



FSA Science Council

First Annual Report - 1 April 2017 to 31 March 2018

Foreword from the Science Council Chair
Professor Sandy Thomas



It is a pleasure to present the first annual report from the FSA Science Council after an extremely busy and productive year since the Council's establishment in April 2017.

The Council has developed effective ways of working through its three Working Groups which it established to answer the priority questions set by the FSA Chairman Heather Hancock on three important and challenging areas for the FSA. These are: science capability and assurance, risk and uncertainty, and global food systems and horizon scanning.

It is very good to be able to report that coming to the end of the reporting period the first two Working Groups are preparing to hand over their final recommendations to the FSA and the third, which is working to a slightly longer timetable, is making good progress. I would like to thank the Working Group Members and the Working Group Chairs, Laura Green, Mark Woolhouse, and John O'Brien, for their enthusiasm and for taking their roles so seriously.

It is important to draw out common themes arising from the Working Groups' work to date. These include that science in the FSA is not 'broken' and there is a lot of good practice; but also, opportunities for the FSA to be more consistent and strategic in its approach and to reassure the FSA Board and external stakeholders that the organisation is following best practice.

I was pleased to provide my first annual report as Science Council Chair to the FSA Board on 14 March where I reflected on the challenges of doing good science, use of experts and being confident about using the best science. I very much welcome the strong engagement from the FSA Board in the work of the Council. It was very valuable to have Heather Hancock attend our three plenary meetings to discuss the questions the FSA had set and understand the drivers for these; and it was good to have the Deputy Chair of the Board Laura Sandys attend one of the meetings.

I would like to thank Guy Poppy, FSA Chief Scientific Adviser, and FSA officials for their continued engagement, which is extremely important so we can ensure Council advice is really addressing the right issues and is useful and used by FSA.

I would also like to thank the Chairs and Members of the Scientific Advisory Committees which provided useful input to Working Group 2 on drafting principles for risk analysis and communication. I can foresee roles for the Committees in implementation of the principles. I also attended the biannual SAC Chairs workshop on 30 November 2017 which provided a useful forum for discussing cross-cutting issues.

Looking ahead

The Council held a review and reflection session after its third open meeting on 27 June 2018 at which it discussed its future work programme. The level of engagement from the Council and the FSA on the Working Groups has been excellent; but in the future it may not be

realistic to maintain the initial effort of three concurrent Working Groups as the steady state and we expect that looking ahead two may be more sustainable. I am looking forward to formally handing over the final reports and recommendations from Working Groups 1 and 2 to the FSA in July 2018 and I look forward to a report from the FSA on progress in the next 12 months. I also look forward to the continuing progress on Working Group 3 which is advising the FSA on global food systems risks and horizon scanning and is planning to report shortly after the Council's open meeting scheduled for 12 December 2018. The Council has agreed to scope a possible future question on data which will be informed by a steering paper from Patrick Wolfe, our data expert. I look forward to implementing the Council's plans for further engagement with the Scientific Advisory Committees in the coming year.

Introduction

1. This report provides a summary of the FSA Science Council's activities in its first year. The FSA Science Council is an independent expert committee of the Food Standards Agency, comprising a Chair and seven members. The Science Council Chair is Professor Sandy Thomas and its Members are Professor Laura Green, Professor John O'Brien, Professor Sarah O'Brien, Mr Mark Rolfe, Dr Paul Turner, Professor Patrick Wolfe and Professor Mark Woolhouse.
2. The Council was established on 1 April 2017 to provide high-level, expert strategic insight, challenge and advice to the FSA's Chief Scientific Adviser and to the Board and executive of the FSA on the FSA's use of science to deliver FSA objectives. Its purpose is to help to ensure that the FSA identifies, sources, integrates and uses the best scientific evidence and expertise from all relevant disciplines to inform and evaluate its work.
3. The FSA Chief Scientific Adviser (CSA) and FSA Chair attend the Science Council meetings, which are open to the public. The Science Council Secretariat is provided by the FSA Chief Scientific Adviser's Team.
4. Full details of the responsibility of the Science Council can be found on its website¹ together with the biographies and register of interests for its Members, its Code of Practice, and the Council's meeting papers and minutes.

