![UKRI Natural Environment Research Council logo]

Minutes of the 8th meeting of NERC Council in UK Research and Innovation

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NATURAL ENVIRONMENT RESEARCH COUNCIL

Eighth meeting of NERC Council in UK Research and Innovation, held at Stanton House, Stanton Fitzwarren on Thursday, 5 March 2020.

Members present:
Professor Duncan Wingham (Executive Chair), Mr Nick Folland (Senior Independent Member), Dr Matthew Harwood, Dr Rebecca Heaton, Professor Gideon Henderson, Professor Louise Heathwaite, Professor Stephen Holgate, Mr Imran Khan, Professor Karin Lochte, Ms Clare Matterson, Mr Gordon McGregor, Professor Dame Julia Slingo, Professor Graham Underwood, Lord Willis of Knaresborough

NERC/UKRI Directors (Head Office): Mrs Victoria McMyn (Chief Operating Officer, NERC), Ms Isobel Stephen (Executive Director, Strategy, Performance and Engagement, UKRI), Mr Geoff Robins (Transformation Director, UKRI), Ms Alison Robinson (Director of Corporate Affairs), Professor Susan Waldron (Director, Research and Skills), Dr Iain Williams (Director, Strategic Partnerships)

Apologies: None

Other attendees: Ms Elspeth Body and Dr Jen Jennings for item 2, Professor Melanie Welham for items 5 and 6 and Ms Sophie Hodgson for item 7

Secretariat: Mrs Helen Page

Introductory items

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

1.1   Duncan Wingham welcomed members to the eighth meeting of NERC Council in UKRI and invited those present to introduce themselves for the benefit of the new members.

1.2   Phil Willis congratulated Duncan Wingham on being awarded a knighthood in the Queen's New Year Honours and this was warmly endorsed by Council members.

1.3   Duncan Wingham offered congratulations, on behalf of Council, to the following who had also received honours: Professor Whatmore, University of Oxford, who received a Damehood; Professor Jickells who was awarded an OBE; Professor Edward Hawkins, University of Reading, who received an MBE and Professor West who was awarded an MBE for services to Radioactive Waste Management.

1.4   Duncan Wingham advised Council that this would be the last meeting for two Council members, Imran Khan and Phil Willis, and thanked them for their excellent contributions to Council business. Geoff Robins was also attending his last meeting as the UKRI observer and was thanked for his service.

1.5 Duncan Wingham asked members for any updates to their declared interests or any vested interests in the items being discussed today. Julia Slingo declared a vested interest in Item 5 relating to the 'Changing the Environment' programme as Chair of the Cabot Institute at the University of Bristol and it was agreed that she would leave the room for this item.

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 seventh meeting were confirmed as a true and accurate record.

1.7 Duncan Wingham advised that all of the actions listed on the Decisions and Actions paper were completed or on the forward agenda. Duncan Wingham invited Alison Robinson to provide an update on action 4.7 which related to the NERC Public Engagement Strategy. Alison Robinson thanked members for their challenges and improvements and advised that the strategy had now been published and plans were in place for the implementation stage.

2. Discussion of Council retreat outcomes

2.1 Elspeth Body and Jen Jennings joined the meeting for this item and presented slides which summarised the key points from each of the four topics discussed at the Council retreat the previous day and invited comment on the summaries. The summary slides have been attached to the minutes (annex A) as a record of the day.

2.2 Council discussed the summaries of the Council retreat and paragraphs 2.3–2.6 below capture the key points of the discussion.

2.3 Strategic Priorities for Clean Environment and Sustainable Growth

The key discussion points in response to the summary slides were as follows:

· to consider how environmental science may contribute to alternative metrics to GDP or alternative ways of looking at economic growth
· adopting a more systems-based approach (not just looking through a carbon lens)
· taking a more proactive approach to shaping and influencing behaviour change (that is, not just informing it)
· being people centric regarding environmental issues – but particularly young people – to counteract negativity and minimise mental health issues caused by climate concern
· net zero and circularising the economy are so wide it would be useful to define key priorities – once priorities are identified it may lead to engagement with new and emerging industries
· exploiting commercial opportunities to benefit the UK economy
· influencing future urban environmental design as part of the re-generation of cities
· conducting analysis to initially identify existing global initiatives and ensuring that the importance of measurement and monitoring continues to be recognised
· ensuring engagement with industry is focused on scientifically proven solutions
· considering the way in which adaptation is packaged under net zero
· considering the cross over with other research councils.

