

General Advisory Committee on Science

First Annual Report 2007 – 09

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First Annual Report: 2007 – 09

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Foreword from the GACS Chair

It is a pleasure to present this first Annual Report of the Food Standards Agency's General Advisory Committee on Science, covering the period since the Committee was established in December 2007 to 31 March 2009.



From its inception, the Food Standards Agency committed itself to working from a robust and open evidence base in all its work. It has acquired a significant reputation for openness and commitment to evidence-based policy, but is aware that it must be vigilant – and be seen to be vigilant – in maintaining these principles of operation. It has tasked the GACS with an important role in providing independent challenge and advice to the Agency on how it uses science in all its business.

The Committee recognised, from its first meeting, the seriousness of this task and the importance of carrying it out openly and independently. This report shows how we have done this in practice. I think it demonstrates that, in just over a year in operation, we have got well into our stride and delivered constructive, independent challenge and advice in several important areas.

The Food Standards Agency spends about £20 million per annum on research that it commissions in order to help it to develop its policies. One of the first tasks that GACS set itself was to understand how (and how well) the Agency uses this not insignificant amount of money. We did this by asking two members of the Committee to act as rapporteurs to investigate the commissioning, management and communication of the Agency's research and to report back on any areas of concern – as well as on particular examples of good practice. A Working Group continued this study by proposing a set of performance indicators for the Agency's science, and a programme of underpinning work, to help the Agency evaluate the quality of its science and how it is used. The Agency is now implementing these, and we will be looking at the results to identify any areas for further development.

The GACS has also undertaken two major areas of work: advising on the outcome of the Science Review of the Food Standards Agency by the Government Office for Science, and on the Agency's response, and helping to develop the Agency's next Science and Evidence Strategy. This work is continuing, but through our discussions and our engagement with the broader community (for example the panel debate that we organised in March 2008) we have already identified some areas where we believe that the Agency can do better:

- more and better evaluation of the impact of interventions and policies;
- better framing of research questions.

We shall return to these in more detail in the coming year:

The independent Scientific Advisory Committees are crucially important in the Agency's assessment and use of scientific evidence. We have considered how well these Committees perform against the background of a revised cross-government Code of Practice, the Agency's own Good Practice Guidelines, and external commentary. Our initial assessment is that the Committees generally work well but we have identified some issues for further attention:

- clarity on the boundaries and governance procedures around risk assessment and risk management, and the use of scientific evidence in the development of policy;
- better communication between the Scientific Advisory Committees and wider networks of expertise.

GACS is already acting as a hub for communication and networking across the Scientific Advisory Committees, and we plan to build on this in the coming year by hosting the first annual conference for all SAC members. GACS has also recommended that the Agency set up a 'community of experts' – a wider network of expertise it can draw on, for example for peer review. In the coming year we intend to develop detailed recommendations for how this should be done.

Horizon scanning is, in principle, an important mechanism for considering future scenarios and considering how to respond to them. We have made progress in co-ordinating horizon scanning in the Agency, and particularly in the Scientific Advisory Committees. We discussed an analysis of the outputs of the different horizon scanning activities across the Agency – the first time such a synthesis had been made – and identified some key strategic issues for the Board to consider as part of its discussion on future challenges. We also suggested some ways to improve the processes of horizon scanning. One concrete outcome of this is a GACS workshop in June 2009 to explore developments in food production that could affect the Agency's objectives – a cross-cutting issue identified in horizon scanning by two of the Scientific Advisory Committees.

I should like to thank the members of GACS for their commitment and enthusiasm, and the Agency for its openness to challenge in developing its work. I would also like, on behalf of all of the Committee, to thank the GACS Secretariat for their support. And special thanks are due to Dame Deirdre Hutton, retiring Chair of the Agency, who did so much to conceive and implement the GACS.



Professor Colin Blakemore
GACS Chair

Introduction

1. This is the first Annual Report of the independent General Advisory Committee on Science (GACS), which was established by the Food Standards Agency in December 2007. It covers the period from establishment to 31 March 2009.
2. The Committee's remit is to provide independent challenge and advice to the Agency's Chief Scientist and its Board on the Agency's governance and use of science. GACS also advises on cross-cutting science issues, especially those arising out of the nine Scientific Advisory Committees (SACs) that independently advise the Agency, and develops good practice to ensure confidence in the Agency's scientific evidence and advice. The Committee's full terms of reference are given in Annex 1.
3. GACS has 16 members, which include an independent Chair, 4 independent expert members, 2 lay members, and 9 members who are Chairs of the individual SACs that also advise the Agency. Annex 2 gives details of the membership of the GACS over the period of this report.
4. GACS operates in accordance with the guidelines and procedures established by the Agency, and with relevant guidance and rules established across Government for the operation of independent advisory committees and public bodies. Meetings are generally open to the public, and papers, minutes, reports and information about the Committee, including a Register of Interests, are available on the GACS web pages, at: food.gov.uk/science/ouradvisors/gacs/
5. The Committee has met 3 times, in open session, during the period of this Report: on 11 March 2008, 29 October 2008 and 25 February 2009. At its third meeting, in a departure from normal practice, GACS also held a reserved business session, on the Government Office for Science's Review of the Agency. This was taken as reserved business because the report of the Review was at that time unpublished. It has since been published and the note of GACS' discussion has also been published. GACS is entirely committed to open conduct of business and believes that such transparency is an essential part of the conduct of the Agency as a whole.
6. At its first meeting, the Committee agreed how it would operate and identified the main issues and priorities that it would consider. It developed these into a Work Plan for GACS, under six main themes. This Report summarises progress and plans under each of these themes.
7. The Committee has decided to progress parts of its work between meetings by various means: by formal Working Groups of GACS members; by Members acting as rapporteurs to gather information and to report back to the full Committee; by hosting debates with wider audiences; and by Members attending and reporting back on Agency workshops. In addition, the Chairman of GACS attends meetings of individual Scientific Advisory Committees in order to learn how they work. Thus, GACS has demonstrated its independence by taking responsibility for developing its own ways of working. Descriptions of these activities are included in this report.

