

OBJECTIVE

REcircularPAV project aims to tailor for the first time engineered circular asphalt mixtures for road pavement materials

MAIN PILLARS

Going beyond bituminous asphalt mixtures: recycling, bio-based materials and end-of-life products;

Evaluating predicted performances: mechanical properties, ageing and sustainability.

WHAT IS?

“ReEngineering asphalt mixture for circular road PAVements”

REcircularPAV is a training-through-research project aiming at engineering cost-effective circular asphalt mixtures for road pavement in a fossil fuel-free society, incorporating very high-content of reclaimed asphalt together with end-of-life tyres and bio-based materials.

REcircularPAV is a project developed at UNIPA



that has received funding from the European Union's Horizon 2020 Programme under the Marie Skłodowska-Curie actions "Individual Fellowship" for research, technological development and demonstration, under grant n. 101033561.

In collaboration with EIFFAGE, UGR, TRS and RUB-LAB



REcircularPAV

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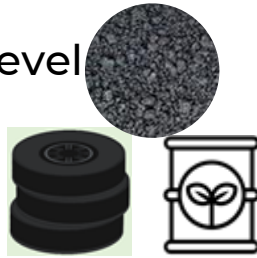
recircularpav.unipa.it

Towards circular asphalt mixtures - investigating road materials for a post fossil fuel society

ENGINEERING CIRCULAR ASPHALT MIXTURE

1 | Laboratory level

- Reclaimed asphalt
- + Low-cost bio-binder
- + Crumb rubber



Binder and mixture design

2 | Plant and site level

- Operational issues (manufacturing and laying)



End-user manual

PREDICTED PERFORMANCE

3 | Ageing

- Surface morphology and chemical investigation



Ageing through microstructural studies

4 | Bio-binder and mixture properties

Mechanical properties



5 | Environmental and economical sustainability

Sustainability assessment



HOW TO CONSTRUCT PAVEMENTS WITHOUT FOSSIL FUELS ?

The combined use of sustainable materials such as waste and bio-products along with reclaimed asphalt will allow the construction of pavements without the use of fossil fuels.

A joint effort between UNIPA, EIFFAGE and UGR and supporters will allow the development of a material that meets the requirements of the circular economy and the sustainability criteria for the road infrastructure construction.

DEVELOPED BY



UNIVERSITÀ
DEGLI STUDI
DI PALERMO



UNIVERSIDAD
DE GRANADA



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