



Minutes of the 26th meeting of NERC Council in UK Research and Innovation

NATURAL ENVIRONMENT RESEARCH COUNCIL

Twenty-sixth meeting of NERC Council in UK Research and Innovation held at the Hyatt Regency Hotel, Manchester on Thursday, 26 September 2024.

Members present:

Professor Louise Heathwaite (NERC Executive Chair), Cathrine Armour (part), Judith Batchelar (part, via Zoom), Professor Hannah Cloke, Professor Kevin Gaston, Professor Sir Stephen Holgate, Professor Mike Kendall, Michael Lewis (via Zoom), Professor Peter Liss, Gordon McGregor, Rashik Parmar, Professor John Pyle (via Zoom)

Observers:

Professor David Hannah, Chair, Science Committee, Professor Gideon Henderson, CSA, Defra, Charlie McNichol-Fardon, Chair, Future Leaders Council

NERC/UKRI Directors (Head Office): Dr Kate Hamer (Interim Director of Strategy and Analysis), Alison Robinson (Deputy Executive Chair and Interim Chief Operating Officer), Michaela Simpson (Interim Director People, Culture and Operations), Dr Tracy Shimmield (Interim Director Research and Skills), Dr Iain Williams (Director, Strategic Partnerships)

Apologies: Clare Matterson

Other attendees: Dr Liam Haydon, (Items 3-7), Chris Ball (Item 5, via Zoom), Liesbeth Renders (Item 8, via Zoom), Candy Snelling (Item 9, via Zoom), Wendy Selby-Brown (Item 12, via Zoom)

Secretariat: Helen Page, Jane Kendall

Introductory items

1. Executive Chair's welcome, unconfirmed minutes of the 25th meeting of NERC Council and Decisions and Actions (Oral)

1.1 Louise Heathwaite welcomed members to the twenty-sixth meeting of NERC Council and noted that apologies had been received for the meeting from Clare Matterson.

1.2 Louise Heathwaite welcomed Kate Hamer and Michaela Simpson to their first NERC Council meeting since assuming the roles of Interim Director of Strategy and Analysis and Interim Director People, Culture and Operations respectively.

1.3 Louise Heathwaite acknowledged that this would be the last NERC Council meeting for Judith Batchelar who would be taking on the role of Chair, UK Centre for Ecology and Hydrology (UKCEH) Board from December 2024 and thanked her for her valuable contribution over the past four years.

1.4 Louise Heathwaite informed members that this would also be the last meeting for Alison

Robinson who would be leaving NERC at the end of November to take on a new role at UKCEH. She expressed thanks, on behalf of Council, for the excellent contribution Alison had made to NERC over the past ten years.

1.5 Louise Heathwaite reminded members to ensure their declared interests were kept updated, adding that updates might be sent to Helen Page at any point for adding to the portal.

1.6 Louise Heathwaite asked if there were any vested interests in any of the items being discussed today. None were declared.

1.7 Louise Heathwaite asked members for any amendments and matters arising from the minutes of the previous meeting. No amendments were made, and the minutes of the twenty-fifth meeting were confirmed as an accurate record.

2. Executive Chair update (Oral)

2.1 Louise Heathwaite provided an update under the following headings:

2.2 Government/DSIT/UKRI

Louise Heathwaite informed Council that UKRI and DSIT have a strong working relationship under the new Government as it begins to settle in. She added that the appointment of Lord Vallance as the Minister of Science was a positive one as was the appointment of Professor Chris Johnson as the Chief Scientific Adviser (CSA), Department for Science, Innovation and Technology (DSIT).

She added that the Government had recently outlined its five key missions:

- kickstart economic growth
- make Britain a clean energy superpower
- take back our streets
- break down barriers to opportunity
- build an NHS fit for the future

Louise Heathwaite explained that we should expect the DSIT submission to the Spending Review (SR) will include a narrative which linked to these missions.

Louise Heathwaite added that each Executive Chair had been asked to forge links with key Government departments and that NERC had been asked to work with the Department for Energy, Security and Net Zero (DESNZ), informing Council that Paul Monks, CSA, DESNZ, had been invited to attend December Council. She commented that the work being done under Building a Green Future (BaGF) linked well to the mission to make Britain a clean energy superpower, adding that the first BaGF congress was due to be held soon.

