

Scottish Science Advisory Council

**Minute of the meeting held on 11 December 2008 at 9.30am, at
University of Edinburgh School of Informatics
Crichton Street, Edinburgh, EH8 9AB**

Present:

Professor Anne Glover (Co-Chair), Professor Stuart Monro (Co-Chair), Professor Alan Bundy, Professor Steve Beaumont, Professor Julie Fitzpatrick, Professor Chris van der Kuyl, Professor Andy Porter, Professor Ian Ritchie, Dr Barbara Spruce, Professor Joyce Tait, Professor Ian Underwood, Professor Graham Wren, Professor Jim McDonald, Professor Mike Ferguson, Professor Bob Tooze, Dr Andy Bishop, Dr Avril Davidson and Anna Milne (Minute Secretary).

For items 3 & 4

Sir John Elvidge, Ms Stella Manzie, Dr Andrew Goudie, Mr Richard Wakeford, Mr Robert Gordon, Dr Kevin Woods, Mr Bill Bound, Ms Angiolina Foster

Items 1&2: Welcome, Apologies and Introductions

1. Professor Glover opened the meeting and welcomed the Council members. She conveyed apologies from Dr Karen Jervis, Professor Stuart Reid, Professor Peter Morgan and Professor Roland Wolf. Professor Glover gave special thanks to Professor Bundy for hosting the meeting at the School of Informatics.
2. Professor Glover explained that the Council would be joined at the meeting by members of the Scottish Government's Strategic Board including the permanent Secretary, Sir John Elvidge – the Chair of the Board.
3. Professor Glover added that the discussion with the Strategic Board would be followed by a presentation from the Head of the School of Informatics on "*What Informatics can do for Scotland*", which would highlight the world leading science being carried out at the School of Informatics.
4. Professor Monro highlighted that the Scottish Government's Science Framework had recently been launched and that this meeting with senior representatives of the Scottish Government was very timely.

The Scottish Government Strategic Board joined the meeting

Item 3: Dialogue with Scottish Government Strategic Board

5. Professor Glover welcomed the Strategic Board to the meeting. Professor Glover explained the reason for bringing the two groups together was to open the lines of communication between SSAC and Government at the highest level of decision-making. She also felt that it was an excellent opportunity for the SSAC to gain a better understanding of the key objectives of the Scottish Government, to ensure that its interests were better aligned to the priorities of Government, highlighting that science underpins all of the Government's strategic objectives.
7. Professor Glover commented that SSAC was an extremely valuable resource for Government. She explained that one of SSAC's key roles was to bring people together who wouldn't normally interact. Professor Glover explained that SSAC met four times a year at locations around Scotland to ensure that it gained a better understanding of the issues facing the science community across Scotland. She added that SSAC was currently considering its future work programme and would welcome the views from the Scottish Government on its proposed areas of work. She added that the SSAC would also welcome suggestions from the Scottish Government on its needs or wants and whether there are areas of work in which SSAC could assist.
8. Sir John Elvidge responded that the Strategic Board welcomed the opportunity to engage with SSAC. Sir John explained that the Strategic Board provided leadership and strategic direction for the

Scottish Government. Members of the Board also had a vital role in anticipating opportunities and challenges that might lie in the future.

9. Professor Glover highlighted that science could often assist in enabling solutions to complex issues. She stressed that the Scottish Government had to make better use of the investment in science to create, translate and exploit the knowledge base. She also highlighted the very rapid changes that were taking place in the economy and the need for new strategies to address new challenges. She opened the discussion up to the SSAC and Strategic Board. The discussion focussed around the current problems facing Scotland's economy and how science and engineering could help Government.

10. Professor Glover thanked the Strategic Board. She commented that while Scotland was a small nation with a large number of very successful knowledge creators it is not quite as good at knowledge exchange as it might be. She commented that it was a challenge for SSAC and others to consider how it can help to increase knowledge exchange between universities and Government.

Item 4: What can Informatics do for Scotland?

11. Professor Monro welcomed Professor Michael Fourman and Dr Colin Adams, from the School of Informatics at the University of Edinburgh. He noted that the Informatics Forum was an excellent example of how world-leading science carried out in Scotland could contribute to the Scottish, UK and world economies.

12. Professor Fourman welcomed the group to the Informatics Forum. He explained that the Informatics Forum was a centre for innovation and interaction, located in the centre of the University's main campus, alongside new teaching, conference and technology transfer facilities in the Appleton Tower. He noted that the public engagement facility *Inspace*, located on the ground floor of the forum would be complete in May 2009 and would host exhibitions, education events and hands on science engagement activities for the public.

13. Professor Fourman covered the following areas in his presentation:

- **What is informatics?** – he explained that informatics is the science of information and examines how systems process information (both natural and artificial information) at the micro and macro scale. He commented in an age of information it is a science that affects all of the arts.
- **Value of informatics** – he explained that the value of informatics was in providing new ways of capturing and disseminating information. It enables us to get value from information, which enables us to make better decisions with a higher than expected return.
- **Contribution of the School of Informatics** – he reported that the School of Informatics at Edinburgh University could not be rivalled in the rest of the UK and as a result they attracted the brightest and best students and staff from across the world. He commented that the School attracts much external investment and has a large impact on the local economy.
- **Knowledge Exchange and Commercialisation** – Dr Adams highlighted that the Informatics Forum ran a highly successful programme of support for Informatics and Computer science ventures. He explained that the ProspeKT project aimed to build upon the innovative informatics and computer science research in Scotland to help develop more healthy indigenous software companies. He reported that the goal was to improve the rate of spin-outs and start-ups and to improve relationships and interactions with industry and the general public, adding that they were aiming to build a critical mass of concentrated talent.
- **Outreach** – Dr Adams explained the School undertakes a large amount of public engagement citing for example the Royal Institution Christmas lecture to be delivered in 2009 by Professor Bishop. The School is also very active in trying to get children interested in science and use initiatives such as the *Lego Robotics Cup* to get children and young people involved with and excited by science.

