

## PhD Postgraduate Research Opportunity

<b>PhD Project Title:</b>	<b>BIOponic BOOST to PROfessionally produce sustainable and local food (BIOBOOST-PRO) P250015</b>
<b>Project Duration:</b>	<b>48 months</b>
<b>Organisation:</b>	<b>Atlantic Technological University (ATU)</b>
<b>Location:</b>	<b>ATU Galway, Dublin Road, Galway</b>
<b>Stipend:</b>	<b>€25,000 per annum</b>
<b>Supervisors:</b>	<b>Dr Aurora Dimache and Dr David Gorman</b>

**Funding:** This PhD Research is part of the BioBoost-Pro project (BIOponic BOOST to PROfessionally produce sustainable and local food), funded by the Interreg North-West Europe under Priority P3 - Transition towards a place-based circular economy, SO 2.6: Promoting the transition to a circular and resource efficient economy.

**Description:** BIOBOOST-PRO supports the transition to a circular economy in the North-West Europe agricultural sector (in hydroponics, a soilless plant cultivation technique) by demonstrating and promoting the transfer of a new solution to the market: bioponics. This technique replaces fossil-based (petrochemical) fertilizers by organic fertilizers based on (locally) digested animal manure, hereby creating a new step in a local, circular value chain, decreasing manure pollution, and preventing loss of valuable nutrients. Within the context of a doctoral degree programme at ATU Galway, the PhD candidate, under the guidance of the supervisory team will:

- Explore barriers (e.g. logistics aspects, storage, legal aspects on transport and/or use of manure) of bioponics.
- Collect data (e.g. energy consumption, environmental impact, costs, geographical position, on-site/off-site systems, type of manure, type of plants) from pilot sites which are set up at different locations in Ireland and other countries in Europe at the beginning of the project.
- Develop and implement business models for on-site and off-site systems at pilot sites, taking into account regional specificities.
- Inform the design and development of a territorial strategy for substitution of petrochemical fertilizers in soilless plant cultivation.
- Inform the design and development of a hands-on toolkit (including technical, economic, environmental, legal aspects, value chain) for growers and manure producers in the implementation of bioponics.

The PhD student will be expected to work closely with the other postgraduate students and researchers within the larger consortium of 12 partners across Ireland, Belgium, France, Germany and Netherlands.

**Requirements/Qualifications:** The successful candidate will hold a minimum of an Honours Degree, with a minimum award classification of 2:1 or equivalent in a cognate discipline (Industrial Engineering, Environmental Science or a related discipline). The candidate will be expected to work on their own initiative and be willing to acquire the broader skills necessary for the successful completion of a PhD. The student will be based in ATU Galway under the primary supervision of Drs Aurora Dimache and David Gorman.

**Project Duration:** 48 months

**Conditions:**

- €25,000 Stipend per annum.
- Postgraduate fees will be covered by the project.
- In addition, any necessary travel and material costs incurred during the project will be covered.

If either English or Irish is not the applicant's first language, evidence of English language proficiency is required for registration. Please refer to web link [English Language Requirements | ATU - Atlantic Technological University](#) to view the minimum English language proficiency standards for entry to ATU

**PhD Start Date:** June 2025

**Application Closing Date:** 5 pm on Sunday 27<sup>th</sup> April 2025

Applicants should submit their:

- Curriculum Vitae (to include details of 2 referees)
- A copy of transcript of results
- A Personal Statement

The Personal Statement should not exceed 1 page and must include details on:

- How your qualifications and experience have prepared you for this PhD research programme
- Why you would like to pursue this PhD research programme.

***Applications must be submitted to [researchoffice.galwaymayo@atu.ie](mailto:researchoffice.galwaymayo@atu.ie) e-mail address only.***

***Please ensure all documents are emailed as a SINGLE Word or PDF file.***

For further information on the project, please contact: Dr Aurora Dimache ([aurora.dimache@atu.ie](mailto:aurora.dimache@atu.ie))

**Data Protection Statement**

ATU takes very seriously its legal obligations as set out in the General Data Protection Regulation 2016/679 (GDPR) and the Irish Data Protection Act 2018 to safeguard and protect your personal information in our possession. The personal information which you disclose to us in this form will only be used to assess your suitability; administer and register you for this scholarship. We will not keep your personal information for any longer than is necessary for those stated purposes. **For more details, please refer to ATU's Student Privacy Statement: [Student-privacy-statement](#)**