Evaluation of Sciencewise-ERC

Final report: Annex

Summary of evaluation findings on public dialogue projects funded by Sciencewise-ERC:

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Diane Warburton May 2011

Name and date of project

BIG ENERGY SHIFT

Topic and purpose: Public dialogue to establish the basis on which the public would be prepared to take up energy savings, renewable energy and low carbon measures.

Timina:

- * Started planning: March 2008; contractor appointed October 2008
- Dialogue events: January to March 2009
- Findings presented: Report from Citizens' Forum April 2009
- Publication of final reports: June 2009
- Publication of evaluation report: August 2010

Commissioning department / agency:

Department for Energy and Climate Change

Key other partners:

Department for Environment, Food and Rural Affairs (Defra), Department for Communities and Local Government (CLG), Northern Ireland Department of Enterprise, Trade and Investment (DETI), Welsh Assembly Government (WAG).

Contractor:

Sarah Castell, Ipsos MORI

Evaluators:

Kathryn Rathouse, KRSR and Patrick Devine-Wright, Placewise

Sciencewise Dialogue and Engagement Specialist (DES):

Lindsey Colbourne (and Alison Crowther)

Costs:

Total cost: £788,000

Sciencewise funding: £381,000

Stated objectives for the project

Objectives of the deliberative dialogue

The dialogue sought to understand:

- What range of policy measures proposed by Government are more or less attractive to people and what mix of incentives, regulation, information and advice, or other measures may tip the balance for them to take up or support various options (on energy efficiency / heat / renewable energy) at these different levels:
 - as individuals and households
 - · as neighbourhoods or wider communities (towns or local authorities)
 - · as citizens engaging with the issue nationally
- 2. Whether there are alternative measures that they suggest that would meet DECC's policy objectives
- 3. How people view the inter-relationships between decisions in relation to their homes and communities, and wider national debates and/or policy interventions.
- 4. How people view the inter-relations between energy efficiency, heat and renewable energy e.g. what sort of disruption are householders willing to endure and at what price
- 5. How this differs by income group or social class how do their views differ by property type, or by the kind of neighbourhood or community they live in?

The findings were intended to inform:

- The policy levers/delivery mechanisms that Government was currently proposing in order to encourage uptake at household and community level
- The scale of the targets that might be achieved at household / community levels versus savings made through large-scale delivery.
- The overall policy narrative and context in which these interventions should be made.

Innovation / good practice in process

 The Secretary of State (Ed Miliband) and Minister (Joan Ruddock) were both fully involved in very high profile ways, including producing video messages and attending events, from the beginning and throughout. • There were extensive and positive relationships between the project partners and a wide range of stakeholders. Formal links were established through the formal oversight panel - the Energy Engagement Working Group (EEWG), which was convened by COI. This group had 26 members: 10 from government and 16 others (including NGOs, local government organisations, government agencies). The EEWG advised on materials for public participants as well as links to policy and to parallel engagement activities with business and the public sector. The inclusion of external stakeholders on this group was unusual, and was welcomed by government policy makers as well as external stakeholders.

"Just to have external members on [EEWG] was so radical whereas now I think everyone would be quite relaxed about it. Just by doing it, it was breaking ground." (policy maker quoted in evaluation report, p34)

In addition, there were extensive one-to-one contacts between the DECC project manager and about 50 other stakeholders (evaluation report p12)

 There was clarity of purpose and scope. The crucial factor in making public dialogue successful was seen to be:

"Having a serious policy question you want answered - a purpose. Which is not that common. You need a good vision for doing it, not just do it because it's nice" (interview for this evaluation study)

- There were clear links to related parallel policy developments. Close links were established
 and maintained with formal consultations on the Heat and Energy Saving Strategy, and the
 Renewable Energy Strategy, which allowed a clear route for findings from the dialogue to
 be fed into those systems.
- The four stage process allowed participants time to develop their knowledge of the issues and discuss the implications with each other before coming to conclusions. It also gained participant buy-in to the whole project (interview for this evaluation). In addition, the stages provided some very different activities to develop and deepen understanding and views. In total, 120 public participants were involved in 9 neighbourhoods in England, Wales and Northern Ireland. The stages were, in summary:
- Event 1. Full day event in the local area. Discussion about new low carbon and renewable technologies and energy efficiency ideas. Participants discussed which technologies or measures would work best for their homes and neighbourhoods.
- Event 2. A 'disaggregated' event where different participants carried out different tasks.
 Some participants showed Ipsos MORI how they use energy in their homes and these interviews were filmed. Some participants visited low carbon exemplars, some interviewed neighbours, and some completed an energy diary reflecting on their homes and behaviour.
- Event 3. Full day event in the local area. Discussion of the different options for supporting
 the Big Energy Shift. Participants discussed their opinions on the best course of action at
 the individual, community, regional and national level, the possible role of the
 government and the underlying principles and values of the approach that the
 government needed to adopt.
- Event 4. Three participants from each of the nine areas attended a final event in London to discuss their recommendations with stakeholders and policy makers.

Event 2 activities, especially the visits and going back into people's homes and communities for real, worked especially well to increase knowledge of the options and the level of engagement in these activities demonstrated high levels of interest and commitment from participants. Event 3 worked very effectively to enable final discussions, agreement and presentation of the conclusions. Stakeholders at Event 3 were largely locally-based and working in very practical ways, which was valued by participants. Event 4 was considered less successful as there were too few public participants to stakeholders, which changed the dynamic of the event and reduced the presence of the public voice at that stage.

- Participants found the information they were given very useful, especially the information booklets which people continued to refer to even after the end of the project (evaluation p15).
- There was a strong emphasis on communications during and after the project including a website which was well-used by participants initially and was important to establish the scale and status of the project. The website included information about the project, some of the information materials used at the first events, questions from participants at the public events which were answered on the website by stakeholders, videos from the in-home interviews and site visits, and project reports.
- There were excellent communications at the end of the project, both to participants and other stakeholders. A summary of the conclusions of the Citizens' Forums was produced and circulated in April 2009, before Event 4 (to inform those discussions), and the full project report was posted to all public participants and emailed to all 50 policy officials who

had been in touch with the project, and all other stakeholders. Both project reports were published on the Big Energy Shift website. The findings have also been communicated through conference presentations including at the 2009 National Energy Action conference. Specific briefings were also given to senior DECC policy makers.

"Well, I was glad to have the report so that I could read through what everybody thought of it, you know? Usually if you go to something like this here you never hear of it again." (Householder, Lisburn, quoted in evaluation report, p36)

• The excellent communications continued after the end of the project. A letter was sent to all public participants signed by the Minister (Joan Ruddock) to inform them about the Low Carbon Communities Challenge, and let them know that their input had been used to design that new initiative. All policy makers and external stakeholders were also informed of this new development. The letter to the public participants said the Challenge was going ahead "as a direct result of your contribution to the Big Energy Shift. We are grateful for your help."

"I was delighted something good has come about because to be quite honest you sort of came away thinking this is probably a waste of money. So it's great to know that they're now taking action, they're doing something about it." (Householder, Lisburn quoted in evaluation report, p32)

 There was a very open, flexible and collaborative approach between the DECC project manager, the delivery contractor and Sciencewise, which allowed for a positive and constructive working relationship that could deal with problems easily and quickly.

"The team of people who worked on the project were part of the reason it was so successful – we had that free ability to talk about how to do it." (interview for this evaluation study)

There was an explicit focus on innovation in the design and delivery of the project, so that
the development of public dialogue could be continued, and all those involved learned from
the experience.

"It's a learning process for all practitioners with discussion and debate around the right way of doing it. The more I do the more I feel empowered to talk about the best way of doing it. And the opportunity of working with Sciencewise and people from different backgrounds was great." (interview for this evaluation study)

 A formal 'wash-up' meeting was held after the end of the project and when the draft evaluation report was available. This meeting brought together DECC, the delivery contractors, the evaluators and Sciencewise, and identified and agreed what worked well and less well in the process, and the impacts overall of the project. This meeting helped those involved share, agree and consolidate learning in the team, and capture that learning for the future.

Challenges / new lessons learnt

- Scoping and timing needs to be carefully managed when feeding into a broader strategy document - in terms of co-ordinating timing and also the extent to which options considered are constrained by statements elsewhere (interview for this evaluation study).
- It takes time for public participants to digest new information and use it to come to
 conclusions. The balance between information giving and discussion needs to give
 sufficient time for discussion among participants before they are asked to come to
 conclusions or give answers.
- It is important that facilitators are seen as independent of any particular views on the subject under discussion and that their role is very clearly to manage the discussions to get the maximum benefits for the process and for the participants. This affects the extent to which facilitators actually give information, and answer content questions, which may need to be strictly limited so they are not perceived to be subject experts but are understood to be there to make the process work.
- Stakeholders may question the validity of the results of dialogue if they feel the sample is
 too small (e.g. in this case the overall project was seen to be sufficiently 'large scale'
 although Event 4 was not) and the participants are not 'typical' (e.g. in this case that once
 the participants were 'informed' they were no longer typical). Attending events with the
 public increased stakeholder trust in the findings (especially Events 1 and 3 in this case).
- The input by a few stakeholders (not more than 2-3 in an event of 30 public) in the
 development of conclusions by the public (as in Event 3 here) seems to be more effective
 as a process of co-creation of ways forward than development by a few members of the
 public with large numbers of stakeholders and policy makers (as in Event 4 here). The
 latter approach was less trusted by stakeholders as well as being challenging for public
 participants.
- Scientists and other expert speakers will ideally participate in the whole event at which
 they are speaking, and not leave immediately after their presentation or other input.
 Experts leaving early can lower the status of the event in the eyes of participants, and
 affect their motivation and commitment.

- The quality of small group facilitation needs to be consistently high. To ensure that the full range of views is heard and recorded, it is essential for facilitators to ensure that discussions are inclusive (and as many participants as possible encouraged to speak). There also need to be effective methods to record participants' points systematically and transparently, and to build shared sense-making during the discussions so everyone is signed up to the results. It is a waste of valuable resources if the full range of views in the room is not expressed, and if what is expressed is not fully and effectively recorded (evaluation report, p47)
- A safe environment enabling open discussions, and efficient logistics, are needed. Providing participants with a detailed programme, and briefing them about what they will be doing during the event (induction into their role, and the roles of others involved such as facilitators) helps them understand the shape of the event and what is expected of them. The friendly and informal atmosphere was crucial to participants relaxing and enjoying the experience, and contributing fully. Also, good timekeeping and logistics are vital throughout to ensure that events are seen by all involved to be important and organised, and to maintain energy and focus. This also affects the extent to which participants and stakeholders feel respected and valued and are able to fully contribute.
- When there are a lot of issues to cover in a relatively short time, it is important that
 facilitators give sufficient attention to 'bottoming out' views and resolving the issues as
 much as possible, and do not focus exclusively on covering the territory in full.
- The positive and upbeat tone of the final report seems to have added to its influence on policy makers.

"That had huge influence because suddenly everyone thought 'Aha, [the public] are all behind us'. It had a very big influence on special advisors and senior officials, a sort of subtle 'We can do this'. The message was if you talk to people actually they're behind you'."(Policy maker quoted in evaluation report, p36)

• Evaluation interviews continue the engagement process and continue participants' sense of being listened to and taken seriously (evaluation report).

Specific impacts

Impacts on policy and policy makers

 The Big Energy Shift dialogue fed directly into the development of the Low Carbon Communities Challenge (LCCC), which is investing £12 million over two years in 22 pilot communities who will test a range of energy developments in different types of communities. The LCCC was launched on 28 September 2009 by the Secretary of State (Ed Miliband). The Big Energy Shift was one major element in the development of the LCCC.

"How far dialogue leads and how far it runs along with what is happening is uncertain. Big Energy Shift might not have caused all the impacts, but it certainly helped." (interview for this evaluation study)

 The project has ensured that public dialogue has become much more important to DECC and how they achieve their objectives.

"Pretty much everything will have to change over a period of time and if we're going to do that then sensibly we need to know to what extent we can bring the public with us. We can't just do it ourselves. The public are part of it." (Joan Ruddock MP, Minister of State, Department of Energy and Climate Change)

"On policy - it created quite a stir within the department and it entered a bit into the DNA of DECC" (interview for this evaluation study)

- The findings of the project are reported to have fed into the following policies, as have the credibility and partnerships developed during Big Energy Shift (evaluation report p37):
 - Trials of pay-as-you-save.
 - The roll out of smart meters.
 - The **Renewable Energy Strategy**, particularly public engagement around large-scale renewables and the 'green challenge'.
 - The Heat and Energy Saving Strategy, particularly the case for pilots and learning on the ground
 - DECC's public sector announcement because the findings from the householder dialogue were used to argue the need for a strong set of announcements.
- Policy makers learnt new and different types of communication approaches that would be effective with the public.

"The video, the initial presentation was quite interesting, because participants actually seemed quite shocked at the information they were being given. Yet obviously all that information had been in the public domain already. My assumption was that it was the mode of delivery i.e. from a more trusted source. They had a cabinet minister speaking directly – it was through a video, but you definitely got the sense that it was addressing the

group. So I suppose a newspaper with climate change scare headlines doesn't necessarily carry the same effect as Ed Miliband and a presentation. It gave me an idea of how delivery methods actually will change the impact of what's being said – it was quite clear that this message may as well have been quite a new message on the seriousness of climate change and the figures." (Policy maker quoted in evaluation report, p41)

• The project confirmed to DECC "the willingness of citizens to accept and play a part in step changes in energy production and consumption" (evaluation p46), and that contact with the public can be positive and constructive.

"[The main benefit was] Our confidence to be more transparent. It can take you down new directions ... it is pointing us in directions we hadn't thought of. Climate change is so complex that you can only start talking about it from where people are at." (interview for this evaluation study)

Impacts on public participants

- Confidence among participants in whether the public views from this project would make a
 difference to government policy grew from 58% thinking it would at the beginning to 79%
 after Event 3. Confidence was affected by the cost and effort involved in the project so
 "they're bound to be guided by it to a certain extent", the presence of Ministers at events so
 "you do feel that you were actually sending a message directly to the Government and that
 it's being listened to", and that the Big Energy Shift depended on public buy-in so they had
 to listen (evaluation report, p31-32).
- 99% of participants said they had learnt something from the project (after Event 3). They
 had found out about technologies they did not know before, how technologies worked,
 where to go to find out more, and payment options and delivery methods (evaluation
 report, p27 and annex pix).
- 89% of participants said, after Event 3, that their attitudes had changed including becoming
 more interested in the technologies. Taking part also overcame concerns and increased
 the appeal of some (although not all) technologies (e.g. those who were positive about
 wind turbines in their community rose from 8% to 45% by the end of Event 3). It also
 increased understanding about the environmental consequences of energy use.

"After the actual event, when you go past this kind of stuff, you think 'oh yeah'. It was something that you'd probably go past and you wouldn't even be interested in, those wind pipe things. But now you look because that's something that we discussed. It is a bit more interesting because we know a bit more about it." (Householder, Harrow quoted in evaluation report p28)

"All this environmental information, you don't really listen to it to be honest with you – it took something like that to sort of waken me up to it." (Householder, Lisburn quoted in evaluation report p30)

"When you're forced to think about it over a period of time like that, for whole days at a time, it does bring it more to your mind." (Householder, Harrow quoted in evaluation report p30)

- There was a significant increase in the numbers believing that individuals should be responsible for technologies in the home (up from 49% at the start to 70% at the end of Event 3), and that communities should be responsible for technologies in their areas (up from 47% to 62%).
- Evaluation interviewees reported making small changes in their own energy use, such as switching off lights, turning down the thermostat; some were also thinking about larger changes.

"I'm going to be moving in the next year or so and it certainly changed my view on what I might look for. I don't think that energy saving gizmos or the way that the place is built necessarily would have been a factor in my choice, but I think it would be now." (Householder, Harrow quoted in evaluation report p30)

· Some had discussed the project and the information with family, friends and colleagues.

"[I spoke to] friends, family, my work colleagues, because I come away after the very first visit and I was really really enthusiastic about it. I really was and I'm not just saying that!" (Householder, Cardiff quoted in evaluation report p30)

Many participants would like to take part again as a result of being involved in this project.
 They valued learning something new, having their say and some influence over important issues, and the social interactions (evaluation report p33-34).

"That was my first time taking part in something like that, but it wouldn't be my last. I was impressed about the whole thing. I went 'this might not be too much fun', we were there six or seven hours. [But] each one of the days, it was very, very informative, you weren't bored, or anything like that. You got on with it, everybody was in the same team, everybody

was motivated. It was a good day. When it was over, you went, 'oh, well, a bit more of that would do'. It was hours well spent. I enjoyed myself." (Householder, Irvinestown, evaluation report p34)

• By the end of Event 3, 98% believed that consulting the public on these sorts of issues is important (evaluation report p32).

Impacts on scientists / experts / stakeholders

 Stakeholders involved gained a better understanding of how public dialogue worked and could be used in future.

"I just appreciate how useful it is because I haven't been involved in one before." (Policy maker quoted in evaluation report p33)

"It has opened my eyes to the possibilities." (Policy maker quoted in evaluation report p33)

"This was genuine engagement – the amount of noise in the room, the way people across the whole room would participate, absolutely no holding back. Giving up a whole Saturday – it's absolutely incredible!" (External stakeholder quoted in evaluation report p33)

- Positive feedback can help build personal reputations and careers. In this case, feedback within DECC was very positive, both about the process and its impacts (evaluation report p33)
- The evaluation found that one NGO intended to adjust the way that they work, having found out from the Big Energy Shift that simply offering technology at no cost is not enough to motivate householders to take it up.

"I have thought for a while that if you could find a method of ensuring that there was nil immediate cost to the householder, that that would make people do stuff. Clearly that is not the case. We need to do more." (External stakeholder quoted in evaluation report p38)

- New and stronger networks were established between stakeholders and government, including starting to consider each other as 'allies' (evaluation report p46).
- The dialogue challenged stakeholder assumptions including the emphasis given by the
 public to the government's role in regulation, and the need for extensive support if people
 are to install new technologies in their homes.

Sources used for analysis

- Evaluation of the Big Energy Shift. Final report by Kathryn Rathouse and Patrick Devine-Wright, December 2010.
- · New interviews for this evaluation
- · Notes from the wash-up meeting held on 12 November 2009.

