**Press release** / 27th of September 2018 

**The first of the five demo-cases of the paperChain project will soon get started in Zaragoza**

*paperChain—the collaborative research and innovation project funded under the European Union´s H2020 programme, and coordinated by Acciona Construction—is all set to start the demonstration of its first circular-case in October.*

The paperChain Project “New Niche Markets for the Pulp and Paper Industry Waste based on circular economy approaches” **intends to demonstrate the technical and environmental feasibility (TEF) of using different streams—generated in the Pulp & Paper Industry—**as secondary raw material, with the aim of becoming competitive substitutes for the primary raw materials in near future.

**This Project includes five large-scale demonstrators or demo-cases** in different operational environments: Construction in Portugal (asphalt mixtures and concrete in roads), Spain (stabilised-soil layers in roads) and Slovenia (composite materials for slide stabilization in railways); Chemical in Sweden (bio-ethanol for secondary chemicals); and Mining in Sweden (sealing layers for reactive spoil).

To be specific, the Spanish demo-case will be demonstrating the **TEF** of using “ashes” generated in the waste-to-energy plant of SAICA, located in El Burgo de Ebro (Zaragoza). These ashes (currently a material with no useful value) would replace cement and lime—the two primary raw materials currently used as binder for soil stabilization in sub-base layer of a road or highway—in the two field trials.

Roads usually include some cement-modified or lime-modified layers with the aim of increasing their resistance to traffic loads thus, reducing the section thickness and the amount of borrow materials needed. Moreover, these additions can improve the mechanical properties of low quality excavated materials that otherwise, would be landfilled and replaced by additional borrow materials, consequently, increasing the environmental impact of the project.

The aim is to achieve the Zero-Waste target. Meanwhile, the usage of these ashes will significantly contribute to reduce the carbon footprint of road projects by replacing cement and lime, relevant emitters of CO2, by residues which end up in landfill instead.

The first trial will take place in October. The location of this trial is in Villamayor de Gállego (Zaragoza, NE Spain) and it will consist in the complete renovation of the road section of La Balsa Street along 1 km. The renovation will include removal of the remaining deteriorated pavement, execution of 25 cm thick type 3 stabilised soils (S-EST3) according to the Spanish Roads Regulation (PG-3) by adding a 5 % of ash instead of cement. The final resulting surface will be paved with a double bituminous surface dressing.

This demonstration activity will validate through long-term monitoring the increase in durability and environmental friendliness of this type of roads. The operational condition of this road, which bypass the village on its Western and Southern side, will be dramatically improved thanks to this demonstration activity.

The second field trial will be carried out in Ejea de Los Caballeros, Zaragoza (NE Spain). In this case, a one km long stretch of an unpaved road will be improved. The mechanical properties of underlying clayey soil will be enhanced by means of the addition of a 3% of ash. After that, a graded aggregate layer will be placed over it, similar to the current one.

The ash blended with the clayey soils results in reduction of swelling and increase in bearing capacity leading to relevant savings in road maintenance, relevant for an area of intensive agricultural activity, and with an extended network of rural roads with heavy-machinery traffic.

This circular-case developed in Spain, is led by ACCIONA Construction, and supported by the Polytechnic University of Catalonia and TECNALIA along with the Roads Laboratory of the Aragon Regional Government.

paperChain is a Research and Innovation Project funded by the European Commission and Coordinated by ACCIONA Construction which includes 20 partners from 5 EU countries. The project encompasses an outstanding network of key-stakeholders and supporting parties, including the city councils of Villamayor de Gállego, El Burgo de Ebro, Ejea de Los Caballeros and the Department of Territory Integration, Mobility and Housing in Aragon.

For further information please, visit [***www.paperchain.eu***](http://www.paperchain.eu)

 **Follow us!******

**@paperChain\_pro**

***Contacts:***

Coordinator of the Project

Juan José Cepriá

R&D Project Manager Acciona Construcción

eMail: juanjose.cepria.pamplona.ext@acciona.com

Mobile: +34 637481416

Skype: jcepria@acciona.com



For Communication & Dissemination Activities

Antonio Cañas Rojas

Managing Director of Greenize Projects

eMail: acanas@greenize.es

Mobile: +34 661 780 885

Skype: antocanas

