



September 2024 | Third Edition



Exordium

Bio Mer is an EIC Pathfinder Open Project addressing the Food Waste and Petrochemical Plastics Challenges by Introducing a New Food Waste Value Chain.

BioLaMer welcomes you to the Third edition of the Newsletter

BioLaMer is currently in its 18th month and has successfully completed its first review, acheiving the following results:

- Development of three prototypes for larvae cultivation, successfully completing three full lifecycles of Black Soldier Fly (BSF) larvae cultivation.
- Separation of BSF larvae shells, chitin extraction, and chitosan preparation.
- Determination of the lipids, proteins, and mineral contents of the larvae biomass after shell removal.
- Production of Polyhydroxyalkanoates (PHAs) from the larval biomass lipids and preparation of films using them.
- Development of Innovative all-natural superabsorbent biopolymers (SAB).
- Collection of Qualitative Life Cycle Inventory.



EIC Innovation Radar Recognizes Bic LaMer Innovations

Two innovations from our project have been recognized by the European Commission's Innovation Radar.

These early-stage innovations demonstrate significant potential for future market applications, marking a noteworthy achievement for our consortium.



Annual Consortium Meeting

Bio Mer has successfully conducted its first annual consortium meeting, significant milestone in its journey.

This meeting brought together team members and work package leaders, and our collaborative discussions were invaluable in refining our objectives, reviewing the achievements in its first year and planning for the future.



First Annual Review Meeting

We had a virtual review meeting on 21 May 2024 with the EIC project officer and the technical scientific experts.

It was another productive day with the opportunity for our team to successfully deliver comprehensive presentations project's accomplishments, milestones, on the deliverables, challenges and its future plans.





SIAB Meeting

Bio Mer project had a meeting with our Scientific Innovation Advisory Board (SIAB) members, Neil Crabb, Filippo Baioli, Stefano Longo, and Giulio Poggiaroni.

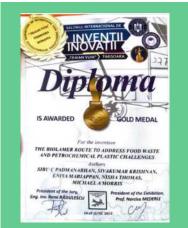
The project's first SIAB meeting was held on 12"April 2024 that supported in shaping our potential exploitation plans.

Trash Talk Event

Bio LaMer project partner TransfoLAB BCN, Barcelona, organized the Trash Talk Event on the topic "Organic Matters".

In this event, various sustainability players presented their unique approaches in creating new biomaterials from waste.

Our coordinator, Sibu Padmanabhan delivered a presentation about the BioLaMer innovative biorefinery processes and its impacts, to the general public.



Prize Winner

Bio Mer was awarded the top prize for its poster at the 10"Edition of the "TRAIAN VUIA" International Exhibition of Inventions and Innovations, held at the Administrative Palace of the Timis County Council, Romania, held from 13^{"-15}"June 2024.







Workshop

Bic LaMer partner COFAC, Portugal, organized a workshop entitled "Bioplastics in a sustainable world". This event served as an excellent platform for producers, researchers marketers, and bioplastics enthusiasts to share their experience and insights.

this workshop, Catarina Possidonio and Samuel Domingos discussed on the current and future trends in sustainability and

transition to bioplastics, identifying the barriers in commercialization and production.

Poster Disseminations

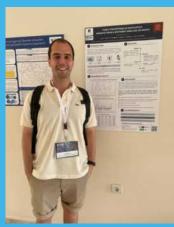
Bio Mer project has been presented through a poster at the AMBER Conference by our team member, Sivakumar Krishnan and coordinator, Sibu Padmanabhan, which was held from 15"-16 April 2024.



Bic LaMer participated in the SETAC Europe 34th Annual Meeting at Seville, Spain, held from 5th-9th May 2024.

In this poster, Martina Pelliconi highlighted BioLaMer's innovative biorefinery technology and the significance of Life Cycle Inventory for sustainably designing processes with the title "The Life Cycle Inventory of an Innovative Biorefinery for Polyhydroxyalkanoates production".



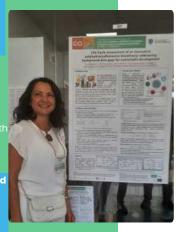


BioLaMer project has been spotlighted at the 32" Annual Conference Society for Risk Analysis-**Europe**, which was held in Athens, Greece from 2 -5"June 2024.

Bernardo Cruz presented a poster titled " Public Perception of Bioplastics: Insights from a sentiment analysis on Reddit".

In this event, our team member, Samuel Domingos has been elected as a member of the board during SRA-E general assembly.









Project Showcase

Bio Mer Project's partners, Jorge Santos, Virginia Carvalho and Sara Reis, from Aqualnsilico, Lisbon, 2024, which was held in Munich, Germany from 13"-17" May 2024.

At this event, our partners showcased the project among a wide global audience, featuring over 3,200 exhibitors and 142,000 visitors from around 170 countries.

We have also engaged with several companies providing technology for food waste management, sharing insights about the project's goal, impacts and achievements.

Invited Talk

Bic LaMer coordinator, Sibu Padmanabhan, delivered an invited talk entitled "Sustainable bioplastics and its potential in replacing petrochemical plastics in applications" at the 5th International Conference on Advanced Materials Science and Engineering 2024 (AMSE 2024) held at Opatija, Croatia from 23 -26"July 2024.

He chaired the session and was also one of the Advisory Board Members of the conference.



Oral Presentations

Bio Mer team member, Catarina Possidonio, participated at the 28th International Conference of the Association for **People-Environment Studies** (IAPS), which was held from 2nd 5th July 2024, at Barcelona, Spain. She delivered an oral presentation "Consumer-environmental Sustainability: Exploring the multi-level challenges of biopolymer commercialization for a greener future".

Our project team members from NOVAID FCT have participated and gave oral presentations at the MadeAl Conference on Modelling, Data Analytics, and Al in Engineering, held in Porto, Portugal,



Monesh Thirugnanasambandam presented Comparative Study of Physics-Informed Neural Networks and Traditional Semiparametric Hybrid Modeling".



Roshanak Agharafeie delivered a speech titled "Deep Neural Network **Modelling in Supercritical CO2 Extraction Process**".





Dr Sibu Padmanabhan - Project Coordinator Prof. Michael Morris – Co-Investigator <u>Advanced Materials and BioEngineering Research(AMBER)</u> Centre & School of Chemistry, Trinity College Dublin, Dublin, Ireland

Bio Mer **Partners**



Prof Serena Righi – Associate Professor ALMA MATER STUDIORUM- UNIVERSITA DI BOLOGNA- UNIBO, Italy



Dr Jorge Santos - CEO AquainSilico LDA, Lisbon, Portugal



Dr Ana Rita Farias HEI-Lab Digital Human-Environment Interaction Lab, COFAC, Lusofona University, Lisbon, Portugal





Prof Rui Oliveira - Associate Professor Prof Maria Reis - Full Professor NOVAID FCT, Lisbon, Portugal



Ms Neda Tozija – Co founder TransfoLAB BCN (centre for trash investigation), Barcelona, Spain





Ms Nisha Thomas - Director SocLineTech Solutions & Services, Cork, Ireland





























Developed by SocLineTech - the communication dissemination partner.