



Natural
Environment
Research Council

NERC Delivery Plan – Overview of progress 2019-20

Annex A

Approach to reporting

What we have sought to measure and reporting structure

This report covers the period June 2019 to March 2020. Reporting sought to answer two key questions:

1. Have we met the ambitions set out in the Delivery Plan?
2. What did we learn during the period of delivery and what action are we taking to ensure delivery?

A summary report sets out an overview of progress, with Red, Amber, Green (RAG) ratings, in delivering each of the ambitions in the 'Research and innovation priorities' and the operational commitments in the 'Delivering and being accountable as an outstanding organisation' sections of the Delivery Plan.

To provide more detail of progress, the report uses an adapted balanced scorecard, setting out a summary of progress from a:

- Financial perspective
- Stakeholder perspective
- Internal business and process perspective
- Innovation and improvement perspective

A detailed report setting out data for each of the research and operational ambitions in the Delivery Plan is available on the NERC Council information website.

Delivery Plan: overall summary tracker

RAG rating definitions

RED – Significant gaps in the portfolio with significant activity required to achieve research priority / operational commitment.

AMBER – Activity towards achieving the ambitions is progressing but further activity is required to build the portfolio.

GREEN – Well balanced portfolio of activity with the potential to deliver the ambitions of the research priority / operational commitment assuming adequate portfolio management.

Delivering research priorities

	March 2020	Forecast*		March 2020	Forecast*
Environmental solutions	A	A	Pushing the frontiers of understanding	AG	G
Productive environment	R	RA	Healthy environment	G	G
Resilient environment	A	G	Digital environment	R	R
Global environment	G	G	Best environment for research and innovation	A	A

Delivering operational commitments

	March 2020	Forecast*		March 2020	Forecast*
Pushing the frontiers of understanding	AG	G	Best environment for research & innovation	AG	G
Embed UKRI Transformation	G	G	Develop an inclusive, professional workforce	A	G
Work to the Responsibility framework	A	G	Deliver independence for NOC and CEH	G	G
Undertake evaluation	R	A	Demonstrate impact of NERC research	G	G

*Forecast to March 2021 based on successful delivery of activity currently in train and identified plans.

Delivery Plan: identifying priorities for delivery

Portfolio mapping and gap analysis

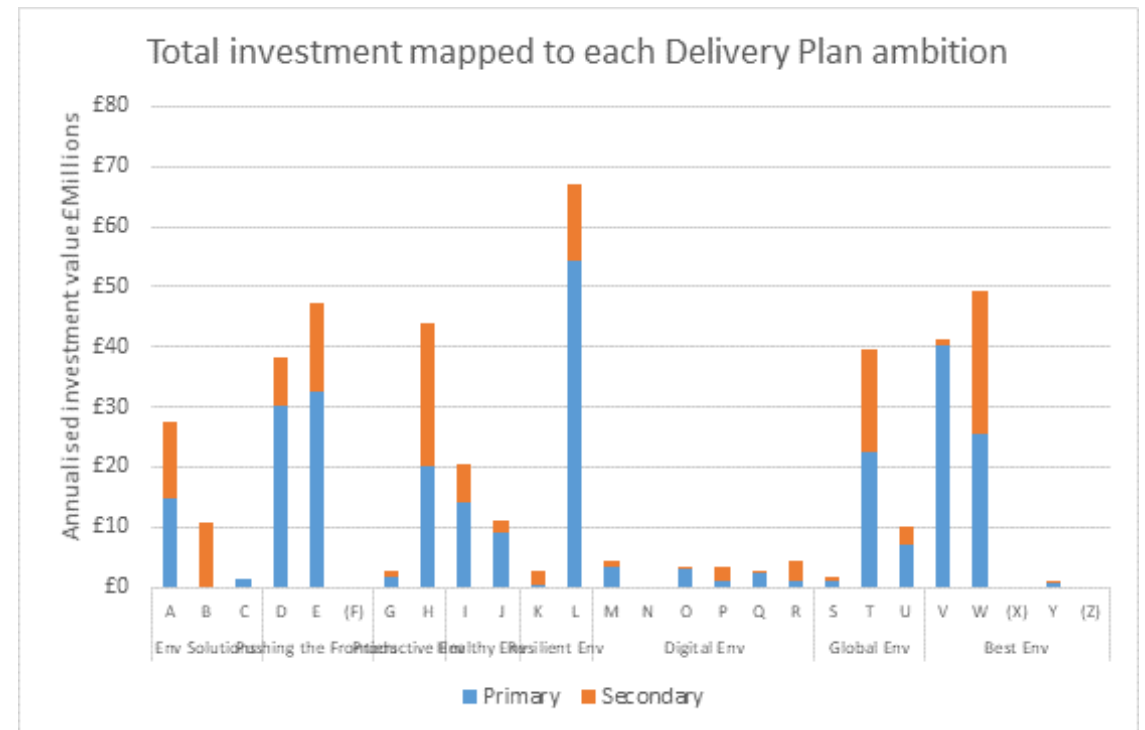
To identify strategic science gaps in the Delivery Plan, all active and committed funded activities and currently operational capital assets were mapped against the Delivery Plan ambitions. This mapping demonstrated that most funding was directed in areas that would deliver against the ambitions.