Louise Heathwaite informed Council that Executive Chairs had met with Lord Vallance who had emphasised the importance of curiosity driven research and the intention to develop a Research and Development (R&D) missions fund. Louise Heathwaite added that she had been invited to attend a small private dinner with the Rt Hon Peter Kyle MP, Secretary of State for Science, Innovation and Technology hosted by the President of the Royal Society.

2.3 Spending Review (SR)

Louise Heathwaite informed Council that a discussion on the SR would take place later in the meeting, adding that the requirement to balance budgets at year end would lead to some activities within NERC being postponed. She explained that it would be beneficial to seek to work with others, such as BBSRC, given current budgetary constraints, adding that a more detailed discussion on the outcome of the SR would take place in December.

Louise Heathwaite informed Council that she was a member of a UKRI task and finish group which was working closely with DSIT on financial sustainability.

2.4 NERC within UKRI

Louise Heathwaite explained that there were delays to the implementation of both the Services for HR, Accounting, Reporting and Procurement (SHARP) and Simpler Better Funding. She added that the Executive Chairs now meet routinely to discuss scientific and strategic priorities.

Louise Heathwaite informed Council that some of the strategic themes across UKRI were being re-structured adding that it was not yet clear whether funding would be made available to continue work under these themes in the next SR.

Louise Heathwaite informed Council members that recruitment campaigns for the new CEO, UKRI and Executive Chair of Innovate UK were open for applications. She added that the next UKRI Executive Committee meeting (ExCo) would take place on the RRS *Sir David Attenborough* in Harwich and expressed thanks, on behalf of Council, to Jane Francis and staff at BAS for creating the opportunity for and undertaking the planning for this visit.

2.5 Recruitment

Louise Heathwaite added that the recruitment campaign for the NERC Deputy Executive Chair would open soon as would recruitment for a NERC Chief Operating Officer. She explained that the intention was to interview for these positions by the end of 2024 with appointments starting in spring 2025. She explained that an Interim Deputy Director, Major Projects would also be recruited and asked for Council's help in sharing these opportunities widely with key networks.

Louise Heathwaite commented that they had received a good set of applications for the NERC Council member recruitment campaign, adding that shortlisting would take place next week with interviews taking place on 9 October.

2.6 NERC Showcase

Louise Heathwaite reminded Council that the NERC Showcase was taking place in Cardiff on 17-20 October. She thanked Alison Robinson, Jennifer Jamieson-Ball, Maraki Mikroudaki and the wider team for their organisation of this event.

2.7 Future Marine Research Infrastructure (FMRI)

Louise Heathwaite informed Council that she, Iain Williams and Leigh Storey had presented to the UKRI Board Investment Committee on the Future Marine Research Infrastructure (FMRI) initiative which had provided a good opportunity to highlight key areas of marine research infrastructure opportunities and gain buy-in at a UKRI Board level.

2.8 Nature Positive Roundtable

Louise Heathwaite commented that the recent roundtable had been highly effective with good engagement, adding that this also aligned well with the NERC forward look.

2.9 Digital

Louise Heathwaite advised that the third Digital Gathering had taken place recently led by Iain Williams, which had also been a success with potential for a NERC infrastructure bid in this area.

Gideon Henderson asked what the key issues were relating to data and Louise Heathwaite commented that the issues related to promoting the wealth of data held by NERC and in connecting NERC data holding with those of other Councils and government departments. It was agreed that Council would discuss 'NERC data' at a future meeting once the new NERC Deputy Executive Chair was in post.

ACTION: item on 'data' to be added to the rolling programme for June/September

2025

2.10 Royal Society

Louise Heathwaite advised Council of some forthcoming events hosted by the Royal Society including: Ecological risk and commercial risk hosted by Sir Partha Dasgupta and novel contaminants hosted by herself and Professor Mike Depledge FRS. She added that she would assume the role of Biology Letters' Editor-in-Chief in December.

3. BBSRC/NERC Joint Session: Feedback (Oral), Slides, Item 3

3.1 Louise Heathwaite thanked Kate Hamer and Liam Haydon for organising an excellent session with BBSRC Council and invited Liam Haydon to provide an overview of some of the key themes captured at the meeting.

3.2 Liam Haydon presented slides to highlight the shared areas of interest and priorities from each of the three topic discussions (biodiversity; natural resources/circular economy; adaptation). The slides are included as an annex to the minutes.

