

PhD Research Student Project (funded)

Circular Economy

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School/Research Institute/Centre/Unit	School of Business	
Project Duration/Funding Arrangements	48 months	
Funding Agency	Environment Protection Agency	
Funding Details	Student Stipend	€ 25,000 p.a.
	Fees	covered
Subject Area	Environmental Management; Sustainable Agriculture; Circular Economy	
Title of the Project	Developing a Sustainable Biorefinery System for Textile Waste in Ireland Acronym: RefineTEXT	
Project Description The RefineTEXT project is based on the key principle of the ‘circular economy’ focusing on sustainable, resource-efficient valorisation of textile waste streams in Ireland. It will convert textile waste into high-value added platform chemicals - lactic acid (LA) and succinic acids (SA) using advanced pretreatment and bioprocess technologies. These platform chemicals will then be transformed into biobased polylactic acid (PLA)/polybutylene succinate (PBS) polymers/materials for applications back again in yarn, fabric, packaging and textile industries. Further, RefineTEXT will conduct environmental, social and economic assessment of the entire bioconversion process of textile waste (both existing end of life and proposed process of converting into value added products) to quantify the associated greenhouse gas emissions using life-cycle assessment methodologies.		
Position/Role Summary This is a PhD position in the RefineTEXT project, that brings together researchers from Maynooth University (MU), Dublin City University (DCU), and University College Cork (UCC). The central objective of the RefineTEXT project is to explore the opportunities of textile waste valorisation and develop a roadmap for repurposing circular material from textile waste for creating sustainable businesses. The primary focus of this research position is to (a) explore the textile waste generation landscape in Ireland and identify the relationship between the implementation of the related circular economy policies and legislation, and climate mitigation and adaption, pertaining to textile waste (b) conduct environmental, social and economic assessment of the entire bioconversion process of textile waste (both existing end of life and proposed process of converting into value added products) to quantify the associated greenhouse gas emissions using life-cycle assessment methodologies.		
Candidates with experience and/or an interest in conducting literature review, large scale survey and statistical analyses are particularly encouraged to apply.		
Student requirements for this project Candidates with a Master’s degree in Business, Engineering, Environmental Management, Geography, Environmental Science/Technology or related areas with a focus on sustainability are preferred.		

Deadline to submit applications	15th June 2025 , 5pm Irish Time
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Applicants for this project are required to submit:

1. An up-to-date CV
2. Completed School of Business Application form (downloadable from the School of Business website)

Submission to be made to by email to businessphd@mu.ie with RefineTEXT and your full name in the title of the email.

Interviews of shortlisted candidates will be held in **June 2025**.

Project start date: **July 2025 or as soon as possible thereafter.**