## Claudio Pardini: Introduction. From the national PP&S and LS OSA Projects to the international SMART Project

Claudio Pardini welcomes the event participants, introduces the conference speakers and illustrates the event programme, which is the presentation of the intellectual outputs produced during the project first year of work.

He explains what the SMART Project is, and describes the composition of the international partnership: there are ten partner institutions from five different countries, (Italy, Germany, Hungary, Sweden and the Netherlands), representing universities, schools and the world of work.

The international Project has originated from two Italian strategic projects, the PP&S Project on Mathematics and the LS OSA Project on Science. The idea at the basis of both national projects was the innovation of teaching techniques in Mathematics and Science, with a focus on their methodology. The Italian Ministry of Education DGO General Director Carmela Palumbo has been the promoter of these innovative projects, which have seen the participation of a great number of schools with the aim of creating a system. Innovation necessarily involves technology because the students have to learn how to reason, not how to calculate. For this reason, the PP&S Project focuses on a resolution methodology, in which the problem is posed in a context (the "Posing" phase) and the teachers play a role of collaboration in the learning process of their students.

The last School Reform has drawn many differences in the teaching classes of habilitation: teachers with different university curricula have now to teach the "Integrated Sciences" (Physics, Chemistry, Earth Science) which are treated and taught as a continuum, seamlessly.

Itinerant laboratories have also been organized, in which poor everyday materials are used, in this way focusing on methods, rather than on contents.

Once the two national projects have grown up, they have been taken on a European scenario in order to confront them with the experiences of other countries and exchange good practices.

Claudio Pardini shows the project platform address (smartpps.carloanti.it) and explains that at the end of the project life, it will be transferred to another host and made available to all who are interested in Mathematics and Science.