Outcomes from the sessions were grouped into three key areas:

- what are the current opportunities
- what opportunities are emerging on the horizon
- what are we doing well and what are the challenges to moving forward

3.3 In addition, Liam Haydon outlined the key outcomes from the capabilities session under three headings:

- what shared opportunities for using our centres and institutes have been identified?
- how do we best convene across capabilities/the broader R&I system?
- what do our capabilities and institutes enable (alongside science) that can help us work better together?

3.4 Louise Heathwaite commented that there were many opportunities in BBSRC and NERC working together adding that there were opportunities in working with other councils, especially given the current budgetary constraints. She added that it would be important to explore opportunities with other research councils across UKRI in the future.

3.5 Council commented that there were other resources which might be added to the list including: extraction of critical metals; remediation of industrial waste and green tech waste. Council added that it would be important to identify fundamental problems to work on rather than focusing on the detail of how to work together.

3.6 Council highlighted the importance of connecting the data sets which both Councils supported. Louise Heathwaite confirmed that this would be possible through working with others, both within UKRI and with other government departments.

3.7 Gideon Henderson added that it would be useful to connect to the BBSRC-led BioFAIR investment.

4. Planning for HMG Spending Review (NERC 24/20)

4.1 Kate Hamer introduced this item. Liam Haydon observed this item.

4.2 Kate Hamer informed Council that planning for the Spending Review (SR) was in two phases:

- Phase 1: a one-year SR for 2025/26, the outcome of which would be announced in the

autumn budget on 30 October 2024

- Phase 2: a multi-year Spending Review which was expected to be announced in the spring 2025
- 4.3 Kate Hamer reminded Council that the UKRI submission to the SR was part of the Department for Science, Innovation and Technology (DSIT) submission to His Majesty's Treasury (HMT) and explained that a flat cash allocation from Phase 1 would be a good outcome in the current fiscal climate.
- 4.4 Council expressed some concern that the bid to HMT was for flat cash. Kate Hamer explained that the initial bid to HMT had been higher but that, in line with HMT's general approach across government, UKRI had been asked to reduce it to flat cash.
- 4.5 Council asked for assurance that there would be no unexpected requests from the research centres for additional funding given the constraints on finances. Alison Robinson explained that there was now better insight on centre budgets partly due to the Executive team from NERC Head Office attending the centre boards as observers.
- 4.6 Council acknowledged that, whilst there was little to be done to influence spending review outcomes, it would have a role to play in advising on the budget allocation once known. Kate Hamer agreed that, whilst there would be limited discussion required with a single-year flat cash settlement, the Phase 2 multi-year allocation would require advice from Council.
- 4.7 Council noted that the discussion scheduled on low carbon ship fuels later in the meeting would have a cost implication and would need support at UKRI level.
- 4.8 David Hannah asked whether there was an intention to communicate to the research community on the expected outcomes of the SR. Louise Heathwaite explained that any communication would take place once the budget was known.

5. Update from UKRI (Oral)

- 5.1 Louise Heathwaite welcomed Chris Ball, Chief People Officer, UKRI to his first NERC Council meeting.
- 5.2 Chris Ball provided an update under four headings:

UKRI/DSIT/Government

Chris Ball welcomed the improving relationship with DSIT/Government adding that the appointment of Lord Vallance was welcome. He explained that UKRI was seeking to clarify the narrative to DSIT that it performs three primary activities and asked for Council assistance in promoting the narrative that UKRI:

- delivers the best R&I outcomes, including its own research
- supports the diversity and connectivity of the R&I community and works well with Government and the wider public
- manages public money well, efficiently, effectively and in an agile way

Spending review/pay award

Chris Ball informed Council that, due to the anticipated one-year SR settlement for 2025/26, the next financial year was expected to be challenging. He added that it would be important to continue to highlight that UKRI is a critical national asset and a trusted partner to DSIT and Government.

Organisational change/voluntary exit

Chris Ball commented that the headcount reductions across UKRI were on target with a

voluntary exit scheme in operation. He added that the recent Civil Service Pay Guidance had recommended an increase of up to 5% and the intention was to make the pay award in December 2024.

Recruitment

Chris Ball advised Council that recruitment for the position of CEO, UKRI was ongoing, noting that Ottoline Leyser was due to step down at the end of June 2025.