In summary, Duncan Wingham explained that the purpose of discussing the issues of net zero, the circular economy and biodiversity at the retreat was that he wanted to raise awareness that UKRI will need to respond to these issues quickly and it would be important to consider what implications there might be for NERC. Duncan Wingham also highlighted the importance of aligning research and development activity with regulation.

2.4 Governance for cross-council goals in UKRI 2025

The key discussion points in response to the summary slides were as follows:

- importance of aligning public and private sector R&D
- ensuring industry engagement in both an advisory and goal lead capacity
- inclusion of international experts in the advisory challenge function
- inclusion of Government Chief Scientific Advisors (CSAs) providing an opportunity for alignment at an early stage
- benefits and risks of single stream vs multi stream governance
- importance of choosing the goal leads carefully to integrate the capabilities which exist across the councils.

Duncan Wingham confirmed that it would be important to get the governance right which might mean a decision making, rather than advisory, body with a range of stakeholders involved, including government representation.

2.5 How should NERC respond to the place agenda?

The key discussion points in response to the summary slides were as follows:

- focus on levelling up appeared to be centred on England rather than UK-wide
- making it more explicit that there are two ways to level up: spending UKRI money outside of the usual research organisations and ensuring industry/other enterprise happens more across the country and nurturing this
- looking through the land-use lens for DEFRA, new industries might spring up ie agriculture, forestry – how can this be used to help level up?
- considering different ways for investing in areas where there might be insufficient skill sets
- sustaining existing industries when considering place
- ensuring we are investigating what is currently going on as there may be easy wins if we partner with others rather than looking to solve everything ourselves
- considering opportunities for NERC research centre involvement due to their diverse geographical locations
- alignment with existing research clusters, such as GW4, Midlands Engine
- considering a wider UKRI interdisciplinary approach, for instance, arts and culture can provide a route for engaging with a particular community
- concern that the UK was focusing inwards as these are global issues and we should be pooling resources, enabling bringing the expertise together and sharing data more widely – could there be matched funding opportunities to address the loss of EU funding in the future for example?
- considering the establishment of new institutes to translate science into delivery for public benefit
- referring to the Infrastructure Roadmap which had already identified gaps for investment
- considering regional economic development, for instance the strategy for Britain's Energy Coast development.

In summary, Duncan Wingham reminded Council that a Strength in Places fund was currently being led by Research England and that future activity in the place arena may need to be aligned with this fund. Duncan Wingham added that the concept of an Official Development Assistance (ODA) for the UK was an interesting one and that it would also be important to define what constitutes place.

Duncan Wingham advised Council, in response to the concern raised above on the UK focus being too narrow, that he had arranged to meet with the President of the Helmholtz Association in Berlin in June to discuss potential joint funding opportunities. Duncan Wingham would report to Council on the outcome of the discussion at the next meeting.

ACTION – Duncan Wingham to report to Council in June on the outcome of the discussion with the Helmholtz Association.

2.6 <u>How can NERC support excellence in research and innovation culture</u>

The key discussion points in response to the summary slides were as follows:

· leadership and training should be mandated and accountable
· opportunity to drive cultural change, diversity and Black, Asian and Minority Ethnic (BAME) representation with the possibility of forming an informal network to address this
· Shadow Council proposition was welcomed but would need to address where it might have impact and ensure opportunities for advice to be adopted

Duncan Wingham agreed to pursue the proposal of establishing a Shadow Council which Council agreed to.

ACTION: The Executive to consider establishing a Shadow Council

2.7 Alison Robinson thanked those involved in organising the Council Retreat.

2.8 It was agreed that the slides summarising the outcomes might be shared with Science Committee.

ACTION: Council retreat summary slides to be shared with Science Committee

3. Executive Chair's update

3.1 Duncan Wingham gave an oral update on some of the key activities since the previous Council meeting.

i. <u>Ministerial Appointments</u>

Duncan Wingham advised Council of two recent ministerial appointments: Alok Sharma, Secretary of State for Business, Energy and Industrial Strategy and Amanda Solloway, Parliamentary Under Secretary of State (Minister for Science, Research and Innovation). Alok Sharma would lead on the 26th Conference of the Parties (COP26) in Glasgow later this year. Duncan Wingham noted that the roles of Science Minister and Universities Minister had now been separated out with the role of Universities Minister now based in the Department for Education.

