



Natural
Environment
Research Council

Strategic Delivery Plan Report 2023–24

£518m investment in NERC supports:

Developing talent

£40m
supporting:

1,300
PhD students

74
Fellowships

17
Doctoral Training
Partnerships

6
Centres for
Doctoral Training

Advancing knowledge

£150m
supporting:

3,000
Scientists &
researchers

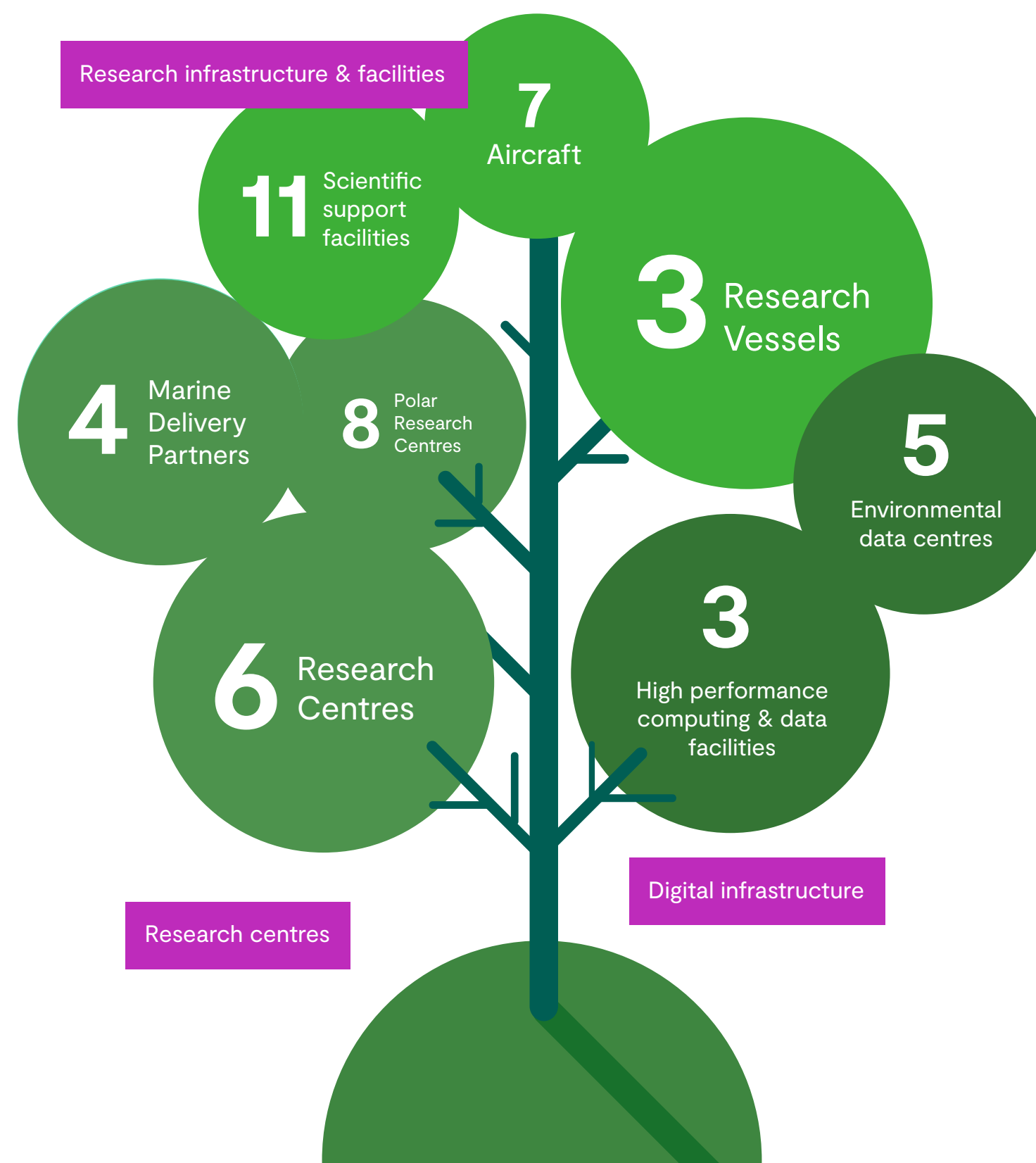
1,453
Research &
innovation grants

Discovery Science
Awards

57%

Strategy Research
& innovation
awards

43%



UKRI shared priorities

£34m
supporting:

£13m
Strategic
Programmes &
Themes

£21m
Global challenges
& International
collaboration

Delivering in partnership

£23m
leveraged from cross
government partners

£260m
contributions from
non-academic
partners

15%
of awards have
government
partners

10%
of awards
have industry
partners

15%
of awards have
third sector
partners

Our strategic objectives provide the framework for how we will achieve our vision and realise our principles, through world-class:

People and careers	Places	Ideas	Innovation	Impacts
<ul style="list-style-type: none">• Balancing our funding to attract and retain global scientific leadership; and building communities of solutions-focused researchers.• Collaborate across UKRI to develop a talent programme that nurtures disciplinary and interdisciplinary working.• Develop a deep understanding of our communities and use their insights to evolve our portfolio and to shape new funding practice• Work with our community to promote greater diversity and inclusion across environmental science	<ul style="list-style-type: none">• Embedding a sustained approach to place-based funding at local and regional level• Create and upgrade environmental infrastructures that unlock innovation and economic potential• Maximise our investment within the UK through partnerships which allow research communities to work together at scale and develop clusters of expertise and investment• Support UK environmental scientists to work with local communities internationally	<ul style="list-style-type: none">• Focus our discovery science portfolio on excellent, ambitious and high-risk science; work in partnership across UKRI to develop a collective, interdisciplinary discovery science programme.• Pursue strategic programmes that address the critical environmental challenges of climate change, biodiversity and habitat loss, and pollution.• Co-create scientific exploration of large-scale, complex interactions within Earth system.• Increase our investment in public engagement with environmental science.	<ul style="list-style-type: none">• Build resilience of businesses, infrastructure and supply chains to environmental impacts and changing consumer opinion.• Pursue positive outcomes for business and the environment that minimise the environmental impacts of consumption.• Realise 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.• Create the world's first national system to measure the UK's total greenhouse gas emissions.	<ul style="list-style-type: none">• Embed environmental science within UKRI's Strategic Themes.• Sustain the UK's sovereign capability to advise and inform UK Government policy on the state of UK and global environment.• Determine the effectiveness and accelerate the adoption of nature-based solutions.• Maintain the UK's position as a leading nation in international environmental science.

Supported by **a world-class organisation:**

- Act as 'one UKRI', aligned to the new operating model, stripping out bureaucracy and becoming more efficient to deliver NERC and shared priorities.
- Ensure NERC commissioning is informed by high quality diverse scientific expertise and advice.
- Demonstrate the ongoing impact of NERC funding.
- Become environmentally sound across our head-office and institute operations while enhancing scientific productivity.

