
Excellence in Plastics
AIMPLAS

Paving the way for the circular bioeconomy of plastics

AIMPLAS

What is AIMPLAS?

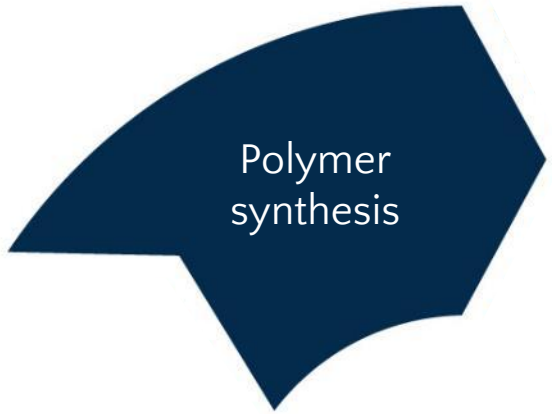
A **technology centre** with more than 30 years' experience in the plastic sector.

Our Purpose

Add value to companies to generate **wealth** and create **employment**.

Add value to society to improve quality of life and ensure environmental sustainability.

Expertise across the entire plastics value chain



Solutions for Plastics

1. R&D&I

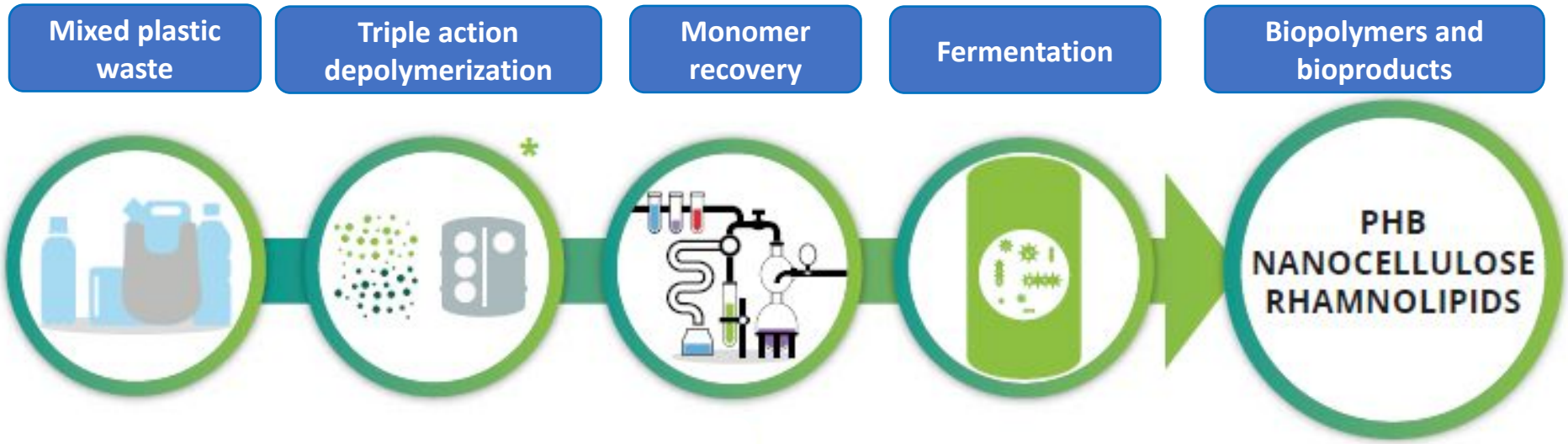
2. Technology services

3. Training and events

Solutions for Plastics Biorecycling

BioICEP 解塑再用
Bio Innovation of a Circular Economy for Plastics

