BBI-JU Project Facilitation Workshop - 30 June 2020

Call Number	Project Idea	Partners Sought	Partner Name
BBI-2020-SO2-R3 Develop bio-based solutions to recycle composites	**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 biocompatable ionic liquids. Project will draft guidelines for collecting and directing the recyclable materials.	Coordinator and partners: SMEs and research organisations in composites recycling	National Institute of Chemistry (Slovenia)
BBI-2020-SO2-R2 Develop integral fractionation of lignocellulose to produce components for high-value applications"	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.	Coordinator	University of Burgos (Spain)
BBI-2020-SO1-D1 Solving supply chain challenges to transform residual waste streams into functional molecules (nitrogen) for food and/or non-food market applications.	The objective of the proposal is to address the logistical burdens of 3 demos in three different regions (Western Macedonia, Puglia and Extremadura) that have been designed to **extract functional molecules of currently underexploited byproducts generated by agricooperatives on olive oil, wine and rice**. The demos will validate flexible technologies that can treat and process the whole amount of byproducts generated in the nearby cooperatives so that once the functional molecules have been extracted for sale to end-users, the remaining material can be used by cooperatives in the same territory where it has been generated to ensure environmental cycle and to add extra revenues. The functional molecules we would like to extract are hydroxytyrosol,LEVA (levulinic acid), PLA (polylactic acid); squalene; trans-resveratrol.	End-users; technology providers; entities with expertise in assessing the environmental and economic impact of the porducts or processes developed (LCA methodologies, standrads, certifications); bioeconomy logistics experts to support the main partner.	**University of Extremadura (Coordinator, Spain)**, other confirmed partners from Spain, Italy, Greece, Poland, France, Belgium and Netherlands.

BBI-2020-SO1-F1 Valorise the organic fraction of municipal solid waste through an integrated biorefinery at commercial level (FLAG-IA) **BBI-2020-SO4-S4** Expand circular economy to include the underexploited circular bioeconomy (CSA)	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.	Coordinator; Experimentalist groups on biochemical processes: waste pretreatment, fermentation, aneaerobic digestion, nutrient recovery; SMEs on food and pharma applications; SME's on waste management; governmental offices (energy economics, environmental economics); governmental research facilities; waste treatment facilities.	University of Salamanca (Spain)
BBI-2020-SO1-D1 Solving supply chain challenges to transform residual waste streams into functional molecules (nitrogen) for food and/or non-food market applications.	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.	The search for a partner mainly concerns the establishment of European sites where can be found at the same time: *A methane production site (even if initially it will not produce micro-algae) with agricultural plots and cereal crops or perennial non-food plants (excluding market gardening). In this case, the partner has a technical team capable of carrying out the measurements, analyzes and monitoring of the recommendations of WP 2 3 and 4. *A network of scientists to support WP3 on varietal knowledge of algae. In particular to demonstrate the beneficial nitrogen from micro-algae for crops. For WP2, ALG-AD partners will be mobilized to participate in the transfer to the pilot sites (WP5). *A group of experts for WP4 and WP7; technical-economic analysis. The Chambers of Agriculture have these qualified personnel. The project needs to have an industrial partner as leader near AC3A.	AC3A - Association des Chambres d’agriculture de l’arc atlantique (France)

BBI2020-SO4-S3 Create and interlink bio-based education centres to meet industry's needs of skills and competences	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.	Academia, Clusters, SMEs, RTOs (no profit or legal entities)	ADRAL – Alentejo Regional Development Agency (Portugal)