Theme 1: Horizon Scanning

8. GACS recognised, at its first meeting, that it had an important role in adding value to existing horizon scanning activities in the Agency, by providing high-level advice to promote good practice, through co-ordinating and developing this work and by debating the strategy for and value of horizon scanning. The Committee emphasised that it should not duplicate on-going horizon scanning within the Agency, for example that carried out by individual SACs. It noted it should, in particular, identify and advise on cross-cutting subjects that might need a co-ordinated approach, collate and prioritise issues arising from the work of individual SACs and feed this information back to the committees, as well as more widely, including into the Agency's strategic planning. GACS felt that it should also consider which approaches to horizon scanning work best and should look at the outcomes of horizon scanning.
9. The Committee discussed horizon scanning again at its second meeting. It looked at the issues identified in the various horizon-scanning activities in the Agency, identified over-arching key strategic issues for the Agency, including climate change and its effects on the food supply, food security including water and energy security, and nanotechnology. GACS views on the broad questions emerging from horizon scanning were fed into the November retreat of the Agency's Board, where the Board reviewed the challenges ahead and identified themes and objectives for the Agency's new strategic plan.
10. GACS also considered how improvements could be made to horizon scanning in the Agency, noting the importance of working with a wide range of experts in the field, as well as better collaboration with external funders of research in the UK and internationally. In general, GACS felt that it is important for the Agency to have robust procedures in place for identifying and responding to relevant issues quickly and said the Agency needs to be clearer about how to assess the outcomes of horizon scanning and to decide what is actually to be done as a result. There also needs to be better communication between all committees of the Agency to pick up developments in one area that might have impacts in others. As part of its own role in this, GACS agreed to take forward a workshop on trends in food production for healthy diets, the idea for which had originated in two of the SACs (the Advisory Committee on Animal Feedingstuffs and the Scientific Advisory Committee on Nutrition). This workshop will take place in June 2009.
11. GACS also agreed to carry out further, periodic reviews of the outputs and outcomes of horizon scanning on a regular basis.

Theme 2: Evidence Base: science strategy, research portfolio and priorities

12. GACS advises and challenges the Agency on its high-level Science Strategy and on the priorities and balance of the Agency's portfolio of scientific evidence gathering.

Commissioning, management and communication of the Agency's research

13. GACS agreed at its first meeting to begin work on reviewing the Agency's research portfolio by looking at the Agency's current arrangements for research, in particular the current strategy and structure of its research, and how it commissions, manages and communicates that research. The Committee decided that this would be done by GACS members acting as rapporteurs who would gather information from the Agency and report back to the Committee. Professor Murcott and Mrs Goldberg volunteered for this role.
14. The rapporteurs presented their findings at the second GACS meeting, noting that the Agency's research is closely linked to achieving its strategic objectives, and is therefore usually well defined, with clear aims, which are reflected in its requirements document. There are however potential weaknesses in ways in which research questions are defined and the outcomes utilised. Commenting on the findings of this study, the Committee wanted work carried out on horizon scanning more closely linked to research requirements. Also it said there should be an opportunity to have research projects with wider and longer-term aims, noting that these would require external challenge, primarily in assessing bids, whereas for more tightly-defined research, there is a need for greater external input in framing and defining the research questions before bids were invited.
15. GACS also suggested that the Agency should consider the ways in which research findings are quality-assessed, communicated and used within the Agency, for example in respect of policy-making decisions. It emphasised this again at a later meeting by recommending that the Agency needs to think about how it can assess the impact of its work using evaluation tools and methodology.

Developing the Agency's next Science and Evidence Strategy

16. The Committee agreed to follow up the issues raised by the rapporteurs' work as part of its consideration of the Agency's next Science and Evidence Strategy for 2010-2015. Four GACS members (Professors Bainbridge, Maskell and Murcott and Mrs Goldberg) volunteered to take part in a scoping workshop held by the Agency, with some key science stakeholders, on 4 February 2009, to help frame questions and identify key issues as a basis for developing the Agency's next Science and Evidence Strategy.
17. The outcomes of the workshop were reported back and discussed at the Committee's third meeting. The GACS and other participants at the scoping workshop felt that the Agency needed to produce a Science Strategy that is clear, both in terms of its content and its purpose. Additionally, it suggested that the Strategy should: be sufficiently flexible to accommodate fundamental, hypothesis-driven research; ensure that high-quality science is procured; incorporate a mechanism for identifying gaps in knowledge; be clear about how the science would be used by the Agency – for iteratively translating the evidence gathered into policy; and be seen to emphasise and strengthen linkages with other research funding organisations.

18. The Committee recommended that the Agency should set out the kinds of research it will need, and how it will obtain and use it to inform and evaluate its policies. It agreed that the scoping workshop had identified factors that would help produce a successful Strategy. The final Strategy itself might focus on high-level principles and strategic priorities, while detailed activities to ensure these are achieved could be set out in a separate delivery plan. This plan could be a living document to be reviewed and updated regularly, to reflect progress and new developments.
19. The Committee made clear its intention to keep an active, watching brief on the Agency's strategic research management and priorities, and on the balance of its research portfolio, as the Agency's new Science and Evidence Strategy is developed. Members agreed to set up a Working Group to help provide input from and feedback to GACS as the Science Strategy is developed. The four participants at the initial scoping workshop and Professor Aggett volunteered to take part.
20. GACS early advice has informed the Agency's plans for developing the Science Strategy and particularly for a further, wider workshop with science stakeholders in May 2009, to discuss the key issues and priorities for the Agency's Science and Evidence Strategy as part of a wider consultation on the Agency's new Strategic Plan.

Theme 3: Science Expertise and Advice: governance and good practice, SACs, Agency skills base

21. GACS considers that one of the most important parts of its work is advising and challenging the Agency to ensure that it develops and follows proper governance and good practice in obtaining and using scientific evidence and advice.

Science Governance

22. GACS noted at its first meeting the challenges from an increasing diversity of types and sources of expertise and evidence. It felt there could be value in looking in detail at case studies of Agency work, covering the journey from identifying a need for scientific evidence and advice, through to obtaining and analysing it, and formulating and communicating a response, as well as evaluating the impact. It also considered its remit for risk assessment, and felt that the committee should be able to comment on aspects of the risk management process that relate to how science and evidence are used.
23. GACS hosted a panel debate, entitled '*Should we trust what scientists say about food?*', in parallel with its first meeting, as part of National Science and Engineering Week 2008, to explore these issues, engage with different perspectives, and frame questions for its future discussions.
24. The panel comprised three science practitioners and commentators:
 - Kay-Tee Khaw, Academy of Medical Sciences, and Professor of Clinical Gerontology at Cambridge
 - Erik Millstone, Professor of Science Policy at the University of Sussex
 - Dr Ben Goldacre, commentator, especially in his *Guardian column, Bad Science*, on the misuse and misinterpretation of science

The speakers gave presentations outlining key aspects of the debate about the presentation and interpretation of evidence concerning the benefits and risks associated with food. An open discussion between the panel and an audience of about 90 (including many of the members of GACS) explored these issues and raised further points. The report of the event and copies of the presentations are available on the GACS web pages¹ Three key points arose out of the panel debate:

- the need to have a clear risk assessment policy;
- the need to ensure that when scientific evidence is being considered, the arguments for making recommendations and forming policies are transparent, and the uncertainties are made clear;
- the need, when using scientific data, to show how it was derived so that it is possible to drill down to the original methods and results.

