



Natural
Environment
Research Council

Minutes of the 12th meeting of NERC Council in UK Research and Innovation (redacted)

NATURAL ENVIRONMENT RESEARCH COUNCIL

Twelfth meeting of NERC Council in UK Research and Innovation held via Zoom
on Thursday, 4 March 2021.

Members present:

Professor Sir Duncan Wingham (Executive Chair), Nick Folland (Senior Independent Member), Judith Batchelar, Professor Hannah Cloke, Dr Matthew Harwood, Dr Rebecca Heaton (part), Professor Louise Heathwaite, Professor Sir Stephen Holgate (part), Clare Matterson, Gordon McGregor, Professor John Pyle, Professor Dame Julia Slingo; Professor Gideon Henderson, CSA, Defra (part), Professor Graham Underwood, Chair, Science Committee

NERC/UKRI Directors (Head Office): Sue Donaldson (Chief People Officer, UKRI), Victoria McMyn (Chief Operating Officer, NERC) (part), Alison Robinson (Deputy Executive Chair), Professor Susan Waldron (Director, Research and Skills), Dr Iain Williams (Director, Strategic Partnerships)

Apologies: Professor Karin Lochte

Other attendees: Fiona Driscoll, UKRI Board Member and Chair of Audit, Risk, Assurance and Performance Committee (ARAPC) and Robyn Thomas (entire meeting), Corrina Urquhart for item 2, Sir John Kingman (Chair, UKRI Board) for item 5, Jen Jennings for item 11

Secretariat: Helen Page

Introductory items

1. Executive Chair's welcome and introductions (Oral)

- 1.1 Duncan Wingham welcomed members to the twelfth meeting of NERC Council and thanked members for their engagement in the Council Retreat held on the previous day.
- 1.2 Duncan Wingham welcomed Fiona Driscoll to the NERC Council meeting. Fiona Driscoll explained that she was attending a range of Council and Risk meetings across UKRI to assist her in her role as Chair of the UKRI Audit, Risk, Assurance and Performance Committee (ARAPC).
- 1.3 Duncan Wingham advised Council that this was the last meeting for both Louise Heathwaite and Julia Slingo who had been long serving members of both the current and legacy NERC Councils. He thanked them for their excellent advice over many years and wished them well for the future and this was fully endorsed by Council members.
- 1.4 Duncan Wingham congratulated those in the environmental science community who had been recognised in this year's Queen's New Year Honours including:

- **OBE: Dr Hermione Cockburn** for services to Public Engagement science
 - **OBE: Professor Lorraine Maltby**, for services to Environmental Biology, Animal and Plant Sciences
 - **MBE: Christine Campbell** for services to marine science
 - **MBE: Dr Alison Monaghan** for services to geology
 - **MBE: Professor Mark Brandon** for his services to polar science.
- 1.5 Duncan Wingham asked members for any updates to their declared interests or any vested interests in the items being discussed today. None were declared.
- 1.6 Duncan Wingham asked members for any amendments and matters arising from the minutes of the previous meeting. No amendments were made, and the minutes of the eleventh meeting were confirmed as a good record.
- 1.7 Duncan Wingham advised that the majority of the actions listed on the Decisions and Actions paper were completed, on the forward agenda or would be covered under the Executive Chair's update.

One action remained outstanding which was the intention to meet with the Helmholtz Association which had been delayed by the pandemic. This action would remain open with a view to following it up once restrictions were lifted.

2. Discussion of Council retreat outcomes (Oral/Slides)

- 2.1 Duncan Wingham introduced this item and explained that Alison Robinson and Corrina Urquhart would now present slides which captured the key points from each of the four discussion items at the Council retreat. The summary slides have been attached to the minutes as an annex as a record of the day.
- 2.2 Council discussed the summaries of the Council retreat and the key points of the discussion are captured below.
- 2.3 NERC Strategy
- 2.4 Council commented that there had been a wide-ranging discussion under this heading and commended the team for their useful summary. Council noted that there was no consensus of approach to map disciplines in a new NERC Strategy. There was some support for a cautious approach of including 'more science' via specific references, for example to atmospheric, environmental data, terrestrial, climate and clean air in chosen places noting that naming historical disciplines can be limiting and potentially exclude emerging science. Others felt that the current thematic approach was robust and wanted to build on the existing themes to: promote the NERC role in any Net Zero+ challenge; improve our digital offer; identify the 'pull' for environmental science at local, regional, national scales and ensure the strategy was accessible to wider stakeholders. This group viewed that adding disciplines risked narrowing and not bringing the wider community on board to deliver environmental solutions.
- 2.5 Council also noted the broader feedback on structure of a new strategy such as a preference for a longer (three years+) timeframe and that all retreat participants wanted the strategy to be NERC's front door and to 'open the way' for science communities, business and other stakeholders.
- 2.6 In discussion about the summary slides, Council added that there had been varied views on the intended audience for the strategy and whether its focus was inward or outward looking and highlighted the importance of a long-term, rather than short-term, strategy. Council noted there had been considerable change since the last Delivery Plan was

produced including the commitment to net zero, increasing concern for biodiversity and the rise in digital transformation.

2.7 Duncan Wingham added that a refresh of NERC Strategy would provide the opportunity to re-balance it, adding that the Net Zero+ agenda would require collaborative working across UKRI to achieve.

