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Public dialogue in science and technology

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C O N T E N T S

BOXES

Foreword

The House of Lords Science and Technology Committee has asked the Parliamentary Office of Science and Technology (POST) to keep a *"watching brief on the development of public consultation and dialogue on science-related issues, and to keep members of both Houses of Parliament informed."* This has remit has been accepted by the Board of POST and the House of Commons Information Committee.

This report represents the first output by POST in fulfilling that remit, and further reports and briefings will follow as appropriate.

SUMMARY

There is growing interest in engaging the public more directly in policy and decision-making. However, quality is variable, and institutions may not have the necessary commitment, skills or resources to plan and undertake suitable public dialogue.

POST has reviewed recent developments in public dialogue, focussing on science and technology and drawing on experience from elsewhere. The report has shown that dialogue is widespread, the objectives and methods are varied, and new processes are developing continually. It indicates that successful public dialogue requires:

- high level commitment
- an institutional culture valuing dialogue
- sufficient funds and skilled personnel
- a clear idea of why dialogue is being sought
- clear ways to show how dialogue has informed decision-making
- an agreed system for measuring impact and quality.

An underpinning question is how experience can be widely shared, good and bad practice identified and dialogue furthered on the basis of sound evidence.

1   INTRODUCTION

Many institutions are creating opportunities for citizens to participate in decision-making processes through deliberation on matters of public policy. These developments have gained momentum over the last few years; so much so that the House of Commons Select Committee on Public Administration has taken evidence[1,2] in an inquiry entitled '*Innovations in Citizen Participation in Government*'. This inquiry has looked at the role of public participation in many areas of public policy, particularly related to local government. Evidence to the Committee has indicated a rapid growth in more innovative forms of public consultation. Increasingly, these involve 'dialogue' where people are brought together in small groups to deliberate on national or local issues, and so provide considered and informed contributions from many perspectives. The House of Commons Information Committee[3] supports such initiatives, stating that public dialogue is "*a new opportunity for democratic representatives to listen to their electorate and inform themselves on the issues of the day*".

These developments contrast markedly with the more common forms of consultation, such as written questionnaires, interviewer opinion polls and invitations for written submissions. These have tended to stimulate less enthusiasm, and offer limited, if any, opportunity for deliberation by those taking part. Often, many social groups, such as people with disabilities, elderly people, young people, and people from ethnic communities are under-represented.

The theme of public dialogue has definitely entered into discussions in the area of science, technology, engineering and medicine (shortened in this report to science and technology, S&T). This crystallised in 2000 with the publication of *Science and Society*, from the House of Lords Select Committee on Science and Technology[4]. In that report, the Committee identified a "*crisis of confidence*" in science - manifested for example in the GM foods and BSE issues. To address this, the Committee concluded that a cultural change within institutions handling S&T-related issues was necessary, and that a key component is to broaden the use of public consultation and dialogue processes in engaging citizens in debates and decision-making. The report stated that the United Kingdom "*must change institutional terms of reference and procedures to open them up to more substantial influence and effective inputs from diverse groups*". Similarly, leading scientific and engineering institutions launched a *Charter for Science and Engineering*[5] in February 2001, which stated that scientists and engineers need to "*understand the public's concerns and engage in a constructive dialogue.*"

This report provides an overview of how institutions are responding to developments in public dialogue. The focus is on S&T, because of the rapid pace of development, complexity, all-pervasiveness and the often contentious ethical issues raised. However, the report also draws on valuable experience from other policy areas, in particular local government and health care. It discusses consultation initiatives by many organisations and gives an outline of key issues, such as how and why dialogue is carried out and how it can be made effective.

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[1] At the time of writing, the Committee had not published its report

[2] see www.publications.parliament.uk/pa/cm199900/cmselect/cmpubadm/cmpubadm.htm

[3] House of Commons Information Committee (2000). *The Future of the Parliamentary Office of Science and Technology*. Session 1999-2000 First Report HC 659, July.

[4] House of Lords Select Committee on Science and Technology (2000). *Science and Society*. Session 1999-2000, Third Report. HL paper 38, February.

[5] Published by the Royal Society of Chemistry (see also www.rsc.org/pdf/parliament/sbcharter.pdf)

2   PUBLIC CONSULTATION AND DIALOGUE

2.1 The Reasons for Dialogue

In any discussion of public dialogue, two immediate questions arise. The first is "who is the public?" And the second is "what is the purpose of dialogue?" Going back even to classical times, it was recognised that there is no one, homogenous 'public' with a set of consistent and coherent opinions, attitudes and values. Rather, there are multiple 'publics' holding a wide variety of divergent views that are highly dependent on individual, community and societal contexts[6]. Public dialogue can have many objectives – ranging from information provision to participation in decision-making. There are two main reasons put forward as to why public dialogue has been developing rapidly in recent years:

- supporting democracy
- making better decisions.

Supporting Democracy

Debates surrounding the extent to which people engage in national and local political processes have led to concerns about a widening 'democratic deficit'[7]. Indicators are said to be; low election turnout, voter apathy, discontent with traditional ideologically based politics, and some evidence of declining trust in politicians and political institutions[8]. At the same time, there has been an increase in the activity and influence of single-issue campaigning groups.

Concerns have arisen about the relative balance between Parliament, government and the role of special interest groups and that this decreases the legitimacy of democratic administrations and legislatures. It is widely agreed that these trends do not reflect dissatisfaction with democracy itself. Rather, some observers suggest they reflect low confidence in the nature of political life – particularly in the relevance and performance of politicians, governments, many public authorities and 'experts' from a wide range of disciplines (doctors, lawyers, scientists, etc.). They further argue that these trends become manifested in the emergence of a culture in which trust must be earned, and in which automatic deference to hierarchy is less common.

Public authorities are beginning to respond to these trends by seeking greater interaction with citizens. The aims include establishing greater legitimacy and support from the public, developing a stronger civic culture and encouraging higher levels of political engagement. Dialogue processes can be seen as a way to increase the range of forums within which it is possible for people to become involved with the process of governance. It is argued that to bring this about, more opportunities are needed for direct involvement in decision-making, alongside other activities aimed at strengthening political engagement, e.g. devolution and making voting easier.

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[6] The literature on this topic is large, but for example see: Irwin, A. and Wynne, B. (1996). *Misunderstanding Science? The Public Reconstruction of Science and Technology*. Cambridge University Press; Coote, A. Rendell, E. and Stewart, J. (1994) *Citizen Juries*. Institute for Public Policy Research; Smith, G. and Wales, C. (2000) Citizens' Juries and Deliberative Democracy. *Political Studies* 48 1(2000) 51-65.

[7] Again, there is a large literature on this, but for a succinct summary see: Jones, W. *et al* (1998). *Politics UK*. Third Edition. Prentice Hall. Bentley, T. *et al* (2000) *Getting to grips with depoliticisation*. Demos (www.demos.co.uk/depol.htm); Barnes, M. *et al* (1999) *Power, participation and political renewal*. School of Social Research, University of Birmingham.

[8] House of Lords Hansard 14 February 2001 Col. 289

Making Better Decisions

Decisions have to be made on the basis of available information. Rarely is there a situation where complete knowledge is at hand. Indeed, in many systems (e.g. the environment), it may not be possible to hold complete information because uncertainty and unpredictability are inherent to the systems themselves. As such, decision-making must deal with the situation where the world is imperfectly understood, complex, dynamic and open-ended[9]. In these circumstances, it is being increasingly claimed that non-experts have a valid role to play in decision-making by providing alternative perspectives to help deal with inherent uncertainty and lack of knowledge. It is argued that people's knowledge, experience and values can provide valuable insights, both in terms of framing issues and questions, and in assessing and evaluating solutions[10]. Without such public involvement, decision-makers would be operating with incomplete information. In addition, the process of engagement is said to depolarise a debate, bringing the parties on all sides out of their entrenched positions and creating an opportunity for a more reasoned debate.

In recent years, one area where this has been particularly apparent has been in issues related to science, engineering, technology and medicine (often shortened to S&T). Until recently, the relationship between S&T and the public has been based on a model of the 'public understanding of science' (often shortened to the unfortunate acronym PUS) that had assumed public acceptance of new scientific research and technological development would increase with greater understanding of the science and engineering principles involved[11]. For instance, the public would come to accept GM foods if only they better understood the science of genetics and the techniques of genetic engineering. In the last decade, however, this 'deficit' model has been shown to be incomplete, as it has failed to take account of the many other factors that influence people's attitudes to science and technology. These include the need for the technology, the motivations behind the developments, and their level of trust in the institutions conducting the science, or managing risks on their behalf[12].

The House of Lords Select Committee on Science and Technology examined these issues in its inquiry *Science and Society*[3]. It concluded that the deficit model needed to be replaced with a 'democratic engagement' model based on an open, transparent and inclusive dialogue with the public at all stages from setting research priorities, through to decision-making about the management of risks and benefits. To achieve this, the Committee concluded that a cultural change was necessary in all institutions dealing with scientific and technological issues. The Government agrees[13],[14] It has recognised the need, and is beginning to build the capacity for increasing public involvement in decision making in S&T.

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[9] Funtowicz, S. *et al* (2000). Science and Governance in the European Union: a contribution to the debate. *Science and Public Policy*, Volume 27, Number 5, October 2000, 327-336.

[10] For example, see Global Environmental Change Programme (1999). The politics of GM food: risk, science and public trust. Special briefing No. 5. SPRU, University of Sussex.

[11] Royal Society (1985). *The Public Understanding of Science.* London, The Royal Society.

[12] From among a large literature, see in particular Irwin and Wynne (1996) cited in footnote 6, Grove-White, R. *et al* (1997). *Uncertain World: genetically modified organisms, food and public attitudes in Britain*. CSEC, University of Lancaster; Grove-White, R. *et al* (2000). *Wising Up. The public and new technologies*. CSEC, University of Lancaster; National Research Council (1996). *Understanding Risk; informing decisions in a democratic society*. (eds Stern, P.C. and Fineberg, V.) Washington D.C., National Academy Press; Pidgeon, N. *et al* (1992). Risk Perception. In *Risk Analysis, Perception and Management*. Report of a Royal Society Study Group. London, The Royal Society.

[13] Department of Trade and Industry (2000). *The Government response to the House of Lords Select Committee on Science and Technology, Third Report, Science and Society*. Cm 4875, October. The Stationery Office.

[14] Lord Sainsbury (2000). Keeping the Public On-Side. *The Parliamentary Monitor*, October page 12.

2.2 The Methods of Dialogue

Public consultation and dialogue can take many forms. Inviting comment on government documents, applications for regulatory approval, and providing evidence to Parliamentary Select Committees are among the traditional means of consulting 'the public'. Formal market research has also been used widely by central and local government, commercial and community organisations. Techniques have included opinion polling and focus groups (see **Box 2.1**).

Two key features of the more recent activities involving public dialogue are that they are '**deliberative**' and '**inclusive**', that is, they provide a forum for considered debate among a wide range of people (Box 2.1 outlines some of the key methods[15]).

Deliberation involves careful consideration of information and views. But the process functions by creating social interaction through face-to-face meetings, or electronically (via email, the internet or videoconferencing). In addition, discussion and debate progress through a number of means, including oral communication, visual aids and written text. Because participants invariably hold a range of views and values, dialogue processes ought respect these. Finally, participants can reflect on their views and re-evaluate their positions on an issue as the dialogue progresses.

In terms of **inclusion**, advocates of public dialogue argue that deliberative processes are most effective if they include participation by individuals and groups from a broad and diverse range of perspectives. There are no precise criteria to define who should be included, but fundamental democratic principles require that all whose interests will be affected have the opportunity to take part. This is in contrast to traditional consultation methods that tend to attract 'the usual suspects' such as academics, official bodies, pressure groups, and industry lobbies. In particular, dialogue processes are most often used to extend the range of those involved to include previously excluded individuals and groups such as women, people from ethnic minorities, young people, old people, and people with disabilities.

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[15] Other approaches include community arts projects as a means of engaging young people and other groups who may not be comfortable with more traditional approaches.

BOX 2.1 INNOVATIVE METHODS OF PUBLIC DIALOGUE

Deliberative polling

In a deliberative poll, a large, demographically representative group of perhaps several hundred people conducts a debate on an issue, usually including the opportunity to cross-examine key players. The group is polled on the issue before and after the debate.. Typical costs around £200,000.

Standing panels

The United Kingdom is the first country in the world where the government has created a standing panel at national level. The People's Panel consists of 5,000 members of the public, selected at random from across the United Kingdom, available as a market research instrument for quantitative and qualitative research and consultation. It was set up in 1998 by MORI and Birmingham University for the Cabinet Office. Its primary purpose is to track levels of satisfaction with public services, but it is also available for other purposes. As noted in Box 3.1 in the main text, it was used in the Public Consultation on the Biosciences. Outside of government, the Wellcome Trust currently has a consultative panel on gene therapy.

Focus groups

A focus group is a qualitative method used widely in commercial market research and increasingly in academic social research. Typically, a group of around 10 people, broadly representative of the population being studied, is invited to discuss the issue of concern, usually guided by a trained facilitator working to a designed discussion protocol. This focussed discussion typically lasts up to two hours. The group is not required to reach any conclusions, but the contents of discussion are studied for what they may reveal about shared understandings, attitudes and values with respect to an issue. Focus groups cannot provide a statistically robust sample of national opinion. Instead, their purpose is to help to clarify how the participants perceive and talk about an issue in relation to their day to day lives; what meanings they attach to the language in which it is framed; and what terms they themselves use to communicate about the issue with other people. Focus groups may also help to identify the factors (which large-scale surveys rarely do) that shape attitudes and responses, including trust or mistrust. They also help in the design and interpretation of quantitative public opinion surveys. Typical cost £1-2,000 each.

