

2.0 Scenario Workshop Results: Recommendations on Methods

2.1 Recommendations on Fostering Interdisciplinary Research

The topic of interdisciplinarity is bound to be prominent in the context of cross-Research Council programmes and sociotechnical challenges. It was raised many times in the course of the Scenario Workshop. Most of top ranked topics identified by participants require interdisciplinary research by more than one social science discipline, and some topics can only be dealt with by bringing social scientists together with natural scientists or engineers. Many participants viewed this as a very serious situation: much of the most important research is not being done in university settings precisely because it requires expertise that goes beyond single disciplinary boundaries.

A discussion of ways of fostering interdisciplinary research was built into the Workshop's process as a specific activity. Working as table groups, participants responded to this question:

How can we achieve step change in interdisciplinarity involving the social sciences?

The most important suggestions received from the group in response to this question were:

- Totally restructure the Research Assessment Exercise in a way that insures that interdisciplinarity is not disadvantaged. As currently constructed, and responded to by university decision-makers, the RAE is widely seen to disadvantage interdisciplinary research. This has remained the case despite efforts to change the criteria over the years.
- Create a new research council for interdisciplinary research – perhaps on the model of the old JRC. Several Workshop participants felt that the existing research council structure does not act so as to encourage interdisciplinary research, even where there were efforts at cross-Council programmes.
- The ESRC should adopt a formal policy of putting half of its funding into interdisciplinary research.
- The ESRC should take on a greatly expanded role in interdisciplinary network building, pulling together best people from different fields. That kind of identification effort is difficult for individual academics to make. ESRC can work with all the Research Councils to put together lists of interests of researchers in various fields (e.g., anthropologists interested in energy).
- The ESRC can modify its assessment process for research bids to include a formal requirement to spell out interdisciplinary approaches and benefits.
- Create more research centres, like the Tyndall Centre, that are specifically designed to bring disciplines together focused on an aspect of the sustainable energy challenge.

- Adopt strategies to break down institutional structures in academia which reinforce convenient but arbitrary disciplinary divisions. For example:
 - ▲ Change norms in the disciplines by creating an expectation that a certain percentage of the faculty in a discipline should be cross-trained in another discipline or have extensive experience in an unrelated area.
 - ▲ Change the typical career paths of academics by requiring a sabbatical in a different department.
 - ▲ Develop interdisciplinary post-grad courses and training
 - ▲ Involve research users in the faculty evaluation process.

- Direct more research funding to non-academic institutions, using strategies such as:
 - ▲ Make greater use of research by non-academic experts and open more funding to non-academic institutions.
 - ▲ Make greater use of retired faculty who are no longer bound by disciplinary constraints.
 - ▲ Dedicate some research funds specifically to non-academic institutions to allow them to hire academics to participate in research.
 - ▲ Create a research funding entity that funds non-academic institutions to hire retired academics.
 - ▲ Encourage a cross-cultural perspective that recognizes the validity of different kinds of 'knowledges'. Encourage the expression of divergent voices and greater humility about the completeness of our own knowledge and belief systems.

2.2 Recommendations on Research Methods and Styles

After completing discussions of what *topics* research should focus on, workshop participants turned to broader questions of the organisation and conduct of research. Working in their table groups, participants responded to this question:

In light of the research priorities we have identified, are there particular kinds of research methods and styles of research that need to be developed and used more (including international, especially EU cooperation)?

The most important comments elicited in response to this question were:

- Support the development and maintenance of data sets and models, including those based on new approaches. This was seen as helped by, and being valorised by, the development of e-social science, which has considerable potential in the energy field.
- Encourage and reward systems thinking, drawing together tools and techniques from a range of approaches.

- Increase user involvement. For example, when a grant is given, ask what the user application is and what users should be involved to insure there is a smooth adoption of the results. Utilize steering committees that involve end users - but avoid the danger of being accused of being too user led.
- Allocate more funding in terms of "modularity." Now you typically have to set down an overall design for the whole research process, and it takes a long time for getting grants. Better to have more rapid funding of smaller modules, so you can redesign next steps based on results of previous steps.
- Increase the use of future-oriented research methods such as scanning, forecasting, scenario development, and dynamic modelling.
- Develop economy-energy-environment modelling tools with high transparency of model structure and data that other researchers can use and modify. Put in best current data, allow for easy updating.
- Do simulation modelling in a way accessible to others - like Sim City - dealing with energy choices at individual level, community level, national level. This approach would allow the public to engage in/ learn from the best thinking available.
- Fund more translation of social research. In the EU, work on social science is not in English. Recognize that talking about complex research issues in a second or third language is bound to create difficulties in understanding and that funding more translation can accelerate research progress and significantly improve the communication of findings.
- Among research approaches that should be considered and used more widely are those drawing on evolutionary thinking as applied to sociotechnical issues.
- Encourage team structures and incentives for problem-oriented research in academia that are more akin to those in commerce/industry.
- Encourage greater inclusivity of research teams. Some social science questions need representation and input from other cultural groups who are currently excluded from participating in academic research.
- Staff the research councils to make better use of knowledge management and to be more proactive in disseminating research findings.

2.3 Recommendations on Users and Uses of Research

In Workshop discussions of rationales for research, mention was often made about the comparative usefulness of various lines of work. This gives rise to the question of linkages between researchers and actual and potential users of their work. One of the Workshops discussions was designed to specifically address this subject.

Participants working in their table groups responded to this question:

What should we do to do to ensure that social science researchers and users/practitioners are appropriately involved in the design, implementation, use, and evaluation of social science research?

They were prompted to consider the range of potential users with a list provided by the project team. This is reproduced in the box below. Following the box is a list of the most important responses workshop participants gave to the above question.

List of Users of Social Science Research

UK Public authorities and EC/ international equivalents

- Relevant government departments
 - ▲ Treasury
 - ▲ DTI
 - ▲ ODPM
 - ▲ Cabinet Office
 - ▲ DEFRA
 - ▲ Home Office
 - ▲ Regulatory agencies (not only energy regulator, but also NAO etc)
 - ▲ Scottish Executive
 - ▲ Welsh Assembly
 - ▲ DT
 - ▲ Customs and Excise/tax office
 - ▲ EA
- Regional Authorities
 - ▲ RDAs
 - ▲ Regional Assemblies
- Local Government
 - ▲ Planners
 - ▲ Buildings Department
 - ▲ Councillors

Private Sector

- Energy Supply, Generation, Distribution, Equipment Sectors
- Engineers / Engineering companies
- Major Users: Transport, Construction, Public Services, etc. and their equipment suppliers
- Manufacturers of Appliances for Homes and Industry
- Developers
 - ▲ House builders
 - ▲ Office builders
- Service providers and Intermediaries
 - ▲ Business Associations
 - ▲ Local Businesses

Public and Voluntary Sector

- NGOs
 - ▲ Environmental
 - ▲ Social
- General public
- Other Academics and Professions
- Media, journalists, Communicators
- Schools, EST, CT

- ESRC and other Research Councils need to say, "We expect user involvement." Otherwise, why would academics spend time figuring out who the users are?
- Develop a clear "protocol" for user involvement that is widely recognized as an appropriate way to involve users. Make it easier to avoid problems of undue user influence, or of reluctance to involve users because they might exert too much influence.
- ESRC and other research councils could provide better guidance on accessing relevant research. Many potential users of social research simply have no idea of how they might locate and access results and expertise generated through ESRC and other social research. Potential users of research need information as to where they can find relevant results, and as to what media are used for dissemination of work. A lot of the time this requires *intermediation* rather than direct access to the results of individual studies or the teams responsible for them. Users want to know people who are well-informed, so that they do not need to plough through mountains of information. If they have problems where social science could contribute, they would like to have guidance as to relevant material, to have it brought to their attention by people who know the field, rather than having to search for it. This means access to expertise, and to experts who can understand and communicate with users.
- ESRC could produce or fund a Joseph Rowntree Foundation style quarterly journal that summarizes economic and social research findings on topics like energy efficiency and renewable energy. This could be done as an e-mail service. It should be proactively promoted and include ongoing research in many different universities.
- ESRC and other Research Councils can serve as intermediaries, as can some bodies that are also users – relevant government departments, and Regional Development Agencies.
- Provide funding for user involvement as part of grants. People in non-profit organizations and even the private sector cannot give much expertise and time for free for helping to formulate and evaluate research. Funding needs to be provided to make this kind of user involvement possible in a systematic way.
- ESRC can help researchers identify potential users. On the part of researchers, there is often considerable uncertainty as to identifying users and supporters of research. There are also problems with involving the general public in research processes and dissemination, and such activity is not treated very seriously in terms of RAE and related criteria (or budgeting in proposals). Support should be forthcoming from Research Councils UK, rather than individual Councils, with consultation with universities and other stakeholders, for closer links between researchers and users. Making questions of impartiality versus commitments in research clear, and developing guidelines for user involvement in research, would be useful tasks here.
- In developing relationships with potential users, start with the people who will do it. Many people in the private sector do not even expect that something coming out of an academic research effort would be directly relevant to them. There are individual exceptions, but that's the rule. It's difficult to find the

right individuals in an organization who would be fairly far-sighted, interested and open. In larger energy supply industries, there are clearly appropriate people. Utilities have strategy groups, for example. But others, like appliance manufacturers have no interest at all. They are not likely to become engaged until user involvement becomes much more the norm.

- There's an institutional gap now in terms of translating national research results into information for local action (e.g., national studies on potential for energy efficiency improvements). Funding for this national-to-local “translation” function is crucial for affecting change.
- Researchers need to understand what users actually want. Users want new ideas, insights, something that gives a new angle for my business, something I haven't thought about. Users want to be future-proofed – be given a broader view of what's ahead or around the corner. They don't want to have to go look for research findings. They want to have them brought to their attention. Users want to be kept up to date, and to be able to act on the best current information. Users want any research report to include a section that spells out implications for policy and implications for them. This requires involving the users, because it goes beyond an academic's knowledge. This poses problems of being misinterpreted or captured by users.
- Greater involvement of social scientists is needed in developing materials for teenage students. This requires plain language, brief explanation, to-the-point explication, illustration with lively examples, etc. This could also help break down the fear of science/social science that many students have.
- ESRC can fund and promote a publicly available computer model of energy supply and use for UK analysis, as a tool for a wide range of researchers.