



sciencehorizons and Sciencewise



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Background to Sciencewise

- **Launched in 2004**
 - to enable citizens, the science community and policy-makers to engage in dialogue to inform policy and decision-making on key science and technology challenges
- **Part of public engagement programme within Science and Society Strategy**
- **Already provided over £1.9m grant funding for 12 key dialogue projects**
- **Started as competitive grants scheme**
- **Developed into**
 - Commissioning policy related S&T dialogue projects
 - Embedding dialogue within all Government departments
 - Capacity building within Government

Science and Society

- **Policy commitments set out in the Government's ten year *Science and Innovation Framework 2004 – 2014*, and *Next Steps 2006* our focus is the achievement of:**
 - a public literate about science and scientists engaged with the public;
 - the science workforce to be representative of society, and
 - the supply and demand for STEM skills.
- **Strong and effective external communication of science & innovation underpins these objectives.**
- **We are also looking to:**
 - Communicate the value of science and innovation for economic prosperity to the public;
 - Increase public participation in science and innovation issues;
 - Enthuse young people about science so that they choose STEM careers;
 - Widen participation of women and ethnic minorities in the science workforce; and,
 - Benchmark the UK's Science and Society activities against other countries.

Public Engagement: Where are we now?

- **Early, 'upstream' engagement on implications of emerging areas of S&T is important if we want to take the public with us on new areas**
- **Need to listen to people's concerns about new developments**
- **Not just a risk management measure**
- **Most people are enthused, excited and have great aspirations of what science and technology can do for us, and the rest of the world (survey 2005)**
 - 86% of adults think science makes a good contribution to society – up five percentage points between 2002 and 2004
 - 82% of adults think that science will make our lives easier – up ten percentage points between 2002 and 2004
 - positive associations of science with advancement and progress - particularly in the field of healthcare - far exceed negative media images of science
- **Need to be sensitive to public concerns about ethics**
- **Government will continue to support key activities in this area – encourage science and business communities to take a greater lead**

Public Engagement: What are we doing?

DIUS' Public Engagement focus is on:

- encouraging early 'upstream' dialogue on the ethical, safety and environmental implications of new science and technologies
- strengthening our ability to carry out horizon scanning for new and emerging science and technology capabilities
- engaging with scientists and a wide range of stakeholders in exploring their potential implications

Sciencewise is key to achieving this

Sciencewise: Making it happen

- **Strategic**
 - ***Embedding*** dialogue on science e.g. CSA guidelines and Science and Society Champions Network
 - ***Aligning*** with Foresight and Horizon Scanning
 - ***Building a corporate memory*** (CST)
 - ***Networking*** to embed S&T dialogue into Government processes
 - ***Ensuring expert input*** through Sciencewise Panel

Sciencewise: Making it happen 2

- **Operational**



- **Engaging** with policymakers on their dialogue needs
- **Assisting** with project development and commissioning
- **Building Capacity** by identifying and disseminating good practice