¹ food.gov.uk/science/ouradvisors/gacs/debate/

25. GACS returned to issues of science governance at its second meeting, in the context of two external reports on such issues (published by the Academy of Medical Sciences and by the European Commission's Joint Research Centre). The Committee felt that both reports raised useful questions, suggestions and criticisms, which it will look at further in the context of its work on science governance. The topics to be examined include clarity around the risk assessment process and the policy that guides it; consistency in applying established procedures and good practice; recognising and explaining uncertainty and the assumptions that underlie uncertainty; and on where and how to engage with wider input from experts and other stakeholders.
26. With regard to the relationship between risk assessment and risk management, the Committee recognised the need for risk assessment to be conducted separately from and before risk management, based on expert evaluation of evidence, free from other influences (in line with the Phillips Report). However, it noted that discussion on risk management might itself raise new questions, demanding additional evidence and therefore further consideration by relevant experts. In particular, the choice of policies might itself involve additional factors (such as social attitudes and determinants of public behaviour) not considered in the original risk assessment. GACS feels that there might be circumstances in which the formulation of policy requires iterative interaction with expert assessment of evidence. Depending on their remit, Scientific Advisory Committees of the Agency, and perhaps other expert groups, might be asked to comment on evidence relating to the possible consequences of different options for risk management. GACS said the Agency needs to be clear in setting out relationships and responsibilities at each stage, on this and other aspects of translating and using science in policy making. It also emphasized the importance of having scientific expertise embedded in the risk management process.
27. At its third meeting GACS agreed to take this work forward in the context of looking at how scientific evidence and advice play out in policy making, alongside other factors that the Agency might need to consider. It suggested that this study could be informed by looking at case studies of how this has played out in some specific cases and circumstances. This is expected to be a major part of GACS work in the coming year.

Performance of the Scientific Advisory Committees

28. GACS also looks specifically at the governance of the work of the Scientific Advisory Committees (SACs) in advising the Agency (bearing in mind that some SACs also advise other Departments and bodies). At its first meeting the Committee considered an assessment of the SACs against the provisions of the revised Government Office for Science's Code of Practice for Scientific Advisory Committees (COPSAC), concluding that the SACs follow the requirements of the revised COPSAC to a good degree. The Committee also considered more general good practice in science governance, and agreed that it should also cover sharing knowledge, as well as assessing current performance of the SACs against established best practice.

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29. At its second meeting, GACS discussed a draft assessment by the Agency's Chief Scientist of the performance of SACs in advising the Agency, focusing on whether the SACs are adhering to the Agency's Good Practice Guidelines and other elements of good practice and governance in carrying out their work to deliver independent expert advice to the Agency. The Committee noted the finding that generally the SACs do adhere to the 27 principles of good practice outlined in the Guidelines. However, GACS queried whether the Agency had a process for periodically considering whether the remits and coverage of committees, individually and as a whole, continue to reflect the Agency's needs. Additionally, while acknowledging that SACs use the Good Practice Guidelines as a self-assessment tool, GACS suggested that SACs might also be subject to occasional external/independent review, but that the effort entailed should be proportionate to the benefits. Members suggested that a workable process might be for a retiring SAC Chair to give a candid assessment of how a committee works and whether it is still needed.

Supply of expertise

30. GACS has also considered the future supply of expertise, both for Agency staff and externally, in areas relevant to the Agency's work, as an important issue for the future. The occasion for the Committee to re-visit this topic arose at the third meeting, when they commented, in reserved business, on the preliminary findings of the Government Office for Science Review of the Agency's science. The Committee agreed that it might well be beneficial to adopt the Government Office for Science's recommendation for secondments into the Agency, recognising that there is a need to maintain scientific-skills capability within and across the Agency. However, they felt it is more important to know what expertise is needed and to ensure it can be sourced, rather than necessarily to have all expertise 'in house'. The Committee noted that Members did not generally feel that they had seen evidence of Agency staff not having a sufficiently strong scientific background for their work.

Theme 4: Engagement, Collaboration and Communication

31. During the year, GACS considered how well the Agency and the SACs work collaboratively and communicate with each other and with external audiences on their scientific work.

Co-ordination of the Scientific Advisory Committees

- At its first meeting, GACS asserted that it can add value by acting as a hub to share, discuss and feed back knowledge, across and between the SACs, identifying common issues and any falling between or outside SAC remits. Such issues could include:
 - how well the Agency represents the uncertainty and the spread of opinion and interpretation around generally accepted, ‘consensus’ views; and
 - how the outputs from SACs and other sources of scientific evidence and advice have been used (including feedback to SACs on their advice and recommendations for research needs).
33. GACS emphasised that it is important to have clear channels of communication between itself, the SACs, the Agency executive and Chief Scientist, and the Board. The Committee agreed that GACS must make sure that it is communicating with the full membership of the Agency’s SACs and not just the Chairs of the Committees. To this end, it decided to arrange an annual conference for all SAC members to enable proper dialogue and feedback of issues of cross cutting interest. The first meeting is planned for later in 2009.
34. The Committee also proposed promoting dialogue among the SACs by means of a standing item on the agenda of each SAC to consider current issues in other committees, and also whether any topics due for discussion in that particular committee might need to be referred to other committees. This is already done in some SACs and is now being promoted more widely. As a complement to this, GACS considers as a standing item on its own agenda a paper on issues arising or planned for discussion in the SACs and it attempts to identify cross-cutting issues; this discussion is shared with Secretariats of the SACs (as are all other GACS papers).

GACS engagement with wider views

35. Members agreed that it is important for the Committee to be able to engage with outside views, opinions and expertise. Holding its meetings in public is an important part of this but the Committee should actively seek external views, both generally and by identifying particular outside expertise or input relevant to specific discussions. The open panel debate held in parallel with the first meeting is one example of this. GACS also took steps to develop links with other Government Departments dealing with related science issues. The Committee also said that it is important for GACS to be able to draw on expertise and opinion internationally where this is needed.
36. The Committee considered that one approach that would help it operate more effectively is to develop and trial web-based tools for communication, both within the committee and for engaging with outside views. A platform for this was developed as part of the Agency’s open access database (foodbase.org.uk), which Members are using on a trial basis.

Engagement with wider expertise: a 'Community of Experts'

37. In order to improve external engagement, GACS also discussed the possibility of the Agency setting up a wider community or 'register' of scientists, who could provide a breadth of commentary and expertise on a range of issues relevant to the Agency, as well as to help the Agency to be aware of new developments. Such a 'register' could also be used to help systematise and develop the Agency's access to external expert peer review (for research questions, proposals and completed projects and programmes). The Committee emphasised that arrangements for any 'register' should be cost-effective, so that the resources needed to support it should be proportional to the benefits. They also commented that care is needed in choosing the name for this group of individuals, so that no one can claim prestige or imply endorsement by the Agency on the basis of being a member of such a discussion 'community'. GACS agreed that membership of the 'register' should be open, but that clear and transparent criteria need to be applied for the selection of individuals for particular functions, such as peer review. Members suggested that in terms of overall transparency, a way forward might be to publish only the names of individuals who contribute in particular ways; it should not be necessary to make publicly available the names of all individuals on the 'register'. The Committee will return to this issue in the coming year.

