

sciencewise NEWS

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Citizens Advisory Forum on environmental research

A new Citizens Advisory Forum is being set up by the Living With Environmental Change Programme (LWEC) in partnership with Sciencewise-ERC. The Forum will examine what the public thinks about environmental change, and what the key needs and concerns of society are.

This process of engagement will then inform the strategic development of LWEC's research as well as feeding into a range of organisations involved in policy formation and the delivery of environmental research.

LWEC is a multi-partner programme that seeks to link policy with research in the area of environmental change. LWEC consists of 22 different organisations,

including the research councils, national, devolved and local government bodies and Government agencies. LWEC's key principle focuses on the co-design, co-production and co-delivery of research to increase uptake and impacts of research conducted in the Programme.

It is anticipated that the initial meeting of the panel will take place in October and that the topic to be considered will be

research on flooding. This will feed into the development of LWEC's Flooding Research Strategy. The Citizens Advisory Forum started in August 2010 and will run until March 2011.

For more information on the project, please visit <http://bit.ly/aW1Buo>



Participants share their views on 'animals containing human material' and debate the characteristics they feel make us human.

Public views on the use of animals containing human material in medical research are being explored through a dialogue led by the Academy of Medical Sciences.

The use of animals containing human genes or cells has a long-standing history in medical research. However, scientific advances are rapidly increasing the amount of human DNA and cells that scientists can transfer, and this may present regulatory and ethical issues in the future.

The 'Exploring the boundaries' programme, delivered by Ipsos MORI, was commissioned to ensure public input into the Academy's current study, which is examining the scientific, safety, regulatory, social and ethical aspects of research of this kind.

Two dialogue phases are now complete. Firstly, a series of deliberative workshops, focus groups and interviews were held in Newcastle and London throughout May and June. Participants explored a series of case studies focusing on research involving animals containing human material and were given the opportunity to discuss these with scientists and share opinions. Participants were also encouraged to discuss the subject with colleagues, family and friends before reconvening to reflect on their views.

Secondly, a nationally representative omnibus survey, designed to complement the findings of the deliberative research, was conducted in July. Analysis of the research is now underway. The findings will be considered by the Academy's expert working group, chaired by Professor Martin Bobrow CBE FRS FMedSci, as part of the study's evidence base to inform recommendations made for public policy and research needs.

Further information on the Academy's study and dialogue can be found at <http://bit.ly/3t5GwT> and <http://bit.ly/bFUqIW>

Exploring the boundaries @ the British Science Festival

An interactive session at the British Science Festival will allow further public discussion on the science of animals containing human material. Drawing on elements of the dialogue programme, the session '**Beyond the yuck factor: Just how human should laboratory animals become?**' will see leading biomedical scientists discuss examples of their work, and join the audience to share their hopes and concerns around the future of this research.

Join us at the British Science Festival Session, Venue MB549, Aston University, 13:00-15:00, Wednesday 15 September.

For more information see: <http://bit.ly/96guOu>



Geoengineering update – insights on public opinion

'Experiment Earth?', the NERC-led public dialogue on geoengineering is now complete. The results provide valuable insights into how public opinion is formed about this potentially controversial area of science.

Interestingly, none of the people who attended the dialogue workshops objected, in principle, to all of the potential geoengineering ideas. Of the nine specific geoengineering technologies they discussed, participants preferred those that remove carbon dioxide from the atmosphere rather than reflecting sunlight back into space (known as solar radiation management). Afforestation and biochar were the most popular of the carbon dioxide removal options. Support for air capture was low to begin with, but increased over the course of the workshops, as did support for iron ocean fertilisation and liming the oceans.

Solar radiation management techniques were the least popular. In general, participants felt these technologies were addressing a symptom of climate change – increased global temperatures – rather than trying to tackle the cause. Cloud whitening and sulphate particles were the most popular, although neither was preferred by the majority. Mirrors in space and white roofs received little support.

For those involved from NERC, the dialogue has proved highly successful, and the results have already been used by them and others thinking about geoengineering research and communication. The project has highlighted the advantage of running

a deliberative dialogue process: it allowed NERC to explore in detail why the public chose some technologies over others. There were two clear principles on which people made their decisions; 'naturalness' and linking geoengineering to mitigation.

Naturalness was an important concept for a lot of people. There was an intuitive feeling that natural systems were balanced and self-regulating, and that these should be preserved when considering geoengineering options. The favoured technologies tended to be the most natural options. People were keen on afforestation because planting trees is a very natural thing that can be done at an individual level. Cloud whitening, one of the most popular of the generally disliked solar radiation management technologies, was seen as mimicking natural cloud-formation processes.