Citizens' juries/panels

A citizens' jury (or panel) involves a small group of lay participants (maybe 12-20) receiving, questioning, discussing and evaluating presentations by experts on a particular issue, usually over 3-4 days. At the end, the group is invited to make recommendations. To date, local authorities, government agencies, policy researchers and consultants have convened over 200 citizens' juries on a wide range of policy issues. Typical cost £15-£25,000.

Consensus conferences

By convention, a group 16 lay volunteers is selected for a consensus conference. These people are selected according to socio-economic and demographic characteristics. The members meet first in private, to discuss an issue and to decide the key questions they wish to raise. There is then a public phase, lasting perhaps three days, during which the group hears and interrogates expert witnesses, and draws up a report. A consensus conference does not purport to be statistically representative of the public at large. The main differences between a consensus conference and a citizens' jury or focus group are the greater opportunity for the participants to become more familiar with the technicalities of the subject; the greater initiative allowed to the panel; the admission of the press and the public; and the cost. Estimates are around £85,000 - the most recent consensus conference in the UK (Box 3.2 in the main text) cost around £100,000.

The first European consensus conference was held in Denmark, on the subject of irradiating food. It was organised by the Danish Board of Technology (DBT), which performs for the Danish Parliament a role somewhat analogous to that of POST for the UK Parliament.

Stakeholder dialogues

A 'stakeholder dialogue' is a generic term applied to processes that bring together affected and interested parties ('stakeholders') to deliberate and negotiate on a particular issue (or set of issues). Stakeholders can range from individuals and local residents to employees and representatives of particular organisations or interests.

Internet dialogues

An Internet dialogue is a generic name for any form of interactive discussion that takes place through the medium of the internet. They may be restricted to a selected list of participants, or open to anyone with internet access. As internet access grows, many are looking to internet dialogues to be used increasingly for direct public consultation. The advantages of internet dialogue include the ability to collect many responses quickly, and to analyse these using search engines. Similarly, they can combine the benefits of rapid exchange of ideas (brainstorming) with a complete record. On the other hand, participation may be self-selecting and unrepresentative, while the anonymity of the internet may encourage impulsive rather than considered responses. Anonymity may make it difficult to investigate the provenance of information provided. Also, there is limited scope for true 'deliberation' in a group context. The continuing development of digital television, linked to the internet, may make possible high levels of participatory democracy. Internet dialogue and digital TV are still very new, and need to be evaluated when more experience has been gained.

Also see www.pip.org.uk/models.htm

3 RECENT DEVELOPMENTS IN PUBLIC DIALOGUE

There is widespread and growing recognition of the value of entering into constructive dialogue with the public. Many institutions in many policy arenas are now beginning to adopt a more interactive approach. The **Annex** provides a 'snapshot' of activity in the UK. Based on a review of the information outlined in the Annex, four key issues arise:

- Whether an institution has set clear objectives for engaging in dialogue
- How the acceptability and authority ('legitimacy') of dialogue processes can be established
- How their effectiveness and worth can be identified
- How dialogue can be developed further.

3.1 Setting Goals for Dialogue

As outlined earlier (section 2.1), there are many goals that institutions seek in adopting participatory dialogue processes. These can be described in terms of two main overarching objectives: supporting democracy and making better decisions. Commonly cited goals include:

- Strengthening democratic processes by providing elected representatives with intelligence about the outcomes of considered debate among informed lay publics
- Increasing trust in decision-makers
- Balancing public views against other factors affecting decisions (such as resources and statutory requirements)
- Providing people with the skills and opportunities to deliberate on issues, thereby promoting informed debate and decision-making
- Including interested parties in policy and decision making
- Finding areas of common ground and of dissent between participants
- Eliciting the values and lay knowledge held by non-experts
- Building mutual understanding between different groups
- Providing 'early-warning' of potential problems and of opportunities to be exploited.
- Widening the basis of knowledge to help identify and structure problems
- Informing people, or raising people's awareness of an issue
- Increasing a sense of 'ownership' of decisions, thus increasing responsibility for implementation
- Providing opportunities for personal development.

The rise of public dialogue has largely occurred as a result of a cultural shift where deference to authority is no longer automatic and trust has to be earned. This has occurred at all levels of governance – from a local authority deciding on locating a bail hostel, through to national legislatures debating the future direction of scientific research. Experience to date has been mixed. For instance, there are institutions that feel that public participation and dialogue are not necessary, while others feel that it is important but irrelevant to their particular institution (i.e. it is someone else's responsibility to engage with the public). Further, there are others who feel that public dialogue is important and recognise a role for their own institution in this. In this last category, however, there has again been a mixed response – from no action being planned or undertaken, through tentative planning and development, to well established procedures.

One issue arising is **why some institutions do not engage in public dialogue**. Some report that public dialogue is either not necessary at all, or not applicable to them[16]. A key consideration is that some institutional terms of reference provide no specific remit to engage the public. This goes against the sentiment expressed by international bodies (such as the UN and the EU) and the UK government. For instance, the European Commission considers[17] that experience of such exercises *"has illustrated the extent to which ordinary members of the public, once they have all the information in their possession, can conduct high-quality dialogue with experts, put judicious questions to these experts, deliver balanced judgements and reach a reasonable consensus."* Indeed the Commission states that *"far from being intended to replace the democratic debate in its traditional, recognised forms, still less the political decision-making process, initiatives of this type are designed to help this debate to unfold and to aid decision-making."*

Similarly, the UK government is taking steps to consolidate consultation policy under its *Modernising Government* agenda[18] in which it wishes to broaden consultation to include a wider set of perspectives and views. An example includes the People's Panel set up by the Cabinet Office (**Box 3.1**).

BOX 3.1   THE CABINET OFFICE PEOPLE'S PANEL[19]

In 1998, as part of an initiative to broaden the views gained during consultation, the Cabinet Office commissioned MORI, the market research company, and Birmingham University's School of Public Policy to set up a People's Panel. The Panel comprises 5,000 members of the public, with a profile representative of the UK population in terms of age, gender, region and other demographic indicators. Since the original members were recruited, the Panel has been 'topped-up' with an extra 1,000 members to replace the inevitable attrition and to ensure that the Panel continues to reflect the population in terms of age, 'social status' etc. An additional, 830 members have been recruited from ethnic minorities to ensure that there is a large enough, and representative, sample of this group that can be used for quantitative research. The People's Panel can

- identify representative groups of service users (e.g. to find samples of people who use or do not use libraries)
- consult on issues, such as health, housing and social services. The Panel can be used to conduct regional studies, allowing research to compare regional with national norms.
- track how and why views are changing.
- conduct a range of surveys, providing background data and allowing national comparisons.

Any government department, Next Steps agency, NDPB, or any other publicly funded body, local authority, or association representing these organisations can use the People's Panel on a payment basis. All research from the People's Panel is published. This entails, as a minimum, putting results on the Internet (and making questionnaires marked-up with results, available as required). To date the Panel has been used for consultations on the following topics:

- *Putting Consumers at the Heart of Public Services*
- Attitudes to public services in deprived areas
- Public services and ethnic minorities
- Out-of-hours services
- Testing the government change of address portal
- Older people's views of public services
- Views of a directory of government helplines
- Focus groups with women
- Levels of service expected from public agencies
- Parents' attitudes towards school performance tables.
- Public attitudes towards the wider (including ethical) implications of recent developments in the biosciences.
- Practical problems people face when they use public services.
- Attitudes to a range of public services, with a particular focus on transport, local democracy and complaints handling.
- Public attitudes to genetic information (for the Human Genetics Commission – see Annex A1.2)

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[16] e.g. The Association of independent Research and Technology Organisations

[17] Commission of the European Communities (2000). *White Paper on European Governance – Enhancing Democracy in the European Union*. SEC (2000) 1547/7 Final 11 October.

[18] The Prime Minister and the Minister for the Cabinet Office (1999). *Modernising Government*. Cm 4310, March.

[19] See www.cabinet-office.gov.uk/servicefirst

Dialogue can be used to address a range of issues of public concern. These concerns can be grouped into three main areas:

- Local issues, such as the quality of local services (such as refuse collection)
- Generalised concerns over issues of public finance (such as taxes, and the balance between spending priorities such as crime, health, education, etc.)
- Issues characterised by the 'risks' they pose to people's well-being (such as the safety of food, medicines, waste incineration, mobile telephones, etc.).

Much of the experience to date in public dialogue has been in the first two categories. Increasingly, however, attention is now being given to dealing with concerns over scientific and technological developments. Consequently, for an institution dealing with science and technology not to engage in dialogue would be at odds with the message from the House of Lords *Science and Society* report. This stated that the *UK "must change institutional terms of reference and procedures to open up to more substantial influence and effective inputs from diverse groups."* Similarly, observers point out that dialogue may be perceived as having little worth or legitimacy unless it is embedded thoroughly in the scientific and technological system. One issue arising is whether it is possible (and if so, how) to categorise different methods of public dialogue for different aspects of science and technology, for instance, whether dialogue should be used only where a scientific advance or technological development causes (or may cause) widespread public concern. The corollary of this is whether dialogue should be used to pre-empt (and so minimise) such concern, by being used as part of an 'early-warning' system.

A further issue is **whether the institutions that are embarking upon dialogue have clearly defined their objectives for doing so**. This relates to their own perceptions of what they believe the voice of the public to be, and what role it can play within the decision and policy making processes in their own institutions. Some observers have commented that tightly defining objectives increases the likelihood of their being achieved, assists in evaluating the worth of the process (section 3.3 later), and helps participants learn from experience. Thus, the value of any dialogue may be brought into question if it is not seen to command an audience, or is used merely to legitimise previously made decisions. Some researchers, practitioners and commentators have warned that unless those wishing to embark upon public dialogue, clearly understand these dimensions, there is a danger that public dialogue may be conducted in an atmosphere of cynical tokenism, leading to bland exercises in public relations[20].

3.2   Ensuring that Dialogue is 'Legitimate'

Following from the above analysis, it can be seen that a critical aspect of avoiding accusations of tokenism is to ensure that the exercise of public dialogue is 'legitimate'. There is no widely agreed set of characteristics that would determine whether any one process of public dialogue is or is not 'legitimate', but observers have pointed to three key factors[21]:

- Fairness
- Method and timing
- Participation

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[20] E.g. Macfarlane, M. (2000). *Socialising Capital or Capitalising on the Social*. Paper presented at the 2000 Annual Corporate Citizenship Conference. Corporate Citizenship Unit, Warwick Business School; and Frishberg, J. (2000) pers comm.

[21] For example: Rowe, G., et al.(2000). *Public Participation methods: evolving and operationalising an evaluation framework.* Annual Report to the Department of Health and Health and Safety Executive. Norwich: Institute of Food Research; Petts, J., and Leach, B. (2000). *Evaluating methods for public participation: literature review*. Environment Agency Technical Report E2-030. University of Birmingham, Centre for Environmental Research and Training.

Fairness

Issues related to the fairness of any dialogue processes include the setting and sources of funding for dialogue processes, and people's perception of the trustworthiness of these. For instance, the National Consensus Conference on radioactive waste in May 1999 (**Box 3.2**) was set up by an independent research charity (the UK Centre for Economic and Environmental Development[22]). However, it was funded from three other sources: the UK Government (via the Office of Science and Technology of the Department of Trade and Industry); academia (via the Natural Environment Research Council); and industry (via UK Nirex Ltd). There was strict demarcation between the role of funding bodies and the organisers – with funding bodies excluded from the management steering group, which itself comprised representatives from organisations with a broad range of views on the topic. The use of third party facilitators can help to establish and maintain trust in this regard.

BOX 3.2 UK NATIONAL CONSENSUS CONFERENCES

Plant Biotechnology, 1994

This was a joint initiative of the Biotechnology and Biological Sciences Research Council (BBSRC) and the Science Museum. BBSRC provided funding with a view to engaging the public in debate on science and technology encouraging the public 'to get involved in a critical way in reviewing the new biotechnologies'. The Science Museum was responsible for planning and implementing the event. The Panel considered technical, moral, ethical and legal implications, such as:

- The key benefits and risks
- Impact on the consumer
- Impact on the environment
- Moral problems raised
- Patenting and intellectual property issues
- The benefits and risks to the developing world
- Prospects for effective regulation.

It is interesting to note that many of the issues raised by the Panel[23] in 1994 are still current in the debate about GM foods. Also of note was that the outcome from the consensus conference had 'nowhere to go' – i.e. once the Panel had concluded, the process stopped, and no public body took account of the Panel's concerns and conclusions.

Nuclear Waste Management, 1999

Consequently, for the second consensus conference, the organisers and the Panel members wished to ensure that there was some formal recognition of the Panel's views. The consensus conference thus had to be 'squeezed' into the official process. The organisers persuaded the government to agree to take account of the conclusions of the conference when formulating its response to a House of Lords committee report on the topic. The government's commitment (expressed in part funding of the conference) ensured that outcome of the consensus conference would have 'somewhere to go'. However, in the end, the government response was written[24] (it was circulating between departments for final approval) before the consensus conference was completed, so there was no practical way in which the conclusions could have been incorporated. More surprisingly, the government made no reference to the event when debating the Lords report in Parliament many months later. Throughout the conference, the Panel's concerns reflected a number of themes relating to the need to:

- Ensure openness, transparency and the inclusion of lay perspectives in decision-making
- Establish strong, independent and effective regulatory bodies that can command public trust
- Ensure that managing radioactive waste is guided by precaution, particularly to safeguard future generations
- Consider radioactive waste management in the wider context of energy policy more generally.

