

WHERE ARE WE AT?



Interesting results regarding the production of the BPs were obtained during the last six months of the LIFE EBP project. In fact, the purification and drying steps for application in agriculture were defined and executed.

The first batches of dried BP were produced and are being shipped to the partners for agriculture trials. BPs production for plastic and detergent applications is being optimized. BP testing protocols were defined for the next period.

THE NEXT STEPS

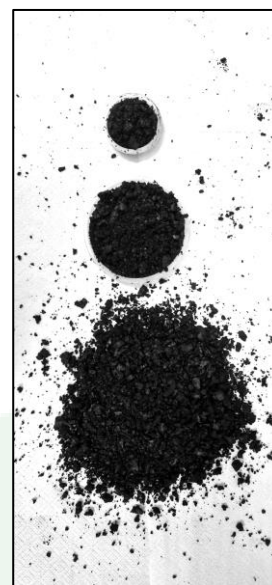
The prototype will be installed and commissioned at ACEA to produce BPs with the compost from SBLA, VM, BPE, and TETMA for their application in the agriculture field trials.

HYSYTECH, UNITO, and ACEA, will optimize the production process for the BP application in plastics and detergents carried out by Barbier and Allegrini, respectively.

All these activities will allow the Agricultural University of Athens to assess the entire supply chain of the technology proposed by the LIFE EBP project from economic, social, and

environmental points of view.

UNITELMA will be working on product registration in the different regions with the support of different partners.



HIGH IR AND pH? THE MEMBRANE TREATMENT



The product obtained from the hydrolysis process contains a high content of inorganic residue (IR) and high pH, that could compromise the BP performance in different applications.

Therefore, a membrane separation method is applied: it consists of two modules,

Microfiltration (MF - 0.5 μm) and Ultrafiltration (UF - 5 kDa). The hydrolyzed product is fed to the MF for IR removal.

The permeated from the MF is fed to the UF, where the BP is retained by the membrane, while OH^- and small ions such as K^+ pass through it, thus, reducing the pH and IR concentration in the BP.

SUMMER SCHOOL AND NETWORKING



Within the project, a training school was organized between the 13th and the 14th of October 2022 in Limassol (Cyprus). During the training school, 50 undergraduate and postgraduate students assisted

to very interesting speeches, regarding current developments in the field of agro-industrial and municipal solid waste valorisation and bioeconomy, of several speakers of 5 different countries, including experts from 7 universities and 2 industries.

The consortium is carrying out an important networking activity, which has allowed us to establish contacts and partnerships at various levels with the Estonian institutions of the Environment and with other EU-funded projects, namely LIFE-3E, LIFEPAAC, LIFEWASTE4GREEN, TECH4BIOWASTE and WASTE2FUNC. In the future joint activities will be carried out with some of these projects.

Stay updated, follow the project website:
www.lifeebp.eu

THE PROJECT PARTNERS (5 OF)



TETMA is a company that belongs to SIMETRIA Holding Group of Companies, whose activities are mainly focused on the Integral Management of the Waste Recycling cycle. In LIFE EBP, TETMA is involved in the main objectives of the project.



Biomasa Peninsular, BPE, is a Spanish SME that provides integral services for recycling biowaste and by-products. In LIFE EBP, our role is to supply compost samples to

ACEA for the production of BPs and to perform agronomic trials in Spain.



The Barbier group is a company acting in the production of flexible films by blown and cast process. In LIFE EBP, we study if fertilising components extracted from used water can be incorporated in the formulation of biodegradable mulching film used in agriculture.



Allegrini is an Italian company with 75 years

of experience in chemical industry with two different business units: professional cleaning and cosmetics. Allegrini will use its own production equipment to test LIFE EBP project in the car wash field.



SBLA is a public utility organisation that manages the central sewerage system of the Greater Limassol area. In LIFE EBP, SBLA will test the BPs production process by operating a mobile prototype using on-site water from its wastewater treatment facility.

HYSYTECH

Hysytech is an engineering company focused on design, development and industrial implementation of new turn-key process technologies and equipment based on chemical and process engineering. Hysytech is the coordinating beneficiary of the LIFE EBP project and the developer of the multistep process included into the prototype for the production of the biopolymers.



HYSYTECH
FILLING THE GAP