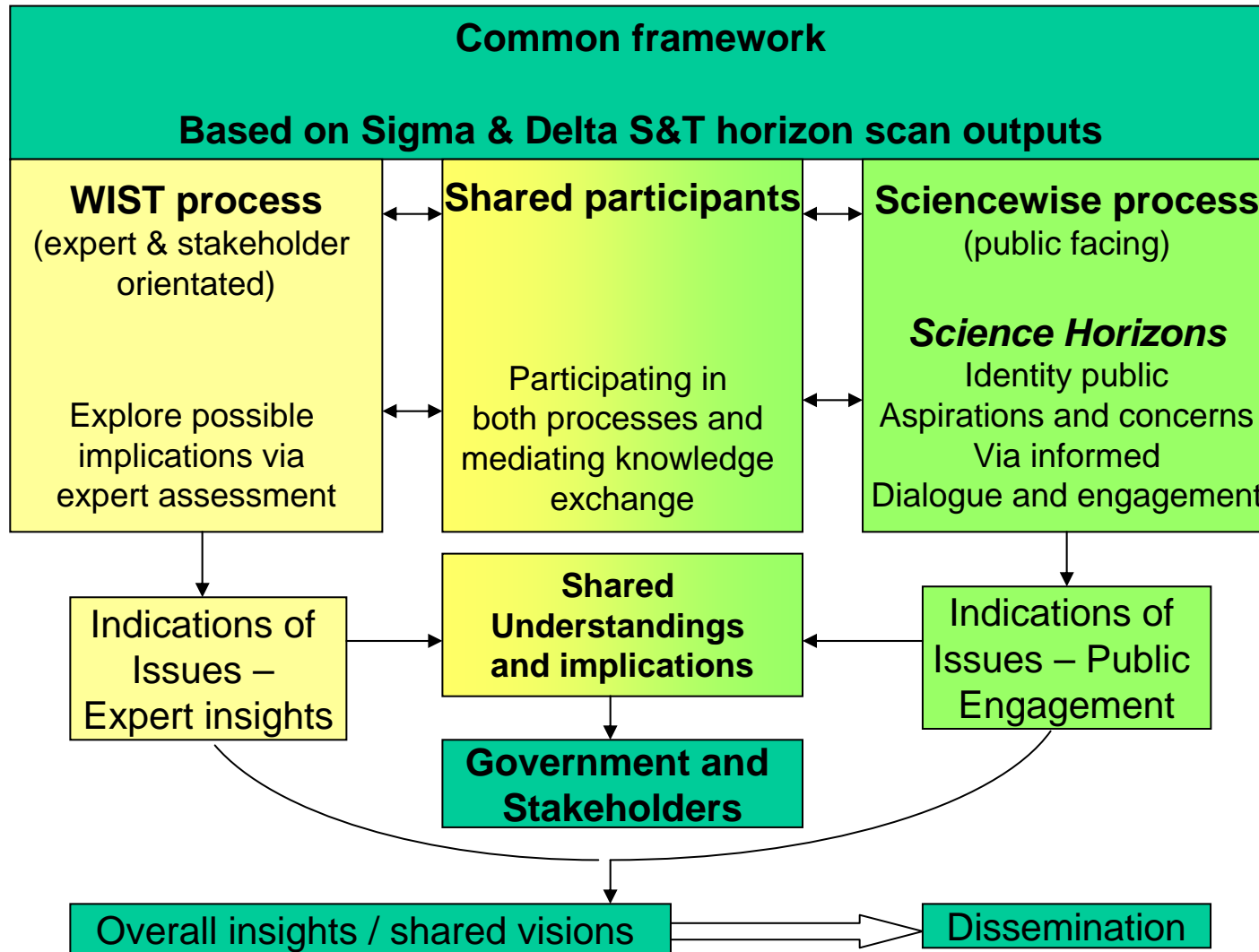
sciencehorizons

- Commissioned directly by OSI in 2006
- Aim: to find out public views, hopes, aspirations around future development of S&T (2025)
- Project is part of the Horizon Scanning Centre's WIST process – Wider Implications of Science and Technology
- WIST looking at stakeholder and expert views of future S&T to inform future policy and research direction
- Sciencehorizons = public-facing part of WIST process
- Scenarios for project based on possible future S&T topics identified through Horizon Scanning Centre's Delta and Sigma Scans (not predictions, but possibilities)

Project Aims and Objectives

sciencehorizons aimed to:

- Find out public views on future S&T
- Raise awareness among policy makers about the value of public dialogue
- Engage policy makers on potential future issues of public interest and concern
- Identify S&T issues which might benefit from future engagement
- Compare different methods of engagement to see what works best in different contexts



Next Steps

WIST Process

- *sciencehorizons* results being fed into overall WIST report to Sir David King for dissemination and consideration in Government

November policy maker workshop

- Organised by Sciencewise Programme
- A follow up to similar project workshop in June and the launch at the BA
- Aim is to disseminate findings – identify issues and any gaps in policy “home”