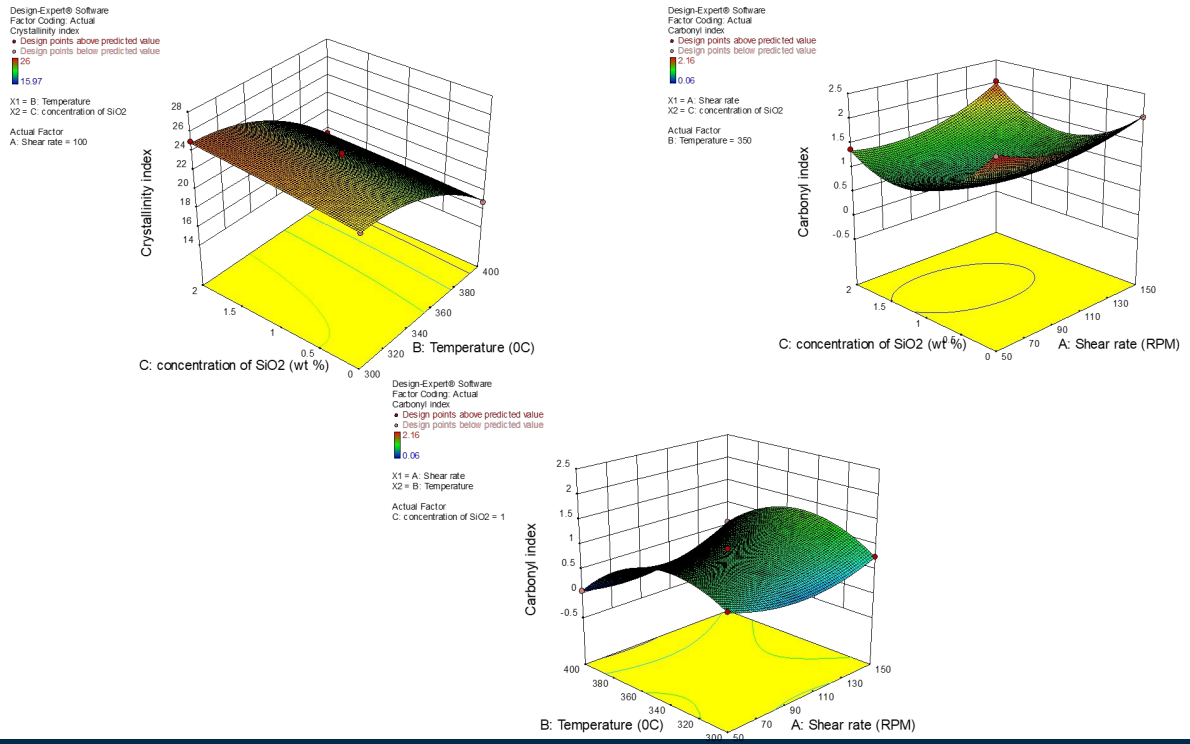
Bio Innovation of a Circular Economy for Plastics



This project has received funding from the Europea Union's Horizon 2020 research and innovation programme under grant agreement number 870292

BioICEP Contributions

- Material pre-treatment options



Rendering Bio-inert Low-Density Polyethylene Amenable for Biodegradation via Fast High Throughput Reactive Extrusion Assisted Oxidation

Pablo Ferrero, Olivia A. Attallah, Miguel Ángel Valera, Ivana Aleksic, Muhammad Azeem, Jasmina Nikodinovic-Runic & Margaret Brennan Fournet

Journal of Polymers and the Environment (2022) | Cite this article

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Solutions for Plastics Biorecycling