He outlined some further senior appointments:

- Professor Christopher Smith, Executive Chair, AHRC had been re-appointed
- Professor Michele Dougherty had been appointed as the new Executive Chair, STFC from January 2025
- Dr Stella Peace had been appointed as the Interim Executive Chair of Innovate UK
- Dan Shah has been appointed as the Interim Chief of Investment Planning and Strategy
- Poli Stuart-Lacey has been appointed as Chief of External Affairs and Communications
- There was currently a vacancy for the role of Chief Operating Officer, UKRI

5.3 Louise Heathwaite thanked Chris Ball for his update.

Items for discussion

6. Preparing the NERC Forward Look for Environmental Science (NERC 24/21)

6.1 Louise Heathwaite introduced this item and outlined the early thinking on the priority themes proposed within the NERC forward look under three headings: Driving the Green Transition; Ensuring our Environmental Security; Responsible Innovation for the public good.

6.2 Louise Heathwaite commented that the priority themes were focused on research and innovation but relevant to the priorities of the new Government, including the five Government missions and the place and devolution agendas, adding that a programme would be put in place to consult widely with stakeholders on the themes.

6.3 Council asked how the priority themes had been decided upon. Louise Heathwaite explained that they were developed from discussions at the Council retreat in June, captured in the visualisation.

6.4 Council was broadly supportive of the three themes and, in discussion, highlighted some areas which might need refining within the forward look:

- ensure the forward look clearly demonstrates the benefit of environmental science to UK plc, including, but not limited to, economic growth
- include other implications in 'Green Transition' such as economic impact, quality of life, long term needs and the implications of de-carbonisation
- expand 'Responsible Innovation' and include the importance of leveraging industry funding to solve challenges, noting that stakeholders are changing and engagement with business should cover both Environmental, Social and Governance (ESG) and industrial R&D, as well as reporting data and needs
- Council noted the interconnectivity between the three themes
- Approved of the inclusion of key sectors such as green finance and governance of new technologies (such as geoengineering) as well as emphasising the importance of collaboration and the relationship between humans and the environment
- set out the balance between analysis and solutions and explain where NERC feels it can be most impactful

6.5 Council also offered some advice on the drafting and presentation of the Forward Look, including improving the title of the third priority, 'Responsible Innovation' ensuring that terms

such as 'sustainable' had a specific meaning, and framing risks (aligned to the World Economic Forum and National risk register) as opportunities.

- 6.6 Louise Heathwaite informed Council that discussions were underway to make NERC infrastructure available to the Advanced Research and Invention Agency (ARIA) with a Memorandum of Understanding being put in place and discussions underway between ARIA and the British Antarctic Survey, National Oceanography Centre and National Centre for Atmospheric Science.
- 6.7 Council asked how working with ARIA would provide mutual benefit. Iain Williams explained that ARIA would pay to use NERC facilities and that it would be important to ensure the relationship was managed carefully in terms of reputational risk. Louise Heathwaite added that planning was underway for a wider discussion on working with ARIA at the March 2025 Council meeting.

7. Progress against our Strategic Delivery Plan (NERC 24/22)

- 7.1 Liam Haydon introduced this item which was a retrospective look at progress made in delivering the ambitions within the NERC Strategic Delivery Plan over the past year. He explained that Council was being asked to agree the RAG progress ratings and summary report and comment on progress made and to agree that the report might be published.
- 7.2 Liam Haydon commented that there was no requirement from UKRI to provide reporting on progress made although some key information would feed through to the UKRI Corporate Plan and Annual Report and Accounts. He reminded Council that the NERC Strategic Delivery Plan would be refreshed from April 2025.
- 7.3 Liam Haydon informed Council that the report highlighted that the majority of the ambitions had been given a 'green' rating, adding that some ambitions had been rated 'amber' and one rated as 'red'.
- 7.4 Council was content with the report, asking for a minor change to the wording and suggesting, if possible, the inclusion of some additional narrative stories and outcomes.
- 7.5 Louise Heathwaite thanked those involved in producing the excellent report.

8 NERC Fellowship Investments (NERC 24/23)

- 8.1 Tracy Shimmield introduced this item. Liesbeth Renders observed and provided input via Zoom.
- 8.2 Tracy Shimmield advised Council that the focus of the item was on the fellowships offer and that Council was being asked to note the current portfolio structure and advise on the recommended priorities. She added that Council was also being asked to advise on a recommendation to allow virement between the fellowship aspects of the Talent and Skills budget.
- 8.3 Council asked for more information on the action outlined in the Decisions and Actions paper from the previous meeting (NERC 24/19) 'evidence of numbers choosing to study environmental sciences to be included in the discussion of Talent and Skills planned for September Council' as this information was not covered in the paper.
ACTION: information on numbers choosing to study environmental sciences to be circulated outside of the meeting
- 8.4 Council asked whether, given the existence of a UKRI collective scheme, and the low success rates within NERC, it was appropriate for NERC to continue with its own scheme. Louise Heathwaite confirmed that there had also been a discussion on this subject at

Executive Committee and it was suggested that this should be a topic for discussion at a future Council meeting.