Name and date of project

FORENSIC USE OF DNA

Topic and purpose: Citizens' Inquiry on the forensic use of DNA, and the National DNA Database.

Timing:

- * Initial idea discussed 2005; detailed planning from 2007
- Dialogue events: 13 weeks from 26 January to 6 April 2008
- Findings presented to HGC: May 2008
- Publication of reports (including evaluation report): July 2008
- HGC report: December 2009

Commissioning department / agency:

Human Genetics Commission, commissioned by Department of Health

Key other partners:

Wellcome Trust, ESRC Genomics Policy and Research Forum, Sciencewise, PEALS (University of Newcastle)

Contractor:

Bano Murtuja, Vis-a-Vis consultancy

Evaluator:

Dr Max Farrar, Leeds Metropolitan University

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs:

Total cost: £100,000
• Sciencewise £50,000
• Wellcome Trust £30,000

• ESRC Genomics Forum £5,000

• HGC £15,000

Stated objectives for the dialogue

The aims for the dialogue, established by the working group, were:

- (a) Broaden the range of informed views and concerns that can feed into policy-makers' strategic decision-making.
- (b) Provide a good foundation on which to build an ongoing plan of dialogue and communications activities in this area of policy.
- (c) Increase awareness among all stakeholder groups, and diverse publics, of the challenges, opportunities and uncertainties of the use of DNA for forensic purposes, particularly social and ethical issues.
- (d) Encourage a two-way dialogue and mutual learning process between researchers, policy-makers, other stakeholders and diverse publics.
- (e) Make demonstrable to people, especially those from parts of the population who may be particularly affected, that the public's informed views and concerns have been heard by policymakers, even on issues not directly connected to the use of DNA for forensic purposes.
- (f) Contribute towards a long-term increase in the involvement of the relevant actors in the use of DNA for forensic purposes in public engagement and dialogue.

The evaluation report concluded that, although not all the aims had been met at the time of the evaluation, it was likely that the dialogue had created a good foundation and that all these aims were likely to be met over time as a result of this dialogue process.

Innovation / good practice in process

Involved a 'diverse' group rather than aiming for demographic representation, with overrepresentation of some groups who may otherwise not have been heard but who may be
disproportionately affected by the issue. The scale (30 public participants) and recruitment
worked well to 'get a feel for where citizens were coming from', rather than being fully
representative of the views of the general public:

"We made a deliberate decision to recruit a diverse panel with significant black and ethnic minority membership so we could hear from a wide spectrum of people and especially those whose opinions are not often heard." (Alice Maynard, Chair of HGC working group, quoted in HGC press release 29 July 2008)

 Facilitators created a highly productive atmosphere for discussion in a potentially fraught situation given the mix of participants: "Anyone involved in multicultural education knows how fraught issues of racism and difference can be during the learning process; for all the progress made in the past 40 years, the injustices arising from perceived difference can still wound a group and strangle learning. The opposite of this seemed to be taking place during the panel sessions I witnessed. The pleasure in lively debate, the respect for diverse opinions, the intelligence and confidence that were displayed by all the participants really was a joy to behold. Vis-à-Vis's gifted facilitators deserve much praise for creating such a productive environment." (Evaluation report, page 17).

Quotes from citizen participants in the evaluation report included "We were inspired by the facilitators – their delivery was superb" and "The mix of faiths, ages and backgrounds was well organised – this was the best thing."

The evaluation report concluded that "The discussions had transcended race" (page 15).

- The participants met in two small groups, one in Birmingham and one in Glasgow. They
 each met on 5 evenings over the course of dialogue, plus two regional visits to engage with
 affected groups and policy makers (respectively). Two weekend residential meetings were
 then held to draft reports. This depth of engagement produced strong group relationships
 and thoroughly debated findings.
- The dialogue was co-designed with citizens; participants selected the experts they wanted to hear from, and the visits they wanted to make:

"We shaped the sessions, deciding on which experts we wanted." (Citizen participant, quoted in the evaluation report).

- Meetings of the two groups took place simultaneously, with live video links. In spite of some initial technical difficulties, this worked very well to help groups learn from each others' deliberations and experts.
- The groups took evidence from 11 different experts; 14 additional experts gave input as members of the advisory group:
 - "...the project has provided a node through which a variety of relevant actors have been linked (e.g. individual citizens, professionals working in various related disciplines, HGC, government officials, public dialogue specialists, research bodies and academics)." (Working group member quoted in evaluation report, page 16)
- Focused on dialogue with the public (with experts and the working group) rather than dialogue of the public with experts and policy makers present and observing.
- Evening inquiry sessions were held in front of a small audience of other interested people (an open invitation was made to members of the public to attend), which contributed to openness and transparency.
- The facilitators used a wide range of methods to keep participants interested and enthused, including cards, mapping, audio records, role play, and establishing a Facebook group for the project.
- The small groups (total 30 participants at start; down to 25 at end) meant this was a very cost effective approach that provided good results for HGC over the short timescale:

"Brilliant job on a shoestring ... quite stunning to achieve all that". (Interview for this evaluation study).

- The Citizens' Inquiry produced its own report, and presented its findings to an open plenary session of the HGC, May 2008.
- Citizen participants attended the media launch events organised by the HGC to present their own findings, and a number of Inquiry panel members were interviewed by national and regional media.
- All final reports were published on the HGC website, in July 2008, for maximum openness and transparency.
- Co-ordinated media launch at local and national levels, which gained significant publicity.
- · Independent evaluation, against stated objectives, completed and published.
- Plans for further evaluation, commissioned by HGC, to review the impact of the whole
 project in relation to policy development.

Challenges / new lessons learnt

- Need to avoid being over-optimistic about citizen commitment to weekly inquiry sessions, although there was not an excessive drop-out rate in this case (from 30 to 25 over the whole period).
- Need enough time at the start to reach diverse communities (took longer than expected), and to allow time for effective advisory group input.

- Need for tight (and right) specification for contractors delivering the process, specifying deliverables including level of analysis and reporting required.
- Need to clarify and agree understandings of methods to be used and results sought (e.g. consensus, numbers). Can lead to conflict if philosophies, expectations and requirements (from different funders) are not clarified early. This process required the development of a formal Memorandum of Understanding, and intellectual property licences, which did require legal advice:

"Philosophical differences between partners was quite an interesting tension and dynamic ... could have benefitted if more open and honest." (interview for this evaluation study).

 Need to be clear about the limits to the process chosen, the questions you are asking and the outcomes sought, so can get out of it what is wanted by the different partners and the outputs are produced in a way that is most useful:

"We allowed participants a lot of scope in defining the issues and got a report out of it written very much in their own words, so it wasn't necessarily easy to map this onto the policy questions we wanted to answer. There are two approaches really. You either define the scope but get less authentic answers, or you let participants define the scope but get answers that don't necessarily fit easily, which is what we did. There is no perfect way of doing it but the virtue of doing it the way we did was that you get an understanding of the language and values through which the participants approached solutions." (interview for this evaluation study).

- More early engagement with other policy makers (e.g. at the Home Office) would have helped focus outputs for maximum relevance.
- It is important to make arrangements early on to ensure it is possible to continue links with public participants after the dialogue is completed (e.g. getting permission to contact them, and contact details).
- Ongoing engagement with Inquiry participants "has been very difficult" (interview for this
 evaluation). Commissioning bodies may find there is a need to avoid being overoptimistic
 about participants' interest in ongoing engagement once the dialogue is over and they have
 returned to their daily lives. HGC continued to send mailings to those participants for whom
 they had contact details, and were disappointed that no responses were received.

Specific impacts

Impacts on policy and policy makers

- The results informed, shaped and added questions to the wider HGC consultation that followed this in-depth work.
- The Inquiry provided the process and information that the HGC wanted.
- It provided information on citizens' views and also why they held those views the debate behind the recommendations:

"[The Citizens' Inquiry] report gives us a rich and valuable balance of views from which the HGC can proceed to a wider national consultation before we produce our own report to Government" (Alice Maynard, Chair of HGC Working Group. HGC press release 29.7.08.

- The Inquiry had significant influence on the HGC and its conclusions on the DNA database. The HGC referred to the Inquiry in their final report (December 2009), and advice to the Department of Health.
 - "...it certainly improved the quality of the conclusions ... I don't think the Commission could have produced the report without it a lot of the evidence is to do with the way in which concerns are expressed." (interview for this evaluation study)
- Considered by the National DNA Database Strategy Board and the DNA Database Ethics Group, the National Policing Improvement Agency and the Home Office, all of whom acknowledged the Inquiry and its findings in their reports on the issues:
 - "... with the general drift of policy, you can plot the course as being consistent with the conclusions of the Inquiry. It influenced policy towards a more liberal approach on this issue." (interview for this evaluation study).
- Used as an example of good practice by the House of Lords Constitution Committee. The Committee went on to reflect some of the Inquiry's' findings in its recommendations:

In its report Surveillance, Citizens and the State the House of Lords Constitution Committee said "We are impressed by the use of this technique [The HGC Citizens' Inquiry] for eliciting informed opinions by citizens and thus helping to shape policies....We recommend that the Government should undertake an analysis of public consultations and their effectiveness, and should explore opportunities for applying versions of the Citizens' Inquiry technique to surveillance and data processing initiatives involving databases." (paras 431-432)

- The Government's Green Paper 'Keeping the right people on the DNA Database', published in May 2009, reflects some of the concerns identified in the Inquiry.
- The Inquiry raised the profile of the HGC and its work on the DNA database through media coverage of the Citizens Inquiry's findings including coverage in the Daily Mail, Independent (front page), a Guardian editorial plus Daily Express, Financial Times and Metro (London). There were also interviews on the BBC Radio 4 Today programme, and Radio 5 Live. In Scotland, there was similarly extensive coverage in the Herald, radio and television.
- The HGC view was that the Inquiry gave "much more credibility and legitimacy" to HGC
 conclusions by broadening the range of views taken into account, and therefore "in terms
 of quality and robustness":

"There are certain things we wouldn't have understood without the dialogue and it has enabled the Commission to reflect that understanding. In many ways it confirmed a lot of our suspicions about the way people would think, but we would have had no way of knowing for sure without the dialogue." (interview for this evaluation study).

The Inquiry provided a good foundation for future dialogues and communications in this field.

"We have established a basis for continuing dialogue and communications – HGC is taking the dialogue forward through the National DNA Database working group" (HGC Working Group member quoted in evaluation report, p9)

- The Inquiry strengthened the HGC's reputation "as an organisation that engages with the public" (interview for this evaluation study)
- It created awareness among all stakeholder groups and interested publics of the use of DNA for forensic purposes (evaluation report).

Impacts on public participants

- There was personal development for the citizen participants, who learned a lot about the subject as well as skills - writing their own reports, presenting to the HGC (in front of Japanese TV), questioning experts.
- Participants highly valued the process, and were more willing to participate in future as a
 result of taking part. They were very positive about the whole process, and new
 relationships were built.
 - "... the people involved are still in contact with each other ... it had a real impact on them" (interview for this evaluation study)

"the level of participation of the individuals and the support they provided to each other was one of the best things. It was clear that they had developed a lot of respect for each other and each others' views" (interview for this evaluation study).

Impacts on scientists / experts

- Increased skills and knowledge of the HGC in commissioning and managing a major national public dialogue.
- · Increased expert and partner knowledge of dialogue processes.

Sources used for analysis

Farrar, Max (2008) A Citizens' Inquiry into the Forensic Use of DNA and the National DNA Database. Evaluation Report. Leeds Metropolitan University, July 2008).

New interviews for this evaluation.

Name and date of project

DRUGSFUTURES

Topic and purpose: Public dialogue as part of the Academy of Medical Sciences programme on brain science, addiction and drugs.

Timing:

- Started detailed planning: January 2006
- Dialogue events: January to April 2007
- Report on public dialogue May 2007
- AMS final report May 2008
- Evaluation report July 2008

Commissioning department / agency:

Academy of Medical Sciences (AMS), commissioned by Department of Health

Key partners:

Department of Health, Home Office, devolved administrations

Contractors:

Consortium led by Diane Beddoes, OPM

Evaluator:

Diane Warburton, Shared Practice

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs:

Total cost: £300,000 Sciencewise: £300,000

Stated objectives for the dialogue

The aim of the public engagement programme was:

 to engage the public in a national conversation on the issues raised by the current and future use of drugs that affect mental well-being.

The objectives of the public engagement work were to:

- provide opportunities for members of the public to discuss and explore their aspirations and concerns about current and future issues related to brain science, addiction and drugs
- identify areas of consensus, disagreement or uncertainty on a broad range of issues raised by current and possible future scientific developments, and explore both initial views and changes in opinion
- inform the final recommendations made by the AMS for public policy and research needs.

An important secondary objective of the work was to:

 enable the AMS and the wider science community to increase their knowledge and understanding of public engagement and its potential for future application.

The evaluation report concluded that Drugsfutures fully met all the agreed objectives.

Innovation / good practice in process

- By including the concept of identifying areas of conflict and consensus, and uncertainty, in
 the objectives, the dialogue had a clear framework for work with the public; not expecting
 that all conflicts could be solved by dialogue but seeking to understand where there could
 be consensus, given the provision of more information and greater understanding, and
 where deep conflicts remained.
- Getting AMS Working Group members involved fully at the start of the project, including commissioning and briefing contractors, achieved real ownership of the project and its outputs.
- The public dialogue element of the full AMS Brain Science, Addiction and Drugs (BSAD)
 programme was integrated with separate stakeholder consultation and expert examination
 strands, so that the overall findings could be integrated into the final report. In addition,
 regular feedback on the emerging findings from the public dialogue was reported to the
 AMS Working Group:

"One thing that made this [dialogue] particularly valuable was that the Academy of Medical Sciences didn't treat this as a separate thing – public dialogue became an integral part of the report – so it reinforced [the] sense that it was being taken seriously" (interview for this evaluation study)

 Keeping AMS Working Group members closely involved throughout, including at least one member at each public workshop, enabled them to hear public views first hand. "It was interesting to attend the events and listen at first hand to how the public thinks aloud about these issues. Obviously, back in the Working Group we received from the contractor an edited version of findings given in headlines and bullet points – these are helpful when we see how they fit with other views on our major questions." (interview for this evaluation study)

"The thing was getting [Working Group members] along to meetings as observers in order to add an extra level of reporting, so that they could say 'I remember hearing this concern'." (interview for this evaluation study)

- A cross-government advisory group involving Home Office and Department of Health was established.
- The first stage of the public dialogue was a literature review to summarise previous public
 engagement on brain science, addiction and drugs, to identify methods, lessons and
 findings as a basis for the new project.
- Innovative methods were used including actors in a range of scenarios on possible issues, round table discussions, various types of work with experts and visible summaries and recording of participants' views.
- There was a wide range of types of events, with a public launch in London (113 participants), 19 short (2 hour) outreach workshops (146 participants) around the UK, 5 regional workshops around the UK (180 participants) each focusing on a different topic (e.g. the law, mental health), and a Brainbox two 2-day sessions six weeks apart for more in depth discussions covering all 5 topics from the regional workshops (25 participants). The iteration between these different types of events allowed for sensitive development across the programme and different levels of participation:
 - "... doing small group work and outreach groups first had value as it helped to build trust and helped us to design the public events in a sensitive manner... when we did some work with ex-addicts in Liverpool and they came to the public event we asked if they wanted to present and at the final Brainbox event they did that wouldn't have happened without the outreach. That kind of thing changes your notion of the idea of an expert." (interview for this evaluation study)

"The Brainbox where we really got a detailed in depth period of time with participants was very useful and took people on a journey ... the way in which people reframe the issue to make it relevant to their lives ... Especially with cognition enhancers – they had a struggle to make sense of it and to use the information they were given. It made me alert to not second guessing people's conceptual framework. " (interview for this evaluation study)

- Extensive efforts were made to involve 'hard to reach' groups including young people, older people, current and ex-drug users, mental health service users and carers, students, children with ADHD and their parents, African Caribbean carers, homeless young men and community groups ensured that there was involvement from all these different people.
- The very diverse range of participants provided a rich mix of views. Credibility with AMS
 policy makers was enhanced by recruiting both for representation of the general public,
 and ensuring inclusion of the 'hard to reach' groups.

"I think the engagement was successful in recruiting a good cross-section and getting people's voices heard" (Working Group member, interview for this evaluation study)

- There was a very broad range of experts including academics, policy people, drug and mental health charities, ex-drug users, health bodies. Each of the regional workshops and Brainbox events included at least 2-3 experts.
- Experts were involved in a range of ways at the workshops, making short presentations, Q & A sessions, sitting in on small group working. Often, their local knowledge helped make their scientific knowledge and technical expertise more acceptable and valued by public participants.
- The AMS attended all the regional workshops and Brainbox sessions to explain the process and how the AMS would be using the results. This approach demonstrated real commitment and helped generate trust among participants in the process.
- There was good feedback to participants, both after the end of the dialogue events (May 2007) and when the final AMS report was published (May 2008).
- There were good reports from the contractor, both on emerging findings to the Working Group and in a final report that included clear summaries of findings.
- There was a good relationship between the highly committed and able AMS project manager and the contractor, which enabled a complex dialogue process to be designed, agreed and delivered smoothly and effectively:

- "... the client was fantastic. It made a huge difference to the process that the client was really enthusiastic. His role was critical and he played it fantastically." (interview for this evaluation study)
- Good team management by the contractor enabled a wide range of skills and experience to be available to the project:

"Everyone ... in the consortium was very enthusiastic, and the client was fantastic. It actually sits in my memory as a glowing project where everything went well." (interview for this evaluation study)

 Sciencewise input was particularly valuable in the very early stages, explaining what the dialogue might be like and helping with appointing the contractors.

Challenges / new lessons learnt

- It is important to go back to participants to explain how their input has influenced the final conclusions. That needs to be built into the planning for the dialogue and time and budget allocated to it.
- It is vital to get approvals (on funding, drafts of specs for contractors etc) through quickly and efficiently, or people lose heart and momentum.
- It can be difficult to disentangle the expert and public contribution in terms of final policy
 conclusions: "some recommendations were directly influenced by public views, some were
 informed by public views and some were not affected at all because they weren't discussed
 in the dialogue" (interview for this evaluation study).
- All those involved need to be clear that the process includes a responsibility to listen to and take account of public views that are given.
- Need to be clear about the qualitative information that will come out of dialogue, and how best to feed that into the wider policy process, and plan in enough time to feed in views properly.
- Need to carefully plan how to integrate the public dialogue elements of a programme with other parts of the policy process (e.g. stakeholder engagement).
- Need the flexibility, within clear boundaries, to respond to new ideas and opportunities as the dialogue progresses.
- The public may find it easier to deal with existing issues (e.g. recreational drug use, mental health) than questions for the future:

"I sense that the engagement was more successful where we were dealing with parts such as recreational drug use and mental health. When we got to the use of drugs for enhancement we were asking them a question that was difficult to relate to. These future worlds are quite difficult to throw yourself into." (interview for this evaluation study)

- Public dialogue can be particularly valuable on controversial issues like drug use, where
 "tabloids can have a huge influence", and there can be great difficulties (e.g. taking health
 or crime as the focus) and "quite troubled political waters". This is where it is "essential to
 get public engagement" (interview for this evaluation study)
- · The costs can be assessed in the context of the wider problem:

"I think having public consultation ... on recreational drug use was very important indeed. It is one of the most serious social problems we have. The amount of money being absorbed by crime associated with drugs is staggering. If you could spend a small amount of money on public dialogue to make changes that save more money in the long run then that is key." (interview for this evaluation study)

· It is vital to consider early on how to increase traffic to any online engagement.

Specific impacts

Impact on policy and policy makers

• The dialogue directly influenced and improved the final AMS BSAD report. Participants could trace their contributions in the final report:

"You can't expect any drugs policy to have long-term success unless you take people with you. If you cut across the grain of the public instinct, it's disastrous. Engaging with people should help us devise policies which are acceptable and sustainable." Roger Brownsword, Professor of Law, Kings College London, on Drugsfutures project (evaluation report p81)

"I'm sure that it improved the report. Whilst I wouldn't say that the public engagement was anywhere near sufficient for supporting a major regulatory change in something like recreational drug use – we need a broad and ongoing conversation for that – to have done the report without public engagement would not have been sufficient." (interview for this evaluation study)

"The recommendations we came up with weren't just based on scientific evidence – there was a clear and transparent link between what came out of the public dialogue and what was in the report." (interview for this evaluation study)

"Our work has been influenced because we listened to and we learned from what was being said. We took into account the strength of feeling and the emotional weighting in the public mind." (evaluation summary)

"... public views ... provide a content to a report that otherwise would have been rather hollow" (interview for this evaluation study)

"I think it did add to the value and quality of our work. It was useful for us to be exposed to the public perception in this way." (interview for this evaluation study)

"For me there was nothing new in what resulted from the public consultation, but it was very important even to have that reassurance." (evaluation summary)

"It did make a difference, in the way we viewed certain aspects and the emphasis we placed on some areas." (evaluation summary)

"I think the recommendations were sharper as a result of the public consultation." (evaluation summary)

- One of the public priorities, on the need for research into addiction as a disease, was picked up by the AMS, and new funding of £8 million has been made available from the Medical Research Council to do that research.
- In July 2009, the Advisory Council on the Misuse of Drugs (Home Office) launched a detailed review of the safety and regulation of cognition enhancers, which was raised as a research priority by public participants in this project.
- The dialogue increased AMS openness and accountability to the public, and increased the "sense of responsibility to incorporate people's views into the report" (interview for this evaluation study)
- The dialogue achieved inclusiveness and participation, achieved a good range of views, and enhanced AMS reputation as a result.
- Drugsfutures was the first major public engagement the AMS had been involved in. Their strategic plan now includes a principle that public engagement should be integral to all new policy studies:

"It is important to look into the future; we need to know what participants' views and priorities are before decisions are made" Sir Gabriel Horn, AMS Working Group Chair (case study)

 The dialogue provided legitimacy for the AMS conclusions because the AMS approach demonstrated honesty and integrity:

"Inclusiveness and participation, yes – we got a good range of views as part of the involvement. And there is a difference between legitimation (which is politicians wanting to square this off with their stakeholders – this is about persuasion and manipulation, not honesty or integrity) and legitimacy (which is about looking for the right thing to do for the right reasons)." (interview for this evaluation study)

- It increased intelligence available on why some legal interventions do not work:
 "I think getting a feel for public attitudes is of tremendous importance. It can show up in
 sharp focus the reasons why some legal interventions don't work. There are three things
 affecting this, from the research looking at why laws don't work:
 - the regulatory side lack of resource
 - the attitudes of those regulatees who are not complying e.g. why do young people feel it's ok to file share; why does the business chose to pay the fine?
 - the possibility of external factors

Public engagement is crucial to developing intelligence around that." (interview for this evaluation study)

 $\bullet\ \ \,$ It helped the AMS to make decisions more effectively and more democratically:

"Where the decision is about aggregating people's preferences this is a way of doing that. It's a way of democratising and making decisions more effectively." (interview for this evaluation study)

Impacts on public participants

Participants reported that they learned a great deal, clarified their thinking and that taking
part affected their views on the issues: 90% of participants at the regional workshops said
they had learnt something new (100% at Brainbox), 87% at regional workshops said it had
clarified their thinking (100% Brainbox) (evaluation report p78)

Participants said they had changed their views as a result of taking part: 34% (only 22% said it had made no difference) said they had changed their views as a result of attending the event (evaluation report p38), although this rose to 45% saying they had changed their views at the Brainbox event (evaluation report p61); 50% at the Brainbox said it had made a difference to their views. Comments from participants at workshops included:

"It did, definitely [make a difference to what I thought]. I went in, read everything and thought that gene therapy was a great thing. But listening to others made me think about infringements on privacy and other issues like that" (Liverpool interviewee).

"I think it has. Perhaps it's changed my perception of people using drugs. There were one or two people I spoke to who had been addicted – they were very articulate and clever. It was interesting to meet them and to hear their experiences – it changed my views of the stereotype" (Liverpool interviewee).

"I think I look at things from a different perspective now" (Glasgow interviewee).

 The dialogue raised awareness and understanding among public participants of policy making, and the role of experts, to help create a culture of trust:

"The number of people involved is limited but it has benefits in terms of giving them an insight into policy making and engagement with experts, creating more of a culture of trust. It is always a balance between raising awareness and in-depth discussions." (interview for this evaluation)

Taking part resulted in public participants being more positive about the involvement of the
public in these sorts of discussions. 90% of participants at regional workshops and 95% of
those at the Brainbox said they were more likely to get involved in these sorts of events in
future. Also, 96% of Brainbox participants said they thought it was important to involve the
public in discussing issues like this; 91% of these thought it was very important. Comments
included:

"I think they need to do it [consult the public] more and give people more general information so they can make up their own minds" (Liverpool interviewee).

"Having more events such as this one that will improve people's knowledge and understanding of different issues" (Merthyr Tydfil questionnaire respondent)

"The public should be involved in this kind of thing" (Liverpool interviewee).

"They need to involve them [the public] more. I don't know how often they do this – it's the only one I've ever done. If you want public involvement then you have to involve a mix of real people with real views" (Liverpool interviewee).

 Almost all interviewees said they had talked about the issues at the workshops with friends and family (evaluation report p39 and p62). Comments included:

"Yes [talked to family and friends about] ... the gene therapy – when to look at the genes of someone who could possibly become a drug addict, and all the moral ethical and legal stuff that goes along with it" (Liverpool interviewee)

"I ran past friends and family what it would be like if you could be tested at birth for certain things" (Belfast interviewee).

"The main ones were the Alzheimer drugs and brain enhancing drugs – I discussed these with many people" (Brainbox interviewee).

 The dialogue stimulated significant interest in participants about the content of the events; almost all interviewees said they would like to know more about the project and future work in this area. Comments included (evaluation report p53):

"I really enjoyed the day. I would really like to know what other people thought ... [and] I'd be interested in being kept updated on the statistics and changing topics on drugs and brain science" (Liverpool interviewee).

"[Would like] General updates on what has happened since the workshop and on the issues. Also any specific information on future events or surveys" (Belfast interviewee).

"Email updates would be good, on big projects like this that are happening. A lot of people would be willing to be involved but just don't know these things are going on" (Belfast interviewee).

"It has made me more alert about the issues. If I saw something in a paper about drugs now, I would read it" (Brainbox interviewee).

The process resulted in high levels of trust that those who commissioned the process
would take notice of what the public said: 80% of regional workshop participants agreed
they would (2% disagreed) (evaluation report p43) and 55% of Brainbox participants
agreed (none disagreed) (evaluation report p66)

 The experience increased participants' understanding of people from different backgrounds and with different views from themselves (evaluation report). Comments included:

"Discussing topical issues with people who I wouldn't necessarily speak to in my normal life [was the best part]" (Liverpool questionnaire respondent). (p47)

"The cross section of people [was the best part]" (Exeter questionnaire respondent). (p47)

"Meeting new people and listening to other people" (Exeter questionnaire respondent) (p48)

"I think one of the main things is meeting a lot of other people with a lot of different views and altering my own views. It's important to hear other people's points of view" (Liverpool interviewee). (p49)

"I would definitely do it again ... The workshop was a good way of doing it – there was a mix of opinion and it was good to meet different people" (Belfast interviewee).

"Workshops like this are good. You need to sit with people, listen to their opinions and discuss it all together" (Exeter interviewee).

 Participants felt their views were important and listened to, and felt valued and respected as contributors to an important debate (evaluation report p50).

"Enjoyed debating important issues and feeling like my opinion counted" (Liverpool questionnaire respondent) (p50)

"Feeling that my opinion is of worth and also meeting a variety of people involved in these issues - either as carers, workers or people affected by mental illness" (Merthyr Tydfil questionnaire respondent) (p50)

"Being able to contribute to something as important as this" (Liverpool questionnaire respondent) (p50)

"Being involved in something of national importance and of importance to so many people today" (Merthyr Tydfil questionnaire respondent) (p50)

"Just to know what's going on in terms of research and knowing I contributed to what will happen" (Belfast interviewee). (p50)

"It was good to express my opinions as we are never usually asked" (Brainbox participant interviewee). (p72)

· Public participants learnt new skills and gained confidence (evaluation report p70).

"I don't really like speaking out in public, but when we split into smaller groups I was able to say what I wanted and then it got fed back to the main group" (Brainbox participant interviewee).

Impacts on scientists / experts / stakeholders

• It enriched academic understanding of policy making:

"I think it is terrifically important for academics like myself to be involved in forums like this ... I think it enriches my understanding of policy making." (interview for this evaluation)

 Academic institutions are keen for staff to be involved, so these types of dialogue can help status and career:

"The college is interested in us being involved in them [dialogues]. But if you were a younger academic looking for promotion it would look good on your CV. So there are incentives for younger academics and the intellectual incentive. ... a big change is being suggested that there should be an assessment of how much impact the research is having. This is being hotly debated but being involved in these kind of initiatives would be highly relevant to this." (interview for this evaluation)

 Experts and AMS Working Group members learned about public views and about public engagement, as many had not been involved in these ways before. Many became more positive as a result:

"I went around the discussion groups from one table to another – frankly I was moved by the depth of feeling I witnessed... I'm a medical man so I was partially aware of the strength of feeling about these issues, but I had really barely realised the half of it." (evaluation summary)

• Taking part resulted in experts feeling more positive about future public engagement activities (evaluation report p71).

"It's the first time I've been involved in this sort of thing ... I was a bit nervous about the sort of reception we might get. You know, you expect the public to be a bit hostile. But they weren't" (Brainbox expert interviewee).

 The dialogue provided opportunities for experts to present their work and their organisations directly to the public, and to respond immediately to dispel myths (evaluation report p79).

"I really enjoyed it. And for me it was professionally important representing [my organisation]" (Brainbox expert interviewee).

"People obviously liked the subject ... and some people saying 'I never knew that' and 'That's an eye-opener'. I suppose there is quite an amazing lack of knowledge in the general public so this was all really enlightening" (Brainbox expert interviewee).

"I was pleased that people were interested in what I had to say and in my opinions. You can clear up quite a few urban myths in this sort of workshop" (Brainbox expert interviewee).

• Expert speakers were able to learn about public engagement approaches and techniques and how they might use them in future (evaluation report p79).

"It was good to experience the workshop. It sort of set me thinking as well ... It was really interesting. I think there should be more of this type of public engagement because as far as I'm concerned it works" (Brainbox expert interviewee).

"I think the way the break-out groups operated was very interesting. I might think about that in the future" (Brainbox expert interviewee).

"I'd never really thought about it before. Even though it's very important in my work ... to get messages across to the public, I'd never been involved in this sort of event before so it has set me thinking" (Brainbox expert interviewee).

"It's a very effective way of getting down to the reality and peoples' views of the reality" (Brainbox expert interviewee).

"I was able to make a contribution while at the same time I learned a tremendous amount." (Brainbox expert interviewee).

"I was interested in some of the facilitation techniques – the use of post-it notes, for example ... It was fascinating for someone like me, a lecturer usually giving information on my home ground" (Brainbox expert interviewee).

 Expert speakers heard and explored public views, which enabled them to re-evaluate their own views (evaluation report p80).

"It helped me test my views and adjust them. I took notes all the time" (Brainbox expert interviewee).

"It's useful and sort of refreshing to get back into a sort of community forum and to hear ordinary people making their views known ... it was useful to get a sort of reality check ... Generally it's a good thing to keep in touch like this" (Brainbox expert interviewee).

Sources used for analysis

Warburton, Diane (2008) Evaluation of the Academy of Medical Sciences' Drugsfutures public engagement programme. Full and summary reports. Shared Practice, July 2008.

New interviews for this evaluation.

Name and date of project

HYBRID AND CHIMERA EMBRYOS FOR RESEARCH

Topic and purpose: Public dialogue on whether and under what conditions the use of hybrid and chimera embryos for research should be allowed.

Timing:

- * Started planning: January 2007
- · Dialogue events: May June 2007
- Findings and report of dialogue presented: July 2007
- Publication of final reports: October 2007
- Evaluation report published: November 2007

Commissioning department / agency:

Human Fertilisation and Embryology Authority (HFEA), commissioned by Department of Health

Key other partners:

Department of Health

Contractor:

Liz Sparham, Opinion Leader

Evaluator:

Diane Warburton, Shared Practice

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs:

Total cost: £140.000

Sciencewise funding: £60,000

Stated objectives for the project

The overall aim was as follows:

The aim of the Authority's consultation exercise as a whole is to examine the ethical and social issues arising from the creation of hybrids and chimera embryos for research. ... the consultation is being designed to include a public dialogue process to explore these issues in detail and to gauge public opinion and to understand why people feel the way they do. A key element of the consultation as a whole, and to some degree the public dialogue process, will be the provision of good information, raising awareness both of the consultation itself and of the scientific, legal and ethical issues it addresses. The outcome of the whole consultation, including the public dialogue elements, will inform the Authority's policy-making in this area.

The key objectives for the work were:

- To engage stakeholders in the scoping and development of the dialogue process in collaboration with the Authority and in line with the wider written and web consultation process.
- To undertake a deliberative process with a diverse set of the public which accords with the Government's Guiding Principles for Public Dialogue on Science and Technology.
- To capture, analyse and report the results of the dialogue project so that they can be
 easily understood by policy makers and can inform the Authority's policy
 recommendations along with the results of the written and web consultation.

The evaluation concluded that all the objectives were fully met by the project.

Innovation / good practice in process

- The two stage iterative dialogue process gave participants time to absorb complex scientific information about hybrid and chimera embryos, go away and think and discuss the implications, before coming to considered conclusions at the second event. In summary, the dialogue process was:
- 12 small discussion groups in six locations around the UK, with participants recruited to give a diverse set of the public in terms of age, gender, social class, ethnicity and religious views (known to influence opinions on embryo research). 106 people participated in these events, which lasted an average of two hours.
- A full day reconvened event for half the participants from each of the initial groups: a total of 44 people took part in this event.

"I think the iterative process, where you got people's thoughts first and then observed how their views changed with more information and context, was very important. Especially with these sorts of issues where people's responses are often their gut reactions, or influenced by how the media presents it." (Stakeholder Advisory Group member quoted in evaluation report p14)

• The interactive public dialogue was part of a larger consultation process which included an online and paper consultation based on a formal consultation document (this received 810 responses), an open public meeting one evening in London (153 participants), and an opinion poll which reached a demographically representative sample of the UK population (2,037 respondents). A total of 3,142 people took part in the consultations overall (including the dialogue). The mix of methods provided a lot of different ways to engage people (and opportunities for them to choose to become involved), and provided a broad range of data which allowed the HFEA to compare, integrate and triangulate views from public and stakeholders. There was also a scientific review including a literature review and consultation with key stakeholders on specific scientific issues.

"I was very impressed by how they had put the different processes together. That was quite groundbreaking I thought. And the evening public event, though [the audience] was self-selecting ... it was still very important I think. ... I think the quality [of the conclusions] is high because it was done in so many different ways. It was very thorough. I only wish this pattern could be replicated. It gives good conclusions about public opinion. ... This was a unique example of using so many avenues [of engagement]. It was done very comprehensively and I think it was a very good model for doing public engagement on these sorts of issues" (Expert speaker at open public event quoted in evaluation report

"The process worked very well, thanks to the high level of consonance of the findings. Different data fitted together well." (Authority member quoted in evaluation report p59).

A Stakeholder Advisory Group with representatives from 16 organisations was convened
in the planning stages of the project, and provided input primarily on the information
materials used with the public. The group met twice and also gave input by email. The
group included organisations with very diverse scientific, ethical and religious perspectives
on the issues, which strengthened its credibility in providing scrutiny and oversight to
ensure the materials were fair and balanced.

"You get sceptics and those passionately against, and this process helped to get them on board as they felt we were telling the whole story ... There are also benefits in having the steering group – it helps to take that suspicion away and helps to ensure that there is a full reflection of the various views in the materials." (interview for this evaluation study).

The information provided for participants was clear, well-used and understood by
participants. The separation of basic factual information provided in written briefing
materials, and the different views and perspectives given in person at the reconvened
event by a range of experts, worked very well in enabling participants to understand the
basic science and assess the diverse views without becoming confused between facts and
opinions.

"It is so difficult to provide balanced and unbiased information, to provide enough information for people to be able to discuss, but not too much so they can't take it all in. But in the end I was very impressed." (Stakeholder Advisory Group member quoted in evaluation report p14)

- The results of the dialogue project were recorded in detail at the meetings through notes taken on lap tops, and flips charts used to agree wording of the 3 most important points, and questions for the experts. The records were analysed and reported by Opinion Leader to HFEA in a series of separate and summary reports, which allowed for separate analysis of the findings from the different strands. The summary report, that drew together the findings from the deliberative research, the opinion poll, the open public meeting and the written and web consultation, was found to be particularly useful for the HFEA staff in preparing the final reports for the Authority. The HFEA prepared reports for the Authority members, based on the Opinion Leader reports. The feedback from the interviews with Authority members were that the reports were very useful and easy to use in considering and coming to their decision.
- The range of speakers at the reconvened event provided diverse perspectives from scientists, an academic ethicist, an NGO and others with views for and against the use of hybrid and chimera embryos for research. The diversity of views stimulated discussion among participants and gave them the confidence to express their own diverse views as there was no 'right' position being advocated.
- Expertise was also available at the reconvened event through the inclusion of a postgraduate science student in each small discussion group. The student was able to answer any technical questions about how science is done, so the discussion was not held up by lack of technical understanding of scientific process. In addition, participants valued listening to each others' views as much as to the experts.

"We had a student scientist on the table and any technical questions that we had we could put to her. We also asked questions of the speakers, we put all the questions together and that worked very well ... Most of the written information was useful in that you had an explanation of the terminology and so on before you went there. And obviously the speakers' presentations were very informative." (participant quoted in evaluation report p34)

"It was good to hear other people's views, and the professionals' views. Also talking to people in the teabreaks, I liked that. The scientists and other professionals would walk around and talk to us and you could have a little chat and ask questions." (participant quoted in evaluation report p34)

- The whole consultation process was open and transparent: all the background papers and
 the results of the public dialogue were published on the website prior to the Authority's
 decision. The Authority meeting to come to their final decision was held in public, and that
 decision was widely communicated. Such openness reduces cynicism and distrust about
 these types of engagement processes, and can help minimise negative press coverage.
- There was a clear line from the dialogue to the final policy decision, which made it easy to
 track the influence of the public input, and the wording of the final decision reflected the
 conclusions from the dialogue. This type of 'audit trail' helps build trust by participants and
 other stakeholders (and others) in the extent to which public views have been taken into
 account.
- The quality of the dialogue process affects the credibility of the results with policy makers, and thus the extent to which policy makers feel they can and should take them into account.

"This was the most successful consultation that I have been involved in during my five years as a member of the HFEA. I felt that it successfully dissected the strands of opinion, highlighting the differences between informed opinion and instinctive responses in the general public. It also highlighted the dangers of reliance on public meetings and responses to consultation documents - by definition these target those with a specific interest in the topic - with a reduced chance of an unbiased opinion." (Authority member quoted in evaluation report p63)

Challenges / new lessons learnt

It takes time and resources to establish and support an effective Stakeholder Advisory
Group, but this input can be invaluable in terms of the legitimacy and accountability of the
dialogue and the balance of views in the information given to the public.

"Being able to have more time [would have helped the Group fulfil its role more effectively] - though I'm aware of the time constrictions they were working under. In these situation you can always feel as if [the Group] has been set up just to wave things through..."

(Stakeholder Advisory Group member quoted in evaluation report p16)

• Effective recording and reporting processes create confidence in dialogue findings, leading to confidence in later decision making using the findings as evidence.

"They're in a much more secure position now to carry decisions out. They will be able to back up their decisions with the findings of the consultation." (Stakeholder quoted in evaluation report p15)

With careful design and appropriate information provision, even a subject as contentious
as the creation of animal / human embryos for research (on which some people have very
strong views) can be discussed calmly and productively even when there are fundamental
disagreements.

"We weren't stifled and everyone was polite enough not to talk over each other. And if it got heated we all got a chance to have our say at some stage ... it certainly wasn't intimidating and everyone was encouraged to have their say." (participant quoted in evaluation report p31)

"Even when there were quiet ones, there were people asking them questions and prompting them to speak. So everyone had the chance to have their say ... There were plenty of arguments that went on, when people had different views. I felt that all views were covered, definitely." (participant quoted in evaluation report p31)

"I felt quite relaxed to be honest with you. You could say what you wanted to say. Even though not everyone always agreed around the table, it was never intimidating." (participant quoted in evaluation report p31)

 Effective dialogue can help increase trust in public bodies such as HFEA, both among those directly involved and those they talk to during and after the project.

"To have been involved in the process reassures me and enables me to reassure others that our opinions can make a difference and that public bodies such as HFEA are interested in public opinion and do react to it. They are not autonomous megalomaniacs who make up rules and regulations for the hell of it. They are responsible and accountable." (participant quoted in evaluation report p33)

 Dialogue can help to develop awareness, knowledge and understanding that can spread more widely.

"[there are] problems with misinformation about these issues ... I think it is important to put out a clear message about what's really being done ... it is educational, and there is a trickle down effect [with the people attending then going to tell other people about it] ... I think the people who were there certainly felt empowered. And I think there would have been some dissemination through the participants [telling others about it], though there was such a small number of people involved it's difficult to say." (speaker at reconvened event).

Participants want to know about the impacts / influence of their input. Reports posted on
websites open the access to this information but individual communications with
participants are also important to demonstrate how their input has made a difference.

"Keep people informed before, during and most importantly (which is where this event has fallen short for me) after the event." "It would have been nice to find out what happened afterwards." (participants quoted in evaluation report p40)

"If they [HFEA] did listen they ought to publish a paper or a booklet justifying how they came to the decision they did given what was said at the meeting." (participant interviewee quoted in evaluation report p47)

"I'm not really clear how they [HFEA] weighed the findings of the different groups up. It would have been good to be sent something in the post to explain the outcomes and the weighting. It would have been good to have a summary of the questions, the answers our group [the open public meeting] gave and the national average, and on the basis of this how did the HFEA make its decisions." (participant interviewee quoted in evaluation report p47).

- It is important that the range of experts is balanced not only in terms of diversity of views but also in backgrounds (e.g. ensuring some scientists are against the proposition and/or looking at alternatives, and that medical uses especially cures for fatal diseases are not used to sway participants).
- The communications skills and personalities of expert speakers can to some extent affect
 the ways in which their views are heard by public participants, although it is important not
 to overstate the impacts of personality and charisma in these circumstances.

Specific impacts

Impacts on policy and policy makers

- There was a clear line from the conclusions of the public in the deliberative events and the wording of the HFEA's final decision in September 2007. The Authority's decision included the caveat that the research should go ahead only "with caution and careful scrutiny" and that any specific applications for licences to carry out such research has to demonstrate that their research project is "both necessary and desirable". This reflects the caution of the public overall, as well as the conclusion of the majority of public participants at the reconvened event that such research on cytoplasmic hybrid embryos should be allowed to go ahead in those circumstances.
- The dialogue improved policy and decision making by enabling the policy makers to access a wider range of views and therefore to create a stronger evidence base to achieve a more robust decision.

"It should ensure wider input into decisions and it should allow you to harness views you don't normally get in these processes. So I personally think it is very valuable." (stakeholder quoted in evaluation report p15)

"[The most important overall benefit from the dialogue was] Making a robust policy decision." (interview for this evaluation)

 The dialogue gave the Authority confidence in their final decision, as it accorded with informed public views and there was also a rich understanding of why people held the views they did.

"Well it definitely helped the authority come to a robust decision as it gave in depth knowledge of public opinion and the reasoning behind it. With questionnaires you don't get the rationale behind it." (interview for this evaluation study)

"[The information gained from the public engagement process improved the quality and value of the HFEA decision] because of two aspects. It shows that public opinion can be educated by appropriate presentation of the issues and, second, it gives us the reassurance that we are on the right track, and in touch with the real world." (Authority member quoted in evaluation report p35)

 Dialogue increased the accountability of decision making by opening up the process and making it more responsive as well as more transparent. "It's very important for any publicly regulated and funded science to be publicly understood. We're not doing this just because it's interesting science - although it is - we're doing it for the public good. So I was always very positive about public engagement ... it explains to the general public why it's so important to do these things. ... Apart from anything else, there are lay members on grant giving committees ... so we want them to understand what we do. And also, transparency is always a good thing." (Speaker at open public meeting quoted in evaluation report p38).

"I think the whole debate was an educational process for most people involved. It certainly was for me as a non-scientist. [It was] a reinforcement of the importance of this type of open public consultation, as a sort of educational process, and at the same time a process of accountability, when dealing with contentious issues." (Authority member quoted in evaluation report p38).

"It helped to hear people articulate strong views. It is right that we should listen to these views and that we should be seen to be listening to these views. It's part of our accountability." (Authority member quoted in evaluation report p48)

"There was nothing new or surprising but the important thing ... was about the process of accountability - showing that we were listening even when the views were well known ... being seen listening directly to public views in public, and to acknowledge those views, is important ... on big decisions like this there has to be public consultation ... Not to have done it could have been damaging to the credibility of the HFEA." (Authority member quoted in evaluation report p63)

"The nature and importance of the issues meant that the exercise was very visible and involved a lot of people. Our decision will always be met with howls of protest from some quarters, but this type of consultation helps reassure us that we have gone about making decisions in as open a way as possible." (Authority member quoted in evaluation report p64)

 The dialogue process helped policy makers reconsider plans to improve future communications with the public.

"There is a clear demand from people to know more about what researchers are doing and their plans for future work, highlighting a need for better communication about science and research from both the scientific community and ourselves as regulator" (Charles Lister, Head of Policy, HFEA, quoted in case study)

• This experience has encouraged greater use of dialogue in the future.

"I was always quite positive towards this way of working but it definitely makes you see it as a valuable part of policy making ... We have increased our level of dialogue." (interview for this evaluation study)

Impacts on scientists / experts / stakeholders

• Stakeholders learnt about the value and practicalities of public dialogue.

"It reinforced that [public engagement] is a good thing, and that we need to carry on with it against the odds and the opposition." (stakeholder quoted in evaluation report p16)

"The fact that other organisations are doing it makes it easier for us to get buy-in [for public engagement activities], both internally and externally." (stakeholder quoted in evaluation report p16)

"So actually this stuff works, and I don't mean to trivialise it, but it's not as scary or difficult as one might think ... This whole topic has been like a case study for how public engagement can work. Public opinion has come out completely in favour of something which it could have turned against. So if scientists get a chance to really explain what they're doing, they're not as scary. But at the same time it's important to respect that people have different views and give them a chance to discuss them." (stakeholder quoted in evaluation report p16)

 The dialogue increased expert / stakeholder confidence in the ability and willingness of the public to discuss complex scientific and moral issues.

"I was actually surprised by how well informed they were. Of course, this wasn't the first event they went to so they weren't just plucked off the street. They were very keen to be involved and they asked some very pertinent questions. They were really down to earth about it. They were pragmatic, not off the rails in one direction or another. So from that point of view it was an extremely satisfactory process to be involved in - it reinforced my faith in the general public. I had expected it to be more polarised than it was." (Expert speaker at reconvened event quoted in evaluation report p32)

"[I want] to say how impressed I continue to be by the way ordinary members of the public can say in a few words what an academic says in a paragraph." (Authority member quoted in evaluation report p32).

Impacts on public participants

- The project increased the willingness of participants to get involved in future: 95% of
 participants at the reconvened event said they were more likely to get involved in these
 sorts of events as a result of attending this one a major impact on potential active
 citizenship.
- The project made a major impact on understanding and awareness: 98% of participants at the reconvened event said they had learnt something they didn't know before, and 93% said it had helped them think more clearly about the issues.
- The project had a major impact on participants' views on the issues: 70% said taking part
 had made a difference to what they thought about the issues. The most influential factors
 included having in depth information, hearing the range of different views, and having the
 scientists explaining the issues personally. The trend among participants was to become
 more positive about the use of embryos for research over the course of the dialogue about half the interviewees said they felt more positive.

"It gave me a more positive outlook. I think I was more unsure before, but I became more positive." (participant quoted in evaluation report p35)

"I did change my mind, yes. Before, I was probably against it but when I learned all the facts and why [they do it] I was in agreement." (participant quoted in evaluation report p35)

• The process resulted in high levels of trust that those who commissioned the process would take notice of what the public said (evaluation report p33).

"To have been involved in the process reassures me and enables me to reassure others that our opinions can make a difference and that public bodies such as HFEA are interested in public opinion and do react to it. They are not autonomous megalomaniacs who make up rules and regulations for the hell of it. They are responsible and accountable." (interviewee from reconvened event)

"It felt genuine, a genuine attempt to talk to the public, and it felt that it was for the public good." (interviewee from reconvened event)

"I was impressed by the thoroughness of it - that they made sure they had public consensus on their side before doing anything." (interviewee from reconvened event)

- The experience increased participants' understanding of people from different backgrounds and with different views from themselves (evaluation report p32)
 - "Some of us agreed with each other and some didn't, but I guess that was the point, wasn't it?" (interviewee from reconvened event)
- Participants gained personally from having taken part in an important discussion on an important issue. Specific benefits mentioned by participants at the reconvened event (evaluation report p37) include:

"To be aware of how our government values the public view. To experience a balanced argument from the experts"

"Taking part in something that may change medical science"

"Having the opportunity to listen to the speakers on the day ... Having the opportunity to give my opinion, whether they took it on board or not. You know, it's a life experience you wouldn't normally have."

"Well, I felt part of it. I felt part of the process ... of giving my opinion. Before, I've never been part of giving my opinion - not on something as important at least."

Sources used for analysis

- Warburton, Diane (2007) Evaluation of the HFEA public consultation on hybrid and chimera embryos. Full and summary reports. Shared Practice. November 2007.
- · Sciencewise case study on the dialogue
- · Interviews for this evaluation

Name and date of project

INDUSTRIAL BIOTECHNOLOGY

Topic and purpose: Public dialogue on public perceptions of bioscience, including genetically modified organisms.

Timing:

- * Started planning: May 2008
- Dialogue events: October November 2008
- Findings presented to BERR: December 2008
- Publication of dialogue report: February 2009
- Publication of evaluation report: July 2009

Commissioning department / agency:

Department of Business, Enterprise and Regulatory Reform (BERR; now Business Innovation and Science - BIS), particularly the Industrial Biotechnology Industrial Growth Team (IB-IGT)

Key other partners:

Biotechnology and Biological Sciences Research Council (BBSRC)

Contractor:

Becky Seale, Opinion Leader, with 3KQ on stakeholder engagement

Evaluator:

Kathryn Rathouse, KRSR

Sciencewise Dialogue and Engagement Specialist (DES):

Pippa Hyam

Costs:

- Total cost: £90.000
- Sciencewise contribution £60,000

Stated objectives for the dialogue

The objectives were to:

- create greater awareness of IB amongst the public and understanding of concerns and drivers
- · draw out the relationship between IB and GM
- help build confidence in government's use, management and regulation of science and technology
- create a mechanism for drawing a wider range of NGOs into the IB-IGT process
- enable BERR and other departments to make better informed decisions on policy relating to IB, taking into account public values.

The evaluation concluded that the dialogue met most of BERR's objectives. The most successful elements were the delivery of the first two objectives, and to inform policy, with relationships with NGOs being less successful than had been hoped.

Innovation / good practice in process

- Diverse interests in the field were represented on the Project Advisory Group including Government (BERR), industry, the research council and two NGO representatives (Chemical Watch and Which?). The Advisory Group provided information sources, suggested speakers, oversaw the accuracy of information produced for public and therefore ensured the public were given access to a variety of viewpoints on IB and its uses. As a result, the information was seen to be "authoritative and credible" (evaluation report, p2).
- Expertise in stakeholder engagement was brought in early on to support and develop the Project Advisory Group.
- Participants were recruited to broadly reflect the composition of the general public in terms
 of gender, age, ethnicity, socio-economic group and/or education, and work status. This
 approach to recruitment was seen to be sufficient to provide a diverse range of views. The
 mix (and number) of public participants is important to the credibility of the results, for
 participants as well as for policy makers. The evaluation report identifies that the number of
 participants (48 in total) and the approach here worked well for the objectives of this
 dialogue, and in terms of qualitative research.

"The concern about sample size reflects a lack of understanding of qualitative research; the purpose of the project was to find out what views exist, what drives these views, and how people respond to information, not to understand the prevalence of certain views, drivers, or responses which would have required a quantitative approach. To boost trust in the findings, this could perhaps have been explained in a couple of sentences in the summary report." (evaluation report, p24)

- There was a two stage Citizens Jury approach that allowed participants time to take on board new information and learn about biotechnology, to think and talk about the issues, and to come to conclusions. In summary, the process involved:
 - One 1.5 day meeting each in Manchester and London (an evening and all the following day) with 24 people at each event. An independent scientist was present at both events to answer questions. Public participants were given basic information about biotechnology and its applications, and were able to spend time identifying questions and knowledge gaps and to ask for more information.
 - A two-day deliberative workshop with 24 of the original participants (12 from each location), Public participants heard evidence from panels of stakeholders with different views, and were able to ask questions. Time was then given for participants to discuss among themselves and come to conclusions.

"If we hadn't had such a long period of discussion we would only have had surface level impact; we would only have had the knee-jerk reactions we got at first. Also the participants wouldn't have spoken to and learnt from each other." (interview for this evaluation study).

- Information was communicated to public participants in engaging ways including 'argument cards' to provide brief scenarios with a range of views on IB, a pub quiz to introduce potentially dry concepts such as what a chemical is, and a 'true or false' game on environmental 'facts'. The potential applications of IB were chosen to be meaningful to a wide range of participants. The range of methods helped to encourage and maintain participant interest and engagement throughout.
- 18 experts contributed to the second event, covering the policy background (3), bioplastics and polymers (5), speciality chemicals (4) and bio-refineries (6). The experts represented a mix of academic bodies, industry, government bodies and NGOs.
- The participants developed their own conclusions and presented their views to stakeholders, BERR policy makers and the IB-IGT at the end of the second event.
- The final report was sent to all participants in February 2009.
- · There was an independent evaluation, which resulted in a published report.

Challenges / new lessons learnt

 It was possible to fully engage public participants in a highly technical and complex subject about which they previously had no knowledge.