We will embed the UKRI principles of diversity, resilience, connectivity and engagement across all our work, to support an outstanding research and innovation system.

Approach to Reporting

This report covers the period April 2023 to March 2024 inclusive. The report tracks performance against our ambitions as set out in the 2022 **Strategic Delivery Plan**, including identifying the learning from the delivery period and actions to improve our performance.

The structure follows the NERC Strategic Delivery Plan, itself informed by the **UKRI Strategy 2022-2027**. Each of the six strategic objectives (world class people, places, ideas, innovation, impacts and organisation) has a summary slide, as well a summary of our activity on D&I as part of our annual reporting cycle on the Living Action Plan.

Each ambition is given a Red, Amber, Green (RAG) rating. This is based on an assessment using quantitative and qualitative indicators (including what the indicator tells us about progress); and learning and action (plans to maintain or achieve a Green rating). Quantitative indicators use data selected to add value to assessment of progress and potential to indicate a direction of travel. They are chosen for their insight into each ambition, aligning to UKRI measures where possible. We also include a financial summary slide (Slide 5) as a key part of this performance assessment.

Financial Overview

This table provides a detailed picture showing the outturn for last year end position 2023/24, and identifies where NERC spend varies to the NERC council budget. Across all resource and capital budgets (excluding non-cash), there is a total overspend of £3.5m. NERC was given permission to overspend by £2.6m to cover the pressures within the ALI partition.

*Includes SPF, FIC, GCRF, Newton, NPIF, C-19 interventions, Carbon Fund, Tactical fund and Copernicus. UKRI ring fence allocation is a defined sum of money allocated for a specific activity/research programme that cannot be used beyond the stated purpose. There is limited flexibility to move budgets between the UKRI- ring fences. Hence each ring-fenced total should be considered in isolation.

Figures are subject to audit before spend is finalised.

£'m	Budget Allocation	Full Year Actuals	Variance to Budget
NERC Core R&D			
Discovery Science	63.8	66.9	-3.1
Strategic Research & Innovation	68.6	66.7	1.9
Postgraduate Training	31.9	31.6	0.4
Fellowships	8.5	8.1	0.4
National Capability	121.1	122.8	-1.7
Opening up Environmental science	2.2	2.2	0.0
Enabling Change	2.0	1.2	0.8
Core capital	27.6	27.6	-6.7
TOTAL Core R&D	325.7	333.8	-8.1
Other R&D			
Antarctic Logistics & Infrastructure (resource & capital)	95.6	98.2	-2.6
UKRI Ring Fenced Funds *	60.1	62.0	-1.9
Strategic Programmes: Building a Green Future	10.5	1.5	9.0
Other Strategic Themes	1.0	0.9	0.1
Copernicus incl opex	10.6	10.4	0.2
OpEx	11.4	11.7	-0.3
TOTAL Other R&D	189.3	184.7	4.6
TOTAL NERC	515.0	518.5	-3.5

23/24 RAG ratings for our SDP ambitions

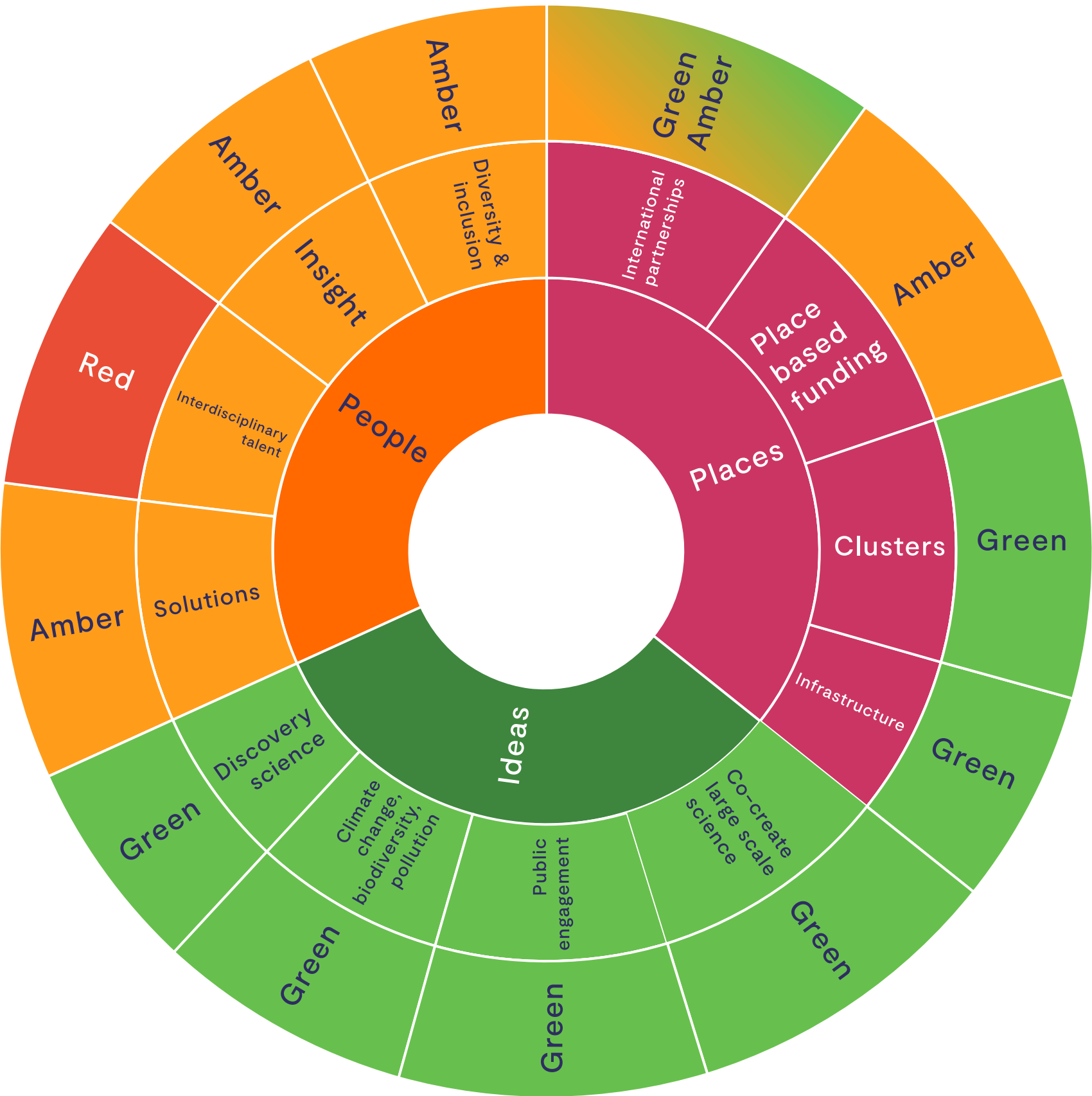
RAG definitions

- RED

Significant gaps in the portfolio with substantial 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.



