

TEMPLATE FOR CHARACTERISING ENERGY TECHNOLOGY ROADMAPS

**ENERGY TECHNOLOGY ROADMAPS:
TEMPLATE FOR CHARACTERISATION**

REFERENCE	UK Hydrogen storage
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.1.2 Hydrogen storage
Geographical focus:	UK
Brief Abstract:	The roadmap is primarily intended for mapping out plans to deploy fuel cells, but deals with the issue of storing the fuels, particularly hydrogen.

OUTPUTS	
Short Report?	N
Major report?	Y
Visualisations?	Y
Information held on dedicated software?	N
- which package?	

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ARCHITECTURE	
Timescales used:	Short-term 2005-2007 Medium-term 2008-2012 Long-term 2013-2023
Trends and drivers?	Yes
- list	<ul style="list-style-type: none"> • Increasing academic and industrial research towards meeting performance measures (see below) • Reducing greenhouse gas emissions by using a cleaner fuel • Future scarcity of hydrocarbon fuels • Shift of public opinion towards cleaner fuel sources
Enablers?	Y
- list	Universities Industries Government
Performance measures/targets?	Y
- list areas	<ul style="list-style-type: none"> • For 100kW systems, without electric drive and hydrogen storage, achievement of: 1.5kg/kW OR 1.5L/kW by 2015 • Achievement of hydrogen storage capability of >6wt% in the short to medium term and >12wt% in the long term
Mapping of RD&D activities?	Y
Critical assessment of capabilities?	Y

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

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ACTIONS IDENTIFIED	
List of actions?	Y
Actions listed according to timescale?	Y
Actions prioritised?	N
Sequencing/dependencies identified?	N
Responsibility for actions identified?	Y
Types of actions identified:	
- Basic research?	Y
- list areas	<ul style="list-style-type: none"> • Increasing hydrogen storage capability to extend vehicle range to acceptable levels and to enhance portable storage power • Ensuring cohesion between fuel cell and hydrogen research activities
- Applied research?	Y
- list areas	<ul style="list-style-type: none"> • Resolving technology challenges (see basic research)
- Development & demonstration	Y
- list areas?	
- Other types of action?	Y
- 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 • Achieving political awareness and action • Standardisation of key items • Increasing production volumes as markets develop