The Panel reported that they had learned much in a short period of time, had gained a better grasp of the complexity of the problem, and felt more confident to enter into informed debate on the topic. Many of the witnesses also felt that the conference had been worthwhile because it created a forum that allowed a more considered less polemical debate than before. In his response to the Panel's report, the Environment Minister said that "*there was no question of this report disappearing into oblivion – it will be listened to very carefully*". He regarded the consensus conference as "*very important, useful and helpful*", that it was an "*excellent exercise*" and that he was "*very encouraged*" that it had happened.

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[22] UK Centre for Economic and Environmental Development (1999*). UK National Consensus Conference on Radioactive Waste Management*. Final Report. (published on the internet at http://www.ukceed.org/consensus_conference/contents.htm)

[23] POST (1995). *Plant Biotechnology: A Consensus*. POST Note 56, January 1995. Parliamentary Office of Science and Technology

[24] Department of the Environment, Transport and the Regions (1999). *Response to the House of Lords Science and Technology Committee 3rd Report Session 1998-99. Management of Nuclear Waste*.

Another issue of fairness relates to how close dialogue processes are to the 'core of decision-making'. For instance, if dialogue is occurring only as an interesting side-show, while meaningful decisions are being made elsewhere, then participants will feel that they are wasting their time. For example, the first national consensus conference on plant biotechnology (in 1994) was notable in that it identified a number of key concerns regarding the development of GM plants. However, the exercise had 'nowhere to go' – i.e. there was no formal policy process in which the outcome could be taken further[25]. This problem *was* addressed in the radioactive waste consensus conference, therefore, the government was committed to listening, and indeed provided half the funding. In addition, the key decision-maker in this area (in this case the Environment Minister) was on hand to reassure the lay panel that their voices would not go unheard. Conversely, commentators warn that dialogue processes should not be so close to decision-makers as to be controlled by them.

Many observers support the idea that such **links with formal policy and decision-making processes are an important element in establishing the 'legitimacy' of any dialogue**[26] (some recent activities in the UK Parliament involving more innovative forms of public engagement are outlined in **Box 3.3**). In particular, some have suggested that 'legitimacy' will be enhanced further where processes are accompanied by a general presumption towards openness.

Again, however, the value of such links depends very much on why the dialogue is being conducted. For instance, if the objective is to improve the capacity and skills of individuals to participate in debates, then there is no inherent requirement that such dialogue is 'plugged into' any formal decision-making. On the other hand, if participants are led to believe that their contributions will in fact feed into decision-making, then there needs to be a clear way of demonstrating that this has actually happened. Meeting participants' expectations, as well as those of commissioning institutions, is an important aspect of ensuring that dialogue is perceived to be 'legitimate'.

Lastly, fairness also relates to the process itself, and the role of the participants. In particular, participants' involvement in framing the questions to be considered, and in agreeing the objectives for the exercise will enhance legitimacy. It is here that the more innovative forms of dialogue stand out from the traditional forms of consultation. For instance, during the nuclear waste management consensus conference, the lay panel was originally convened to examine how existing stockpiles of low and intermediate level radioactive waste were to be managed. However, the panel members themselves quickly changed the terms of reference, and expanded the scope of their inquiry to cover both existing and future wastes arising, other forms and sources of radioactive waste, and the future of waste reprocessing and nuclear power more generally. As is standard practice with consensus conferences, the panel members themselves decided which witnesses they wanted to see, and what questions they wanted to ask, as well as writing their own report of their deliberations, and presenting it at a public meeting attended by the media. Some observers see this as a particularly important aspect of the process as it enables the collective considerations of participants to be captured[27]. It is pointed out that this is often neglected, with facilitators or organisers writing reports, so losing much of the value of deliberation. Where this has happened, it has led to some criticism of dialogue processes being little more than expensive market research exercises.

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[25] Joss, S. (1998). *The Role of Participation in Institutionalised Technology Assessment. A case study of consensus conferences.* Thesis submitted for the degree of Doctor of Philosophy of the University of London. Imperial College of Science, Technology and Medicine.

[26] The Cabinet Office launched a Code of Practice for Written Consultation in November 2000. This applies to all national government consultation documents issued after 1 January 2001. One of the main objectives of the Code is to ensure fairness in government consultation, and to avoid exclusive access to ministers by individuals or groups.

[27] Fuller, S. (2001). Pers comm. University of Warwick.

BOX 3.3 RECENT EXAMPLES OF PUBLIC DIALOGUE IN THE UK PARLIAMENT

By their nature, Parliaments provide a forum in which the views of the public can be voiced through elected representatives in areas of law making, scrutinising governments, and general debates on issues of policy interest. Direct access to the UK Parliament and its members takes place through:

- Contacts made with individual members of either of the Houses of Parliament (e.g. via constituents meeting, writing to, telephoning or emailing their MP, lobbying or contact made through All Party Parliamentary Groups).
- Submission of petitions
- Submission of evidence to Parliamentary Select Committees.

Beyond these traditional forms of public input to Parliament, there have also been a few recent innovations:

- The House of Commons Select Committee on Public Administration has taken evidence on innovations in citizen participation in government, and is expected to report shortly. While the evidence sessions themselves fall into the category of 'traditional' consultation, the inquiry was supported by an online discussion forum on electronic democracy, run by the Hansard Society. The report of the process was submitted as evidence to the committee[2].
- The House of Lords Select Committee on Science and Technology considered, as part of its inquiry into Science and Society, how dialogue may be carried out by institutions involved in science and technology. The inquiry was also informed by an on-line discussion forum, run by POST in association with the Hansard Society, and the report of the process submitted as evidence.
- The House of Commons Select Committee on Science and Technology invited a number of 'lay' people to provide evidence to its inquiry into cancer; giving them the opportunity to speak for a few minutes on their personal experiences of cancer, as a patient or as a supporter of a patient. The committee members report this unusual event as being an 'enlightening' experience.
- The House of Commons Social Security Committee commissioned an internet forum, called 'Uspeak' on issues of tax credits and the barriers of welfare to work for low-income families. The consultation ran online at www.Uspeak.org.uk for four weeks from 29th January 2001. The project enabled people with experience of living on low incomes to channel their views, experiences and suggestions directly to Parliament. The findings of the consultation are expected to be reported to the Social Security Select Committee in March 2001.

In addition, since 1989, the operation of POST has created another opportunity where voices external to the UK Parliament can be fed into debates and deliberations by MPs and Peers on S&T related issues. POST has traditionally sought the views of experts and interested organisations, without specifically seeking the voice of lay people. It has however, run internet dialogues on two issues, and intends to continue to do this where the opportunity arises. In this way, POST can provide parliamentarians with an understanding of the concerns of lay citizens.

Despite these activities, there are no widely adopted policies or procedures for enabling deliberative dialogue between citizens, or between citizens and parliamentarians, to occur more widely within the UK parliamentary process. However, there is an expectation that such activities are likely to be become more common, but though 'organic' (ad hoc) growth, rather than by design[28]. Nevertheless, there is recognition of the value of such dialogue, captured in the sentiment of the House of Commons Information Committee when it concluded[3] that this represents "*a new opportunity for democratic representatives to listen to their electorate and inform themselves on the issues of the day.*"

Method and Timing

Designing and choosing the most appropriate forms of dialogue, and ensuring that they take place at an opportune time can also enhance legitimacy. Here, increasing attention is now being placed (by commissioning institutions and practitioners) on the idea that **dialogue processes should be 'fit for purpose'** and that using 'off-the-shelf' methods, such as citizen's juries and consensus conferences may not always be the most appropriate approach. For example, consensus conferences, by definition, seek consensus views from the lay panel. Similarly, a citizen's jury elicits an agreed 'verdict'. Some observers argue that **it is important to recognise that it may not always be appropriate to achieve consensus**, as this can sometimes represent a sub-optimal position, arrived at through negotiation and

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[28] Parrett, L. (2001). Pers. comm. Office of the Clerk of the House of Commons.

bargaining, with dissenting views suppressed. Rather, in some circumstances, a method that specifically uncovers such differences of view and areas of dissent may be more appropriate[29].

This has led some practitioners to develop a 'toolbox' approach, where different elements of a dialogue process (**Box 3.4**) are assembled to best suit the objectives at hand, rather than the objectives implicit in any one particular method[30] (such as a citizens' jury). It is also increasingly recognised that the optimum consultation strategy may consist of more than one consultation method. In some circumstances it may be appropriate to engage in dialogue over a period of time so that people's confidence and expertise can develop. Organisers increasingly deploy a number of different methods, for example, combining traditional opinion polls and written consultation, with more innovative participatory methods such as citizens' juries and internet dialogues. It should be noted however, that different methods tend to give very different kinds of results. Consequently, an issue arises over how a policy or decision-making process can effectively pin down the 'public will'. Some have suggested that establishing ways to clearly identify how the dialogue influenced the decision ('audit trails') within dialogue and decision processes would be necessary.

On the issue of **timing**, legitimacy can be enhanced if the process and its outcome take place at a time appropriate to the objectives of the dialogue. Clearly, a process aimed at providing an input to decision-making would have to be timed to finish before the decision is taken, although not so long that the outcome is forgotten or becomes outdated. However, in some circumstances the purpose of the dialogue may be to gain feedback on the implications of a decision once taken, or to monitor responses once the decision is being implemented. It should be noted however, that dialogue does not take place in a vacuum, and that other external issues may arise during a process that may influence its outcome.

BOX 3.4   DESIGNING DIALOGUE PROCESSES

Public dialogue is not something best entered into lightly. Five main steps are involved in the design of processes:

- **Understanding context and content**. *Context* includes the history of any decision that needs to be made; the reasons for engaging in dialogue; and barriers that may need to be overcome. *Content* includes the issues to be covered, their importance for different parties, the need for technical specialists, and the potential to generate conflict.
- **Defining objectives and outcomes**. In particular, it is necessary to distinguish between outcomes relating to content and process. For example, a content outcome might be 'to produce a management plan', while a process outcome might be 'to increase a shared sense of ownership of the plan'.
- **Identifying interested parties**. These may be organisations and individuals that may initiate, facilitate or hinder the process, as well as those whose views are being sought.
- **Considering process design and choice of techniques**. This involves identifying a process that uses appropriate techniques to enable the 'relevant' (see next section) people to work on the content and produce the required outcomes. Process sessions include: introductions/scene setting; sharing ideas; grouping or prioritising issues; drawing together considerations; deciding next steps; and evaluation.
- **Designing the process in detail**. For each session, a detailed design will be necessary, bringing together small-scale techniques (such as brainstorming) into an overall process. Issues such as venue, seating, lighting, refreshments, writing equipment, etc. may be required for face to face meetings, and each element needs to be planned in advance, for the process to work smoothly. Practitioners agree that planning and organising dialogue is time consuming, often representing the lion's share of the effort involved.

Source: Projects in Partnership and Acland Associates

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[29] Stirling, A. (1999). *Science and precaution in the management of technological risk*. Institute for Prospective Technology Studies, Seville, May 199. EUR 19056 EN.
[30] Colbourne, L. (2001). Pers Comm. Projects in Partnership.

Participation

Finally, the legitimacy of a dialogue process is influenced greatly by whom exactly is participating. Participants can take place either as individuals (e.g. people living in a street), or as representatives of particular interests (e.g. the president of a residents' association). Essentially, participants can be derived from three sources:

- Statistically robust samples
- Broadly representative cross-sections of society
- Specific sets of interests, expertise, or affected groups.

The source of participants depends on the objectives of the consultation. If a truly statistically robust sample of the whole population reflecting complex demographic and socio-economic profiles of the population were required, then an opinion poll involving hundreds (or thousands) of people selected to be representative would be needed. For example, this process was used in a survey of people's attitudes to science commissioned by the Wellcome Trust and the Department of Trade and Industry's Office of Science and Technology (**Box 3.5**). However, if the objective is to provide a deliberated response from lay people, then a citizen's jury or consensus conference, involving fewer than 20 people, may be more appropriate. Such a small number of participants cannot provide as statistically robust a sample of public views as an opinion poll, but it does enable considered debate and deliberation to take place. As long as participants are taken from a range of backgrounds, a wider set of perspectives can be brought into discussions than would otherwise occur[31].

In many circumstances, members of specific sections of the population such as the young people, elderly people, people with disabilities, or people from ethnic or religious groups are not traditionally included in debates. Ensuring that participation can include members of these difficult to reach groups, therefore, will enhance the legitimacy of dialogue by providing an opportunity for these voices to be heard. Furthermore, it may be desirable for deliberation to take place among specific professional groups, such as policy-makers, public interest groups, business representatives and academics.

Ensuring that the 'appropriate' people are participating, therefore, also depends on the circumstances and objectives of the dialogue. Each approach to recruiting participants has its advantages and disadvantages, but none can be seen as being inherently 'better' than another.

3.3   Evaluating Dialogue

As the body of experience in public participation and dialogue processes grows, so does interest in determining whether such processes are useful. Both practitioners (such as the members of InterAct, (see Annex A5) and academics (such at the Institute for Food Research and the University of Birmingham) are developing sets of criteria by which dialogue processes can be evaluated[17]. Two key elements can be identified: assessing the **quality of the process** and examining its **outcome**.

Ensuring the Quality of Dialogue

Evaluation is necessary if the worth and effectiveness of participatory and dialogue processes are to be established. There have been a number of attempts to identify measures for assessment. A large number of measures have been identified, but it is not appropriate to explore all of them in this overview report.