Delivery Plan: overall summary tracker

RAG definitions

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- KEY
- ➡

Maintaining the ambition
- ⬆

Progress towards ambitions
- ⬇

Backwards step

Ambitions

	March 2023	Forecast March 2024	March 2024	Forecast 2025
People				
Balance portfolio; Solutions-focused researchers		➡		➡
Interdisciplinary talent		⬆		⬆
Insight		➡		➡
Diversity & Inclusion		⬆		➡
Places				
Place-based funding		➡		➡
Infrastructure		⬆		➡
Clusters		➡		➡
International partnerships		➡		➡

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Backwards step

Ambitions

Ideas	March 2023	Forecast March 2024	March 2024	Forecast March 2025
Discovery Science		➡		⬇
Climate change, biodiversity, pollution		➡		⬇
Co-create large-scale science between our Centres and other research institutes		➡		➡
Public engagement		⬆		➡
Innovation				
Resilience		➡		➡
Minimise impacts of consumption		➡		➡
Digital		➡		⬆
GHG measurement		⬆		⬇

Delivery Plan: overall summary tracker

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- ⬆

Progress towards ambitions
- ⬇

Backwards step

Ambitions

Impact	March 2023	Forecast March 2024	March 2024	Forecast March 2025
UKRI Strategic Themes		➡		➡
Sovereign capability		➡		➡
Nature-based solutions		⬆		➡
International leadership		➡		⬇
Organisation				
Efficiency		➡		⬆
Expertise		➡		➡
Impact		➡		➡
Sustainability		➡		⬇

People and Careers

NERC investment in doctoral training ensures the broad skills base for research and innovation relating to the environment. Recognising the importance of work which can be applied to real world problems, NERC has also invested in training researchers who are comfortable working across disciplines to develop environmental solutions, and capable of translating their research into policy and business.

In November 2023, UKRI announced that UKRI-funded doctoral training from 2024 will be delivered through two types of awards (landscape and focal) as part of a new Doctoral Investment Framework. NERC, in partnership with the Biotechnology and Biological Sciences Research Council (BBSRC) launched the first collaborative doctoral landscape award under the new framework. The call allows applicants to tailor their programmes to NERC, BBSRC or interdisciplinary needs, simplifying the process of application and management and if desired boosting collaboration between our communities. This is a positive step, but we have more to do to foster the kinds of collaborative partnerships to maximise the benefits from this scheme. The red rating reflects this, and recognises this is a resource-intensive process; we are striving for further efficiencies in the design and delivery of interdisciplinary talent.

In the past year, we have:

- Launched our first round of Focal Awards, challenge-led doctoral training in partnership with end users which supports solutions, provides expertise in environmental science, and meets skills gaps in specific sectors.
- Funded a consortium in collaboration with ESRC to deliver a policy engagement training programme which equips researchers to translate their environmental, economic and social science research into policy insights and real-world impacts
- Developed a new model of Agenda-Setting Fellows, a long-term secondment to tackle a large-scale, complex issue within NERC-UKRI and build capacity in our community to work with funders and government. With InnovateUK, we appointed Professor Steve Fletcher to develop a transformative plastic pollution research framework that complements and supports the UN Treaty to end plastic pollution.

Summary & Insights

Learning and Action:

Roll out the monitoring, evaluation and learning framework for Changing the Environment, and foster greater links between early career researchers on the programme. Continue our work in partnership across UKRI to empower the next generation of environmental scientists with essential disciplinary knowledge and interdisciplinary skills and engage effectively with policy. We are finding efficiencies in our delivery, including through our Ways of Working programme (see Organisation), but there will be challenges and risks to delivery as we transition to being a leaner organisation.

Responsible director: Tracy Shimmield (was Susan Waldron)

Places

We have developed an approach to address place-based funding in specific areas, for example embedding place considerations as part of the assessment criteria in a £25m *Accelerating the Green Economy* Centres programme and for the first time in NERC Strategic Capital 2023 funding. We are also offering opportunities for greater collaboration in regions to deliver societal and economic benefits alongside our science: £93m of Round 2 Single Centre Science and £8.4m of National Public Good awards were allocated to NERC Centres, and Marine Delivery Partners across the UK, and used to maintain close working relationships with HEIs, business and government. The amber rating for ‘place based funding’ reflects the breadth of our ambition, as although we are growing our portfolio of place-based R&I, and including a consideration of place in our governance, there is more to do, including monitoring and understanding the effectiveness of these interventions.

We are supporting UK researchers to work with local communities around the world to develop new networks of expertise; a Global Partnerships Seedcorn Fund (GPSF) award led to the development of the Joint Exploration of the Twilight Zone Ocean Network, endorsed as an official UN Ocean Decade programme. GPSF has supported collaborations with USA, Australia and Brazil in every round. NERC has been able to leverage external funding for our international work, but there are risks with this approach, not least that the portfolio responds to external funding not our own strategic choices, so it maintains an amber-green rating.

In the past year, we have:

- Underpinned investment in partnerships and research clustering at the Western Channel Observatory led by Plymouth Marine Laboratory and the Marine Biological Association. This led to strong links to marine SMEs in the area and the establishment of the National Centre for Coastal Autonomy to train scientists and technologists and support policymakers in the stewardship of the coastal environment.
- Launched a £10M BGS NC-International award aimed at tackling global environmental challenges, such as the development of geothermal energy in LMICs and requirements for sub-surface storage of CO₂. This came following a UK and India research partnership aiming to understand the potential for safe and secure CO₂ storage in India’s sedimentary basins.
- Commissioned £70M of funding for a network of seven world-leading environmental analytical facilities at various locations across the UK outside of the South-East region.
- Finalised our £17m RISE (Regional impact from science of the environment) projects in Yorkshire, the South-West, West Midlands and London. These have engaged nearly 600 partner organisations and helped to secure over £80 million in regional investment.

Summary & Insights

Learning and Action:

We will embed place considerations into more of our capital, infrastructure investments and National Capability commissioning processes where appropriate. Our Centres support clusters of activity, and we will help to foster these. We will continue our monitoring to ensure our spending is distributed around the UK, and in line with UKRI policy.

Responsible director: Iain Williams

Ideas

Through 2023-4 NERC has maintained its strong portfolio of research which deepens our understanding of the Earth system. In particular, our work on ocean carbon storage and atmospheric processes will advance knowledge of those specific environments while contributing to global efforts to model and predict climate.

We recognise the value of our rich data and long-term investments, and are building on those assets by, for example, delivering the Climate Consequences of Rapid Ocean Changes programme, which draws on a decade of coincident observations from *Rapid Climate Change* (RAPID) and *Overtuning in the Subpolar North Atlantic Program* (OSNAP) observing systems. We have also leveraged our knowledge and experience to develop new interdisciplinary opportunities for environmental science, such as drawing on our experience of land use programmes to identify areas of research needs and opportunities as part of the co-design of the Land Use for Net Zero programme (part of the UKRI Building a Green Future strategic theme) with BBSRC and Defra.