ACTION: item to be added to the rolling programme for a further discussion on Talent and Skills

- 8.5 Council expressed some concern regarding the low success rates, especially given the effort involved in applying and noted that this might have an impact on the number of future applications. It was suggested that some ideas to address this might include re-positioning fellowships, for example, reducing the terms or only targeting the top students.
- 8.6 Council asked for confirmation on the plans for the Knowledge Exchange Fellowships. Tracy Shimmiel confirmed that, due to a reduction in applications and no follow-on strategy, it had been decided to embed these into programme budgets in future.
- 8.7 Gideon Henderson noted that the talent pipeline was important for industry, as well as universities, and suggested re-positioning the offer in a more modern career structure. He added that it would also be useful to consider whether NERC should provide funding for those studying for a master's.
- 8.8 Council noted that some of the other research councils had more success in securing Future Leaders Fellowships and it was agreed that there was more to be done within NERC in signposting this opportunity to the environmental community.
- 8.9 Council asked how many Daphne Jackson Trust Fellowships were awarded and asked for more information on what support was required to help those returning to research following a career break. Liesbeth Renders informed Council that, within the NERC remit, three or four fellowships were awarded each year. She added that the Daphne Jackson Technical Fellowship provided technical skills training for those returning to work.

9. NERC adoption of low carbon ship fuels (NERC 24/24)

- 9.1 Alison Robinson introduced this item. Candy Snelling observed and contributed to this item via Zoom.
- 9.2 Alison Robinson reminded Council of the commitment it had supported for NERC to reach net zero by 2040 explaining that the proposal to adopt the use of low carbon ship fuel (Hydrotreated Vegetable Oil (HVO)) would be key to meeting this commitment and would come at an additional cost.
- 9.3 Alison Robinson commented that the HVO trials had been highly effective, adding that the intention was to use HVO as a transitional fuel rather than as a long-term solution. She informed Council that the UK was taking a leading role in this and influencing others in the adoption of low carbon ship fuels.
- 9.4 Candy Snelling reminded Council that NERC had played a key role in creating the UKRI Environmental Strategy. She informed Council that UKRI had funded the HVO trials and was supportive of the proposal, adding that there would be no ongoing funding from the UKRI Carbon Fund for the adoption of using HVO beyond the trials.
- 9.5 Council was supportive of the proposal to move to low carbon fuel, where available within the agreed ship programme, as 'business as usual' from the start of 2025/26, noting that this would be at a cost to NERC in a time of considerable financial constraint.
- 9.6 Gideon Henderson commented that, given there was an insufficient supply of HVO for widespread use, it would be important to highlight that this was a transitional fuel as any long-term decision would need to be environmentally sustainable. Alison Robinson noted that NERC's Future Marine Research Infrastructure (FMRI) project was considering the

longer-term view of how we conduct marine research.

- 9.7 Council asked whether there were any plans to broaden the use of low carbon fuel, for example to NERC aircraft. Iain Williams confirmed that trials had taken place with sustainable aviation fuel.
- 9.8 Charlie McNichol-Fardon informed Council that the Future Leaders Council was supportive of this move, adding that this was an activity which would have both impact and visibility and it would be important to carefully plan any external engagement.
- 9.9 Council noted that there were some risks associated with the move to HVO including concerns regarding the supply chain, adding that it would be important to look at transition planning across NERC. Council asked whether it was possible to swap between HVO and Marine Grade Oil (MGO) easily and whether NERC had factored in the carbon cost of ensuring HVO was available to use.
- 9.10 Alison Robinson confirmed that HVO worked in all three ships and that it was possible to switch between MGO and HVO as it was a 'drop in fuel,' MGO/HVO can be mixed and the use of HVO requires no changes to be made to the engines. She added that a paper had been discussed at NERC Management Board which had considered a range of risks and opportunities. Candy Snelling confirmed that the carbon cost of transporting HVO, called 'Well to Tank,' was included within the HVO carbon conversion factors. Alison Robinson noted that transport distance would be considered when making decisions on when/where to purchase HVO.
- 9.11 Candy Snelling confirmed that the forward ship programme included locations where HVO was available, although there would need to be a degree of flexibility. She added that the plan was to start using HVO from April 2025 due to the current ship schedule.
- 9.12 Council supported the recommendation by NERC Management Board to move to HVO as business as usual, noting constraints, from the start of 2025/26. Candy Snelling noted that she would progress planning for this transition with key directors and teams to action this change.