Science Council work programme

5. The Committee met twice, in open session, during the period of this report: on 16 June 2017 for its inaugural meeting and on 13 December 2017 for its second meeting. It also continued to develop its work between meetings through formal Working Groups. The Science Council Chair provided her first annual report to the FSA Board on 14 March 2018².
6. At the Council's first meeting on 16 June 2018 the FSA Chairman Heather Hancock introduced the main issues and challenges on which the FSA would like input from the Science Council in the next two years:
 - i. **Science capability and assurance:** To advise the Board on how it can get confident that we have access to the right science capability and capacity.
 - ii. **Risk and uncertainty:** What does the Council advise to be best practice in establishing and communicating risk and uncertainty?
 - iii. **Global food systems and horizon scanning:** What should the FSA do to improve its horizon scanning and its understanding of global food systems risks and opportunities?
7. The Science Council established three Working Groups to produce advice for the FSA on the three priority questions above.

¹ <https://science-council.food.gov.uk/>

² <https://www.food.gov.uk/about-us/fsa-board-meeting-march-2018>

Science Council outputs

8. The final reports and recommendations from the Working Groups on [Science Capability and Assurance](#)³, chaired by Laura Green, and on [Risk and Uncertainty](#)⁴, chaired by Mark Woolhouse, were endorsed by the Council at its plenary meeting on 27 June 2018 and presented formally to the FSA in July 2018.
9. A third Working Group, chaired by John O'Brien, is working to a longer time table and is taking a phased approach across two related streams:
 - i. How can FSA get a sound and useful understanding of global food systems risks and opportunities and of how it can respond to these?
 - ii. What should the FSA do to improve its horizon scanning capability in the longer term?
10. The Working Group commissioned a desk study to synthesise information and insights from existing work on global food systems and to draw out the implications for the UK and for the FSA. A workshop is planned for 12th September 2018 and the Working Group plans to present its draft final report to the Science Council in early 2019.
11. Further details on the Working Groups including membership and meetings are on the Science Council website⁵.

Engagement with the Scientific Advisory Committees

12. The Council Chair attended the regular workshop of SAC Chairs on 30 November 2017 at which options for engagement between the Council and the SACs were discussed. In Spring 2018 the Council consulted SAC Chairs on proposals for pairing Science Council Members with SACs and considered how this system would work in practice. At the 3rd plenary meeting the Council agreed provisional pairings and Members undertook to connect with their paired Committee and report back at the next Council meeting on 12 December 2018.

Future work

13. Looking ahead, Working Group 3 plans to provide its final report to the Council in early 2019.
14. The Council will scope possible future questions with FSA input, including the potential for a Working Group on data; and the Council will remain ready to provide advice to the FSA on request. The Council's third meeting was held on 27 June 2018 at which it endorsed the final reports and recommendations from Working Groups 1 and 2; and it will hold its fourth open meeting in London on 12 December 2018.

³ <https://science-council.food.gov.uk/sites/default/files/fsascwg1finalreport.pdf>

⁴ <https://science-council.food.gov.uk/sites/default/files/fsascouncilwg2riskuncertaintyfinrep.pdf>

⁵ <https://science-council.food.gov.uk/science-council-subgroups>

Annual costs

15. The operation of the Science Council is funded by the FSA. In the period of this report, costs for this support - covering Members' expenses and fees and administrative costs for meetings - were £14k. Information on fee rates and expenses guidance are included in the Science Council Code of Practice⁶.

Contact for further information

Further information on the Science Council is available on its website or by contacting the Secretariat by email on: sciencecouncil@food.gov.uk

⁶ <https://science-council.food.gov.uk/sites/default/files/science-council-code-of-practice.pdf>

ANNEX 1 Science Council self-assessment against the Good Practice Guidelines

Twenty nine principles of good practice have been developed by the SACs that advise the FSA. These were reviewed and updated in 2012⁷. 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 is considered by each committee annually as part of the preparation of its Annual report, and is attached as an Annex to it.

Response for the FSA Science Council for the period of its first Annual Report (from 1 April 2017 to 31 March 2018)

1. The role of the Science Council is to provide high-level, expert strategic insight, challenge and advice to the FSA's Chief Scientific Adviser and to the Board and executive of the FSA on the FSA's use of science to deliver FSA objectives. It did not carry out risk assessments or detailed investigations of scientific dossiers on specific risks, products or processes. It did, however, look at how these processes are conducted and make recommendations on good practice. In carrying out its work the Science Council did look at evidence - for example regarding current practices, developments in science and its governance - both from within the FSA and externally, and in doing so, it sought to abide by the principles of good practice developed by the FSA and elsewhere.