Our ideas pipeline remains strong; forecast amber ratings are a consequence of the twin pressures of organisational change across UKRI (the development of interdisciplinary discovery science and the implementation of the new Funding Service) and budgetary challenges, not least the consequences of inflation.

In the past year, we have:

- Demonstrate the ongoing impact of NERC funding and celebrate environmental science that has made a tangible social, economic, and wider contributions to the UK and internationally.
- Become environmentally sound across our head-office and institute operations while enhancing science.
- Designed new programmes to address issues of climate change and environmental management, including Solar Radiation Management (£10M) and 'Securing UK ecosystems as they emerge in response to change' (£14M) which will launch in 24/25
- The Turbulent Processes programme, a collaboration with the Met Office, delivered its first year of fieldwork with an aircraft campaign to gather data which will enhance climate and weather modelling at kilometre and sub-kilometre scales, and improve our ability to predict extreme weather.
- Invested £0.5M in Knowledge Exchange Fellowships to accelerate and amplify the impact of research from the Future of UK Treescapes programme by e.g. synthesising outcomes from multiple research projects or developing new approaches to working with policymakers.
- Launched the Engaged Environmental Science Initiative, which uses capacity that has been built through NERC's previous investments in public engagement to demonstrate the benefit of engaged research as an effective environmental science research methodology.

Summary & Insights

Learning and Action:

The close partnership with Defra on the LUNZ programme, has necessitated new forms of funding delivery to ensure the translation of research outputs into policy. This will be an interesting model to monitor and understand whether it is more effective in delivering policy relevant outcomes.

Responsible director: Tracy Shimmield (was Susan Waldron)

New perspectives on what drives the West Antarctic Ice Sheet retreat

Key insights into NERC's role

Summary and scientific advances

Until the 1990s, science in Antarctica was constrained by the inaccessibility of the landscape and limitations of technology. Models in the 1980s led many to believe that its ice sheets were stable.

Through satellite missions, exploration by autonomous underwater vehicles and advanced modelling, NERC support has provided the facilities and funding to build world-leading capacity and expertise in the UK.

NERC-funded research has shed light on the processes behind the retreat of the West Antarctic Ice Sheet – the largest reservoir of freshwater on Earth – and provided evidence of the relationship between the warm ocean and ice loss.

Beyond its direct impact upon sea levels, recent work has shown that increased melting of the ice sheet has the potential to drive significant changes in ocean circulation which may have implications for global ocean biogeochemistry and climate that could last for centuries.

NERC's role

The UK is the second most productive country in this field by number of publications, and has the second highest influence internationally, taking into account volume of publications and research impact. (Figure 1).

Antarctic ice sheet research linked to NERC funding has the highest influence of the top 10 most productive funding agencies, with its impact above the group average (Figure 2).

Through a combination of National Capability & Capital (NC&C), Discovery and Strategic funding (Figure 3), NERC support has provided the facilities and funding to build capacity in the UK, which has developed world-leading expertise and stimulated international research efforts. Looking at funding acknowledgements in the literature, NC&C has had the longest and earliest influence of any scheme, making it responsible for much of the underpinning knowledge in the field.

Figure 1

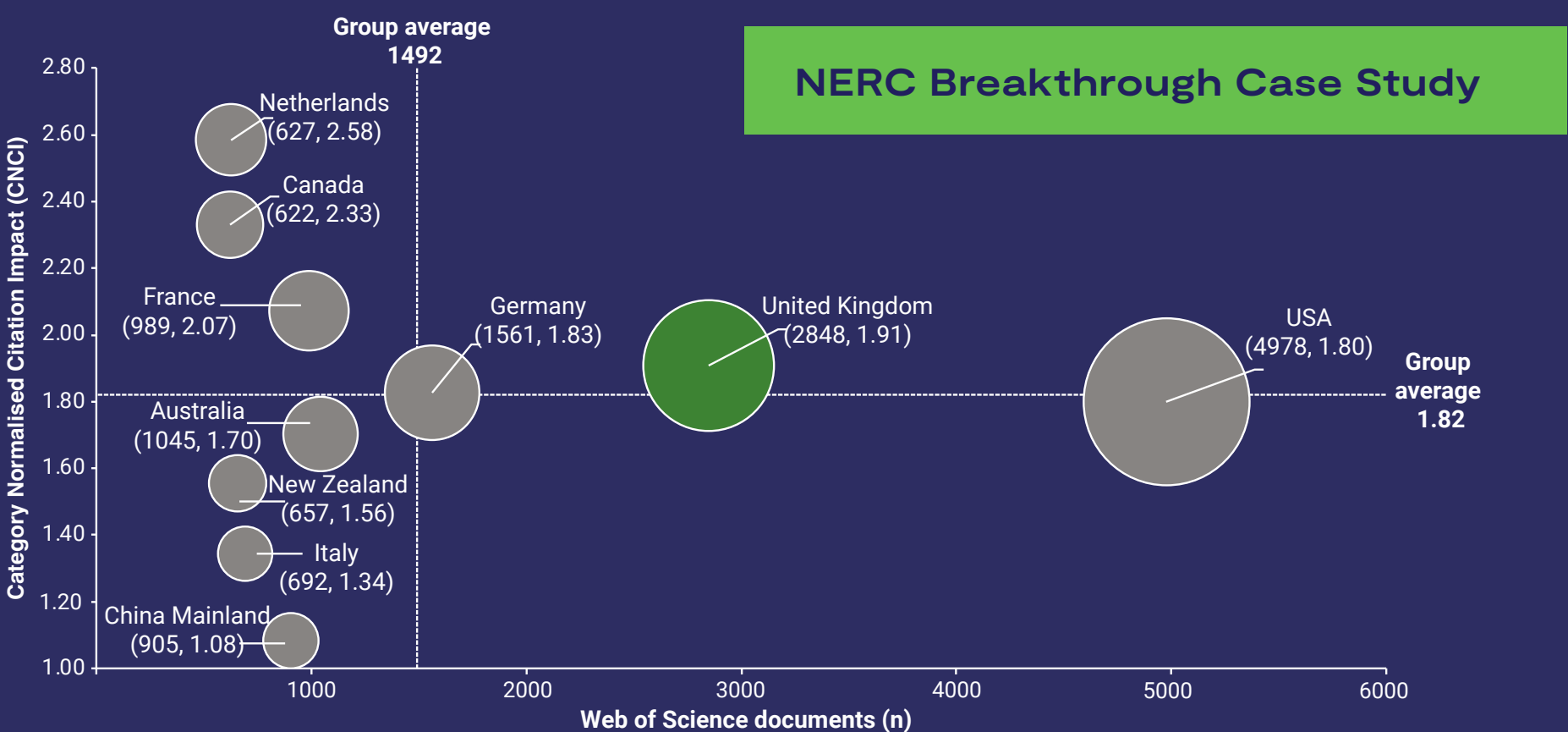


Figure 2

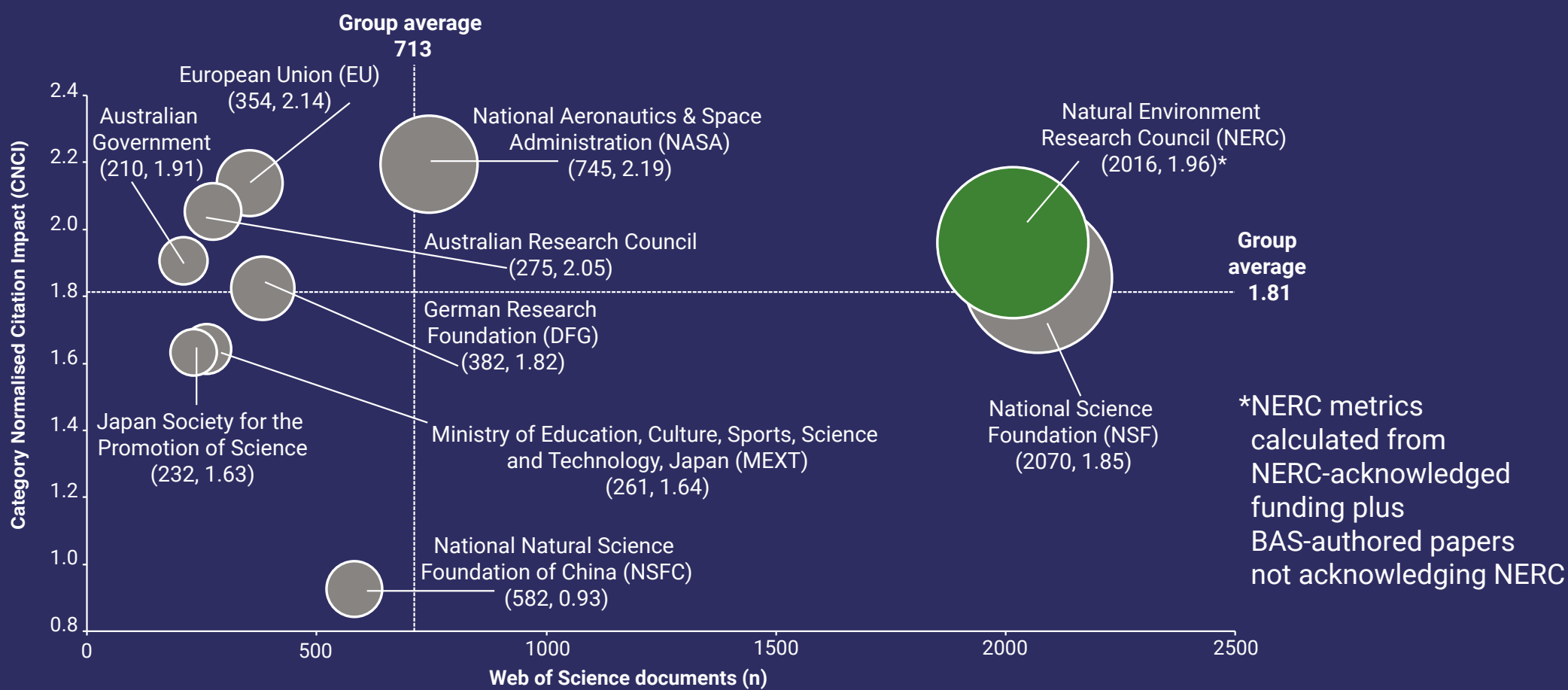
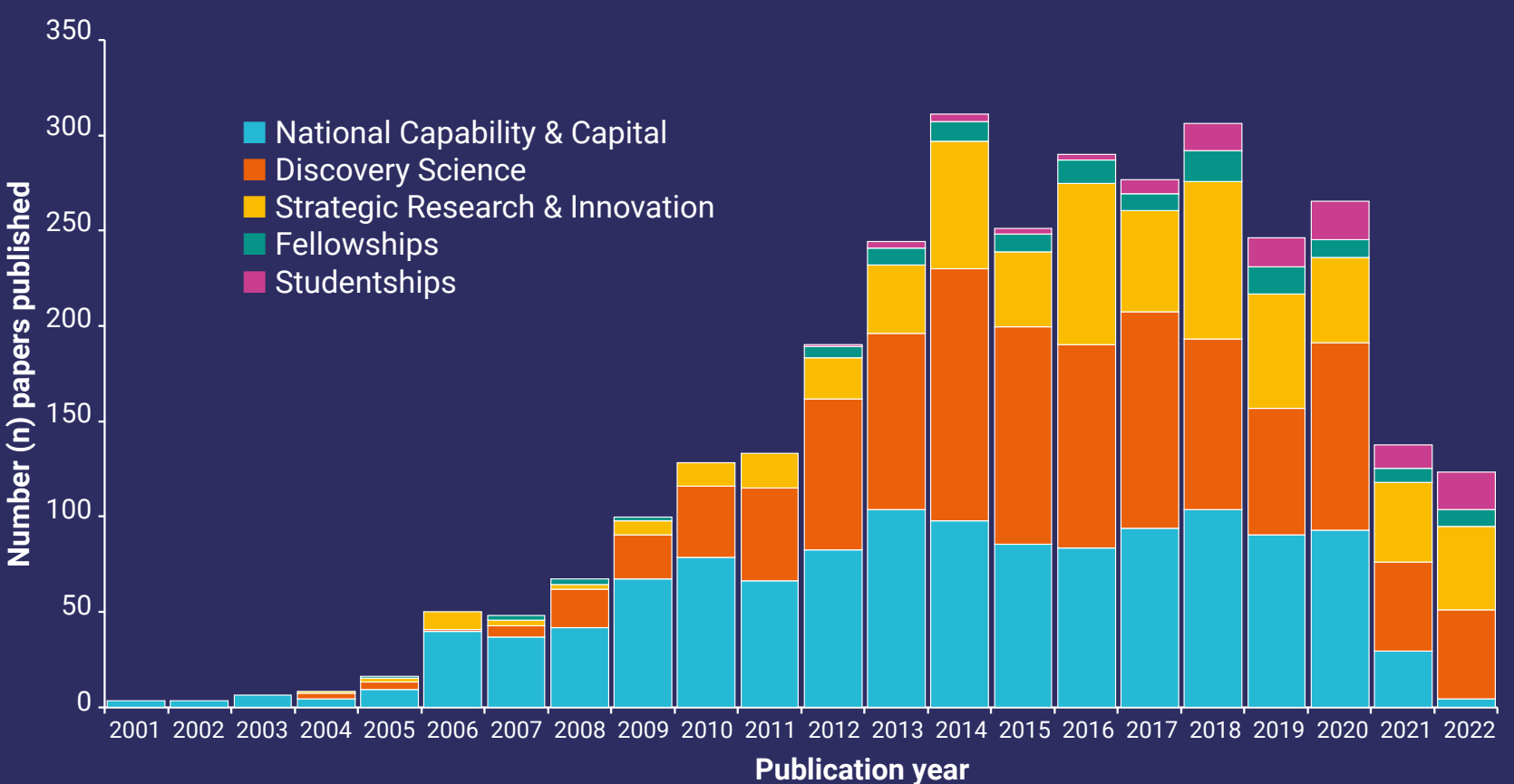


Figure 3



Innovation

NERC has generated novel partnerships with industry to understand their impacts on the environment and how these might be mitigated. This includes, for the first time, a directly co-funded partnership with the Marine Gas & Oil industries to study the environmental and economic implications of large-scale removal of oil and gas extraction infrastructures from the North Sea. NERC has also built a consortium of the Department for Transport (DfT), the Department for Business and Trade (DBT), and the Aerospace Technology Institute to identify and develop policy options and measures to mitigate aviation's non-CO2 impacts on the climate.