However, it was unclear what underpinned participants' views on naturalness. NERC now needs to do more to understand what 'natural' means to different people and how they see the role of people in the natural world.

The other important underlying principle was that geoengineering should work alongside existing mitigation efforts. Participants thought it would be wasteful to attempt to geoengineer the climate without reducing carbon dioxide emissions at the same time. Linking the two would also avoid the 'moral hazard' that investments in geoengineering could draw attention away from mitigation.

Geoengineering technologies	
• Afforestation	• Liming ocean
• Air capture	• Mirrors in space
• Biochar	• Sulphate particles
• Cloud whitening	• White roofs
• Iron fertilisation	

What next?

Participants were very clear what they wanted scientists and policy-makers to consider before geoengineering is deployed:

- we should better understand the systems that would be altered before going ahead with geoengineering
- we need to understand the potential global side effects of the technologies before they are deployed
- there should be clear benefits (versus financial, environmental and carbon costs) for any technology that is deployed
- there should be international dialogue which includes people from the developing world.

Importantly, the public involved in the dialogue also called for ongoing public engagement on geoengineering. The dialogue results contain lessons for this continued engagement on geoengineering and climate change, which will inform future communications work being led by LWEC.

The results of this project have already fed into two geoengineering research proposals that arose from an EPSRC 'sand-pit' event. They will also be used by NERC and stakeholders who have been involved throughout the dialogue process.

The report and recommendations will be published on the NERC website in September 2010 (<http://bit.ly/cTtFOk>).

On 14 June, the Synthetic Biology Dialogue report was published at an event that brought together members of the public who had participated in the dialogue with a broad range of interested organisations. This event marked the completion of the dialogue itself, but was by no means the end of the project. It is only now that the work really starts for the research councils, who will digest the report and consider the best ways to respond to its findings.



The dialogue report and supporting documents can be found on the BBSRC website (<http://bit.ly/cqTZGs>). Although the findings are still being analysed, it is clear that the report gives valuable insights into public views on synthetic biology and, as was hoped from the outset, will provide an excellent platform for engagement around this area of science in the future.

However, and this is perhaps as a result of the upstream nature of this project, lots of generic issues about what good research should look like were also explored during the dialogue. The five questions raised in the first public workshop were:

- What's the purpose?
- Why do you want it?
- What will you gain?
- What else will it do?
- How do you know you are right?

These don't just apply to synthetic biology, but are good questions for researchers in any subject to ask themselves. Issues such as these, which were raised in the dialogue report, give the research councils an opportunity to make sure that there are broader impacts from the dialogue, and that impacts are felt across their remits and across different areas of their work from research funding to innovation and regulation.

The dialogue has been well received by BIS and the research councils, and has been complimented by David Willetts, both in a speech on 'Science, Innovation and the Economy' and while giving evidence to the House of Lords Science and Technology Committee. Such a warm reception is, of course, very encouraging, but as BBSRC and EPSRC digest the dialogue report over the coming weeks and prepare to respond to its conclusions, they are aware that the true measure of the success of the dialogue will be in the 'what happens next?'.

The successful completion of the dialogue is due to the hard work and commitment of many people – the participants, stakeholders and experts, steering and oversight group members, TNS-BMRB, Sciencewise-ERC and others – all of whom BBSRC and EPSRC would like to thank.

See the full dialogue report and supporting documents at <http://bit.ly/cqTZGs>

Low Carbon Communities Challenge (LCCC): an update

Transition Town Totnes (TTT) and the surrounding district (consisting of a market town and 15 encircling parishes) comprise one of the 20 test bed communities taking part in the LCCC.

'Transition Streets' is a TTT initiative that brings groups of neighbours together to act on their household and personal carbon emissions. Residents are supported in this by a workbook that provides individuals who are new to the project with practical energy saving tips, which lead to reduced carbon emissions. The workbook also encourages residents to think about 'how' they go about their everyday lives and possible actions they could adopt to become more energy efficient. Over the course of several weeks/months, behaviour can be influenced as groups of residents work through a series of 'behaviour-focused' workbook exercises, encouraging them to think differently about their energy consumption.

Residents that successfully work through and complete all exercises in the workbook are eligible to apply for grants through the Transition Streets scheme to fund energy efficiency improvements in their homes.

One particularly exciting project is the installation of about 140 solar-PV panels to houses in the community.