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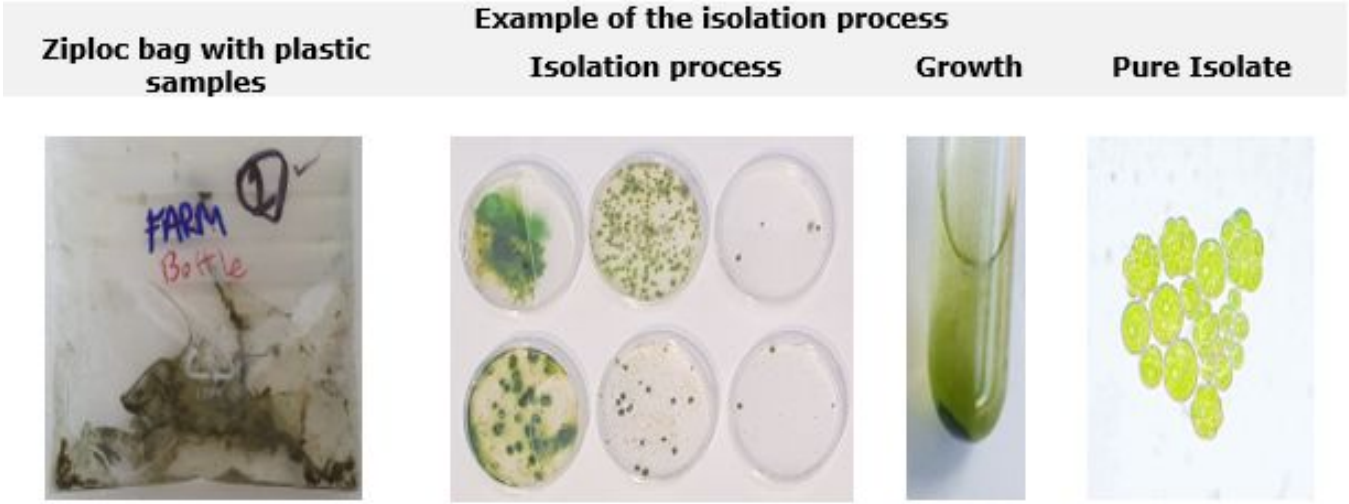
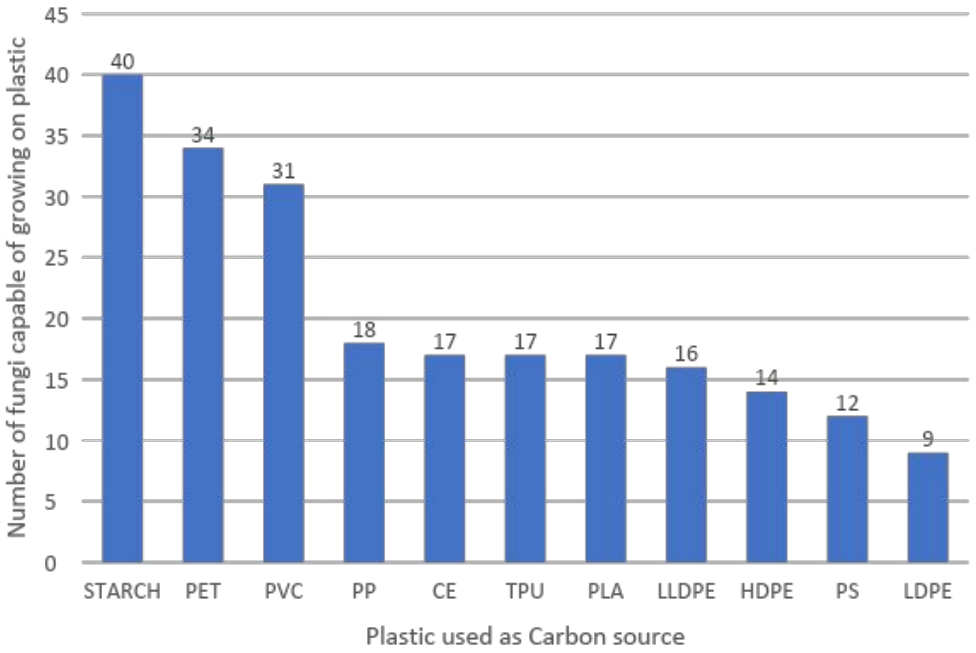
BioICEP Contributions