2.8 NERC Science: How can we create the conditions to increase world-leading, cutting edge, research in NERC Centres?

2.9 Council agreed that the slides provided a good summary and emphasised the importance of focusing on the new opportunities which were discussed. Council agreed with the importance of increasing world-leading research at its centres noting the synergistic link between world-leading facilities and world-leading research. The emphasis on world-leading science should not be to the detriment of developing world-leading teams. There had been positive discussion on how to improve relationships and movement between universities and centres and support for the development of senior leaders in the centres noting that leadership of NERC centres required a different approach to leadership in academia. There was discussion on supporting early career scientists with significant potential in NERC centres, recognising that what defined significant potential in the past may be different in the future. Council agreed that the requirements for NERC funding in centres should include non-science deliverables, including cultural leadership aspects to develop world-leading conditions and that some flexibility should be maintained in funding to allow freedom to pursue new ideas and directions. It was emphasised that a diversity of approaches would be needed due to the different roles of the centres.

2.10 Duncan Wingham informed Council that the discussion at the Council retreat had allowed for a range of opinions to be considered and that this was a subject which needed further consideration.

2.11 Gideon Henderson added that there might be lessons to be learnt from other research councils who had already been through a similar transformation.

2.12 NERC Community Engagement

2.13 Council agreed that discussion of this topic had been very broad, and this was reflected in the feedback, which did not pull-out clearly the key areas for community engagement. For example, retreat advice on what key topics to prioritise for immediate and longer-term engagement ranged from aligning engagement with the current delivery plan agenda, capitalising on post-COVID opportunities for solution-focused science, exploring novel areas, and considering research culture. The retreat advice offered on who to engage with was more consistent and focused on increasing accessibility to NERC by groups outwith our core research communities, and with those who can drive research agendas which could align with NERC and advocate for NERC - to ensure a healthy environmental science base. Advice on engagement processes was still broad but there were three core suggestions of going to the best environment for engagement, making NERC more accessible for those coming new to NERC, and capitalising on opportunities for co-creation of funding opportunities.

2.14 Council concurred that this feedback was a comprehensive summary of this broad discussion topic and commented that an additional area might be the strategic use of partnerships, in order to reach wider audiences. Council noted that, due to the breadth of the discussions, there would need to be some separate, detailed work to review how NERC engaged the community on specific topics where there were likely to be changes in the way NERC worked, for example to ensure we were a fair, diverse, and inclusive organisation, to achieve environmental sustainability and to reduce bureaucracy in funding processes.

2.15 More detailed discussion followed on communication around funding processes, initiated by consideration of how to engage with our research community. Council expressed some concern over the role of UKRI in the engagement and communication process and highlighted a potential lack of clarity for the community in engaging with NERC directly. Council added that it would be important to use champions to promote NERC more widely and suggested that it would be useful to provide guidance to encourage this.

2.16 Duncan Wingham explained that there were likely to be significant changes to the way in which grant applications were processed in the near future due to changes in the new funding system, and it would be important to ensure we worked through these changes in process with the community. It was suggested that a further discussion around these issues take place at a future meeting.

ACTION: Item to be added to the rolling programme on engagement with the community on changes to the funding process (timing dependent on progress with the Simpler and Better funding system)

2.17 Net Zero Plus

2.18 Council agreed with the overall summary of the discussion on this topic, noting that a systems approach that recognised the need to act at scale beyond individual Councils and national boundaries was welcome. The summary of discussion also noted that there was consensus that the role of UKRI was on research to inform innovations needed, rather than leading broader societal transformation and that this led to a clear offer to Government in bringing credibility within Research and Innovation to set standards such as offsetting cf. credible removal, economics of biodiversity and links to decisions in Government about, for example, land use, oceans (blue mining). Council also agreed with the summary highlighting the importance of 'geography' both for science so we can adapt and test solutions and change our approach over time and for communities and to understand the impacts on specific people (such as farmers, fishers and their livelihoods and communities) and those 'businesses' for example Local Enterprise Partnerships that can articulate concerns and need for innovation.

2.19 Council also agreed with the summary of the types of industry and business to engage on the topic of Net Zero+ noting that there were some in key positions of influence for example up and down supply chains such as retailers, network providers and those with a long term outlook such as utilities. Council also agreed that different businesses may be interested in different aspects for example mitigation cf. adaptation and a nuanced approach based on well-mapped evidence would identify key players with a shared interest in research and development.

2.20 In discussion, Council agreed that this had been a useful session and noted the outputs of the discussion provided a foundation for future discussions which might help differentiate what UK research institutions might offer and export in the future.

2.21 Council commented that it would be important to emphasise the role of NERC monitoring in contributing to the understanding of these issues and highlighted how the data might be used in a range of sectors in addition to the role of UKRI in bringing together this theme. The requirement for business to remove, not just offset, carbon provided a potential opportunity for NERC to work with business in this area and it was agreed to consider setting up a working group to look at this further.

2.22 Duncan Wingham added that it would be important to be disciplined about focusing on the NERC/UKRI contribution to this very complicated landscape and welcomed the suggestion that a broad coalition of business representatives might be brought together to consider this and agreed to give this further thought.

