



Workshop Program:

Innovation in waste management: Linking the ‘circular economy’ and the ‘waste hierarchy’

Parallel event of the conference:
MINCE - ‘Minerals in Circular Economy’, VTT

Venue: Innopoli 2, Espoo, Finland

Date: NOVEMBER 26 (11:15-17:10)

Program:

11:15-11:30	Welcome and introductions	Roberto Zoboli (CERIS)
11:30-12:00	Key note speech (title)	Speaker: Almut Reichel (EEA)
12:15-13:20	Lunch	
13:30-15:00	Evidence-based results: <ul style="list-style-type: none"> • Convergence in MSW management models across EU countries • From landfills to a circular economy: An LCA-based pressure analysis at the EU level (IVL) • From landfills to a circular economy: An LCA-based pressure analysis for Italy (UCL) Discussion	Speakers: Giovanni Marin (CERIS) Lena Dahlgren (IVL) Olga Parkes (UCL)
15:00-15:30	Coffee break	
15:30-17:00	Policy drivers: <ul style="list-style-type: none"> • Innovation in waste management: EU policy drivers • Innovation in waste management: Drivers with decentralised governance • ‘Producer responsibility’ and innovation in WEEE management • Waste targets as drivers for resource efficiency? Discussion	Speakers: Francesco Nicolli (CERIS) Massimiliano Mazzanti (CERIS) Susanna Paleari (CERIS) Henning Wilts (WI)
17:00-17:10	Closing remarks	Roberto Zoboli (CERIS)

About the workshop:

Aim: Research and stakeholders conference to present and discuss the main results of the WP8 'Waste and recycling' of the FP7 project 'EMInn - Environmental Macro Indicators of Innovation' (see below)

Organisers: Wuppertal Institute (leader of EMInn) and CERIS-CNR (partner of EMInn)

About Work Package 8 'Waste and recycling' of EMInn (partners: CERIS-CNR; IVL; UCL)

Aim: The WP has taken a macro-level perspective to the role of innovation in waste management by looking at the changing pressures from shifting waste from landfill to recovery/recycling at the EU scale or country level.

Short summary: A large shift from landfill to other waste management technologies, belonging to the clusters of incineration and recycling, has been observed in the EU during the last 20 years. This shift is a priority of EU waste policies (in particular the EU 'waste hierarchy').

The macro environmental effects of the diffusion of non-landfill waste management technologies for MSW have been studied by adopting a LCA approach. Available LCA information on different categories of pressures (GWP, acidification potential, eutrophication potential, POCP) for different waste management technologies (landfill, incineration, recycling) have been exploited to produce evidence on the possible changing pressures from shifting to non-landfill MSW management technologies. The analysis has been done on observed ex post trends (1996-2011) and on ex ante scenarios (2012-2030 and beyond) for waste production/management elaborated through time series and scenario techniques. In the case of the EU27, a first attempt of monetary evaluation of the (saved) external costs from shifting to non-landfill MSW management technologies has been made.

In WP8, the role of policy drivers for eco-innovation, vis à vis other drivers, has been extensively tested and measured, generally by using econometric techniques, at different levels: (i) invention of waste-related new technologies (patents); (ii) adoption of waste-saving technologies in manufacturing; (iii) 'organisational innovations' in waste sectors subject to 'producer responsibility' provisions (WEEE and ELV); (iv) dynamic convergence of MSW management technologies across EU countries; (v) diffusion of MSW technologies other than landfill in Italian regions and provinces, which represent examples of very decentralised administrative/policy settings; (vi) joint effect of 'scrapping schemes' and innovation for waste generation in the automotive sector. At all these levels, policy demonstrated to be a key driver of eco-innovation at the macro-scale.

The estimates produced in WP8 are among the few estimates of changing pressures from changing MSW technologies made at the macro-scale in Europe. Their results can be immediately relevant for the environmental validity EU 'waste hierarchy', the target of 'near zero' landfill to be achieved in 2020 according to the EU Resource efficiency roadmap, and the strategy for a 'Circular Economy' launched by the European Commission in 2014.

Workshop Contact:

Prof. Dr. Roberto Zoboli
Professor of Economic Policy, Catholic
University, Milan, and Associate Researcher,
CERIS-CNR (National Research Council of
Italy)
email: r.zoboli@ceris.cnr.it
(also at roberto.zoboli@unicatt.it)

Daily management:
Vera Freyling
Material Flows and Resource Management
Wuppertal Institute for Climate, Environment
and Energy
email: vera.freyling@wupperinst.org

About the FP7 project EMinInn – Environmental Macro Indicators of Innovation (2012-2015)

Innovation requires comprehensive understanding of environmental impacts related to new technologies and progress towards smart, sustainable and inclusive growth in Europe. EMinInn is a 3,5-year European project that analyses macro-environmental impacts of innovations in several sectors of economy: Energy, Transport, Construction, Information and Communication Technology (ICT) and Waste. It aims at developing an analytical framework for assessing environmental impacts of established as well as emerging technologies and will generate contributions for improving EU-policies for a transition towards a more sustainable Europe and thus contributes to the flagship initiatives for Resource Efficient Europe and the Innovation Union.

Partners of EMinInn are:

- WI (Wuppertal Institute for Climate, Environment and Energy, Germany)
- CML (Institute of Environmental Sciences, Leiden University, the Netherlands)
- UNU-MERIT (Maastricht Economic and Social Research and Training Centre on Innovation and Technology, Maastricht University, the Netherlands)
- TNO (Netherlands Organization for Applied Scientific Research, the Netherlands)
- UCL Energy Institute (University College London, UK)
- IVL (Swedish Environmental Research Institute, Sweden)
- CERIS-CNR (Institute for Economic Research on Firms and Growth, National research Council, Italy)

Web-page: <http://www.emininn.eu/>