Theme 5: Performance Indicators and Evaluation

Performance indicators for the Agency's science

38. At its first meeting, GACS identified indicators of performance as a priority for its first year; suggesting a need to define 'success' and look at how it might be evaluated for each of the different strands of the Agency's work. Members agreed to set up a Working Group to develop ideas and options, for consideration by GACS. Mrs Petré and Professors Coggon and O'Brien volunteered for the Group.
39. The Working Group suggested, firstly, that 'performance indicators' is a more appropriate term than 'measures of success'. It adopted the principle that performance indicators (PIs) should be meaningful, measurable and proportionate, noting that it considered the purpose of identifying PIs is to characterise good practice already happening in the Agency, with a view to ensuring continuation of this overall scientific performance. The Working Group presented their initial proposals to the Committee at its second meeting.
40. GACS felt that the initial proposals for PIs focused on the management processes for research and that more attention should be given to the quality of the scientific work commissioned (including how questions are defined), as well as the quality and impact of the 'outcomes', long-term and short-term.
41. The Working Group agreed to carry out more work on the proposed PIs, reflecting the comments made in discussion, for further consideration by the Committee. It presented a revised list of PIs to GACS at the third meeting, in 2009. GACS agreed to the revised PIs, and recommended further work by the Agency to support their implementation, subject to a number of comments the Agency should consider in implementing the PIs.

Science Review of the Agency by the Government Office for Science

42. A further key part of GACS work in its first year was considering the recommendations from the Science Review of the Agency by the Government Office for Science (GO-Science) – a wide ranging review of how the Agency commissions, evaluates and uses science in its policy. GACS followed the progress of the Review and, as it neared completion, considered the emerging recommendations from the Review in order to provide independent advice on key issues and priorities for the Agency's formal response to the Review. This was taken as reserved business at the third meeting of GACS, since the report of the Review was at that time unpublished. It has subsequently been published² and the note of the GACS discussion has also been published on the GACS web pages.
43. Several of the issues raised in the Review echo topics in GACS' own discussions, for example on improving and making more consistent project commissioning and evaluation, and on the development of the Agency's new Science and Evidence Strategy. Members noted that many of the recommendations from the Review had resource implications and, given budget pressures, it would be necessary to consider how the objectives could be achieved to ensure that work is proportionate to the likely benefits and that the **overall** package of work achieved the best balance of effort. For example, in terms of research it might be more effective for the Agency to work with, or through, other funders to ensure the appropriate type and level of science are supported.
44. The Committee will look again at the key issues in light of the full Report, and will also consider how its views are taken into account by the Agency in formulating a response to the Review.

² The Review report and background materials are available at the GO-Science website at: dius.gov.uk/partner_organisations/office_for_science/science_in_government/science_and_engineering_assurance/current_reviews/fsa.aspx

Theme 6: GACS Work Plan, governance and administration

45. GACS discussed in detail at its first meeting its role, how it would conduct its business and its work programme. The Committee agreed that it is essential to demonstrate its independence and its ability to challenge and provide an external perspective on Agency science. Equally, Members recognised that openness would be important in ensuring and demonstrating that the Committee's work is independent and itself open to scrutiny, challenge and outside input. It discussed the challenges this presented for Members, noting that GACS members who are not SAC Chairs (or their Deputies) had a particular and a very important role in ensuring that the Committee does genuinely challenge the Agency's use of science effectively and does bring an independent perspective. Additionally, the GACS Chair has a key role in ensuring a proper balance in the Committee's work between supporting and challenging the Agency Chief Scientist.
46. The Committee said that its terms of reference should make explicit that GACS may itself suggest relevant issues for consideration. The terms were amended accordingly.
47. Members also felt that it is important for the relationship between the Agency Chief Scientist and the GACS to be clear. In order for there not to be a risk – real or perceived – of an undue influence over the Committee or a hindrance to frank discussion, GACS put on record that it wished to have the Chief Scientist and any other contributors from outside the Committee seated separately from them at meetings of GACS and contributing to discussion only at the Committee's invitation.
48. Recognising the importance of communication in its work, the Committee agreed to implement a number of measures for promoting engagement, including:
 - asking for the development and trial of web-based tools for communication;
 - publishing agendas well in advance, with a brief summary of each item so that people can identify issues of interest more easily;
 - including a note of the origin of agenda items on the papers (for example from the Agency Chief Scientist or Board, from the GACS Chair, or from GACS Member(s));
 - maintaining non-web-based channels of communication for those without web access; and
 - inviting input to meetings or comment from specific disciplines or sectors relevant to discussion items, in writing or through presentations.
49. In addition to publishing an Annual report (in line with standard procedures for all SACs), the GACS Chair additionally presents a report in person to the Agency Board each year, at an open meeting. This report comments on the work of the GACS, and also on its independent assessment of the Agency's science and of the Chief Scientist's Annual Report. The first such report was given at the Board's open meeting in July 2008.³
50. In terms of the governance of its own performance, the Committee agreed it would follow the practice of self-assessment against the Good Practice Guidelines, and of members' individual self-assessment of their performance. The assessment of GACS performance against the Good Practice Guidelines over the period covered by this report is given at Annex 3.

³ Report and minutes of discussion available at: food.gov.uk/aboutus/ourboard/boardmeetings/

GACS Future Work

51. Several areas of the GACS' work covered in this Report will be developed further in the coming year, and some of these are referred to above. In summary, the Committee's priorities for the coming year include:
- Further advice on the Agency's response to the Science Review of the Agency, in light of the full Review Report. (GACS is also likely to have a role in taking forward and/or advising on some of the actions included in this response).
 - Further advice on and challenge to the development of the Agency's next Science and Evidence Strategy, and on the priorities and balance of its science spend (including the approach to prioritisation).
 - Science governance - reviewing and advising on how scientific evidence and advice are used alongside other input in developing policies and advice - including in risk assessment and risk management.
 - Monitoring the development of a 'community of experts'.

Resources and Expenditure

GACS is an independent Committee, but does not have resources of its own. The operation of the Committee is funded by the Food Standards Agency. In the period of this report, costs covering recruitment of GACS Members, their expenses and fees, and GACS-related events were:

in financial year 2007-2008: £41.2 K; and

in financial year 2008-2009: £16.8 K.

Contacts for further information

Further information on the GACS is available on the GACS web pages at:
food.gov.uk/science/ouradvisors/gacs/

or by contacting the GACS Secretary:

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Annex 1 – Terms of Reference of the General Advisory Committee on Science (GACS)

The overall **purpose** of the GACS is to support the Agency's Chief Scientist by providing independent challenge and advice to the Chief Scientist and the Agency Board on the Agency's governance and use of science. It will carry out the following tasks:

Providing independent challenge and advice

- on how the Agency obtains and uses independent scientific advice including through the Scientific Advisory Committees that advise the Agency⁴
- on the Agency's science governance processes
- on the Agency's Science Strategy and its implementation and periodic review

Advising on general and strategic science and research issues

- Undertaking strategic horizon scanning, co-ordinating and building on the work already carried out by the individual SACs
- Advising on whether the Agency's science and research is aligned with the Agency's overall scientific and strategic aims, including advice on science prioritisation
- Providing a forum to discuss issues which cut across the remit of more than one committee and hence formalise interactions between the SACs
- Advising on issues that are not covered by an existing SAC or which relate to general principles
- Advising on any other matters relating to research, surveys or science policy remitted to the Committee by the Agency's Board or Chief Scientist

Developing good practice and fit-for-purpose science processes

- Identifying and developing good practice for all of the SACs and encouraging and monitoring its application¹
- Building links with others working on the use and governance of science, to identify, develop and share good practice

The Committee may also suggest relevant issues for discussion.