ACTION: The Executive to consider establishing a working group on Net Zero plus

3. Update from UKRI (Oral)

3.1 Sue Donaldson gave an oral update on some of the key activities within UKRI and highlighted three themes.

3.2 Strategy and Change

Sue Donaldson informed Council that UKRI intended to publish its first strategy by the end of 2021 and engagement was currently taking place with a wide range of internal and external stakeholders. She explained that key change programmes had now been consolidated under the Reforming our Business Portfolio which included projects such as the Simpler and Better Funding workstream; changes to the internal IT systems for HR, Accounting, Reporting and Procurement (SHARP) along with simpler and better governance. Sue Donaldson added that a Strategy and Change Board had been established to manage and ensure a holistic approach across the organisation.

3.3 Future Ways of Working

Sue Donaldson advised that UKRI were considering recovery plans and future workspace requirements across the organisation, taking account of the broad spectrum of views received from staff. Any future plans would be considered carefully and provide a measured response and this work was being led by the new UKRI Chief Operating Officer, Tim Bianek. Sue Donaldson added that Council would be updated when the plans were further developed.

HR and People

3.4 Sue Donaldson advised Council that work had been completed on a new Target Operating Model (TOM) for HR over the past six months. This had been approved at ExCo and the new arrangements would be implemented on a phased basis. She acknowledged that NERC had a risk on their risk register regarding the current capacity in the HR function and added this should be addressed by the new TOM.

3.5 In response to an invitation from Duncan Wingham, Sue Donaldson outlined what UKRI was doing to support staff wellbeing through the latest lockdown. Measures included: wellbeing webinars; support mechanisms such as mental health first aiders; questionnaires on health and providing reassurance to staff about the return to work.

3.6 Council welcomed the update and asked what UKRI was doing to increase diversity in its workforce.

3.7 Sue Donaldson explained that UKRI was taking a number of steps including improving data on Equality, Diversity and Inclusion (EDI) and encouraging staff to share information to gain a better understanding of the composition of its workforce; staff were being encouraged to become involved in a range of new networking groups; UKRI was auditing its recruitment processes; improving its governance arrangements in terms of reporting on EDI and looking at opportunities for improving EDI training. She added that HR and the EDI strategy team were working closely with the aim that UKRI might become an exemplar for the research community in this area, recognising that this was an issue which needed involvement across the organisation and was not solely a HR responsibility.

3.8 In response to a query on planning for COP26, Alison Robinson advised that NERC was leading on this activity for UKRI and ideas were being finalised. A programme board had been established and a further update would be provided at the June meeting.

4. Update from CSA, Defra (Oral)

4.1 Duncan Wingham explained that Gideon Henderson would provide Council with a regular update at each meeting in future. Gideon Henderson outlined four areas which he would cover in his update.

Spending Review

- 4.2 Gideon Henderson explained that Defra had received an increase in funding for Research and Development (R&D) from the recent Spending Review settlement. To provide an awareness of the breadth of Defra's remit, Gideon added that some of the funding would be used for air quality, marine environment, adaptation, farming, fisheries, fishermen and fish, animal and plant health, hazardous substances and emergency response. Defra had also committed to run the Natural Capital Ecosystem Assessment and allocated money for net zero research and environment bill research.
- 4.3 Gideon Henderson drew Council's attention to the confirmation in the budget of the £1 billion awarded to BEIS for Net Zero innovation which included bioenergy, offshore wind, greenhouse gas removal and hydrogen energy storage in its ten themes.

Structure

- 4.4 Gideon Henderson explained that Government were keen to link R&D across the country including public and private sector and this would mean increased integration of the Public Sector Research Establishments (PSREs) into the R&D landscape.

Science Themes

- 4.5 Gideon Henderson outlined the predominant science themes across Government at the moment which included pandemic preparedness; Environment Bill targets; Net Zero; Food Strategy; Innovation and Translation.

International

- 4.6 Gideon Henderson explained that the international focus was currently on COP and the G7 agenda. He added that Defra was establishing an international strategy.
- 4.7 Council welcomed the update and asked how Defra intended to work with the devolved administrations on the issues which had been outlined. Gideon Henderson confirmed that Defra worked closely with its counterparts in the devolved administrations.
- 4.8 Council asked how the uplift in the budget at Defra aligned with the ambition to work internationally. Gideon Henderson confirmed that the budget uplift was substantial but there were a range of challenges to be addressed including the reduction in Official Development Assistance (ODA).
- 4.9 Council asked whether Defra had a role to play in understanding the socio-economic issues of transition and Gideon Henderson confirmed that there was consideration within Defra of fair transition and the inequalities in society.

5. Sir John Kingman (Oral)

- 5.1 Duncan Wingham welcomed Sir John Kingman to NERC Council.
- 5.2 Sir John Kingman opened the discussion by outlining the continued uncertainty surrounding the Spending Review settlement and commented that the budget for 2021/22 was expected to be challenging.
- 5.3 Council took the opportunity to discuss the following issues with Sir John:
- i. How successful had UKRI been in achieving the ambition set out for it?
 - ii. What changes would he have made if he were to remain as Chair with greater budgetary freedom?

