**NERC Strategic Delivery Plan 2022-2025**

**Vision & Principles**

This Strategic Delivery Plan sets out NERC’s core role in assessing the health of the environment.

NERC diagnoses of the state of the environment give focus and urgency to interventions with which to make good human impact on the environment, to benefit from doing so, and provide a baseline by which we can measure our success.

NERC have highlighted a need to move from environmental diagnosis to environmental cure, requiring the pooling of technical advances, economic and regulatory approaches and understanding of consumer tolerance and preparedness to change. Given the complexity of economic and social systems it is recognised that cures can only be achieved with coordinated, collaborative approaches which span the whole portfolio of UKRI, and engage more widely with government, business and the consumer, in the national and global contexts.

Principles for Change – NERC aim to embed the principles of diversity, resilience, connectivity and engagement across all their work, to drive change and create the conditions for an outstanding research and innovation system.

**Strategic Objectives**

**People and careers**

* Balancing NERC funding to attract and retain global scientific leadership; and building communities of solutions-focused researchers.
* Collaborating across UKRI to develop a collective approach to talent that nurtures disciplinary and interdisciplinary working.
* Developing a deep understanding of our communities and using their insights to evolve our portfolio and to shape new funding practice.
* Working with our community to promote greater diversity and inclusion across environmental science.
* *NERC is supporting large-scale interdisciplinary research through the ‘Changing the Environment programme’ by investing £40M to develop four centres of excellence across the UK to tackle key issues including: biodiversity loss; achieving net zero cities, helping rural communities adapt to climate change; and providing timely data, analysis and evidence for policy decisions.*

**Places**

* Embedding an approach to place-based funding at local and regional level.
* Creating and upgrading environmental infrastructures that unlock innovation and economic potential.
* Maximising our investment within the UK through partnerships which allow research communities to work together at scale and develop clusters of expertise and investment.
* Supporting UK environmental scientists to work with local communities internationally.
* *Investments include £38M to create a national floods and droughts research infrastructure by 2028–29 and £3M to scope a CO2 Storage Research Facility*

**Ideas**

* Focusing the discovery science portfolio on excellent, ambitious and high-risk science; working in partnership across UKRI to develop a collective, interdisciplinary discovery science programme.
* Pursuing strategic programmes that address the critical environmental challenges of climate change, biodiversity and habitat loss, and pollution.
* Co-creating scientific exploration of large-scale, complex interactions within the Earth system.
* Increasing investment in public engagement with environmental science.
* *NERC piloted the Exploring the Frontiers call in 2022 to encourage researchers to exploit new technologies and approaches, with a streamlined application process and increased the flexibility of awards.*
* *NERC, in partnership with BBSRC, is investing £6 million in Molecules to Landscapes, supporting whole-systems research to identify practices which can help move the agricultural system to becoming a net provider of both agricultural and ecological services.*

**Innovation**

* Building the resilience of businesses, infrastructure and supply chains to environmental impacts and changing consumer opinion.
* Pursuing positive outcomes for business and the environment that minimise the environmental impacts of consumption.
* Realising the potential of sensing and monitoring technologies, artificial intelligence and digital twinning, autonomous and remote sensing, and high-performance computing to create new information services.
* Creating the world’s first national system to measure the UK’s total greenhouse gas emissions.
* *Partnership investment of ~£4M to bring together the capabilities of the National Physical Laboratory (NPL), Meteorological Office and NERC-funded laboratories.*
* *NERC and Innovate UK have invested £10M in the UK Centre for Greening Finance and Investment (UKCGFI) bringing together interdisciplinary expertise to help ensure that the financial services sector has the access to, and understanding of, the data it needs to properly price climate and environmental risk.*

**Impacts**

* Embedding environmental science within UKRI’s Strategic Themes.
* Sustaining the UK’s sovereign capability to advise and inform UK Government policy on the state of UK and global environment.
* Determining the effectiveness and accelerating the adoption of nature-based solutions.
* Maintaining the UK’s position as a leading nation in international environmental science.
* *Cross-UKRI investment of £185M to provide low-emission, environmentally sustainable solutions in land use, energy and transport; building national resilience to infection and climate change; and ensuring an environmental component to human well-being.*
* *Planned £290M investment in the UK’s Antarctic and Arctic bases and intercontinental logistics and a £49M upgrade of atmospheric research aircraft and the provision of data and informatics.*

**Organisation**

* A new operating model, stripping out bureaucracy and becoming more efficient to deliver NERC and shared priorities.
* Ensuring NERC commissioning is informed by high quality, diverse scientific expertise and advice.
* Demonstrating the ongoing impact of NERC funding.
* Becoming environmentally sound across our head-office and institute operations while enhancing scientific productivity.
* *The NERC Living Action Plan sets out plans to boost diversity and inclusion, including closer engagement with the community, and working with doctoral training partners to ensure recruitment is fair, and monitoring funding processes for bias.*