- 1. The diverse sets of relationships between hydrogen technologies and the local and regional contexts within which they are being appropriated and developed. These relationships are often underpinned by issues of economic competitiveness, as well as systemic transport change, environmental and social equity agendas.
- 2. This linked to various network forms of interrelationships underpinning regional hydrogen economy development. These differed in size, interests constituting them, scales of political activity and degrees of alignment. Indeed the entry of 'external' viewpoints (national government, EU, multinational organisations) into the development of regional hydrogen economies was a significant 'driver' in all cases. The importance of this was that it informed an *ongoing negotiation* between the, often various, expectations of regional hydrogen economy development across different socio-political scales. Different institutions, often with diverse regional views or roles, took the lead in regional hydrogen economy development. The important issue, here, was related to the available level of 'regional' resources (financial, forms of knowledge and types of relationships) 'necessary' to developing a hydrogen economy. This being the case there was an importance in (understanding) the emerging role of 'intermediary' organisations between hydrogen and fuel cell technologies and the various contexts of appropriation, including across different scales and between various actors.
- 3. With the importance of recognising the limited development of the hydrogen economy in relation to 'regional' visions.
- 4. This analysis offers possibilities to sensitise some of the more grandiose visions of the hydrogen economy to the constraints and opportunities of particular regional contexts and the availability of 'relevant' relationships and resources. Whilst a start has been made in addressing this, a continued and focused attention on regional contexts and 'drivers' of hydrogen economies is required.

## **Journal Articles**

Hodson, M. and Marvin, S., 'Reconnecting the Technology Characterisation of the Hydrogen Economy to Contexts of Consumption'. *Energy Policy*. (forthcoming).

Hodson, M., and Marvin, S., 'Technological Transitions with and through 'Regions'', *Research Policy*, (submitted June 2005).

(from February 2006. Value circa  $\pounds$ 73,000). A comparative European study of public understanding and new energy technologies.