



Balancing NERC investment across National Capability and competitive funding

Clear consensus on the importance of adequately funding and maintaining capability in NC & NERC Centres

NC and competitive interact with each other in feedback loops

Changing context

- UKRI: change in funding models
- Government needs and understanding
- International Competitive Advantage (where we lead and where we collaborate)
- Digital and technological advances (e.g. in data collection)

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<u>Understanding Opportunity Costs (3 test cases to quantitatively explore relationship between NC and competitive funding)</u>

- 1. Efficiency for Community: explore positive feedback relationship
- Data collection, curation and use: explore relationship between data use and NC collection
- 3. PhD training: explore dependency between NC and PhD training, and the training outcomes desired.

Learning from others

- 1. Creating and closing centres
- 2. International Comparators



More data collected and curated, less opportunity for use via competitive funding

How can we be more effective and efficient?

- Larger, longer awards worth investigating in a targeted way
 - Range of views the comparative impact of smaller vs larger awards
 - There are risks and community will perceive a reduction in opportunity
 - Careful design can mitigate and NERC sets the parameters
 - Multi-institutional, multi-dimensional not multiple, single grant here
 - Give responsibility to award to balance factors (e.g. responsive vs strategic;
 ECR focus and diversity expectations)
 - Think through access for the 'tail'
 - Significance of efficiency case not compelling shifts effort downstream
- Engagement with the community
 - Having enough people who understand 'the discipline' to be engaging with the community – increases trust by being a knowledgeable funder
 - Invest in a smaller cohort of clear relationship managers with expertise need to be 'NERC' specific – not 'UKRI'

How can we be more effective and efficient?

- Reporting
 - Need to monitor and report to account for public money but know why, when and what we're asking for – proportionalilty again
 - Reduce duplication of effort don't ask for the same thing from various sources, multiple times
 - Grant reporting (ResearchFish) is not respected nor well used
- Reducing review test small steps and set agenda that could be explored through SBF for UKRI
 - Proportionality is key: Ask for the right information, right scale at the right time
 - Quality as much as efficiency should be a focus
 - Potential for optimisations through technology
 - Maximise expertise of panels and make them accountable
 - Allocation model discussion learning from international comparators
 - Importance of maintaining trust of the community in reviewing
- Explore international models for best practice

What are the implications of the NERC net zero transition to UK funded Environmental Science?

- We should be proud of the environmental benefit of our research while being honest about the environmental impact of our research activities.
- We need to consider our wider carbon emissions including emissions that we can influence rather than just control.
- Greater international collaboration could help deliver lower carbon research outcomes e.g. use of barter.
- We don't need to reinvent the wheel there are opportunities to work with industries and academia to apply solutions.
- We should think about transformation in the use of our estate.
- NERC has an opportunity to use research activity and skills to support pathway activity e.g. identify credible abatement options.

It is 2030: what does NERC's training offer look like and how would we get there?

- If we were building our training offer from the bottom up (rather than adapting what we already have) what would it look like?
 - More innovative approaches to embedding inter-disciplinarity e.g. student teams that also involve a policy/professional member.
 - Need an approach to interdisciplinary training that does not lead to weak graduates with insufficient depth of knowledge
 - Hanging students off UKRI thematic priorities using small team, crossdisciplinary approach to a strategic research problem
 - Designing with porosity across disciplines and recipients of trained graduates

 → co-creation, and new partners e.g. CATAPULTS
 - More flexibility in the model of how to train e.g. looking outwith the traditional PhD model (professional doctorates) and valuing exit routes other than PhD.