[Cathrine Armour, Judith Batchelar left the meeting]

10. NERC Staff Survey Results 2024 (NERC 24/25) Slides, item 10

- 10.1 Michaela Simpson introduced this item which was to outline the proposed response to the 2024 Head Office staff survey results. She presented slides which captured the key outcomes and the priorities for action.
- 10.2 Michaela Simpson outlined the top three priorities for NERC as a result of the survey which are to:
- develop a strong sense of purpose and belonging at NERC: shaping the future vision and structure so everyone can see clearly how their individual contributions drive NERC's continued success
 - develop a clear and tangible approach to balancing workloads: setting out how we can start, stop, pause and prioritise tasks to ensure effective focus and delivery
 - improve our culture: through leadership by example, fostering positive behaviours, openness, collaboration – influencing how people perceive their experiences and how we address challenges when those experiences fall short
- 10.3 Louise Heathwaite noted that it would take time to address the issues raised in the survey especially as staff were currently under increased pressure, adding that it was a time of significant change within NERC.

- 10.4 Council asked whether the historic pay discrepancies between research councils had now been resolved. Michaela Simpson confirmed that harmonisation of pay scales across UKRI had now been addressed.
- 10.5 Council asked whether there was any further insight into the lower score for learning and personal development. Michaela Simpson commented that there may be variances between directorates in this area which might be explored further, adding that there were other ways to provide development opportunities which were being discussed by the NERC flexible working group.
- 10.6 Council highlighted the importance of training people to have difficult conversations which helped people to be more confident in coming forward.
- 10.7 Council welcomed the opportunity to view the results for the British Antarctic Survey (BAS) and the British Geological Survey (BGS) and asked whether it might be possible to see the results from the other research centres particularly to provide evidence of whether the distributed centre model was working well. Alison Robinson added that this might be an area to cover in the Strategic Relationship Assurance Meetings (SRAMs) in future.
- 10.8 Council asked whether there was any lasting negative effect from the pandemic, for example, on the sense of community within NERC, particularly given the move to hybrid working. Michaela Simpson responded that, whilst there was a strong sense of community across the research councils, there had been some negative impact from the pandemic.
- 10.9 Council asked whether there were any trends from the series of surveys which had been conducted so far. Michaela Simpson confirmed that the trends from previous surveys, along with the UKRI-led pulse surveys, had been taken into account. Alison Robinson added that, whilst there were no significant trends in the data, NERC had consistently high scores for engagement with NERC and its mission, positive teamwork and strong management scores.
- 10.10 Council suggested that, in addition to regular surveys, NERC might consider utilising other techniques, such as open employee voice programmes and deep listening.

11. NERC Council annual self-assessment (NERC 24/26)

- 11.1 Rashik Parmar introduced this item which was to report on the outcome of the NERC self-assessment exercise for 2024.
- 11.2 Rashik Parmar thanked Council members for their engagement with this exercise, commenting that the results were primarily positive, adding that there was still more to be done to improve diversity on Council and ensure the right skills and expertise were represented.
- 11.3 Council was content with the report and the actions outlined within it.

12. NERC Council Finance Report September 2024 (NERC 24/27)

- 12.1 Louise Heathwaite reminded Council that a decision had been taken to re-introduce a finance report and that she had invited Wendy Selby-Brown, the UKRI Finance Business Partner, to present the paper. Alison Robinson added that the UKRI finance team was embedded within NERC and recognised that NERC had a complex business model.
- 12.2 Wendy Selby-Brown introduced this item to set the financial context for the current financial year, which was the final year under the current Spending Review settlement. She outlined that NERC was subject, along with the other research councils, to budget reductions in

2024/25 which were categorised in two stages adding that Target 1 had been achieved in May, with Target 2 yet to be confirmed and due to be delivered by end March 2025.

12.3 Council asked how the agreed pay rise would impact the budget. Alison Robinson explained that the pay rise would need to be funded from the Operational Expenditure budget for NERC Head Office and the National Capability budget for BAS and BGS.

12.4 Council asked whether the rate of inflation for science-based activities was the same as general inflation. Alison Robinson suggested that this might be investigated further.

