COST ACTION: MINING THE EUROPEAN ANGROPOSPHERE

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Abstract

COST is the longest-running European framework supporting trans-national cooperation among researchers, engineers and scholars across Europe. The COST Action "Mining the European Anthroposhere" starts on the 4th March 2016 and runs for 4 years. The objective of the talk is to present the COST Action and to highlight the relevance for conference participants.

Description of the COST Action: Traditional mining continuously shifts raw materials from the geosphere to the anthroposphere. These materials accumulate in anthropogenic deposits (e.g. cars, buildings) and pose a resource potential that includes the secondary materials of tomorrow. To provide information on the future availability of primary materials, inventories of geogenic deposits (resources) and the economically extractable shares (reserves) have been developed. In contrast, information on the availability of secondary materials is lacking. Even though the amount of materials in the anthroposphere has risen dramatically in the last few decades, the resource potential in anthropogenic deposits has not been explored in an adequate way. This prevents, firstly, a comparison of resources/reserves between primary and secondary materials and, secondly, integrated information on the availability of materials from reaching future commodity markets. To overcome this gap, this COST Action aims to actuate the reporting of material resources/reserves in the anthroposphere. The focus is on (1) construction and demolition waste, (2) waste regained from landfills and (3) solid residues from waste incineration. Today, there are large differences concerning the recovery of secondary materials from these three types of waste across Europe due to isolated national research, waste management technologies and policy strategies. A pan-European approach is needed to establish a common knowledge base for the assessment of resource potentials on various spatial levels. By means of coordinating national research activities in European countries, this COST Action is striving for a breakthrough in the integrated assessment of primary and secondary resource potential, which is a prerequisite for effective resource management.