

Report

Science Council annual report 2021-2022

FSA Science Council Annual Report

1 April 2021 – 31 March 2022

Foreword

Over the past year, the Science Council has had an active and varied portfolio of work. Supported by the continuing enthusiasm and engagement of members of the Science Council, and the dedication and hard work of the Science Council secretariat, we have had a very productive period. Recommendations have been made to the FSA in two key areas:

- The future direction of food hypersensitivity science which was the most substantial undertaking by the Science Council since its inception. Our report's recommendations were broadly welcomed by the FSA Board. They included advice on targeting areas of research interest (which supported FSA's recent research focus) as well as more general insights on the sourcing of scientific evidence which has been incorporated into the FSA's approach to commissioning evidence.
- Clear guidance on quality requirements for the submission of non-commissioned evidence to the FSA. With the FSA taking more responsibility post EU Exit for primary appraisal of evidence to make decisions on the food system, this Science Council guidance was both timely and practical and has been adopted on food.gov.uk as [the official FSA framework](#).

We have also started work on an ambitious review of how food safety may be affected as the UK, and indeed much of the world, embarks on the

decarbonisation of agriculture to help achieve net zero carbon emissions. The food system accounts for around one third of greenhouse gas emissions and to achieve net zero by 2050, will require significant changes in agriculture with consequential implications for food safety. The Advisory Committee on Social Science (ACSS) has also carried out a review of consumer behaviour and climate change and we have maintained close contact to share information and insights.

This last year has seen the Science Council increasingly embrace remote working to deliver our work, increasing opportunities to engage with wider networks. I was pleased to welcome three new members of the Science Council (as part of an expansion of our membership): Prof Michael Tildesley (developing models of infectious diseases), Prof Peter Borriello (former Chief Executive of the Veterinary Medicines Directorate) and Prof Simon Pearson (data and artificial intelligence in agri-food systems) They are all leading scientists in their own fields and will help diversify the expertise of the Science Council. One of our founding members, Prof Sarah O'Brien, stepped down at the end of her second term. She was a highly valued member of the Council and her expertise and insights will be much missed. I wish her good luck in her future endeavours.

This year it has been a pleasure to work with Prof Susan Jebb as FSA Chair and FSA CSA Prof Robin May. They have lent their support in a variety of ways and asked the Science Council important questions that have both challenged and stretched our members. Finally, I'd like to thank the many FSA science and policy officials who have worked alongside us. Whilst the Science Council has a distinct role as an independent advisor, the enthusiastic engagement of FSA officials and their willingness to embrace many of our recommendations has been much valued by all by us all

Turning to financial year 2022/23 we will be completing our review of food safety and net zero carbon and starting new work to consider the implications for food safety of disruptors to food supply chains (such as climate change, and pandemics). I look forward to the work the Science Council will be delivering in the year ahead and sharing it the FSA Board and wider scientific community.

Prof Sandy Thomas, OBE, Chair of the FSA Science Council

Who are the Council Members?

The FSA's Science Council is an independent expert committee comprising a Chair and seven members. It was established in April 2017 and its role is to provide high-level, expert strategic insight, challenge and advice to the FSA's

Chief Scientific Adviser (CSA), the Board and Executive on the FSA's use of science to deliver its objectives is now well established. The members during this reporting period were:

Professor Sandy Thomas (Chair)

Professor Sandy Thomas OBE is Director of the Global Panel on Agriculture and Food Systems for Nutrition, and Emeritus Professor at the Science Policy Research Unit at the University of Sussex. She has extensive experience of leading, convening and generating cross-disciplinary analysis and strategic science to inform policy.

Professor John O'Brien

Professor O'Brien is founder of the Food Observatory, UK and is a Visiting Professor and Chair of the Advisory Board at the Nutrition Innovation Centre for Food & Health (NICHE) at Ulster University, Northern Ireland. He is a fellow of the Institute of Food Science & Technology (UK) and the Royal Society of Chemistry (UK).

Professor Sarah O'Brien

Professor O'Brien is the Elizabeth Creak Professor of Translational Agritechology in the School of Natural & Environmental Sciences at Newcastle University. She was Professor of Infection Epidemiology & Zoonoses in the Department of Public Health and Policy, University of Liverpool and first Director of the NIHR Health Protection Research Unit in Gastrointestinal Infections.

Dr Paul Turner

Dr Turner is MRC Clinician Scientist and Clinical Senior Lecturer in Paediatric Allergy & Immunology at Imperial College London, and Clinical Associate Professor at the University of Sydney. He leads a research programme on various aspects of allergy, including understanding drivers of severity in food allergy, allergen risk management, and novel diagnostics.

Professor Patrick J. Wolfe

Professor Wolfe is a data science lecturer and both the Frederick L. Hovde Dean of Science and Miller Family Professor of Statistics & Computer Science at Purdue University, USA. He is a trustee and non-executive director of the Alan Turing Institute, the United Kingdom's national institute for data science and artificial intelligence. . A Royal Society Research Fellow and EPSRC Established Career

Fellow in the Mathematical Sciences, he is Executive Director of UCL's Big Data Institute and its Centre for Data Science

Claire Nicholson

Claire Nicholson is the Council member representing consumer interests. She has held similar roles including having been Independent Director to represent consumer interests on the Board of Red Tractor; the consumer member of the Advisory Committee on Novel Foods and Processes; a member of the Food Standards Agency Consumer Advisory Panel; and a member of the Advisory Committee on Consumer Engagement.

Professor Jonathan Wastling

Professor Jonathan Wastling is Pro Vice-Chancellor and Executive Dean at Keele University where he heads the Faculty of Natural Sciences which encompasses subjects ranging from the life sciences and veterinary medicine, through to astrophysics and psychology. He is a Professor of Infection Biology with over 30 years of experience working on the biology of human and animal focusing on host-pathogen interactions, vaccine and drug development.

Professor Peter Gregory

Professor Gregory is Emeritus Professor of Global Food Security at the University of Reading having previously been Professor of Soil Science at the same university. He is chair of the Recommended List Board for the AHDB and the Board of Crops For the Future UK CIC (maintaining oversight of research development).

Members' interests are recorded in the Science Council register of interests which can be found on the Science Council website at <https://science-council.food.gov.uk/Rol>.

Introduction

This report provides a summary of the Science Council's activities in its fifth year (1 April 2021 – 31 March 2022) and reflects on its successes and challenges over the past year as well a forward look into future activities.

The purpose of the Science Council is to help ensure that the FSA identifies, sources, integrates and uses the best scientific evidence and expertise from all relevant disciplines to inform and deliver its work. FSA defines science in a broad

and inclusive way, including the natural, physical, social and economic, digital and data sciences. This means the Science Council takes a multidisciplinary approach to deliver and inform its recommendations.

The Council meets four times a year: two open plenary meetings alternating with two closed project meetings. These typically include updates on FSA science activity, progress on ongoing reviews, implementation of previous Council recommendations as well as discussion of science-related questions with the FSA.

The Council has carried out its work using a mix of approaches with substantial questions being reviewed through Working Groups (WGs) and Rapid Evidence Reviews (RERs):

- WGs can last between 12-24 months and are chaired by a Council member with experience in the topic under consideration;
- RERs last between 3-12 months and are chaired by a Council member with experience of the topic under consideration;
- A maximum of two WGs/RERs are active at any one time and any Council member can participate.

Terms of Reference for the Science Council can be found on the Science Council website at <https://science-council.food.gov.uk/SCToR>.

Science Council Work Programme

This section sets out the reviews which have been ongoing for the Science Council over the period of this report. For each review, the question/request that was put to the Science Council to consider, how it was structured and, where applicable, its deliverables, are provided below.

Working Group 5 on food hypersensitivity

The Science Council was asked by the FSA Board to:

1. Consider and advise on future research priorities and direction in respect to food hypersensitivity.
2. Conduct a review of the science and evidence base for addressing food hypersensitivity, and the part the FSA and others should play in enhancing knowledge.

This Working Group is one of the most extensive and challenging initiated by the Science Council and was:

Established in [November 2019](#). Completed in June 2021.

Chaired by [Dr Paul Turner](#), an international expert on food hypersensitivity.

This review was split into three phases:

1. Consideration of lessons to be learnt from the previous FSA Food Allergy and Intolerance Research Programme and identify FSA best practice in how science influences decision making.
2. Identification of priorities for those affected by food hypersensitivity and also key gaps in current understanding of those priorities to provide future research recommendations.
3. Horizon scanning of the food hypersensitivity environment in the next 5-15 years and beyond to inform future long-term FSA research and policy direction.

Dr Turner presented an [interim report to the FSA Board on 16 September 2020](#) which set out conclusions from the first phase of the work. The final report [was presented to the FSA Board in June 2021](#). The prioritised topics gave reassurance to the FSA's strategic approach to tackling FHS and the programme review helped to inform FSA's work to refresh its programme approach to Strategy and Evidence via its Areas of Research Interest (ARIs)

Both Science Council reports and reports produced by contractors involved in reviewing the scientific literature as part of the review are all available on the [Science Council website](#).

Rapid Evidence Review 1: Critical Review of Third-Party Evidence

The FSA is increasingly expected to form an independent position in response to a greater volume of evidence submitted by third parties to influence or change its policy. In March 2020 the FSA's Chair of the Board asked:

“How should the FSA evaluate the robustness of evidence submitted by non-commissioned third parties in an effort to change our policy, in order to ensure that the evidence considered to inform our advice and recommendations is sufficiently robust and based on the most up to date scientific information?”

In response, the Science Council set up a rapid evidence review to establish principles and guidelines for assessing the quality of evidence, and provide assurance that the FSA has in place clear, robust and defensible processes for the objective and critical appraisal of third-party evidence submitted to the FSA.

This work was initiated in [September 2020](#); the decision to pursue a rapid review reflected the likelihood of increased external scrutiny of the FSA's advice and recommendations following the end of the EU transition period (31st December 2020).

This review made very good progress given the short period of time available. The Science Council set out current best practice within the FSA and the use of nationally and internationally accepted guidance, which was used to develop the Science Council's high-level principles and guidelines for the assessment of evidence.

The high-level principles and draft report were reviewed and well received by the FSA Executive Management Team (EMT) in February 2021. The final principles, guidelines and report were opened [to public consultation in March-April](#).

The consultation responses were addressed and the [final framework was accepted by the FSA and published on the food.gov.uk website](#) on 24 June.

These guidelines provide greater transparency on how non-commissioned evidence is handled and used as well as setting expectations for those wishing to submit evidence in support of the FSA's decision making.

Working Group 6 on Food Safety and Net Zero Carbon

This review was set up to answer the question:

'What are the possible food safety implications of changes to achieve net zero carbon (NZC) affecting the food system over the next decade?'

The UK has a legal commitment to reach net zero carbon (NZC) emissions by 2050. The way we grow, process and transport food is a major contributor to climate change, with food production accounting for more than a quarter of all greenhouse gas emissions. Reducing this will require dramatic changes in agriculture, manufacturing and transport.

The food we buy is driven by a complex interplay between consumer demand, retail marketing and farm production and all of these will see significant changes in practice and technology over the next decade to help reach that net zero carbon ambition. A deeper understanding of potential implications of achieving net zero on food systems (or identifying areas of uncertainty) would be of considerable value to FSA in pre-empting future policy and evidence needs in this area.

This Science Council review considers which changes to help achieve NZC are likely to have the most significant implications in the next decade for the FSA in delivering its role in ensuring food safety. It identified prioritised areas that warrant further FSA investigation. The focus of the review is the implications of changes to reduce carbon emissions on food safety, and not the effect of climate change itself.

At the 9th Science Council open meeting, the Council agreed in its closed session an initial work plan to deliver a review of the food safety implications of moving to net zero carbon; the [Terms of reference](#) were finalised on 27 October 2021. The governing group is chaired by Claire Nicholson, with Jonathan Wastling as deputy chair. The rest of the group consists of Science Council members and other contributors.

The terms of reference set out the timeline and approach but in summary the project will run until December 2022 with a report being submitted to the FSA Board at its meeting of March 2023. We have provisionally allowed for a total duration for this project of 21 months. Internal review points will manage the direction of the work and an interim update to the FSA in mid- 2022.

Phase 1 (Jun-Oct '21) the Science Council **interviewed 3-4 experts** about the broad landscape of carbon reduction efforts (UK and international) to, or affecting, the **whole food system**. This was followed by **a survey** of experts to identify specific NZC changes over the next decade.

