

CONSUMER ENGAGEMENT WITH EMERGING TECHNOLOGIES



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WHICH?

New technologies have the potential to offer consumers many benefits, but can also raise potential risks. Effective management of these risks, particularly when faced with scientific uncertainty is essential if consumers are to take advantage of them without being put at unnecessary risk. Consumers need to be engaged at an early stage in order to ensure that technologies are developed and overseen in a way that promotes and protects their interests. But continuing controversy over genetically modified (GM) foods and limited engagement around the introduction of nanotechnologies shows a need to improve risk communication.

Emerging technologies present government and industry with a challenge when they are often beset by uncertainties. Scientists have identified multiple areas in the field of nanotechnology for example, where more research is needed¹. Uncertainty means we may not know what the risks of a given science or technological development are, let alone how to remove or reduce them. Under such circumstances it is essential that there is effective communication and debate around how to balance potential risks and benefits and to enable consumers to make informed choices. Communication of risk

has to be two way: public concerns must be understood and addressed and consumers need to be effectively informed about what the technology has the potential to offer and issues it raises.

To ensure effective risk communication, risk management and ultimately public confidence in emerging technologies, it is essential that government and industry involve the end users of the technology at the earliest possible stage of development, starting with research priorities. Unfortunately, such a strategy has not been widely adopted to date. In the case of GM foods, for example, the regulatory framework

developed in response to public concern, rather than anticipating it. Similarly, there is no clear 'roadmap' for the role of nanotechnologies, despite some initial public engagement activities. The lack of information about the status of developments also makes it difficult to have a meaningful debate about the role that nanotechnologies can play. For example, the UK's voluntary reporting scheme for nano materials attracted only 13 submissions in over 2 years despite the previous government's estimate that there are over 220 companies in the UK using nanotechnologies².

Early engagement allows government and industry to gauge market desire for new technologies and ensure that the direction in which they develop tackles key challenges and issues for society. For instance, it has been argued that the public's reluctance to accept GM foods stemmed in part from

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consumers failing to see any benefits for themselves and anger at the lack of consultation and information when products were introduced.

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Which? was recently invited to sit on the Royal Society's Synthetic Biology Coordination Group and the Research Council's Grand Challenges research calls were also informed by a public dialogue. However, attempts to effectively engage the public on new technologies remain few and far between and there remains scepticism as to whether they have any real input to final policy. It is essential that decision-making is open, transparent and takes account of public attitudes at all stages – from ensuring the transparency of risk assessment, the way that the issues put to risk assessors are framed and how ultimately decisions about how to manage

and communicate risks are decided.

Effective engagement with the public should be used to help target broad research priorities and policy development. This is not a call for the public to have direct input into specific research funding decisions or to be the sole driver in policy making, but to allow the broader research and policy agendas to be informed by the public's hopes and fears.

After all, it will be the public who decide what emergent products and services will be successful. Whilst this is not easy, the public will be required to take on complex technical ideas and hypotheses, there are precedents, such as the Engineering and Physical Sciences Research Council's (EPSRC) Grand Challenges' use of public consultations and Town meetings to help focus research calls in nanotechnology³ and the French government's attempt at a national debate to involve citizens in the future direction of nanotechnologies⁴.

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... Current financial constraints must not come at the expense of effective risk communication and meaningful public engagement activities. . .

Our own experience of public engagement activities around new technologies has been very positive. Our 'nano' panel held in November 2007 introduced consumers to nanotechnology and the debates surrounding its development. It clearly highlighted how people can get to grips with complex issues if they are communicated in a meaningful way.

Public engagement has to be grounded in real examples to be meaningful and transparency from industry is therefore equally important in public engagement. As a result, Which? has been calling for the introduction of a mandatory reporting scheme for companies using nanotechnology and a public database providing information to consumers on nanotechnology. This would provide regulators with a better understanding of what consumers are exposed to and help consumers make more informed decisions.

Early public engagement is therefore essential. Failure to do this would undermine the potential long-term acceptance of new technologies and services. However, if developed in line with the public interest, new technologies have the potential to grow the UK economy significantly whilst also benefiting the UK consumer.

- 1 *EMERGNANO: A review of completed and near completed environment, health and safety research on nanomaterials and nanotechnology*, Defra project report March 2009
- 2 *UK Nanotechnologies Strategy, Small Scale, Great Opportunities*, March 2010
- 3 <http://www.epsrc.ac.uk/newsevents/cons/Pages/nano.aspx>
- 4 <http://www.debatpublic-nano.org/index.html>