- Material pre-treatment options
- Power in the diversity of microorganisms





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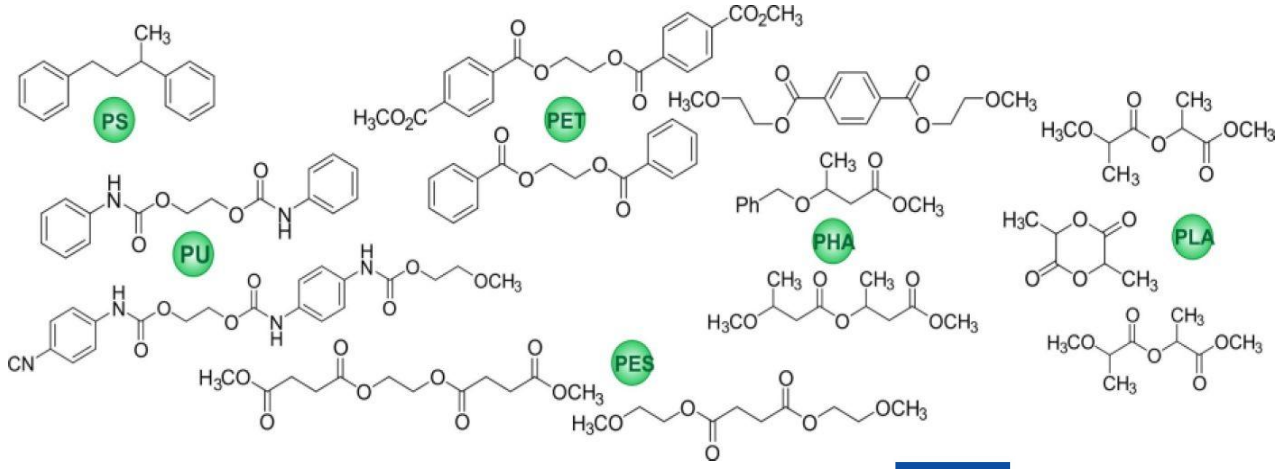
Solutions for Plastics Biorecycling

BioICEP 解塑再用
Bio Innovation of a Circular Economy for Plastics

BioICEP Contributions

- Material pre-treatment options
- Power in the diversity of microorganisms
- Smart screening strategies

A library of 19 compounds were synthesized using standard organocatalysis procedures on 10-20 g scale



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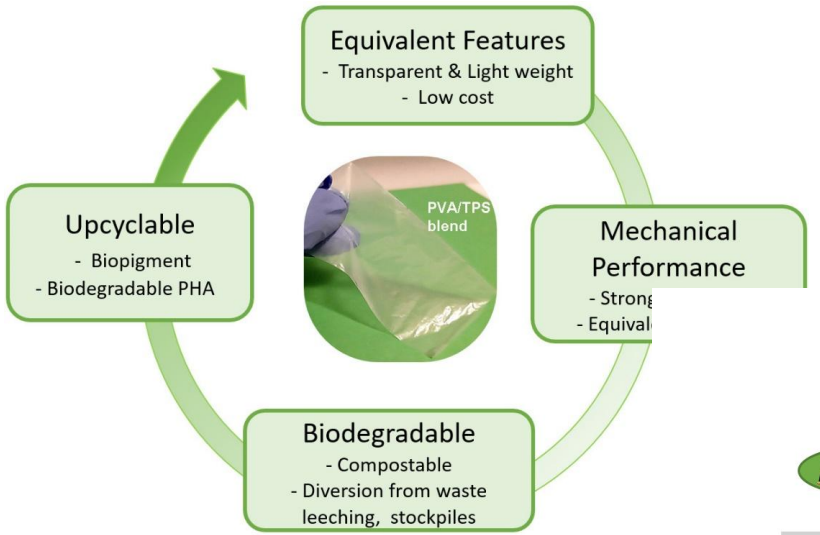
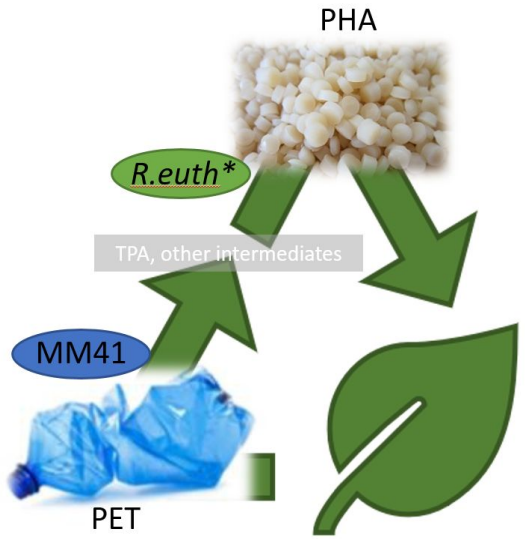
Solutions for Plastics Biorecycling

BioICEP 解塑再用
Bio Innovation of a Circular Economy for Plastics

- Material pre-treatment options
- Power in the diversity of microorganisms
- Smart screening strategies
- Engineering of enzymes
- Upcycling strategies

BioICEP Contributions






polymers
MDPI
Article
Upcycling Biodegradable PVA/Starch Film to a Bacterial Biopigment and Biopolymer
Brana Pantelic [1,†], Marijana Ponjavic [2,†], Vukasin Jankovic [1], Ivana Aleksic [1], Sanja Stevanovic [2], James Murray [3], Margaret Brennan Fournet [3] and Jasmina Nikodinovic-Runic [1,*]

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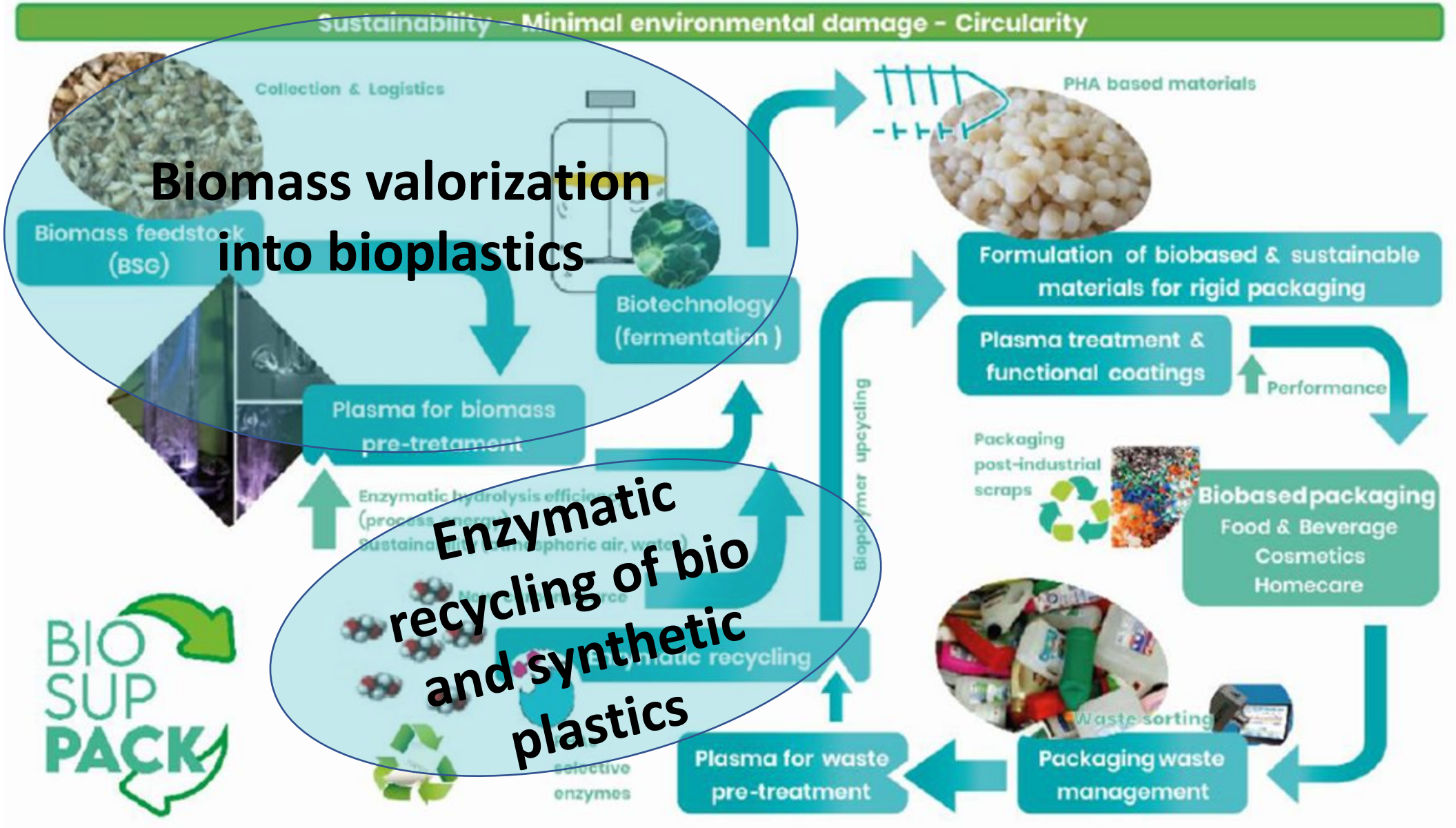
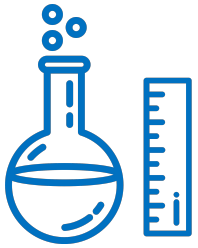
Solutions for Plastics Biorecycling