⁷ <https://foodgov.sharepoint.com/science/Documents/Good%20Practice%20Guidelines%20for%20SACs%202012.pdf#search=good%20practice%20guidelines>

Issue	Complies?	NOTES/COMMENTS
<p>Defining the problem and the approach</p> <p>1. The FSA will ensure that issues it asks an SAC to address are clearly defined and take account of stakeholder expectations in discussion with the SAC Secretariat and where necessary the SAC Chair. The SAC Chair will refer back to the FSA if discussion suggests that further iteration and discussion of the task is necessary. Where an SAC proposes to initiate a piece of work the SAC Chair and Secretariat will discuss this with FSA to ensure the definition and rationale for the work and its expected use by the FSA are clear.</p>	Yes	The FSA's Chief Scientific Adviser and the FSA Chair attend the Science Council meetings and discuss the rationale for the questions with the Council. FSA contribution to Working Groups (such as interviews with staff and contributions to meeting discussions) enables ongoing discussion and iteration as necessary.
<p>Seeking input</p>		
<p>2. The Secretariat will ensure that stakeholders are consulted at appropriate points in the SAC's considerations. It will consider with the FSA whether and how stakeholder views need to be taken into account in helping to identify the issue and frame the question for the committee.</p>	Yes	Science Council meetings are held in public. Working Groups do not meet in public, but report their work to full meetings in open session. Working Groups consult the FSA Scientific Advisory Committees as appropriate. The Science Council formal dinners are private events, but issues arising in discussion are reported to the next open meeting. The Science Council publishes notes of Q&A sessions alongside formal minutes.
<p>3. Wherever possible, SAC discussions should be held in public.</p>	Yes	Science Council meetings are held in public. Working Groups do not meet in public, but report their work to full meetings in open session. The Science Council formal dinners are private events, but issues arising in discussion are reported to the next open meeting. The Science Council publishes notes of Q&A sessions alongside formal minutes.
<p>4. The scope of literature searches made on behalf of the SAC will be clearly set out.</p>	N/A	The Council's Working Group 3 commissioned a desk study to synthesise information and insights from existing work on global food systems. This project includes an element of literature scanning and the scope and approach for this will be clearly set out in the final report.
<p>5. 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.</p>	Yes	The Science Council do not routinely consider detailed primary 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 Council.
<p>6. Data from stakeholders will be considered and weighted according to quality by the SAC.</p>	Yes	The Science Council weighed all relevant information according to quality, irrespective of its source.

7. Consideration by the Secretariat and the Chair (and where appropriate the whole SAC) will be given to whether expertise in other disciplines will be needed.	Yes	The Science Council kept this under review and it has the option to co-opt or invite external input where necessary.
8. Consideration will be given by the Secretariat or by the SAC, in discussion with the FSA, as to whether other SACs need to be consulted.	Yes	Working Groups consult the FSA Scientific Advisory Committees as appropriate. The Council is developing its engagement with the SACs and, as well as the Council Chair attending the regular workshops of SAC Chairs, the Council will trial a pairing system from July 2018 where a Member of the Council is paired with each SAC.
<p>Validation</p> <p>9. Study design, methods of measurement and the way that analysis of data has been carried out will be assessed by the SAC.</p> <p>10. Data will be assessed by the committee in accordance with the relevant principles of good practice, e.g. qualitative social science data will be assessed with reference to guidance from the Government’s Chief Social Researcher⁸.</p> <p>11. Formal statistical analyses will be included wherever appropriate. To support this, each SAC will have access to advice on quantitative analysis and modelling as needed.</p> <p>12. When considering what evidence needs to be collected for assessment, the following points will be considered:</p> <ul style="list-style-type: none"> • 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. <p>13. The list of references will make it clear which references have been subject to external peer review, and which have been peer reviewed through evaluation by the Committee, and if relevant, any that have not been peer reviewed.</p>	9 to 13: Science Council complies, to the extent these criteria apply to its work.	9 to 13: The Science Council do not generally consider the type of detailed reviews and analyses of scientific data that are the primary focus of these criteria. However, it does advise on best practice, governance and assurance of the FSA’s use of science.

