

**TECHNOLOGICAL TRANSITIONS AND STRATEGIC NICHE  
MANAGEMENT: THE CASE OF THE HYDROGEN ECONOMY**  
Forthcoming in *International Journal of Environmental Technology and  
Management*

**By Paolo Agnolucci and Paul Ekins\***  
**Environment Group, Policy Studies Institute**  
**50 Hanson St., London W1W 6UP, UK**  
\*Corresponding author: [p.ekins@psi.org.uk](mailto:p.ekins@psi.org.uk);  
Tel +44 20 7911 7516; Fax. +44 7911 7501

Acknowledgements: This paper was produced as a contribution from the UK Sustainable Hydrogen Energy Consortium, funded by the UK Research Councils, led by the Engineering and Physical Sciences Research Council (EPSRC), to whom gratitude for their support is expressed. The authors would also like to acknowledge the helpful comments of Will McDowall.

**ABSTRACT**

There is considerable interest in the prospects for a large-scale transition to hydrogen as an energy source. This paper assesses these prospects through consideration of technological transition theory, and especially the likelihood of hydrogen use becoming widespread through strategic niche management. The paper shows that current niches show few signs of the characteristics that are necessary for niche expansion to the extent required, and concludes that at present hydrogen technologies still need substantial R&D support resulting in a number of scientific breakthroughs before they will become viable in competitive markets.

Key words: technological transition; strategic niche management; hydrogen technologies