Phase 2 (Oct '21-Apr '22) A **workshop** was held on 18 November 2021 with 18 external experts taking part. It used the survey results to identify changes which have implications for food safety (focusing on primary production/processing). This focus considers changes that may create issues further down the food chain and allows a staged review approach.

Phase 3 (Apr-Dec '22) followed-up with further expert interviews to address gaps or areas of interest from the workshop. The review will next be establishing the key questions that need to be answered around our understanding of the risks associated with these net zero changes and look to agree a multifaceted evidence review that suits each question.

Phase 4 (Sep '22-Mar '23) a decision point: if the scope of the risks associated with primary food production need more investigation, then the review will continue with this focus. If not, the review may continue and shift focus to manufacture and processing of foods (secondary processing).

This review will produce a roadmap that identifies which key changes to reduce carbon emissions may warrant further FSA consideration because of their potential implications for food safety.

In parallel with this work the Advisory Committee on Social Science (ACSS) carried out a review of Climate Change and Consumer Behaviour, looking at likely changes to how consumers act in light of climate change and promotion of sustainability. The Science Council Chair and secretariat maintained regular updates with their equivalents in the ACSS to share progress and insight.

Future Work

The Council is expanding, recruiting two additional members who will join the Council at their June 2022 plenary meeting. This will allow a broader range of expertise and greater capacity to take on new work.

One member of the Science Council, Prof Sarah O'Brien, left at the end of this reporting period and her agreed second term (**31 March 2022**), and a new member was recruited to replace her.

The new Science Council members will be:

- **Prof Michael Tildesley** is a Professor in the Zeeman Institute for Systems Biology and Infectious Disease Epidemiology Research at the University of Warwick. His research focuses upon the development of models of infectious diseases and their utility as predictive tools.
- **Prof Simon Pearson** is Professor of Agri-Food Technology and Founding Director of the Lincoln Institute of Agri-Food Technology at the University of Lincoln. He specialises in interdisciplinary research that spans the agri-food system, including agri-food robotics, use of digital systems in food manufacturing, the application of AI across the food chain and data governance in complex systems
- **Prof Peter Borriello** has had a long career in research and has led human and veterinary national institutions. These have included the Public Health Laboratory Service Central Public Health Laboratory, the Health Protection Agency Centre for Infections, the Veterinary Laboratories Agency, and most recently Chief Executive of the Veterinary Medicines Directorate.

The Science Council will be part of a review of a wider Tailored Review of FSA's Scientific Advisory Committees during 2022. The FSA's SACs are non-statutory and advisory non-departmental public bodies (ANDPBs) or Departmental Expert

Committees (DECs) which are subject to assessment under the Cabinet Office Public Bodies review programme. The last Review was commissioned in September 2015 and concluded in 2016; since then, there has been the creation of the:

Joint Expert Groups (JEGs) to support the FSA's SAC's work on regulated products outside the EU

- Food Contact Materials
- Animal Feed and Feed Additives
- Additives Enzymes and other Regulated Products.
- Science Council
- Advisory Committee on Social Sciences

The purpose of this Review is to provide assurance to the FSA that the SACs roles and purposes are appropriate in addressing the future needs of the FSA, consumers and wider Government, and that the bodies are operating effectively. The Review will evaluate how the SACs work together and with other relevant bodies against their objectives and provide recommendations for future ways of working.

The Review follows two stages:

1. The ongoing need for the functions provided by the body and the benefits to users and stakeholders; it then considers the best delivery model for the functions that are still needed.
2. Considerations of how the body operates, including relationships with stakeholders, opportunities for efficiencies and improved performance, and governance.

During this, the SACs as ANDPBs will be assessed against three criteria:

- Is this a technical function which needs external expertise to deliver?
- Is this a function which needs to be delivered with absolute political impartiality?
- Is this a function which needs to be delivered independently of Ministers to establish facts or figure with integrity?

Looking forward, the Council will also be looking at the viability of future work on Food Safety and Key Food Supply Chain Disruptors: **“What are the food safety implications of likely significant disruptors to the food supply chain over the next 5 years ?”** This has been provisionally named **Working Group 7** and

the range of disruptors is still under discussion, but may include climate change, geopolitical conflict and pandemics). The review will need to be carefully planned so as to ensure synergy with existing horizon scanning work and strategic analysis done in-house by the FSA.