"Some of the people who I got the impression didn't know a lot before the event seemed to have picked up a lot, and that was quite impressive I thought, for non-scientists to pick up as much as they did in that very short time. I was very impressed with that." (expert speaker, evaluation report, p28)

• For the public to discuss complex scientific issues effectively, they need sufficient background information and sufficient time to explore issues in appropriate depth.

"The complicatedness of this whole issue, it needed 2 days, you couldn't do it in half a day because you wouldn't have time to explain it and let people digest it and understand it and then respond to it. It's got to be that detailed, it's not a simple black or white answer." (policy maker original evaluation interview)

"If it is a complex scientific area then you need to take them through it and explain it in context in order to get decent answers." (interview for this evaluation study)

- "... if we didn't get them for two days then we wouldn't have got the depth." (interview for this evaluation study)
- If there is an insufficiently diverse set of viewpoints available to the public (to ensure that
 concerns are voiced as well as the benefits of the technology being discussed), the results
 of the dialogue may be less universally trusted as the negatives may have been
 insufficiently addressed (evaluation report). This can reduce the value of the findings for
 policy makers, who want to know how the public may react if negative arguments surface
 in the future. It can also create doubts in the minds of public participants about the process.

"It would probably have been good to have heard somebody who put a negative point of view just so we could have understood if there were any negatives. Obviously we weren't really told too many. We were told why [IB] may not be the answer for everything but as far as being detrimental in any shape, it didn't appear it was. That may be the case but we don't know." (participant, evaluation report, p17)

"It is important to have both sides represented – it would have been useful for [participants] to see us argue to check the validity of both sides." (speaker, evaluation report, p17)

New ways need to be found to engage NGOs, who may not find the dialogue topic an
immediate priority and therefore not agree to take part. It can be particularly important to
include NGOs among those who provide input directly to the public participants, to ensure
there is an appropriate balance of different perspectives:

"We didn't secure the NGOs ... to take part ... It might have been good to have more time to get the contrary view involved. We could have engaged with them, with the NGOs, before engaging with the public." (interview for this evaluation study)

- It takes time and the development of individual relationships to encourage NGOs to
 participate in issues in which they do not have an existing campaign or interest. It may also
 be useful to spell out the potential specific benefits to NGOs from taking part (e.g. early
 influence, direct access to policy makers etc). (evaluation report)
- Close involvement between the delivery team, policy makers and experts, through a well-facilitated Advisory Group, helps ensure the results of the dialogue are of value for policy and decision-makers. (evaluation report).
- Comprehensive recording gives participants and those using the dialogue results more
 faith in the findings. In this case, all small group discussions were audio-recorded (not
 transcribed) and the facilitators recorded some points on flip charts. There was also a note
 taker recording plenary discussions on a lap top, and visiting the small groups to pick up
 specific points. Therefore, not all points were fully recorded although fully comprehensive
 recording requires greater time and investment in transcription and analysis. (evaluation
 report).
- Scientists and other expert speakers value support including wanting thorough briefing
 about the format of the day and other speakers' presentations, help in setting up before
 speaking, and firm chairing to ensure equal time with others to present and answer
 questions (evaluation report).
- It is important to get the right help and advice, and the right delivery contractors, to get all the detailed planning right.

"Having the expertise of someone like Sciencewise to plan the process, get the right people involved in the Steering Group and get the materials right" (interview for this evaluation study)

"Getting the right people in who have experience in process and dealing with the public" (interview for this evaluation study)

- More time and more resources will always be useful. (evaluation report).
- Providing a summary report that reflected participants' views and conclusions in ways they
 recognise and that make sense to policy makers helped build trust in the process. Even
 participants who had just 'skimmed' the report commented that it reassured them: "just the
 feeling that people actually took notice of what we said and did go to the trouble of putting it
 all in a report" (evaluation report, p23)
- It is important that dialogues on upstream science and technology focus on the 'bigger picture', and not the detailed science within a particular field, for the discussions to be meaningful to public participants. (evaluation report p31)
- Public participants often trust information provided by independent scientists more than information from government or industry. (evaluation report p31)
- Policy makers can often gain particular value from public dialogues by attending events and observing public discussions first hand. In this case, it was particularly valuable because of the tight timescales for drafting the IB-IGT report.

"It broadened my experience, and to sit and hear the questions people had was very interesting and useful." (interview for this evaluation study)

Specific impacts

Impacts on policy and policy makers

 The dialogue helped policy makers understand the values that underpinned the public views, and therefore provided insights to guide future work on IB.

"It surprised me how much people were concerned about the environment and climate change. They find it very hard to see industrial biotechnology in isolation which is fair enough because it is all related ... We can't just focus it on specific technology issues, we are going to have to focus on the big picture otherwise people just don't get it. It's about global warming, climate change, land use and waste. We have got to put it in that context otherwise people just don't see it. We probably realized that but I think this has brought it home that that is what we need to do." (policy maker original evaluation interview)

• The dialogue helped policy makers understand the level of public knowledge on the subject, and therefore to better plan future education work.

"It has influenced us internally here by seeing first hand what the public think the issues are and the misconception, misinformation, misunderstanding that is out there. This has helped us to realise that there is a lot of work that needs to be done if we want to move this thing

forward which is helpful... We are steeped in this, we are doing this everyday and we know what it is all about so to see, to hear the public's views is quite eye opening sometimes." (policy maker original evaluation interview)

 The dialogue helped policy makers formulate future messages and to develop future communications strategies.

"The next steps will be to look at the issues of concern for the public and develop messages or research. So in terms of forming strategy going forwards it was very useful. It helped us in terms of looking at how to communicate." (interview for this evaluation study)

"The key findings will actually start shaping how to do communication. We are using academic scientists and it's got to be facts, [talking about] how it fits in their daily lives, regulations. We would now paint a more holistic picture, whereas before we would probably have said industrial biotechnology is good for you. We have a better understanding of how to tailor it." (policy maker original evaluation interview)

 The dialogue helped policy makers understand where they could use public dialogue in future.

"If you have got a specific issue that you know you are going to have problems with and public perception is an important part of it, then definitely. Not for something that is probably not controversial or the public would shrug their shoulders and not be that bothered about. But if it's something where you think [public perception] could have a big impact or be a big barrier in the future to a particular policy then I think it would be definitely worth doing this kind of thing again ... It's definitely the way that we would do something like this again." (policy maker original evaluation interview)

 The dialogue led to BERR starting to set up a group with NGOs to look at IB (interview for this evaluation study). It created a 'mandate' and space for further work, and started to build new relationships.

"We were in a better position to engage the NGOs and retailers ... in terms of opening doors and creating that space for further work." (interview for this evaluation study)

• The results informed the IB-IGT action plan for the industry to 2021, and led to a specific recommendation for further public and stakeholder engagement in future.

"Recommendation 21: The IB-IGT recommends that Government, industry [including brand owners and retailers], Research Councils, NGOs, and professional institutions should develop an effective, balanced and informative communication strategy, including stakeholder and public engagement, for IB. The strategy should utilise academic scientists to provide factual information on IB processes, regulations and fit to daily life; involve the environmental NGOs in the process; and give consideration to the consequences of indirect land use change through moving to a more bio-based economy." (Quote from IB-IGT Steering Group report (http://www.berr.gov.uk/files/file51144.pdf); via interview for this evaluation study).

- The results informed work by the Department of Innovation, Universities and Skills (DIUS; now BIS).
- The dialogue improved the policy conclusions because policy makers had evidence of public views.

"We wouldn't have known what the public would have said otherwise. It could have been guessed but there wouldn't have been evidence. It was interesting for us to sit down and listen to what the public thinks. I had never done that before. It was an eye-opener." (interview for this evaluation study).

"Clearly we wanted to have evidence-based conclusions and people can see we haven't made it up. It also reassured industry about public fears." (interview for this evaluation study).

· Public dialogue on contentious issues helps transparency and therefore helps build trust.

"The IB subject is all about GM – being more open about things like that can only be a good thing. The report showed that people don't trust the Government on things like GM so just having these conversations helped transparency from that point of view." (interview for this evaluation study)

• Dialogue can help avoid public relations disasters.

"I don't think we've had any nightmares like GM Nation, which says a lot." (interview for this evaluation study).

• The dialogue provided an opportunity to spread awareness and understanding about IB.

"[Without it, would not have been] Exposing 50-odd people to knowledge about IB – spreading the message we want to get out there." (interview for this evaluation study)

• Dialogue can work well to bring different interests in the policy making process together, including the private sector meeting with the public.

"[The most important benefit] was getting some of the companies involved and exposed to the public. They actually enjoyed it and it was very interactive. We've now got ideas going forward of having IB champions and how we could use the report to have the most impact." (interview for this evaluation study).

Impacts on public participants

100% of public participants said they had learnt something they didn't know before. 29% said they wanted to learn more. One said "once you whet the appetite..." (evaluation report, p28).

"I was very surprised because I thought it was going to be just a big yawn and a lot of it would go over my head. It turned out very interesting. To me personally it was a whole new world." (public participant, case study)

- 49% of public participants at the first event and 100% of those at the second event said they had changed their views as a result of taking part (evaluation report, p29).
- Participants trusted that their views were being listened to by policy makers. More than half (59%) thought the government would take the public's views into account (evaluation report, p23). Just over half (51%) said that the meeting had boosted their trust in the government's decisions about these issues (evaluation report, annex pvi).

"People just didn't come down just for the ten minute talk... There were people who stayed until the end, sat at the back and listened to the outcome. I thought 'Yes, they are definitely interested in what the public opinion is'." (public participant, case study)

- The dialogue stimulated interest in IB among some participants that continued after the events, and they found out more and discussed what they had learnt with family and friends. (evaluation report, p28).
- After the event, 96% of public participants thought it was very important to consult the
 public about issues like this.

"You are voted in by the people, you have got to listen to what people say sometimes [although] you might not always be able to go along with it" (public participant quoted in evaluation report, p23)

Impacts on scientists / experts / stakeholders

 Provided opportunities for scientists to develop communications skills and to try out messages directly with the public.

"Because I do press work as well as broadcast, I really want to understand how the things we were talking about worked with the general public. Getting a straight reaction to the messages, actually listening directly to the general public is a good experience." (expert speaker, case study)

- Provided an opportunity to inform the public, and hear and answer questions: "demystifying biotechnology", "providing hard facts", "allaying fears", "getting our message out" (experts, evaluation report, p26)
- Enabled experts to hear public views, fears and aspirations first hand.

"You suddenly realise why people are so scared and that was quite an eye opener for me – people really don't understand." (expert speaker, case study)

The experience helped some expert speakers overcome fears of public hostility, to the
extent that they were willing to take part in similar events in future. (evaluation report).

"I had no idea what to expect. I was worried about whether it was going to be hostile or not and that made me nervous ... I really enjoyed it actually." (expert speaker, evaluation report, p26)

Sources used for analysis

Rathouse, Kathryn (2009) Evaluation of BERR's public dialogue on perceptions of industrial biotechnology. Final report to BERR and Sciencewise, June 2009. Plus additional quotes from interviews with policy makers, provided by the evaluator, November 2009.

Opinion Leader (2009) *Public Perceptions of Industrial Biotechnology*. A report prepared for the Department of Business Enterprise and Regulatory Reform (BERR) and Sciencewise, February 2009.

New interviews for this evaluation study.

Name and date of project

NANODIALOGUES

Topic and purpose:

Four experiments on how to take forward nanotechnology research through 'upstream' public dialogues

Timing:

- * Started planning: February 2005
- · Dialogue events:
 - Environment Agency January February 2006
 - BBSRC / EPSRC May June 2006
 - · Practical Action July 2006
 - Unilever December 2006 January 2007
- · Publication of Demos report: 2007

Key partners:

Environment Agency, BBSRC, EPSRC, Practical Action, Unilever

Delivered by:

Demos in UK, Practical Action in Zimbabwe

Evaluators:

Dr Kevin Edson Jones and Professor Alan Irwin, University of Liverpool (Environment Agency experiment)

Dr Jason Chilvers, University of Birmingham (research councils experiment)

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs:

Total cost: £240,000

Sciencewise contribution £120,000 (grant competition)

Stated objectives for the dialogue

The overall experiment aimed to test a range of ideas and expectations about public engagement including whether nano could become an arena in which relationships between science, innovation and democracy are redesigned through deeper forms of social deliberation and accountability, and to move such engagement beyond 'risk management' to become a positive re-imagining of the relationship between science, technology and society.

The individual experiments each had specific objectives:

- · Environment Agency:
 - To see how members of the public understand novelty, uncertainty and regulation
 - To give a small group of the public the opportunity to contribute to shaping policy on new technologies
- · Practical Action:
 - To understand the problem of getting clean water in two Zimbabwean communities
 - To identify conditions under which nanotechnology might work for these communities.
- · EPSRC:
 - To explore the potential for public engagement with research council science
- · Unilever:
 - To assess the potential for upstream public engagement in corporate science.

Innovation / good practice in process

- This was an experiment in new methods of 'upstream' engagement, very early in terms of technological and policy development.
- Four different deliberative initiatives were undertaken under a single umbrella, which allowed experimentation in public engagement as well as the opportunity to examine different nanotechnology issues from different perspectives. The four experiments were:
 - Environment Agency: A 'People's Inquiry' in East London on nanotechnology and the environment (land remediation); 13 public participants meeting, with 12 experts, for 15 hours
 - Practical Action: A three day workshop in Harare, Zimbabwe, to explore how nanotechnology might help local communities secure clean water; 6 community reps (farmers etc) with 7 water scientists
 - The Biotechnology and Biological Sciences Research Council (BBSRC) and the Engineering and Physical Sciences Research Council (EPSRC): A three day public forum in Swindon to explore research priorities; 14 public participants meeting with 5 scientists
 - Unilever: 4 focus groups followed by a reconvened workshop in Port Sunlight (Liverpool) and London to discuss private sector science and the nature of innovation; 28 public participants and 10 scientists.

- The length of time allowed for public deliberative discussions, either in a single block of time or reconvening several times, allowed the participants sufficient time to absorb new information, reflect on it and discuss it with each other, and come to considered views.
- In the People's Inquiry, participants agreed and wrote the conclusions and 12 recommendations themselves, ensuring they controlled the outputs.
- Some participants from the Environment Agency's People's Inquiry met with key policy
 makers to submit their recommendations. Policy makers provided early feedback about the
 value of the Inquiry's contribution and how their recommendations might be dealt with.

"This provided a useful first step in engaging with the participants' recommendations and challenged government to actively think about how it could incorporate the knowledge produced through the engagement in policy-making" (Jones and Irwin evaluation, p56)

- Although overall boundaries were agreed by project teams in advance, the public were able
 to take discussions where they wanted (to some extent), and to define questions for
 scientists as well as ask for information.
- A range of innovative methods was used in the different experiments including scenarios
 from which working groups produced collages with visualisations of the way they imagined
 a nano-future, and an alternative future.
- The experiments involved the public in 'democratising imagination' through imagining the
 potential of nanotechnology rather than them only 'understanding' what they were told it
 might mean:

"Our work with both the EPSRC and the BBSRC explored the potential for democratising imagination. The [Royal Society / Royal Academy of Engineering] report spoke about the importance of the public 'realising the potential' of nanotechnology. Our aim was bigger: to involve people in <u>imagining</u> the potential of nanotechnology." (Demos, p50)

- The initiative as a whole brought together a range of organisations that had not worked together in the past, both within government bodies (research councils and Environment Agency), and with other stakeholders (private sector, think tanks and NGOs).
- Each partner produced their own report on their own experiment, allowing them to reflect on and describe their own experiences and learning. These reports were then used in the Demos pamphlet.
- The whole project was written up and published for wider audiences as a Demos pamphlet: Nanodialogues. Experiments in public engagement with science, to increase awareness and understanding.
- 2 of the 4 experiments were evaluated independently throughout (those for the research councils and Environment Agency), using methods that helped teams reflect as the work progressed as well as producing final reports.

Challenges / new lessons learnt

 Although 'upstream' in one sense, some technologies were already in use. The focus was, in practice, on finding new policy solutions for a new technology, while recognising that this may mean it is difficult to identify policy impacts.

"Upstream, where policy options have not been laid out, let alone chosen, engagement provides no easy answers. But it can ask some deep questions about how we do policy and who we involve" (Demos report, p33)

"There was, therefore, a role for broader engagement in both science and the ethical structures that surround it. This would be complicated, as one participant reflected: 'How can you decide the ethics of something that's so far removed from what it might be used for?'" (Demos, p52)

• The general public can and do care about new technologies and how their development and use is managed.

"The commitment of the participants in the people's inquiry and the sense of importance they ascribed to their roles suggests ... that members of the general public care about the governance of new technologies." (Jones and Irwin evaluation, p58)

· The public can understand and work with complex scientific and technical issues.

