

Tunniste/teema: 1.06 / Vähähiilinen energia

Projektin nimi: Integrating European Infrastructure to support science and development of Hydrogen- and Fuel Cell Technologies towards European Strategy for Sustainable, Competitive and Secure Energy

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Yhteistyöosapuolet: KIT, CEA, UU, IFE, HSE, JRC, FZJ, PSI, NCSR, UP, ENEA, BAM, TECNALIA, UPI, PS, NPL, SINTEF, EMPA and VTT

Liitynnät (ml. ohjelmat):

Aikataulu: 2011 - 2015

Budjetti: Total budget 10,2 M€ (VTT budget 176 k€)

Rahoittajat: EU

Kommentit: No comments

Tiivistelmä: The European Strategy Forum on Research Infrastructures (ESFRI) recognizes in its roadmap for Research Infrastructures that "in the near future, hydrogen, as an energy carrier derived from a number of other fuels, and fuel cells, as energy transformers, are expected to play a major role, for mobile and stationary applications". With the current fragmentation of the European R&D infrastructures and the uncoordinated approaches adopted, the demand for effective support of the Hydrogen and Fuel Cells (H2FC) technology developers cannot be satisfied. Therefore this proposal is built to integrate the European R&D community around rare and/or unique infrastructural elements that will facilitate and significantly enhance the R&D outcome. H2FC European Infrastructure addresses the topic INFRA-2011-1.1.16 "Research Infrastructures for H2FC Facilities" and the related energy-chains, by bringing together, for the first time in Europe, the leading European R&D institutions of the H2 community together with those of the fuel cell community, covering the entire life-cycle of H2FC, i.e. hydrogen production, storage, distribution, and final use in fuel cells. The three pillars of the proposal are networking, transnational access and joint research activities. All are strongly interrelated and oriented towards the resolution of identified bottlenecks. The aim is to provide:

- A single integrated virtual infrastructure accommodating H2FC test and analysis facilities
- Transnational access for the H2FC R&D communities to advanced infrastructures
- Expert working groups to enhance work at the provided facilities and coordination in aspects of safety, performance and durability
- Central databases and libraries for safety, performance and durability data and modelling codes
- Coordination of relevant education and training actions
- Integration, enhancement and improvement of the existing infrastructures
- Coordination with national / international bodies and industrial activities