- iii. What do UKRI see as NERC's key strategic strength to ensure a strong post COVID recovery?
 - iv. What piece of advice would he leave with NERC from his experience of working with UKRI and Government?
 - v. What might UKRI learn from research and innovation activity internationally?
 - vi. How might the UK be made more welcoming for researchers, innovators and investors.
- 5.4 Sir John Kingman reflected that the establishment of UKRI as an organisation which both enabled working across the disciplines and provided one scientific voice to Government had been a success and he emphasised the important role that the research councils and the Executive Chairs had played during this initial stage. He acknowledged that it had been challenging to provide the consistency needed for a vibrant research and innovation system to flourish in a changing political landscape and that more still needed to be done to engage with private sector R&D, both in the UK and internationally.
- 5.5 Sir John Kingman commented that, were he to remain as Chair, he would seek more stability of strategic direction with Government by ensuring that UKRI had a compelling strategic vision which the Government would want to support. He added that he would continue to support initiatives such as the Industrial Strategy Challenge Fund with greater budgetary freedom as it was important to forge partnerships with the private sector.
- 5.6 Sir John Kingman commented that Net Zero was seen as the core strength for NERC given the Government's ambition to have a strong positive agenda. He added that COP26 was a Government priority and it would be important to demonstrate how NERC and UKRI might make an impact.
- 5.7 Sir John Kingman acknowledged that the UK had a very strong research base and that the research councils were internationally comparable. He added that more might be learned from other national Innovation Agencies to widen the remit of Innovate UK. He emphasised the continued importance of instigating engagement with the private sector to ensure the UK was welcoming to stakeholders.
- 5.8 In concluding the item, Duncan Wingham thanked Sir John Kingman, on behalf of NERC Council, for his contribution to, and oversight of, the establishment of UKRI and wished him well for the future.

6. Executive Chair's update (Oral)

- 6.1 Duncan Wingham gave an oral update on some of the key activities since the previous Council meeting.
- i. Brunt Ice Shelf
Duncan Wingham informed Council that the Brunt Ice Shelf had calved at the end of February although the Halley base did not appear to have been affected in the short term. He confirmed that there were no personnel on the base which was currently closed for the winter.
 - ii. Open Access
Duncan Wingham informed Council that a proposal on open access would be discussed at ExCo in March before a discussion by the UKRI Board in May.
 - iii. Reforming our Business
Duncan Wingham explained that the Reforming our Business agenda included a reduction in the amount of paperwork both for grant funding and within the Research Excellence Framework (REF). He added that the Simpler and Better Funding programme aimed to reduce paperwork and simplify approaches and included

consideration of a move towards a risk-based assurance and funding process with a greater degree of trust. The programme would lead to increased harmonisation of funding schemes and processes across the research councils and it would be important to ensure sufficient community consultation in advance.

iv. Cyber Security

Duncan Wingham informed Council that UKRI had been the subject of a cyber security incident which had affected the Brussels UK Research Office and the BBSRC extranet and had resulted in information becoming encrypted. A review of the incident had taken place and it had been confirmed that there was no copying of data although a UKRI wide review of security would now take place which would include a clarification of responsibilities.

Fiona Driscoll added that ARAPC would be reviewing the balance of activity and responsibility which had been centralised on the formation of UKRI, and that UKRI was treating this incident very seriously.

v. Changing the Environment

Duncan Wingham asked Iain Williams to update Council following their discussion in December. Iain Williams explained that 34 outline bids had been received and the panel had met in January and agreed a shortlist of eight applications to invite to submit full applications.

vi. NC Multi-Centre Science

Iain Williams informed Council that he had provided the research centres with verbal and written feedback following the previous discussions at both Council and Science committee. The draft Announcement of Opportunity had been published in January with full proposals being developed for June 2021.

vii. UKRI Sustainability Strategy

Duncan Wingham informed Council that he would chair an advisory group which had recently been established comprising a wide range of business and non-governmental organisation (NGO) representatives to implement the UKRI Sustainability Strategy. The aim of the advisory group would be to determine the pathways by which UKRI as an organisation would meet its net zero commitment.

viii. Net Zero Innovation Board

Duncan Wingham informed Council that he and Gideon Henderson were members of the Net Zero Innovation Board which was chaired by Patrick Vallance. It was intended to produce a range of strategies in advance of COP26 outlining how the UK might achieve net zero.

ix. Advanced Research and Innovation Agency (ARIA)

Duncan Wingham informed Council that legislation for the creation of ARIA was now progressing through Parliament.

x. Public Sector Research Establishments (PSREs)

Duncan Wingham informed Council that ExCo had recently agreed to a proposal to open up research council competitive funding to PSREs following a Government request. He commented that, as PSREs were funders of science, any potential Conflicts of Interest would need to be considered.

