



ADVANCED & SUSTAINABLE RECYCLING PROCESSES AND VALUE CHAINS FOR PLASTIC-BASED MULTI-MATERIALS

PROJECT ESSENTIALS

Nov 2018 – Oct 2021: Innovation Action delivering an industrial recycling pilot plant for thermoplastic-based multi-materials allowing selective recovery of pure plastics and fibres from mixed wastes without downgrading

Using patented CreaSolv® process to demonstrate shift to a circular economic model in multilayer packaging / flexible films and fibre-reinforced thermoplastic automotive composites - potential in many others segments

CreaSolv® trademark registered by CreaCycle GmbH

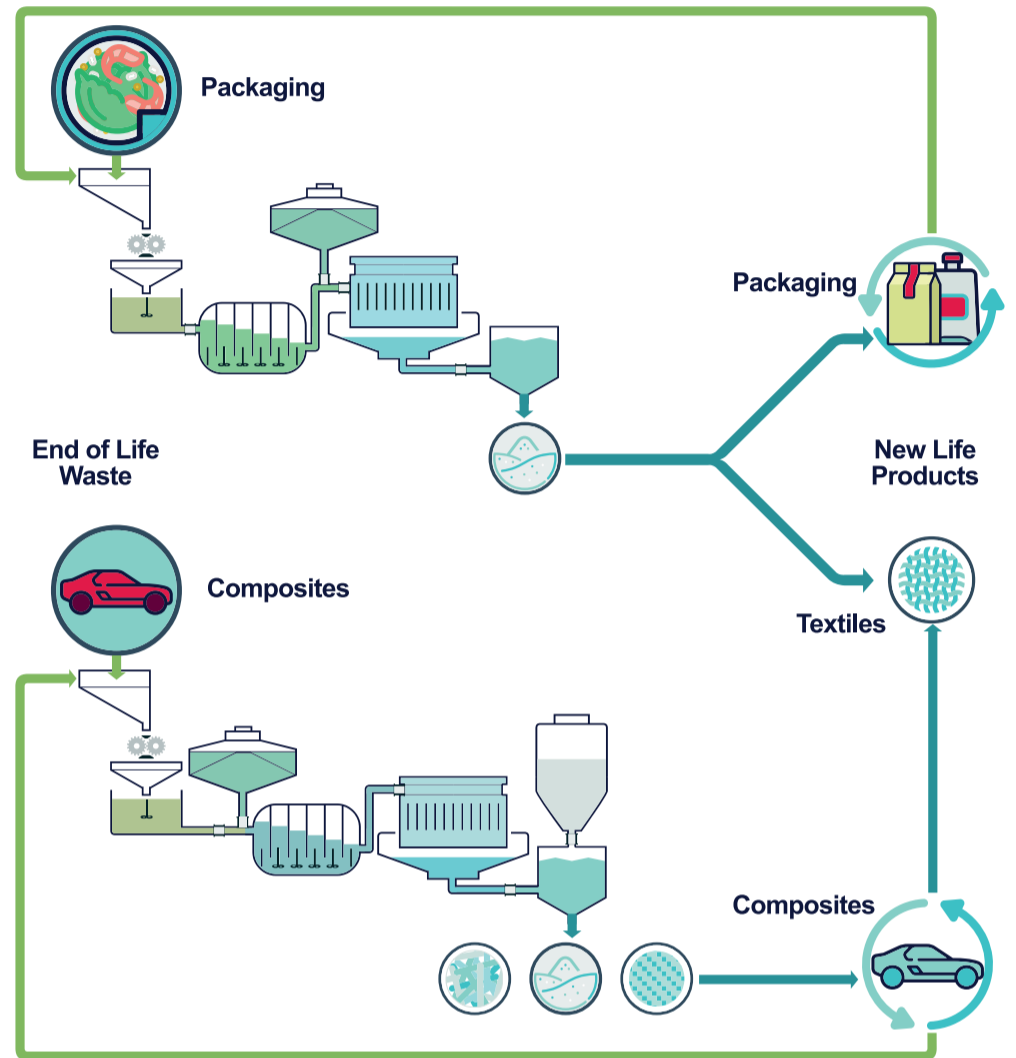
KEY FEATURES

Process upscaling, optimisation and digitalisation for industrial readiness (TRL7)

Recovery of pure plastics and fibres from mixed wastes - direct substitution of virgin resources

Processing and formulation of recovered materials into valuable products – multiple packaging, composite / textile semi-finished and final demonstrators targeted

Confirmation of impacts through techno-economic feasibility and environmental.



HALF WAY THROUGH...

- Representative industrial scrap and post-consumer wastes extensively sampled, including all major classes of flexible packaging thermoplastics (both single polymer and multi-materials), and automotive carbon and glass reinforced plastic composites.
- Lab characterization and small-scale batch pilot experimentation – critical process parameters for stable plant operation identified.
- Plastics and composites recovered from treated waste are being characterized and reprocessed, aiming at being applied for packaging and automotive applications in the second half of the project.
- Photonics-based packaging and composite waste classification system currently under industrial scale validation.
- Multicycle pilot plant enters its operational phase in autumn 2020 for recovering high quality recycled polymers and polymer free fibres in good yield for re-use in high end applications.