⁴ The GACS does not have a role in approving the work of the other SACs. It will consider whether the SACs are adhering to the Good Practice Guidelines and other elements of good practice and governance in carrying out their work.

Annex 2 – Membership of the GACS

The GACS comprises 16 independent members:

- an independent Chair
- the Chairs of the nine Scientific Advisory Committees (SACs) that advise the Agency (who are GACS members in an *ex officio* capacity)
- four additional independent expert members
- two lay members.

Current membership

The members of the GACS, as at 31 March 2009, and their biographies are shown below. Members were appointed for initial terms of two years from December 2007 to end December 2009, except for the *ex officio* members, whose terms of appointment are set by the Committees that they Chair. Unless shown otherwise, *ex officio* members served from December 2007, when the GACS was established.

Professor Colin Blakemore (Chair)

Colin Blakemore, FMedSci, Hon FIBiol, Hon FRCP, FRS, studied Medical Sciences at Cambridge and completed his PhD at the University of California in Berkeley. After 11 years in the Department of Physiology at Cambridge University, he became Waynflete Professor of Physiology at Oxford University from 1979 to 2007. From 1996-2003, he was Director of the MRC Centre for Cognitive Neuroscience at Oxford. His research has been concerned with many aspects of vision, early development of the brain and plasticity of the cerebral cortex. He was Chief Executive of the MRC from 2003 to September 2007 and is now Professor of Neuroscience at Oxford, Warwick and Duke-NUS Graduate Medical School in Singapore. He has been President of the British Neuroscience Association, the Physiological Society and the Biosciences Federation.

Professor Blakemore was President of the British Association for the Advancement of Science in 1997-1998 and Chairman from 2001-2004. He is committed to promoting dialogue between scientists and the public, and is a frequent contributor to radio and TV, including the 13-part BBC2 series *The Mind Machine*. His books for the general public include *Mechanics of the Mind* (which won the Phi Beta Kappa Award in Science), *Images and Understanding*, *Mindwaves*, *The Mind Machine*, *Gender and Society*, and *The Oxford Companion to the Body*.

Dr Ian Brown

(*ex officio* member as Chair of the Advisory Committee on Animal Feedingstuffs, ACAF; from 9 May 2008)

Dr Brown is a medically qualified registered specialist in occupational medicine and toxicology. He is also a graduate in agricultural biochemistry and nutrition and has a wide range of knowledge and experience covering occupational health, toxicology, agriculture and food safety. Dr Brown is the Director of Occupational Health at the University of Oxford and Honorary Consultant Physician to the Oxfordshire PCT Division of Public Health, (from August 2008). He is also Chair of the Pesticide Residues Committee and a member of the Advisory Committee on Toxic Substances of the Health and Safety Commission. From 1999 to 2005 Dr Brown was a member of ACAF, and from May 2001 until May 2002 served as the Acting Chair, following the unexpected resignation of the Chair, at that time.

Professor Sarah O'Brien

(*ex officio* member as Chair of the Advisory Committee on the Microbiological Safety of Food, ACMSF)

Professor O'Brien is currently Professor of Health Sciences and Epidemiology and a Consultant in Public Health Medicine at the University of Manchester. Her research interests include foodborne zoonoses. Previously she was Head of Gastrointestinal Diseases Division at the Health Protection Agency Centre for Infections, where she was responsible for assessing data and generating, through surveillance and research, the evidence base for the origins and spread of gastrointestinal infection. She has published widely on these subjects. She has held a number of hospital and health authority appointments, and also lectured, in public health medicine, between 1986 and 1995. She was Consultant in Public Health Medicine at the Scottish Centre for Infection and Environmental Health between 1995 and 1998, before joining the Health Protection Agency. Additionally, Professor O'Brien is a member of the Food Standards Agency's Epidemiology of Foodborne Infections Group. Following her role as acting Chair in 2006, she was appointed as Chair to ACMSF in February 2007.

Professor Mike Gasson

(*ex officio* member as Chair of the Advisory Committee on Novel Foods and Processes, ACNFP; note, term ends 31 March 2009)

Professor Gasson is Head of the Food Safety Science Division and Deputy Director (Science) at the Institute of Food Research. He was appointed Chair of the ACNFP in 2003. He previously served on the ACNFP for nine years from 1992 to 2001, acting as vice chair for four of these, and is currently a Member of the Advisory Committee on the Microbiological Safety of Food (ACMSF). Professor Gasson has been involved in gene technology research for more than 25 years with a particular interest in the genetics of food-relevant micro-organisms. In addition, he is a former member of the European Food Safety Authority Panel on Genetically Modified Organisms.

Professor David Coggon

(*ex officio* member as Chair of the Committee on Toxicity, COT; from 1 April 2008)

Professor David Coggon OBE, is Professor of Occupational and Environmental Medicine at the University of Southampton, where he works in the Medical Research Council Epidemiology Resource Centre. He has been engaged in epidemiological research for more than 30 years, concentrating mainly on occupational and environmental causes of disease. He served on the COT Working Group on Organophosphates and the Independent Expert Group on Mobile Phones (both DH), and has also been a member of the Industrial Injuries Advisory Council (DWP), the Expert Panel on Air Quality Standards (DETR) and the Advisory Group on Non-Ionising Radiation (HPA). From 2000 to 2005 he was Chair of the Advisory Committee on Pesticides (Defra), and from 2001-2007 he chaired the Depleted Uranium Oversight Board (MOD). He is currently Chairman of the Mobile Telecommunications and Health Research Programme Management Committee (DH), and a member of the Plant Protection Products and Residues Panel at the European Food Safety Authority. He was awarded an OBE in 2002. He is also President of the Faculty of Occupational Medicine at the Royal College of Physicians.

Professor Coggon joined the COT as a member on 1 April 2007, and became Chair of the Committee on 1 April 2008. His appointment will expire on 31 March 2011

Professor David Phillips

(*ex officio* member as Chair of the Committee on Carcinogenicity, COC)

Professor Phillips was appointed as a member of the COC in April 2000 and as Chairman in April 2006. He is also a member of the COM. He is head of a research team at the Institute of Cancer Research and has internationally recognised expertise in carcinogen-DNA interactions, human biomonitoring and in molecular epidemiology. He has extensive research interests in mechanisms of carcinogenesis, with particular emphasis on environmental factors involved in cancer causation. He is editor-in-chief of the journal *Mutagenesis*.

