

BBI JU call for proposals - online project facilitation workshop

The ERRIN BBI JU call for proposals – online project facilitation workshop will be divided into two parts. The introduction session of the workshop will lay out the general aims and objectives of the workshop and Paloma Mallorquin from BBI JU will give a brief introduction to the broader topics of the call for proposals. The second part will then be divided into virtual breakout rooms, where project ideas will first be presented by the respective project idea owner. Subsequently, participants will be invited to present their expertise and share what would make them a suitable project partner.

How to join the calls

Below you will find a link to join each of the virtual breakout rooms.

You are not required to have a Microsoft account or download the Microsoft Teams App, you can simply join by clicking in the link and proceeding in your browser.

0. [Introduction Session](#)

Breakout Rooms

1. [Create and interlink bio-based education centres to meet industry's needs of skills and competences - BBI2020-SO4-S3](#)

MED-BIO Valley is a transnational project focused on creating an open innovation mechanism that will enable knowledge-sharing and capacity building through the exchange of good practices in the bio-economy context. The importance of the Bioeconomy Education is well addressed in the 2018 European bioeconomy Strategy that aims to promote education, training, and skills across the bioeconomy to reduce skills shortages mismatches across the bioeconomy by supporting the development of new education opportunity to respond to the diverse and evolving needs of stakeholders and sectors in the bioeconomy. The MED-BIO Valley is practically conceived as a transnational Bio-Economy lab. The latter will gather international stakeholders to streamline the cooperation between North and South European regions, SMEs and industries, and other institutions. While the cooperation will be open for actors coming from all over Europe, the project's main ambition is to provide a roadmap for catalysing the bioeconomy in southern Europe, this will be done by carrying out R&I projects following a 4 Helix approach, with scientific depth and real-world impact.

2. [Develop bio-based solutions to recycle composites - BBI-2020-SO2-R3](#)

Recycle of bio-based composites by selective dissolution: Project aims to develop degradable bonding materials for composites, and to design and develop adequate materials for composites themselves to maximise their recyclability. Recycle of bio-based composites by selective dissolution with designer deep eutectic solvents and biocompatible ionic liquids. Project will draft guidelines for collecting and directing the recyclable materials.

3. [Develop integral fractionation of lignocellulose to produce components for high-value applications - BBI-2020-SO2-R2](#)

Biomass fractionation into its individual building blocks offers a great potential to drive to a society less dependent of fossil carbon resources. The project we proposed is mainly focused on the **valorisation of solid lignocellulosic wastes generated in different food and agro-industrial sectors**. One of the main goals of this

proposal is the **use of pressurized water to fractionate structural components** of the biomass, meeting the green chemistry principles, since water is the greenest solvent that can be employed.

4. [Solving supply chain challenges to transform residual waste streams into functional molecules \(nitrogen\) for food and/or non-food market applications - BBI-2020-SO1-D1](#)

The methanisation digestate resulting from the anaerobic fermentation of dedicated organic matter, is rich in nitrogen and poses recovery problems (volumes, very high water content, transport to cultivation areas, and seasonality of spreading, pollution in surface, white-water, localization, etc...) generating a poor carbon balance. In the INTERREG ENO ALG-AD project, the cultivation of micro-algae on digestate has shown the beneficial potential of algae growing in digestate. Microalgae have bio-stimulating virtues already demonstrated and virtuous vis-à-vis inputs in crops. They can partially replace herbicides, synthetic chemical fertilizers while generating bio-stimulation of plants. The varieties of microalgae tested in ALG-AD have shown both their nitrogen and phosphorus uptake potential from the digestate. The project aims to produce micro-algae on anaerobic digestion sites and to use it on annual crops (cereals, weeded plants) and perennials (meadows, orchards), passing through the soil to break the pathogenic chain contained in digestate. The purpose of the project is to build on the achievements in microalgae cultures on digestate and to measure the positive impact on crop yields in different soil and climatic conditions in Europe.

5. [Valorise the organic fraction of municipal solid waste through an integrated biorefinery at commercial level \(FLAG-IA\) - BBI-2020-SO1-F1](#)

The valorisation of waste as a resource needs to be studied from a multiscale perspective, evaluating all the stages from product characterization to supply chain management. In the first scale level, the possible products from different types of biomass, their yields, the design of the processes for chemical and power production is evaluated. The upper scale is the supply chain analysis involving the optimal location of the processing facilities, and the development of the network for the distribution of the waste to the facilities, and the products to the demand areas. The effect of the structure of the society, with densely populated areas, while others have a very dispersed population is considered in the development of the optimal supply chain. Even though both scales can be independently studied, the integration of process design and supply chain management is not straightforward. Therefore, the use of advance computational tools (e.g. big data, machine learning, mathematical optimization, etc.) plays a key role and aids on the business and environmental decision-taking process.