Substantial momentum has now been built since the launch of the NERC Digital Strategy in May 2022. Through long-standing strategic partnerships we have co-developed new approaches to environmental monitoring, creating novel or upgraded sensing equipment and ensuring the data they provide underpins effective environmental management. We play a leadership role across UKRI on technical professional skills and Net Zero Digital Research Infrastructures, and have secured additional funding for NERC's digital infrastructures. The amber-green rating for digital indicates this progress while recognising that we remain ambitious to do more to fully integrate transformative technologies into our work and capitalise on our data assets.

The two-year Greenhouse Gas Emissions Measurement and Modelling Advancement (GEMMA) programme has been launched, to deliver emissions estimates one month in arrears, at greater resolution than previously and with the ability to identify emissions by sector. The forecast of amber is a result of some technical issues with the programme, including time to set up MoUs with key partners and the availability of equipment, which may impact delivery timelines.

In the past year, we have:

- Invested £7m alongside Defra in Innovation in Environmental Monitoring as part of a broader £12m partnership including Innovate UK
- Secured a £2m investment from DSIT to support Digital Twins for the Natural Environment in partnership with the Met Office.
- Continued our scoping of the Future of Marine Infrastructure programme, to ensure the UK has the cutting edge, sustainable infrastructure it will need to sustain marine science in the next two decades.

Summary & Insights

Learning and Action:

We have improved our processes around managing calls to recognise that research or innovation proposals which have been recognised as outstanding by our review processes may nonetheless need to clarify or develop aspects of their work to deliver on NERC's broader commitments (such as sustainability or diversity). We will continue to monitor the impact of these changes.

There is more still to do to grasp the huge opportunity of AI, contemporary data science, autonomous systems, and other technologies to transform the environmental science of the present and future. This will require us to be more ambitious in thinking about how environmental data is best accessed and used by a broad range of stakeholders.

Responsible director: Iain Williams

Impacts

NERC has played an important role in the development of UKRI's Strategic Themes. Its leadership of *Building a Green Future* has delivered a range of investments which will contribute to urgent policy questions and the acceleration of a green economy in regions across the UK. Across the other Themes, NERC's understanding of the changing climate and environmental hazards has ensured a range of interventions which integrate environmental science with broader societal challenges including health and inequality.

NERC, whether directly, through its Centres, or its wider community, has a key role to play in ensuring that the UK government has access to informed, impartial advice on environmental issues. For example, NERC and the *British Antarctic Survey* (BAS) recently provided input to the Environmental Audit Sub-Committee on Polar Research. NERC-funded science which explains the effects of climate change in the polar regions was provided to support its work on the global environment, risks and security.

In the past year, we have:

- Co-developed programmes across the UKRI Strategic Themes, which support evidence-based policy, help people adapt to a changing climate, and keep critical infrastructure safe, including: the NERC led Maximising the Benefits of Climate Adaptation programme (Building a Green Future and Building a Secure and Resilient World): the Resilient Coastal Seas & Communities programme (creating Opportunities, Improving Outcomes); and the Land use for Net Zero programme (Building a Green Future)
- Funded BAS NPG space weather activities over 23/24 that benefited DESNZ, DSIT, DfT, UKSA, Met Office, UK and European Space agencies and insurance underwriters who rely on this space weather advice and hazard predictions to develop Space Weather risk assessments, preparedness strategies and scenario planning.
- Launched four new interdisciplinary research projects (total £8.3M) to explore the scalability and governance of Nature-based solutions to provide equitable resilience to people and ecosystems across Sub-Saharan Africa, by managing water risks, mitigating land degradation and restoring mangrove forests.

Summary & Insights

Learning and Action:

Enhance our relationship with government and other bodies to ensure the breadth, scope and capability of NERC's environmental science community is fully realised.

Develop a longer term view of environmental science needs and priorities, and their intersection with other societal challenges

Responsible director: Alison Robinson

Showcasing the Impact of our Science

Environmental science brings huge benefits to our society, economy and environment.

Championing the impact of research from the NERC-funded environmental science community, the NERC Impact awards celebrated the wide range of people and roles in the environmental science research community who contribute to impactful research.

People are at the heart of the science we fund. The winners of our awards have made a significant difference to the everyday lives of citizens in the UK, protecting their health, working together to improve their local environment, and safeguarding the infrastructure on which they depend from damage and disruption.



**Overall
Impact
Winner**

Wastewater Monitoring Benefits Nation's Health

A team at Bangor University used their expertise to monitor the prevalence of COVID-19 during the pandemic. The wastewater monitoring system identifies disease fragments in sewage to provide early insight into spikes in infections

The monitoring played a crucial role in shaping national policy at the time of the pandemic and at one point covered 80% of the UK population. The system is now being adapted to measure other infectious diseases, such as influenza or norovirus, in the UK and beyond.

Showcasing the Impact of our Science

Winning entries

- Overall Impact Award: Using wastewater to monitor the nation's health: onwards from COVID-19
- Early Career Impact Award: Shaping England's new biodiversity net gain policy
- Economic Impact Award: Protecting satellites with daily space weather forecasts
- Public Engagement Impact Award: Bringing together citizen scientists and regulators to monitor the River Wye and beyond
- Societal Impact Award: Speeding up climate change simulations to tackle global warming

Finalist entries

- Whales and walruses from space: using satellite imagery for conservation
- Tackling the human and financial cost of flooding
- Protecting subsea global telecommunications networks
- Protecting sensitive species and habitats in Antarctica and beyond
- Spurring global action against ocean acidification

Dr Hannah Cubaynes,
Early Career Impact finalist



Early
Career
Impact
Winner

Improving Nature Alongside Development

Dr Sophus zu Ermgassen's PhD research influenced government to change a flagship environmental strategy aimed at ensuring new land developments progress hand-in-hand with nature recovery.

His research helped to address an evidence gap around Biodiversity Net Gain (BNG), and highlighted issues with the policy such as governance.

In response, the government increased its local authority funding in England by an extra £8 million to help ensure necessary measures were in place to deliver the desired environmental outcomes.

