

Eco conversion of lower grade PET and mixed recalcitrant PET plastic waste into high performing biopolymers (EcoPlastiC)

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Project 'EcoPlastiC' is putting PET plastics into a perpetual bio-cyclable loop. Polyethylene terephthalate (PET), a polymer used extensively in single-use packaging and beverage bottles as well as in the textiles industry, is not very circular. There is a growing need to convert unrecyclable post-use PET into new, high-performance bioplastics. In this case, post-use materials become ingredients for new products. The EU-funded EcoPlastiC project will optimise PET circularity. It will convert lower-grade PET and mixed recalcitrant PET plastic waste into high-performing biopolymers, through the development of a suite of breakthrough technologies adaptable to the waste input. For instance, it will develop a series of mechano-green, chemical and biocatalytic technologies to depolymerise PET. Moreover, microbiome processing will be used to produce new biopolymers.