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[31] Smith, G. and Wales, C. (1999). The theory and practice of citizen's juries *Policy and Politics* Vol. 27, No. 3, pp.295-308.

BOX 3.5 THE OST/WELLCOME TRUST STUDY INTO PUBLIC ATTITUDES TO SCIENCE IN BRITAIN[32]

As part of a review of science communication in the UK, research was undertaken to establish the public's attitudes towards science and technology. Research began with a nationwide series of group discussions carried out in October and November 1999. The findings from these discussions provided the framework for a subsequent large-scale national survey undertaken in January 2000.

Group discussions explored public attitudes to science, engineering and technology, and how these attitudes are formed. Sixteen discussions were convened, with participants grouped by age, sex, socio-economic group and geographical location. Participants talked about science, engineering and technology, and the relationship between them. From this work, 40 attitude statements were drafted for use in the subsequent national survey. The group discussions showed that attitudes to science are defined, to some extent at least, by general attitudes to life. The attitude statements were thus put into three broad groups for use in the national survey:
- statements designed to explore personal confidence in coping with change and new developments (attitude to life)
- statements focused on perceived benefits of science, which is shown to be strongly related to interest in science (attitude to science)
- statements relating to trust in politicians and regulation (attitude to authority).

For the **national survey**, more than 1200 people were interviewed. The sample was selected using quotas for age, sex and socio-economic group   . Further samples of 200 members of minority ethnic groups and of 400 in Scotland were also interviewed. Respondents were asked about their attitudes to science, life and authority, their leisure interests and their use of the media. Among the findings, the survey indicated that:
- Three-quarters of people interviewed are 'amazed' by the achievements of science. Largely this is because they can see the benefits for themselves - two-thirds agree that science and technology are making people's lives healthier, easier and more comfortable. Most people are at least moderately interested in health issues and new medical discoveries. A fifth said that they are not interested in science and do not see why they should be, and a partially overlapping fifth agree that the achievements of science are overrated.
- Eight out of ten people agree that Britain needs to develop science and technology in order to enhance its international competitiveness. The need to invest in basic research is also appreciated: 72 per cent agree that, even if it brings no immediate benefits, scientific research that advances knowledge is necessary and should be supported by the government.
- In general, scientists are respected: 84 per cent of people think that scientists and engineers make a valuable contribution to society, and three-quarters think that science and engineering are good careers and that science, engineering and technology will provide more opportunities for the next generation.
- People are concerned about the use of science and the ability of society to control science. When asked whether they thought the benefits of science are greater than any harmful effects, the response was ambivalent: 43 per cent agreed, 17 per cent disagreed, and a third expressed no opinion.
- There is a degree of ambivalence about politicians' motives for supporting science. Just under half of the sample (43 per cent) agreed that politicians support science for the good of the country, nearly a quarter expressed no opinion and a quarter disagreed.
- There is concern about government's ability to control science. Four out of ten agree that the speed of development in science and technology means that it cannot be controlled properly by government. Three out of ten disagree, thus revealing some degree of ambivalence. Moreover, half (53 per cent) think that politicians are swayed by the media and that they should take more of a lead.
- There is also concern about what might go on 'behind closed doors' in research institutions. Over two-thirds agree that rules will not stop researchers doing what they want behind closed doors and over half think that scientists seem to be trying new things without stopping to think about the risks. Despite this concern, only 36 per cent agree that science is getting out of control and there is nothing that can be done to stop it.
- While two-thirds of people think that scientists want to make life better for the average person, a similar proportion agree that scientists should listen more to what ordinary people think.

From a statistical analysis of the responses, six 'attitude clusters' were identified that are essentially caricatures of people in relation to their attitudes towards science and technology. The clusters (in decreasing order of their support for science and technology) were: 'Confident Believers' (17% of the sample), 'Technophiles' (20%), 'Supporters' (17%), 'Concerned' (13%), 'Not Sure' (17%) and 'Not For Me' (15%).

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[32] Wellcome Trust and Office of Science and Technology (2000*). Science and the Public. A review of science communication and public attitudes to science in Britain*. (www.wellcome.ac.uk/en/1/mismiscnepubpat.html).

There have been attempts to group these elements into a smaller number of categories, most often related to the fairness and competence of the process, and its outcomes. In essence, evaluation seeks to establish to what extent dialogue processes are:

- Clear in their objectives – for example, to increase trust in decision makers, or to build a sense of shared understanding on a controversial issue, and how these might be seen to be met
- Clear in relation to any links to decision-making processes – how the outcome of the process would feed into decision-making, and how clear this process is
- Able to show agreement among the participants on the agenda and procedures
- Able to enhance trust - for example through independence of the process from decision-makers by using third-party facilitators and evaluators
- Able to show agreement on how the effectiveness of the process would be established
- Representative of the target groups
- Inclusive – for example, how far the process was able to reach normally excluded groups
- Timely in relation to the objectives – for example whether a process intended to feed into decision making was timed so that it could
- Open and transparent – i.e. that the planning and organisation of the process, and the deliberations of the participants were easily traced (creating an 'audit trail')
- Deliberative – for instance the extent to which participants were able to reflect on information provided and engage in discussion and debate
- Informed by evidence found to be useful by the participants
- Sufficiently funded and supported to provide a professional process
- Able to contribute to people's learning

Other issues include the appropriateness of the method; honesty of the participants; equity between participants; impartiality of organisers and facilitators; and respect between lay and expert participants.

Observers have pointed out that evaluation needs to be tailored to specific circumstances, in line with the methods used and the objectives sought. Academics and practitioners are working to develop evaluation indicators, but agreed, universally applicable tools have not yet been identified. At the same time, there is growing interest in developing evaluation methods that enable the participants to be involved themselves. Some observers express concern at the lack of a universal set of evaluation criteria, arguing that without an accepted framework for evaluation with agreed measures, it is not possible to identify in a systematic and rigorous manner whether participatory processes are worthwhile. As such, there would be **no firm basis on which to learn lessons from past experience, and to identify either good or bad practice in public dialogue processes**. Without an agreed evaluation framework, there is concern that bad practice will continue to go unnoticed, good practice will not be widely disseminated, and dialogue justified only on a case by case basis, relying on anecdotal evidence (and some wishful thinking)[33].

Measuring the Impact of Dialogue

Any legitimate dialogue process must set out clearly beforehand what objectives it hopes to achieve. The process should also include evaluation after the event, to assess how far these objectives have been met. Among the factors dialogue processes might seek to influence are:

- **The issue at hand** – whether the output from a public dialogue process has a direct effect on a decision to be made (e.g. the Danish Parliament's rejection of food irradiation in the late 1980s following a consensus conference on this topic).

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[33] Delap, C. (2000). Pers comm. The Constitution Unit, University College London; Also, footnote 21

- **Policy on the issue** – where a decision is not necessary, but an official body takes up a new position on a topic as a result of the dialogue process. For example, where local authorities have used dialogue processes (such as asking residents to envisage the future of their local communities) to set quality of life principles which the authority then takes into account in its decision-making.

- **The policy-making process** – where neither a decision nor a change of policy occurs directly as a result of the dialogue, but where the way policy is made is altered. For example, the 1999 consensus conference on radioactive waste management has influenced the government's approach to making policy in this area, with the DETR stating that it now wishes to proceed in a more open, inclusive and participatory style.

- **The views of 'experts'** – where dialogue has an effect on the knowledge and perceptions of the 'experts' involved. For example, where a citizens' jury on prioritising health care within a health authority leads to the antagonists in a polarised debate moving together on a basis of a mutual understanding that would not have developed had the process not happened[6].

- **The views of 'lay' participants** – people taking part in the process themselves undergo some kind of change. This can occur both in terms of a person's knowledge and views on about the topic at hand, but also in terms of their personal learning. For example, the experience of taking part in a dialogue process can increase a participant's confidence to engage in debate.

- **The wider community** - whether the participants in the dialogue, or media coverage of the process, carry the debate more widely into the community. For example, a member of a citizens' jury may return home and engage in local discussions on the topic considered. Alternatively, if there has been media coverage, this may spark a wider debate. However, such media coverage would need to be 'with the grain' of the process, or it may prove counter-productive.

Some commentators have pointed to the danger of 'participation overload' where citizens, community and user groups can become highly cynical about the frequency with which they are consulted without seeing any evidence of change. This can be a particular problem where institutions wishing to engage with the public do not co-ordinate their activities, so that there is duplication of effort. In some policy areas, however, agencies are required to work together in seeking public input (such as in Health Action Zones, and Single Regeneration Budget areas).

3.4   Resources for the Further Development of Public Dialogue

Many institutions' terms of reference do not allow for public engagement beyond traditional procedures, although there is growing interest in their doing so. For example, as mentioned in the Introduction, the scientific and engineering community is now beginning to take action in the area of public dialogue (see Annex, Box A2). As dialogue develops, therefore, there is an increasing need to ensure that an institution's practices and procedures are made amenable to dialogue, particularly in providing a link between the decision-making bodies and the dialogue process.

However, more innovative forms of public engagement have tended to be more resource intensive than traditional forms of consultation. They tend to cost more in the short term, take longer to set up, and require staff with appropriate skills. Therefore, further development of public participation and dialogue is likely to be constrained by the availability of appropriately skilled people and funding.

Building the Required Skills
Engaging in participation and dialogue is not straightforward. There are many capabilities that must be gained to be in a position to commission, organise, run or evaluate such processes. In particular, skills

are required to design and facilitate participatory dialogue processes. Efforts to provide suitable training are being pursued, for example through the Civil Service College and by practitioners and consultants running a growing number of training courses. However, practitioners report that demand for facilitation services is outstripping the supply of experienced facilitators[21]. In particular, a key element of building the required skills is to gain practical experience of process design and facilitation, but it is reported that there are few opportunities for novices to do this in an appropriate setting.

A related issue is that the profession of process design and facilitation is constantly evolving. As such, the methods and techniques employed can be highly variable, with practitioners sharing good practice via small-scale networks such as InterAct, and organisations such as the Social Research Association[34] (Annex A5). There is a professional institution setting and maintaining standards (the International Association of Facilitators[35]), but this is largely based in the USA. The practitioners' network, InterAct, is hoping to fulfil this role to some extent, but does not claim to be a professional institution akin to the Royal Academy of Engineering or the Royal College of Surgeons.

As dialogue processes are developed further and implemented more widely, issues arise over **whether there are sufficient numbers of trained process designers and facilitators.** Similarly, there are questions over **whether the institutions commissioning such processes have the necessary skills to recognise their own needs, and work with facilitators to provide appropriate processes.**

Costs

Another factor that may limit the development of public dialogue is that such processes are often perceived as lengthy and costly. However, there are many cases where it has been shown that the length of time to develop an idea and see it through to satisfactory completion can be considerably lengthened where decisions are taken with little or no public engagement[36]. Such approaches (often characterised as decide, announce, defend - or DAD), have been seen as wasting both time and resources, as schemes developed in this way may be eventually abandoned (extending DAD to DADA). There is similar evidence that decision-making involving sufficient and appropriate public engagement has demonstrably shorter overall project time scales, reduced costs, and lower levels of controversy[37]. Here, more effort is put into framing problems, debating options arising and agreeing solutions, than pushing forward relentlessly with unpopular decisions (**Box 3.6**).

Therefore, when **considering the issue of the costs of public engagement, many commentators have pointed out that the full economic and political costs of not doing so should also be borne in mind**. Some have also suggested that, as institutions become more familiar with dialogue processes, costs are likely to come down. Similarly, costs can be reduced where dialogue is carried out in partnership with other agencies, and this also reduces the risk of 'participation overload').

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[34] Other organisations include the UK Participation Network and the Institute of Cultural Affairs. In addition, there are specific networks set up around specific dialogue techniques.

[35] see www.iaf-world.org/index.htm

[36] Petts, J. (1995). Waste Management Strategy Development: A case study of community involvement and consensus building in Hampshire. *Journal of Environmental Planning and Management*. Vol. 38, No. 4 (1995) pp 519-536.

[37] Bishop, J (2000). A Tale of Two Cities. BDOR and InterAct.

BOX 3.6 EXAMPLES OF THE EFFICIENCY OF DIALOGUE

Hampshire Waste Management[32]
In the early 1990s, Hampshire County Council developed a plan to tackle the county's waste by constructing a single large incinerator in Portsmouth. The proposal met with strong, well-organised and concerted local opposition, from citizens, community groups and Portsmouth City Council itself. Concerns included the health and environmental impacts of the incinerator, plus more policy-oriented questions about the choice of waste management solution. After a lengthy period, the plan had still not gained approval. Consequently, two years after the original planning application was made, the county council set up a Community Involvement Programme to examine the options for dealing with household waste, and to seek a broad base of public support for a strategy that could be implemented. The community involvement programme included three community action forums, modelled on the citizens' panel approach. By the end of the process, the level of consensus on the way forward had increased substantially, and a new waste management strategy, involving a more balanced portfolio of waste management options is now being implemented.

A Tale of Two Cities[33]
Two unitary local authorities (their names have not been revealed) wished to extend controlled parking zones (CPZs) into residential areas around their city centres. One authority (known as Authority A) commissioned consultants to examine the issue and come up with recommendations. This was carried out with no community involvement. The consultants designed the scheme and recommended minimal consultation because the issue would be extremely contentious. Once the scheme became public, reaction was "immediate and vigorous". There was a large and almost wholly negative reaction to the scheme, and after more than two years, agreement has still not been reached. Authority B, however, approached the problem very differently. It announced its intention to consider extension of the CPZ, and moved straight into consultation. This comprised open, neighbourhood meetings, involving contributions from individuals and people working in groups, followed by a 'stakeholder' meeting with representatives of some 70 local groups and organisations, including elected councillors. Following a further, targeted consultation, the plan was approved by members, and is now being implemented. The total time from the start to the committee agreeing the scheme was less than 10 months.

