



**«Optimal recovery of material and energy resources in the
context of waste management»**

Report of the Experts Seminar

9 December 2009 – Turin, Italy



Introduction

This experts seminar was organized in the framework of a partnership between ACR+ (www.acrplus.org) and Holcim (www.holcim.com). This partnership aims at feeding the debate and identifying the best practices in link with the optimal management of resources in the context of waste management policies. It intends to explore legal and technical solutions in link with multiple policy developments at international level, namely:

- at UN level: United Nations Environment Program (UNEP) / Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Conference of the Parties (COP) Climate Change
- at EU level: new Waste Framework Directive, Post-Lisbon developments, EU 2020 objectives, new EU Framework Programme for the Environment and revision of several EU Strategies.

It is in direct link with the Resource Efficiency Alliance initiative (www.epe.be/Default.aspx?p=102&n=112).

Objectives and format of the seminar

This meeting will gather a group of experts in order to discuss the issue of building a balanced approach for material and energy resource recovery for different waste treatments alternatives such as recycling, incineration and co-processing solution topics. This aims to pave the way for the possible organization of an international Conference to be held during the Spanish Presidency of the EU (in May 2010). The participation in the seminar is limited and by invitation only.

This will be done taking into account the various aspects of the topic: climate change and CO2 balance, socio-economic aspects, etc., placing emphasis on best practices for some specific waste flows (residual household waste, tyres, Construction & demolition materials, Sewage sludge, incineration bottom ashes).

Each session will be introduced by several presentations in order to foster the debate. A maximum amount of time will be reserved for discussion.

The structure of this seminar was the following:

- **Introductory speeches:**
 - **Alternative resources management** (Jean-Pierre Degré, HOLCIM)
 - **European waste management policy** (Jean-Pierre Hannequart, ACR+)
- **Carbon balance of the different waste treatment options**
 - **Data from Oporto** (Isabel Nogueira, Lipor and Rui Dinis, E.value Porto)
 - **LCA of Integrated Waste Management Systems** (Prof. Gianandrea Blengini, Polytechnic Institute of Turin and Michele Bertolino, Legambiente)



- **The recovery of energy resources in the recycling processes**
 - Food Waste Collection and Anaerobic Digestion in UK (Ann Ballinger, EUNOMIA, UK)
 - Recovery of energy in the recycling processes (Francis Radermaker, Brussels Capital Region)-

- **The recovery of material resources in the energy recovery processes (incineration, co-processing and others)**
 - Waste co-processing in cement kilns, Raffaele Chiulli, EuroFuels S.p.A.
 - From waste to energy: the gas management system at Basse di Stura landfill in Turin, Fabrizio Bonnardel, AMIAT
 - A complete overview of the energy recovery from municipal waste in Italy Roberto Caggiano, Federambiente

- **Best practices for specific flows**
 - Construction materials, Christian J. Engelsen, SINTEF –
 - Residual household waste, Claudio Demaria and Carlo Zanotta, Ideagrande, Cuneo Province
 - Tyres, Gianni Rimondi, EcoPneus
 - Sewage sludge, Luis Carlos de Souza, Holcim
 - Incineration bottom ashes, Tom Mc Carthy, Resource Recovery

- **Debate and Conclusions**