

JOHN HOULIHAN/UNIV. YORK



## Recognize the value of social science

*A professional body for UK social scientists can help to improve research practice — and not just in public engagement, says Andrew Webster.*

If the science community is serious about integrating social science into its thinking and operations — and statements by everyone from *Nature* and the UK government to Paul Nurse, former president of the Royal Society, indicate that it is — then we social scientists must do more to make this happen.

Our input is necessary because, too often, the reach and influence of research is discovered only with hindsight. Lessons are ‘learned’ only after the social implications of new domains of science and technology have provoked controversy or challenged existing norms. Social science can help to predict these implications and plan for them. It can also help to frame science questions to make them more sensitive to economic, cultural and social factors.

Scientists have their own hands-on understanding of how the science and innovation system operates, and what demands it faces. Why should they pay attention to social-science contributions, particularly when these are not yet well known and understood across the scientific community?

Social scientists understand that many colleagues in the hard sciences are sceptical of what we can offer. We know that we need to make our contribution more widely understood and appreciated. This week, social scientists in Britain take what we hope will be a significant step.

We (including myself and colleagues Robin Williams of the University of Edinburgh and Fred Steward of the Policy Studies Institute in London) are launching a professional association, with an explicit goal of engaging with science and science policy. Researchers in the social sciences have built links with specific scientific constituencies, but have failed to engage at a more general level.

We argue that it is especially important to do this now, because all researchers are being urged to explore and make explicit how their work has reach and influence in the wider world. And we want to make clear that social science — especially science, technology and innovation studies (STIS) — should be integral to science and does not merely handle external issues, for example by addressing ‘public acceptance’.

Our new body is called the Association for Studies in Innovation Science and Technology-UK (AsSIST-UK; [assist-uk.com](http://assist-uk.com)). It has been built over 18 months and has a strongly interdisciplinary membership of more than 200 people. Unlike similar bodies in mainland Europe and the United States, which tend to look inwards to the academic discipline, it is intended to take our methods and thinking into the broader world.

One priority is to lobby for social-scientist involvement in the earliest stages of research projects, when emerging ideas are most open to discussion. We want to work at national and regional levels, from the UK government and research-funding councils to professional science bodies and the devolved

governments in the four UK nations, which are experimenting with science and technology policies.

Science and society are not discrete, as some researchers seem to assume. Knowledge — about the impacts of climate change, for example — gets its value and usefulness only when rooted in particular contexts. This makes it diverse and contested. From the perspective of a social scientist, the challenge for researchers in genomics, for instance, is not to ‘communicate’ their ideas and discoveries to a homogenous ‘public’: it is to realize that they are members of that public and act accordingly. Change in the direction of science cannot be viewed from a single position. It is relative and depends on the position of the observer, and on the interplay of diverse knowledge communities.

Social science can help in interrogating the evidence and assumptions behind theoretical models (say, for biomarkers of ageing). It can assess how technical standards are defined and applied to a new field, and how innovation shapes the way in which clinical trials are designed and conducted (as my own research has done in regenerative medicine). Models, standards and trials all rely on agreement about appropriate evidence and how it is used. This allows for fruitful discussion across the sciences and the early recognition that knowledge is provisional and may change — important if a project is to have scope for future debate.

One of the first tasks for our new group is to review the research and activities of our members, to identify their existing impacts on science (through specific projects and membership of national bodies) and how they have engaged more broadly with the wider scientific community. To increase that engagement, we aim to identify and share examples of good practice. We want to bring together STIS expertise in diverse fields such as biomedicine, energy and data analytics to inform research-council programmes — including the current move towards interdisciplinary doctoral training across the social and natural sciences.

And we want to act as a national body that can contribute to specific fields of science from their earliest days onwards. Social scientists should help to plan for the possibilities of gene editing, for example, and anticipate the challenges posed by the diversification and growth of biobanks.

To make the most of science, we must know how science operates, and understand the factors that influence it. Social scientists in the United Kingdom and elsewhere have been studying that for more than 50 years. We are ready and able to help. ■

**Andrew Webster** is Director of the Science and Technology Studies Unit (SATSU) at the University of York, UK.  
e-mail: [andrew.webster@york.ac.uk](mailto:andrew.webster@york.ac.uk)

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