"This engagement has shown that, given adequate resources and access to expertise, publics can not only take on difficult issues, but work with them in ways which provide meaningful contributions to governance." (Jones and Irwin evaluation, p58)

 Different value was accorded to public engagement in science and innovation in different systems:

"In Zimbabwe, scientists saw community participation as a vital, if hugely complicated, part of what it means to do good science and engineering. In the UK, systems work against

community or public engagement ... At the moment, the gravitational pull for these scientists is towards certain sorts of innovation - marketable technologies or a narrow definition of world-beating research. We need a broader understanding of innovation, which places greater value on the needs of people." (Demos p44)

• The dialogues took account of the importance of scientists revealing uncertainty in order to be able to discuss fully with the public:

"Uncertainty is a feature of almost all discussions of technology and policy. But it is often hidden. Unlike other public engagement initiatives, our experiment began with an admission of uncertainty from all sides ... This allowed for a constructive series of exchanges, exploring how different people define and describe the uncertainties they see as relevant." (Demos, p29)

• The need for continuing public engagement as the science develops was clearly identified:

"And rather than thinking just about upstream engagement and downstream control, we should look at what goes on in the middle - between the drawing board and the end product." (Demos, p54)

"The public should be involved at all levels of the research process. Engagement, however, should be different at different levels of the research process." (Involve, p45)

• The impacts of public engagement can take a long time to be apparent, and to be seen in terms of changes in policy, especially with upstream engagement:

"If we take upstream engagement seriously, the difference made by deliberation may be hard to detect for some time" (Demos, p73)

"The fact that many of these recommendations focus on broad aspirations and concerns for the future of science in society also suggests that the public participants, like the proponents of upstream engagement who initiated these activities, see a role for the public at the strategic level of science policy ... The challenge for government is to trust the public's ability to understand and contribute meaningfully to such policy discussions, and to find ways to incorporate members of the public directly in them. These initial experiments in public engagement on nanotechnologies offer invaluable experience and learning for making possible such government-led pursuits in upstream public engagement in future." (Involve, p49)

"Many of the public participants' recommendations combine issues of science and innovation policy, economic and industrial policy, and regulatory policy, and therefore do not come in a form that can be slotted easily into existing policy processes" (Involve, p48)

- "...direct links between public engagement activities and decision-making rarely happens in public engagement on new and emerging science and technology, the outputs of which tend to address broad issues and concerns that do not fit easily into existing policy-making structures. Instead, we believe that public engagement activities are more likely to influence policy and decision-making through more subtle and indirect avenues ... a public engagement activity can inspire new debate among the public, science communities or policy communities, which in time may lead to a change in decision-making agendas." (Involve, p87)
- It is important to consider the extent to which the public set the terms of the debate, in order for the debate to have legitimacy, but that can be difficult to achieve:

"Engagement runs the risk of manipulating the public, which is worse than ignoring them. We need in the future to find ways for members of the public to set the terms of debate, in negotiating with those organisations that invite engagement. We have found it hard within the Nanodialogues to put this ideal into practice. But we recognise the need to relax control of the mechanics of engagement. A key lesson of the Nanodialogues is not that 'anything goes' but that process needs to come second. The how of public engagement should always follow the why." (Demos, p76)

* The need for new types of social research that link social science with natural science was identified:

"Social science cannot speak for citizens, but it can point to issues that demand public debate. There is room for the sort of research that reveals new issues and injects them into debate ... But we have found that social research works best when it is part of an ongoing, interdisciplinary conversation with science." (Demos. p77)

 The project identified the need for new political spaces that bring together the 'uninterested' public with interest groups:

"We are starting to see, especially in areas of medical science, the emergence of public groups who are neither disinterested nor uninterested in science ... In the future, such groups are likely to become more vocal and powerful. The challenge for institutions is to acknowledge the diverse interests that make up 'the public'; to learn from uninvited engagement, while making the most of organised engagement." (Demos, p78)

- The need for more everyday links between scientists and the public was identified:
 - "If public engagement is to become everyday, then scientists have to feel they are empowered to innovate with new forms of engagement" (Demos, p79)
- There is a need for institutional innovation so there can be more effective engagement with the public, and to tackle institutional capacity, knowledge and understanding about public engagement:

"How the findings of a public engagement exercise are received, and the extent to which they are incorporated into decision-making, depend largely on the culture and capacity of the institutions they seek to influence ... Together, institutional capacity and culture form an important part of the soil into which the seeds of public engagement are planted. Without institutional will and resources to connect with public engagement activities, they have little hope of informing the work of these institutions." (Involve, p70-71)

"It is not enough for institutions to encourage the public and scientists to talk to each other. Nor is it enough to ask the public what they think of institutions. The institutions themselves must join the project of thinking through the lessons of engagement. They must throw themselves into the mix - public engagement cannot be outsourced." (Demos. p79)

There needs to be clarity around expectations for the dialogue, especially that there will be
a need to interpret what the results mean for commissioning bodies' own systems,
stakeholders and policy. It takes significant amounts of time to identify and agree the
parameters of the dialogue (what is within the boundaries and what is outside). This affects
the whole framing of the dialogue, as well as the breadth and content of any information
materials produced to support the dialogue.

"[The most crucial element in making public dialogue successful] is that the purpose is clear - understanding why you are doing it and spreading that understanding through stakeholders" (interview for this evaluation study)

"The main thing is about the clarity of purpose. You have to have a clear reason for why you're doing it, but also a degree of focus. It's more successful to have a concrete thing to look at" (interview for this evaluation study)

- Initial decisions on the detailed design of the dialogue need sufficient discussions between commissioning bodies (and advisory / oversight groups) and contractors to ensure clarity and agreement.
- Participants want to see the outputs of dialogue (conclusions and recommendations going forward), if they have actually written them themselves, and to know how their input has been used in decision making.

"If we got some feedback saying there had been even a slight change in how things work because of something we said, then that would be a success. And even if they came back to us and said that they had listened to us but didn't agree with what we suggested, then that would still be a success, as long as they had considered it" (public participant, quoted in Involve, p64)

- The legitimacy of final recommendations will be affected by numbers and drop-out rates.
 Ways need to be found to ensure the maximum number of participants remain involved throughout.
- It is important to move corporate social responsibility upstream:

"The challenge is to move CSR upstream, so that it becomes more than an end-of-pipe addition of values. For example, this could mean that Unilever should find new ways for its scientists to talk directly with citizens ... Unilever needs to think through how its mission can be enriched, so that it represents citizen values as well as consumer benefits." (Unilever project report, Demos p69).

 Any assessment of overall costs and benefits needs to be set within wider contexts than the specific engagement:

"[It was money well spent. The financial cost] needs to be considered in the overall context of the cost of science funding in the UK." (interview for this evaluation study).

Specific impacts

Impacts on policy and policy makers

• The Environment Agency changed how they regulate nanoparticles in the environment, as a result of listening to public participant recommendations:

"The Environment Agency came up with a new approach to how they regulate nanoparticles in the environment" (interview for this evaluation study).

- Two public participants from the People's Inquiry were invited to present the outcomes of the inquiry to Defra's Nanotechnologies Stakeholder Forum (Jones and Irwin, p53).
- The Environment Agency prepared a formal response to the recommendations from the People's Inquiry:

"Our experiment showed that it is possible to develop a dialogue about a complex environmental issue with a group of people who initially know very little about it. The nature of the questions asked by the Inquiry and their focus on uncertainties and risks, the need for contextual research, openness, accountability and education shows that their input has been not only meaningful, but valuable. This 'socially framed' evidence adds weight to the existing government position on the use of nanoparticles in environmental clean-up." (Environment Agency response to the People's Inquiry, quoted in Demos booklet, p31)

- The results of the dialogues fed directly into the EPSRC Ideas Factory (held in January 2007) which considered priorities for £1.5 million research funding (Demos, p47)
- The dialogues influenced BBSRC / EPSRC thinking about their role as investment brokers, balancing demands from scientists and policy makers to allocate resources, and to consider where research agendas come from more widely. (Demos, p55)
- The results were considered by the cross-Government Nanotechnology Issues Dialogue Group, which is chaired by the Government Office for Science (GO-Science) and works to enable the development of nanotechnologies and co-ordinate government activities across departments, agencies and research councils.
- The results and learning were used by the Nanotechnology Engagement Group (NEG), a group convened by Involve with Sciencewise support, to contribute to the future interface between democracy and technology, as part of the evidence base for their conclusions.
- The dialogues produced social knowledge of real value to policy makers:
 - "...the commitment of participants through this engagement has translated into the production of knowledgeable perspectives and a series of meaningful recommendations for government. In other words, the engagement appears a considerable success in generating an impressive range of social knowledge about a difficult and unfamiliar subject." (Jones and Irwin, p55)
- The dialogue shaped priorities for funding in nanotechnology research:
 - "... the findings of the NEG, including Nanodialogues, were quite important in terms of shaping how the UK nanotechnology policy was put together. For example the first area of funding was for nanotechnology in solar energy, which was highly endorsed by the public. The same with nanomedicine." (policy maker interview for this evaluation)
- The dialogues provided genuinely fresh thinking, and powerfully highlighted public concerns:

"It leads to genuine fresh new thinking. The outputs of deliberative processes can give fresh insights." (interview for this evaluation study)

"As one member of the Environment Agency suggested following the event, participants spoke about risks in ways which have made these issues stand out in her mind." (Jones and Irwin, p55)

• The dialogues helped create more robust science policy on nanotechnology:

"There are strong arguments that public deliberation and interaction can lead to more robust science policy, particularly in areas that are intrinsically interdisciplinary and explicitly coupled to societal goals. What will be interesting to consider as more experience is gained is whether embedding public engagement more closely in the scientific process actually helps to produce better science" (Professor Richard Jones in The Way Ahead, ed Jack Stilgoe, p68)

• The experiments demonstrated the ability of the public to consider difficult issues and make a valuable contribution to policy governance:

"This engagement has shown that, given adequate resources and access to expertise, publics can not only take on difficult issues, but work with them in ways which provide meaningful contributions to governance." (EA evaluators report, quoted in Demos p31)

• The dialogue experiments opened up the issues through debate and may have increased the potential for more engagement around new areas of research and policy:

"It provided a lens through which policy-makers could see an issue differently, focusing on contexts, uncertainties, alternatives and local concerns. This often leads to further debate and opens up new areas of policy." (Demos, p33)

"At the Nanodialogues activity with the research councils in Swindon it was interesting – it raised the profile of public engagement in the research councils and laid the groundwork for further engagement.... It opened the space for future dialogue and contributed to the quality of information. And you can see this going forward into the debate around synthetic biology." (interview for this evaluation study)

- The experiments encouraged policy makers to be more transparent:
 - "...forcing policy makers to be more transparent through a process of engagement ... There continues to be a sea change within policy makers." (interview for this evaluation study)
 - "...we can comment on the contribution these activities have made to making the governance of nanotechnologies more transparent. In many senses, the movement towards upstream engagement has been an attempt to bring into public scrutiny the wide range of factors that affect the construction of science, and to expose the relationships, assumptions, and values held by those at the heart of science policy-making. In essence, to make transparent the social, political, and cultural foundations of any new and emerging science." (Involve, p92-92)

Impacts on public participants

 Participants were left with a sense of having made a real contribution to an important national issue:

"I feel lucky ... I feel like we can make some nanoscule contribution to society" (participant quoted in Demos, p12)

"The participants we spoke to conveyed a sense of importance about what they were doing" (EA evaluators report, quoted in Demos p32)

- Some public participants went on to become advocates of public engagement, including speaking at a major national event in London in June 2007.
- Many public participants learned a great deal about nanotechnology, and about research decision making, which made them more interested in science:

"Most participants felt they had learned not only about nanotechnology but also the inner workings of the Research Councils, which for some rekindled an excitement and interest in science not felt since their school days" (Chilvers evaluation, p10)

• The dialogue changed participants' views on the importance of fundamental science:

"My thinking's changed, because I did say when we were in our last group, I said that perhaps the research that's going on should be of benefit to people, like you're paying tax into things. But sitting at home in the last few weeks, I felt I'd hate to stop research that's going on ... because it's valuable in other fields rather than just beneficial to us ..." (participant quoted in Demos, p52)

Impacts on scientists / experts / stakeholders

- It changed some scepticism into some support for dialogue:
 - "I found it fascinating. I was enthused, having been a sceptic" (interview for this evaluation study)
- Scientists across all four projects learned new communications skills in the preparation and practice of talking with the public:

"One of the scientists, who had not previously engaged with lay publics in this way, had learned about how to act in public fora and about the sorts of questions and ethical perspectives that emerge." (Chilvers evaluation, p10)

"It has made me think much more carefully about how we present this work ... it has made me take a step back and consider how we think about this and how I can explain why we should be doing it." (scientist quoted in Involve, p62)

 Scientists had opportunities to consider ethical issues as well as to examine assumptions about science and how priorities are set:

"Many of the scientists (me included) who have been involved with public engagement, however, have reported that the experience is very positive. In addition to being reminded of the generally high standing of scientists and scientific enterprise in our society, they are prompted to re-examine unspoken assumptions and clarify their aims and objectives." (Professor Richard Jones in The Way Ahead, ed Jack Stilgoe, p68)

"It had a huge impact in terms of the way I think about science and how scientific priorities are set" (interview for this evaluation study).

 Scientists learned how quickly citizens got up to speed with even very complex technical issues, and were surprised at the depth of discussions among participants, their willingness to support blue skies research and to listen to scientists.

"I was very impressed by the questions that were asked. There were a number of quite insightful questions about nanotechnology. They'd really done a lot of research in some cases ... For me it was a really useful and interesting experience" (scientist quoted in Involve, p57)

"I learnt about the willingness of people to accept there is a role for fundamental science, for pushing forward the boundaries of knowledge without having an actual application in mind ... there seemed to be more trust in scientists than I had thought there would be." (scientist quoted in Involve, p56).

Sources used for analysis

Involve (2007) *Democratic technologies? The final report of the Nanotechnology Engagement Group*, by Karin Gavelin and Richard Wilson with Robert Doubleday. Involve, London, 2007.

Environment Agency (2006) 'Independent Evaluator's Report. A people's inquiry on nanotechnology and the environment', by Kevin Edson Jones and Alan Irwin, University of Liverpool, in *A people's inquiry on nanotechnology and the environment*, Environment Agency, June 2006 (SCHO0607BMUJ-E-P).

Jones, Richard (2009) 'Public engagement and nanotechnology: the UK experience' in Stilgoe, Jack (ed) (2009) *The Road Ahead. Public Dialogue on Science and Technology.* Sciencewise / BIS 2009.

Stilgoe, Jack (2007) Nanodialogues. Experiments in public engagement with science. Demos, 2007

Chilvers, J. (2006) Engaging Research Councils? An evaluation of a Nanodialogues experiment in upstream public engagement. University of Birmingham, November 2006.

New interviews for this evaluation.

Name and date of project

SCIENCEHORIZONS

Topic and purpose: Public engagement to feed into the Government's Wider Implications of Science and Technology (WIST) programme of work in relation to the Sigma and Delta scans of future directions for science and technology.

Timing:

- * Started planning: early 2006
- · Dialogue events: January to June 2007
- Publication of reports: August 2007
- Final workshop on policy implications: November 2007
- Evaluation report published: December 2008

Commissioning department / agency:

Department of Innovation, Universities and Skills (DIUS; now Business, Innovation and Skills - BIS), and Sciencewise

Key other partners:

Office of Science and Technology (now Government Office for Science)'s Foresight Horizon Scanning Centre's Wider Implications of Science and Technology (WIST) programme, and the British Association for the Advancement of Science (BA; now British Science Association - BSA)

Contractor

Consortium led by Pippa Hyam, Dialogue by Design

Evaluator:

Diane Warburton, Shared Practice

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs

Total cost: £306,000
• Sciencewise: £306,000

Stated objectives for the project

The project's primary objectives were:

- to discover views about the issues raised by possible future directions for science and technology, from a broad set of participants;
- to inform policy and decision-making on the direction of research and the regulation of science and technology; and
- to help identify priorities for further public engagement on areas of science and technology.

There were also secondary objectives for the project which related to the overall objectives of the Sciencewise programme. These were to:

- widen public awareness of the role of science and technology in shaping the future of the UK;
- improve public confidence in the Government's approach to considering the wider implications of science and technology;
- increase understanding of the value of public dialogue in shaping policy and decision—making in science and other policy areas;
- improve understanding of how to engage large numbers of people in discussions and dialogue on science and technology-related issues, particularly issues arising from new and emerging areas of science and technology;
- strengthen coherence and collaboration among science engagement practitioners.

The evaluation found that the project fully met all the primary objectives, and made a significant contribution to the secondary objectives.

Innovation / good practice in process

- The project explicitly experimented with different forms of public engagement, to test the
 effectiveness of different approaches. In summary, the project had three strands of public
 engagement which reached a total of 3,273 public participants:
- Strand 1 Deliberative Panel. A demographically diverse group of 31 people. The Panel met twice in Bristol, for a full day each time. It was facilitated, recorded and reported by the core project team. This was narrow but deep public engagement.
- Strand 2 Facilitated Public Events in science centres and community spaces throughout the UK. 18 organisations ran 36 events lasting around two hours each, involving about 842 people. These events were designed and delivered by organisers including science communicators. This was wider, less deep engagement.

- Strand 3 Self-managed Small Group Discussions run by community bodies throughout the UK, including schools, Women's Institutes, environmental and faith groups. 78 groups ran events involving about 2,400 individuals. This was the widest engagement.
- All Strands used the same information materials (an information pack and DVD) covering
 four themes: minds and bodies, homes and communities, work and leisure, and people and
 planet. The materials were colourful and highly illustrated. They presented 16 scenarios
 showing potential future uses of science and technology. All the information materials were
 also available on the website, to broaden and ease access.
- Scientists and other experts were involved in all aspects of the project, which helped build new relationships between individuals, public bodies and others who had not previously worked together:
 - A participatory stakeholder workshop in August 2006 helped develop the initial content for the information materials for the public by considering the four themes of the project, the scenarios and the science and technologies that could be discussed.
 - · An Oversight Group provided advice on the development and delivery of the project.
- A Project Board provided a formal governance structure for the project with links to Sciencewise and DIUS.
- Strand 1: the first event included input from scientists (with Q & A); more scientists
 attended the second event, including some to provide input on issues identified by
 participants
- Strand 2 involved scientists in all events, taking roles including giving input, facilitating and taking part in the discussions
- Strand 3 groups almost all included at least one person with a science or technology background.
- · Each Strand reached different audiences:
 - Strand 1 reached specifically recruited individuals with no previous interest in science and technology: the 'uninterested public'
 - Strand 2 reached the 'interested public' who already had links with science and technology
 - Strand 3 reached the 'active public' who were already linked together, mostly through being in existing local groups (although generally with no prior interest in science), and school pupils.
- Each Strand provided different methods of recording and collating public views:
 - · Strand 1 conclusions were collated by the project team
 - Strand 2 conclusions were collated and returned to the project, online or on paper, by each group organiser using forms provided which asked them to identify what participants liked and disliked about the different technologies, and what was most important to them
 - Strand 3 conclusions were sent to the project, online or on paper, by a mix of individual group members and group organisers, using the same forms as Strand 2 groups.
- Significant effort went into outreach and publicity. There were four working lunches, in
 partnership with the BA, to promote the project to potential Strand 2 organisers. The
 working lunches worked very well to generate Strand 2 activities: about 40% of the
 organisations that ran Strand 2 activities had attended the lunches. There was also
 extensive publicity through other networks to encourage involvement in Strands 2 and 3.
- A discussion paper (by Jack Stilgoe, Demos) was published for the launch to provide background to some of the contentious issues and policy implications of the project. The paper was available at the launch (at the Royal College of Art, with Science Minister Malcolm Wicks) in January 2007, and provided valuable backup to the media campaign designed to gain interest and encourage involvement.
- An enabling fund was established to provide grants to Strand 2 organisers to cover costs such as venue hire and catering. This enabled organisers to take part that may otherwise have been excluded through lack of budgets.
- There was advice provided on the website to support Strands 2 and 3 groups including
 information on organising an event, facilitation, and suggested timetables. This enabled
 those not experienced in interactive public engagement to develop their skills and
 experiment with new techniques.
- Results from all three Strands were published in full on the project website, so all input could be viewed, maximising sharing of knowledge and transparency.
- Separate reports were produced on the conclusions from each Strand, so similarities and
 differences could be identified. An overall report was also produced, collating results from
 all three Strands. All reports were published on the project website. A further report,
 integrating the results from the Sciencehorizons project with the findings from the WIST
 stakeholder engagement, was published later, and ensured findings were related directly to
 WIST activities.

