



INFORMATION

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www.unican.es

Public tender



www.madrid.org

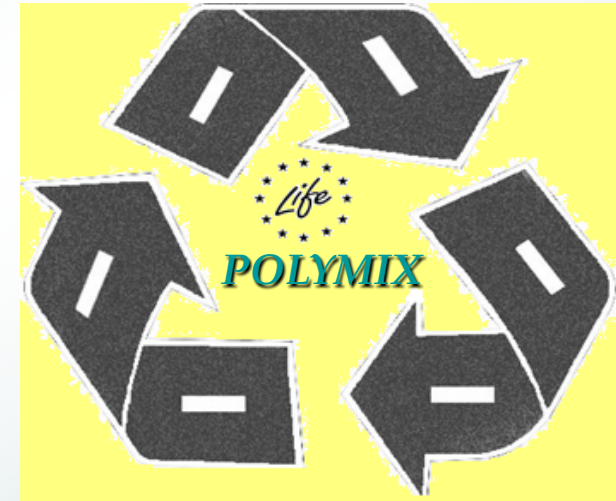
Industries



www.aimplas.es



www.acciona.es



*POLYmeric wastes in
asphalt MIXes*



POLYMIX Scope

The average European citizen consumes more than 100Kg of plastic products each year, and the industrial applications of polymers are always increasing.

Europe and other developed countries are making efforts to recycle, however landfill amount are not in fact reduced to the max, considering quantified data:



Around 3 million of post-consumer tyres are accumulated each year in EU25, and historic stockpiles are estimated to be well over 1,000,000,000.

Currently post consumer tyres are mainly used as energy source in cement and recovery plants generating huge pollutant emissions.

The POLYMIX project will use plastic wastes and rubber from used tyres for the construction of roads, improving their durability, users safety and benefiting the environment.

Objectives

The aim of POLYMIX Project is the demonstration of the superior performance of new environmental friendly asphalt mixes modified with polymeric wastes.

Technical objectives

- Evaluation of different types of polymers (PP, PS, PE and Styrene rubber from used tyres), to improve asphalt mixes of a real worksite and substitute aggregates.
- Definition of the mechanical and rheological improvements that could be achieved (durability, rutting resistance and water sensitivity, modulus...).
- Revalorization of the highest amount of polymeric wastes building a real road

Project structure

Phase 1

Design and Characterization of the asphalt mixes modified with polymeric waste

Phase 2

Upscaling production process design

Implementation and Monitoring

Phase 3

Definition of the criteria for introducing POLYMIX environmental concepts within GPP processes

Project benefits

➤ Reduction of environmental problems like:

- Landfilling
- Pollution due to the use of plastic wastes and tyres in energy recovery plants
- The impact of polymeric wastes in biodiversity and water quality
- Emissions associated to the production of aggregates



➤ Improve rutting resistance and modulus of the asphalt mixes increasing roads infrastructure durability

➤ Reduce roads maintenance needs

➤ POLYMIX will support European policy makers in defining general conditions and priorities to increase recycling of wastes.

➤ Set recommendations to standards and pre-normative research and GPP for the construction sector.