Case Study

- Project case study being developed post-evaluation for inclusion on Sciencewise website’s policy maker learning resource

Other Sciencewise Projects

Completed (from original 2004 scheme)

- **Democs** (pilot) – S&T issues card game for young people
- **Trustguide** – internet security and cybertrust
- **Nanodialogues** – four separate experiments in upstream engagement on nanotechnology
- **NEG** – reviewed effectiveness of nano engagement projects
- **Risky Business** – school theatre project on assessing risk in S&T
- **Science Communicators Working Lunches** – networking opportunities to build sci-comm capacity

Ongoing from 2004

- **Community x-change** – citizens' meetings on range of topics including climate change

New and Current Projects

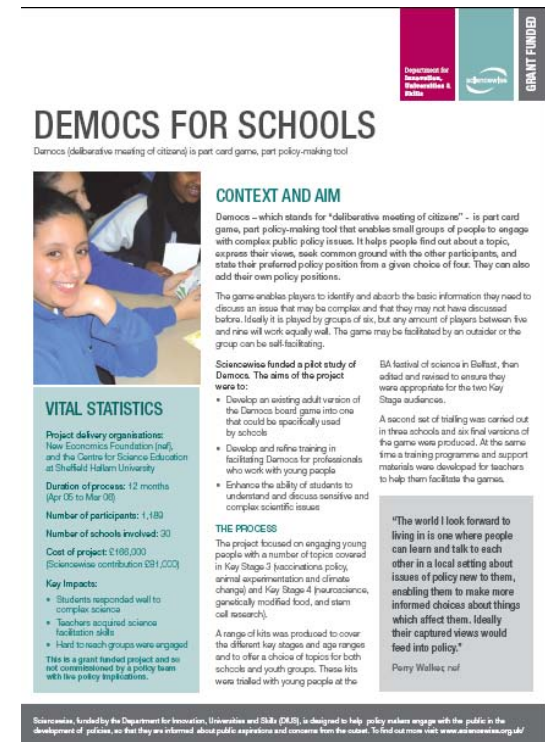
2006/7 Commissions (completed)

- **Drugsfutures** (led by Academy of Medical Sciences) into future drugs use and culture – results incorporated into a DH report
- **Animal-human Embryos** (led by Human Fertilisation and Embryology Authority) into hybrid/chimeras – results taken into account when HFEA made its policy recommendation on licencing this research on 5 September 2007

2007 New Commissions

- **Stem Cells** - Research Councils UK (BBSRC/MRC) about to announce selected contractor for major 12-month project
- **Forensic Use of DNA** – Human Genetics Commission in process of appointing contractor to seek public views, particularly on National DNA database

Case studies being developed for all Sciencewise projects



DEMOCS FOR SCHOOLS
Democs (deliberative meeting of citizens) is part card game, part policy-making tool

CONTEXT AND AIM
Democs – which stands for “deliberative meeting of citizens” – is part card game, part policy-making tool that enables small groups of people to engage with complex public policy issues. It helps people find out about a topic, express their views, seek common ground with the other participants, and state their preferred policy position from a given choice of four. They can also add their own policy positions.

The game enables players to identify and absorb the basic information they need to discuss an issue that may be complex and that they may not have discussed before. Ideally it is played by groups of six, but any amount of players between five and nine will work equally well. The game may be facilitated by an outsider or the group can be self-facilitating.

Sciencewise funded a pilot study of Democs. The aims of the project were to:

- Develop an existing adult version of the Democs board game into one that could be specifically used by schools
- Develop and refine training in facilitating Democs for professionals who work with young people
- Enhance the ability of students to understand and discuss sensitive and complex scientific issues

THE PROCESS
The project focused on engaging young people with a number of topics covered in Key Stage 2 (evolution, policy, animal experimentation and climate change) and Key Stage 4 (neuroscience, genetically modified food, and stem cell research).