ii. <u>NERC Appointments</u>

Duncan Wingham highlighted that three new Directors had been appointed in NERC since Council last met. Iain Williams as the Director of Strategic Partnerships, Susan Waldron, Director of Research and Skills and Victoria McMyn as the Chief Operating Officer. Duncan Wingham explained that Nigel Bird had held the post of Chief Operating Officer on an interim basis since the departure of Paul Fox and would now assume the role of Director, Major Projects.

iii.   Open Access

Duncan Wingham informed Council that the open access consultation had been launched at the British Library in February.

iv.   Announcement of Opportunity

Duncan Wingham advised that an Announcement of Opportunity (AO), Climate and Environmental Risk Analytics for Resilient Finance (CERAF), had been launched in February with a total of £10 million (equally funded by NERC and Innovate UK). This was intended to establish an institute to assist the financial services sector to reflect climate risk on their balance sheets.

v.   Business Engagement

Duncan Wingham reminded Council that they had previously discussed NERC strategic business engagement (NERC 19/30, September 2019) and asked Alison Robinson to provide an update.

Alison Robinson explained that, as part of a trial of business engagement, a breakfast meeting had been held on the topic of Green Finance. It was hosted by Ian Simm, a former NERC Council member, and included a range of attendees from BEIS, Bank of England, Sacker and Partners, Standard and Poor's and N&G investments. The next business breakfast, on the subject of emerging technologies, would be held in Cardiff to coincide with the NERC Public Engagement showcase in July 2020.

Duncan Wingham added that a clear theme had emerged which was the poverty of data available to business as well as the lack of objectivity in evaluating success.

vi.   UKRI Environmental Sustainability Strategy

Duncan Wingham informed Council that the UKRI Environmental Sustainability Strategy was agreed by the UKRI Board in January. The feedback received was that it should be more ambitious, and it had been agreed to revise the achievement of net zero to 2040 (from 2050) and that there were plans to communicate this. Now that the strategy had been agreed, implementation plans for both UKRI and NERC would be devised which Council would have oversight of and it was agreed to discuss these at a future meeting.

vii.   Evaluation of NERC Centres 2020

Duncan Wingham reminded Council that the NERC research centres were being evaluated in 2020 and that the results would be discussed at the meeting in September.

viii.   Discovery Science

Duncan Wingham explained that the recent responsive mode Discovery Science round had been a particularly high scoring one which meant that some proposals did not get funded. Duncan Wingham asked for approval from Council to allow these proposals to be re-submitted in the next round, and not to be counted as failures by the demand management system.

Council asked for clarity on whether these would be straight re-submissions or whether revisions would be permitted, and Duncan Wingham clarified that revisions would be allowed.

ix. SIM Meeting

Duncan Wingham invited Nick Folland to provide an update on the recent meeting of the UKRI Senior Independent Members (SIM's).

Nick Folland advised that a date had now been set for the all-Council meeting in June and that the meeting of the SIMs had helped to formulate the agenda. The focus of the meeting would be UKRI 2025 and Nick Folland had also added an item to the agenda on cross-council activity.

One of the items discussed at the meeting had been the expectation from UKRI that SIMs might chair Council meetings and that there should be consistency across the councils. UKRI have been asked to further define the role of Council Chair and produce Terms of Reference before any decisions are made.

ACTION: Duncan Wingham and Nick Folland to consider the role of Chair following receipt of the Terms of Reference from UKRI

Items for discussion

4. UKRI 2025 *(Slides, item 4, March 2020)*

4.1 Isobel Stephen introduced this item and explained that she would be providing an update on the UKRI 2025 strategy which would play a key role in the Spending Review expected later this year. Isobel Stephen explained that, whilst an increased budget was expected as part of the Spending Review, long term certainty and flexibility of budget would be equally important.

4.2 Isobel Stephen explained that it was intended to publish a high-level discussion document within the next few months which would enable wider engagement with stakeholders. The final version of the UKRI strategy would be published by the end of the year and this would be shaped by discussions with Ministers, the outcome of the Spending Review and the arrival of a new Chief Executive Officer for UKRI who would approve the final version. Isobel Stephen acknowledged that developing the strategy in advance of the outcome of the Spending Review had been challenging and that UKRI would be working closely with BEIS, Ministers and HM Treasury (HMT) to ensure the best possible settlement.