- A common national framework was created that enabled the public to engage with the
 project in a variety of different ways, according to their existing interests and networks. This
 allowed for a broad range of views to be included within a common framework as well as a
 common sense of purpose n participating in national policy issues.
- The team created and provided meaningful, attractive and stimulating scenarios which enabled even those will little or no prior knowledge to engage in discussions about highly technical and complex issues raised by very new scientific and technological developments. With input from stakeholders (at the initial workshop), the project team were able to translate the 61 different areas of science and technology derived from the Foresight Horizon Scanning Centre's Sigma and Delta Scans (including advanced materials and robotics, energy technologies, nanotechnologies, networks, sensors and tracking) into four basic themes and 16 individualised scenarios. This made the issues manageable for the public, and the feedback easier to analyse.

"The material raised many issues for discussion and made the group aware of new developments. With the references to the scans there was much useful information" "Most helpful to have 'where we are now'. Liked the cartoon presentation. Certainly started off discussions and made us re-think" (Strand 3 respondents, evaluation report, p58)

- A workshop was held, after the conclusion of the project, to present findings from Sciencehorizons and the WIST project to government policy makers. The workshop attracted about 50 central government policy makers from 25 different departments, and resulted in an agreed set of priority issues for future public engagement.
- Following the concluding policy workshop, an online mapping exercise was launched (in November 2007) to identify which of the 16 themes identified in the final WIST / Sciencehorizons integrated report related to existing areas of interest and activities within government departments. The mapping resulted in demonstrating that all 16 issues were of active interest to at least one government department (interview for this evaluation).

Challenges / new lessons learnt

- Different approaches to public engagement may generate similar priorities in terms of
 public hopes and fears about new science and technologies, but the level of understanding
 of 'why' public participants hold certain views varies according to the approach used. Here,
 similar priorities emerged across all three Strands, but only Strand 1 (which used
 deliberative public dialogue) provided insights into the deeper values that underpinned
 those priorities.
- Different approaches may be more effective for different types of objectives and content.
 For example, Strand 1 worked well in addressing contentious issues with scientific uncertainty; Strands 2 and 3 worked well to generate wider public awareness and interest.
- Many participants were satisfied with the information materials provided (100% of Strand 1 and 83% of Strand 3), but the materials did not work equally well for all. It may be impossible to produce information materials that work equally well for all types of groups, of all ages, with varying levels of knowledge.

"The material was generally good and provoked discussion." "The software and scenarios were very effective in promoting discussions - which were v. interesting." "The stories were very good at promoting discussions and enabled everyone to express their opinions freely" (Strand 2 organiser, evaluation report, p40)

"Material was rather simplistic for our audience" "Inappropriateness of materials supplied was raised several times. Simplistic 'questions' on response forms seem to contradict the aim of promoting proper public debate, it was difficult to keep groups discussing likes and dislikes given the importance of the wider issues". (Strand 2 organiser, evaluation report, p41)

"We all found that trying to categorise our opinions into 'like or dislike' was extremely limiting. We would have preferred 'approve / disapprove' or 'acceptable / unacceptable' to offer us more scope for moral judgements" (Strand 3 respondent, evaluation report, p59)

- Additional effort, including precise targeting and support, is likely to be needed to
 encourage participants from black and minority ethnic, or disadvantaged, communities,
 workplace communities and other 'hard to reach' groups.
- Diversity of participants is important where the aim of the project is public engagement, but full demographic representation of the UK population may be more important if the dialogue has specific research and/or policy aims that require that type of sample.
- If there are research aims for the dialogue, it will be essential to gather sufficient statistics
 about the participants (numbers and broad demographic data such as age, gender,
 ethnicity and possibly education levels) to demonstrate diversity and broad representation
 that will, in turn, validate the results in terms of research sample.
- Feedback from Strand 2 organisers suggests that it can be difficult to attract the public to
 take part in discussions (without financial incentives) on science and technology issues that
 are so far upstream that it is not clear where controversy may exist, and there are no policy
 developments currently planned to use them. Controversy, topicality and potential influence
 work well to achieve good attendance.

- The six months available between the launch and deadline for sending in feedback to the
 project was felt by some organisers in Strands 2 and 3 to be too short to find out about the
 project, plan and publicise events, recruit participants, deliver events and return feedback
 to the project. There was a sense that momentum was just starting to really build up as the
 project closed.
- Interactive, deliberative dialogue is still relatively new. The information provided on facilitation and organising events was welcomed by Strand 2 organisers, although more in depth training and guidance was sought by some.

"Give guidance which is clearer on how events could be run - there are a lot of issues to tackle in limited time (and public concentration)" "More support could have been provided on the way of running the event on the day" (Strand 2 organisers, evaluation report, p47)

- Policy impacts, in terms of content, are likely to be limited unless there are clear policy 'homes' for the results of dialogue. In addition, impacts are likely to be limited if the relevant policy makers are not involved in framing (and, ideally, taking part in) the dialogue.
- The links to national policy development, and taking part in a national project, can be important to participants, and affect the extent to which they value the project and their involvement in it.

"Was very interested to run a public engagement session that in theory had direct connection to policy making" "Chance to be part of national project - opportunity for dialogue event" "Everyone who attended really enjoyed it and said they liked the fact that people were interested in their views and glad to express them" "[Participants] enjoyed explaining their thoughts and were interested in the government listening to what they said" (Strand 2 respondents, evaluation report, p38)

It is essential to be clear about the aims of the project. Public engagement can be used for
engagement in policy, research or education purposes. In this case, the focus was public
engagement around policy, and the research and educational objectives were secondary.

"Clear aims, clear understanding of how you intend to use or exploit findings and commitment to see that happen. Expertise in how to run good dialogue events. Credible and stimulating material to participants, adequate resources and good project management. ... I think it ticked most of those boxes ... They knew what they wanted and how results would be used – that was to pick the next topics for Sciencewise and that's exactly what happened." (interview for this evaluation study)

 Dialogue does not necessarily come up with surprises in terms of public views and conclusions. Its value can be in testing and challenging assumptions about public priorities, rather than generating completely new ideas. Some policy makers see the lack of surprises as disappointing, while some find it reassuring.

"We were hoping for surprising stuff and to spot the next GM or other big scientific issue that might cause problems. But we didn't get anything we weren't aware of." (interview for this evaluation study)

"The public dialogue was really useful and improved what we would have got otherwise in terms of the material coming out." (interview for this evaluation study)

Scientists and other experts can support and stimulate dialogue. The project showed that, ideally, dialogue involves scientists with diverse views and perspectives, from local institutions (where participants are from one locality), who are good communicators, are open and straightforward, and who recognise doubt and uncertainty. These qualities seem to stimulate and support dialogue most effectively.

"The speakers were 'hands on' and involved in the subject they were discussing and not just giving their thoughts and opinions" "Being able to talk to people on subjects in their field [was the best aspect of the event]" "The fact that experts explained new developments in a way I could understand" (participants in Strand 1, from evaluation report p27)

Feedback and continuity is vital. Although the practical problems are recognised, all public
dialogue projects should include planning for feedback to participants about the impact of
their input on policy, and continuity of contact after the end of the project.

Specific impacts

Impacts on policy and policy makers

 The project provided sufficient information, and opportunities for policy makers to come together in a workshop to agree priorities for future public engagement on science and technology, including priorities for topics for future Sciencewise projects.

"I think 8 out of the 10 topics suggested in the report went on to be used. It was used to pick the next topics for Sciencewise to fund." (interview for this evaluation study)

- · Policy makers felt the process had also helped to:
 - start public dialogue on what may be controversial future decisions at a very early stage;
 - fill a gap in the WIST exercise by bringing in 'public' views, and thus strengthening the WIST process in identifying the key safety, health, environmental, ethical, regulatory and social (SHEERS) issues relating to emerging developments in science and technology;
 - · challenge expert assumptions about what public views might be;
 - · demonstrate Government's willingness to engage with the public on these issues.
- Public dialogue can help strengthen relationships between Government and the public.

"[Public dialogue] improves and strengthens relations between citizens and the state – a relationship that needs strengthening." (interview for this evaluation study)

- The project generated significant levels of learning about the design and application of
 different public engagement methods. The project showed that similar priorities may
 emerge across different approaches but that public dialogue generates richer and deeper
 levels of understanding of why the public have certain views (including among the
 participants themselves). Other methods can be useful for spreading interest and
 awareness of the topics more widely.
- The project brought together policy makers and others from different government departments, in the Oversight Group, the Project Board and the policy makers workshop, who had not previously worked closely together.

Impacts on scientists / experts / stakeholders

- Six new collaborative initiatives were established among stakeholders as a result of the
 project involving institutions including the Royal Academy of Engineering, the Dana Centre,
 Spectrum Drama, Glasgow Science Centre, Science Oxford, the Teacher Scientist
 Network and the Inspire Discovery Centre.
- Staff in science centres and other Strand 2 organisers learnt new techniques for working interactively with the public.

Impacts on public participants

- Public participants changed their views as a result of taking part: 76% of Strand 1
 participants said being involved had made a difference to what they thought about science
 and technology; only 2% said it had made no difference (evaluation report, p27).
- Some participants (around 20% of Strand 1) felt more positive about new science and technology developments as a result of their involvement with the project.

"I thought that most of it was exciting. It is hard not to [be] enthusiastic about things that will benefit society" (Strand 1 questionnaire respondent, p28)

"Less worried about the future development of science" "More enthusiastic" "More positive about technology" "I feel more enthusiastic about science and technology" "Less worried about the future development of science" (participants in Strand 1, from evaluation report p28)

- The project generated a lot of interest and enthusiasm for further engagement on science and technology: 96% of Strand 1 participants (evaluation report, p29) and 79% of Strand 2 organisers, thought there should be more events for the public on these issues. 75% of Strand 3 respondents said they wanted to have more discussions on science and technology.
- Public participants learned a great deal: 96% of Strand 1 participants said they had learnt something, and that the events had helped them think more clearly about the issues (evaluation report p27).

"I feel more involved, knowledgeable and informed on where to find information" (Strand 1 questionnaire respondent)

- Almost half (48%) of public participants (in Strand 1) trusted government, scientists and policy makers to take notice of the results of the discussions (evaluation report, p28)
- The experience of dialogue increased participants' understanding of people from different backgrounds and with different views from themselves (evaluation report p27).

Sources used for analysis

Warburton, Diane (2008) Evaluation of Sciencehorizons. Full and summary reports. Shared Practice, December 2008.

New interviews for this evaluation study.

Name and date of project

STEM CELL DIALOGUE

Topic and purpose: Public dialogue on the science, ethics and governance around stem cell research

Timing:

- * Started planning: 2007; project launch November 2007
- Stakeholder interviews: January to October 2008
- Dialogue events: April to June 2008
- Publication of reports: at launch in December 2008
- Evaluation report published: May 2009

Commissioning department / agency:

Biotechnology and Biological Sciences Research Council (BBSRC) and the Medical Research Council (MRC)

Key other partners:

None

Contractor:

Darren Bhattachary, British Market Research Bureau (BMRB), with Demos and the University of East Anglia; initial literature review and stakeholder workshop by OPM

Evaluator

Dr Alison Mohr, University of Nottingham

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs:

Total cost: £300,000

Sciencewise funding: £300,000

Stated objectives for the project

The main aims of the project were to:

- engage the public about developments in stem cell research, in order that their views can
 be taken into account in policy development by Research Councils, the scientific
 community and policy makers;
- contribute to creating an environment across sectors and groups that will sustain dialogue
 on issues relating to developments in stem cell research and their clinical applications.

In addition to these overarching aims, six objectives were identified:

- identify the range of views and concerns about the science and ethics of stem cell research amongst the wider public and their societal context
- include scientists and other stakeholders and investigate their views about stem cell research and the related social and ethical issues, involving key organisations such as the UK National Stem Cell Network and the UK Stem Cell Communications Coalition
- raise public awareness about the potential opportunities, challenges and uncertainties of stem cell research
- raise awareness among the scientific community, Research Councils and policy makers about the views and concerns of the wider public relating to stem cell research, and of the importance of dialogue
- inform development of a plan for a longer-term project of public dialogue and engagement around stem cell research.

Innovation / good practice in process

- The dialogue process was carefully structured so that learning from each stage fed into the next stages. The research and analysis elements were designed so that data could be obtained and analysed both quantitatively and qualitatively, and involved participants in the analysis. This provided particularly robust research methods to gather and analyse the data. The process was, in summary:
- OPM undertook desk research on previous public engagement on stem cell research, and convened a stakeholder workshop in July 2007 to ensure all interested parties could input their views on which areas and topics the public dialogue should focus on, to guide scope and content.

- BMRB then ran the remainder of the process. Initially an omnibus survey was carried out
 (questions added to a regular opinion survey) to test public attitudes on stem cells,
 covering 1,013 individuals comprising a nationally representative sample. The data from
 the survey was used at the launch of the dialogue, in November 2007, and to provide a
 baseline of public attitudes to ensure that recruitment to the deliberative workshops
 reflected the range of opinions.
- 49 stakeholder interviews were completed. Recruitment was based on a stakeholder analysis which identified nine stakeholder groups all of which were covered. Data from these interviews was used for the research, and to inform the content of the public workshops.
- A three-stage deliberative workshop process with the public in five UK locations.
 Participants were recruited to reflect the demographic profile of the areas (with quotas for age, gender, socio-economic status and ethnicity) and to reflect the breadth of views revealed in the initial survey. 200 participants were recruited, around 35-40 per workshop. The workshops included a wide range of activities to encourage deliberations between the participants, and some electronic polling. In each location:
 - Workshop 1 provided an introduction to stem cells, and explored the participants' aspirations and concerns raised by the science and its clinical applications.
 - Workshop 2 involved an in-depth discussion into the social and ethical issues related to the various sources of stem cells.
 - Workshop 3 focused on the potential future applications of stem cells and the wider social implications of stem cell banks, therapies and clinical trials.
- All public participants were then invited to take part in the next stage of the analysis, and 50 usable responses were received. This was an exercise using Q methodology to sort and rank all 250 of the main statements from the workshops. The Q materials were also sent to the stakeholders and six returned responses.
- Final analysis and reporting included a full report and a summary of conclusions and findings. The reports were launched at a high profile event in London in December 2008, with speakers including the Science Minister Lord Drayson, the Chief Executive of the MRC Sir Leszek Borysiewicz, and Chief Executive of the BBSRC Professor Douglas Kell. Many scientists and policy makers attended as well as members of the public who took part in the workshops who were invited to have their say. This was a particularly influential event given the participants, and Lord Drayson made positive comments about the benefits of public dialogue for government policy makers in science.
- The deliberative workshops used a variety of stimulus materials including handouts, quizzes, interactive voting, social trend data, pen portraits and presentations from specialists in the field.
- Two different types of experts attended each workshop: one scientist and one social scientist / ethicist at each; a total of 30 academics involved. Their role was to provide information to assist the participants in their deliberations, and to engage in the process, listen to the public, and contribute to the discussions.
- An Oversight Group oversaw the dialogue process and the information materials to be used by the public. The Group had 19 members chosen to reflect a broad range of interests with an emphasis on independent voices from universities, charities and public interest groups (evaluation report p7 and 15). This Group worked well to provide specialist knowledge and to provide the dialogue with a measure of independence.
- The design of the workshop was developed throughout the process, with debrief sessions
 at the end of each event considering what needed to change in the remainder of the
 process. There was also some re-writing of the stimulus materials in response to
 participants increasing interest in particular areas (evaluation p47).
- The final report integrated the feedback from the public at the workshops and from stakeholders. It did effectively convey the complexity of the wider scientific, social, policy and ethical issues in stem cell research.

"This is an impressive achievement especially since it can be difficult to capture the range and depth of arguments around controversial topics where opinions, at first, appear polarized and predictable. The range of perspectives added nuance and specificity to the overall finding of high levels of support for stem cell research." (evaluation report p51)

Challenges / new lessons learnt

• It is important that there is clarity from the outset about how the findings from a dialogue process will be used, especially in relation to any potential or intended policy impacts. Ideally these linkages should be spelt out in the objectives for the dialogue, and in explanations to the public participants. Without this, the participants will be sceptical about genuine influence, have less trust in the process (evaluation report p8) and be less inclined to participate in future. Also, it will be harder to demonstrate specific impacts.

