

Fuel Cell Roadmaps Summary:

REFERENCE	UK Fuel Cells
Title:	UK Fuel Cell Development and Deployment Roadmap 2005
Date:	2005
Author:	Fuel Cells UK/Synnogy
Funded by:	UK Department of Trade and Industry
Hard copy reference:	UK Fuel Cell Development and Deployment Roadmap 2005, Fuel Cells UK, c/o Synnogy, Thorpe Waterville, Northants, 2005
URL:	http://www.fuelcellsuk.org/sharedtemplates/Roadmap-Fuel_Cells_UK-final.pdf
Date accessed:	July 2006
Web Format:	pdf
IEA topics covered	V.2 Fuel Cells V.1.2 Hydrogen storage
Geographical focus:	UK
Brief Abstract:	The purpose of the roadmap is to accelerate the commercialisation of fuel cell technologies within the UK and to ensure that the UK derives maximum benefit from this process. This applies not only to industry but also to the research community, Government (national, regional and local) and society at large. The roadmap has its origins in the "Fuel Cell Vision for the UK" published by Fuel Cells UK in 2003. The vision highlighted the benefits to the UK in taking leading role in fuel cell development and deployment, and defined a pathway for the UK to assume that role.

OUTPUTS	
Short Report?	No
Major report?	Yes
Visualisations?	Yes
Information held on dedicated software?	No
- which package?	

ARCHITECTURE	
Timescales used:	Short-term 2005-07 Medium-term 2008-2012 Long-term 2013-2023
Trends and drivers?	
- list	
Enablers?	
- list	
Performance measures/targets?	Yes
- list areas	<ul style="list-style-type: none"> • Acceptable costs • Durability/performance • Mass and volume reduction • Higher temperature PEM operation

	<ul style="list-style-type: none"> Hydrogen storage capability
Mapping of RD&D activities?	Yes
Critical assessment of capabilities?	Yes

PROCESS	
Methods used:	
- Desk study?	
- Consultation	Yes
- Interviews?	No
- Facilitated workshop(s)	Yes
- Working groups/task force	Yes
- Integrated Process	Yes
Stakeholders engaged:	
- University based researchers	Yes
- Other public sector researchers	No
- Business – technology	Yes
- Business – other	Yes
- Government – energy	Yes
- Government – SET	Yes
- Government – other	Yes
- NGOs	No
No of people engaged:	68
Budget (if known):	Not known
Commitment to re-visit?	No

ACTIONS IDENTIFIED	
List of actions?	Yes
Actions listed according to timescale?	Yes
Actions prioritised?	No
Sequencing/dependencies identified?	No
Responsibility for actions identified?	Yes
Types of actions identified:	
- Basic research?	Yes
- list areas	<ul style="list-style-type: none"> Achieving acceptable cost levels for stacks Achieving acceptable durability/performance levels for stacks Mass and volume reduction for fuel cell systems where these are important Developing fuel cell systems capable of fuel flexibility Achieving higher temperature operation for PEM stacks Developing materials for intermediates and high temperature SOFCs Increasing hydrogen storage capability which extend vehicle range to acceptable levels and enhance portable storage power Developing reversible fuel cells to address

	<ul style="list-style-type: none"> renewable intermittency Developing effective and affordable balance of plant Ensure cohesion between fuel cell and hydrogen research activities
- Applied research?	Yes
- list areas	<ul style="list-style-type: none"> Resolving technology challenges (see basic research) Optimising manufacturability of all fuel cell types Optimising installability of all fuel cell types
- Development & demonstration	Not explicit
- list areas?	
- Other types of action?	Yes
- list other types	<ul style="list-style-type: none"> Regulation and policy Market development Education training and awareness Explore research priorities Support collaborative (industry-academia) activities International partnerships where appropriate