

Dr Yuanyuan Chen, Technological University of the Shannon: Midlands and Midwest

Dr Yuanyuan Chen is a principal investigator in the Polymer, Recycling, Industrial, Sustainability and Manufacturing (PRISM) at the Technological University of the Shannon: Midlands Midwest, Ireland. She is working on biodegradable polymer synthesis, modification, and recycling.

Dr Chen is currently coordinating two major EU-funded research projects. *MAGICBIOMAT* sustain (Horizon Europe) focuses on developing an AI-driven platform to guide the design and manufacturing of bio-based polymers with programmable biodegradability. *Bio2PEs* (EIC Pathfinder) aims to create novel bio-based and biodegradable polyesters and polyethylene alternatives. She serves as a senior reviewer for several high-impact journals, including *Polymer*, *Additive Manufacturing*, and *the Journal of Polymers and the Environment*. In addition, she acts as a proposal evaluator for the Polish National Science Centre.

Her current areas of **research interests** are:

- Biodegradable medical device, e.g. bioresorbable polymeric vascular stents, wound dressing
- Biopolymer synthesis from biomass
- Polymer degradation and recycling
- Additive manufacturing

Relevant industries:

Medical industry, agriculture and forestry industry, plastic packaging