Three main gaps were identified in delivery:

- Coupled economic and environment systems
- Clean, biodiverse agriculture
- Strategic, technology-led approaches to deliver Digital Environment ambitions.

A process, which will be undertaken on an annual basis, has started to develop ideas in these areas for strategic science. In the context of NERC's wider Delivery Plan ambitions, the gaps will also inform commissioning of National Capability science.

The Delivery Plan has proved robust to events, indicating that the framework is one to consider taking forward into future refreshes.



Graph showing clear gaps in the 'Productive environment' and 'Digital environment' Delivery Plan ambitions

Delivery Plan: financial perspective

2019-20 planned spend vs actual spend *(draft outturn figures accurate April 2020)*

The portfolio mapping shows the relationship to delivery (slide 4). The parity between planned and actual expenditure indicates that NERC has in place effective mechanisms to manage funding.

Funding line	Planned spend (£m)	Actual spend (£m)
Discovery Science	50.3	51.6
Strategic research & innovation	48.1	47.8
Postgraduate training	27.1	27.3
Fellowships	7.3	7.2
National Capability	96.7	97.0
ODA	9.5	9.5
World Class labs (capital)	26.8	27.4
Public engagement	0.5	0.5
Enabling change	6.2	6.6

Delivery Plan: internal business perspective (2/4)

Highlights

NERC has re-structured in UKRI to **embed the transition and transformation of functions** and deliver to the Delivery Plan. This includes new Heads of Area roles for delivering research priorities; new Interdisciplinary Capacity team for **whole-system approaches**; and new Insights team to **understand the cutting edges**.

NERC's robust processes have been used to develop harmonised UKRI-wide policies and processes e.g. assurance, reward. NERC has a strong Change Network to support staff through change and transformation, facilitating two-way engagement between staff and senior leaders to **embed transition**, such as in the NERC Reorganisation and Trust-time initiatives.

BAS and BGS have achieved Athena Swan reaccreditation and BAS have a FCO funded project on diversity in Polar science and are developing an action plan focussed on BAME and disability, supporting **development of an inclusive workforce**. In support of **developing a professional workforce** NERC has achieved parity on the pay minima with the rest of UKRI. We are **building capability** to deliver our objectives, using the apprenticeship levy to support management qualifications including MBAs.

Delivery Plan: internal business perspective (2/4)

Highlights continued

NERC is leading UKRI's approach to improving **environmental responsibility** with the establishment of the Cross-UKRI Sustainability group and the approval of UKRI's first Environmental Sustainability Strategy. We are building **social responsibility** with the agreement of an Implementation Plan in support of UKRI's equality, diversity and inclusion (EDI) strategy. We continue to embed integrity and good conduct in all organisational and research activities and have enhanced our reputation as a **transparent and open organisation** by becoming a signatory of the Concordat to support research integrity.

We have invested £97M (excluding Antarctic Partition) in National Capability to provide services, facilities and infrastructure for the benefit of the research community. The Environment chapter for the UKRI report "Opportunities to Grow our Capability" co-written with the Met Office was welcomed, and provides a useful roadmap to inform future infrastructure investments.

NERC has a healthy and innovative pipeline of evidence demonstrating how the **research we fund is translated into knowledge, expertise and skills**, which is used by key audiences. We have had feedback from BEIS that NERC's impact case studies were the best and most usable of all of the research councils in support of Green GB week, and we are influencing the UKRI approach to Impact Story Development.

Delivery Plan: internal business perspective (3/4)

Learning and Action

A key part of the qualitative review in assessing progress against the Delivery Plan has been to build in an approach of learning and continuous improvement. This process of reporting and critically analysing delivery is new to NERC and is a learning area in itself. We have identified areas for improvement and are taking action as outlined below.

Evaluation in NERC requires significant improvement. All investments undergo some form of evaluation, but approaches vary both between funding stream, and programmes within funding streams. There is limited evidence that findings from evaluations are used to drive continuous improvement in our policies and processes. Over the next delivery period we will standardise our approach to evaluation and embed continuous improvement.

There is need for greater join up across the research themes, particularly Productive, Healthy, Resilient, Digital and Global, to incorporate horizon scanning and better processes for tracking progress and evaluation. To address this a more collaborative approach to panel meetings and scoping workshops will be adopted and we will invest in systems to enhance the sharing of insight.

Delivery Plan: internal business perspective (4/4)

Learning and Action continued

NERC needs to provide a clear learning and development offer to staff, that links to our business objectives and builds skills in key areas, such as the need to develop business cases for UKRI collective funds and to manage increasingly complex programme delivery. In the next year we will identify gaps in skill sets and provide training and tailored support based on accredited best practice.

To capitalise on the opportunities presented by the creation of the UKRI Infrastructure Advisory Group, there is a need to improve the internal processes for selecting, prioritising, developing and submitting bids for capital infrastructure by maintaining a prioritised pipeline of options, informed by both the **UKRI infrastructure roadmap** and NERC Delivery Plan. In the next delivery period we will develop a process for developing capital bids, ensuring community engagement and improving strategic alignment.

We must do more to embed consideration of **environmental and social responsibility** within decision making processes across the organisation. We are addressing this by providing staff with information and support and developing and implementing action plans to deliver against our integrated Responsibility Framework with strong governance and accountability for delivery.

Delivery Plan: stakeholder perspective (1/2)

Highlights

The Delivery Plan has been broadly welcomed across all NERC stakeholders, including government, academics, industry, and public audiences. The overall ambition of the Plan has been in line with emerging UK and international trends, and has been robust to events, for instance with talk of a 'green stimulus' as an approach to post-Covid19 chiming with the 'Productive Environment' ambition.

The GRO programme has completed, with two research centres, NOC and UK-CEH, now **independent to protect their long-term sustainability**. NERC Head Office has clarified and harmonised relationship agreements with its Research Centres (NOC, UK-CEH, BAS, BGS, NCAS, NCEO) and implemented a Benefits Realisation Plan with benefits owners responsible for ongoing delivery, enabling long-term sustainability that **ensures high-quality research which delivers real-world impact**.

Attendees at the Heads of Department meeting in June 2019 welcomed the move to create a new **Insights Team**. The pilot HEIs visits programme has been completed and has been well received by participating HEIs.

We have invested £1.3m in Engaging Environments, delivering engagement across diverse groups to **inspire and inform** with respect to societally relevant issues. Our new Business Engagement team has developed relationships **to draw in expertise** to inform programme development e.g. the CERAF programme within the 'Resilient Environment' priority.

Delivery Plan: stakeholder perspective (2/2)

Learning and Action

All areas of NERC Head Office undertake engagement, however there is a need for a clear engagement plan to co-ordinate external activity at a strategic level. In the next delivery period we will appoint an Associate Director of Engagement and Futures Programmes to provide a key link between NERC-domain internal and external stakeholders in government and industry, public engagement programmes and futures activity as well as sharing intelligence across NERC Head Office to inform development, delivery and funding of NERC science.