4.3 Isobel Stephen drew Council members attention to the slide illustrating the draft Strategic Framework and explained that cross council collaboration would be key in achieving the goals. She advised Council that it was intended to re-visit and revise some of the goals which were currently listed. Isobel Stephen invited comment on progress so far with the strategy and reminded members that the strategy would also be the focus for the all Council meeting in June.

4.4 Council raised a number of issues:

- what consideration had been given to governance of the goals, particularly the goal for 2.4% and the cross-national focus which would be required to achieve this
- whether the goal for Health, Ageing and Wellbeing included young people as well as the older generation and for clarification on the definition of wellbeing
- the importance of working together across the councils to deliver the goals and ensuring that the result was not the lowest common denominator and that mechanisms and processes for joint funding were improved
- Council were pleased that the goals were due to be re-visited as they were currently a mixture of topics and mechanisms which needed to be separated out

- Council suggested that resilience be added to the framework with respect to resilience of communities particularly with regard to topical issues such as flooding and preparedness for epidemics which also linked to place
- Council asked how the UKRI strategy related to the Industrial Strategy

4.5 Isobel Stephen explained that the 2.4% goal had been given its own category as it was an ambition which would not be delivered by UKRI alone with industry funding required to deliver this. She clarified that wellbeing related to healthy lives and this would cover the full range of ages. Isobel Stephen added that the UKRI strategy would provide an opportunity to influence the re-fresh of the Industrial Strategy.

4.6 Duncan Wingham concluded the discussion by emphasising that the UKRI strategy was rapidly evolving and asked whether Isobel Stephen (or a member of the strategy team) might attend the next Council meeting in June to provide a further update which was agreed. It was decided to add UKRI 2025 as a standing item on the NERC Council agenda until the strategy was finalised.

5. NERC 'Changing the Environment' Programme (NERC 20/03)

5.1 Julia Slingo left the meeting for this item due to a vested interest in the programme.

5.2 Melanie Welham joined the meeting and observed this item.

5.3 Iain Williams introduced this item and reminded Council that they had approved the development of this initiative at their meeting in June 2019. The 'Changing the Environment' programme would support the environmental solutions pillar of the NERC Delivery Plan and create new partnerships within the Higher Education sector. Iain Williams explained that Council were being asked to agree the draft Announcement of Opportunity (AO) as well as comment on the assessment criteria, approaches to communicating the AO with the community and the requirements for programme monitoring.

5.4 Council members welcomed the initiative and highlighted that it would be important for Principal Investigators (PIs) to adopt a champion role as they would be supporting a more fluid interdisciplinary activity. Iain Williams clarified that the intention was to interview prospective PIs to ensure that the right governance structures and leadership for the programmes were in place.

5.5 Council members were broadly content with the assessment criteria although they suggested that further information on the multidisciplinary aspects and the impact of outreach be included. It was also suggested that governance and leadership be included explicitly in the assessment criteria along with a requirement for BAME consideration and inclusion of training aspects.

5.6 Council also highlighted the importance for any lead institution to have a good interdisciplinary network and for consideration of the international context to be included in the application, for example, why was it important to carry out the activity in the UK and has consideration been given as to whether it was already happening elsewhere. A question was raised relating to comparing proposals focusing on different environmental challenges. It was noted that it was the intention, over time, to develop a portfolio of Changing the Environment programmes that would enable a range of environmental challenges to be considered.

5.7 Council recommended that it would be useful to arrange opportunities for those who are successful to meet periodically to share their experiences of bringing interdisciplinary groups together. It was agreed to include this as part of the post-award programme management.

5.8 Duncan Wingham confirmed that the AO would be amended following the discussion and that it would be made clearer that the pilot was a single institutional bid designed to bring people together on a multidisciplinary level. Duncan Wingham explained that the funding aspect was yet to be confirmed pending budget allocation.

ACTION: AO to be amended based on comments received.

6. **BBSRC Overview (NERC 20/04)** (*Slides, item 6, March 2020*)

6.1 Duncan Wingham introduced this item and explained that Melanie Welham, Executive Chair, BBSRC, had been invited to introduce BBSRC to NERC Council ahead of the joint dinner planned for June.