"The Transition Together folder really was a catalyst for all this", says Liz Waterson of Copland Meadow, Totnes. "We went from doing small things like buying a trolley to walk to the shops rather than driving, to: 'Oh good grief, we've got solar panels on the roof'. By the time you've finished the process, you've made a big leap without even noticing."

For more information on this project, please visit <http://bit.ly/blzsWf>

Sciencewise-ERC: spreading the word

Sciencewise-ERC's growing online presence offers you a number of ways to engage with us and help inform public policy involving science and technology.

Our **website** is the public face of our resource centre and gives details about all Sciencewise-ERC dialogue projects, publications and other related materials and activities. It offers information, advice and guidance, together with a wide range of support services aimed at policy makers and other stakeholders involved in science and technology policy-making, including the public.

The new **online forum** allows users to express their thoughts and opinions on the world of public dialogue, and science and technology. It provides an opportunity to discuss and share ideas, suggest possible topics for dialogue, as well as being an easy access point to ask our Dialogue and Engagement Specialists questions on specific projects, articles noted in the press or general dialogue queries. Popular posts to date include 'Making Macroeconomics an Exact Science' and 'Scientists from Mars, public from Venus?'. **Register now at www.sciencewise-erc.org.uk/forum and introduce yourself to the rest of the community.**

Our **blog** features expert guests every month who share their ideas and experiences. Sciencewise-ERC on **Facebook** and **Twitter** keeps you posted with the latest goings on and connects you with the science and technology activities of other organisations.

Sciencewise-ERC thanks you for your continued interest in its work!



We've got to be good listeners on GM



David Willetts,
Minister for Universities and Science © BIS

It is vital we consult widely on genetically modified foods, says Science Minister David Willetts

Science is not the exclusive preserve of scientists any more than politics is a domain restricted to politicians.

It is important that we listen to public opinion whenever we face disquieting – as well as exciting – developments in cutting-edge science.

Sciencewise-ERC has already helped Government bodies to conduct public dialogue exercises that inform better policy-making. For example, the recent debate led by the Engineering and Physical Sciences Research Council and the Biotechnology and Biological Sciences Research Council on synthetic biology revealed enthusiasm about its potential, but also concerns about health and the environment.

Comments from participants highlight misgivings felt by some: Why do they want to do it? Is it because they will be the first person to do it? Is it because they just can't wait? What are they going to gain from it? The fact that you can take something that's natural and produce fuel, great – but what is the bad side of it? What else is it going to do? as well as an attitude supportive of science that serves the common good: What are they arguing about?

If it saves someone's life...I know if anything was there that could make my child's life better, I would take it. I would grab it.

Taking early soundings while technologies develop is necessary to ensure scientists do not lose touch with the public.

I am keen that similar techniques be used to probe views on GM food, even though this technology is in use around the world and it has been a topic of fierce, ongoing discussion. Government, scientists and industry need to share recent developments in GM and explore a range of questions in a transparent manner.

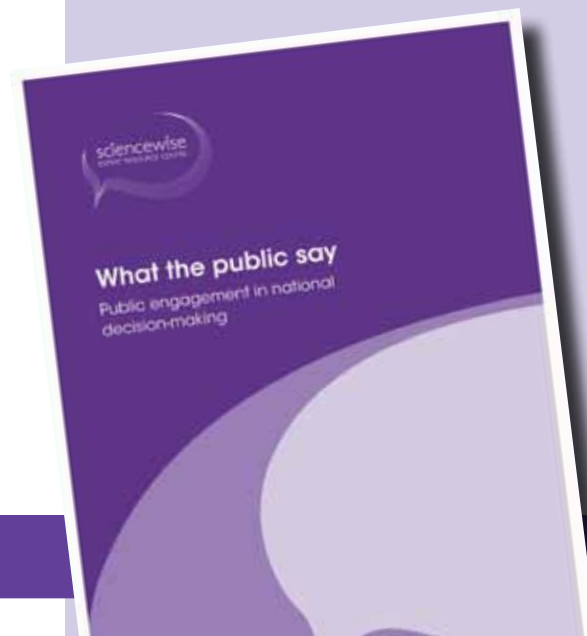
The stakes are high. With ethical, economic and food security issues to consider, any public engagement on GM must be equal to such challenges. The expertise of Sciencewise-ERC will be a crucial element in getting that right.

New insight paper available

What the public say: Public engagement in national decision making

Written for Sciencewise-ERC by Involve, this paper considers what citizens who participate in public dialogue events have said about public engagement and how it can, and should, be incorporated into governance structures. It identifies a number of key insights from these citizens' views, showing how public engagement in national decision-making can support the Government's move towards a more open, transparent and accountable way of governing.