Professor Peter Farmer

(*ex officio* member as Chair of the Committee on Mutagenicity, COM)

Professor Farmer is Professor of Cancer Biomarkers, Cancer Studies and Molecular Medicine, Cancer Biomarkers and Prevention Group, Biocentre, University of Leicester. He was appointed as Chair of COM in November 2001 and is also a member of COC. His main research interests are in the investigation and use of chemical induced DNA and protein adducts in carcinogen/mutagen risk assessment and the development of biomarkers for cancer risk assessments. He has an international reputation in this area and is involved in several European Union collaborative research activities. Professor Farmer has recently been reappointed for a final four-year term as Chair of COM.

Professor Alan Jackson

(ex officio member as Chair of the Scientific Advisory Committee on Nutrition, SACN)

Professor Jackson BA MA BChir MB MD is Professor of Human Nutrition, Director, Institute of Human Nutrition, University of Southampton, and Honorary Consultant in Clinical Nutrition, Southampton University Hospitals, Southampton. He trained in paediatrics at the University of Cambridge and University College, London, UK. He was director of the Tropical Metabolism Research Unit in the University of the West Indies, carrying out research on metabolic adaptation to undernutrition. His current work explores the extent to which modest differences in maternal diet and metabolic competence influence fetal development, predisposing to chronic disease in adulthood. Professor Jackson was appointed as the first Chairman of SACN in April 2000. He was previously a member of the Committee on Medical Aspects of Food and Nutrition Policy (COMA) for ten years and was a Consultant Adviser to the Chief Medical Officer on Nutrition from 1989 to 2002. Professor Jackson is a member of the EFSA Panel on Dietetic Products, Nutrition and Allergies.

Professor Chris Higgins

(ex officio member as Chair of the Spongiform Encephalopathy Advisory Committee, SEAC)

Professor Higgins is Vice Chancellor and Warden of Durham University. He has previously held positions at Imperial College London, the University of Dundee, the University of Oxford and the University of California, Berkeley, USA. He is an elected Fellow of the Royal Society of Edinburgh and of the European Molecular Biology Organisation and is a Founder Fellow of the Academy of Medical Sciences. Professor Higgins was appointed as the Chair of SEAC on 1 August 2004. He was reappointed on 1 August 2007 for a second term.

Professor Sir Roger Jowell

(ex officio member as Chair of the Social Sciences Research Committee, SSRC) (from 17 April 2008)

Professor Sir Roger Jowell is the founding director for the Centre for Comparative Social Surveys at London City University from where he also directs the European Social Survey (ESS). Before joining London City University, he was the founder-director of the National Centre for Social Research, the UK's largest social research institute, which he ran from 1969 to 2001 and initiated several well-known time series, such as the British Crime Survey, the Health Surveys for England (and Scotland) and the British Social Attitudes survey.

Professor Janet M Bainbridge OBE

(expert member)

A Professor of Biotechnology and Food Science, Janet is a former Dean of Science and Technology at the University of Teesside. She currently delivers a portfolio of consultancy and non-executive roles and is a R&D specialist and sector champion (food and drink) for UK trade and Invest. She was a senior specialist adviser (Government and Europe) to One Northeast from 2003-2007 and is currently Chair of the Health and Safety Executive (HSE) Scientific Advisory Committee on Genetic Modification (Contained Use), a member of the Borderline Substances review group (MHRA); the New and Emerging Infections Panel and a trustee of the charity Sense About Science.

Until April 2008, Professor Bainbridge was a Board member of the Agriculture and Horticulture Development Board (AHDB) and chaired the R&D sub-group of that Board. She was also Chair of the Potato Council Limited. She has recently been appointed to the BBSRC Sustainable Agriculture Panel. Former appointments include Chair of the Advisory Committee on Novel Foods and Processes (ACNFP; 1997-2003), Member of the Engineering and Physical Sciences Research Council (EPSRC) Council, member of the Advisory Committee on releases to the Environment (ACRE); member of the Chief Scientists GM Expert Group and chair/member of several Foresight Committees.

Professor Jeya Henry
(expert member)

Professor Henry is Professor of Human Nutrition at Oxford Brookes University and Visiting Professor at the Chinese University, Hong Kong. He acts as a consultant to the World Health Organisation, Unicef and the Food and Agriculture Organisation of the United Nations on all aspects relating to nutrition assessment, food safety and nutrient requirements. He is editor-in-chief of the International Journal of Food Sciences and Nutrition. Professor Henry was a member of the Board of the Food Standards Agency from 2000-2003. His current research interests include the management and treatment of childhood obesity, the evaluation and use of low and high glycaemic index foods, the development of high energy food for refugee feeding, nutrition and dietary needs of the elderly.

Professor Anne Murcott
(expert member)

Professor Murcott holds Honorary Professorships in Sociology at the Universities of Leicester, Nottingham and City University, London and is Professor Emerita at London South Bank. Her research includes pioneering work in the sociology of food, a field in which she has been active nationally and internationally for 25 years. She is the author of numerous articles, has edited and co-authored half a dozen books, and served as editor of *The Sociology of Health & Illness*. From 1992-1998 she was Director of the ESRC Research Programme *The Nation's Diet: the social science of food choice*. Professor Murcott was a member of the Food Standards Agency Advisory Committee on Research from 2002 to 2007.

Professor Duncan Maskell
(expert member)

Professor Maskell has been Head of the Department of Veterinary Medicine since 2004 and Professor of Farm Animal Health, Food Science and Food Safety since 1996 at the University of Cambridge. He leads a research group working on all aspects of bacterial diseases with particular emphasis on the major food-borne pathogens salmonella and campylobacter. He was a Member of BBSRC Agri-food Committee from 1997-2003, and its Chair from 2000-2003, and a Member of the Food Standards Agency Advisory Committee on Research from 2002 to 2007. Professor Maskell is a non-executive Director of the Moredun Research Institute.

Mrs Pamela Goldberg
(lay member)

Mrs Goldberg has been Chief Executive of the charity Breast Cancer Campaign since 1997. Breast Cancer Campaign's mission is to beat breast cancer by funding innovative world-class research to understand how breast cancer develops, leading to improved diagnosis, treatment, prevention and cure.

She was involved in establishing the charity's first Scientific Advisory Board and developing its first research strategy as well as setting up governance guidelines for the Trustee Board. Pamela is a member of the Association of Medical Research Charities (AMRC) Higher Education Funding Group (and a former member of the AMRC Council). She is committed to ensuring that patients and the general public are given information that is evidence based and that scientific results are communicated effectively to the general public.

Mrs Goldberg was one of the founders of the Breast Cancer Forum bringing together all charities with an interest in breast cancer. She is a Fellow of the RSA (Royal Society for the encouragement of Arts, Manufactures & Commerce).

