

SusChem 2017 Brokerage Event

Recovery of metals from hazardous industrial metal-rich sludges



- Know-how of academic staff and researchers from the University of Salamanca, Spain.
- Offer to companies and institutions to carry out R + D + i, technical and analytical support, consulting and delivery of services and training courses for human resources in **Science, Technology and Management of Water**.
- CIDTA is partner of the *InduRe - Industrial Water Re-use and Recycling IEP Water Action Group*, the **Spanish Water Technology Platform**, the **Cluster of Environmental Sustainability** of the Junta de Castilla y León (Spain) and the **Water Alliance and Water Nexus Iberoamerican Platforms**.

WORKING LINES

- **WATER CONTROL AND MONITORING:** Indicators of Water Pollution. Ecotoxicology and Cytotoxicity of Wastewaters. Pollution Dynamics of Natural Waters. Modeling of Water Resources.
- **WATER TREATMENT TECHNOLOGIES:** Bioremediation of metals polluted waters. Advanced oxidation processes and Photocatalysis. Anaerobic digestion of sewage sludge. Passive wastewater treatments in small municipalities.
- **WATER RESOURCES MANAGEMENT:** Expert systems for design, control and management of wastewater treatment plants. Evaluation of the efficiency of water use in urban and agricultural systems. Sociological analysis of needs, uses and management of water.



Active and passive treatments of Acid Mine Drainages (AMDs) produce huge amounts of a metal-rich sludges. On average, one active mine produces about 9500 tons of dry sludge per year. The high worldwide production of solid wastes from AMD is expected to rise.

Physico-chemical processes will be developed to recover marketable metals as valuable by-products from such sludges.

H2020 calls and the deadlines for submission:

CE-SC5-01-2018: Methods to remove hazardous substances and contaminants from secondary raw materials
27 Feb 2018

CE-SC5-06-2018: New technologies for the enhanced recovery of by-products 27 Feb 2018

CE-SC5-07-2018-2019-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes 2 7 Feb 2018

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SC5-21-2019-2020: ERA-NET Cofund action for climate action, environment, resource efficiency & raw materials 19 Feb 2019

CE-SC5-22-2020: Improving the recovery and recycling of materials from composite and multi-layer products 19/10/2017

- **Recovery of metals as by-products of metal-rich wastes**
- **Afterwards, these wastes will be classified as non-hazardous wastes**
- **Adding high value to such wastes**
- **Recovering high valuable by-products such as rare earths and other metals**
- **Reducing the cost of the environmental management of AMDs and their sludges**
- **Preventing potential environmental risks from AMDs and their wastes**
- **Contributing to the implementation of the EU Circular Economy Action Plan**

There are an existing project consortium of 2 or 3 Research Teams with know-how on AMDs passive treatments at pilot demonstration plant scale.
<http://biometaldemo.eu>

WE ARE LOOKING FOR PARTNERS

MINING AND OTHER INDUSTRIES WITH ACID METALLIZED EFFLUENTS AND/OR METAL-RICH SLUDGES

COMPANIES OWNERS OF ABANDONED MINES WITH AMDs & SLUDGES

RESEARCH TEAMS INTERESTED IN THE RECOVERY OF METALS FROM SOLID WASTES

Contact details for project idea(s) :

– **Dr. Manuel Garcia Roig**
Professor of Physical Chemistry and Director
of CIDTA

University of Salamanca, Spain

mgr@usal.es +34 649124557 +34 923294670