**SSAC Meeting - Wednesday 13March 2013**

**Scottish Government, James Watt A, Atlantic Quay**

**Glasgow, G2 8LU**

**Attending:** Professor Muffy Calder

 Dr Chris Masters

 Dr John Brown

 Professor Nigel Brown

 Professor Ian Boyd

 Professor David Cumming

 Professor Ian Diamond

 Mr Stuart Farmer

 Professor James Hough

 Professor Julian Jones

 Mrs Angela Mathis

 Professor Jon Oberlander

 Professor Jason Reese

 Professor George Salmond

 Professor Marian Scott

 Professor Sir John Beddington (for agenda items 1-3)

 Mr Gary Hindle (for agenda items 1-3)

 Ms Diane Strachan (SSAC Secretariat)

 Miss Eipa Choudhury(SSAC Secretariat)

Apologies: None

**External attendees for item 2:** Dr Gordon Machray, Head of SASA and Dr Gerry Sadler, Head of Diagnostics and Analytical Services at SASA.

**1. Welcome and apologies**

1. Dr Masters welcomed members to the meeting. He noted that there were no apologies for this meeting with all current members attending. However, he advised that the co-chairs had decided to offer a standing invitation to the other Scottish Government CSA’s, Prof Andrew Morris, Chief Scientist in Health and Professor Louise Heathwaite, Chief Scientific Adviser for Rural Affairs and Environment to attend SSAC meetings in the future. Both were invited to this meeting but were unable to attend due to existing commitments.

**2. Discussion on Aspects of Plants Science including Food Security and GM**

2. Professor Calder introduced this item and invited to Dr Gordon Machray and Dr Gerry Saddler from SASA (Science and Advice for Scottish Agriculture) to give an introductory presentation. They provided an overview of what SASA does and the research that SASA scientists are involved in, including some key developments in plant science and then looked at the current issues facing plant science and what the future may hold.

3. Professor Calder then invited Professor John Brown and Professor George Salmond to update the rest of the Council about their discussion with the First Minister on the topic of synthetic biology at the recent SSAC reception.

4. Professor Calder then led a short discussion about issues raised in the area of plant science. In discussion the following points were noted:

* Emerging difficulties for agriculture as EU legislation becomes more restrictive with regard to the use of pesticides.
* The fact that science doesn’t deal in absolutes so it can be difficult to gain consensus on particular issues.
* Currently little or no evidence to suggest that GM crops have harmed either the environment or human health but the precautionary principle is often cited in terms of public policy positions on GM use.
* There was a failure of the scientific community to properly articulate the arguments surrounding GM. Social scientists could be of benefit here in the future.
* Any consideration of the issues surrounding GM policy and use would require very sensitive handling and thorough understanding of the key messages to be conveyed to the public.
* EU Commissioners are moving to a position where they may introduce mechanisms to allow individual countries to decide their position on the use of GM technologies.
* Research organisations in Scotland can do research on GM but cannot conduct field trials.
* There is a large problem with food security of which GM is just one of the possible solutions but need a clear understanding and articulation of the problem.
* GM technologies can apply in a range of areas beyond food/agriculture context.

5. It was agreed by members that, science-focussed bodies such as the SSAC, have a role to play in articulating the facts surrounding GM technology. Professor Calder suggested that an SSAC working group be established to conduct a piece of follow-up work looking at the current case for GM. This was agreed by members. It was noted that this work will need to carefully consider the key messages that need to be communicated to Government and the wider public in this area.

**3. Ways of Working – Refresh**

6. Professor Calder introduced this item which provided an opportunity to remind members of the criteria that were agreed at the June meeting last year for selecting new workstreams. This was important as new members have since joined the Council. It was stressed that a topic does not have to meet all the criteria in order to be taken forward but going through the process should assist with prioritising and focussing workstream activity.

7. Prof Calder also encouraged members to be more pro-active between meetings for the collective benefit of the SSAC and wider Scottish Government. For example, by contacting co-chairs and/or the Secretariat to inform them of any key relevant developments that members think they should be aware of.

8. Prof Calder then went on to provide an update on the co-chairs recent attendance at the December meeting of the Council for Science and Technology (CST). A discussion followed on the reporting structures of SSAC compared with CST. SSAC reports to the CSA and through her to Scottish Government Ministers whereas the CST reports directly to the Prime Minister. The pros and cons of each approach were discussed. Members also discussed whether it would be valuable for Dr Allan, Minister for Science to have a standing or regular invitations to attend SSAC meetings. It was noted that Dr Allan has a regular monthly meeting with Professor Calder as CSA and is therefore aware of ongoing SSAC work.

9. Prof Calder also thanked those members who had contributed to the SSAC response to the BIS Triennial Review of the Research Councils consultation. This was turned round in a very short timescale and showed that SSAC could work quickly and effectively with impact.

**4. New Workstream Discussion – Implications for Science in the Independence Debate**

10. Dr Masters introduced this item and opened up a discussion on whether members felt that there was scope for the SSAC to undertake a piece of work to consider what the possible implications for science and engineering could be in the independence debate. He stressed that the aim of any workstream would be to compile a series of pertinent questions and issues that will require to be considered in the course of the independence debate rather than seeking to provide answers or take a view of the merits, or otherwise, of independence itself.

11. Members noted that they were aware that some organisations had started work to look at issues within their own areas but that the SSAC would be best placed to provide a combined picture across the science and engineering landscape in Scotland. Dr Masters noted that some areas, such as Research Council funding, have already been highlighted but it is hoped that the workstream could draw out a series of additional questions focused on other areas that may not already have been identified or actively considered.