Local authorities also increased biodiversity requirements, leading to better environmental outcomes and increased

World-class Organisation

NERC continues to support the development of activities across the UKRI Operating Model, to make us a more effective and efficient organisation. We have supported the development of the new Funding Service by trialling high volume calls such as Highlight Topics and Pushing the Frontiers. This work is helping to test and improve the new funding system while ensuring the flow of grant funding to our community remains unbroken.

NERC has launched a 'Ways of Working' (WoW) programme, an organisational refresh which will ensure that we continue our core business of supporting world-class environmental science, in an agile and efficient way despite the constraints on our resource. The programme so far has repurposed the HOST team, providing a dedicated resource for each directorate, and improved its communication channels so staff have greater opportunities to provide feedback into WoW and the planned changes. Our ambition to be a more efficient organisation remains amber while WoW is fully embedded into our activities.

NERC invested £7.3m on reducing carbon across the whole NERC estate in 23/24, supporting UKRI's commitment to be net zero in operations by 2040. NERC was the first public sector organisation globally to achieve the Carbon Trust 'Route to Net Zero' standard reflecting our high level of commitment to carbon reduction across our operations. The next phase of our pathway to sustainability will be trickier, relying on technological innovation and external funding, and the amber forecast reflects these potential difficulties.

In the past year, we have:

- Showcased the real-world impact of our science at the NERC Impact Awards 2023 at the Natural History Museum.
- Ensured that key decision-making bodies have access to relevant, up-to-date information to inform their discussions by developing dashboards for NERC Management Board and Council.
- Developed the People Living Action plan to drive improvements in our own activities (for example more effective support for new starters) and allow us to work better as one UKRI to deal with issues such as bullying and harassment.
- Implemented new technology to reduce carbon emissions on the RRS Sir David Attenborough, and trialled low-carbon fuel on our research vessels and FAAM aircraft

Learning and Action:

We will progress the WoW programme to deliver the structural and cultural change within NERC to improve efficiency and productivity at all levels. We will improve our management of change by understanding the resources required for NERC and UKRI change activities, and how to proactively manage these against core business to make them a success.

Responsible director: Alison Robinson

Diversity and Inclusion

NERC remains committed to improving the low levels of diversity and inclusion in the environmental sciences. Broadening the talent base for environmental sciences helps ensure NERC can fund exciting, adventurous and world-leading research and innovation and deliver environmental solutions for the UK and internationally. Where we have been able to target priority areas, we have made significant progress.

Our NERC diversity and inclusion living action plan 2022 to 2025 was developed in a pre-pandemic environment, and before the finalisation of the UKRI Equality, Diversity and Inclusion strategy. Over the next year we will refresh our Action Plan to reflect these changes in how research and innovation is carried out and funded, and to align more closely with UKRI's ambitions. Our priorities remain the same, though we recognise the need to find new, more efficient ways to deliver on our ambitions.

We will continue to develop our analytical capability to understand our community, guide our interventions to increase inclusion, and provide the baselines to monitor change. This includes work to integrate a range of data sources, including from internal reporting, Higher Education Institutes and national data, to inform areas for prioritisation.

In the past year, we have:

- Delivered £1.7 million funding for 23 projects promoting greater diversity and inclusion across environmental science.
- Provided additional funding for our Centres and Changing the Environment award holders to accelerate their diversity and inclusion projects in support of our living action plan.
- Developed our Future Leaders' Council and integrated them into NERC's governance structures and strategic activities.

Learning and Action:

We have learnt to fully embrace the "living" aspect of the NERC diversity and inclusion living action plan 2022 to 2025 and curtail our ambitions to reflect the changes in the economic environment. This will allow NERC to narrow our focus.

We will publish a more streamlined action plan before our next reporting cycle.

