

Ecofriendly multipurpose Biobased Products from municipal biowaste

LIFE EBP



LIFE EBP is an environmental project (LIFE19 ENV/IT/000004) co-financed by European Commission through Life Programme

(https://cinea.ec.europa.eu/life_en).

It will be developed through the collaboration of 16 partners belonging to 5 different European countries: Hysytech S.r.I., ACEA Pinerolese Industriale S.p.A., Allegrini S.p.A., Pool.iti S.r.I., Università degli Studi di Tornio, Università degli Studi di Roma Unitelma Sapienza and Università degli Studi di Catania in Italy; Agricultural University of Athens and Municipality of Vrilissia in Greece; Societe D'extrusion Du Polyethylene A.Barbier Et Cie in France; BIOMASA PENINSULAR S.A., Castellón City Council and Técnicas y Tratamientos Medioambientales, S.A.U. in Spain; Cyprus University of Technology and Sewerage Board of Limassol – Amathus in Cyprus.

LIFE EBP addresses environmental problems in municipal biowaste management and suggest an effective solution to valorize waste through conversion in new biobased products (BPs) for agricultural and chemical industry.

The object of our project is just to demonstrate the environmental feasibility of this idea: in Europe, indeed, the problem is evident with 100 million tonnes of biowaste produced every year.

It will be demonstrated also the potential positive economic and social benefits, that represent the essential conditions for a project that will aims to be widely spread and that would like to solve really a problem, creating at the same time economic growth.

5 European countries (Cyprus, France, Greece, Italy and Spain) will be involved in the activities, in order to verify the possibility to apply the technique practically all over our continent.

The project will start with the realization of a mobile pilot plant able to be moved to the partners' premises to test the BPs production in the different countries. The plant will measure also effect of local MBW yearly variabilities on BPs quality/performance. The collaboration with universities will be useful to have operational assistance and to characterize the results.

Then, in each country, BPs and IR obtained from local MBW will be experimented and performances will be monitored in local plants' cultivation (e.g. tomato, apple, kiwi, watermelon, rice, onions) at Agricultural University of Athens (AUA, GR), external assistant farm (CY), and UNICT, BPE and Castellón Municipality (CM, ES) nearby external farms' sites. This will assess BPs effects as function of plant species and countries' environmental conditions.

In order to evaluate adequately the results, LCA and LCC will be assessed, as well as Social LCA (S-LCA) and Regulatory Certification Assessment (RCA). The last step to make the project a consolidated reality will be assessing BPs marketability.

Moreover, LIFE EBP project, through its dissemination and networking activities planned, will aim to establish joint ventures among stakeholders in the waste management sectors as well as in agriculture and chemical industry and will promote industrialization (technology transfer and replication) of BPs production and use in all EU countries.

The impacts expected after LIFE EBP conclusion are:

- Improve economy of municipal biowaste treatment plants;
- Dismiss municipal biowaste landfill and incineration;
- Lower GHC and dust emissions and leaching of noxious substances to soil and ground water;
- Reduce tipping fee and tax burden on citizens;
- Create new jobs;
- Improve farm practices and agriculture policy related to fertilizers' use;
- Decrease consumption of mineral fertilizers and dependance from non-EU countries;
- Decrease depletion of fossil sources, (ix) assesses technology social acceptance;
- Contribute to update EU legislation.

LIFE PROGRAM

The general objective of the LIFE Program shall be to contribute to the shift towards a sustainable, circular, energy-efficient, renewable energy-based, climate-neutral and - resilient economy, in order to protect, restore and improve the quality of the environment, including the air, water and soil, and to halt and reverse biodiversity loss and to tackle the degradation of ecosystems, including by supporting the implementation and management of the Natura 2000 network, thereby contributing to sustainable development. The LIFE Program shall also support the implementation of general action programs adopted in accordance with Article 192(3) TFEU.

In this regard, the LIFE program as a whole constitutes fully to the objectives and targets of the European Green Deal1, which aims to:

- transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use;
- protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment and climate related risks and impacts.

The LIFE Program will contribute to these priorities through its four subprograms in particular by:

- boosting and integrating the implementation of the EU's policy objectives for halting and reversing loss of wildlife habitats and species across all sectors, as well as the Biodiversity Strategy objectives for 2030;
- supporting the transition to a circular economy and protecting and improving the quality of EU's natural resources, including air, soil and water among others;
- supporting implementation of the 2030 energy and climate policy framework, the EU's climate neutrality objective by 2050, and the new.



EU strategy on adaptation to climate change:

- building capacity, stimulating investments and supporting implementation of policies focused on energy efficiency and small-scale renewables.

The LIFE program is divided into the Environment Subprogram and the Climate Action Subprogram.

The Environment Subprogram has three priority action areas:

- environment and efficient use of resources;
- nature and biodiversity;
- environmental governance and environmental information.

The Climate Action Subprogram has three priority action areas:

- climate change mitigation;
- adaptation to climate change;
- climate governance and climate information.

The general objectives of the new LIFE program can be summarized as follows:

- contribute to the transition to a resource-efficient, lower-carbon, and climate-resilient economy; contribute to the protection and enhancement of the environment; and halt and reverse the process of biodiversity loss, including supporting the Natura 2000 network and countering ecosystem degradation;
- improve the development, implementation and enforcement of EU environmental and climate policy and legislation and catalyze and promote the integration and dissemination of environmental and climate objectives into other policies and practice in the public and private sectors, including through increasing their capacity;
- further support environmental and climate governance at all levels;
- support the implementation of the Seventh Environment Action Program (Decision No. 1386/2013/EU of 20/11/2013)

"Living well within our planet's limits".

The present multiannual work program (MAWP) for 2021-2024 covers the period from 1 January 2021 to 31 December 2024.

According to Article 4 of the LIFE Regulation, the LIFE program is structured into two fields (Environment and Climate Action) and four sub-programs. Under the Environment field:

- The sub-program "Nature and Biodiversity".
- The sub-program "Circular Economy and Quality of Life". Under the Climate Action field:
 - The sub-program "Climate Change Mitigation and Adaptation".
 - The sub-program "Clean Energy Transition".

For the duration of the present MAWP, a budget of EUR 1.801 billion is allocated to the Environment field, a budget of EUR 1.032,5 billion is allocated to the Climate Action field.

FOR MORE INFORMATION ABUOT LIFE PROGRAMME, VISIT THE OFFICIAL LIFE WEBSITE (HTTPS://CINEA.EC.EUROPA.EU/LIFE_EN)