12. Members welcomed the focus on questions recognising the importance of the workstream remaining focussed on factual information and not becoming politicised. It was noted that an important aspect of the work will be to ensure that the views of the wider science and engineering community are gathered and taken into account.

13. It was also noted that timing will be critical, for this piece of work to have any impact it should ideally be completed over the next couple of months. RSE are holding an event in Aberdeen on 17 October which will consider independence in the context of Science and Higher Education and it would be helpful if the SSAC work could be available to attendees at that event.

**5. New Workstream Discussion – Open Access Data**

14. Prof Calder introduced the next item and updated members on her recent attendance at a UK Government Open Access Publishing roundtable meeting chaired by the UK Minister for Science, David Willets MP. The invitation to attend the meeting had been as a direct result of the co-chairs writing to David Willetts to bring to his attention the SSAC opinion piece on Open Access Publishing (OAP). Attendees at the meeting included publishers, research councils and arts related bodies. Prof Calder noted that the meeting had helped to clarify some elements of how the OAP changes will be implemented but that many of the basic assumptions were no longer open for discussion. The main areas discussed were embargo times and flow charts advising on when to go green or gold access.

15. Prof Calder then opened up a discussion to consider the related issue of Open Access Data from publically funded research and what the implications may be for Scotland and key stakeholders. It is not clear that there is a uniquely Scottish dimension to this issue but there are certainly bodies in Scotland, such as the Scottish Funding Council, who will have to develop policies around Open Access Data, and it may be helpful if the SSAC were to do some initial work to consider the main issues.

16. The following was noted in discussion:

* Recent Royal Society Report concluded that publicly funded data should be open unless it is not in the public interest. It should also include information on how and who collected the data.
* When does data become data? Should researchers have to have open lab books or when is something just an experiment in progress.
* The principle is that sufficient data should be provided in order to allow a reported experiment to be successfully reproduced and nothing more.
* Arguments for publishing data for all peer-reviewed research but less so for all experiments completed.
* Issue is the selective publication of data from which conclusions are drawn.
* Social science has for 50 years had a deposit for data which allows for replication of experiments – although it could take 3 or 4 months in order to be in a position to replicate the experiment even when data is available.
* Who would be responsible for posting data? This could be a burden for individuals.
* It is costly to curate data.

17. Members agreed that this was a topic which the SSAC should consider looking at in more detail. Professors Calder and Jones agreed to consider the issue further initially.

**6. Open Discussion on possible other workstreams**

18. Prof Calder introduced this item and invited Professor Reese to open up a discussion on space science and possible opportunities for Scotland.

19. Professor Reese gave a brief introduction to the paper he had prepared - Scottish Space Sector: Opportunities for Growth – which had been circulated to members prior to the meeting. He noted that the paper had arisen because of a growing awareness of a young and vibrant space sector in Scotland which could present a unique and distinctive opportunity for Scotland in terms of economic growth.

20. He went on to describe that the UK space industry had an estimated turnover of £9 billion in 2010/11 and has grown at up to 10% per annum since 2008/09. Looking forward, the joint industry/government Space Innovation and Growth Strategy (IGS) sets an overarching ambition to see the UK space sector grow from 6% of the £160 billion world space economy in 2008, to 10% of a space economy likely to be worth £400 billion by 2030. The IGS is currently under review, with a work stream considering regional issues and this represents a timely opportunity for Scotland’s developing space sector to engage from a position of strength and formulate a policy on space.

21. Professor Reese noted that Scotland could also do more to increase its share of European Space Agency (ESA) research funding and this will provide the context for a forthcoming Scottish Enterprise report which is due to be published at the end of March.

**7. Minutes of the last meeting**

22. Dr Masters went through the minute of the last meeting held of 5 December. No errors or amendments were noted. He confirmed most of the action points from the meeting had been completed. In particular, he noted that the SSAC Innovation Report – *Making the most of our Scientific Excellence* - had been published, on 20 February, alongside an associated news release on the SSAC website.

23. Members suggested that further active promotion of the report was required in order to maximise the possible take-up of the recommendations with key stakeholders.

**8. Matters Arising**

24. Dr Masters introduced this item and invited two members to provide feedback on the discussion with the FM on sensor systems. Members agreed that the FM was engaged with science issues.

25. Stuart Farmer gave an update on the work of STEMEC. This included progress on the work on Professional Learning Communities (PLCs) and interdisciplinary work although it was noted that the response from professional bodies to date had been disappointing.

**9. Media Update**

26. Prof Calder introduced this item. No media items were reported although it was noted that it may be useful to invite the Head of BBC Factual Programming, who is based in Glasgow, along to a future SSAC meeting.

**10. Chair/Member Updates**

27. Members updated colleagues on topics of interest from their areas.

**11. Any Other Business**

28. The co-chairs noted that this was Eipa’s last meeting as part of the SSAC Secretariat and that Anna Milne would be returning from maternity leave on 1 April. The co-chairs thanked Eipa for her work with the Council and wished her all the best for the future. It was also noted that Diane will be going on a period of maternity leave from mid-June and the intention is that her role will be covered on a temporary maternity cover basis.

**12. Date of Next Meeting**

29. The next SSAC dinner and meeting would be held on the 11 and 12 of June in Edinburgh. Venues TBC.

**SSAC Secretariat**

**March 2013**