



CASE STUDY

The Circular Campus

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Maynooth University & Thorntons Recycling

thorntons-recycling.ie



**Maynooth
University**
National University
of Ireland Maynooth



THIS CASE STUDY EXAMINES THE CLOSED-LOOP ORGANIC WASTE SYSTEM AT MAYNOOTH UNIVERSITY, DEMONSTRATING HOW INSTITUTIONAL FOOD WASTE IS TRANSFORMED INTO HIGH-QUALITY COMPOST AND RETURNED TO ENRICH THE CAMPUS GROUNDS.



1. PROJECT OVERVIEW & OBJECTIVES

As part of its commitment to sustainability, Maynooth University sought to eliminate the “take-make-waste” model. Partnering with **THORNTONS RECYCLING**, the university aims to:

- **Close the Loop:** Ensure organic nutrients extracted from the soil are returned to the soil.
- **Carbon Reduction:** Lower the university’s carbon footprint by diverting methane-producing organics from landfills.
- **Soil Health:** Improve the biodiversity and resilience of the historic Maynooth campus landscapes.



2. THE COLLECTION PROCESS

Organic waste is segregated at the source across Maynooth’s north and south campuses:

- **Dining Services:** Pre-consumer prep waste and post-consumer plate scraps are collected from the Phoenix Restaurant and other campus hubs.
- **Student Living:** Dedicated bin areas are provided to the on campus accommodation quarters, for residence to avail of correct waste segregation.
- **Partnership Logistics:** Thorntons Recycling manages the scheduled collection of these organic streams, ensuring that contamination levels remain low through clear bin labelling and student awareness programs.



3. PROCESSING & TRANSFORMATION

Once collected, the organic material is transported to **THORNTONS RECYCLING**’s specialised composting facilities.

- **Industrial Composting:** The waste undergoes a controlled aerobic decomposition process. High temperatures are maintained to kill pathogens and weed seeds, resulting in a nutrient-dense, stabilised organic fertiliser.
- **Quality Control:** The final product is screened to ensure it meets environmental standards for use in public spaces.



4. RETURN TO CAMPUS CLOSE THE LOOP

The transformation is completed when Thorntons Recycling delivers the finished compost back to the Maynooth grounds team.

- **Groundskeeping:** The compost is applied as a top dressing for the campus lawns and a soil conditioner for the university’s flower beds and heritage trees.
- **The Edible Garden:** The compost is used in the onsite materials garden for testing of plant grow and other product life cycles.
- **Circular Success:** This eliminates the need for Maynooth to purchase synthetic, chemical-based fertilisers, fostering a truly natural ecosystem.



5. KEY OUTCOMES

METRIC	IMPACT AT MAYNOOTH UNIVERSITY
WASTE DIVERSION	Significant reduction in general waste volumes and associated landfill levies.
SUSTAINABILITY CREDIT	Supports Maynooth’s Green Campus status and EU Sustainable Development Goals.
CIRCULAR ECONOMY	100% of collected organic food waste has the potential to return as soil nourishment.



For more information on this, or any of our Sustainability Initiatives, contact

Jeff Abbott, Commercial Account Manager

jeff@thorntons-recycling.ie