Annual Costs

The operation of the Science Council is funded by the FSA. For the financial year 1 April 2021 to 31 March 2022 – covering project costs, members' expenses (travel and subsistence and accommodation) and fees and administrative costs for meetings – total costs:

- Science Council operational costs (incl. T&S, fees, the triennial review etc) were £31,116.43
- SAC Recruitment (recruitment consultants, press advertisements and venues) costs were £10,797.60
- Working Group 5 final report preparation costed £3,766.66.
- Working Group 6 Phase 1 and 2 survey and workshop (incl. member fees to attend workshop) were £27,858.72.
- Total spend was £73,539.41
 - Of this the Science Council Chair was paid in fees and T&S £9,124.25

Information on fee rates and expenses guidance are included in the [FSA SAC Guidance on Committee Fees and Expenses](#) .

Appendix: Science Council self-assessment against good practice guidelines for the independent scientific advisory committees

Twenty-nine principles of good practice have been developed by the Chairs of the SACs that advise the FSA. These FSA [Good Practice Guidelines for Science Advisory Committees](#) were reviewed and updated in 2012.

Different committees have different duties and discharge those duties in different ways. Therefore, not all of the 29 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 Appendix to it.

Response by the FSA Science Council for the period of its Annual Report (from 1 April 2021 to 31 March 2022)

The role of the Science Council is to provide high-level, expert strategic insight, challenge and advice to the FSA's Board and executive of the FSA and Chief Scientific Adviser on the FSA's use of science to deliver FSA objectives. Its role does not require it to 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 a wide range of evidence to help identify priority areas of research for food hypersensitivity and made recommendations on FSA usage of data and digital technology, and in doing so, sought to abide by the principles of good practice developed by the FSA and Government Office of Science.

SAC Principles

Defining the problem and the approach

1. The FSA will ensure that issues it asks a 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 a 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.

Complies: The FSA's Chief Scientific Adviser (CSA) attends most Science Council meetings and discusses the rationale for the questions posed to or by the Council with them. The Science Council Chair also has regular meetings with the FSA's CSA, Chair and the Chief Executive where any questions from the FSA or initiated by the Council are considered further. FSA contributions to Working Groups (such as meetings with staff who lead on relevant policy/science areas and contributions to meetings) enables ongoing discussion and clarification.

Seeking Input

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.

Complies: Science Council holds full plenary meetings twice a year in public. Working Groups do not meet in public but report their work to plenary meetings during open sessions. Working Groups consult stakeholders and the FSA's SACs as and when appropriate. For the rapid evidence review of the quality of third party evidence, before publication the draft framework was the subject of a [public consultation](#) with feedback from stakeholders replied to and factored into the final version of the guidance. When scoping the specification for the food safety and net zero carbon review, experts in decarbonisation and the food chain were consulted to understand the landscape that the Council was entering.

3. Wherever possible, SAC discussions should be held in public.

Complies: Science Council full meetings are held in public twice a year. Working Groups do not meet in public but report their work to plenary meetings in open session.

4. The scope of literature searches made on behalf of the SAC will be clearly set out.

Complies: No literature searches were carried out by the Science Council during this reporting period.

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.

Complies: The Science Council does not routinely consider detailed primary scientific documents, but it does examine rigorously the evidence that is presented. Members and the secretariat are expected to bring relevant additional materials to the attention of the Council. For the food safety and net zero carbon (NZC) review the Council has consulted experts, initially to understand the scope of the issue (see above) and then through a survey, consulted a wider range of expertise. In addition a workshop in November 2021 consulted relevant experts on the NZC changes to food production that may have food safety implications, and most recently there were follow-up interviews with experts in specific areas of food production on topics that required more in-depth consideration.

6. Data from stakeholders will be considered and weighted according to quality by the SAC.

Complies: The Science Council weighed all relevant information according to quality, irrespective of its source. In fact, with the Rapid Evidence Review of the quality of third party evidence, the Science Council has established a framework to support the submission of better quality non-commissioned evidence to the FSA.

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.

Complies: The Science Council kept this principle under review and it has the option to co-opt or invite external input where necessary, through mechanisms such as the FSA's Register of Specialists. For example, ADAS were contracted to analyse the survey which informed workshops carried out under WG6, which were run by Ipsos/MORI. The Science Council also commissioned the services of an independent facilitator experienced in nominal group techniques through the FSA's Register of Specialists framework.

