains. The Platform can also serve as a knowledge source for designing interventions under the CAP, cohesion policy, and future EU funding instruments.

Benefits:

Knowledge presented in a way that is **accessible to practitioners**, in a variety of text and audiovisual formats

An integrated database that collects and organises data on available technologies, enabling them to be easily compared and utilised

Up-to-date and reliable data thanks to regular updates to the BBT repository and a region-specific ranking

Decision-making support through interactive features that match the right solution to your existing resources and needs, thereby increasing efficiency and minimising risk

Target Groups:

Farmers and Foresters | Entrepreneurs | Innovators

BBioNets

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