

Marie Skłodowska Curie Action –Postdoctoral Fellowship 2024
(MSCA-PF-2024)

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Department /Institute /Centre	Name	Department of Transport Engineering, Territory and Urban Planning
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Research Area		Environment and Geoscience (ENV) Life Science Chemistry (CHE)
Brief description of the Centre/Research Group		<p>Within the Department of Transport Engineering, Territory and Urban Planning, the R&D Road Engineering Group carries out its research activity. Over the last few years it has presented a strong research activity in practically all areas of road engineering, generating dozens of publications and several doctoral theses. Some of the issues that the group has addressed in the area of asphalt materials is valorization of Reclaimed Asphalt Pavement (RAP) in the manufacturing of new asphalt mixtures. The group is working as well in the line of bio-binders, this is, the production of binders to replace total or partially traditional binders coming from the oil industry.</p> <p>https://www.upm.es/observatorio/vi/index.jsp?pageac=estructuras/grupo.jsp&idGrupo=365&h=1</p>
Project description		<p>Bio-binders for the asphalt paving sector</p> <p>The decarbonization of transport and its infrastructures has become a social priority. Just as bio-fuels, which are derived from organic waste, have appeared in the operation of transport vehicles, the asphalt paving sector must follow the same path, with the development of bio-binders. It should be borne in mind that these bio-binders cannot compete with human food and preferably not with animal food either, but must be based on non-edible waste, which today, for example, are not used or are directly burned for energy production.</p> <p>The proposed line of work is the development of new bio-binders, which allow total or partial substitution of petroleum-based binders, which are non-renewable and have a high carbon footprint in their production. Therefore, new bio-binders will be studied, as well as their suitability for bituminous materials currently used in the paving sector.</p> <p>The proposed project will work both on the basic and in-depth investigation of the phenomena involved, as well as on their practical application in the laboratory for the optimization of all the parameters involved in the quality of asphalt mixes produced with bio-binders.</p>
Applications: documents to be submitted and deadlines		<p>CV Letter of motivation Deadline: 30/04/2024</p>