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VALHALLA

PRESS RELEASE

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Horizon Europe - Research and Innovation Action Kick Off: peroVskite solAr ceLls witH enhAnced stabiLity and appLicAbility (VALHALLA).

The EU aims to become climate-neutral by 2050 - a challenge that requires action today, including the development of new, disruptive renewable energy technologies. January 2023 marked the beginning of the VALHALLA project that will run for three years with participants from eight European countries, funded by the European Commission through HORIZON EUROPE Research and Innovation Actions. The Kick-Off meeting took place on 30th January 2023 at the University of Valencia, where consortium members had to chance to discover the University's labs where a part of the work will be carried out.

Renewable energy technologies are needed to replace costly and polluting fossil fuels for energy generation. These technologies must be environmentally, socially, and economically acceptable, and perovskite solar modules have the potential to fulfil all these essential requirements. The VALHALLA project focuses on bringing stable, solvent-free, perovskite solar modules for clean electricity generation in Europe closer to market, working to provide pathways to a European industrial base.

VALHALLA will develop perovskite solar cells and modules with power conversion efficiencies above 26 % (modules > 23 %) and extrapolated operational lifetime > 25 years, following an eco-design approach: employing harmful-solvent-free perovskite deposition, optimized use of materials, circularity, recyclability, scalable and low-cost manufacturing processes, to create a viable economic pathway for the European commercialization of this sustainable technology. The concept of VALHALLA is to bring together the critical expertise spanning all the technological competencies in order to redesign and realise a highly efficient, stable, scalable and cost-effective perovskite PV technology, with sustainability considerations driving all technical advancements.

The VALHALLA consortium is coordinated by the University of Valencia (Spain). It brings together a well-balanced combination of top-EU research institutions such as the University of Oxford (UK), Kaunas University of Technology (Lithuania), the University of Liège (Belgium), the University of Groningen (Netherlands), Consiglio Nazionale delle Ricerche (Italy), the Istituto Italiano di Tecnologia (Italy), VTT Technical Research Centre of Finland (Finland) and CSEM (Switzerland). And well-engaged industrial partners such as Enel Green Power and 3SUN (Italy), Ark Metrica LTD (UK) and the Becquerel Institute (Belgium).

Project Partners

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