Items for discussion

7. **Reforming our Business: Pushing the Frontiers pilot early outcomes report (NERC 21/03)** *(Slide, item 7)*

- 7.1 Susan Waldron introduced this item and presented slides to set the context and provide some background to the *Pushing the Frontiers* pilot scheme.
- 7.2 Susan Waldron informed Council that the recent interview panel had assessed 15 candidates and recommended five: three established researchers and two Early Career Researchers. She added that the pilot scheme was currently being evaluated against its objectives using both quantitative and qualitative approaches.
- 7.3 Susan Waldron commented that the call had received applications from a wide range of organisations, including research centres, with a mix of established and early career researchers applying. So far, the survey responses indicated that there was broad satisfaction with the scheme and Council were being asked to agree that there was sufficient evidence to implement this simplified application process from January 2022.
- 7.4 Council welcomed the pilot scheme which considered the track record of applicants and queried whether processing the pilot scheme alongside the standard grant applications had increased the administration required at universities. Duncan Wingham explained that both schemes had been running in parallel whilst the pilot scheme was tested and that this would not cause a long-term increase in administration.
- 7.5 Council were supportive of the move to a more streamlined, less bureaucratic way of working. Whilst learning fast and moving on was a welcome approach, Council noted that some consideration should be given to how 'Stop and Think' moments might be captured in the governance of such an approach. Susan Waldron noted that the wider evaluation process would be explored further with Research Organisations but a more structured governance approach was more appropriate for NERC strategic research funding rather than Discovery Science.
- 7.6 Council members who were involved in the panels for the pilot scheme commented that those who had been shortlisted were of a high quality and the interview process had been a key part in the decision-making process. Some suggestions for improving the scheme included: more breadth of expertise on the panel including those who were able to recognise the best ideas; improved guidance for reviewers including how to distinguish between applicants and how to assess track record particularly for Early Career Researchers and how we might broaden the range of disciplines of applicants.
- 7.7 *Pushing the Frontiers* also sought to encourage proposals for cutting-edge and riskier science. Whether this had been achieved was still under review and would return to Council for consideration on whether the scheme had met these objectives and, if so, how to proceed with this Delivery Plan ambition.
- 7.8 In summary, Susan Waldron noted that Council were supportive of moving Discovery Science funding to this more streamlined approach from January 2022 noting the comments on the review process.
- DECISION: Discovery Science to move to a more streamlined approach from January 2022**
- 7.9 Duncan Wingham thanked Louise Heathwaite and Julia Slingo for their work on the pilot scheme.

8. Strategic Planning for the Spending Review (NERC 21/04) (Slides, item 8)

- 8.1 Duncan Wingham introduced this item and presented slides to provide an update on the rapidly evolving discussions around the Spending Review settlement.
- 8.2 Duncan Wingham outlined the process for the Spending Review and reminded Council that NERC had not been asked for a Spending Review bid but had contributed to the overall UKRI bid. URKI was due to respond to BEIS regarding the individual research council

settlements within the week and Duncan Wingham expected some clarity in the coming month.

- 8.3 Council asked whether there was any data which provided information about the beneficiaries of the Horizon Europe programme to ascertain what benefit this might provide to the environmental science community. Duncan Wingham advised that environmental science gained a similar proportion of Horizon funding to the amount of UK funding it secured.
- 8.4 Council enquired whether there were opportunities to generate income within NERC either by increasing partnership working or identifying cost savings. Duncan Wingham responded that there were options, particularly for research centres or use of infrastructure (such as ship charters), but they were unlikely to provide rapid enough solutions although he confirmed that all options to reduce costs were being explored.
- 8.5 Council asked whether the impact of the budget reductions would be equal across the research councils. Duncan Wingham explained that some research councils were more likely to be impacted than others due to the reduction in ODA and decline in contributions to charities with whom they worked in close partnership.
- 8.6 Duncan Wingham outlined that some decisions would need to be made in advance of the next Council meeting and suggested that a sub-group of Council members be established to provide advice. Nick Folland agreed to organise the formation of a sub-group and members were asked to contact him if they wished to be involved.
ACTION: Nick Folland to lead on the organisation of a sub-group to provide advice on the Spending Review. Council members to contact Nick if they wished to be involved.

9. Support for UKRI-funded postgraduate and post-doctoral researchers to reduce the impacts of COVID-19 (NERC 21/05)

- 9.1 Duncan Wingham introduced this item which followed on from a discussion at the December meeting on the support UKRI had provided. Duncan Wingham explained that the paper outlined further support which had now been agreed to provide a consistent approach across UKRI. Duncan Wingham clarified that, in supporting the existing cohort, there would be a reduction in future awards.
- 9.2 Council were supportive of the flexibility being offered and asked why there was a 10% constraint. Duncan Wingham explained that the constraint had been introduced to be as fair to the new cohort as to the existing cohort.
- 9.3 Council highlighted that there had been some recent negative social media on a decision NERC had taken not to extend application deadlines for those who were homeschooling and asked for further detail on how the decision was made. Council commented that the lack of a public response on social media to the concerns raised might lead to NERC being perceived in a negative light. Susan Waldron advised that, as the call had been published six months ago, and open for submissions since the beginning of December, it had been decided that there had been sufficient time to apply. Alison Robinson added that UKRI, rather than NERC, were responsible for communications including on social media although NERC were discussing with UKRI ways in which to be more responsive.

10. Joint NERC-BBSRC proposal: biological and ecological technologies to deliver a resilient, productive and sustainable environment (NERC 21/06)

- 10.1 Iain Williams introduced this item and reminded Council that Melanie Welham (Executive Chair, BBSRC) had visited NERC Council and Duncan Wingham had visited BBSRC Council in March 2020 to discuss potential collaborations. A sub-group of NERC and BBSRC Councils had subsequently met and a task-and-finish group was established to

develop the proposal.

10.2 Iain Williams explained that Council were being asked to agree to take forward the proposal, subject to agreement by BBSRC, and to establish a Strategic Steering Group, chaired by a member of either Council, to implement the programme.