To help us to continue to understand where the cutting edge lies we will embark on a full Insights Visits programme to engage with our community. This programme will be informed by a full evaluation of the pilot programme, including consideration of the merits of virtual visits to minimise the environmental footprint of the activity, and will provide a comprehensive cover of the UK's research base. This engagement will be particularly important in helping to shape our thinking in developing robust bids for strategic research programmes, including commissioning of Long Term research within our Centres and future rounds of SPF, to address gaps in delivery such as those within the Digital Environment portfolio.

The first, ambitious UKRI Environmental Sustainability strategy has been written, with a new Centre of Excellence in Sustainability for UKRI to be established in NERC. We will engage with stakeholders across UKRI and within BEIS to embed the strategy and ensure delivery against targets. We will form a new external Advisory Group with experts from industry, academia and the third sector to inform and challenge our implementation of the strategy.

Delivery Plan: innovation and improvement (1/3)

Highlights

To enhance the strategic alignment of research programmes funded through NERC's core Strategic Research and Innovation budget we have implemented a new process to identify gaps in delivery of research priorities and to prioritise ideas to address them. We have increased the depth of **community engagement** in generating these ideas through a new "Rotator" model to commission experts in the field to conduct interviews and literature reviews and report on future research questions.

Interrogation of discovery science data and community views to understand if NERC funds the best science and scientists has helped to shape the wider UKRI Reforming our Business programme and resulted in the 'Pushing the Frontiers' pilot. This pilot will follow a streamlined process and support our best individual researchers to **push the frontiers** of knowledge with ground-breaking, risky, innovative science.

Improvement to the management of environmental data and in environmental accounting has resulted in efficiencies of ~£35,000/year, the establishment of a cross-UKRI group to support environmental accounting, and closer working relationships with Sustainability professionals in BEIS and Defra have all built excellence in environmental responsibility.

Delivery Plan: innovation and improvement (2/3)

Learning and Action

Evaluation activity across NERC has been assessed to define the baseline from which to improve. Over the next delivery period we will put in place a framework for **evaluation of programmes**, which will form the basis for embedding a culture of continuous improvement.

The use of Rotators in developing strategic research and innovation ideas has ensured that the development of programmes funded through the Strategic Research and Innovation budget is informed by the very latest scientific breakthroughs and challenges, whilst allowing improved alignment to the research priorities in the Delivery Plan. Over the next delivery period we will increase our use of Rotators in developing programmes to address gaps in delivery, such as those in the Digital Environment portfolio.

To deliver a **whole systems approach to environmental solutions** we must improve our engagement with partner-led collective-fund programmes. To deliver a whole systems approach to environmental solutions we must improve our engagement with partner-led collective-fund programmes. Our new approach to strategic programme generation will address this by providing a framework through which we will increase our cross-council interactions at an early stage in the development of collective fund bids and by ensuring that both NERC-led and partner-led ideas are considered by the newly established Collective Fund Oversight Group". The pilot programme for interdisciplinary capacity 'Changing the Environment' has been approved by NERC Council, with the intention of delivering interdisciplinary solution-focussed research at a small number of key HEI institutes over the next delivery period.

Delivery Plan: innovation and improvement (3/3)

Learning and Action continued

NERC has taken steps to increase its engagement with external stakeholders, however a more systematic approach to the gathering and sharing of intelligence gained through these interactions is required to maximise their value. This is being addressed through the Insight team's 'Facilitation Project', which has undertaken an analysis of what information is being gathered, how we would like to receive and store it, and what platforms will work best for us. Over the next delivery period we will commission a platform based on the findings of this work.

The Peer Review College panels and process need to be reviewed in light of recent panel experience, unfunded excellence and a shift in policy to defer unfunded 9s to the next panel, to ensure upward grade-creep does not occur. The Director of Research and Skills met with panel chairs in April 2020, and panel guidance will be refreshed by the end of summer 2020.

The 'Are we Funding the Best' project has delivered qualitative and quantitative analysis that reinforces the anecdotal evidence that our Discovery Science favours "safe science". We will quantify the efficiency and effectiveness of the pilot 'Pushing the Frontiers' at the end of 2020 to drive further improvements in our peer review processes, to ensure the **most excellent science and scientists** are being funded.