



## Hydrogen - A Competitive Energy Storage Medium To Enable the Large Scale Integration of Renewable Energies

Seville, 15-16 November 2012

# EPSRC SUPERGEN Hydrogen & Fuel Cells Hub (H2FC SUPERGEN)

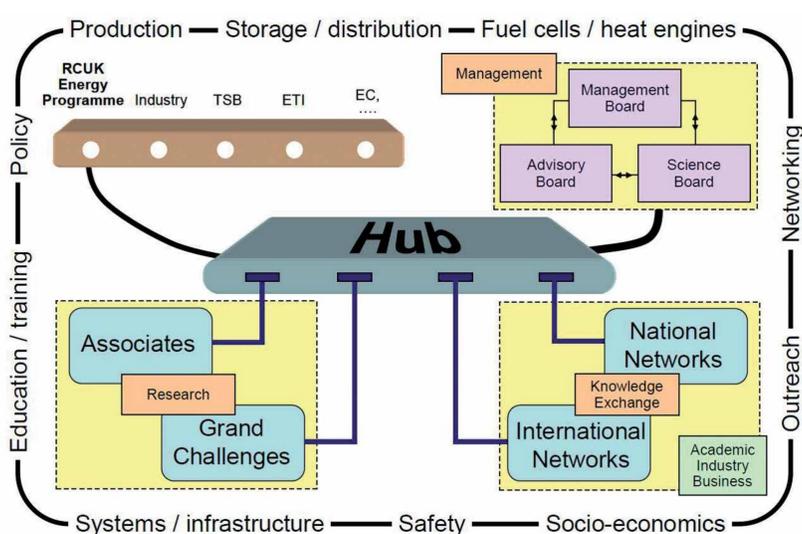
### Overall Objectives and Budget

The EPSRC-funded H2FC SUPERGEN Hub seeks to address a number of key issues facing the hydrogen & fuel cells (HFC) sector in the UK:

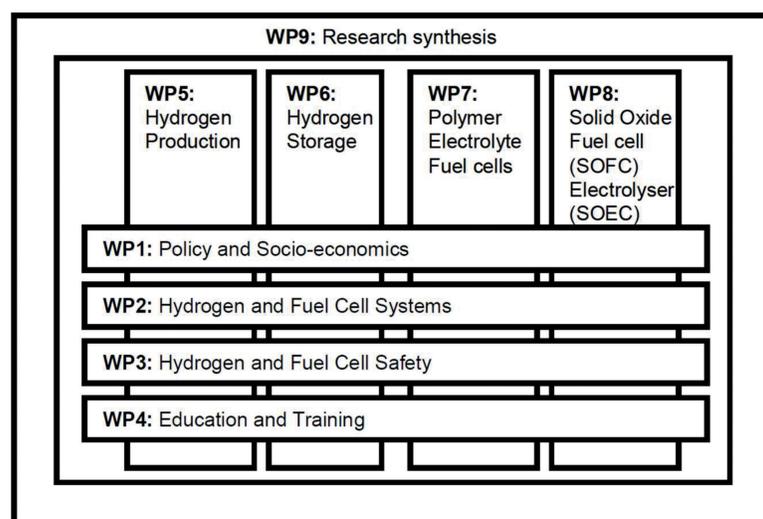
1. To demonstrate and enhance the role of UK HFC research and to link this to the wider landscape internationally. This will cover the issue of managing increased penetration of intermittent renewables, ensuring future secure and affordable energy supplies and low carbon transport and heating systems.
2. To link the academic research base with industry to ensure effective and appropriate translation of research to support wealth and job creation for UK plc.
3. To champion the complete landscape in HFC research within the UK and internationally via networks, knowledge exchange and stakeholder engagement, community building and education and training.
4. To reach out and engage beyond the Hub to academia, industry, NGOs and Government.

**H2FC SUPERGEN covers the entire hydrogen energy chain from production through storage to end use.**

The budget is £5M (full-economic cost) for a five-year research programme from 1 May 2012 and is led by 10 investigators at seven UK universities.



The integrated, inclusive and networked organisational structure of H2FC SUPERGEN.



H2FC SUPERGEN workpackages (WPs) focus on four research themes with four cross-cutting activities all embedded in an overarching research synthesis programme.

### Project Aim

H2FC SUPERGEN aims to cover the entire hydrogen energy chain from production through storage and distribution to end use. This is unique for an HFC research project in the public sector in the UK.

### Workplan

H2FC SUPERGEN has four main strands of activity. The first is a core research programme that will address key areas of underpinning science for hydrogen, the second is support for the dedicated education and training of PhD students and early career researchers, the third is a flexible funding research programme which will be open to the whole UK academic community and which will be awarded to address additional key research challenges, and the fourth strand is a networking activity to translate research outputs into impact across a wide range of stakeholders.

### Early Stage Achievements and Developments

H2FC has already established a Collaboration Agreement amongst investigators, recruited researchers and started work on workpackages, linked with Dr Sue Ellis at Johnson Matthey who will lead the Hub's Advisory Board, liaised with the EPSRC on a related £5M HFC research challenge call and supported various HFC research workshops to be held in 2013.

### Project Overview

- H2FC SUPERGEN Principal Investigator – Professor Nigel Brandon, Energy Futures Laboratory, Imperial College London, LONDON SW7 2AZ, UK. Tel: +44 20 7594 5704, Email: n.brandon@imperial.ac.uk
- Universities of Bath, Birmingham, Newcastle, St Andrews and Ulster, Imperial College London, University College London plus Johnson Matthey as lead industrial partner on the Hub's Advisory Board.
- 05/12 to 04/17
- <https://connect.innovateuk.org/web/h2fc-supergen>