

2nd International Conference & Expo on **Green Energy, Recycling & Environmental Microbiology**

November 28-30, 2016 Atlanta, USA

Novel trends in recycling and WEEE management

Joanna Kulczycka

Polish Academy of Sciences, Poland

Within the EU, the Waste Electronic and Electrical Equipment Regulations (WEEE) is intended to reduce the amount of e-waste being disposed of and require EEE producers to pay for its reuse, recycling and recovery. In the EU-28, it is estimated that 25% of the mass of WEEE produced is collected and processed, and the remaining 75% is not recorded. The paper presents new trends in recycling and waste management, including an analysis of the technological, legal, ecological and market aspects, focusing on recovery of non-energy raw materials. WEEE contains many valuable metals, that can be recycled, and could provide a great amount of secondary resources for remanufacture, refurbishment and recycling – some technological case studies will be presented taking into account new trends connected with the development of circular economy strategy - EU Commission has declared that, it will demonstrate the opportunities for moving towards a circular economy under the EU Research and Innovation Programme. The market for the recovery of WEEE is growing steadily, mainly due to the activity of SMEs, however the existing system of waste collection with Extended Producers Responsibility (EPR) based on EU regulation, required some improvements to boost recovery and recycling of valuable materials. Additionally, main challenge in e-waste management is curbing illegal shipments and making sure that WEEE is collected and properly treated within recycling infrastructure. Other barriers and challenges of the e-waste management system in EU countries will be also identified.

Biography

Joanna Kulczycka is a Professor at AGH University of Mining and Metallurgy, Faculty of Management and also Head of Department of Strategic Research at Mineral and Energy Economy Research Institute of the Polish Academy of Sciences MEERI. She has authored over 100 publications including 1st book about LCA in Polish, 1st Polish Minerals Yearbook, and more than 40 scientific research articles on possibilities and effectiveness of material recovery, economic evaluation of minerals and waste management, and pre-feasibility and feasibility studies.

kulczycka@meeri.pl

Notes: