ANIPB
Associação Nacional dos Industriais de Prefabricação em Betão

CIRCULAR N.º 058/2012

Assunto: **COLABORATIVE RESEARCH PROJECT**

Caros Associados,

Recebemos um pedido, o qual reencaminhamos, para encontrar empresas dispostas a fazer parte de um projeto de investigação inserido no 7FP.

Os interessados devem responder ao e-mail abaixo para isabelms@cisdem.upm-csic.es

Cumprimentos,

(Íris Vilela)

Lisboa, 01 de Outubro de 2012

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Iris Vilela

Assunto: FW: Circular n.º 058/2012 - COLABORATIVE RESEARCH PROJECT
Anexos: proposal 7FP.pdf

De: Isabel Martínez Sierra [mailto:isabelms@cisdem.upm-csic.es]
Enviada: segunda-feira, 24 de Setembro de 2012 15:38
Para: anipb@netcabo.pt
Cc: 'Marta Castellote Armero'
Assunto: COLABORATIVE RESEARCH PROJECT

Dear Sir,
I'm a researcher of the Spanish Research Council, CSIC. In my research group, we have a large experience in concrete and new technologies associated with it. Now we're working in a new proposal for a colaborative european project in the 7FP call. We are looking for a small and medium precast enterprise (SME) who wants to collaborate in the attached idea. Could you please spread this information about your associates? If someone is interested please advice them to answer this email as soon as possible, as we have to send the proposal soon.
My best regards

Isabel Mª Martínez Sierra
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Proposal for a project: PHOTOSTEEL

Marta Castellote
Investigadora Científica CSIC- Spain

The steel industry generates a substantial quantity of electric arc furnace dust (EAFD). During the melting process, the volatilised elements are collected as dust in filters. The chemical composition of this dust varies from one factory to another and even for the same plant, depending, on the specific composition on the scrap material used in the process and the steel quality to be produced, due to the secondary metallurgy reaction and additives.

In all cases, this dust contains metals, some of them hazardous, which implies special management and disposal of this **waste.** However, the presence of these metals, some of them very valuables, supposes a high strength for the steel industry as it implies a high **potential for valorisation and the origin of a possible source of resources**. Specifically, EAFD may contain a substantial amount of oxides of Zn, Ti, Fe,... **susceptible of developing photocatalitic activity,** especially in the case of stainless steel. **Exploring this possibility trying to make photocatalitic materials from EAFD, even using visible light, is the main objective of the project PHOTOSTEEL. Additionally, analysis of the viability of different applications and development of the corresponding materials will be carried out.**

This idea is been proposed for being presented in the open call of the 7th EU framework within the paragraph ENV.2013.6.3-1: Turning waste into a resource through innovative technologies, processes and services.

This is a **high risk –high gain project**, as if successful, it would suppose a **high jump in the state of the art** concerning the use of this **waste, being converted in a valuable material** and **strengthening the position** of the **steel industry and of other sectors**, as cement and/or concrete producers.

Even though lot of references can be found concerning recovery of metals of EAFD, no references have been found on converting them to photocatalitic material in literature.

Needs for partners interested in the project:

- European SME´s
- European Steel companies
- European research centres with expertise in the processing of metal powders

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Estimated total budget of the project : 3500000 €

Contact: Marta Castellote.
martaca@ietcc.csic.es