



# Deliverable D1.3

## Mid-Term Conference minutes and proceedings

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## 1 Introduction

This deliverable gives details about the Mid-Term Conference held in Varese, Ville Ponti on October, 29 2013. According to the guidelines depicted in the Communication and dissemination activities, the Mid-Term Conference has been established in order to present the preliminary results of the project. More in the detail, the conference has tried to illustrate the main technical issues and the innovations embedded in the project, either to the technical stakeholders as well as to the scientific community.



*Ville Ponti*



*HEO Mid-Term conference*

Worthy to note, the Mid-Term Conference has been held as a part of a large event titled “*Technological innovation for the quality and sustainability of everyday life*” organized to present the SiFood (Science & Innovation Food District) Technological Association. In addition, the overall event has also included a conference on the CIP-Eco Innovation SPRAY project with the specific objective to share experiences and spread the debate about the optimal use of resources among a widest audience of interested in.

## 2 Methodologies and procedures

The organization of the conference has involved a set of activities: the setting of participants and the setting of the agenda, the definition of the topics and the schedule of timetables. Specifically, the agenda was a follow:



<i>Time</i>	<i>Who</i>	<i>Affiliation</i>	<i>Title</i>
10:30 -- 11:00	D. Gerola	Whirlpool	HEO Project
11:00 -- 11:30	BREAK & NETWORKING		
11:30 -- 11:50	A. Azapagic	Manchester University	HEO Sustainability
11:50 -- 12:05	J.Doyle	Whirlpool	HEO Coating Material
12:05 -- 12:20	J.Doyle	Whirlpool/ Lampre	HEO Material Application
12:20 -- 12:50	M. Daniele	Whirlpool/ Scamm	HEO Manufacturing
12:50 -- 13:05	A. Niro	Politecnico Milano	HEO Coating Reflectivity
13:05 -- 13:20	J. Capablo / N. Garcia	Whirlpool	HEO Energy Consumption
13:20 – 13:30	WRAP UP		

During the conference has been exposed the poster of the projects and leaflets have been distributed.

### 3 Results

In brief a summary of the entire event with details on speeches and presentation.

#### 1- HEO project:

The concept of the innovative HEO technology has been explained as well as an overview of the technology underlying. The scope of the project, its schedule and its background have been highlighted as well as the progress concerning activities and achieved results. The New Regulation for ovens introducing new energy-efficiencies classes above A has been explained.

#### 2- HEO sustainability:

A comparative Life Cycle Environmental and economic assessment of conventional and Highly Efficient Oven (HEO) have been presented either in terms of carbon footprint as well as in terms of life cycle costs. The Goal, Scope and System Boundaries of the analysis have been discussed as well as the methodology used and the sources of the data. Main carbon footprint and life cycle costs of the conventional and HEO ovens have been shown as well as the key aspects planned for the next steps of the analysis.

#### 3- HEO coating material and HEO Material Application:

The material used to coat the HEO stainless steel cavity has been explained either in terms of its property as well as in terms of its characteristics.



#### 4- HEO manufacturing:

HEO manufacturing was explained in the fourth presentation. First, the pre-coated material deep drawing procedure has been outlined with regards to the design guidelines then the comparison between cavity and design guidelines has been shown as well as the simulation and experimental approach. In the second part of the presentation, the HEO manufacturing has been discussed with regards to the welding process on coated material, the tooling line component and the tooling operation. The cavity assembly has been shown in conclusion.

#### 5- HEO Coating Reflectivity:

The tests carried out to measure the HEO coating reflectivity are explained during the fifth presentation as well as the methodology used to perform them.

#### 6- HEO Energy Consumption:

A performance study of Highly Efficient Oven with stainless steel cavity has shown how the energy consumption with a stainless steel cavity in both static and ventilated cooking modes decreases versus the enamel cavity oven. In addition, a low emissivity door and the inclusion of the bake heater inside the stainless steel cavity further reduce the energy consumption.

## **4 Conclusions**

The Mid-Term conference was an important step to present the preliminary project's achievements to stakeholders, scientific community and the general public. During the conference the main technical issues have been illustrated as well as the innovativeness embedded in the project. The results of the preliminary LCA have been presented in order to point out the environmental aspects to be taken into account.

## **5 Annexes**

Mid-Terms conference presentations, by partners