Mrs Leen Petré
(lay member)

Leen Petré is currently Principal Manager of the Media and Culture Department at the Royal National Institute for the Blind (RNIB). Before that she was RNIB's European Campaigns Manager (2000-2004). Leen holds a degree in Political and Social Sciences and an MA in European Studies from the University of Leuven. After graduating, Leen built up ten years of work on a range of international and European consumer issues, including food standards.

Since 2005, Mrs Petré has been Chair of the Consumer expert group on digital switchover (appointed by the Department for Culture, Media and Sport, DCMS) and consumer representative on the DCMS/Department for Business, Enterprise and Regulatory Reform (BERR) Ministerial group on digital switchover. She is a member of the Ofcom Communications Consumer Panel. She is also a Fellow of the RSA.

Former members of GACS who served during the period of this report

Dr Chitra Bharucha
(*ex officio* member as Chair of the Advisory Committee on Animal Feedingstuffs, ACAF; to 8 May 2008)

Dr Bharucha is a registered specialist in haematology. She is Vice-Chairman of the BBC Trust, an Associate Member of the General Medical Council and a member of Council of the Advertising Standards Authority. Until 2000, she was Deputy Director of the Northern Ireland Blood Transfusion Service and Consultant Haematologist in Belfast City Hospital. She was a Member of the Independent Television Commission and has held professional appointments in the World Health Organisation and on a number of national and international councils, committees, and panels including the GM Science Review Panel.

Professor Ieuan Hughes

(*ex officio* member as Chair of the Committee on Toxicity, COT; to 31 March 2008)

Professor Hughes is Professor of Paediatrics at the University of Cambridge, Honorary Consultant Paediatrician at Addenbrooke's Hospital, Cambridge and Honorary Consultant Paediatric Endocrinologist at Great Ormond Street Hospital for the Children's NHS Trust. He was appointed as Chair of COT in 2002 and was formerly a member of the COT working group on phytoestrogens. As COT chair he was a member of the subgroup from COT and the Scientific Advisory Committee on Nutrition (SACN) to advise the Food Standards Agency on the risks and benefits of fish consumption. Professor Hughes has a particular interest in developmental endocrinology.

The following have contributed to the work of the GACS as Deputy Chairs of SACs, representing their Chair, during the period of this report:

Mr Peter Jinman

(Deputy Chair of the Spongiform Encephalopathy Advisory Committee (SEAC))

Mr. Peter Jinman is a member of the Royal College of Veterinary Surgeons and is senior partner of The Laurels Veterinary Group in Herefordshire working with farm, equine and companion animals. He is a Past President of the British Veterinary Association, Council member of the Royal College of Veterinary Surgeons and a Fellow of the Chartered Institute of Arbitrators. Peter Jinman brings to the Committee over 30 years' experience of handling agricultural veterinary issues, including BSE and scrapie. He has been a member of SEAC since May 2000.

Professor Peter Aggett

(Deputy Chair of Scientific Advisory Committee on Nutrition (SACN))

Head of School, Lancashire School of Health and Postgraduate Medicine, Professor of Child Health and Nutrition, University of Central Lancashire, Preston, Lancashire. Professor Aggett is interested in trace element metabolism in health and disease. He has served on national and international advisory committees relating to clinical nutrition, public health and preventative medicine including nutritional safety and risk assessment, including the EC Scientific Committee on Food, the COT, ACNFP and EVM. He was a member of COMA for 7 years, and is a past chair and secretary of the ESPGHAN Committee on Nutrition and is currently chair of the Standing Committee on Nutrition for the Royal College of Paediatrics and Child Health

Annex 3 – Self Assessment against the Good Practice Guidelines

Twenty seven principles of good practice have been developed. However, the different committees have different duties and discharge those duties in different ways. Therefore, not all of the principles set out below will be applicable to all of the committees, all of the time.

This list of principles will be reconsidered by each committee annually as part of the preparation of its Annual report, and will be attached as an Annex to it.

Response for GACS for the period of its first Annual Report (from establishment in December 2007 to 31 March 2009).

General comments

1. The role of the GACS is to provide independent challenge and advice to the Agency on how the Agency gathers and uses scientific evidence and expertise. It does not carry out risk assessments or detailed investigations of scientific dossiers on specific risks, products or processes. It does, however, look at how these processes are conducted and make recommendations on good practice. In carrying out its work GACS does of course look at evidence – for example regarding current practices, developments in science and its governance – both from within the Agency and externally, and in doing so will seek to abide by the principles of good practice developed by the Agency and elsewhere.
2. One of the priorities in the GACS work plan is specifically to review the processes and tools for governance and good practice in Agency science, including the good practice guidelines, and the operation of the Scientific Advisory Committees, in light of experience and of developments and challenges. GACS also has a role in providing an independent view on the performance of the SACs in providing advice to the Agency.

| Issue | Complies? | NOTES/COMMENTS |
|---|-----------|---|
| Defining the issue | | |
| 1. The FSA will ensure that the issue to be addressed is clearly defined and takes account of stakeholder expectations. The committee Chair will refer back to the Agency if discussion suggests that a re-definition is necessary. | Yes | GACS has identified a need to develop its engagement activities which could, among other things, support the requirement to take account of stakeholder expectations. The Agency's Chief Scientist attends GACS meetings and can be challenged by GACS to clarify definitions if needed. |
| Seeking input | | |
| 2. The Secretariat will ensure that stakeholders are consulted at appropriate points in the committee's considerations and, wherever possible, SAC discussions should be held in public. | Yes | <p>GACS has identified a need to develop its engagement activities which could, among other things, support the requirement to take account of stakeholder expectations.</p> <p>GACS held a public panel debate in tandem with its first meeting, to help inform its work looking at good practice in the collection and use of evidence.</p> <p>GACS meetings are held in public (see also 26 below). Working Groups do not meet in public, but they report their work to full meetings in open session.</p> |
| 3. The scope of literature searches made on behalf of the committee will be clearly set out. | N/A | GACS has not considered any literature searches. The scope of information gathering has been made clear in papers. |
| 4. Steps will be taken to ensure that all available and relevant scientific evidence is rigorously considered by the committee, including consulting external/additional scientific experts who may know of relevant unpublished or pre-publication data. | Yes | GACS does not routinely consider detailed scientific documents but it does examine rigorously the evidence that is presented. Members are expected to bring relevant additional materials to the attention of the Committee. |

| Issue | Complies? | NOTES/COMMENTS |
|---|-----------|---|
| Seeking input <i>continued</i> | | |
| 5. Data from stakeholders will be considered and weighted according to quality by the committee. | Yes | GACS weighs all relevant information according to quality, irrespective of its source. GACS held a public panel debate in tandem with its first meeting, to help inform its work looking at good practice in the collection and use of evidence. |
| 6. Consideration by the secretariat and the Chair will be given to whether expertise in other disciplines will be needed. | Yes | GACS keeps this under review and it has the option to co-opt or invite external input where necessary. GACS has also recommended the Agency establish a 'community of experts' to broaden the range of expertise available to the Agency (e.g. for peer review, question framing, evaluation), to complement that available through the SACs. |
| 7. Consideration will be given by the Secretariat or by the committee to whether other scientific advisory committees need to be consulted. | Yes | GACS includes as <i>ex officio</i> members the Chairs of the nine SACs that advise the Agency, and its remit specifically includes co-ordination of the work the SACS and identifying cross-cutting issues. It considers issues arising from the SACs as a standing item on its meeting agendas. |