6.2 Melanie Welham provided an overview of the scope and remit of BBSRC using slides and explained that the challenges experienced by both councils provided opportunities for BBSRC/NERC joint working.

6.3 Melanie Welham outlined the three priorities for BBSRC contained within their Delivery Plan which were: 'advancing the frontiers of bioscience discovery'; 'tackling strategic challenges' and 'building strong foundations'.

6.4 Council queried where biodiversity might fit within the research spend overview and Melanie Welham explained that this was not included explicitly on the slide as it was included within the Global Challenges Research Fund (GCRF) funding.

6.5 Melanie Welham informed Council that BBSRC supported eight institutes which provided national capability and expertise in strategically important areas.

6.6 Melanie Welham outlined some suggestions for future opportunities for BBSRC and NERC to work together in areas such as soil health, biodiversity and the circular bioeconomy.

6.7 Council were extremely supportive of the plans to work together with the end goal of funding a joint call. Duncan Wingham added that further discussion would take place at the meeting in June and that the agenda for the June meeting was being informed by a discussion involving Professor Heathwaite and Dr Belinda Clarke, BBSRC Council member.

7. **The NERC National Capability (NC) Investment Portfolio (NERC 20/05)** *(Slides, item 7, March 2020)*

7.1 Duncan Wingham explained that a decision had been made to provide an overview of the portfolio for the benefit of the new members and that it was timely as Council had not considered the portfolio for some time.

7.2 Iain Williams introduced this item and used slides to provide a high-level overview of NERC's National Capability portfolio with a view to identifying areas for further discussion at future meetings. Sophie Hodgson observed this item.

7.3 Duncan Wingham provided Council with some historical context related to the portfolio and how some of the NC facilities came to be included in the NERC remit. He added that there were concerns relating to future budget sustainability if a flat cash settlement was to be the outcome of the spending review.

7.4 Council commented that holding NERC Council meetings at the NERC research centres and engagement with the Centre Directors had been welcomed. It was suggested that increasing the awareness of the portfolio of facilities that were available to the research community might encourage them to be more widely used by other research councils.

7.5 Council also recommended that a future in depth discussion might look at the portfolio in the context of the UKRI Infrastructure Landscape Analysis to help to understand the scientific value of the facilities and where they provided international leadership.

7.6 Council recommended that collaboration would help support expensive infrastructure which should be shared wherever possible.

7.7 It was agreed that the questions raised in the paper would be addressed as part of future discussions on National Capability:

· how does NERC ensure quality and value for money in a reduced competition/monopoly supply scenario?
· how does NERC ensure that NC investments support appropriate community leverage/access?
· is the balance of expenditure between the centres appropriate for the future evolution of environmental science and future needs?

ACTION: questions raised in the paper will inform future discussions on National Capability

8. Discovery Science – Reforming our Business – 'Pushing the Frontiers' update (NERC 20/06)

8.1 [Gordon McGregor left the meeting at the start of this item]

8.2 Susan Waldron introduced this item to update Council on the progress of the pilot scheme and invited Council input to the selection of the two peer review panels, the assessment approach and the communication aspects. She noted that it would be important to manage the pilot carefully as it would be a significant change for the community.

8.3 Council commented that one of the distinctive features of the pilot was the proposal to buy out a significant amount of the PI time by including an expected minimum time commitment of 40% which was well received.

8.4 One concern was raised with regard to evaluating whether early career researchers might be able to deliver cutting edge science although it was widely agreed that this would not be an issue.

8.5 Council suggested that the assessment approach be clarified in terms of measures of success. The importance of considering BAME and gender diversity should also be considered with comparisons made between those who applied and those who were successful.

8.6 Council queried why two panels were being proposed and Susan Waldron explained that this was to avoid a direct comparison between early career researchers and those who were more established in their careers.

8.7 Duncan Wingham highlighted that the consequence of moving to much larger awards (up to £2 million) meant that the number of awards would be significantly reduced as a result of the trial. There would be some risk involved which would attract negative attention within the community and this would need to be carefully managed during the pilot.

9. NERC financial forecasts (NERC 20/07)

9.1 Victoria McMyn explained that the budget was on track for year end and required no re-balancing decisions by Council.

