

What is public engagement?

In recent years there has been a growing recognition in government and the scientific community of the need to move away from an old model of the public understanding of science (known as PUS) to one which involves public engagement in science and dialogue between scientists and the public. Today, the term Public Engagement (PE) with science or research is used most frequently by people working in this area.

The Research Councils use Public Engagement as an umbrella term for any activity that engages the public with research, from science communication in science centres or festivals, to consultation, to public dialogue. Any good engagement activity should involve two-way aspects of listening and interaction.

Why should the research sector engage with the public?

As the Research Councils, we seek to create a culture where the research sector and researchers themselves value public engagement as an important activity, and where an awareness of social and ethical issues informs research decisions.

If we **involve and listen to the public** (and encourage our research communities to involve and listen to the public) then our decisions and research should be more responsive to society, and therefore more likely to have a positive impact in return for the investment.

Similarly, if we **talk to the public** (and encourage our research communities to talk to the public) about the outputs of our research then society will share in the benefits of that knowledge, whether for their health, wealth or culture, and therefore the research will have had maximum impact.

And if we **encourage researchers to interact with schools** to enrich students' experiences then we can help improve the supply of skilled people to the research base and the UK economy.

FAQs

Q1. What is the Research Councils definition for public engagement?

Public Engagement (with research) – this is an umbrella term for any activity that engages the public with research, from science communication in science centres or festivals, to consultation, to public dialogue. Any good engagement activity should involve two-way aspects of listening and interaction.

Other useful definitions used by the Research Councils include:

Science communication – a one-way process to give information

Opinion research – a process whereby opinions are collected for consideration, but without in-depth discussion of the issues (e.g. opinion-polls).

Consultation – a formal process which allows reaction and response to policies/proposals.

Public dialogue – a form of deliberative (i.e. over time) participatory engagement where the outcomes are used to inform decision-making.

Q2. What's the difference between a) Science in Society and public engagement, and b) between public engagement and Communications and Marketing?

- a) 'Science in Society' and 'Science and Society' are terms that have been widely used by a range of organisations in relation to public engagement e.g. the Wellcome Trust, Royal Society, DIUS etc. For RCUK, this definition covers all research areas. Until recently Science in Society was the term used by RCUK for its work in the area of public engagement. RCUK has now changed the name of its public engagement activities to "Public Engagement with Research" as we found using the term science did not reflect our remit to cover all areas of research including the arts, humanities and social research. The term Public Engagement is also now interchangeable with Science in Society.
- b) Public Engagement is not the same as either Communications or Marketing, though from time to time they inevitably overlap. Most PE activities should include two-way communication. One way communication of information is generally viewed as being a separate activity to public engagement, as that carried out by PR, media or communications specialists. For instance, the RCUK Communications team deals primarily with one-way engagement. It is their responsibility to represent the Research Councils in a positive light with regards to what we are doing via press releases and statements for example. They may promote the work that the Public Engagement with Research team is undertaking with regards to Public Engagement with research but are not responsible for undertaking and facilitating this work themselves. There are obviously crossover areas between communications as described here and public engagement, as when, for instance, a researcher presents an engaging science documentary for a public audience, but it is useful to bear in mind that many communications activities align with a deficit model of public engagement.

Q3. Why do people sometimes talk about public dialogue when they mean public engagement?

Since 2000, public dialogue has emerged as a more developed approach to public engagement than science communication alone. At its simplest, it's a two-way form of communication that gives interested publics the opportunity to explore issues linking to science and make their views clearly known. It moves towards presenting science in its social context, valuing public knowledge and addressing fundamental questions shaping science in society, such as control, ownership, ethical and moral issues etc. Public dialogue alone is usually not suitable for most public engagement strategies, because these usually need to engage people on a range of different levels.

As described in the response to Q1, the Research Councils definition of public dialogue is a form of deliberative (i.e. over time) participatory engagement where the outcomes are used to inform decision-making.

Q4. What's the connection between PE and young people?

In recent years, tensions in the perceived relationship between science and publics has also coincided with a steady decline in the take-up of science subjects in schools and higher education – while it is important to note that the two trends are not necessarily linked, this decline has also driven development of public engagement with Science, Technology, Engineering and Maths (STEM) initiatives for young people.

Q5. Is there evidence of an anti-science and engineering culture in the UK?

Although a commonly cited perception, the research evidence does not necessarily support the view that there is a general anti-science culture in the UK¹. Publics obviously have concerns about specific technologies or areas of science and may have more general concerns, however. For example in the ESRC study² 35-45% typically express concerns that science and technology is developing 'too fast', and 55-75% that scientists pay insufficient attention to potential risks. The DIUS PAS surveys³ have also found that there are particular issues giving rise to public concern, but that attitudes to individual issues also change over time (e.g. computers/the internet/email were more widely seen as being beneficial in 2005 than in 1989/99 – 41% vs. 28%).

According to ESRC research, one of the reasons for the perception of an anti-science culture might instead be a general decrease in deference to authority, institutions and professions in general and a decline in the willingness of publics to uncritically accept scientific opinion or new technologies⁴.

The 'deficit model' (see section above) approach to public engagement tends to oversimplify the issues and lead to solutions focused on scientific communication. This approach can fail to address core underlying issues such as attitudes to governance or a wide range of other factors that give rise to dissident voice or disengagement, many of which can obscure or become overlaid onto attitudes to science itself.

Q6. Should the Councils think about making it compulsory for all researchers to carry out public engagement activities?

¹ The Public Attitudes to Science survey (<http://www.rcuk.ac.uk/sis/pas.htm>) RCUK conducted with DIUS in 2008 showed the opposite in most cases. Overall, attitudes to science are positive and interest in science has increased since 2000. 'I am amazed by the achievements of science' – up to 82% from 75% in 2000; Science is such a big part of our lives we should all take an interest' – up to 79% from 74% in 2000. In 2004, the DIUS PAS survey (<http://www.mori.com/polls/2004/pdf/ost.pdf>) found that 86% of those surveyed thought that science makes a good contribution towards society and that 82% felt that on the whole, science will make our lives easier. In the same survey, 71% also agreed with the statement that the 'benefits of science outweigh the risks', and 70% stated that their trust in scientists was unchanged from 5 years ago (NB. those responding that they trusted less or more than 5 years ago occurred in equal proportions). Seven in ten surveyed also felt that the media sensationalises science.

² The ESRC study "Towards a better map: Science, the public and the media" (http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/Images/Mapdocfinal_tcm6-5505.pdf) found that 70% agreed with the statement that most scientific research was aimed at improving human life;

³ DIUS Public Attitudes to Science (PAS) surveys - there have been three of these since 2000, all essentially designed to assess the attitude of UK publics to science and engineering. Each had a sample size of approximately 2000, and RCUK commissioned the 2008 survey on DIUS's behalf.

⁴ One of the findings from ESRC's Science in Society Research Programme (<http://www.sci-soc.net/SciSoc/>).

RCUK support the idea that public engagement should be a part of every skilled researcher's portfolio alongside teaching, thinking about knowledge transfer, international working etc.

However, RCUK doesn't consider that researcher's PE contributions should take place through front line public engagement in every instance – there will be individuals not naturally suited to engaging public audiences directly, who nevertheless are excellent researchers, and ways to accommodate this need to be found in the longer term within e.g. impact reporting on research grants or career progression criteria.