12.5 Louise Heathwaite confirmed that the budget reduction was in line with that of other research councils, noting this was a complex situation.

13. NERC Top Risks – Quarterly Risk Review (NERC 24/28)

13.1 Alison Robinson introduced this item which provided Council with an opportunity to review NERC's top risks and note any changes since the previous meeting. She added that UKRI had recently reviewed all of the risk registers across UKRI and that there was some commonality of risks across the research councils.

13.2 Alison Robinson highlighted the two new risks in the paper: Spending Review and Antarctic Logistics Infrastructure (ALI) partition funding. She added that there were increasing risks in aviation; financial resilience of centres supported by NERC and other government funding and partnerships; Antarctic airbridge and cyber security.

13.3 Council asked for more information on the risk relating to aviation. Alison Robinson explained that the assessment of the risk had increased for both BAS and Facility for Airborne Atmospheric Measurements (FAAM) aircraft. She added that an Aviation Assurance Panel had been established to ensure operational safety and that a safety case was currently being prepared.

13.4 Council asked whether there was a risk related to trusted research and Iain Williams explained that this risk was a UKRI level risk although NERC had an internal process to flag any risks.

14. Update by Chief Scientific Adviser, Defra (Oral)

14.1 Gideon Henderson provided an update under the following headings:

- Government: five key missions
- resilience and national security priorities
- Government departmental priorities
- designated Research and Development funding
- DSIT responsibility for digital and data
- Science and Technology Framework Document
- UK data centres to become part of the critical infrastructure portfolio
- Chief Data Officer at Defra appointed
- International: Own, Collaborate, Access triage approach; Horizon Framework 10

15. NERC Science Committee (agenda and minutes) (NERC 24/29)

15.1 David Hannah introduced this item to inform Council of any issues arising from the 20th meeting of NERC Science Committee held in July 2024.

15.2 David Hannah informed Council that Science Committee had discussed the following items at the July meeting: Strategic Research Investments (SRI); Diversity in the Environmental Science Community; NERC Infrastructure Pipeline proposed strategy; National Capability

overview and portfolio; feedback from Council retreat; funding call language.

15.3 David Hannah advised Council that the next meeting of Science Committee would take place in October at UKCEH, Wallingford. The items for discussion would include: Terms of Reference review; Fellowships; Highlight Topic evaluation; Infrastructure bids; Horizon scanning; SRI.

15.4 David Hannah updated Council on the NERC Science Committee recruitment campaign to recruit five new members by January 2025, advising that shortlisting had taken place with interviews scheduled for October. He thanked Rashik Parmar, Tracy Shimmield and Karen Hanghoj for their help with the campaign.

15.5 David Hannah re-iterated the invitation for NERC Council members to attend a future Science Committee meeting.

15.6 Council asked for more information on the infrastructure roadmap. Iain Williams confirmed that a re-refresh to the roadmap which had been published in 2019 was currently underway.

16. Rolling programme of business) (NERC 24/30)

16.1 Helen Page reminded Council members that suggestions for agenda items might be submitted to her at any point.

16.2 Helen Page confirmed that the next meeting would be held at NCAS, Cranfield with a tour of FAAM.

17. Any Other Business (Oral)

17.1 Hannah Cloke mentioned the Industry Water roundtable which she had chaired in July which had discussed topics such as floods and droughts; water security; water quantity and future water landscapes. David Hannah added that there had been good engagement from the water industry.

Annex

Annex – outcomes of the joint BBSRC/NERC Council session

Biodiversity shared areas of interest & priorities from session:

- Marine – understanding change within marine systems, mechanistic aspects, novel solutions, carbon sink
- Re-wilding and restorative agriculture – creating a shared understanding, identifying actionable approaches and concepts of endpoints
- Pace of change – finding ways to work in an agile way with stakeholders, need research to meet pace of change and do science differently
 - Thinking more about management of uncertainty from new approaches to inform decision making, rather than relying on classical burden of proof (iterative/ agile development of models via AI, etc)

What are the current opportunities?

- Linking up on microbiomes and how these contribute to broader species/ ecosystem health issues
- Monitoring, measurement and validation – gaining confidence in these, new technologies, adoption curve
- Transferability of insights between land/freshwater/sea systems
- Single metric for biodiversity?

What opportunities are emerging on the horizon?

- Convening other stakeholders who are already acting – benefiting from their investment in data collection – bringing a research lens onto their efforts
- Marine - Area of limited activity to date (aquaculture)
- Developing evidence to influence policies that may not currently align well in government (agri/ environment)

What are we doing well and what are the challenges to moving forward?