A range of hits was produced to cover the different key stages and age ranges and to offer a choice of topics for both schools and youth groups. These hits were trialled with young people at the

EA festival of science in Belfast, then added and revised to ensure they were appropriate for the two Key Stage audiences.

A second set of trialling was carried out in three schools and six final versions of the game were produced. At the same time a training programme and support materials were developed for teachers to help them facilitate the games.

“The world I look forward to living in is one where people can learn and talk to each other in a local setting about issues of policy new to them, enabling them to make more informed choices about things which affect them. Identify their captured ideas would feed into policy.”
Perry Walker, ref

VITAL STATISTICS
Project delivery organisations: New Economics Foundation (nef), and the Centre for Science Education at Sheffield Hallam University
Duration of process: 12 months (Apr 05 to Mar 08)
Number of participants: 1,180
Number of schools involved: 30
Cost of project: £186,000 (Sciencewise contribution £91,000)

Key Impacts:

- Students responded well to complex science
- Teachers acquired science facilitation skills
- Hard to reach groups were engaged

This is a grant funded project and so not commissioned by a policy team with the policy implications.

Sciencewise, funded by the Department for Innovation, Universities and Skills (DIUS), is designed to help policy makers engage with the public in the development of policies, so that they are informed about public experience and concerns from the outset. To find out more visit www.sciencewise.org.uk/

Future Sciencewise Activities

Building the corporate memory

- **CST recommendations in “*Policy through dialogue*”**
- **Scoping Study in early 2006**
 - What is desirable? What is feasible?
 - S&T specific versus generic resource?
 - Terms of reference
- **Sciencewise Strategy Group/stakeholder input**
- **Recommendations provided to DIUS (then OSI)**

Development of Learning Resource

- **Commitment to build Expert Resource Centre on Public Dialogue in Science & Innovation – announced in Budget December 2006**
- **Current Sciencewise Programme – beginning to take forward learning resource**
 - Information Bank inc. guidelines, methodologies, evaluation
 - Case Studies – what's worked, what hasn't
 - Building a mentoring network and policy contacts
- **ERC to be integral part of next phase of Sciencewise (3 years from April 2008)**
 - Full development of Expert Resource Centre
 - Commissioned policy-led projects
 - Communication to both public and policy-makers of opportunities and benefits of dialogue

Wider Activities

- **Working with other engagement initiatives**
 - RCUK/Funding Councils/Wellcome Trust Beacons for Public Engagement
 - Ministry of Justice (formerly DCA) and CLG leading cross-Government dialogue
 - People & Participation Online
 - Community of Practice

What's Next?



In the pipeline

- Issues to be identified through sciencehorizons
- ???????

Embedding and capacity building

Activities

- Disseminating lessons learned within Government
- Influencing to improve policy to best include public dialogue
- Briefing committees and scientist groups
- Building networks and training for those desiring to do and learn more about dialogue
- Giving tailored advice on all aspects of public dialogue commissioning
- Promoting good practice, co-ordination and co-operation within the public engagement community, bringing together Government, science community and business



Lessons learned so far

- Plug into policy needs
- Professionalise dialogue
- Embed in the wider Government context
- Start early and build capacity to embed change
- Reach out beyond the “science communication community”
- Public is enthusiastic!

Public Engagement: Social Research

- **supporting research to identify public attitudes to science/technology and scientists. A new survey in 2008 will build on research conducted by MORI in 2004 that shows that the UK public already has a positive attitude towards science and technology**

Public Engagement: Building trust

- **Dissemination of initiatives such as the Government Chief Scientific Adviser's Universal Ethical Code for Scientists**
 - Rigour
 - Respect
 - Responsibility
- **New leaflet published**

“Our social licence to operate as scientists needs to be founded on a continually renewed relationship of trust between scientists and society. The code has been developed in my Office to help us meet this challenge.”



Championing

- **Support for a cross-Government network of Science and Society Champions to increase the awareness of the science and society agenda and encourage the use of public engagement tools to support policy-making**