| Issue | Complies? | NOTES/COMMENTS |
|--|--|--|
| Validation | | |
| 8. Study design, methods of measurement and the way that analysis of data has been carried out will be assessed by the committee. | 8 to 12: GACS complies to the extent these criteria apply to its work. | 8 to 12: GACS does not generally consider the type of detailed reviews and analyses of scientific data that are the primary focus of these criteria. However, it does look to ensure that the information that is presented in support of its discussions has appropriate assurance. |
| 9. If qualitative data have been used, they will be assessed by the committee in accordance with the principles of good practice, e.g. set out in guidance from the Government's Chief Social Researcher | | |
| 10. Formal statistical analyses will be included wherever possible. To support this, each committee will have access to advice on quantitative analysis and modelling as needed. | | |
| 11. When considering what evidence needs to be collected for assessment, the following points will be considered: the potential for the need for different data for different parts of the UK or the relevance to the UK situation for any data originating outside the UK; and whether stakeholders can provide unpublished data. | | |
| 12. The list of references will make it clear which references have either not been subject to peer review or where evaluation by the committee itself has conducted the peer review. | | |

| Issue | Complies? | NOTES/COMMENTS |
|--|---|--|
| Uncertainty | | |
| 13. When reporting outcomes, committees will make explicit the level and type of uncertainty (both limitations on the quality of the available data and lack of knowledge) associated with their advice. | 13 to 16: GACS complies to the extent these criteria apply to its work | 13 to 16: GACS does not generally consider the type of scientific data to which formal uncertainty applies, although it will consider evidence on e.g. current practices, and reviews and commentaries on these, and in doing so weighs and communicates the (un)certainty of the evidence and consequently of the conclusions it draws. GACS qualifies its advice with reference to the information available and asks for further information where gaps exist. |
| 14. Any assumptions made by the committee will be clearly spelled out, and, in reviews, previous assumptions will be challenged. | | GACS has highlighted the assessment and communication of uncertainty and of the range of opinions (and the apparent trends in these) as key issues to consider in development of good practice and governance. |
| 15. Data gaps will be identified and their impact on uncertainty assessed by the committee. | | |
| 16. An indication will be given by the committee about whether the database is changing or static. | | |

| Issue | Complies? | NOTES/COMMENTS |
|---|--|---|
| Drawing conclusions | | |
| 17. The committee will be broad-minded, acknowledging where conflicting views exist and considering whether alternative hypotheses fit the same evidence. | 17. to 21. GACS complies to the extent these criteria apply to its work. | GACS role is explicitly about challenge and advice to the Agency's science and it will apply this principle to its own work. |
| 18. Where both risks and benefits have been considered, the committee will address each with the same rigour. | | GACS does not carry out assessments of risks and/or benefits as such. It will consider the advantages and disadvantages of different options in making its recommendations. |
| 19. Committee decisions will include an explanation of where differences of opinion have arisen during discussions, specifically where there are unresolved issues and why conclusions have been reached. | | This is covered explicitly in the GACS Code of Practice. |
| 20. The committee's interpretation of results, recommended actions or advice will be consistent with the quantitative and/or qualitative evidence and the degree of uncertainty associated with it. | | GACS aims to follow this principle. |
| 21. Committees will make recommendations about general issues that may have relevance for other committees. | | GACS role is to make recommendations about cross-cutting issues; it also has a role in facilitating the consideration and communication of such issues by and between other Committees. |

| Issue | Complies? | NOTES/COMMENTS |
|---|--|--|
| <p>Communicating committees' conclusions</p> | | |
| <p>22. Conclusions will be expressed by the committee in clear, simple terms and use the minimum caveats consistent with accuracy.</p> | <p>22 to 27: GACS complies to the extent these criteria apply to its work. See comments.</p> | <p>GACS considerations do not, generally, relate to detailed scientific evidence, so at first sight might be less of a challenge to communicate clearly. GACS has identified clear and effective communication as a key issue for its work and in advising on the work of Agency science more generally.</p> |
| <p>23. It will be made clear by the committee where assessments have been based on the work of other bodies and where the committee has started afresh, and there will be a clear statement of how the current conclusions compare with previous assessments.</p> | | <p>GACS papers make clear the origin of issues under discussion. It put its conclusions in the context of other work where appropriate.</p> |
| <p>24. The conclusions will be supported by a statement about their robustness and the extent to which judgement has had to be used.</p> | | <p>GACS makes clear the basis for its recommendations and any assumptions and caveats.</p> |
| <p>25. As standard practice, the committee secretariat will publish a full set of references (including the data used as the basis for risk assessment and other committee opinions) at as early a stage as possible to support openness and transparency of decision-making. Where this is not possible, reasons will be clearly set out, explained and a commitment made to future publication wherever possible.</p> | | <p>GACS does not carry out risk assessment or assessment of detailed scientific data of the type that is the focus for this criterion. However, GACS is committed to making the basis for its discussion including supporting information and references clear and accessible.</p> |

| Issue | Complies? | NOTES/COMMENTS |
|---|-----------|--|
| <p>Communicating committees' conclusions <i>continued</i></p> | | |
| <p>26. The amount of material withheld by the committee or FSA as being confidential will be kept to a minimum. Where it is not possible to release material, the reasons will be clearly set out, explained and a commitment made to future publication wherever possible.</p> | | <p>GACS follows this criterion. It held one discussion item in reserved session in the reporting period. This was an update on the external Science Review of the Agency, at the third GACS meeting. At this time the Review was still underway and no published report was available. The GACS paper and note of this discussion were published once the report of the Review was published</p> |
| <p>27. Where proposals or papers being considered by the Board rest on scientific evidence, the Chair of the relevant scientific advisory committee (or a nominated expert member) will be invited to the table at Open Board meetings to provide this assurance and to answer Members' questions on the science. To maintain appropriate separation of risk assessment and risk management processes, the role of the Chairs will be limited to providing an independent view on how their committee's advice has been reflected in the relevant policy proposals. The Chairs may also, where appropriate, be invited to provide factual briefing to Board members about particular issues within their committees' remits, in advance of discussion at open Board meetings.</p> | | <p>This does not apply directly, as the GACS does not carry out risk assessments or detailed reviews of scientific evidence. The GACS Chair reports annually to the Agency Board at an open Board meeting, covering the Committee's work and the Agency's science, and providing an independent commentary and challenge to the Agency Chief Scientist's Annual Report on Agency's science.</p> |