3.5   Overview

Around the world there is widespread and growing interest in engaging the public in more deliberative and inclusive processes linked to policy and decision-making. This is occurring for a number of reasons, but principally in response to a wider social trend away from automatic deference to, and trust in, institutions of authority. Increasingly, public dialogue is being applied in many policy areas, including science, technology, engineering and medicine; central and local government; health planning and education.

Responses to this trend have been made in many institutional settings – including parliaments, government departments and agencies, local authorities, academia, businesses, charities and voluntary groups. The methods adopted have been many and varied, with new processes developing continually. Similarly, the objectives of public dialogue vary extensively between institutions, and also according to particular methods employed. Allied to this, the range of measures for evaluating such processes is growing rapidly.

Set against these trends however, there is as yet no systematic framework within which experience can be shared, good and bad practice identified, and institutional learning advanced. Similarly, there are growing concerns that there may be insufficient capacity to plan and undertake widespread dialogue throughout many institutions – either as facilitators or as 'informed clients'.

Any institution wishing to develop dialogue further, would need to ensure that it has:
- Terms of reference that reflect the desire to engage in dialogue with the public
- An institutional culture that recognises the value of public dialogue in its own functions
- Sufficient resources (in funds and skilled personnel) to enable it to engage

- Clear objectives for engaging
- Clear ways of showing that the outcomes are integrated into policy and decision-making
- An agreed framework for measuring impact and quality.

Underpinning this, is the need to learn from the process. It is unlikely to be sufficient to engage in dialogue merely because an institution thinks it ought to. There is widespread recognition that institutions need to learn from their experiences, but also from the experiences of others, including those outside their traditional fields of view. As such, one option is to establish a **national learning resource** which institutions from many policy areas can use to exchange experience and help identify good and bad practice. In this way, good practice in dialogue can be developed and disseminated more widely on the basis of sound evidence.

Annex

ANNEX   INSTITUTIONAL RESPONSE

In mapping out responses to the debate about increasing public engagement in decision making, two characteristics have been examined. First, is how **receptive** the institutions are to the very idea of engaging with the public, and second is the nature of their **practical response** to the debate. When considering how receptive an institution is, a number of factors have been examined:

- Sympathy: how far it feels that it is legitimate to elicit and include public views
- Perception: what it believes the public views to be
- Purpose: what it feels is the purpose of eliciting public views
- Understanding: how far it can recognise good or bad practice in dialogue processes

On the practical responses taken by an institution, questions included:

- Actions: whether and how it is developing and using public dialogue in its policy and decision-making
- Objectives: what desired outcomes it is seeking from dialogue processes
- Methods: how it conducts dialogue
- Legitimacy: how it feels that such dialogue is genuine
- Effect: how it feels that such dialogue can achieve the desired outcomes
- Development: whether and how it plans to develop dialogue further.

This Annex outlines recent responses from institutions related to different elements of society – i.e. governance, academia, the voluntary and community sector, business and dialogue practitioners. The information presented here has been collated from a number of published sources (including the internet), together with specific consultations by POST. The content is not comprehensive, as a full survey was not conducted with academic rigour. Rather, the picture painted here represents a snapshot of activity, illustrating the variety of responses being made in recent years. Further details will be made available on POST's internet site (www.parliament.uk/post/home.htm).

A1 Governance

Institutions of governance span international bodies such as the United Nations, European Commission and the Council of Europe; through national bodies such as the UK government and UK parliament; to more local tiers, such as devolved assemblies, regional and local government. Also included in this section is the work of local and regional health authorities and trusts.

A1.1 Overseas Experience

Internationally, various bodies of the UN encourage participation in a number of areas. Of particular note are the areas of development and environment policy, where the UN has published guidance for engaging local people in decision-making. Examples include participatory rural appraisal where poor people in developing countries are enabled to express and analyse the conditions of their lives and then helped to plan, monitor and evaluate their actions[38]. More broadly, governments around the world signed the Agenda 21 document at the UN Conference on Environment and Development in 1992, and this document seeks to increase equity in society by increasing public participation in decision-making.

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[38] Holmes, T. and Scoones, I. (2000). *Participatory Environmental Policy Processes: Experiences from North and South*. Institute of Development Studies Environment Working Group. Working Paper for Discussion and Comment. University of Sussex.

In Europe, this has been enacted through the Århus Convention, which requires signatories to introduce procedures to allow public participation in environmental decision-making. Again, this is reflected in other parts of European Union law, principally the Environmental Assessment Directive, and recent proposals from the EU have sought to expand the areas where public participation are required. A specific example is the proposal from the Parliamentary Assembly of the Council of Europe (PACE) to convene a European Forum on Human Genetics in 2002, as part of its process to draw up a Protocol on Human Genetics. This proposal seeks to bring together citizens from 41 European countries to deliberate on issues relating to the ownership, handling and use of genetic information, and to feed their thoughts into the formal policy-making process of the PACE[39].

More generally in Europe, the European Commission (EC) is currently preparing a *White Paper on European Governance*[15] focussing on ways to improve the exercise of powers at European level. The Commission sees the introduction of new modes of governance as an important way for improving both democracy and policy effectiveness in the European Union. The EC suggests that developing a more participatory and transparent democracy affects governments, elected assemblies and courts at national, regional and local level. As such, the White Paper will address the issue of consultation and involvement of people at these levels.

The EC carries this theme into the realm of science and technology, and has begun to consider the relationship between science and citizens[40]. The central focus is how to implement research policy to meet the real aims of society and fully involve society in shaping the research agenda. The Commission has recognised that development of new forms of dialogue between researchers, experts, political decision-makers, industrialists and members of the public is necessary. It considers that experience of such exercises "*has illustrated the extent to which ordinary members of the public, once they have all the information in their possession, can conduct high-quality dialogue with experts, put judicious questions to these experts, deliver balanced judgements and reach a reasonable consensus.*" Indeed the Commission states that "*far from being intended to replace the democratic debate in its traditional, recognised forms, still less the political decision-making process, initiatives of this type are designed to help this debate to unfold and to aid decision-making.*"

Around the world, many other countries have begun to adopt public participation processes in their decision and policy-making. Notable examples are the use of citizens' juries and consensus conferences in Denmark, the Netherlands, and elsewhere such as Switzerland, India, France, Germany, Austria, Brazil, Australia and the USA[41,42,43].

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[39] Council of Europe (2000). *European Forum on Human Genetics. An initiative of the Parliamentary Assembly of the Council of Europe. Methodological Concept.* AS/Science (2000) 33 revised, November 2000.

[40] Commission of the European Communities (2000). *Science, Society and the Citizen in Europe.* Commission Working Document SEC (2000) 1973 Final 14 November 2000.

[41] Other methods used have included future search conferencing, perspective workshops, expert panels, stakeholder decision analysis, planning for real, visioning exercises, area/neighbourhood forums, consensus participation, innovative development, participatory research and action, participatory rural appraisal, service user forums, issue forums, multi-criteria mapping. See footnote 34.

[42] See for example: Klüver, L. et al (2000). EUROPTA. European Participatory Technology Assessment. Participation Methods in Technology Assessment and Technology Decision Making. Danish Board of Technology (www.tekno.dk); and Joss, S. (ed) (1999). Public Participation in Science and Technology Special Issue. *Science and Public Policy.* Volume 26 Number 5, October 1999.

[43] There is considerable evidence that a country's or region's political culture are important factors in determining the effectiveness of consultation. Similarly, the sense of 'agency' felt by individuals is an important factor.

A1.2   United Kingdom Experience

In the UK, the main activities have been in the following areas:

Central Government

Although government departments, agencies, commissions and advisory committees often consult on policies and decisions, this has tended to remain the traditional forms, such as inviting written comment on green and white papers or regulatory applications. However, there have been a few examples of more innovative consultation processes, such as the Cabinet Office's People's Panel (see Box 3.1 in the main body of the report), but these continue to be uncommon. Nevertheless, the Cabinet Office (CO) is taking steps to consolidate consultation policy under the *Modernising Government* agenda in which the Government has expressed a wish to broaden consultation to include a wider set of perspectives and views[16]. The CO has also produced guidelines to departments on how to undertake written consultation[44]. In addition, all government consultation papers are now available online through the internet (at www.ukonline.gov.uk). This internet site also provides a forum for people to debate topics, by reading other people's comments and submitting their own.

Other government departments are also encouraging and experimenting with public participation exercises. Notably, the **Department of the Environment, Transport and the Regions** (DETR) has published guidelines for local authorities on engaging the public[45], and guidelines for the assessment and management of environmental risks that promote an inclusive and participatory approach[46]. Indeed DETR has set up a **Chemicals Stakeholder Forum**, comprising representatives from a broad range of interested parties to advice the department on chemicals policy, risk assessment and regulation. Similarly, the **Department of Health** (DH) and the **Ministry of Agriculture, Fisheries and Food** (MAFF) have been examining ways to address people's concerns over food safety through participatory dialogue processes[47].

Spanning central government, the **interdepartmental liaison group on risk assessment** (ILGRA) has been established as an informal body, comprising individuals from many government departments with an interest in risk assessment, management and communication. Membership includes MAFF, DH, DETR, Home Office, Health and Safety Executive, the Food Standards Agency, among others). ILGRA aims to collate and disseminate good practice in handling risk, and in 1999, the group published a report in which it recommended a greater role for the use of public dialogue in all stages of risk assessment: from framing problems to communications[48].

Within the **Department of Trade and Industry**, the **Office of Science and Technology** (OST) has undertaken a number of initiatives in the area of public participation. In particular, it has:
- Used the People's Panel for survey of public attitudes to the biosciences (Box 3.1)
- Contributed to the funding of a UK national consensus conference on managing nuclear waste (Box 3.2)

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[44] Cabinet Office (1998). *How to Consult Your Users. An Introductory Guide*. Service First, Cabinet Office.

[45] Department of the Environment, Transport and the Regions (1998). *Guidance on Enhancing Public Participation in Local Government*.

[46] Department of the Environment, Transport and the Regions (2000). *Guidelines for Environmental Risk Assessment and Management*. Revised Guidance joint with the Environment Agency and the Institute for Environment and Health.

[47] Burne, T. (2001) Pers comm. Ministry of Agriculture, Fisheries and Food

[48] ILGRA (1999). *Risk Assessment and Risk Management. Improving Policy and Practice within Government Departments*. Second Report prepared by the Interdepartmental Liaison Group on Risk Assessment. MISC/54 HSE Books.

- Developed guidelines for government departments on handling scientific advice - stressing the need for inclusive dialogue to help frame questions and provide input to assessments[49]
- Issued a draft code of practice for scientific advisory committees to implement the guidelines[50]
- Jointly sponsored research, with the Wellcome Trust (WT, Annex A3), into science communication and public attitudes to science in Britain (see Box 3.5)
- Provided support for a WT survey of scientists' attitudes to public debate (Annex A3).

The DTI as a whole has also published a Science and Innovation White Paper[51] that addresses the issues of involving the public in debates around scientific and technological development. DTI sees this as helping to rebuild trust and confidence in science.

The **Ministry of Defence** (MOD) has recently launched Project ISOLUS (Interim Storage of Laid Up Submarines). This process involves focus groups, 'stakeholder workshops', a citizens panel and a web site, and is aimed at consulting both on the appropriate means of consultation, and on the framing of the problem[52].

Government Agencies, Commissions and Advisory Bodies
Outside of departments, other official bodies have also begun to examine how public dialogue processes could be used in their activities. Notable examples include:
- The Food Standards Agency (FSA)
- The Agriculture and Environment Biotechnology Commission (AEBC)
- The Human Genetics Commission (HGC)

Indeed, these bodies were set up following the BSE and GM foods events of the 1990s, each with a specific remit to involve the public in their decision and policy-making processes. At the time of writing, each had consulted on how it should best involve the public.

The **FSA** has stated[53] that it will consult widely on its activities. It "*will ensure that all relevant parties are given the opportunity and, whenever possible, the time to make their views known, including representatives of those affected by any proposed activity and the public.*" It undertakes "*to maximise the effectiveness of our consultation process by using a range of consultation methods, appropriate to the issue under consideration, in addition to formal written consultation. Our aim is to ensure that we listen properly and establish productive dialogues.*" The FSA has consulted on a Code of Practice on Openness, and on improving ways to involve the full range of consumers in its policy making. In addition, the Agency has developed a policy document to guide its staff on how to consult its 'stakeholders', including consumers.

The **AEBC** has agreed that it will operate in an open, transparent way, involving the public in deliberations, using innovative dialogue methods where necessary. It will "*look at the broad picture taking ethical and social issues into account as well as the science.*" The Commission also wishes to understand better the bases of public concern about biotechnology. The first step in this will be to draw together and analyse the results of existing research into public attitudes. Following an initial workshop involving academic and other experts in the field, the Commission's *Developmental Group* will discuss and develop

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[49] Office of Science and Technology (2000). *Guidelines 2000. Scientific Advice and Policy Making*. Department of Trade and Industry.
[50] Office of Science and Technology (2000). *A Consultation Document on a Code of practice for Scientific Advisory Committees*. Department of Trade and Industry.
[51] Department of Trade and Industry (2000). *Science and Innovation White Paper. Excellence and Opportunity – a Science and Innovation policy for the 21st century*.
[52] Hunt, J. (2001). Pers comm. University of Lancaster.
[53] Food Standards Agency (2000). *Putting the Consumer First. Statement of General Objectives and Practices*, June 2000.

proposals for a detailed inquiry. This may involve the use of consultative methods, such as a workshop, consensus conference or other means of exploring public views. The group will also bear in mind the Food Standards Agency's role in this area and liase with them as appropriate in developing the theme[54].

The **HGC** has also developed an approach whereby it will "*actively seek input from the public and other stakeholders*" as a constant theme and priority in its work. To achieve this, the HGC will use a variety of consultation methods. In particular, it has set up a *Public Involvement in Genetics Sub-Group*, which is considering the use of 'theatre style' public meetings, internet-based discussions, and more deliberative events, such as citizen's juries and focus groups. A recent (March 2001) consultation by the HGC on public attitudes to human genetic information used the People's Panel (Box 3.1).

Similarly, the **Environment Agency** (EA) and the **Health and Safety Executive** are required to consult with the public when determining regulatory applications. At present the EA is considering how to increase its use of public participation, both within and external to its regulatory role[18]. In addition, the Agency has commissioned research on innovative deliberative methods, and is running workshops to develop staff skills and best practice in this area. The **Royal Commission on Environmental Pollution** has recommended[55] that public participation and dialogue be woven into the process of environmental decision-making.

The **Women's National Commission** is beginning to consider how it can become involved in public dialogue; providing a voice for women in many policy areas. It has recently established a Women's Science Forum, but its objectives have not yet been fully agreed.

The **National Consumer Council** (NCC) is involved in developing and promoting consumer participation and dialogue. Two of its crosscutting work programmes are on consumer participation and on risk. On the former, it has for some time, been interested in user involvement (in a number of specific areas, such as health service provision). It is now engaged on a major project on consumer representation and involvement, and the links between them. The NCC believes that public involvement in policy making is also inherently related to better analysis and communication of risk[56].

The **British Council** is an agency of the Foreign and Commonwealth Office, charged with promoting educational and cultural relations between the UK and other countries. It has interests in the area of participation and democracy, both in relation to general issues of governance, but also in the area of science and medicine. For example, it has run an international workshop on science communication, a series of overseas public debates and an associated internet conference under the heading *Towards a Democratic Science*[57] and is planning an international seminar on this topic for March 2001.

The UK Parliament
Beyond the traditional forms of public input to parliament, there have also been a few more innovative initiatives. These have included internet-based discussion forums on a range of topics such as women in science, engineering and technology, data protection, electronic democracy, tax credits, and domestic violence (see Box 3.4 in the main body of the report).

These events remain isolated incidents, however, and there are no widely adopted policies or procedures for enabling deliberative dialogue between citizens, or between citizens and

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[54] Agriculture and Environment Biotechnology Commission (2001). *Work Plan 2001* (www.aebc.gov.uk/aebc/workplan.htm).
[55] Royal Commission on Environmental Pollution (1998). 21st Report. Setting Environmental Standards. Cm 4053.
[56] Lennard, L. and Dibb, S. (2001). Pers comm. National Consumer Council.
[57] See www.mailbase.ac.uk/lists/democratiesciece/files/volume1.htm

parliamentarians to occur more widely within the UK parliamentary process. However, the House of Commons Information Committee has stated that it sees the value of public participation (particularly using the internet) applied to the workings of the House of Commons[4].

The Devolved Assemblies

As in the UK Parliament, the **Scottish Parliament** allows for public input by direct contact with members, petitions and evidence to committees. However, the Scottish Parliament has made more use of its internet site in facilitating this. For instance, petitions can be submitted electronically.

Also, committees of the Parliament can appoint 'Expert Panels' to assist them in their work, and use the services of the Parliament's Information Centre to provide specialised advice, whether from commissioned research or committee advisers. The guidance for the operation of committees states that panels and advisers would comprise experts in the particular field who can offer the committee technical and expert support. In the case of panels members should represent a range of opinion and experience. The composition of the panel should be agreed by members. As such, there is scope within the Scottish Parliament for some form of input from a wide range of perspectives. Whether this includes lay, public perspectives is not clear. In theory, at least, a committee could ask an expert panel to consider the public's view, or indeed it could commission research to establish the views of non-experts, along the lines of the experience of some of the UK Parliamentary Committees.

In addition to traditional written consultations, the **Welsh Assembly** has consulted on to its information and communication technology strategy. As well as responding via written submission and email, the Assembly also established an internet-based discussion forum. It describes the moderated forum[58] as "*a new dimension in the way the Assembly works, providing an immediate and direct opportunity for you to debate with others the issues arising from this important, emerging policy.*"

The Devolved Executives

The **Scottish Executive** is committed to participation by the public[59]. For instance, it includes a consultations page on its internet site (www.scotland.gov.uk/views/views.asp), where people can access recent consultation papers and submit comments. The site also includes draft legislation, and discussion forums on six topics: *Land Reform; Improving Our Schools; Review of Services for People with a Learning Disability; The Graduate Endowment (Student Support); Adult Literacies 2000; Beattie Committee: Implementing Inclusiveness in Scotland.* It also runs a Scottish Civic Forum[60], and is consulting on draft legislation on freedom of information[61].

The Executive is currently developing a *Scottish Science Strategy*, and a working group has recommended that any such strategy should address the issue of building relationships between science and citizens, particularly through the use of public participation and dialogue processes[62].

In Northern Ireland, a **Civic Forum** has been established to act on a consultative mechanism on social, cultural and economic issues. Membership is drawn from business, agriculture/fisheries, trade unions, voluntary/community groups, churches, culture, arts and sport, victims, community relations, education, and the office of the First Minister and Deputy First Minister. Its functions are:

- "*To serve Civic Society.*

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[58] see www.s8080.com/clients/waict_e/ictimportant/icthome.htm
[59] see www.scotland.gov.uk/library3/government/civicp.pdf
[60] see www.civicforum.org.uk
[61] see www.scotland.gov.uk/government/foi/foi.asp
[62] Scottish Executive (2000). Report of the Science Strategy Review Group.

- *"To provide advice to and consultation with the Northern Ireland Assembly.*
- *"To make a distinctive and challenging contribution to social, economic, cultural and environmental matters affecting Northern Ireland.*
- *"To act as an interface between policy makers and civic society.*
- *"To act as a catalyst for innovation, best practice and positive change.*
- *"To create a receptive space for voices that often go unheard.*
- *"To promote and respect human rights equality and diversity.*
- *"To promote sustainable investment in and development of society."*

Local Government and Health Authorities

It is in the realms of local government and health authorities where the greatest use has been made to date of the more innovative forms of public consultation. Evidence to the Public Administration Committee indicates that many authorities have used a wide variety of methods to consult with their residents on a variety of topics. One witness identified 19 different types of consultation method, ranging from the traditional (such as complaints and suggestions schemes, public meetings and written consultations) to more innovative processes (such as focus groups, citizens' panels, citizens' juries and referenda).

There are well over 300 local authorities, and the vast majority continue to use the more traditional forms of consultation, but increasingly, deliberative participation and dialogue methods are being used. For instance, before 1995, fewer than 10 local authorities had used a citizens' panel, but by 1997, over 40 local authorities had used such processes, and there are indications that this figure has now exceeded 100.

The most commonly cited reasons for authorities to embark on such processes have been to gain citizen views and to improve services. Drivers for such initiatives have tended to be internal policies and strategies. Pressure by individual elected members and pressure for greater involvement by the public have also been important drivers. Direction from central government and local government networks have been less influential. However, requirements under the Best Value scheme, and the development of community strategies now require authorities to engage with their citizens, and this is increasing the pressure to find effective forms of consultation.

Key goals quoted by local authorities[2] are to "*renew democracy*" and "*involve citizens more effectively in local government*". Many have already experimented with a range of new initiatives to involve local people and local communities in their work. The Local Government Association (LGA) and the Improvement and Development Agency (IdeA) support this, and wish to stimulate further innovation. To this end, they have established a *Democracy Network*[63], as a means of:
- publicising existing good practice
- supporting and encouraging innovation
- providing advice and information
- identifying areas for further research.

The Network aims to cover a wide range of practice, including (among others) initiatives to support elected members in their 'representational' role, innovations in democracy (such as referenda and electronic voting) and new mechanisms for consultation (e.g. citizens' panel's and juries).

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[63] see www.lga.gov.uk/lga/democracy/index.htm

In the **health** area, a major part of the Government's plans for modernising the National Health Service as outlined in the NHS Plan[64], is to give patients more say in their own treatment and more influence over the way the NHS works. To bring this about, a number of proposals have been made, including the creation of a new Patient Advocacy Service, and the establishment of Patients' Forums in every NHS and Primary Care Trust. However, recognising that the public has legitimate interests in the NHS as citizens and not just as service users, further reforms are proposed to bring citizens and patients into decision-making at every level of the NHS. This ranges from increased lay membership of all the professional regulatory bodies (including the General Medical Council), through to the creation of independent advisory forums made up of local residents to act as a 'sounding-board' for local health authorities in determining health priorities and policies[65].

The Audit Commission has undertaken a review of consultation practice in the realms of local government and health authorities[66]. It surveyed authorities to establish what consultation exercises they had undertaken, what methods had been used, and how effective these had been. The Commission agreed that consultation "*can be a powerful tool for improving the quality and cost-effectiveness of services, and for ensuring that policy makers stay in touch with citizens.*" Four features of consultation were identified as important:
- Supporting (rather than usurping) the role of elected representatives
- Balancing consultation against other factors affecting decisions (such as resources and statutory requirements)
- Involving a cross-section of people (rather than narrow self-selecting groups)
- Taking account of dissent revealed by consultation (rather than expecting a single uniform 'public voice').

In assessing quality and effectiveness of consultation by local government and health authorities, the Commission noted that a majority of authorities do not consistently use consultation results to inform decisions. In addition, the quality of individual exercises was described as patchy, and it was noted that few authorities evaluate their consultation programmes. To address these limitations, therefore, the Commission stated that "*many authorities will need to strengthen their consultation programmes, develop new skills, and improve joint consultation arrangements with their partners. All authorities should consider how they will use new communication technologies alongside the best of traditional consultation techniques.*"

Increasingly, participation is being developed within partnerships between agencies required to co-operate to achieve policy objectives, such as in Health Action Zones, New Deal for Communities and Single Regeneration Budget initiatives. Here, participation often takes place within forums at a local (e.g. neighbourhood) level.

A2 Research and Academia

The academic community involved in science, engineering, technology and medicine has increasingly accepted this analysis. This community includes:
- publicly funded Research Councils (such as the Biotechnology and Biological Sciences Research Council)
- academics working within universities (funded from a variety of sources, including the Research Councils)

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[64] Department of Health (2000). *The NHS Plan. A Plan for Investment. A Plan for Reform.* July 2000.
[65] Staley, K. (2001). Pers comm. The King's Fund
[66] Audit Commission (1998). *Listen Up! Effective Community Consultation*.

- academic institutions (such as the Royal Society, the Royal Academy of Engineering and the discipline-based societies, such as the Medical Royal Colleges and the Institute of Physics).

Research Councils

The UK Research Councils have a mission to contribute to wealth creation and improving the quality of life, while also adding to the public understanding of science, engineering and technology. A number of RCs had already experimented with greater public engagement prior to the *Science and Society* inquiry. Notable examples are the two national consensus conferences held between 1994 and 1999. The first (on the topic of plant biotechnology) was convened by **the Biotechnology and Biological Sciences Research Council** (BBSRC) in association with the Science Museum[18]. The second (on the topic of radioactive waste management[19]) was organised by an independent research charity, the UK Centre for Economic and Environmental Development. It was sponsored by the **Natural Environment Research Council** (NERC), the Office of Science and Technology (part of the Department of Trade and Industry) and UK Nirex Ltd (the nuclear industry waste management company). Box 3.2 outlines these events.

More recently, BBSRC and NERC sought public input into the development of a research programme to examine the transfer of genetic material from genetically-modified plants into wild species, as part of the government's trials of genetically-modified crops. More generally, **BBSRC** is seeking to ensure that public concerns are taken into account in the development of its strategy, and that the scientists it funds are aware of, and responsive to, these concerns[67]. As part of its policy to promote public debate about advances in biological research and gain public input into research programme planning, in January 2001 BBSRC invited comments on the scope, content and implications of new research initiatives in the areas of:
- BBSRC's general scientific remit and strategy, and its portfolio of programmes and initiatives
- The use of micro-organisms in the cleanup of contaminated land
- Experimental research on ageing
- The role of genes in the development of plants animals and microbes.

While this is a new departure for BBSRC, the internet site does not provide a forum for deliberative debate and consideration of the issues. Rather it allows respondents to post their own views and read comments by others. As such it represents a consultation process more akin to the traditional written methods – albeit with the transparency of being able to see other people's comments. In addition, it is not made clear how BBSRC aims to take these comments into account in its decision-making. BBSRC runs the **Institute for Food Research** (IFR) in Norwich. IFR has a consumer science unit, and researchers here are examining the role of public participation in decision-making about food safety and hygiene. For instance, it produces an annual report for the Department of Health and the Health and Safety Executive surveying the 'state of play' of public participation in the UK, and is developing an evaluation framework for such processes.

NERC has also launched a new strategy for increasing public participation in its decision-making[68]. Its aims are to encourage informed debate with the public about environmental science and NERC's activities, and to be accountable to the public for its investment in environmental sciences. As part of its new strategy NERC plans to open up a Council meeting to the public and to hold a public forum at which people can debate issues with NERC Council and staff members.