10.3 Council welcomed the opportunity to collaborate with BBSRC and were supportive of the proposal. Council commented that it would be important to clearly define the boundaries including what was in, and out of, scope and to ensure it was pitched at the right level.
DECISION: NERC Council members approved the decision to proceed with the collaboration with BBSRC

10.4 Duncan Wingham confirmed that the Strategic Steering Group would be responsible for defining the programme initially and that Science Committee may be consulted for advice on the detailed decisions at a later stage. It was also agreed to invite Defra involvement once the programme was more fully defined.

10.5 Iain Williams confirmed, subject to BBSRC Council agreement, that the intention was to establish the Steering Group within the next three months and invited Council to contact him if they were willing to join the Steering Group.
ACTION: Council members to contact Iain Williams if they were willing to join the Steering group to define the NERC/BBSRC programme

11. Achieving the Delivery Plan Ambitions: prioritisation of potential ideas to fill Delivery Plan gaps from the NERC Strategic Science Budget (NERC 21/07) (Slides, item 11)

11.1 Duncan Wingham introduced this item and explained that, whilst Council were being asked to prioritise the ideas, there might be a delay in taking these forward due to the uncertainty of the outcome of the Spending Review. He confirmed that the intention would be to revisit the prioritised ideas at a future meeting to ensure the priorities remained current if the delay materialised.

11.2 Susan Waldron presented slides and reminded Council of the background to this item which had led to productive environment and digital environment being identified as areas where additional strategic investment would be required. Jen Jennings observed this item.

11.3 Susan Waldron explained that the ideas proposed in the paper had been discussed, but not ranked, by Science Committee and provided some context on the ranking before inviting Council to comment on the proposed Head Office ranking in the paper:

- i. Economics of Biodiversity
- ii. Delivering Environmental Solutions through digital approaches
- iii. Balancing the economy and the environment across supply chains.

11.4 Susan Waldron invited Graham Underwood to comment on the discussion at Science Committee. Graham Underwood informed Council that Science Committee advice had been adopted in the revised proposals and commented that the proposals were strong and scientifically robust with world-leading elements.

11.5 Council commented on the Economics of Biodiversity paper and asked whether the focus was national or international. Council supported the top ranking for Economics of Biodiversity and agreed that it should be funded were the funding to be available. There was limited consensus as to the ranking of the other two proposals and it was agreed that both required some additional thought and would come back to Council in the future were funding to be available.

DECISION: Council supported the funding of the Economics of Biodiversity proposal

11.6 Duncan Wingham asked Susan Waldron, on behalf of Council, to thank those involved in compiling the papers and asked Graham Underwood to thank Science Committee for their advice.

12. NERC financial forecasts 2021 (NERC 21/08)

12.1 Victoria McMyn introduced this item and explained that she intended to concentrate on the budget for 2020/21 as the financial pressures for 2021/22 had been discussed earlier in the meeting.

12.2 Victoria McMyn highlighted that there was an underspend of £7.3 million in the NERC budget for 2020/21 due to delays in planned activities due to COVID-19 although she explained that the capital budget was now balanced.

13. Review of the Top Risks at February 2021 (NERC 21/09)

13.1 Victoria McMyn introduced this item and highlighted that four new risks had been added to the NERC risk register.

13.2 Victoria McMyn explained that two of the new risks related to the capability and capacity of UKRI Communications and Engagement and UKRI HR teams to provide support to NERC. The other two risks were related to the Antarctic: RRS *Sir David Attenborough* in service and Antarctic Risk Aggregation.

13.3 Victoria McMyn highlighted two further risks which had increased since Council last met: i) the risk related to the Spending Review settlement and ii) the risk on Cyber Security which had increased as a result of the recent cyber security incident at UKRI. She explained that NERC would be taking forward actions to strengthen its IT security at British Geological Survey (BGS) and British Antarctic Survey (BAS).

13.4 Victoria McMyn advised Council that one risk had been de-escalated regarding the lack of finance resource in the NERC Finance Business Partner team which had now been resolved.

13.5 Victoria McMyn ended her update by advising Council that the NERC Assurance Board had been looking at the risk management processes which underpinned these risks and that there had been improvements made to the processes.

13.6 Sue Donaldson commented on the new risk which related to the UKRI HR team and reminded Council that she had now gained ExCo approval to implement the new HR Target Operating Model which would lead to improvements in the service provided.

13.7 Fiona Driscoll added that it was important to ensure that risks were linked to strategy and that any activity which might need to be stopped were the risk to materialise was clearly articulated. She explained that there was an intention to ensure papers, such as those from Government Internal Audit Agency (GIAA), were made clearer in this regard.

13.8 Council asked where reputational risk, such as from comments on social media, was captured. Duncan Wingham commented that the risk was captured but there may need to be consideration as to whether it needed to be escalated.

14. Minutes of the NERC Assurance Board: January 2021 (NERC 21/10)

14.1 Nick Folland introduced this item and advised Council that the two new NERC Non-Executive Directors, Christine Foster and Kim Shillinglaw had attended their first meeting of the NERC Assurance Board. He commented that their attendance provided links to NERC Management Board whilst providing useful independence for NERC assurance

processes.