"It's got to be relevant ... Having the right levers - you need to be able to demonstrate impact either directly or more broadly. For example ... its not just using the results but ... being able to use the language the public use, which is powerful." (interview for this evaluation study)

Expert speakers should be selected to provide a range of views (positive and negative) on
the subject, with attention being given to the communication skills and style of the speakers
to ensure the most articulate and experienced speakers are not used to sway opinion in
any particular direction. The evaluation found that

"The participants responded more enthusiastically to animated and articulate speakers. These attributes were influential in changing participants' views on certain issues." (p9)

- It is important that expert speakers also represent a broad range of skills and knowledge (evaluation report p40). This can be especially important where the expert speakers input largely frames participants' discussions.
- There is a danger that, if there is insufficient disagreement between expert speakers about
 the pros and cons of the subject, disagreement among participants may be reduced and/or
 those who do disagree may drop out (evaluation report p51). Facilitation can reduce this
 danger, and in this case was excellent, but careful planning is needed to avoid losing
 differences of views

"In retrospect, the homogeneity of responses appears to have been shaped by the role played by experts in framing the discussion. Framing played a significant role in bounding the discussions as participants showed a strong tendency to follow and explore the main issues raised in the most influential experts' presentations. We noted big variations in the responsiveness of participants to particular experts who were more effective communicators. A number of our interviewees also noted that scientific experts were relatively more influential than social scientists and ethicists in shaping participant responses ... symmetrical dialogue can only be expected to happen if it is structured in a way that minimises the tendency for experts to slip into the 'deficit model' role of providing information as we observed at the workshops." (evaluation report p53)

- It may be particularly important for final reports to identify points of agreement and disagreement (consensus and conflict) within and between the public and stakeholders.
- In future, the focus in evaluating public dialogue may increasingly need to go beyond the
 design and delivery of the process, and impacts on public participants, and consider the
 impacts on the sponsors themselves and their capacity to respond, and the extent to which
 public dialogue can help articulate new positions on the issues (evaluation report p12).
- Sufficient time and resources are needed to ensure expert speakers are briefed effectively
 about the length of their presentations, the level of complexity that is appropriate to the
 group, and the nature of the event and how it fits with the wider process. This helps
 develop communications skills in expert speakers and supports them in providing the most
 appropriate contribution to the dialogue (evaluation report p42).
- Planning for the effective dissemination of the results of the dialogue, to ensure best use of these outputs, needs to form part of the initial detailed design of the dialogue.
 - "A pitfall of engagement activities is that they can come to an abrupt halt once their results have been published. Dissemination of the findings can be ineffectual resulting in months of effort by both the organisers and the participants being wasted." (evaluation report p44)
- With careful design and well-managed facilitation, it is possible for the public to have eventempered and productive discussions even on topics on which some people hold passionate views.

"Although a few participants repeatedly interrupted or challenged the perspectives of others in the London workshops, disagreements were rare and generally amicable for such an ethically-complex topic. Such disagreements, when they did occur, often centred on differing religious convictions or personal experiences with family members or friends. We observed little disruptive behaviour by the participants who seemed satisfied rather than frustrated with the process." (evaluation report p44)

Hearing the views of other participants is as important to participants developing their
thinking as more formal sources of information (e.g. expert input and written information).
 In this case, the value of hearing the views of other participants in affecting their own views
was ranked ahead of the value of the written information. In addition, it powerfully affects
the extent to which participants judge the process as a success.

"For participants, interaction with others in a collaborative and communicative atmosphere was a significant factor in their judgement of the success of the workshops. These responses also indicate a measure of success in this area, taking into account the relatively large proportion of people who named this factor as the most successful part of the workshop. This demonstrates that a significant proportion of participants were happy with the dialogue environment in terms of its ability to prompt meaningful discussion." (evaluation report p48)

The 'opportunity to participate' is an important aspect of the value of taking part for
participants. In this case, 90% felt it was very important to involve the public in discussing
these sorts of issues; another 9% thought it was quite important.

"The 'opportunity to participate' was clearly a significant criterion against which the respondents evaluated the success of the workshop, as evident in the first Edinburgh workshop where the participants agreed that the public should have a say about scientific issues – 'it should not be left to politics' one participant commented." (evaluation report p.49)

"The issues involve society as a whole and not just the scientists doing the research. We need to be accurately informed about the actual research and what is happening without media hype or hindrance" (a public participant quoted in the case study)

- There can be a tendency to treat public dialogue as an exercise in gathering data on public attitudes which can then be used to justify policy decisions (evaluation report p53), which must be guarded against.
 - "...the Stem Cell Public Dialogue may be viewed both by the sponsors and by publics as a way of legitimising decisions rather than a legitimate social process with an open outcome. Research council representatives acknowledged this concern and expressed confidence that a culture had been created that would help initiate further public engagement as clinical applications started to emerge." (evaluation report p52)

Specific impacts

Impacts on policy and policy makers

· Public dialogue can be a powerful aspect of the evidence base for new policy.

"The government takes public dialogue extremely seriously. In areas such as stem cell research – which are so important to this country's future – it is vital that any public concerns are listened to and acted upon." (Lord Drayson, Minister of State for Science and Innovation, at the launch of the final report in December 2008)

"Also from a PR point of view the perception people have when there is dialogue involved is quite powerful" (interview for this evaluation study)

- The preliminary results of the dialogue were considered by a workshop of policy decision makers from their own organisations, jointly hosted by BBSRC and MRC, and attended by the Department of Health.
 - "A specific thing that worked well with this project ... was the policy workshop we had around a month before the final report [was published]. We got key people in the room and discussed the main aspects of the report and potential impacts." (interview for this evaluation study)
- The findings directly informed the Department of Health's study of cord blood banking policy and practice. (evaluation report p8)
- The findings indicated high levels of support among public and stakeholders for stem cell research, although the support was highly conditional (e.g. priority for funding given to 'serious' medical conditions rather than cosmetic use, and on therapies that reflect public rather than solely commercial interests (main report p ix)
- The findings were considered by the BBSRC Bioscience for Society Panel, to identify issues for BBSRC and on which to make recommendations to their Strategy Advisory Board.
- The BBSRC were "confident that the BBSRC has developed a culture and the appropriate structures with which to feed the findings of the public dialogue into its decision-making processes" (evaluation report p37).
- Although direct policy influence is difficult to demonstrate, feedback to the evaluation suggested that "these types of events have a broader, normative utility as a rich source of 'social intelligence' that underlines the public value of science. Bhattachary sees the public dialogue as playing both a moral and practical role in the social shaping of stem cell science alongside funders and other institutional actors" (evaluation report p37)
- The MRC argued that "public engagement is a question of balance. It's about asking the
 public what they think, but on the issues where they defer to the experts, it's about acting
 responsibly on the publics' behalf and, most importantly, it's about encouraging trust in the
 process of public engagement". They said:

"One thing we have learned from our ongoing activities on stem cell research is that the way in which you become a leader in stem cell research is by being responsive to public opinion and by making sure that the things that encourage trust in the process of doing stem cell research are things like regulation and . . . trust in the scientists . . . and the ethical probity of what you are doing" (Simon Wilde, MRC).

 It was expected that the dialogue would influence the MRC's Stem Cells Communications Coalition, and therefore influence the ways in which the Coalition engaged with the public in the future (evaluation report p39) Research councils did develop a greater understanding of public views through the dialogue.

"From an organisational point of view we gained a much better understanding of people's attitudes, concerns and so on ... We certainly got a much more nuanced understanding of how the public see the whole area, as well as some generally applicable stuff about the application of science" (interview for this evaluation study)

- The report from the dialogue continues to be referred to by the research councils: "The report and the lessons we learnt are still referred to and have informed a lot of things since the project" (interview for this evaluation study).
- The dialogue enabled the Department of Health and the MRC to move forward with confidence.
 - "... it did give the Department of Health and MRC the confidence to say 'this is what the public think'. It's about making sure the confidence is there in terms of balancing science with the public point of view. It's always difficult to measure because it's about perceptions and process change rather than specifics, and that is as if not more important ... as part of the wider movement it played a crucial part in a suite of different activities. It gave us the confidence to say 'people want this but there are difficulties' ... [public dialogue] gives you confidence in the way you communicate but it can be much more than that if you do it well." (interview for this evaluation study)
- The dialogue contributed to the organisations' public image and reputation and was referred to in a range of major reports.

"We wrote up the process in our magazine and in our annual report as well as talking about it in parliament, so it was reflected throughout." (interview for this evaluation study)

Impacts on scientists / experts / stakeholders

• The dialogue worked to "socialise the expert speakers into lay discourse and alert them to the range of presuppositions embedded in the views held outside the expert community" (evaluation report p47).

"I gained a lot from listening to the views of a very diverse range of members of the public who, by and large, were very supportive of us but had a few areas where they weren't certain. I think it has allowed me to sort of set my barometer at a more appropriate point" (Professor Chris Mason, University College London, an expert speaker and member of the Oversight Group, quoted in evaluation report p47)

Impacts on public participants

 The public participants were able to take on board the information provided on these often highly technical scientific issues, and felt confident in asking questions when they needed clarification.

"The level and depth of their questioning suggests that they grasped the social and ethical dimensions of the research with some ease, but excessive scientific and technical details did prove more difficult to grasp." (evaluation report p41)

- 81% of public participants said that taking part had made a difference to what they thought
 about these issues. Most explained this by referring to greater knowledge and
 understanding of the issues surrounding stem cell research. 25% said they had become
 more in favour of, or had increased confidence in, stem cell research. For nearly half the
 participants, this learning was one of the most successful aspects of the workshop
 (evaluation report p48).
- The dialogue increased participants' willingness to get involved in future engagement activities: 92% said they were more likely to get involved in future as a result of taking part in this project (evaluation report p49).
- 99% of public participants said they felt it was important to involve the public in discussing these sorts of issues; 90% of those thought it was *very* important (evaluation report, p49).

Sources used for analysis

- Mohr, Alison (2009) An independent evaluation of the BBSRC and MRC Stem Cell Dialogue Project 2008. University of Nottingham, Institute for Science and Society, Final draft May 2009.
- Bhattachary, Darren (2008) Stem Cell Dialogue. Final report of the dialogue. BBSRC, MRC, Sciencewise, BMRB.
- · Sciencewise case study on the Stem Cell Dialogue
- · New interviews for this evaluation.

Name and date of project

TRUSTGUIDE

Topic and purpose: Exploring public attitudes towards trust in information communications technologies (ICT)

Timing:

- * Started planning: April 2005
- Dialogue events: August 2005 to September 2006
- Interim report: July 2006Final report: October 2006

Commissioning bodies:

British Telecom (BT) and Hewlett Packard (HP)

Key other partners:

University of Plymouth and Knowledge West at the University of the West of England

Contractors:

Individuals from BT and HP

Evaluator:

None

Sciencewise Dialogue and Engagement Specialist (DES):

Alison Crowther

Costs:

Total cost: £140,000

Sciencewise funding: £40,000 (grant competition)

Stated objectives for the project

Trustguide was a collaborative research project between BT Group Chief Technology Office Research and Venturing and HP Labs, part funded by the Sciencewise programme. The research sought to build on the previous government sponsored Foresight project concerned with where responsibilities lay in making our future ICT-enabled world safer. The objectives are:

- To establish a dialogue between those that use and shape technology to enhance cyber trust
- To produce and champion guidelines for those engaged in the research, development and delivery of ICT on how cyber trust might be enhanced

Trustguide took a 'citizen-centric' approach to understanding the beliefs and needs of users in relation to trust, security and privacy in ICT mediated activities. It has established a dialogue with the public through facilitated focus group discussions among selected groups across the

Innovation / good practice in process

- Clear policy focus and outputs, and place in the policy process. The project followed the Royal Society's Science in Society programme which extended the cyber trust debate to include the public, which in turn developed from the Government's Foresight Programme Cyber Trust and Crime Reduction project. Policy outputs were planned from the outset: a set of guidelines for the research, development and delivery of trustworthy ICT.
- Collaboration between the private sector (BT and HP), public sector (Sciencewise), academic bodies (University of Plymouth and UWE), which brought together a range of interests, priorities and networks which allowed the project to work in very different ways from a traditional academic or commercial routes (report p6)
- The flexible methodology built upon findings from one workshop to introduce new topics to the next that were not envisaged at the start of the project (page 6).
- Workshops crested a productive mix of methods of working with participants including hands-on experience with lab prototypes chosen to create tensions between trust and privacy issues, in an informal relaxed environment so questions could be asked, alongside semi-structured discussions to explore issues in greater depth and breadth. Current topical media stories were also used to stimulate debate.
- Broad range of workshops with diverse groups: 29 workshops were held with around 300 participants, including workshops for students, the general public (recruited to be 'a spectrum of UK citizens), farmers, small and medium sized enterprises, expert groups, ICT novices, E-Gov service providers and schoolchildren.

- Clear research purpose and outputs, which included producing qualitative data in order to develop hypotheses that could be tested and explored in future studies.
- Separate and different processes were used for working with and reporting on work with schoolchildren so that their input could be understood apart from adult views, on the assumption that policy makers would want to know where these different views came from.
- Each workshop was a stand-alone event, with its own topics, but contributing overall to a
 'living document' that was building recommendations and guidelines. An iterative element
 was added by providing a web site and online discussion forum so everyone who attended
 a workshop (and only workshop participants) could contribute to the progress of the project
 overall
- Alongside the workshops and online processes, the University of Plymouth ran a
 questionnaire survey aimed at a wider population (which had 416 responses). The survey
 explored issues of trust, privacy and security that complemented the issues in the
 workshops. This provided a quantitative element to the project's research findings which
 was seen as further triangulating the results.
- The workshops were all audio-recorded and transcribed. There was also at least one
 observer at each workshop taking notes of both points made and non-verbal data (e.g.
 reactions). All transcripts and observers notes were transcribed and analysed using a
 code-based tool.
- The project published details of all dissemination activities undertaken, which helps wider audiences understand the impacts of the project more fully (see Specific impacts below).

Challenges / new lessons learnt

 Identify Government departments with whom to work with beforehand, and secure input from policy makers on the questions they want answered (case study).

"Getting the right people on board from the beginning and thinking about where the impact will be – it is quite a difficult process. You need to know who in government is going to be interested and get buy in." (interview for this evaluation)

- Secure the involvement of an independent public facilitation contractor to contribute to the
 organisation, design and delivery of the public dialogue especially if the workshops are
 constantly developing as issues arise and change (report p86)
- Engage an external evaluator from the start to give ongoing feedback on the processes (case study). In this case, there was no external evaluator involved.
- Difficulties in recruiting public participants may be overcome by focusing on familiar technologies and creating interesting invitations. As the issues to be addressed in this dialogue had probably not affected the public before, it was difficult to attract them to the events. 'Cold-calling' to gain recruitment to workshops was not effective. In this case, the participants were recruited through 'viral dissemination' working through known groups in the population and snowballing participants inviting / suggesting other potential participants. This is unlikely to provide a demographically representative sample (usually recruited by offering financial incentives), and usually only reaches those with an existing interest with inherent risks of bias in the results. Even in the 'interest' groups (e.g. SMEs), the project organisers felt that participants responded as private citizens (report p86)
- Providing hands-on experience of existing technologies that people were familiar with may have been more effective than demonstrating leading-edge technologies that people did not know or understand. Indeed, the team found that participants could be equally engaged focusing on relevant topical news stories and provocative quotes, as a catalyst for discussion, as hands-on work with technologies (report p87)

Specific impacts

Impacts on policy and policy makers

- Produced and distributed a set of six guidelines aimed at enhancing the trustworthiness of ICT, covering education, experimentation, restitution, guarantees, control and openness.
- Evidence from the Trustguide project process and findings was submitted to the House of Lords Science and Technology Select Committee that was investigating internet security.
- Evidence from the project was submitted to the House of Lords Constitution Committee on the Impact of Surveillance and Data Collection.
- Provided advice for Government on ID cards (in relation to cyber security) and worked with the Information Commission on privacy and protecting children on the internet (interview for this evaluation)
- New evidence was created on the basis of understanding developed through the
 workshops that showed that the key issue for the public was less about 'trust' and more
 around 'risks', and the need to balance benefits and consequences (report p1).

"Understanding why, where and how trust in the cyber world is lost is vital to the successful introduction of technologies that are true online enablers. Trustguide provided an excellent and welcome opportunity to understand these tensions at first hand." (Stephen Crane, HP Project Manager, case study)

 Provided evidence for policy makers and educators to demonstrate that lessons could be learned from public dialogue about ways of communicating future messages (in this case about internet crime, security etc).

"Obviously educators in these areas will come in many guises and we feel that our project has highlighted the issues they will face, whoever they may be. Not only do they have to convey the information in an accessible way, they also have to demonstrate the worth of the information to people who may not have enough experience to value it. However, what is clear is that human focussed techniques (mentoring, facilitation, 'lessons learned') are far more effective than mass media communication." (report p72)

 Dialogue provides partners with very different types of information from research methods such as polling. It also provides sufficiently robust evidence to enable difficult conclusions and messages to be communicated to policy audiences.

"Polls ask the wrong kind of questions and a huge advantage with public dialogue is that it gives people the opportunity to talk around those issues and have a free discussion around it ... You can feedback to government ways of approaching things to make them more acceptable. It improves government's understanding of public opinion and concerns." (interview for this evaluation)

 The project demonstrated that public dialogue could provide good value for money for major private sector interests.

"BT feels we got very good value for money ... Because of the impacts and the variety of impacts across different arenas. It's the best way to spend money ... We've had great feedback, and I can't wait to do it again." (interview for this evaluation)

- The project generated a wide range of outputs that were published and disseminated widely, spreading the findings of the dialogue and describing the value of public dialogue. For example (report p87-88):
 - Two papers in the BT Technology Journal, leading to follow up enquiries (July and October 2006)
 - Trustguide was presented as an exemplar of interdisciplinary research at the IOTR (Information Operations Technology Repository) Systems and Services Science conference in Grenoble in September 2006.
 - Article in Institute of Information Security Professionals (IISP) journal 2006
 - Paper presented to the IEEE (US Institute of Electrical and Electronic Engineers)
 Conference in Baltimore, USA, in September 2006
 - Paper on risk and restitution in Computers and Security Journal 2006
 - Joint stand with the DTI to provide information to visitors at the InfoSecurity event in April 2006
 - Contribution about the project to the Cabinet Office CSIA (Central Sponsor for Information Assurance) Road Show that toured the UK in 2006
 - Presentation on the project to Unilever in October 2006
 - Trustguide results exhibited at the internationally recognised HP Security Colloquium in December 2006.
- Presentations internally to BT and HP including presentations to BT Strategic Research Open Days in June and July 2006
- The project had valuable benefits for the wider reputation of the project partners, particularly with Government.

"It was so hugely successful. One of the main things with a big company like BT is that this kind of thing often stays inside. The huge advantage was that this could be in the public domain, and that was massively successful for us. We got it out to so many people in so many areas – the UK government (around security and ID cards), the Dutch government, the IOTR, we have written a book based on the findings. None of these things could have been done without the public element ... it's done an awful lot for BT's reputation with government. And we are not necessarily telling them things they want to hear." (interview for this evaluation)

Sources used for analysis

- Lacohee, Hazel, Crane, Stephen and Phippen, Andy (2006) Trustguide: Final Report.
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- · www.trustguide.org.uk website
- Memorandum from Hewlett Packard to the House of Lord's Science and Technology Committee work on internet security. October 2006
- Case study on Trustguide