26-28 January 2011

January
26-28th
thinktank
birmingham

At the Cities and Science Communication Conference held on 26-28 January 2011 at Thinktank, Birmingham, UK, partners and delegates agreed these policy recommendations for science communication:

Science communication should

- **strengthen science citizenship**
- **celebrate science and scientists**
- **promote evidence-based research**

the recommendations in context

Since a Eurobarometer survey on attitudes to science & technology in 2001, the aim has been to improve the European public's ability to access technological and scientific issues and to motivate an interest in science.

The Commission's strategy, through the Science and Society Action Plan focused on actions to promote scientific education and culture; bring science policies closer to citizens; and put responsible science at the heart of policy making. Science and Society was changed to **Science in Society** (FP7). This change 'recognises that research activities are a specific type of social activity that is embedded in a wider societal context'. (European Commission, 2010)

The Eurobarometer survey in 2010 found that 91% of respondents never attend public meetings or debates (to do with science and technology); that Europeans have limited insight into the work of scientists, want public consultation about scientific decisions and feel scientists should communicate messages about science better, and feel governments should do more to encourage young people and women into science.

Through peer to peer learning across Europe and engagement with 'hands on practitioners', CASC has drawn on shared experience to frame recommendations which support European strategic aims. They are based on what the CASC project has found the public (or publics) wants, and what works in promoting scientific dialogue.

"The CASC Network was a valuable way to experiment, a way to explore differences in a rich way to understand how different we are, not just make a kind of euro-pudding"

Beatrice Korc Universite de Lyon

our policy recommendations how they can be achieved

Conference established policy recommendations based on the CASC experience.

Delegates agreed four supporting statements for each recommendation which are in the left-hand boxes; and a total of 35 suggested actions, a representative sample of which is in the right-hand boxes. The full list can be found at http://blog.eucasc.eu/recommendations.

Strengthen science citizenship

1. Promote science through partnerships between scientists and corporations
2. Invest in science educators and communicators
3. Develop a cohesive fiscal framework across the EU to support/enhance science
4. Strengthen links between science professionals and the media

- Make it compulsory to allocate x% of scientific research budgets to invest in communicators and educators
- Design labs so that scientists can meet the public
- Long-term project between scientists, politicians, companies, schools, science centre
- Complimentary science courses for teachers
- Organise training for journalists and scientists together
- Increase proportion of income tax used to support science

Celebrate science and scientists

"We need to find new policies to directly connect scientists with the public, people need direct access to scientists"

Marcos Perez Casa de las Ciencias, La Coruna, Spain

1. Fund creation of new science centres and development of existing centres
2. Promote innovative ways of communicating science
3. Facilitate training & mobility for science communciators
4. Train PhD students and researchers in science communication

- Pay scientists and universities to adopt schools
- Special university programmes in science communication
- Create a network of universities that adopt science communication
- New ways to mediate science e.g. cartoons, comics, TV channel
- Provide special training for scientists in science communication
- Media training for scientists and meeting with journalists
- Funding for science competitions

Promote evidence-based research

"We need smaller amounts of money that are easier to get to support local projects"

Prof Sten Llongstrom Universeum, Gothenburg, Sweden

1. Create common standards
2. Develop media agreements
3. Promote Idearning
4. Promote "citizen science'

- European label/kitemark for goods to validate scientific claims in advertising, for example about probiotic yoghurt)
- Academic career progression should require science communication
- Establish 'Science Shops' (place where citizens can be involved in research)
- Involve the European Union of Science Journalists Associations

CASC project: key observations

The CASC project was organised into work packages which explored 'Tools for building a scientific culture', 'Hard to reach groups' and 'Changing Behaviours'. 19 pilot projects were completed and assessed. When the work packages reported back to conference some common themes were identified:

People do not engage with overwhelming amounts of information; projects must be entertaining and accessible. Professional study visits, peer to peer learning, sharing information 'seeing for yourself' are crucial in developing Science Communication.

The success of a project depends on its focus, and the specific public it is designed for, and there are many different publics.

Responding to local situations, to economic, political and cultural variables is crucial. The notion of 'hard to reach' also depends on these variables so changes with location. It may mean a specific language or cultural minority is hard to reach, or may mean the whole idea of 'science' is difficult for people to engage with.

Methods need to be flexible to reach all 'publics'.

Useful, workable models were developed because CASC gave access to funding; without funding projects may not be viable.

