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Funded by the European Union

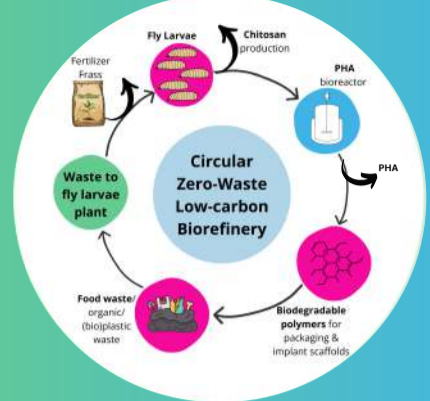


OUR RESEARCH



BioLaMer aims to demonstrate a new concept of biorefinery. Using food eating black soldier fly larvae (*Hermetia illucens*) as a high impact feedstock, it provides a cost-effective solution for producing two biopolymers, namely chitosan and Polyhydroxyalkanoates (PHA) - which are then transformed into high-value bioplastics.

DEVELOPMENT OF NEW WASTE MANAGEMENT SYSTEM



BIOPLASTICS COMMERCIALIZATION BARRIER ANALYSIS



Multi-barriers and percentage of studies that identified each barriers

The image and data show the results of the barrier analysis obtained by BioLaMer partner, COFAC, based on the literature review of studies in the bioplastics sector. This data illustrates the percentage of studies that identified each barrier that impacts the production and commercialization of bioplastics technologies.^[1]

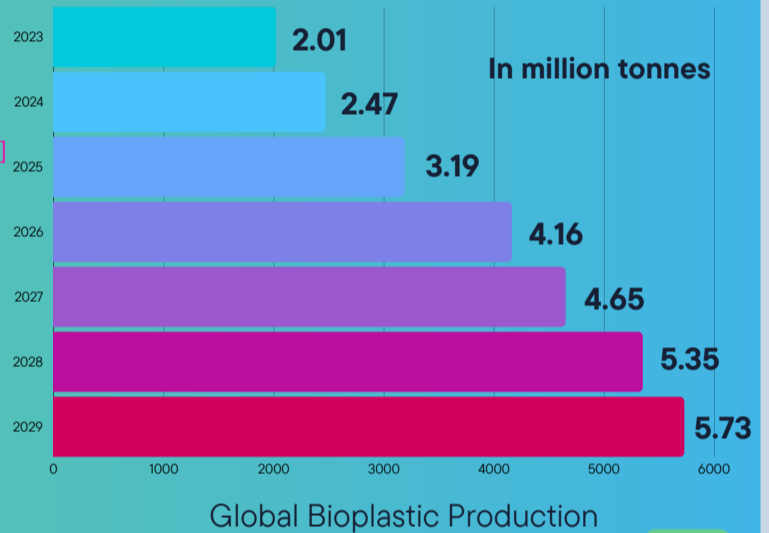
Technological	83 %	Regulatory	43.8 %
Knowledge	56.8 %	Supply stability	33.5 %
Economic	47.7 %	Behavioral	18.2 %



THE RISE OF BIOPLASTICS

According European bioplastics, global bioplastic production is projected to grow from **2.47** million tonnes in 2024 to approximately **5.73** million tonnes by 2029.^[2]

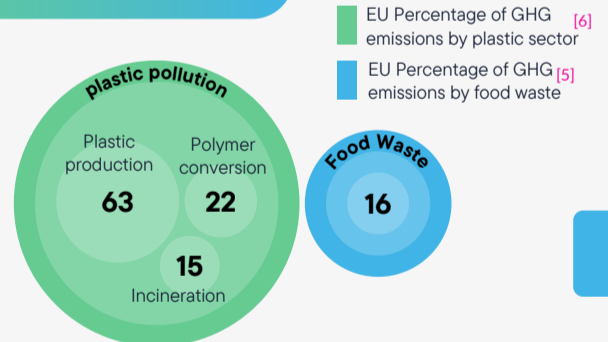
In 2024, PHA accounted for **4.1%** of the global bioplastics production capacity, approximately 102 thousand tonnes. This share is expected to grow substantially, reaching **17%** by 2029, with a projected production capacity of around 975 thousand tonnes.^[2]



IMPACT IN WASTE REDUCTION

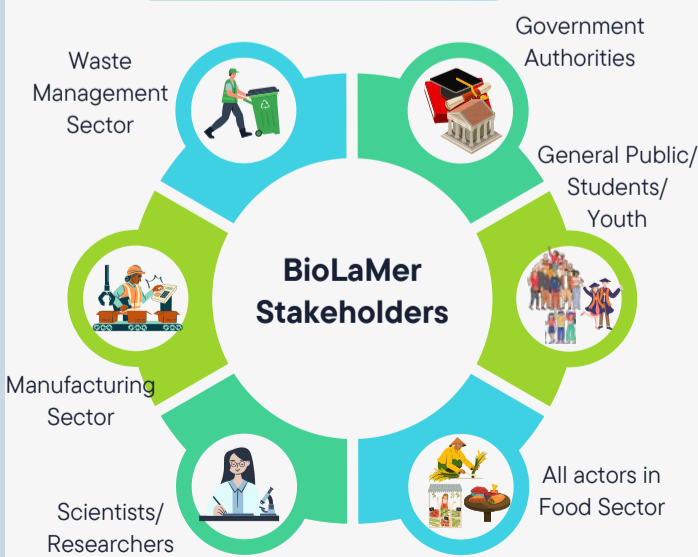
- BioLaMer demonstrates the potential of reducing food waste by producing 1 kg of larvae feeding 6 kg of food waste.^[3]
- On a global scale, if we calculate with this approach, it could reduce global food waste of 1.05 trillion kg of food waste,^[4] generating an estimated 175 billion kg of larvae, and possibly mitigating food waste issues.
- BioLaMer is currently working on evaluating the impact that can be created by converting this larvae to useful biopolymers and bioplastic products.

CARBON EMISSIONS



Through the development of sustainable bio-based solutions, BioLaMer aims to address the carbon emissions caused by these two sectors.

TARGET AUDIENCE



JOB CREATION IMPACT



Potential job opportunities that can be created from successful BioLaMer technologies;

- Waste Collection and Processing.
- Larvae Farming Initiatives.
- Biochemical & Biopolymer Production Sector.
- Bioplastics Manufacturing Industries.
- Environmental & Sustainability Roles.

Follow us @ <https://biolamer.eu/>

References:

1. <https://www.mdpi.com/2071-1050/17/3/820>
2. <https://www.european-bioplastics.org/market/>
3. [BioLaMer Factsheet](#)
4. [United Nations Climate Change](#)
5. [EU food loss and waste prevention](#)
6. [GHG emissions from EU's plastics value chain](#)

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