⁸ Quality in Qualitative Evaluation: A Framework for assessing research evidence - http://webarchive.nationalarchives.gov.uk/20140402165901/http://www.civilservice.gov.uk/wp-content/uploads/2011/09/a_quality_framework_tcm6-7314.pdf;
The Magenta book - http://www.hm-treasury.gov.uk/d/magenta_book_combined.pdf

Issue	Complies?	NOTES/COMMENTS
<p>Uncertainty</p> <p>14. When reporting outcomes, SACs 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.</p> <p>15. Any assumptions made by the SAC will be clearly spelled out, and, in reviews, previous assumptions will be challenged.</p> <p>16. Data gaps will be identified and their impact on uncertainty assessed by the SAC.</p> <p>17. An indication will be given by the SAC about whether the evidence base is changing or static, and if appropriate, how developments in the evidence base might affect key assumptions and conclusions.</p>	<p>14 to 17: Science Council complies to the extent these criteria apply to its work</p>	<p>14 to 17: The Science Council do not generally consider the type of detailed reviews and analyses of scientific data that are the primary focus of these criteria. However, it does advise on best practice, governance and assurance of the FSA's use of science. For example, its Working Group 2 developed high-level principles for establishing and communicating risk and uncertainty.</p>

Drawing conclusions		
18. The SAC will be broad-minded, acknowledging where conflicting views exist and considering whether alternative interpretations fit the same evidence.	18 to 22: Science Council complies to the extent these criteria apply to its work.	This is implicit in the Science Council's role to provide high-level, expert strategic insight, challenge and advice to the FSA's Chief Scientific Adviser and to the Board and executive of the FSA on the FSA's use of science to deliver FSA objectives
19. Where both risks and benefits have been considered, the committee will address each with the same rigour, as far as possible; it will make clear the degree of rigour and uncertainty, and any important constraints, in reporting its conclusions.		The Science Council did not carry out assessments of risks and/or benefits as such. It would consider the advantages and disadvantages of different options in making its recommendations.
20. SAC 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. If it is not possible to reach a consensus, a minority report may be appended to the main report, setting out the differences in interpretation and conclusions, and the reasons for these, and the names of those supporting the minority report.		This is covered explicitly in the Science Council Code of Practice.
21. The SAC'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.		Science Council aimed to follow this principle.
22. SACs will make recommendations about general issues that may have relevance for other committees.		This is implicit in the Science Council's role to provide high-level, expert strategic insight, challenge and advice to the FSA's Chief Scientific Adviser and to the Board and executive of the FSA on the FSA's use of science to deliver FSA objectives

Issue	Complies?	NOTES/COMMENTS
Communicating committees' conclusions		
23. Conclusions will be expressed by the SAC in clear, simple terms and use the minimum caveats consistent with accuracy.	23 to 29: Science Council complies to the extent these criteria apply to its work. See comments.	
24. It will be made clear by the SAC where assessments have been based on the work of other bodies and where the SAC has started afresh, and there will be a clear statement of how the current conclusions compare with previous assessments.		Science Council meeting papers and minutes made clear the origin of issues under discussion. It put its conclusions in the context of other work where appropriate.
25. The conclusions will be supported by a statement about their robustness and the extent to which judgement has had to be used.		The Science Council made clear the basis for its recommendations and any assumptions and caveats.
26. 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.		The Science Council did not carry out risk assessment or assessment of detailed scientific data of the type that is the focus for this criterion.
27. The amount of material withheld by the SAC 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.		The Science Council followed this criterion.
28. Where proposals or papers being considered by the FSA Board rest on scientific evidence produced by a SAC, the Chair of the SAC (or a nominated expert member) will be invited to the table at the Open Board meetings at which the paper is discussed. To maintain appropriate separation of risk assessment and risk management processes, the role of the Chairs will be limited to providing an independent view and assurance on how their committee's advice has been reflected in the relevant policy proposals, and to answer Board Members' questions on the science. 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.		This did not apply directly, since the Science Council did not carry out risk assessments or detailed reviews of scientific evidence. The Science Council Chair provided an annual report on the Council's work to the FSA Board in March 2018.
29. The SAC will seek (and FSA will provide) timely feedback on actions taken (or not taken) in response to the SAC's advice, and the rationale for these.		