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[67] See www.bbsrc.ac.uk/society/welcome.html
[68] Natural Environment Research Council (2000). Programme on Science and Society. A NERC Policy Paper.

Over the last few years the **Economic and Social Research Council** (ESRC) has funded a number of research programmes that have included elements of public engagement. These have included the following programmes that have now closed:

- *Risk and Human Behaviour*
- *Global Environmental Change*[69]
- *Whitehall: the changing nature of central government in Britain* (particularly a project entitled *Does consultation work?*[70])
- *Local Governance*

Further to these now completed programmes, the ESRC is also funding a number of current programmes, three of which have particular relevance to the topic of public engagement:

- *Participation and Democracy*[71] - a five year programme (1999-2003) investigating citizen participation and voluntary activity, addressing a number of key themes concerning the present state of British democracy and participation. The programme addresses the following questions:
  - Whether there is a crisis of participation and democratic legitimacy in Britain
  - Why some people participate when others do not
  - The effects on participation of a changing constitutional and political environment
  - The links between participation, governance and democratic accountability
  - What participation is taking place.
- *Science and Society*[72] - a five-year programme (2002-2006) to explore, research and review the changing relations between science, engineering and technology and wider society. The programme will fund research into:
  - the changing relations of knowledge and expertise
  - science, citizenship and public engagement
  - re-modelling science communication
  - governance and institutional change.
- *Innovative Health Technologies*[73]. This includes projects related to public trust in new technology, and the social and ethical implications of developments in the science of human genetics.

In addition, the ESRC consults with 'users' of its research, and requires grant applicants to specify a dissemination strategy and identify potential user audiences. Further, it has recently asked for views from academics about whether it should play a part in the Government's Sustainable Technologies Initiative and if so, what part it should play. It has embarked on a technical review of its 'thematic priorities' and is exploring ways to engage the public more fully[74].

The **Medical Research Council** (MRC) has also begun to involve the public through its Consumer Liaison Group. This aims to "*advise on ways of promoting effective and appropriate consumer involvement in MRC activities and to ensure MRC is aware of and able to respond to consumer interests and concerns about research.*" Membership of the Group includes individuals from a wide range of backgrounds, including medical and health sciences, health campaigning, consumer campaigning, media, and voluntary work.

MRC has launched a project called *Public Perceptions of the Collection of Human Biological Samples*. Here, MRC, together with the Wellcome Trust, have begun a public consultation about the proposed UK

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[69] see www.gecko.ac.uk/doc-a/index.html
[70] see www.ncl.ac.uk/~npol/whitehall/briefiings/briefing3.html
[71] see www.esrc.ac.uk/eurprog.html and www.shef.ac.uk/~pol/democracy.htm
[72] see www.esrc.ac.uk/scisoc.htm
[73] see www.york.ac.uk/res/iht/
[74] Ham, K. (2001) Pers. comm. Economic and Social Research Council

Population Biomedical Collection. Qualitative research has been commissioned to start to explore the views of the public and particular interest groups. The consultation, undertaken by independent researchers, includes an initial cross-section of the public across the UK, with religious and community leaders, and with representatives of organisations with special interests in the issues surrounding genetics research.

In addition, in 1999 MRC commissioned the polling company MORI to conduct a survey of public attitudes to use of animals in medicine and science. MRC's aim was "*to gain a better understanding of attitudes towards animal experimentation by listening to what the public had to say about these important issues.*" MORI used a combination of four focus groups and a quantitative survey among a representative sample and obtained the views of more than a thousand people (**Box A1**).

BOX A1 THE MRC'S SURVEY OF PUBLIC ATTITUDES TO ANIMAL EXPERIMENTATION[75]

In 1999, the MRC commissioned MORI to conduct an in-depth survey of public attitudes to the use of animals in medicine and science. The MRC's aim was to gain a better understanding of attitudes towards experimentation by listening to what the public had to say. In June 1999, MORI conducted four focus groups to help design a quantitative survey, which was carried out in September 1999, involving face-to-face interviews with 1014 adults across Britain.

In the **focus groups**, people with no specialist knowledge engaged in discussions about whether or when animal experiments were acceptable. People took into account not only the assumed level of suffering and the level of need for research or new products, but also the degree of trust they had in scientists, regulators, the media, and campaign groups, and concerns that medical research might be driven by personal ambitions, greed, or inertia, rather than need. People appeared ambivalent about the use of animals in medical research but almost all accepted that it could be right, in principle, to use animals. Support was strongest for research into life threatening disease.

In the **quantitative survey**, 72% thought animal experiments would always be a part of research: most also felt there should be strenuous efforts to develop alternatives. Even among those who saw themselves as vegetarians or 'animal lovers' most accepted the importance of the medical use of animals particularly when considering their own family or friends. People were less certain about the use of animals in the development of treatments for non-life threatening conditions, preventive medicine, or basic research.

The **Engineering and Physical Sciences Research Council** (EPSRC) has a £1.5m per year programme aimed at increasing the public's awareness of physical sciences and engineering. Public consultation does not feature widely, but there has been some activity in this area. In particular, gaining public comments on EPSRC-sponsored exhibits in the new Wellcome Wing of the Science Museum. Other activities include engaging with teachers and students prior to introducing classroom science activities.

Overall, EPSRC has stated that it is keen to join with others in a two-way dialogue with a representative group of people, and all the Research Councils are working together on a possible joint project. EPSRC has earmarked funds to support a public dialogue process in 2001. One issue it would lie to see addressed is how to engage the public about science and technology which, though important, does not make headline news[76].

The **Particle Physics and Astronomy Research Council** (PPARC) and the **Council for the Central Laboratory of the Research Councils** (CCLRC) run public understanding of science (PUS) programmes. PPARC's PUS programme aims to inspire young people, and so encourage more to study physics and other science and technology subjects beyond age 16. PPARC is also examining what dialogue and

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[75] MORI (2000) *Survey of Public Attitudes to the Use of Animals in Medicine and Science*.
[76] Moore, G. (2001) Pers comm. Engineering and Physical Sciences Research Council

debate it can stimulate on issues of public concern such as the risk posed by the possibility of the Earth being hit by asteroids (near earth objects). PPARC, in common with the other Research Councils, is developing its ideas on public dialogue, and has contributed some fund to the ESRC *Science and Society* research programme.

While these are comprehensive in their coverage of the science undertaken by those RCs, they are aimed principally at teaching people about the science, and do not include elements of public dialogue aimed at informing their own decision-making about the strategy and direction of research.

Academic Research and Learned Societies

There has been much activity in the area of public participation dialogue among researchers in academic institutions. Much of this has been undertaken within programmes and initiatives funded by the Research Councils. There are too many examples of individual activities to detail them all here, but two important aspects arise. First, experimental methods in public dialogue are being developed and tested at a rapid rate. Second, a network of academics and practitioners is developing. One key area where progress has started to be made is within the learned societies. These include the academies of science and engineering, the medical royal colleges, and the professional societies for scientists and engineers[77]. Some notable examples of work in this area are summarised in **Box A2**.

Professional and learned societies, such as the Institute of Biology, Royal Society of Chemistry, the Institute of Physics and the Medical Royal Colleges have traditionally not engaged with the public in their policy and decision-making processes. Rather, they tend to concentrate on improving people's knowledge of their science, rather than gaining their views, concerns and perspectives on the issues arising. Nevertheless, these bodies have recognised the importance of public dialogue, but have yet to widely adopt activities in this area.

For instance, the **Institute of Physics** operates a network of local branches where meetings, discussions and input to schools provide opportunities for interaction with a wider public, where controversial issues can be raised[78]. The **Royal Society of Chemistry** runs a *Science and the Public* programme that is based on matching curriculum support materials with people's concerns about chemistry, chemicals and the chemical industry[79]. The **Academy of Medical Royal Colleges** has approved a proposal from the General Medical Council that 40% of members of the new GMC should be non-medical professionals[80].

A3   Voluntary and Community Organisations

This is a broad sector that includes non-governmental organisations (NGOs), charities, trusts, consumer and campaigning groups, think tanks and trades unions. Many of these organisations have been active in public engagement for many years, often working within local communities in development projects, such as improving the environment in a neighbourhood, reducing crime and vandalism, improving community health care provision, etc. Larger-scale initiatives are rarer. However, a number of notable examples are discussed below.

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[77] These bodies combine two main roles in relation to science and the public: providing information and supporting education; and providing expert advice as representatives of particular disciplines.
[78] Cooper, P. (2001) Pers comm. Institute of Physics
[79] Reed, N. (2001). Pers comm. Royal Society of Chemistry.
[80] See www.aomrc.org.uk

The Royal Society (RS)

The RS involves lay people and members of the public in its activities in a number of ways:

- The RS is to undertake a *Science in Society* programme for which they have received a grant of £1 million over 5 years from the Kohn Foundation. This will include a series of dialogue meetings with 'stakeholder' groups and the public in the regions at which a general theme will be discussed in working groups in the context of specific scientific issues. The aim is for public values to inform the thinking of the participating scientists. The results and ongoing feedback will be fed each year into a national forum in London. In addition a pairing scheme for MPs and scientific researchers will be set up later this year. All information about, and from, this programme will be publicly available.

- A *Science in Society* public programme includes lectures from leading scientists, writers and broadcasters on issues relating to the place of science in society. Events are often linked with arts and other organisations. An annual 3-day scientific exhibition is held, where the public can meet and question researchers..

- The RS also runs an education programme focussing on 11-19 year-olds. Here the RS "*aims to ensure that the UK education system both builds a scientifically literate nation capable of understanding and engaging with scientific issues that arise, and enables individuals to take part in the creative process of generating new scientific knowledge.*" Thus, the education programme consists of advice to decision makers about the teaching of mathematics and science in schools, activities to support science teachers and enthuse young people about science, and facilitation of discussion and co-operation between those interested in science education.

- A scientific programme is aimed more at the dissemination of detailed scientific research, and so is targeted principally at other academics. Nevertheless, meetings are open to all.

- In the process of managing their outreach programmes, the RS does include lay members on some of its planning committees, such as the *Science in Society* committee. However, at present, its scientific committees and working groups do not include lay members, although the working groups take evidence from non-scientists, and include their views in the resulting reports.

The Royal Academy of Engineering (RAEng)

The RAEng believes that the public should be able to contribute to its policy making process whenever appropriate. The objectives of such dialogue are to allow anyone with factual evidence or a view to express it, knowing that it will be fully considered, and to ensure that views are positively sought that may not otherwise emerge from the Academy or other invited expert bodies. This policy was developed in response to trends towards openness and transparency in policy making seen recently in the UK but also in recognition of comparable activities in other countries. The RAEng's preferred medium for consultation is the internet, but it recognises that this excludes all those who do not have access. However, it considers that dialogue via other means (e.g. press announcements and public meetings) are more limited in coverage and also beyond its means. The RAEng Council recently approved new 'Procedures for the Production and Review of Academy Reports and Statements'. These are currently being implemented. According to the new procedures the public will be advised of new studies via The Academy's Web site (www.raeng.co.uk); be able to comment on the membership of a study working party before work begins; and be invited to contribute evidence for consideration. The Academy also runs an education programme, designed to encourage around 5000 young people each year to study engineering at university and to continue to develop further.

The Royal Institution of Great Britain (RI) – the RI runs a series of public meetings (Friday Evening Discourses). These are formal affairs targeted at RI members, and requiring entry by ticket. The RI is also setting up a Science Media Centre, "*to provide a focal point from which scientists explain the nature of their work, discuss its consequences, and engage in public discussion over the benefits and risks*". It is intended that the centre will run from summer 2001, and will initially provide a service to journalists and the media but, if it is successful, it may go on to provide scientific information to the general public.

The British Association for the Advancement of Science (BAAS) – BAAS is a membership organisation that provides opportunities for people to engage with science. It believes that "*science must not advance in a vacuum without regard for the public's view.*" Examples of its activities include running the annual BA Festival of Science; a series of informal discussions in a wine bar (SciBAr); publishing a journal *Science and Public Affairs;* organising National Science Week; running science communication forums; and offering special programmes for young people.

The Committee on the Public Understanding of Science (COPUS) – COPUS is a committee comprising members from the scientific establishment, principally the RS, RI and the BAAS. Since its creation in the mid-1980s, COPUS has concentrated its efforts on activities aimed at improving the public's knowledge and understanding of science. It has not previously promoted two-way dialogue, but now recognises the need to do so. COPUS is due to be relaunched, with a new membership and mission, in Spring 2001. At the time of writing no details of this were available.

The Hansard Society

The Hansard Society is an educational charity that brings together MPs, Peers, academics, journalists, parliamentary staff, corporate affairs managers and others with an interest in the political process from across the political spectrum to promote effective parliamentary democracy.

The current work of the Society aims to address increasing public dissatisfaction with parliament and politicians at a time when both are more exposed to greater public scrutiny. It questions how representative parliament is, its relationship with the executive and the degree to which it operates effectively. As part of its work, the Society has an '*e-Democracy Programme*', which develops practical ways to engage citizens in the democratic process[81]. An important element of this programme is the development and use of online internet-based consultations. This work seeks to address whether:

- the new information and communications media can involve more people, and diverse sections of the population, in the democratic process
- citizens' participation in these discussions can contribute to more informed legislation and scrutiny
- these opportunities for public involvement via the internet pave a way for more innovative uses of the media (particularly digital television) in support of democracy by enabling inclusive and informed deliberation on salient issues.

Examples of the Society's initiatives in this area include (see Box 3.3 in the main body of the report):

- Involving low-income families in consultation on issues of tax credits and the barriers of welfare to work. This will be channelled to the Social Security Select Committee.
- Involving over 900 women survivors of domestic violence with the All-Party Domestic Violence Group.
- Online discussion about e-democracy, in collaboration with the Commons Public Administration Select Committee[2].
- Online discussion on women in science and engineering[82]. This was carried out in collaboration with POST, and fed into the House of Lords Science and Technology committee inquiry, *Science and Society*[3].
- Online conference to discuss the Data Protection Bill, in collaboration with POST[83].

The Institute for Public Policy Research (IPPR)

IPPR is a charity whose purpose is to contribute to public understanding of social, economic and political issues. As a 'think-tank' it runs a series of initiatives in the area of public involvement:

- The *Public Involvement Programme* (PIP) has been running since 1998. It led to the creation of a database to exchange information, ideas and experience relating to new models of public involvement. The PIP internet site (www.pip.org.uk) provides information about methods, links to organisations, and literature related to public involvement.
- IPPR runs the Public Involvement Awards, established in 2000 to honour and recognise organisations that successfully involve the public in their decision-making processes.
- *New Democratic Processes for the 21st Century: The Role of the Public Voice* - a project to examine how central and devolved governments can learn lessons from best practice and develop a strategy for public involvement. This project is expected to report in September 2001.
- IPPR Research Unit - set up in March 2000 to carry out public involvement through their trading arm, Public Policy Research Associates.

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[81] see www.hansardsociety.org.uk/eDemocracy.htm
[82] see www.parliament.uk/post/pn133.pdf
[83] see www.parliament.uk/post/e1.pdf

- IPPR is also developing an innovative public involvement project (possibly a citizens' jury) to explore public attitudes towards asylum seekers.
- *Public Involvement in Scottish Social Inclusion Partnerships* - a project (commissioned by the Scottish Executive) to pilot and evaluate the innovative use of 'People's Juries'.
- *Involving Young People in Local Democracy.*

The Wellcome Trust

The Wellcome Trust is a biomedical research charity. It plans to invest £3 billion in research over the next five years, and has adopted public engagement as one of its four main priorities. The Trust is carrying out a number of activities related to public engagement with science and biomedical ethics. In particular, the Trust runs an extensive public consultation programme. The aim of this work is to stimulate an informed dialogue to raise awareness and understanding of biomedical science. This includes funding a research and consultation programme that looks at how biomedical research might impact on people's lives now and in the future. Examples of consultation have included the survey of public attitudes to science in Britain outlined in Box 3.5 in the main body of the text, the consultation about the proposed UK Population Biomedical Collection (with the MRC, see earlier), and an initial consultation on public perspectives of human cloning[84].

A panel to examine gene therapy has also been established. Members of the panel were sent information on the topic, and have met to discuss the issues. Their views have been monitored over time to see if they have changed with information and debate[85].

Another recent example is a survey of scientists' own views on their role in public debate[86]. Here, MORI interviewed 1652 scientists from higher education institutes and Research Council funded establishments between December and March 2000. The study found that 93% of scientists felt that the public need to know about the social and ethical implications of scientific research, and most wished to spend more time on public dialogue activities. However, many felt that they were not equipped with the necessary skills, and were not encouraged by their institutions to engage with the public.

The King's Fund

The King's Fund is a health care charity that aims to improve the provision of health and social care. It has a broad range of programmes, many of which involve engaging with interested parties and the general public[87]. The Fund has recently established a group to co-ordinate activities related to public involvement, and is currently developing its work plan. Examples of current projects include:
- lay involvement in Primary Care Groups and Primary Care Trusts
- how the NHS can reach 'vulnerable communities' (e.g. children, old people and refugees)
- how useful and effective lay involvement has been in community-based health improvement
- the role of opinion polling and satisfaction surveys in public appraisal of the NHS
- *Strategic Action Programme for Healthy Communities* programme. This aims to develop strategies that will enable statutory sector organisations to identify and make steps towards the cultural and organisational change necessary to support more effective partnership working with communities.

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[84] see www.wellcome.ac.uk/en/1/mismiscnecon.html
[85] Lewis, H. (2001) Pers comm. The Wellcome Trust
[86] see www.wellcome.ac.uk/en/1/mismiscnesos.html
[87] Staely, K. (2001) Pers comm. The King's Fund

Science and Discovery Centre Network (SDCN)

SDCN is an umbrella organisation for a large number of visitor attractions around the country that encourage people to find out about many aspects of science and engineering. SDCN members are committed to establishing a dialogue with the public[88]. They aim to offer enjoyment and education in science, and believe that feedback from the public is essential. Development of activities by SDCs takes into account the interests and understanding of the public, to ensure that the exhibitions and associated activities are appropriate and rewarding. Many science centres also have user groups and are developing new methods of consultation, such as young people's councils.

There is a range of other means by which the public can interact with scientists within the SDCs: debates, discussions, contacts between professional scientists and the public are frequent features of science centre programmes. Additional opportunities for dialogue include workshops, discussions in television studios and sessions to meet scientists. The National Space Science Centre, for example, will have a planetarium with voting facilities, to enable an audience in a live debate to give their opinions. Workshops also enable a more in-depth discussion to be developed. For example, the Wellcome Trust has funded a series of workshops (*DNA Photocopying*) to provide, within a laboratory setting a discussion on the ethical issues of genetic testing. After an initial trial this is now being rolled out throughout centres and museums funded by the Trust.

There is an increasing use of the internet to stimulate debate, to carry out surveys related to debates and to provide comparisons of different user groups' opinions. For example, the At-Bristol science centre (@Bristol) and the Science Museum, among others, have 'opinion banks', where visitors can register their opinions, consult the opinions of other visitors and experts and participate in debates. For Science Year (which runs from September 2001), the SDCN is proposing a series of events to bring together a range of opinion surveys, large-scale experiments, and occasions for scientists to meet the public. The SDCN is setting up a working party to explore new consultation methods, to build on their existing experience and develop new tools for consultation.

Science Policy Support Group (SPSG)

SPSG is a charity whose aims are to promote the application of research into science, technology and innovation to policy, practice and management. SPSG works as a virtual organisation, managing research programmes and networks of academics in a range of institutions. Between 1998 and 1999 it ran a programme funded by the ESRC, on the public understanding of science (PUS). It was this programme of research that provided much of the evidence that the traditional top-down 'deficit' model of PUS was inappropriate, and that a move to an more 'democratic' model is required; one based on 'engagement' between scientists and the public[6]. SPSG argues that a fresh set of arrangements for the management of science and technology is needed, based on an improved understanding of a more complex relationship between science, democracy and social change[89].

To help achieve this, SPSG is in the process of setting up a new venture, a *Science and Society Forum*. The Forum has been established with funding from the Nuffield Foundation, the Wellcome Trust and the ESRC. It aims to provide evidence and analysis of the changing nature of the relationship between science and society, both in Britain and around the world. It is hoped that members will be drawn from all sectors, and is expected that the members themselves will set the Forum's detailed agenda, weigh issues and evidence, commission analysis and host meetings where people can hear directly from those involved in innovative policy and practice. SPSG hopes that the Forum's members will discuss

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[88] Thomas, G. (2001) Pers. Comm. The Wellcome Trust
[89] see www.spsg.org/science_society/forum.html

implications for the UK, determine the scope for agreement, and where possible, offer agreed conclusions as an input to public policy.

Governance and Science Group

The Governance and Science Group (GSG) is a body of academics, writers and commentators focusing on recent efforts at opening up technological innovation and its regulation to wider communities. GSG is, at least initially, based in the UK but it aims to expand to Europe and further afield as circumstances permit. The Group intends to stimulate discussion between public interest groups, government, industry and research institutes. It will operate by analysing the factors affecting the legitimacy of decisions involving science and technology, and will examine the challenges, tensions and constraints affecting the prospects for new institutional arrangements. By raising critical questions, GSG hopes to make its work widely available through seminars and events, in collaboration with other organisations where necessary[90].

A4   Business

There is growing interest in the role of business in wider society (known as corporate social responsibility, CSR). Indeed, in 2000, the Chancellor of the Exchequer hosted an international seminar on this topic. A key element of CSR is the involvement of interested parties ('stakeholders') by firms in their day-to-day business. A variety of procedures are being used, including environmental and social impact assessment, social auditing and reporting and marketing.

The Confederation of British Industry[91] (CBI), the Government's Advisory Committee on Business and the Environment[92] (ACBE), and academic researchers[17] have reviewed CSR practice, concluding that:

- Businesses report that scientific judgements (such as over BSE and GM foods) had traditionally been based on existing or imminent legislative guidance. These decisions were then tested in the market by placing products on sale - it was felt that if customers chose not to take the risks, they would not buy the product. However, many companies have begun to recognise that public expectations are legitimate concerns, and so have begun to establish formal systems for dialogue.
- One motivation for this has been that companies have seen that special interest groups are trusted to a greater degree by the public than industry and regulators. Managing reputation and developing a positive company image feature among the goals for such activities.
- CSR can provide tangible benefits to business if it is not treated simply as a public relations tool, but is integrated into every aspect of a company's operations.
- CSR activities have been accused of being used as public relations tools. In particular, criticism is laid at examples where 'stakeholder dialogue' procedures are used to legitimise pre-defined decisions, and where in-house company personnel, rather than independent third parties, have verified the effectiveness of dialogue processes.
- Resulting from these pressures, calls are growing for environmental and social reporting by businesses to be put on a mandatory basis alongside financial reporting: addressing what has become known as the 'triple bottom line.'

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[90] Ravetz, J. (2001) Pers. Comm.
[91] CBI (2000). Global Social Responsibility. International Briefing, January 2000. Confederation of British Industry.
[92] ACBE (1997). Integrating the Environment into Business Decisions: the Consensus Approach. Seventh Report of the Advisory Committee on Business and the Environment. Department of the Environment, Transport and the Regions and Department of trade and Industry.

A5   Practitioners

This section outlines the perspective of those organisations and individuals that practice in the area of designing and facilitating public engagement. In addition to a large number of academics (including among others, those at the University of Birmingham, University College London and the University of East Anglia), key groups in this area include:

- **STEMPRA** (Science, Technology, Engineering and Medicine Public Relations Association) is an informal group of individuals interested in science communication. It is aimed principally at public relations, media and communications professionals, and provides opportunities for information sharing, discussions and networking[93].

- **InterAct** is an alliance of practitioners, researchers, writers and commentators working in the area of public participation. The members believe that debate and decision-making should be based on deliberation and participation to strengthen democracy, social welfare, and environmental and economic development. InterAct's members have extensive experience of designing and implementing dialogue processes, and aim to promote their effective use throughout the public, private and civil sectors. InterAct has built up a set of case studies, collated a directory of practitioners, and produced draft guidelines on effective evaluation procedures[25].

- **The Market Research Society** (MRS) is the world's largest international organisation for professional researchers and others engaged in (or interested in) marketing, social and opinion research. It has a diverse membership of individual researchers within agencies, independent consultants, client organisations and the academic community. All members agree to comply with the MRS Code of Conduct which is supported by an advisory service and a range of specialist guidelines on best practice. It is the official awarding body in the UK for vocational qualifications in market research. There is much emphasis on quality control in any market research project to ensure maximum accuracy and high standards of ethical behaviour[94].

- **The Social Research Association** (SRA) was founded in 1978 to advance the conduct, development and application of social research. Its membership come from central and local government, higher education, market research, the voluntary sector, independent institutions and freelance consultants. The SRA runs training days, seminars and holds an annual conference to help promote good practice. The Association issues ethical guidelines to help ensure that social research is carried out to the highest professional standards.

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[93] See www2.ifr.bbsrc.ac.uk/STEMPRA/default.htm
[94] Twyman, P. (2001) Pers comm. Political Strategy Limited, on behalf of the Market Research Society

LIST OF ABBREVIATIONS

ACBE	Advisory Committee on Business and the Environment
AEBC	Agriculture and Environment Biotechnology Commission
BAAS	British Association for the Advancement of Science
BBSRC	Biotechnology and Biological Sciences Research Council
BSE	bovine spongiform encephalopathy
CBI	Confederation of British Industry
CCLRC	Council of the Central Laboratory of the Research Councils
CO	Cabinet Office
COPUS	Committee on the Public Understanding of Science
CPZ	controlled parking zone
CSR	corporate social responsibility
DBT	Danish Board of Technology
DETR	Department of the Environment, Transport and the Regions
DH	Department of Health
EPSRC	Engineering and Physical Sciences Research Council
ESRC	Economic and Social Research Council
FSA	Food Standards Agency
GM	genetically-modified
GMC	General Medical Council
GSG	Governance and Science Group
HGC	Human Genetics Commission
IDeA	Improvement and Development Agency
IFR	Institute of Food Research
ILGRA	Interdepartmental Liaison Group on Risk Assessment
IPPR	Institute for Public Policy Research
LGA	Local Government Association
MAFF	Ministry of Agriculture, Fisheries and Food
MOD	Ministry of Defence
MRC	Medical Research Council
MRS	Market Research Society
NCC	National Consumer Council
NDPB	non-departmental public body
NERC	Natural Environment Research Council
NGO	non-governmental organisation
OST	Office of Science and Technology (Department of Trade and Industry)
PACE	Parliamentary Assembly of the Council of Europe
PUS	Public Understanding Of Science
RAEng	Royal Academy of Engineering
RI	Royal Institute of Great Britain
RS	Royal Society
S&T	science and technology
SDC	science and discovery centre
SDCN	Science and Discovery Centre Network
SPSG	Science Policy Support Group
SRA	Social Research Association
STEMPRA	Science, technology, Engineering and Medicine Public Relations Association
WT	Wellcome Trust

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