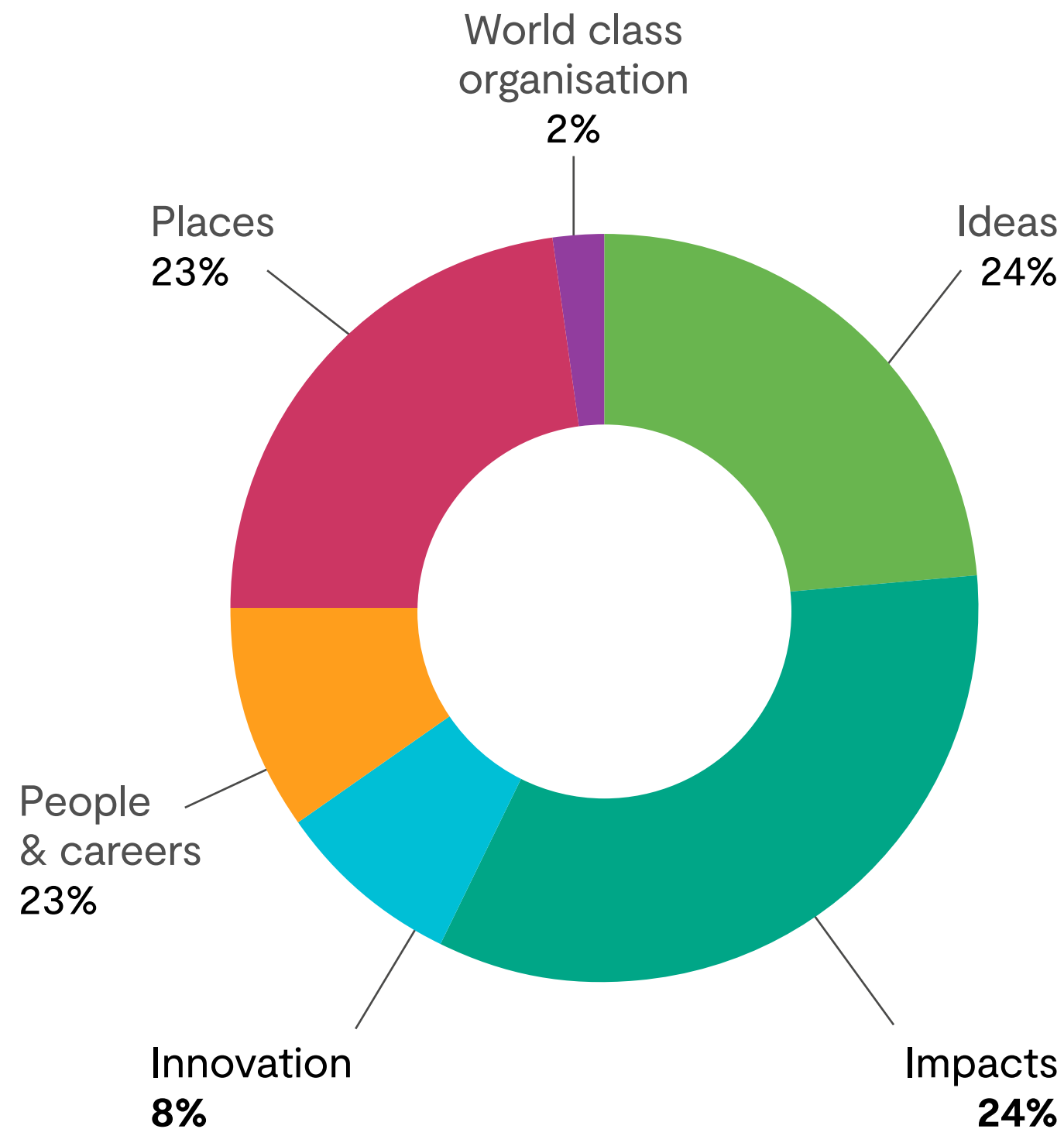
Responsible director: Alison Robinson

Annex: Reporting Dataset

2023/24 spend mapped against to our strategic objectives

Delivery plan objective	Estimated total outturn against objective £M	of which £M supports multiple objectives	Net spend against objective £M	% of spend
People & careers	58	9	49	10%
Places	161	44	117	23%
Ideas	156	29	127	24%
Innovation	68	28	40	8%
Impacts	218	44	174	34%
World class organisation	11	0	11	2%
Total spend (£M)		153	518	100%

¹The cross cutting nature of our portfolio means that individual research programmes and investments can map across multiple themes and objectives. The above table shows total estimated spend, the value of investments which are dual mapped and the net spend estimate against each of our objectives.



% of total spend in 2023/24 by delivery plan objective

World leading academic outputs

- The UK is the third most productive country in this field by number of publications behind China and USA. However, the UK has the highest Category Normalised Citations Impact (CNCI[1]) score, which is 1.37 times the global average.
- Publications with NERC attributions citation impact, measured by Category Normalised Citation Impact (CNCI[1]), is 1.64 times the higher than the global average.

¹Category normalised citation impact (CNCI) is unbiased indicator of citation impact irrespective of age, subject focus, or document type. Therefore, it allows comparisons between entities of different sizes and different subject mixes.

A CNCI value of 1 represents performance at par with world average

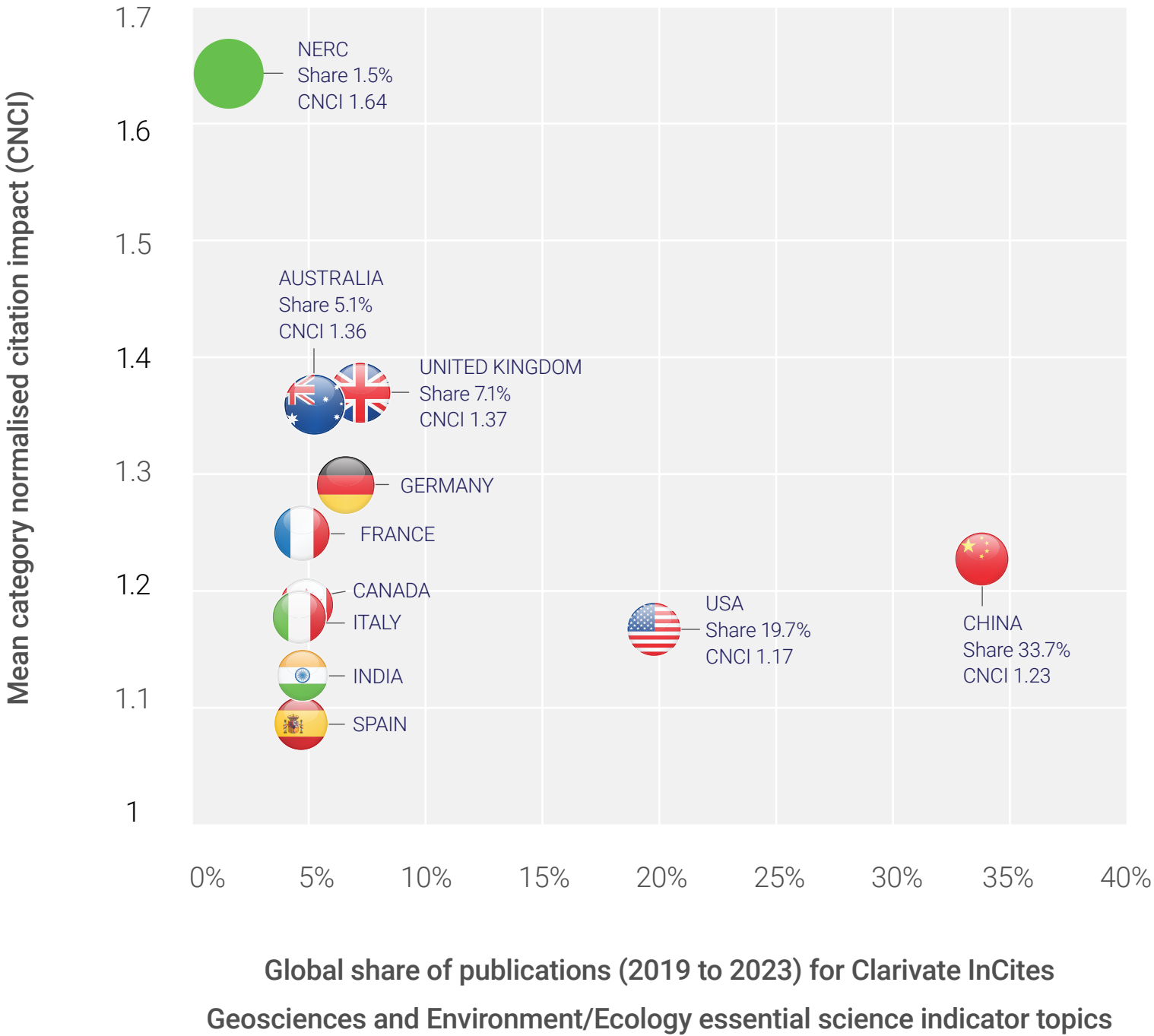
Values above 1 are considered above average

Values below 1 are considered below average

A CNCI value of 2 is considered twice world average

²Publication and citation metrics are produced from Clarivate InCites® using essential science indicator topics: Geosciences and Environment/Ecology for publication years 2019 to 2023

Measure		Gobal Baseline	UK	NERC
Production	Web of Science Documents	905,477	64,693	13,344
	% Global Baseline (Docs)		7.1%	1.5%
Citation impact	% Docs Cited	88%	92%	96%
	Category Normalized Citation Impact	1	1.37	1.64
Citation Impact	Global	12.2	18.2	24.0
	National Capability	121.1	122.8	-1.7
	% Documents in Top 1%	1%	2%	3%
	% Documents in Top 10%	10%	14%	18%
Collaboration	% International Collaborations	34%	81%	73%
	% Domestic Collaborations	39%	9%	17%
	% Industry Collaborations	2%	3%	3%
Open Access	% All Open Access Documents	57%	82%	92%
	% Gold Documents	37%	35%	32%



Productivity/impact matrix showing
NERC relative to top 10 most productive countries*