



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

WASTE MANAGEMENT

Moving towards a sustainable and integrated management of the waste cycle.



The research of the University of Bologna covers a wide range of issues:

Prevention

Design of policy interventions and environmental impact assessment methodologies; Production, stabilization and packaging of stable by-products/ raw material; Implementation of industrial symbiosis practices and exchange of materials among different value chains - Food waste: Georeferenced mapping of industrial food by-products; Analysis of consumers and business behaviour; Awareness campaigns to sensitize population

Re-use

Development of a new generation of reliable, robust and cost-effective packaging materials; Recommendation on legislation to re-use components from end-of-life products

Recycling

Pre-treatment plants to remove hazardous, rare earths and valuable components; Development of urban systems and technologies for circular and regenerative cities; Development of new plants, processes and technologies to recycle by-products and secondary raw materials from end-of-life products; Application of LCA to assess alternative recycling scenarios

Recovery

Innovative waste to energy plants; Chemicals and energy recovery from biomass

Disposal

End of life landfills

HIGHLIGHTS

The University is member of the Emilia Romagna Region [Food Crossing District](#). The **Italian Circular Economy Stakeholder Platform** and it is **partner of the EIT Raw Materials, EIT Food, EIT Climate-KIC**.

[LOWINFOOD](#) - Multi-actor design of low-waste food value chains through the demonstration of innovative solutions to reduce food loss and waste; [MERLIN](#) - Increasing the quality and rate of multilayer packaging recycling waste; [PRESERVE](#) - High performance sustainable bio-based packaging with tailored end of life and upcycled secondary use; [USABLE PACKAGING](#) - Unlocking the potential of Sustainable Biodegradable Packaging; [INGREEN](#) - Production of functional innovative ingredients from paper and agro-food side-streams through sustainable and efficient tailor-made biotechnological processes for food, feed, pharma and cosmetics; [RES URBIS](#) - Resources from urban bio-waste; [REFRESH](#) - Resource Efficient Food and dRink for the Entire Supply cHain; [NOAW](#) - Innovative approaches to turn agricultural waste into ecological and economic assets. [Bio-Based Industry JU: FIRST2RUN](#) - Flagship demonstration of an integrated biorefinery for dry crops sustainable exploitation towards; [Agrimax](#) - Developing and demonstrating the production of multiple, high-value products from crop and food-processing waste.