9.2 Victoria McMyn set out that there were some risks and pressures within the budget for 2020/21. There were six areas which were being underwritten at UKRI level: 2019 pay award; addressing the UKRI pay band minima; UKRI harmonisation of the bonus pot; impact of the new UKRI travel and subsistence policy (the use of premium economy flights); the loss of charitable status.

9.3 Victoria McMyn added that there were two risks for 2020/21: a personal injury case at the British Antarctic Survey and the price inflation related to marine gas and oil.

10. NERC top risks at February 2020 (NERC 20/08)

10.1 Victoria McMyn introduced this item and explained that both the NERC and UKRI risk registers were provided. She summarised the NERC risk register and highlighted a new risk on Coronavirus which was being managed via NERC's Business Continuity and Incident Response planning and procedures.

10.2 Victoria McMyn shared a slide with Council which was part of the assurance process on progress with the *RRS Sir David Attenborough* which monitored progress against contractual deliverables.

10.3 Victoria McMyn outlined that there was an outstanding action to review the Risk Register following the NERC Assurance Board (NAB) and Nick Folland clarified that the de-duplication of risk between UKRI and NERC was still a concern as there were risks which were specific to NERC which may need to appear on both risk registers.

10.4 Council added that they were content with the way in which risk was taken seriously across the organisation.

11. Unconfirmed minutes of the 3ʳᵈ meeting of Science Committee, February 2020 (NERC 20/09)

11.1 Graham Underwood updated Council on the third meeting of Science Committee held in February 2020. Graham explained that he had been appointed as Chair, Science Committee in 2019 but, due to the cancellation of the meeting in November, his first meeting as Chair had taken place in February.

11.2 Six new members were also attending their first meeting in February and the committee now consisted of a wider core of expertise which was reflected in its revised Terms of Reference.

11.3 Graham Underwood explained that he had implemented some changes to the layout of the meeting papers including mapping them to the Terms of Reference and making the purpose of the papers more explicit to help to focus discussion.

11.4 The next meeting of the Science Committee would take place in May.

12. Minutes of the NERC Assurance Board (NAB): January 2020 (NERC 20/10)

12.1 Nick Folland updated Council on the third meeting of the NERC Assurance Board which had been held in January 2020.

12.2 Nick Folland advised Council that the board had re-visited their Terms of Reference at the last meeting and agreed to revise these as a result of the discussion.

12.3 Nick Folland asked whether Council had any suggestions for future 'deep dive' discussions at NAB meetings.

ACTION: members to inform Nick Folland of any suggestions for future NAB discussions

12.4 Nick Folland informed Council that NERC was in a good position within UKRI from an assurance perspective which had been recognised by the Chair of the UKRI Audit, Risk, Assurance and Performance Committee (ARAPC), Fiona Driscoll. Nick Folland reminded Council that it had been agreed previously that financial risk would be covered at ARAPC and operational risk at NAB.

13. Rolling Programme (NERC 20/11)

13.1 Duncan Wingham reminded members that this item provided an opportunity for them to suggest items for forthcoming meetings. He advised that the programme was mapped to the Council Terms of Reference for audit purposes.

13.2 Council suggested that a future item on the Strategic Priorities Fund be added to the rolling programme and the Executive agreed to consider this.

13.3 Duncan Wingham agreed to consider whether a standing item on training should be added to the NERC agenda once the budget was known.

13.4 Duncan Wingham suggested that the June Council meeting consider progress on the Delivery Plan and how this related to UKRI 2025.

13.5 Council asked for the international aspect to be considered and Duncan Wingham informed members that UKRI were developing an International Strategy and that this would come to Council for discussion once published.

ACTION: UKRI International Strategy to be discussed once published

14. Any Other Business

14.1 No other business was raised.

14.2 Duncan Wingham thanked Council for a productive meeting.

14.3 The meeting was closed.

Retreat sessions

- **Strategic priorities for 'Clean Environment and Sustainable Growth'**

- **UKRI governance for cross-council goals in UKRI 2025**

- **How should NERC respond to the Place agenda?**

- **How can NERC support excellence in research and innovation culture?**

Natural Environment Research Council

Clean environment and sustainable growth

Issues

Building a 'net zero' future

- Climate mitigation - renewables, CCS and geoengineering
- Climate adaptation – forecasting, economic valuation and communicating environmental risk for a resilient economy. Opportunities for UK economy to benefit from climate change

