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EXPERT RESOURCE CENTRE

Department for **Innovation, Universities** & **Skills**

Grant Funded

Nanotechnology engagement group

Research and coordination of six dialogue projects on nanotechnology

Context and aim

After tensions and public debates about issues such as genetically modified (GM) crops and bovine spongiform encephalopathy (so-called mad cow disease) in the 1990s, it was widely acknowledged that there was a need to increase public confidence in science decision-making. The NEG project sought to answer the question: "What are the uses and limits of public engagement on emerging science and technology? Could the promise of public dialogue as an aid to making better, more accountable policy decisions be proved?"

The project was driven by the need to develop public policy on nanotechnology and was strongly linked to the cross-government Nanotechnology Issues Dialogue Group (NIDG). It was the ideal opportunity to test the idea of 'upstream engagement' (where engagement takes place before decisions are made) and learn from a number of projects which were engaging directly with the public in one specific area of science. The aim was to find out what worked and to evaluate the use of the outcomes for policy creators.

The process

NEG was set up to capture the learning from public engagement on nanotechnologies. The objectives were to:

1. carry out research into different stakeholders' expectations of public engagement with nanotechnologies
2. map current public engagement activities related to nanotechnologies in the UK and internationally
3. identify lessons from other engagement activities
4. analyse how the lessons learned relate back to the range of interested audiences and the spectrum of engagement activities undertaken
5. communicate the learning to Government, other stakeholders, nanoscience researchers and the wider public

The Group itself was made up of dialogue practitioners, academics, nanotechnology scientists, science institutions, science communicators and Government representatives. Six dialogue projects were examined, varying in size from 15 members of the public to over 100, and generally spanning a few months. Regular project managers' meetings were held so projects could learn practically from each other as work progressed.

> "Without the support from Sciencewise, this kind of reflective work would not happen. Without the learning there is no progress in this field."
>
> Richard Wilson, Involve

Vital statistics

Project delivery organisations: Involve

Duration of process: 2 years

Number of participants: None directly - this was research and coordination of six dialogue projects on Nanotechnology

Cost of project: £115,000 Sciencewise plus free use of some venues

Key impacts

- Fed into the Nanotechnology Issues Dialogue Group (NIDG), a cross-Government working group which co-ordinates the delivery of the Government's commitments on nanotechnology
- Created interest around the field of public participation and opportunities for civil servants to learn more and get involved

This project was funded through open competition, not commissioned to provide input into a live policy area.

Learning from the process

The project team would have liked more time to conduct analysis and to reflect on the findings. The institutions running the dialogues would have benefited from more preparation on how to take forward the results. Although dialogue on nanotechnology appeared to be successful and popular, there were some voices who felt it might just be a 'fad'.

NEG started out with perhaps too broad a remit - it would have been useful to have focused on specific questions from the beginning rather than covering a large number of activities and reports. This would have focused the research and would have enabled a stronger evidence base for arguments in favour of dialogue on nanotechnology.

The project managers found it both challenging and rewarding to work with so many different people from different backgrounds and with different approaches to public engagement - ultimately this was a real strength of the project.

The process of engaging the public largely worked on most levels but the project found that only a very few citizens were involved and affected in most types of process.

The project concluded that if the aim of increasing legitimacy around decision-making in new areas of science is to be achieved, the next challenge is to increase meaningful participation to include tens of thousands of people not just a small group of citizens.

A Core Group was responsible for the logistics and for driving forward the project and was directed in its work by the NEG. The backbone of the process was a series of meetings of the NEG with a midway public conference. The final report was launched at a workshop for scientists, project organisers, public participants, Non-Governmental Organisations (NGOs) and policy-makers, at the Institute of Physics in London in June 2007.

The research took two forms - in-depth interviews with scientists and public engagement practitioners, and a thematic analysis of the approach and outcomes from each project. Interview questions focused on the impact on eventual policy and on the impact of the dialogue process on the participants.

Key findings

The final report outlines three recommendations for science policy creators and twelve recommendations for public engagement policy. The findings on nanotech focused on the importance of transparent governance of nanotechnology, and clarity of roles and responsibilities. Nanotechnology was supported as a potentially useful technology as long as developments contributed to a wider social good.

Recommendations on the use of upstream engagement focused on the need to increase the skills of all concerned - those who commission public dialogue processes; those who manage the day-to-day running and oversight of such projects; scientists who need to learn how to speak with a lay public; and publics themselves in order to be prepared for the process they are about to undertake.

Other recommendations included finding better ways of helping institutions and funding bodies to assess, fund, support and especially disseminate the results of public dialogue activities.

Benefits and impact

A clear result of the NEG process was that it was able to recognise and document that direct engagement between scientists and the public creates change, as well as significantly increasing the knowledge of all those involved in the issue. In terms of policy-making, the NIDG clearly acknowledges the NEG findings in its work, although actual policy development may be some way off.

The scientists who took part were clearly affected by the change. Some have become advocates of the process of citizen engagement in science, telling those present at the final conference what had changed 'back at the lab' as a result of their involvement. This change is very important and could create a 'trickle down' effect as more scientists become comfortable with the notion of engagement on nanotechnology. Study of the detailed evaluations and recordings of discussions showed that deliberation of the kind undertaken in public dialogue does shift opinion.

The project also found that in the relatively new field of public dialogue, the vocabulary used can sometimes be confusing and problematic. The final report provides a glossary of terms, which may prove to be useful to many people.

The project also provided further evidence that the public has a large appetite and capacity for dialogue around science issues. This means it will be necessary to improve access to the information and process of public dialogue to allow members of the public who are outside the 'official' dialogue to be included.

Contacts and links

Project Manager: **Karin Gavelin**
Email: **karin@involve.org.uk**
Tel: **020 7632 0123**

The interim and final reports as well as details about participating organisations and individuals can be found at:
http://www.involve.org.uk/neg