



**Natural
Environment
Research Council**

NERC Science Committee 18th Meeting

Summary of Discussion

18 & 19 October 2023, Met Office, Exeter.

Members Present: Professor David Hannah (Chair), Professor Jane Hill, Professor Christine Maggs, Professor David Topping, Professor David Viner, Professor Simon Vosper, Dr Glenn Watts, and Dr Doug Wilson.

Via teams: Professor Nicola Beaumont, Professor Michael Bentley and Professor Helen Williams

Ex-Officio: Professor Susan Waldron (NERC Director, Research and Skills)

Apologies: Dr Anna Jones and Professor Dan Parsons

Other Attendees: Whole meeting: Dr Sarah Turner (NERC Associate Director, Strategic Programme Generation & Delivery (SPG&D). Dr Anna Angus-Smyth (Associate Director, Digital Environment Infrastructure & Data). **Day 2 only:** Iain Williams (NERC Director, Strategic Partnerships) **Item 4/5:** Lisa Hole, Ceri Williams, **via teams:** Wendy Matcham (NERC Head of Research: Environmental Hazards & Health), Lizzie Garratt (NERC Head of Research: Atmospheric & Polar), Simon Kerley (NERC Head of Research: Terrestrial, Health & Freshwater), Mike Webb (NERC Head of Research: Marine), Simon Gardner (NERC Head of Research: Digital Environment), Sarah Newport (NERC Head of Research: Earth, Energy & Resources). Liesbeth Renders (NERC Associate Director with portfolio responsibility for Discovery Science, Highlight Topics, and Talent and Skills.) **Item 6 via teams:** Professor Peter Liss (NERC Executive Chair). **Item 7 via teams:** Wendy Matcham (NERC Head of Research: Environmental Hazards & Health), Lizzie Garratt (NERC Head of Research: Atmospheric & Polar), Simon Kerley (NERC Head of Research: Terrestrial, Health & Freshwater) and Sarah Newport (NERC Head of Research: Earth, Energy & Resources). **Item 8 via teams:** Simon Gardner (NERC Head of Research: Digital Environment).

Secretary: Gemma Davies

Key issues discussed

Annual review of SC activity & Terms of Reference

Science Committee reviewed the Terms of Reference and identified areas for potential future papers for discussion with the Executive. Science Committee agreed that the Terms of Reference are still fit for purpose.

Highlight Topics

Science Committee discussed the 26 community ideas for HTs received and prioritised those with strong science excellence potential to be included in the forthcoming announcement of opportunity. A ranked list was recommended to the Executive to draw from to be developed for announcements of opportunity within the funding envelope available.

Executive Chair update

Professor Peter Liss introduced himself and updated Science Committee on his time as interim Executive Chair of NERC. He thanked the Committee for their hard work and welcomed the two new members and thanked those members whose terms are ending. The committee were updated on: Horizon Europe, nearing the end of the spending review, development of big ideas and the value of international research and with international collaborators.

Strategic Research Investment to achieve [NERC Delivery Plan Ambitions](#)

The committee reviewed four proposed investment ideas which SC agreed were high priority for investment in April 2023 and advised where programme design and content could be strengthened to elicit science excellence & impact. SC also advised on the optimal scale of any investment to support of NERC's strategic ambitions and ranked these ideas.

Implementing NERC's Digital Ambitions: Opportunities and Challenges

Anna Angus-Smyth (Associate Director, Digital Environment Infrastructure & Data) introduced this item. SC noted the challenge in adopting new technologies in environmental science, and the potential for our community to be 'left behind' by other domains, or conversely the benefits to learn from their successes. Challenges identified in adopting new technologies included: low levels of understanding, confidence, and skills in many areas of the community; historically low appetite for, and issues reviewing, 'technology led' or 'high risk' environmental science; and current data infrastructures limiting data accessibility. SC noted that they, as many colleagues across the community, would like to understand better the opportunity to use new technologies to undertake environmental science differently in the future, or the culture change that might be needed to get there.

Science Committee were supportive of NERC acting to catalyse the use of contemporary digital technologies where the most difference could be made, with a focus on the need to raise profile, understanding, and leadership of the area. It was suggested that ensuring there was a clear focus on science or domain challenges and environmental solutions might maximise buy-in across the community. Support for co-creation and interdisciplinary activities would be particularly beneficial. It was also suggested that NERC explore how we might support riskier or technologically-focused activities through reviewing and funding processes, and that the portfolio should be regularly analysed to understand what is and is not supported in this area. Overall, SC endorsed the need to take a whole portfolio approach to 'digital', enabling culture change across our activities, including through partnership working and skills support.

Evaluation of the pilot round of [Exploring the Frontiers](#)

The committee offered support for this scheme and provided recommendations on the findings of the pilot call. Small projects were welcomed to support diverse applications across the community. Randomisation in the award process was supported and it was agreed that panels worked well for awards of this size. It was agreed that the aims of the scheme could be

clarified by making it clear in the guidance what 'exploring is' and to have exemplars. Managing demand and feedback was also discussed.

EDI in funding calls

The committee advised on proposed options for embedding DEI principles in NERC's research portfolio and grant-making activities, as this is important to ensure there is diversity in research thinking.

Feedback from June and September Council Meetings

The SC Chair informed the committee that the June Council meeting was Duncan's last meeting as Exec Chair of NERC and noted that he offered the thanks of SC for his leadership. The strategic research ideas discussed at April Science Committee were then discussed at Council.

The September Council meeting supported a £4.2M strategic research investment into 'TEAMx: multi-scale Transport and Exchange processes in the Atmosphere over Mountains – programme and eXperiment' which is about reducing uncertainty in weather and climate prediction models arising from inadequate representation of atmosphere–mountain interactions.

Standing items

The Committee confirmed the minutes and noted council feedback, the information papers and the forward agenda.