



POLITECNICO  
DI MILANO



MatER Meeting - May 21-22, 2015

# TRENDS AND INNOVATION IN WASTE MANAGEMENT



Scientific Committee: S. Cernuschi, S. Consonni, M. Giugliano, M. Grosso, A. Massarutto, M. Ragazzi, L. Rigamonti, F. Viganò

Politecnico di Milano - campus Piacenza - Room A - via Scalabrini 76 - Piacenza - Italy

May 21<sup>st</sup>, 2015

## 8.45 Registration

### Introductory session: Evolution and trends in waste management

- 9:15 Introduction to the meeting
- 9:30 Guidelines for waste management in Emilia Romagna Region
- 9:45 Guidelines for waste management in Lombardia Region
- 10:00 Municipal waste export: how to hide waste under the carpet.
- 10:15 Benefits, handicaps and opportunities for waste management in Italy
- 10:30 **coffee break**

### Session chair S. Consonni

- S. Consonni - Politecnico di Milano / LEAP
- P. Gazzolo - environment assessor Emilia Romagna Region  
Representative of Lombardia Region
- R. Filippini - president Amici della Terra
- G. Cencia - director Federambiente

### Session 1: Waste prevention and material recovery

- 10:50 A "clean cycle" and "safe final sink" strategy for waste
- 11:20 LCA applied to waste prevention
- 11:45 The role of Mechanical Biological Treatment in the overview of municipal waste management in Italy
- 12:10 The Emilia Romagna experience of industrial symbiosis
- 12:35 Mixed plastics recycling, the experience of REVET
- 13:00 Discussion
- 13:15 **Lunch**

### Session chair M. Grosso

- P. Brunner - Vienna University of Technology
- M. Grosso - MatER/Politecnico di Milano
- M. Grosso, L. Biganzoli - MatER/Politecnico di Milano
- L. Cutaia - ENEA
- E. Rappa - Revet Recycling

### Session 2: Environmental aspects

- 14:30 Living with fire. Synthesis of 10 years of sociologic research on the Turin waste-to-energy plant
- 15:00 Myths and legends on the impact of incineration. The outcome of technological evolution
- 15:25 Environmental monitoring of the waste-to-energy plant in Bolzano
- 15:50 Long-time monitoring in waste-to-energy plant areas: Milano, Cremona, Schio
- 16:15 **coffee break**
- 16:35 Emissions from mechanical-biological treatments and from recycling
- 17:00 WEEE - mass balance and Life Cycle Assessment in the Lombardia Region
- 17:25 Advanced experiences of mechanical-biological treatment: impacts, performances and costs
- 17:50 Discussion and closing of 1<sup>st</sup> day

### Session chair M. Giugliano

- G. Tipaldo - Università di Torino
- C. Cord'Homme - CNIM
- W. Tirlir - Eco-Research
- G. Lonati, S. Caserini - Politecnico di Milano
- M. Ragazzi - Università di Trento
- L. Rigamonti, L. Biganzoli - MatER/Politecnico di Milano
- P. Navarotto - STADLER

19:30 **Guided visit to art gallery** - Collegio Alberoni (via Emilia Parmense 68-76, Piacenza)

20:30 **Gala dinner** - Collegio Alberoni

May 22<sup>nd</sup>, 2015

### Session 3: Energy recovery

- 9:15 An update on energy recovery from waste in Europe
- 9:45 Measurements and efficiency indicators for waste-to-energy
- 10:10 State of the art of technologies for emissions control
- 10:35 **coffee break**
- 10:55 State of the art of waste-to-energy plants: Parma and Torino
- 11:20 New frontiers for efficiency improvements in waste-to-energy
- 11:45 Methods to define the biogenic fraction of waste going to energy recovery
- 12:10 Energy recovery from SRF: the role of cement plants
- 12:35 discussion
- 12:45 **Lunch**

### Session chair S. Consonni

- L. Van Klink - Rebelgroup
- F. Viganò - MatER/Politecnico di Milano
- S. Cernuschi - MatER/Politecnico di Milano
- M. Pergetti - Gruppo IREN
- S. Consonni - MatER/Politecnico di Milano
- G. Ciceri, R. Guandalini - RSE
- D. Gizzi - AITEC

### Session 4: Economic aspects

- 14:15 Economic research in waste management: state of the art, research paths and perspectives
- 14:45 Attitudes toward separate collection: a behavioral analysis of Italian families
- 15:10 Regulation for gate fees: the case of Padova
- 15:35 **coffee break**
- 15:55 Individual motivations for separate collection: warm-glow utility and social rules
- 16:20 Competition in the market for waste disposal market and incentives for recycling
- 16:45 Waste reuse in Italy: towards a consolidation of the first experiences grew up on field
- 17:10 discussion
- 17:30 Closing of the meeting

### Session chair A. Massarutto

- A. Massarutto - Università di Udine
- F. Nicolli - Università di Ferrara
- A. Moretto - Ente di Bacino Padova 2
- A. Massarutto, S. Troiano - Università di Udine
- F. Silvestri - Università di Ferrara
- M. Frey - Scuola Superiore Sant'Anna, Pisa

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