

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		Information Science and Engineering (ENG) Environment and Geoscience (ENV) 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. The Group has an asphalt materials laboratory with the appropriate equipment for this type of studies.</p> <p>https://www.upm.es/observatorio/vi/index.jsp?pageac=estructuras/grupo.jsp&idGrupo=365&h=1</p>
Project description		<p>Reuse of reclaimed asphalt pavement (RAP) in the production of recycled asphalt mixtures.</p> <p>RAP is obtained by milling pavements in poor condition. It is a material rich in bitumen and aggregates. More than 60 million tons are generated each year in Europe. Therefore, its reuse in the manufacture of new asphalt mixes is a solution and is in line with current guidelines and regulations that prioritize the circular economy and the reduction of the carbon footprint of construction materials. Likewise, production costs are reduced by reducing the need to purchase new aggregates and binders.</p> <p>However, the use of this material is still limited by parameters such as the aging that characterizes it, its processing prior to reuse, storage conditions, and the process of mixing with aggregates and virgin binder in industrial plants manufacturing asphalt mixtures.</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 new recycled asphalt mixes.</p>
Applications: documents to be submitted and deadlines		<p>CV Letter of motivation Deadline: 30/04/2024</p>