Circularising the economy

- Becoming people centric – where and how people live – housing, heating and green chemistry
- Informing behaviour change to drive clean growth

Reversing the decline in biodiversity

- Challenges of productive land and marine resource use

Food (resource)

Biodiversity
Future environment
New technologies

Energy **Water**
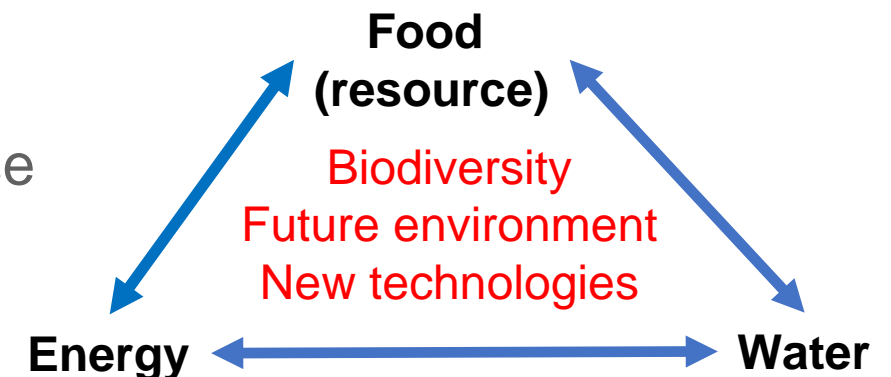
Clean environment and sustainable growth

New ways of working

Create plans to deliver positive pathways

- Develop systems and operational research approaches to map pathways to clean growth

Training for the future

- Be proactive in providing skills needed for clean growth in industry and research
- Develop and access interdisciplinary cohorts e.g. a 'Newton Institute for clean growth'

Engage with industry

- Inform future visioning, transform sectors for clean growth, and build economic expertise

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Governance for cross-council goals in UKRI 2025

Principles

- Set success measures that promote operational delivery. Success is not just more research – in UKRI take into account e.g. skills for the economy, job creation
- Don't overcomplicate. Adapt over time.
- Get governance clear before spending money (politics allowing…) – both at the strategic and project delivery level
- Different Goals may need different governance e.g. Frontier research
- Tensioning needs good information (scalable, granular) and should happen anyway not just in a budget increase scenario

Risks

- 5 years is a short time to deliver big goals; how to ensure capability in the research community; ensuring the future skills sets required to deliver

UKRI

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Governance for cross-council goals in UKRI 2025

UKRI Board

- £ allocation for whole budget
- High level tensioning across **total** budgets
  - How much into Goals
  - How much into Delivery Foundations
- Set objectives and set success measures
- Delegate effectively to Goal leads
- Hold Goal lead accountable