Read the full report here:
<http://bit.ly/bAecGd>



Sciencewise-ERC capacity building

Earlier this year, the Sciencewise-ERC team designed a suite of capacity-building services specifically for Government departments and agencies, offering help and support to raise awareness of public dialogue, help to prepare individuals and organisations for public dialogue, and help to make the most of public views.

The services include:

- **Signposting to open information** via the Sciencewise-ERC website
- **Providing tailored advice and design**, for example 1:1 meetings, guidance and mentoring, facilitation, speakers and awareness-raising seminars
- **Delivery**, which includes action learning and extensive training programmes

Using these services, the Sciencewise-ERC has achieved success in recent months when working with Government departments and organisations including Defra and Research Councils UK.

For example, Alison Crowther, who is one of our Dialogue and Engagement Specialists, gave a talk about public dialogue **at a recent ‘Citizen Facing’ meeting held at Defra**. Key themes Alison covered included:

- Ensuring that the right questions are asked at the right time as well as ensuring that people consider the most appropriate processes. Alison emphasised seeking advice from the experienced Sciencewise-ERC specialist team; just having a brief conversation with one of the specialists can help to check that a policy team is on the right track.
- Using the Sciencewise-ERC’s **Departmental Dialogue Index (DDI)** tool to assess a team’s readiness to engage with a citizen-facing process.
- Discussing the importance of communicating before, during, at the stage of dialogue results and, crucially, when legislation is created. Without communication, the public, stakeholders and scientists involved will not see the results of their labours.

Alison and the other specialists were later available for 1:1 sessions with participants. These sessions provided policy makers in the Defra team with knowledge of how Sciencewise-ERC can help in their particular situation – mentoring, funding, capacity building, information gathering and, importantly, how to help their team and senior management undertake dialogue work.

Work being undertaken by key stakeholders

If you are interested in building engagement capacity, you may also be interested in a number of further initiatives that have started.

Embedding engagement in higher education institutions

Involve has been commissioned by The National Coordinating Centre for Public Engagement (NCCPE) to design and develop online resources for senior managers and staff of higher education institutions to help them embed public engagement in their organisations.

The NCCPE is developing a Manifesto for Public Engagement that universities can sign to show their commitment to embedding engagement into the work of their institution. Alongside this sit useful **resources for senior managers** on how to support public engagement and a **practitioners’ toolkit** that will provide staff and students with information and practical resources to help support their public engagement work.

You will be able to find these toolkits on the Resources section of the Sciencewise-ERC website from December 2010.

If you would like to be kept informed with the progress of these activities, email enquiries@sciencewise-erc.org.uk to receive regular updates.

Upcoming events



British Science Festival

This year's festival takes place in Birmingham from **14 to 19 September**. Many events will be taking place on Aston University campus and at various venues across the city.

For a full programme of what's on at the festival, visit <http://bit.ly/9Nd3rY>

Join Sciencewise-ERC at the British Science Festival - **'Beyond the yuck factor: Just how human should laboratory animals become?'** a session that draws on elements of the Animals Containing Human Material dialogue, taking place on Wednesday 15 September - <http://bit.ly/96guOu>

Innovate 2010: Connect for Growth

Hosted by the Technology Strategy Board, Innovate 2010 takes place on **12 October** at the Business Design Centre, London. Innovate is the leading networking, conference and exhibition event for businesses to meet other businesses, Government and academia with the aim of making innovation happen - creating opportunity and growth for the future. Find out more at <http://bit.ly/amaFvR>

Geoengineering: taking control of our planet's climate

On **8 to 9 November** this Royal Society event will consider the state of 'Geoengineering' and its implications to society. It features experts who were involved in the recent Geoengineering dialogue. Find out more at <http://bit.ly/bH4dfw>

Communicate 2010: Connecting with Nature

Communicate is a conference for environmental communicators. It attracts a cross-sector of representatives from environmental and conservation organisations, business and CSR, policy makers, media, national and local government bodies, and natural history filmmakers. It takes place on **3 to 4 November** with a mixture of discussions, debates and workshops. For more details visit <http://bit.ly/bPfX7e>

The Sciencewise-ERC, funded by the Department for Business, Innovation and Skills (BIS), helps policy-makers commission and use public dialogue to inform policy decisions in emerging areas of science and technology. It consists of a comprehensive online resource of information, advice and guidance, together with a wide range of support services aimed at policy-makers and all the different stakeholders involved in science and technology policy making, including the public. The Sciencewise-ERC also provides co-funding to Government departments and agencies to develop and commission public dialogue activities. For further information please log on to: