

A code of practice for scientific advisory committees

The Royal Society's response to the Office of Science and Technology

6 December 2000

1. The Royal Society welcomes the opportunity to comment on the Office of Science and Technology (OST) consultation document on a Code of Practice for Scientific Advisory Committees. The Society believes that a code would be very helpful and would complement well the recently updated OST document "Guidelines 2000: Scientific Advice and Policy Making", on which the Society commented earlier this year¹. The Society has previously submitted evidence to some relevant House of Commons S&T Committee inquiries^{2,3}.
2. The Society is currently also considering the science governance issues raised by the Phillips Report on the BSE Inquiry, but will not complete this before the deadline for responses to the consultation document. A copy of any report resulting from this further study will be sent to OST and made available on the Royal Society website.

The Royal Society



6 Carlton House Terrace
London SW1Y 5AG

tel +44 (0)20 7839 5561
fax +44 (0)20 7451 2692

www.royalsoc.ac.uk

statement 14/00

December 2000

Registered Charity No 207043

Coverage and General Issues

3. The Society agrees that all of the topics covered in the consultation document, which were previously set out in the Government's White Paper "Excellence and Opportunity", should be included in a code. There are, however, a number of omissions and general points on which the Society would wish to comment.
4. The Society believes that it is essential for Departments to take care that the independence of science advisory committees is not compromised by the support arrangements. The secretariat arrangements are crucial and, particularly where they are civil servants, the Department concerned must remove as far as possible any conflicts of responsibilities (or career interests) placed on the secretary and any supporting staff. Independence of the committee may also require the Chairman and/or at least some of the members having sufficient time to prepare input to the committee, and hence not having to rely entirely on the secretariat. This may require making appropriate financial arrangements. These points are both being considered further within the Society's wider study of science governance issues.
5. The most obvious omission is a section setting out the context of the advisory process, to ensure that the committee understands the environment in which it is going to operate and the distinction between advice and policy making. Confusion over these issues has caused much trouble in the past and it would be helpful if the draft code could clarify them. The background is covered in the CSA's Guidelines and it could be handled in an introductory section to the code as set out in paragraphs 14 and 15 below.
6. The draft provision in some places requires clarification over the distinction between science advice based on expert analysis of natural or social science considerations and the judgement required for policy making. For example, at Section I the draft code considers how the committee itself and the members should fully understand the committee's role in terms of whether the advice to be tendered is principally scientific or whether wider social, ethical or economic considerations are encompassed by the role. That defines scientific advice narrowly; there are large areas of social science where scientific analysis can and should be made on most issues. Economics is one clear area, and aspects of ethical and social analyses are also normally relevant. It is, for example, important to be able to identify the economic and ethical analyses used at the basis of any policy judgement.
7. While it is reasonable for an advisory group to have limited terms of reference so that it is possible to cover the areas adequately within its membership, it is important to recognise that policy judgement is more than merely combining science and social science analysis. It brings in further factors including stakeholder views and public values, and policy development is usually only appropriate for executive bodies such as Councils and agencies. The Phillips Report warns against expecting advisory committees to go beyond the provision of analysis into a policy-determining role, as it is then difficult not to accept the advice even if there are countervailing arguments that the committee has not been able to take into account⁴.
8. The draft document needs further consideration over the way it describes the role of individual members. Section J states that each member should be clear about his/her role on the committee. While it is important that members should be clear as to the particular expertise they are expected to bring to the committee, it should also be emphasised that their role on the committee is not limited to the expression of that particular expertise. A committee's strength is that all members can question and comment on the information provided or the views expressed by other members, who have a variety of expertise. Any report belongs to the whole committee and expert members do not just sign up to those points within their particular area of expertise. This is not to diminish the role of a truly lay member of the committee.
9. The Society also believes that the discussion on the peer review process should be strengthened. Peer review is mentioned in Section S in the context of resolving disputes or reaching difficult decisions within the committee. But peer review can be an essential mechanism to assist the committee to arrive at a balanced analysis, and has been used to good effect, for example by the Food Standards Agency in its Review of BSE controls. A committee may only have one expert in a particular scientific area and, even if there is more than one, it is unlikely that the science is comprehensively represented. So a committee's draft findings may need to be subject to review by a wider range of experts. This applies to the social science as well as the natural science areas of the committee's remit. Such a review may well be essential to ensure a balanced report. Furthermore, even if some form of peer review is not undertaken before reaching a decision, the publication of the advice should be in sufficient detail to allow other experts to evaluate their judgement, as well as providing the essential transparency of the committee's work. If a committee has not been able to review adequately all of the evidence on which it is basing its conclusions, this should be made clear. The Phillips Report on the BSE Inquiry

explicitly criticises the Southwood Committee in not making clear in its final report that it had accepted some epidemiological evidence and included it in its report without having been able to expose it to either internal or external peer review⁵.

10. Another feature to highlight is the need for a detailed written audit trail showing how the committee reached particular decisions. As the Phillips Report indicates⁶, it is most important for the committee, any successor body and relevant policy makers to be able to identify when new information may invalidate the assumptions or the analysis leading to a particular decision.
11. There would be value in making Departments responsible for monitoring the way that the committee's advice had been taken into account in policy formulation and other ways, and for informing members that this should happen in the induction process and in the Code.
12. Finally, the Code should clarify the types of committee that are covered by its provisions. Presumably it would not be used to cover research grant and other resource awarding committees, although some of the provisions may be relevant.
13. The remainder of this note comments on the detailed provisions within the draft code, including those relevant to the above general points.

Introduction or Context-setting Section

14. The current introduction is rightly related to the consultation exercise, but the Code could itself helpfully have an introductory section setting out the overall context of scientific advisory committees and their place in public life. In particular it would be helpful to set out the main functions in the overall decision-making process. One formulation of the various distinct functions in the overall decision making process involving scientific advisory bodies is given in the recent HSE OXERA report⁷, which defines four distinct functions – scientific adviser, policy-maker, and decision taker, along with stakeholder representative. OST may also wish to consider the points set out in the Royal Commission on Environmental Pollution's 21st Report, which set out a comprehensive approach to a particular example of the science-policy interface⁸. The Report was largely concerned with setting standards rather than giving advice, but many of the elements in the process are similar. In particular there are important general issues raised in Chapters 2 to 5 on scientific analysis, technological options, risk and uncertainty, and economic appraisal.

15. The introduction could also helpfully summarise relevant points from other related documents, and set out in full the seven principles of public life, possibly as an annex.

Transparency (A – D)

16. The proposed publication arrangements are generally satisfactory. It would be worth adding a target time for the publication of the annual report, possibly 3 months from the end of the year in question. It may also be worth adding a sentence to the effect that where the main audience for the report is the general public, it should be in a form that could be understood by lay people. The document could also suggest that while it would be expected that all these documents should be made available on the web, this is not by itself a sufficient method of publishing reports and minutes. Even for those that have access to the internet, there needs to be a mechanism alerting them to when new information is posted on a particular site.
17. The question of the safety of members is clearly important, but is only relevant in a small selection of cases. Prime responsibility must rest with the Chair and members, who should be given sufficient flexibility to take suitable measures, but any arrangements that affect the degree of transparency must to be publicly defensible.
18. As the OST commentary points out, there is a balance to be struck between encouraging the submission of sensitive information and the loss of transparency if claims for confidentiality are accepted too readily. While the secretariat has to be responsible for negotiating the scope of commercial detail to be withheld, the outcome should be monitored closely by the committee.
19. The Phillips Report, and before that the Royal Commission on Environmental Pollution in its 21st Report, has highlighted the need to improve communication of risk to Government and to the general public in advice and reports. This needs to be given particular consideration by the committee, who might consider how best to relate the level of risk to existing examples of risk. The committee should also consider setting out, where appropriate, details of where new information from further research would reduce the degree of uncertainty, and where new information may significantly alter the advice they are giving.
20. The Code could also state that where there is a need to convey a decision as quickly as possible, the Chair could release an interim statement immediately after the meeting through a press notice or otherwise. Furthermore, the code

could also suggest the publication of a parallel statement to the minutes in situations where public appreciation of the decision on a complex issue would benefit from more detailed explanation or background information than is appropriate for minutes of a committee.

21. The OST commentary includes the suggestion that there needs to be flexibility to allow someone other than the Chair to represent the committee if there is public or media interest. This needs to be handled with some care. Such delegation should only be considered either in the absence of the Chair, or if the presentation needs particular scientific expertise. In the latter case, however, the Chair should still be fully involved with such a presentation (see paragraph 25 below).
22. OST should consider whether there should be a statement about the power of the courts to subpoena information from advisory committees.

An Inclusive Approach (E)

23. The proposed provision is satisfactory but, as the consultation document acknowledges, widespread public consultation is not always appropriate, and the second paragraph could be extended by inserting "or dialogue with interest groups" before "at least once a year".

The Chair (F and G)

24. The Society believes that the Chair must take responsibility for the operation and output of the committee. It is more important to appoint as Chair an eminent independent scientist who has both committee management and presentational skills rather than to try and match the area of scientific expertise precisely to the subject in question. It is in the members of the committee that the detailed expertise in the area in question should be found. Ultimately, it should be for the Minister or Permanent Secretary to satisfy his or herself on the level of expertise of the Chair, and whether training should be provided.
25. On the question of delegation of presentational issues, as indicated in paragraph 18 above, the Chair should, when available, retain responsibility for the public face of the committee, even if another member is actually undertaking a presentation. This is not only important for the operation of the committee, it is also an important public presentation point.

The Members (H to L)

26. It is most important to appoint the best people available to cover a particular range of expertise and knowledge, even if this requires special arrangements to handle conflicts of interest. It is, however, essential that members recognise and accept before they are appointed that the duties of membership include those set out in the seven principles of public life, and that they are to act as an individual and not as representatives of an employer or interest group. Any mechanism for handling conflicts of interest can only work through the integrity of each member.
27. Members understanding of their role should be covered in the induction process, along with the other provisions set out in the draft code. However, on the first of the provisions in Section I, it should only be in exceptional circumstances that such a committee should be expected to engage in policy formulation. The last sentence of the first provision gives the impression that there is a fundamental distinction between the analysis of the science, and analysis associated with social, ethical or economic considerations, whereas these are all valid areas of coverage by an expert committee, although it may be impractical to cover all within a single committee. As discussed at paragraph 5 above, the full range of analysis should not be confused with policy formulation.
28. It is worth including a reminder to members that they and their Chair are ultimately responsible for ensuring that they collectively have the necessary level of competence to form a judgement on the range of issues on which they are advising. Any shortfall can be overcome not only through the appointment of additional members, but also in appropriate cases through the use of consultants, and seeking outside review of evidence. If the committee uses evidence that it does not have the expertise to question, and has not been able otherwise to obtain peer review, it is essential that this is flagged up in the advice or report.
29. The sponsor Department in conjunction with the Chair should report to members on the use made of their advice by the relevant Department or Departments in their policy formulation, and such information should be published in the annual report. Members should themselves check that this is being carried out, and if necessary the Chair should relay any concerns to the Permanent Secretary or to Ministers.
30. OST may wish to take advice on the liabilities of members who give advice and take decisions in good faith. The issue of indemnities for independent members of committees will be included in the Society's further consideration of science governance issues.

Conflicts of interest (M)

31. As indicated in paragraph 26 above, there needs to be robust and transparent arrangements to handle conflicts of interest. The arrangements set out in the consultation document, however, seem to be very much biased towards financial interests in the form of employment or share holding. Links through grants or contracts, gifts of buildings or equipment, need to be declared, as should the potential value of ipr owned by the individual or home institution that might be affected by the outcome of the advice. In some cases it is important to recognise that independent scientists may well have an interest through their desire for a continued "licence to practice". Finally, members should also declare any affiliation to other groups with vested interests not necessarily financial, such as membership and support of activist and/or political groups.

The Secretariat and Senior Officials from Departments (N and O)

32. The need for the secretariat to respect the independence of a committee is made in the Phillips Report⁹, and the Chair should be made responsible for ensuring that he or she is satisfied on this point. It is essential that the sponsoring Department accepts that the secretariat needs to respect the independence of the committee. For standing advisory committees, the secretariat should report directly and solely to the Chair. Ideally, ad hoc advisory committees should have similar arrangements, but where the secretariat has to have a dual role this must be made clear in any published report. This is an issue that the Society will be considering further in its study of the science governance issues set out in the Phillips Report
33. It is also important that the secretariat makes every effort to ensure that all relevant information is made available to the committee, and that nothing is withheld on, for example, confidentiality grounds.
34. The appropriate role of senior officials acting as "observers" or "assessors" on such a committee is an example of where there needs to be a clear distinction between the functions of scientific adviser and policy-maker.

Use of research and Early Identification of issues (P and Q)

35. The proposed code provision on the identification of relevant research results, and areas where additional research is required are all appropriate and, in particular,

the specific reference to the importance of peer reviewing of any new unpublished information.

36. The availability of clear audit trails of the scientific basis of existing advice will aid the identification of the relevance of new research results.

Risk assessment (R)

37. Science advisory committees often have to work in areas where there is yet incomplete knowledge of the underlying mechanisms, and hence the handling of uncertainty and the associated risks are an essential feature of their activity. The code of practice could spell out the main points in the existing guidance, and it will, of course be important for the various documents to be made available. Because of the fundamental importance of handling risk, OST may wish to consider whether it should undertake the task, either itself or by a suitable contract, of drawing up specific guidance in this area. This should include the communication of uncertainties not just to the relevant Government Departments, but also to the general public. The Society will be considering this area as part of its considerations of the lessons to be learned from the findings set out in the Phillips Report.

Procedures for arriving at conclusions (S)

38. It is valuable to make explicit the possible use of external review before reaching a decision in the second provision; otherwise some might see this as abrogating responsibilities.
39. The final provision should state specifically that there needs to be a clear audit trail on how a particular decision was reached, and this may need special minuting or other paperwork if the consideration has been spread over a number of meetings.

The Council of the Royal Society has endorsed this response. It was prepared by a working group chaired by Professor Brian Heap FRS (Vice President and Foreign Secretary). The other members were: Sir Geoffrey Allen FRS (Kobe Steel), Sir Tom Blundell FRS (Cambridge), Sir Walter Bodmer FRS (Imperial Cancer Research Fund), Sir John Houghton FRS, Professor Peter Lachmann FRS (Academy of Medical Sciences), Professor John Lawton FRS (NERC), Professor Denis Noble FRS (Oxford), and Sir George Radda FRS (MRC), with support from Ms Sarah Dodman and Dr Keith Root (secretariat, Royal Society).

References

- 1e Guidelines 2000, Royal Society, 22 June 2000.
- 2e Scientific Advice on GM Foods, evidence to House of Commons Science and Technology Committee inquiry, Royal Society May 1999.
- 3e The Scientific Advisory System, evidence to the House of Commons Science and Technology Committee inquiry, June 1998.
- 4e Phillips Report on the BSE Inquiry, Volume 1, paragraph 1290 and Volume 11, paragraph 4.740.
- 5e Ibid, Volume 4, paragraph 10.28.
- 6e Ibid, Volume 11, paragraph 4.765.
- 7e HSE Report "Policy, risk and science: securing and using scientific advice", OXERA October 2000, paragraph 145.
- 8e Royal Commission on Environmental Pollution 21 Report "Setting Environmental Standards", paragraph 2.65 et seq.
- 9e Phillips Report on the BSE Inquiry, Volume 1 paragraph 1290, and Volume 11, paragraph 4.753.