Kestcells project aims to raise awareness in solar cell research to young students through an International Open Day

KESTCELLS project (FP7-ITN-2012 GA 316 488), coordinated by IREC (Fundació Institut de Recerca en Energia de Catalunya), focuses on the research of thin film solar cells based on earth abundant materials. This new technology has a lack of institutions in Europe able to train future researchers in the field. Being aware of this deficit, the Research Executive Agency within the Marie Curie program funded KESTCELLS (3.7M €) that involves Research Centres, Universities and Industries all around Europe.

The project has coordinated an "International Open Day" with the main objective to raise awareness of the research in thin films photovoltaic technologies, which has been leaded by Early Stage Researchers (ESR) as a key task of their multidisciplinary training within KESTCELLS. This initiative has been participated by six prestigious research centres around Europe and it was specially designed to provide a general overview of the work carried out in research centers to young and undergraduate students, encouraging a new generation of Europeans to develop an active scientific career.

Universidad Autónoma Madrid, on Friday, 12th of December of 2014, the Applied Physics Department of Universidad Autónoma de Madrid held a 1-Day Research Conference on Solar Photovoltaic Materials, devoted to the presentation of several well-advanced technologies and absorber materials to be used in the production of photovoltaic solar cells, covering inorganic thin films, organic materials, advances in silicon cells and several nanostructure-based materials for high efficient devices.
In the frame of this Conference, the KESTCELLS Open Day (Training for sustainable low cost PV technologies: development of kesterite based efficient solar cells, FP/-PEOPLE-316488)) took also place, and two presentations introducing the Marie-Sklodowska-Curie

Actions and the most relevant results obtained by the Photvoltaic Materials Group, actively involved in this project and in the study of the fundamental properties of kesterites, were shown.

Professors, researchers and both PhD and Master students made part of the audience of this 1-day conference.

EMPA, in the context of the 15th Swiss day of “physics and school education” physics teachers and generally interested persons were invited to visit EMPA for one afternoon to get up to date on the topics of “Future Mobility and Energy Technologies”. At this event we organized presentations about new mobility concepts and renewable energies with the focus on 3rd generation photovoltaics like CIGS on flexible substrates and Kesterites. After the presentations the group, consisting of more than 50 people, was invited to a guided tour through our laboratories to see and experience fabrication and characterization of chalcogenide thin film solar cells at first hand. In the subsequent aperitif a lively exchange between physics teachers and staff members took place making room for increased exchange between school class education and research on cutting-edge photovoltaic technologies at EMPA in the future.

U. Luxembourg, Monday morning November the 24th, the Laboratory for Photovoltaics (LPV) of University of Luxembourg organised a guided lab tour for a class within the framework of the Kestcells project. 15-years old students from Schengen School and their physics teacher attended this event. The 3-hours tour gave the opportunity to the students to discover a research lab dedicated to photovoltaics and the work done at the LPV through the Kestcells project: a European funded project focused on a novel material for thin film solar cells. The morning started with a comprehensive introduction to the Kestcells project and to the solar cell operation more generally. The 24 students divided in small groups visited the research facilities of the LPV. The lab tour was punctuated by short interactive experiments in order to illustrate physical effects linked with material elaboration or characterisation made at the LPV.

Aix-Marseille University, the 20th of November Im2np along with Aix-Marseille Université organized a “OPEN DAY Kestcells". Fifteen master students received a general introduction to PV research by Ludovic Escoubas, Dario Cozza and Carmen Ruiz.

La Fundació Institut de Recerca en Energia de Catalunya (IREC), on the 21st and 27th November IREC hosted two groups of undergraduate students and teachers. The Coordinator (E.Saucedo), the Project Manager (J.M.Sanjuan) and the Early Stage Researcher (M. Dimitrievska and M. Neuschitzer) of the project gave them a general introduction to the state of the art of the PV research focusing in the developments achieved by the project. The explanation was complemented by a visit to the facilities where the Early Stage Researcher showed interactively how a solar cell was constructed. During the coffee break students and teachers had the opportunity to freely exchange ideas with the researchers. Students where specially interested in the day-to-day of science, the differences between Scientists and Engineers and how science is funded... This issues where discussed in a vivid open debate.