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What I do, creates a better future for us

Reforming Secondary Plastics to Become the Primary Raw Material Choice for Added Value Products

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PRIMUS will improve the plastic recycling industry with new polymer recycling technologies.

These days, only in Europe, we generate over 29 million tons of waste plastic from daily consumer activity, and only 1/3 is collected for recycling. Most of this plastic waste is either burnt to generate energy or dumped to landfills.

One reason for this is that plastics are complex materials and they are used in a wide range of different applications. Recycling these complex plastic products usually generates low value materials.

PRIMUS Project wants to change this by researching new polymer recycling technologies that allow us to produce new technically and safety compliant recycled materials that can be used for manufacturing high value products, so collecting and recycling plastics becomes now economically feasible, as well as good for the environment.

Increasing the collection and recycling of waste plastics will not only help protecting the environment but will also boost a new emerging industrial economy with the creation of thousands of jobs throughout Europe.



Main objectives.

PRIMUS will increase the circularity, production and use of sustainable, safe and quality recyclate polymers in added value products, as well as transparency of the value chain by focusing on traceability.





demo cases

The newly developed recycling technologies will be assessed in four demo cases. These demo cases will test and validated for two key industrial sectors in Europe; Automotive & Home Appliances.

Pilot 1. Automotive interior

Upgrading recycled PC/ABS material suitable for automotive interior application using injection moulding technology.



Pilot 3. Refrigerator to refrigerator - Food contact demonstration

Upgrading of recycled HIPS from refrigerator liners. Upgrading towards food contact applications, safety and migration tests.



Pilot 2. Automotive cooling circuit

Upgrading of recycled PP and EPDM to react together during the Thermoplastic Elastomer Vulcanizate (TPV) to reach a TPV compound suitable for an automotive application.

4 demo cases





Pilot 4. Washing machine door seal

Upgrading of sulphur crosslinked EPDM from end-of-life cycle washing machine seals, to get recycled EPDM polymer suitable to produce a new technical washing machine door seal.

Main impacts.

Support the European plastics value chains to become leaders in circular plastic economy and industrial leadership.

Design sustainable polymeric materials and support the development of recyclate-based products by providing the enhanced functionalities and wide range of applications.

Traceability will be enhanced with digital blockchain-based system and IT-tool creating an open but secure communication.



Cross-sectoral co-operation along the value chains creating an industrial circular plastic ecosystem.

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Work closely with citizens, communities and consumers by minimizing possible negative impact of plastic waste by boosting the collection of plastic waste at homes and businesses.



are you an

industry or citizen willing to know more about how to improve the plastic recycling

among us?

join us!



Partners:



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