Three examples of activities in these work package projects are given below as Case Studies.

"It's about exciting young people to build careers in science. If we look at China and India compared with Europe, there is a huge discrepancy."

Malcolm Harbour MEP

Below are three examples from dozens of pilot actions delivered during the CASC project. The rest are found in the full report.

Case Study from 'Changing Behaviours'
Learning to Save our Environment

Talented high school students interested in biology and chemistry were were brought face to face with environmental experts from South Moravia. They questioned them, had special lectures and learned how to conduct research on various components of the environment.

They then returned to their schools and presented their experiences to classmates and teachers, and discussed the subjects with family and friends. One student said 'all the inhabitants of our planet should pass a similar environmental course and… start to think about the consequences of their behaviour.'

Case Study from 'Tools for Building a Scientific Culture'
Science in the News

Two pilot actions were developed. The first asked teachers and school children to monitor and evaluate 'Science in the News'for a week. It raised the problems of working with the formal education system in some countries.

The second was a competition for short films on 'Science in My Life'. It attracted substantial entries and revealed what young people want of science and scientists and how important a dialogue is. One winning film maker from Romania showed that a healthy bee population was important not only for our eco-system, but also the livelihood of his bee-keeping family.

Case Study from 'Hard to reach Groups'
Science into Care Homes

A project by Thinktank, Birmingham targeted adults in nursing and care homes. It combined approaches from the school outreach programme and a family learning programme. Objects from the 'handling collection' were taken into care homes.

The value of the project lay not only in the positive impact on the life of the people it went to, but the benefit to museum staff who learned how to interact in very different ways in a very different environment, which extended their science communication skills.

the CASC project, its objectives & who was involved

This Conference, along with a full project report, is the culmination of a transnational EU project, funded under the Research & Development Framework 7 'Science in Society', running since May 2009. Its purpose was to gain greater understanding of how to engage the general public/publics with science across the EU. It has involved the exchange of expertise, the sharing of experiences and the testing of pilot actions by partners from the UK, Cyprus, France, Spain, Sweden, Romania, Hungary and the Czech Republic. The Shanghai Academy of Social Sciences in China has also been a participant organisation.

CASC partners come from different types of organisation: local/ regional authorities, universities, science centres/ museums, and organisations working with the business sector. The variety of activities and experience was diverse and new networks were developed, sharing best practice and expertise.

Workpackages have been completed, providing: a baseline study from an online survey which compiled information from all partners into a 'Prospectus' http://eucasc.eu/downloads/eucasc_partner_prospectus.pdf; a survey of appropriate tools for building a scientific culture; an exploration of how hard-to-reach groups may be targeted and how to effect changes in behaviour.

The work packages have involved study visits, pilot projects and joint workshops and conferences.

The CASC project had four high level objectives:

✦ To ensure the governance of science within the urban environment is transparent, inclusive and responsive to dialogue with the public and to ensure that the right governance structures are in place to support the effective delivery of science in society initiatives.

✦ To develop a policy approach (and make policy recommendations) that effectively accommodates a representative input from science institutions, the public sector, the private sector and 'the public'.

✦ To share best practice in science and society initiatives with colleagues in partner cities across Europe through the building of a network and to promote learning through exchange of ideas and personnel. To discuss potential new initiatives for the future in order to improve Science in Society working.

✦ To assist in the delivery of the Commission's Science in Society Action Plan, as well as to move towards meeting the goals laid out in the Lisbon and Gothenburg strategies.

A full report on the project will be published at the end of February 2011.

PARTNERS

Birmingham City Council, UK
Birmingham City University, UK
Centre of Administration and Operations of the ASCR, Prague, Czech Republic
European Office of Cyprus
INNOVA Észak-Alföld Regional Development and Innovation Agency Nonprofit LTD, Hungary
Museos Científicos Coruñeses, La Coruña, Spain
Sevilla Globa. Spain
Shanghai Academy of Social Sciences
South Moravian Centre for International Mobility, Czech Republic
The Faculty of Business and Administration, The University of Bucharest, Romania
Thinktank – Birmingham's Science Museum, UK
Universeum AB, Goteburg, Sweden
University of Lyon, France
Xunta de Galicia (Galician Government), Spain

http://eucasc.eu/

Detailed coverage of the final conference is available at

http://blog.eucasc.eu/

The final conference was hosted by Thinktank, Birmingham; organised by Birmingham City Council in partnership with New Optimists.