Advisory Challenge function

- Advice to Goal leads on theme relevance, scope and viability
- Requires link to UKRI Board to inform current and future decision-making
- Needs to be wide and broad e.g. anticipate future challenges, operationalise agreed priorities
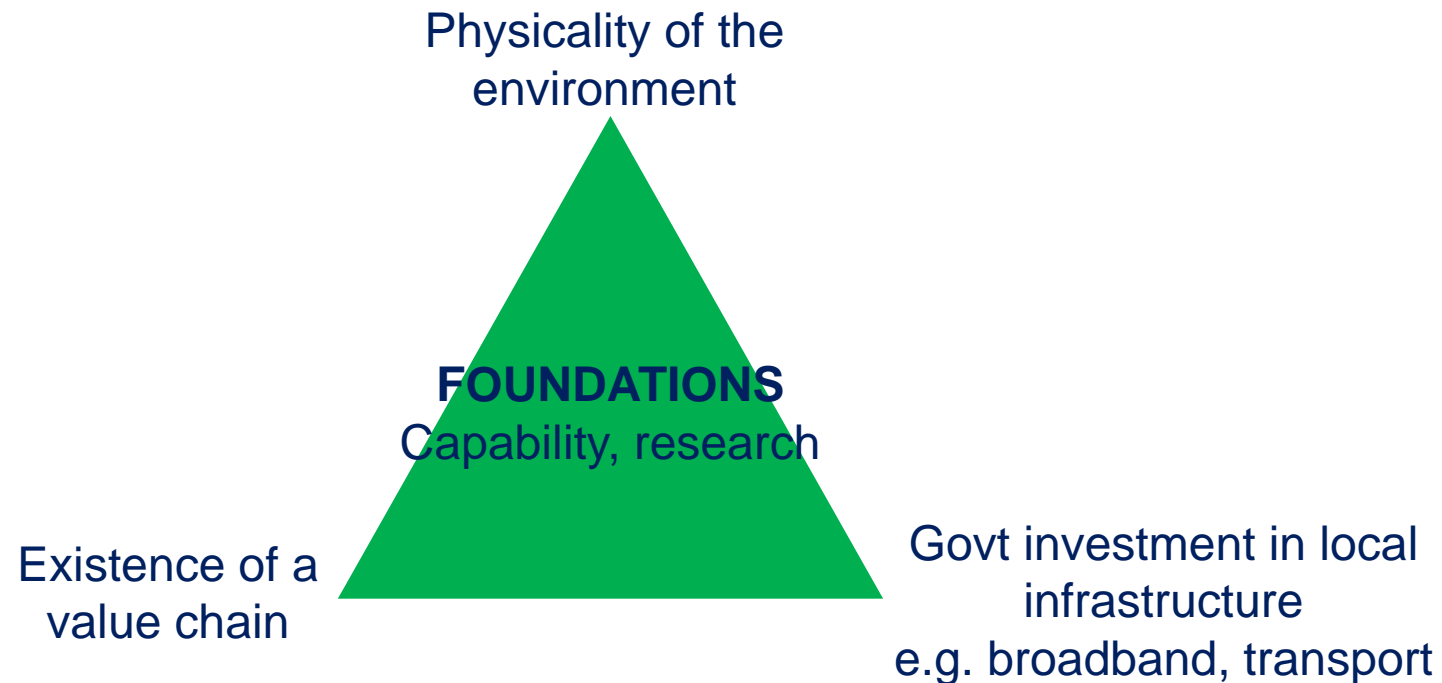- Rotation of membership should be a key principle

Goal lead(s)

- Responsible for £ allocation and tensioning to deliver
- Accountable to CEO or UKRI Board. Reward should be against delivery of Goal
- Goal lead = at least 2 Exec Chairs (but everyone wanted 'New Barons')
- Explicitly be and act as UKRI – not as Council X
- Assign 'double-hatted' teams to deliver based on expertise. Direct report to Goal lead

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How should NERC respond to the Place agenda?

NERC and UKRI need a better evidence base in order to make decisions

- For NERC - finer granularity needed on existing funding, how much, what and where
- Overall - need to understand the specific needs and characteristics of a region

Physicality of the environment

FOUNDATIONS
Capability, research

Existence of a value chain

Govt investment in local infrastructure
e.g. broadband, transport

Natural Environment Research Council

How should NERC respond to the Place agenda?

What does intervention look like?

- Large interventions, in order to have an impact
- Research should be "application oriented", bridging the gap between the idea of a solution and its implementation
- Co-created – acting in partnership with LEPs, local authorities, businesses, and activity should be region-led
- Who gets funded? Academia, local administrative bodies, businesses
- Criteria to fund? Build on existing foundations, on government investments, or make an investment to create the foundation. Hub and spoke model?
- How to "make it stick"? Regional skills and capacity building, local community engagement, and making use of civic universities
- "ODA for the UK" model

UK RI — Natural Environment Research Council

How can NERC support excellence in research and innovation culture?

As a funder of environmental science, what issues may NERC directly face?

- Lack of diversity
- The expectation of an academic career specific to environmental scientists
- Fieldwork and beyond – understanding low level behaviours and disciplinary differences

How can we measure change in research culture?

- Prioritise and baseline 4-6 key issues
- Track cohorts through the use of effective staff surveys
- Ask for 360 degree feedback on NERC funded PIs
- Make use of our existing data sets and structures
  - NERC Alumni network
  - PI diversity data
  - CDT/DTP diversity data

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How can NERC support excellence in research and innovation culture?

What is the role of the research council (UKRI/NERC)?

UKRI

- Grant T&Cs to support research culture
- Incentivise good experimental design
- Assessment criteria that take research culture into consideration
- Communicate expectations and hold to account
- Mandate leadership and management training

NERC

- Reward the team – contributors on grants
- Specific calls to support BAME diversity
- Work with engagement experts to attract a more diverse group to environmental science
- Create a Shadow Council
- Provide incentives to publish null results
- Support a culture of co-creation

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