14. Professor Monro thanked Professor Fourman and Dr Adams for their presentations commenting that the research that is undertaken in the Forum was truly interdisciplinary. He

suggested that there was a greater need to promote such excellent work both within Scotland and outside Scotland, recognising the truly inspirational science being carried out.

Item 5: Future Work Programme

15. Professor Glover reported that at the last SSAC meeting the members had reviewed the topics suggested for the future work programme:

- IP management and wealth creation from the life sciences
- Cost of sustainable energy: cradle to grave: a methodology for evidence based policy making
- Assistive Technologies for Independent living
- Science engagement

16. Following discussion the SSAC agreed the following:

- **Cost of sustainable energy: cradle to grave: a methodology for evidence based policy making**

SSAC would undertake a small scoping study to investigate existing and current research in this area and to consider what might be applicable for Scotland. Professor Glover reported that Professor McDonald had agreed to lead on this piece of work. Professors Tooze and Wren agreed to assist him.

- **IP management and wealth creation from the life sciences**

SSAC agreed to take this forward as a key piece of work.

- **Assistive technologies for independent living**

SSAC agreed to give this further consideration.

- **Science Engagement**

It was noted that a number of members of the SSAC would participate in the Scottish Government's science engagement forum on 22 January 2009.

Item 6: Raising the Profile of the SSAC

17. Professor Monro reported that SSAC had new branding and a refreshed logo, and that a revamped website would follow in due course.

Item 7: Minutes of the last meeting 18 September 2008

18. The SSAC agreed and approved the minute of the last SSAC meeting as an accurate record of the meeting held on 18 September 2008 in Inverness.

Review of Action Points Arising from the meeting held on 18 September 2008

19. The SSAC discussed progress with the action points arising from the last meeting.

Item 8: Matters Arising

Science Nuggets

20. Professor Monro thanked members who had contributed to his request for science nuggets. The completed nuggets would be sent to Learning and Teaching Scotland (LTS) to help them look at the linkages between discipline areas.

Science Campaign

21. Professor Glover reported that the Scottish Government's science campaign would be launched at the end of February 2009.

Parliamentary Reception for MSPs

22. SSAC members agreed to take forward the suggestion to hold a Parliamentary reception for MSPs

Update on Ongoing work**Animal Bioscience**

23. Professor Fitzpatrick reported that the Animal Bioscience report was almost complete and that it would be published in early 2009.

R&D in Business

24. Professor Beaumont reported that the R&D in business report was now almost complete and that members would be considering an appropriate event to launch the report.

Horizon Scanning

25. Dr Davidson reported that the SSAC Secretariat were considering proposals for a SSAC Horizon Scanning event in early 2009.

Item 9: Chairs' Update

Professor Glover updated the SSAC on a range of issues:

Chief Scientific Adviser's meeting with BBC

26. Professor Glover reported that she had met with the Head of Factual, Education and News at BBC Scotland to discuss science coverage.

Science Framework

27. Professor Glover reported that the Science Framework "Science for Scotland" had been launched on 27 November 2009.

Saltire Prize

28. Professor Glover reported that the Saltire Prize Challenge had been announced on 2 December. The challenge was to demonstrate in Scottish waters a commercially viable wave or tidal energy technology that achieves a minimum electrical output of 100GWh over a continuous 2 year period using only the power of the sea and is judged to be the best overall technology after consideration of cost, environmental sustainability and safety.

Meeting with Iain Gray, Chair of the Technology Strategy Board

29. Professor Glover reported that she had met with the Iain Gray, Chief Executive of the TSB. They had discussed the TSB strategy and how Scotland might engage further in the activities of the TSB.

Steve Brown Meeting

30. Professor Glover reported that following Steve Brown's presentation at the last SSAC meeting on 18 September she had invited him to participate in a very productive meeting with colleagues from Scottish Government, Scottish Enterprise, and across the science base in order to gain a better understanding of how we need to support innovation in Scotland.

Trends in International Maths and Science Survey (TIMMS)

31. Professor Glover reported that the recently published TIMMS survey, which measures attainment in maths and science in OECD countries, showed that Scotland was standing still in comparison to competitor countries. Professor Glover noted that the Cabinet Secretary had released a statement noting that the survey had highlighted unacceptable failings.

Professor Monro updated the SSAC on a range of issues:

Science and the Parliament

32. Professor Monro reported that he had given the science address at this year's Science and the Parliament event. The focus of this year's event had been Science education.

Science Media Centre

33. Professor Monro reported that he and Professor Glover had met with the Director of the Science Media Centre in London.

Foundation for Science and Technology

33. Professor Monro reported that he had attended an event titled "Growing the Scottish economy; what role does innovation in products and services have to play?" organised by the Foundation for Science and Technologies at the Royal Society of Edinburgh.

British Geological Survey Forum

34. Professor Monro reported that he had attended the BGS Forum in London.

Item 11: Members Updates:

Science Seminar for Scottish Government

35. Professor Bundy reported that the first Science Seminar for Scottish Government would take place on Friday 23 January 2009. The title of the event was "What Informatics could do for Scotland".

Item 12: Any other Business

36. Professor Underwood reported that he had attended a reception at the Parliament hosted by the Institution of Engineering and Technology. The meeting had been attended by John Scott MSP. Professor Underwood highlighted a number of issues raised at the meeting.

Item 13: Date of the next meeting

The next SSAC meeting would be held on 19 March 2009 at SCRI in Dundee.

**SSAC Secretariat
January 2009**