Technological Services



Analysis and testing

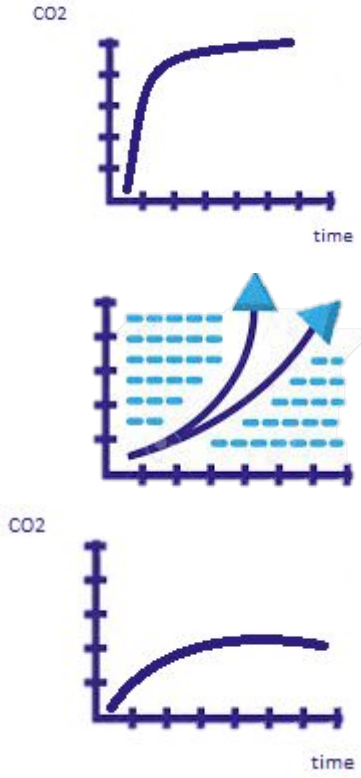
Processing and prototyping

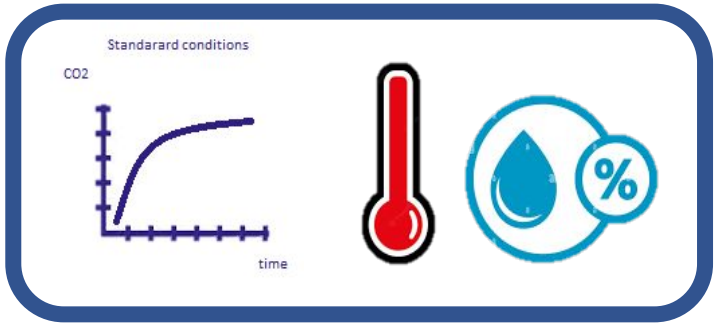
Technical assistance

Competitive intelligence and technology watch

Modelling plastic biodegradation

Development of a tool that **predicts** the product **biodegradation** in soil conditions





This tool helps in the:

- Design of biodegradable plastics in soil conditions
- Shorten biodegradation test for soil conditions
- Know the useful lifetime of products such as fertilizers

Optimization of biological processes

- Fermentation – Waste Valorization
  - ✔ Lactic acid
  - ✔ PHB production
  - ✔ Production of chemical building blocks
- Bioprospection
  - ✔ Degrading plastic
  - ✔ Production of metabolites
  - ✔ Identification of genes and enzymes
- Biodegradation tests
  - ✔ ISO 13432 - Composting
  - ✔ ISO 15985 - Anaerobic
  - ✔ ISO 17556 – Soil
- Cytotoxicity and Genotoxicity tests

Training and

We promote professional excellence in the sector

213 training activities	4,842 professionals	1,000 companies	4,363 hours
8.4 satisfaction rate			

2022
DATA

The most complete training in the plastics sector

AIMPLA
PLASTICS ACAD

Online courses and webinars

Face-to-face training

Tailor-made training for companies

AIMPLAS Expert certifications

Webinar on Fermentation: as alternative for the production of biopolymers

6th July 2023

More information:

https://www.aimplas.es/plasticsacademy/

Organization of seminars and conferences for plastic industry

INTERNATIONAL SEMINAR
BIOTECHNOLOGY
applied to the plastics sector

VII INTERNATIONAL SEMINAR
BIOPOLYMERS AND SUSTAINBLE COMPOSITES

INTERNATIONAL SEMINAR
ANTIMICROBIAL AGENTS IN THE PLASTIC SECTOR

III INTERNATIONAL SEMINAR
PLASTICS ARE FUTURE

PLASREC

II International Seminar | on Plastics Recycling

15th -16th NOVEMBER 2023

www.plasticsrecyclingseminar.com

info@plasticsrecyclingseminar.com

www.aimplas.net
Valencia Technology Park
Gustave Eiffel, 4
46980 Paterna · Valencia, SPAIN
info@aimplas.es
+34 96 136 60 40

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