14.2 Nick Folland gave a summary of the items discussed at the recent meeting including: Executive Chair update; Risk Management; Responsibility Framework Reporting; NERC Assurance Framework; Deep Dive on the Antarctic Modernisation Programme and an update from the UKRI Director, Risk and Assurance, Neil Phimister.

15. Unconfirmed minutes of the 7th meeting of Science Committee: February 2021 (NERC 21/11)

15.1 Graham Underwood updated Council on the seventh meeting of Science Committee held in February 2021.

15.2 Graham Underwood informed Council that four new members of Science Committee had attended the meeting in February: Professor Jane Hill, University of York; Professor Dan Parsons, University of Hull; Professor Nicola Beaumont, Plymouth Marine Laboratory and Professor Stefan Reis, UK Centre for Ecology and Hydrology.

15.3 Graham Underwood informed Council that Science Committee had reviewed the digital solutions proposal at their last meeting. They had also discussed the UKRI Infrastructure ideas and Skills and Training including EDI.

15.4 Graham Underwood advised that the next meeting of Science Committee would be in July 2021 as it had been decided to cancel the meeting scheduled for April apart from a short session on the Spending Review.

16. Rolling Programme (NERC 21/12)

16.1 Helen Page reminded members that this item provided an opportunity for them to suggest items for forthcoming meetings.

16.2 Helen Page drew Council's attention to the Council meeting dates for 2022 and advised them that the diary entries would follow soon.

17. Any Other Business (Oral)

17.1 Duncan Wingham thanked Council for a productive meeting and expressed his thanks, once again, to Julia Slings and Louise Heathwaite and wished them well for the future.

17.2 The meeting was closed.

Annex

Council Retreat summary slides



Natural
Environment
Research Council

NERC Annual Council Retreat 2021: Summary for Council

4 March 2021



Natural
Environment
Research Council

NERC strategy (1)

- All groups want the strategy to be NERC's front door and to 'open the way' for science communities, business and other stakeholders
- Consider the language of the Strategy to improve engagement with wider disciplines
- Wanted a clearer, longer period for the Strategy (3 years) to help engagement
- Opportunity to showcase our international profile
- Consensus that:
 - People and talent more important to recognise in Strategy than disciplines
 - Need to signal where 'risky science' will be rewarded – how do we reward cutting edge research?
 - Need to include broader range of views about environmental challenges in strategy. At present it is more inward looking, needs to support engagement with disciplines
 - Need to emphasise the need to work together across broader disciplines.

NERC strategy (2)

- No consensus about approach to map disciplines in Strategy.
- One cohort want ‘more science’ in our strategy, BUT caution against a radical change as:
 - easily resolved by well-placed specific references e.g. to atmospheric, environmental data terrestrial, climate and clean air in well-chosen places (e.g. Pushing the Frontiers section)
 - historical disciplines can be limiting – where is the cutting edge and do we need to think about new and emerging science?
 - want to emphasis the need for linkages between the disciplines e.g. in relation to Net Zero
- The second cohort feel that current thematic approach is robust. Want to build on themes to:
 - Promote NERC role in Net Zero+ challenge
 - Improve our digital offer across all parts of the Strategy (not standalone)
 - Identify ‘pull’ for environmental science at local, regional, national scales for all stakeholders
 - Make strategy more accessible to wider stakeholders: adding disciplines risks narrowing and not bringing the wider community on board to deliver environmental solutions

How can we create the conditions to create world-leading, cutting edge, research in NERC Centres?

1 Is it important to have world-leading scientists at NERC Centres ?

Yes, Centres need the full spectrum of expertise. People and facilities both need to be world-class (synergistically): important that this link is not broken, otherwise not possible to maintain either.

but...

... not to the detriment of building world-leading teams.

... not all centres are the same, world-leading for one

Centre will be different for another.



2 How can we promote and drive these conditions in NERC Centres?

- Increase porosity between university and Centres, strengthening links and understanding
- Leadership
 - Support and development for senior leaders in Centres (recognising that leadership approaches in NERC Centres will be different to HEIs)
 - for 'rising star cohort' across Centres. Support retention and development of high potential individuals – noting that the 'rising star' definition may be different in the future from the past, important in promoting diversity.
- Support national and international opportunities for research leadership
- Requirements for NERC funding should include non-science deliverables, including cultural leadership aspects to develop world-leading conditions
- Flexibility of funding to allow more freedom to pursue new ideas and directions (e.g. funding awarded on team past performance, research sabbaticals for individuals)
- Diversity of approaches and organisations needed - one approach will not fit all Centres

Engagement 1:

What key topics should we prioritise for immediate and longer-term engagement?

Suggestions aligned with current delivery plan agenda, but capitalise on post-COVID opportunities for solutions-focussed science

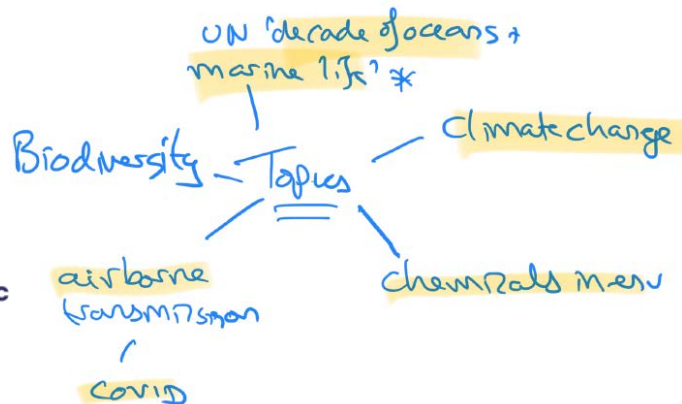
Be responsive to changing drivers, but novel areas suggested:

- Cities
- Driving international science
- Regional needs

Culture (diversity and practise)

Be strategic (must/sensible/wise...to do...)