- Ways of working: Integration of teams and approaches on vessels, embedding people into multidisc/team environments and learning the 'special sauce' that makes these effective environments
- Remote sensing – novel diagnoses, and joining up spatial scales (disease, crop yield/performance)
- Upscaling in tech area – TRL levels, uptake and deployment

Resources shared areas of interest & priorities from session:

- Water supply for both national and international activities
- Challenges for the circular economy of “green tech”, water, and nutrients including nitrate and phosphate
- Working effectively alongside the business community including areas of controversy

What are the current opportunities?

- Understanding the full life cycle (with an additional focus on end of life) of the resource in question
- How to adapt microbial systems to undertake transformations, use these to make interventions and understanding the environmental impact eg through life cycle assessments

What opportunities are emerging on the horizon?

- Making more of data and modelling to inform interventions eg through the use of “digital twins” of systems.
- Making more of understanding the marine environment and how this might be used as a “blue economy” to support our NZ aspirations.

What are we doing well and what are the challenges to moving forward?

- Identifying the most authentic approach to life cycle assessments and their standardization

Adaptation shared areas of interest & priorities from session:

- **New agricultural methods and techniques** – changing environment linked to interventions (including nature based solutions). Important to consider different geographies and relationship between interventions.
- **How do we adapt and implement systems analysis?** How do we fill data poor spaces through research?
- **Agile approach to adaptation?** The intervention needs to be quick. What does that look like? People at the heart of this (AHRC/ESRC remit)
- **Learning from life in extreme environments** (e.g. deep ocean, polar)- cellular level and bio markers understanding , environmental genomics – multi scale biology to community level

What are the current opportunities?

- Improve on industry level engagement early, build opportunities with translation and impact
- Address the biggest risks in adaptation – how do we identify these (e.g.flood/drought for UK) and work together to solve them?
- The economics behind adaptation - treat adaptation and biodiversity together
- Industry, FCDO and other government departments – a global action critical mass
- Technology – data, digital twins
- Coordination of portfolios – data housing in institutes, for long term studies. Can we fund this differently. Joint national capabilities, building on strengths.
- Build on Elixir or other international initiatives particularly on data

What opportunities are emerging on the horizon?

- Understanding of the oceans – biological systems understanding in the deep oceans
- Data sharing to enable AI exploration, interoperability, enable data out and to be used, bringing in systems approach.
- Bringing in BBSRC and NERC data together: impact, infrastructure, standardized pool of knowledge
- Tracking adaptation over time – cellular, organisms, population

What are we doing well and what are the challenges to moving forward?

- Ensure that social and political sciences are involved from the beginning, and
- Work internationally, and boost equitable design and co-creation with partners
- Engineering (EPSRC) as a partner also important
- Collaboration is not necessary impact – this also needs to be part of design and co-creation
- Do we have a common understanding of what adaptation is?

Capabilities- Key outcomes:

What shared opportunities for using our C&Is have been identified?

- Working with centres and institutes to leverage off their existing networks
- You need international partners and networks which we could drive more. How do we enable truly international working on global issues such as droughts and other extreme weather? International partnerships rooted in geographies.
- Need to be better at driving impacts from institutes. We need to think of impact at 3 levels: researchers themselves; science and policy as a whole; society.
- Doing more to share facilities and equipment (financial and cultural barriers)

How do we best convene across capabilities/the broader R&I system?

- Need to reward and incentivise behaviours – research culture – outward looking, whether industry, regulators, gov or internationally.
- Addressing talent drain
- UKRI has convening power to bring together the best people focused on a specific challenge.
- Bring in more philanthropy – how do we best enable support for social challenges? (cf. Cancer research UK)
- Continue to integrate long-term monitoring with world class science. Both needed.
- Institutes should be close with industry.
- ‘Single shop window’ – ensure better access to our C&I, and their data

What do our Capabilities and institutes enable (alongside science) that can help us work better together?

- Ability to address the **whole life-cycle** of issues e.g. water
- Trans-domain, challenge-focused approaches by working together.
- Upskilling either through (doctoral) training or within C&Is
- How do we assess and reflect on our C&Is? Are their strategies, their use of resources and their impacts as effective as they could be?
- How do we balance the unique offering of individual centres with the other services we ask them to provide so e.g. tension between cutting edge science, NC, data storage



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