

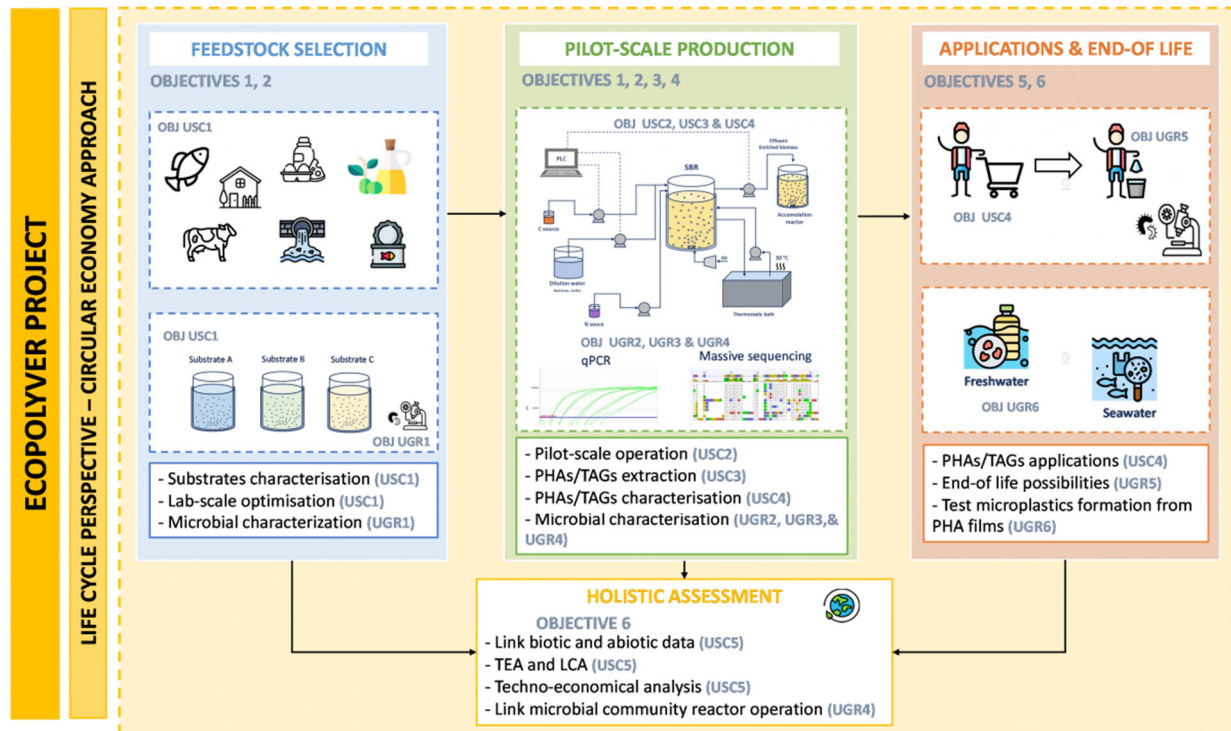
# Preselection process for research contract is open!

A research contract of 6 months, extendable up to 2 years, is offered by the Group of Environmental Biotechnology (Biogroup) of the University of Santiago de Compostela within the Spanish project **ECOPOLYVER - Integrative process development for biopolymer production through the valorisation of lipidic waste streams**.

The contract starting date is foreseen to take place in January/February 2023.

## Project description

ECOPOLYVER ([biogroup.usc.es/ecopolyver](http://biogroup.usc.es/ecopolyver)) follows up TREASURE ([biogroup.usc.es/treasure](http://biogroup.usc.es/treasure)), which demonstrated the feasibility of producing two different compounds, polyhydroxyalkanoates (PHAs) and triacylglycerides (TAGs), from an oily waste stream generated by the fish-canning industry. However, the robustness and versatility of the process need to be assessed by testing the feasibility of using other lipidic waste streams. This position is directly related with objective 6:



*Objective 6. Holistic evaluation of the system (i.e. value chain perspective) and definition of a methodology that support the decision-making process for lipid-rich waste streams management by linking substrates, producers and products; and considering technical, environmental, and economic criteria from a life-cycle perspective*

## Brief work description

- Performance of a techno-economic analysis (TEA) to assess the viability of the process from an economic perspective and promote the industrial full-scale implementation of the technology.
- Environmental evaluation using Life Cycle Assessment (LCA) methodology to define, among the studied process options (selected feedstock, operational conditions, extraction protocol, EoL, etc.), the best alternative from an environmental point of view.
- Integration of the knowledge obtained from the previous steps by the development of a methodology that supports the decision-making process to optimise the selection of the valuable product that could be potentially obtained from a residual stream generated by a certain producer. By doing so, the framework for a sustainable and smart science-oriented waste management and process design can be established.

## Requirements

- Candidates must have a bachelor degree in Chemical Engineering, Environmental Sciences, Biotechnology, or similar.
- Candidates with a master level degree in Chemical Engineering, Environmental Engineering, Biotechnology, or similar will be highly valued.
- Candidates skilled in TEA as well as scaling up of bioprocesses will be highly valued.
- Candidates skilled in LCA or related evaluation tools will be highly valued.
- Experience in wastewater and solid waste valorisation processes will be also highly valued.

### **Preselection process**

Applications and information requests must be sent to [almudena.hospido@usc.es](mailto:almudena.hospido@usc.es) (including in the subject: "ECOPOLYVER position") before November 30th at 14:00.

Applications must contain the following documents:

- Motivation letter (not more than 1 page), indicating:
  - the contact details of the candidate, and
  - a brief description of the reasons why the candidate should be selected.
- Curriculum Vitae.
- Name and contact of two references (e.g. former supervisors).