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.

Complies: Working Groups consult the FSA SACs 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, some Council members are paired with a SAC relevant to their expertise, for regular updates and cross-engagement. For the Rapid Evidence Review of third party evidence, the Science Council interviewed other SACs on their experience and approach to data quality. The ACSS has also been engaged in the development and progress of the WG6 review as their own review Climate Change and Consumer Behaviour has relevance to the Council's net zero work.

Validation

9. Study design, methods of measurement and the way that analysis of data has been carried out will be assessed by the SAC.

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 Researcher.

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.

12. 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.

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.

Science Council complies, to the extent these criteria apply to its work:

The Science Council does not generally consider the type of detailed risk assessment and analyses of scientific data that are the primary focus of these criteria. However, it does advise on foresight, best practice, governance and assurance of the FSA's use of science.

Uncertainty

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.

15. Any assumptions made by the SAC will be clearly spelled out, and, in reviews, previous assumptions will be challenged.

16. Data gaps will be identified and their impact on uncertainty assessed by the SAC.

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.

Science Council complies to the extent these criteria apply to its work:

The Science Council does not generally consider the type of detailed risk

assessment and analyses of scientific data that are the primary focus of these criteria. However, it does advise on foresight, best practice, governance and assurance of the FSA's use of science.

Drawing Conclusions

18. The SAC will be broad-minded, acknowledging where conflicting views exist and considering whether alternative interpretations fit the same evidence.

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 Board and executive and Chief Scientific Adviser 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.

Science Council complies to the extent these criteria apply to its work:

The Science Council does not carry out formal assessments of risk 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.

Science Council complies to the extent these criteria apply to its work:

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 complies to the extent these criteria apply to its work:

Science Council aimed to follow this principle. The Literature review for Working

Group 5 on food hypersensitivity provided assessed the quality of evidence associated with each research question to make clear the reliability of conclusions reached for each one. This was factored into the recommendations provided by the Science Council.

22. SACs will make recommendations about general issues that may have relevance for other committees.

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, the Board and the executive of the FSA on the FSA's use of science to deliver its objectives.

Communicating SAC's conclusions

23. Conclusions will be expressed by the SAC in clear, simple terms and use the minimum caveats consistent with accuracy.

Science Council complies to the extent these criteria apply to its work:

Given the high-level strategic advice the Science Council provides, this tends to lend itself minimal use of jargon and technical terms and it aimed to make its reports clear and concise to the lay audience. The Science Council's documentation published from the June 2020 open meeting onwards has been reviewed against accessibility criteria so the Council's work is more inclusive.

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 complies to the extent these criteria apply to its work:

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.

Science Council complies to the extent these criteria apply to its work:

The Science Council made clear the basis for its recommendations and any assumptions and caveats.

26. As standard practice, the SAC secretariat will publish a full set of references (including the data used as the basis for risk assessment and other SAC 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.

Science Council complies to the extent these criteria apply to its work:

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.

Science Council complies to the extent these criteria apply to its work:

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.

Science Council complies to the extent these criteria apply to its work:

This did not apply directly, since the Science Council did not carry out risk assessments or detailed reviews of scientific evidence. This is because the Science Council reviews topics of strategic science interest and presents recommendations based on those reviews, but does not carry out risk assessment or assessment of detailed scientific data. However, Science Council activity and Working Group reports are presented to the FSA Board, in most cases by the Science Council Chair and the Chair of the relevant Working Group.

The Science Council Chair (Prof. Sandy Thomas) provided her [annual update to the FSA Board in March](#) which summarises the Council's activity during this reporting year. The final report of Working Group 5 (WG5) on food hypersensitivity, was [presented to the FSA Board in June 2021](#) by Dr Paul Turner (Working Group Chair), accompanied by the Science Council Chair.

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.

Science Council complies to the extent these criteria apply to its work:

When submitting recommendations at the end of a review, the Science Council asks for feedback and reports from FSA on progress in acting on these recommendations (typically 12 months from the review report being presented to the FSA Board).

Feedback was provided on operationalisation of the recommendations of Working Group 4 on data usage and digital technology over the last 12 months at the [9th Science Council open meeting \(10 June 2021\)](#). At the September 2021 closed project meeting an implementation plan for the Working Group 5 recommendations was presented to the Science Council.