



## *Welcome to GREENZO's Newsletter*

The industry of transformation of zamak of non-ferrous metallic alloys generates in Europe approximately 1 million tons of waste, mainly in form of sludge from vibration and slag from smelting. This waste, largely considered dangerous, is not given economic value, since it is deposited in safety landfills. Apart from the related environmental harm they generate additional costs for its management which are mainly assumed by the zamak processing industries.

Given this industrial and economic outlook, the GREENZO project has been conceived with the aim of building a pilot plant that permits the **valorisation of zamak waste in zinc oxide (ZnO)**. At present, ZnO is obtained from zincite, a nature derived mineral. With this project, it will be achieved from an industrial waste in a compact pilot plant, what will allow to tackle environmental problems of a different kind.

Nowadays, there is not any kind of technique that allows the obtention of zinc oxide (ZnO) from this residual origin at industrial scale. The recycling of zamak is usually employed to obtain lower quality ingots, which generates harmful atmospheric emissions. It is worthwhile for the managing organisations depositing this waste in controlled landfills, which results in a big amount of waste while the potential use of resources contained in it is wasted.

The ZnO obtained will be applied in the manufacture of lots of products, like the manufacture of rubber articles and expanded EVA and the synthesis of catalysts for the sustainable production of hydrogen. Nevertheless, the zinc oxide (ZnO) has a great quantity of applications within the pharmaceutical and cosmetic industry, the metallurgical industry, the industry of electrical components and batteries and other manufacturing industries, which will

achieve first quality ZnO.

Estimations carried out for the project show that issued waste could be reduced up to 425.000 tons/year, which exceeds in around 100.000 tons the waste production issued in Spain. Additionally, the zamak processing companies could reduced up to 35 % the costs associated to waste management.

This project, which will be developed in 3 years, is funded by the European Commission through the funding instrument LIFE13 ENV/ES/000173 GREENZO. Its kick-off meeting, coordinated by AIJU and with the participation of ITQ-CSIC, WORTEUROPE and CAUCHOS KAREY, was held last June 18th at AIJU's facilities.

With this bulletin we urge you to be part of this initiative, to be updated with the GREENZO developments and to actively contribute by providing your comments. WELCOME to this interesting Project!



Unsubscribe

## MASTALMOND Website

Last October, 1st GREENZO Website was successfully indexed to the Internet network. Robots need between 8 and 24 hours to be successfully indexed in a way that it would be available worldwide on 3rd October. Would you be interested in being updated on this project development, please do not hesitate to visit [www.lifegreenzo.eu](http://www.lifegreenzo.eu) and click on the subscription option.

## NEXT Events

Workshop: Processes, technologies and materials environmentally friendly

Ibi, Spain

19 November 2014

<http://formacion.aiju.info>

CONAMA 2014: National Congress of Environment

Madrid

24/27 November 2014

<http://www.conama2014.conama.org/>