Risk-taking?



With whom should we prioritise engagement and why?

Create opportunities by increasing accessibility to NERC

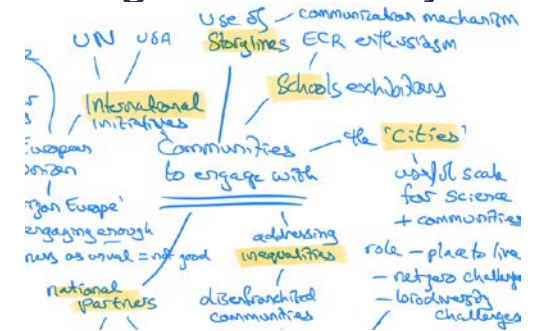
- Business
- Policy
- NGOS

Drive research agenda

- With Europe & internationally (driving the agenda)
- Devolved nations / regional bodies
- Across research councils

For future health of environmental science

- Future science base
- Diverse audiences (who is 'NERC'?)
- Those who could advocate for us - at multiple levels
- Address dis-incentivisation with research community



Engagement 2:

For these drivers, what are the most effective engagement processes?

Going to the environment best for engagement:

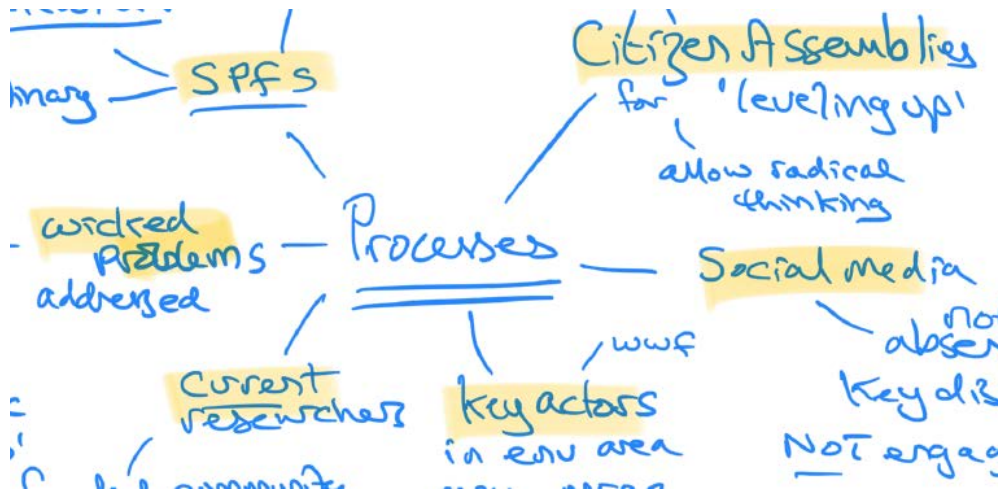
- business breakfasts
- conferences /webinars to show NERC is fundamental to research generation

Make NERC accessible

- Pathways to access for those unfamiliar (can be different)
- Sort out digital comms perceived lacking: Social media & web pages

Co-creation:

- evidence of effectiveness in generating programme content pre-award e.g. SPF;
- could riskier commissioning produce better outcome? (award fund co-creation with open direction)



UKRI Net Zero+ 1

- Systems approach is welcome; need to break theme of Net Zero+ down to ground it
- Scale: recognition of need to act at scale beyond individual Councils and national boundaries
- Focus on research to inform innovations needed, not leading the societal transformation
- Offer to Government - credibility and R&I to inform **setting standards** and trust in system e.g. offsetting of credible removal, economics of biodiversity and links to decisions in Govt about e.g. land use, oceans (blue mining)
- Agility: funding in the round provided by UKRI; respond to Govt on fast moving issues; and to convene in setting challenges
- Importance of 'geography':
 - For science i.e. variability so we can adapt and test solutions; adaptive adaptation (change approach over time)
 - For communities: understand impacts on specific people (e.g. farmers, fishers and their livelihoods and communities) and those 'businesses' e.g. LEPs that can articulate concerns and need for innovation; equity concerns

UKRI Net Zero+ 2

Long term,
Uncertainty,
System instabilities

Near term,
Credible decisions,
VFM options

Venture capital,
Banks
Insurance
Utilities

Food retailers
Commodity suppliers
Banks
Service sector

Adaptation
Net Zero +
Mitigation

Farming / fishing communities
Land use
Marine resources
SMEs

Behaviours
Supply chains
Carbon off-setting

Agility
Ability to test adaptation
approaches
Work across scales
System instabilities

Leadership
TRL invest
in UKRI
strength –
less
transformati
on end
Leading
dynamic
dialogues
around Net
zero+
'Export'
relevant
international
expertise