



UK Research
and Innovation

Corporate Plan 2020–21

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foreword

As clearly articulated in the Government's UK Research and Development (R&D) Roadmap published in July 2020, the people, knowledge, ideas, infrastructure and networks that make up our research and innovation system are the fuel for UK prosperity. They support economic growth and productivity, the richness of our culture, efficient and effective public services, as well as fostering private investment and tackling national and global challenges from climate change to levelling up.

Most recently, the UK's response to the COVID-19 crisis has demonstrated the critical importance of research and innovation to the stability of our social and economic systems. Fundamental to the success of the response has been a flexible, agile, empowered and interconnected network of innovators, scientists and researchers: the beating heart of our communities. It is UKRI's mission, as stewards of the research and innovation system, to continue to nurture and support our communities. We will bring them together, catalysing creativity and incentivising a diverse and inclusive research and innovation system that builds on existing strengths, provides critical capability, fosters private and inward investment and creates new knowledge to enrich lives and build prosperity.

Working in partnership with our communities we have achieved a lot since our establishment, but there is a lot more to do if we are to achieve our vision of a flourishing, world leading research and innovation system. We are excited to be working closely with government to make the ambitious and far-sighted UK Research & Development Roadmap a reality.

To achieve these goals we must engage, listen to, and partner with our many stakeholders. This is a collective endeavour and we will use our position

and reach to bring together industry, academia, the third sector, government and civic society. We do not have all the answers, and by collaborating and co-creating programmes we can generate ideas and explore issues in an inclusive way to reach multi-dimensional solutions that will enhance the very fabric of our society.

This Corporate Plan sets out our vision for the research and innovation system, and UKRI's mission in stewarding that system. It also sets out our commitment to be an efficient and trusted partner, and our goals and ambitions for the financial year 2020–21, recognising that our longer-term budgets and, therefore, our future opportunities will be set in the Government's forthcoming Comprehensive Spending Review.

It is a privilege to join and lead UKRI at this pivotal time, and I look forward to continuing to work with colleagues right across our incredible and diverse community to realise our vision.

Professor Dame Ottoline Leyser
Chief Executive Officer
UK Research and Innovation



Rethinking plastics production and use



Making products less carbon intensive is a major global challenge, alongside reducing plastic waste. Our councils, led by the Engineering and Physical Sciences Research Council (EPSRC) and the Natural Environment Research Council (NERC), are investing in multidisciplinary research through the **Plastics Research and Innovation Fund**. They are discovering new and different ways of making, using and recycling plastics, including alternatives to fossil-based materials.

Exploring the role of innovation, collaboration and participation in shaping cultural experiences



Our **Boundless Creativity** campaign, led by the Arts and Humanities Research Council (AHRC), seeks to pioneer new ways in which culture can thrive in a digital age. It is doing this by working with the UK's leading arts organisations and creative businesses to develop ambitious and ground-breaking projects. The current crisis demands that the industry adapts quickly and pivots towards digital offerings during lockdown.

World leading research tackling COVID-19



Preliminary results from the UKRI-funded RECOVERY trial, the world's largest clinical trial into treatments for COVID-19, found that dexamethasone reduces deaths of hospitalised COVID-19 patients with severe respiratory complications by up to one third. Dexamethasone is one of six different types of treatment being investigated that the trial, led by University of Oxford researchers, is investigating.

And with the National Institute for Health Research (NIHR) we have funded six new projects to improve our understanding of the links between COVID-19 and ethnicity. These projects will seek to explain and mitigate the disproportionate death rate from COVID-19 among people from Black, Asian and Minority Ethnic (BAME) backgrounds, including BAME health and social care workers.

our vision and mission



Our vision

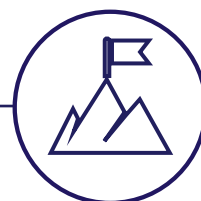


...is for an outstanding research and innovation system in the UK that gives everyone the opportunity to contribute and to benefit, enriching lives locally, nationally and internationally.

Research and innovation enriches and improves our lives and increases prosperity by creating knowledge that enables us to understand ourselves and the world around us and empowers us to tackle the many challenges we face as individuals and as communities, nationally and globally.

We will work with partners to shape a dynamic, diverse and inclusive system of research and innovation in the UK that is an integral part of society, giving everyone the opportunity to participate and to benefit.

Our mission

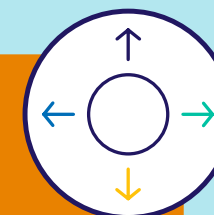


...is to convene, catalyse and invest in close collaboration with others to build a thriving, inclusive research and innovation system that connects discovery to prosperity and public good.

We bring together nine organisations with great depth and breadth of expertise, allowing us to connect research communities, institutions, businesses and wider society, in the UK and around the world. This combination enables us to work across the whole research and innovation system, informed by our networks and expertise.

As the UK's largest public funder of research and innovation it is our responsibility to ensure the health of the system as a whole, now and in the future. As a steward of this system, we will work together with many other actors. These include our close partners at the heart of the research and innovation system such as Higher Education Institutions and institutes, innovative businesses, investors, not-for-profit organisations and policy makers, and a wider set of partners such as those in the education system and civil society. We will fulfil our stewardship role through the ways in which we catalyse, convene, incentivise, invest in and conduct research and innovation.

convene and catalyse



We will convene and catalyse, by listening to and connecting diverse communities to create new combinations, working in partnership with others. And we will help to make things happen, catalysing new activities through our work and investment.

incentivise



We will incentivise the development of a research and innovation system that realises our vision through all the choices we make, how we behave, and in our policies and activities.

conduct



We will conduct high-quality research and innovation and provide critical national capabilities through our centres, units, and institutes.

invest



We will invest in people, ideas and infrastructure, through a portfolio of investments that ensures public benefit from the system as a whole, informed by engagement and evidence. We will fund well – efficiently and effectively.

about us

In pursuing our vision and mission, we will continue to harness the depth and breadth of our councils' expertise and engagement, working with partners right across the research and innovation system to facilitate the movement of people and ideas through the system. Together, we will deliver the Government's ambitions of a world class research and innovation sector that is at the heart of the UK's economic and social fabric for decades to come.



Launched in April 2018, UKRI is a non-departmental public body sponsored by the Department for Business, Energy and Industrial Strategy (BEIS). Our organisation brings together the seven disciplinary research councils, Research England, which is responsible for supporting research and knowledge exchange at higher education institutions in England, and the UK's innovation agency, Innovate UK.

The UKRI Board is our primary governing body. It oversees and directs our activities, including our research and innovation strategy. It is supported by the Audit, Risk, Assurance and Performance Committee, the Nominations and Remuneration Committee and a Board Investment Committee that provides independent scrutiny of major business cases that exceed UKRI's delegations. The Board is required to give updates and advice to the BEIS Secretary of State including an annual report and strategic priorities.

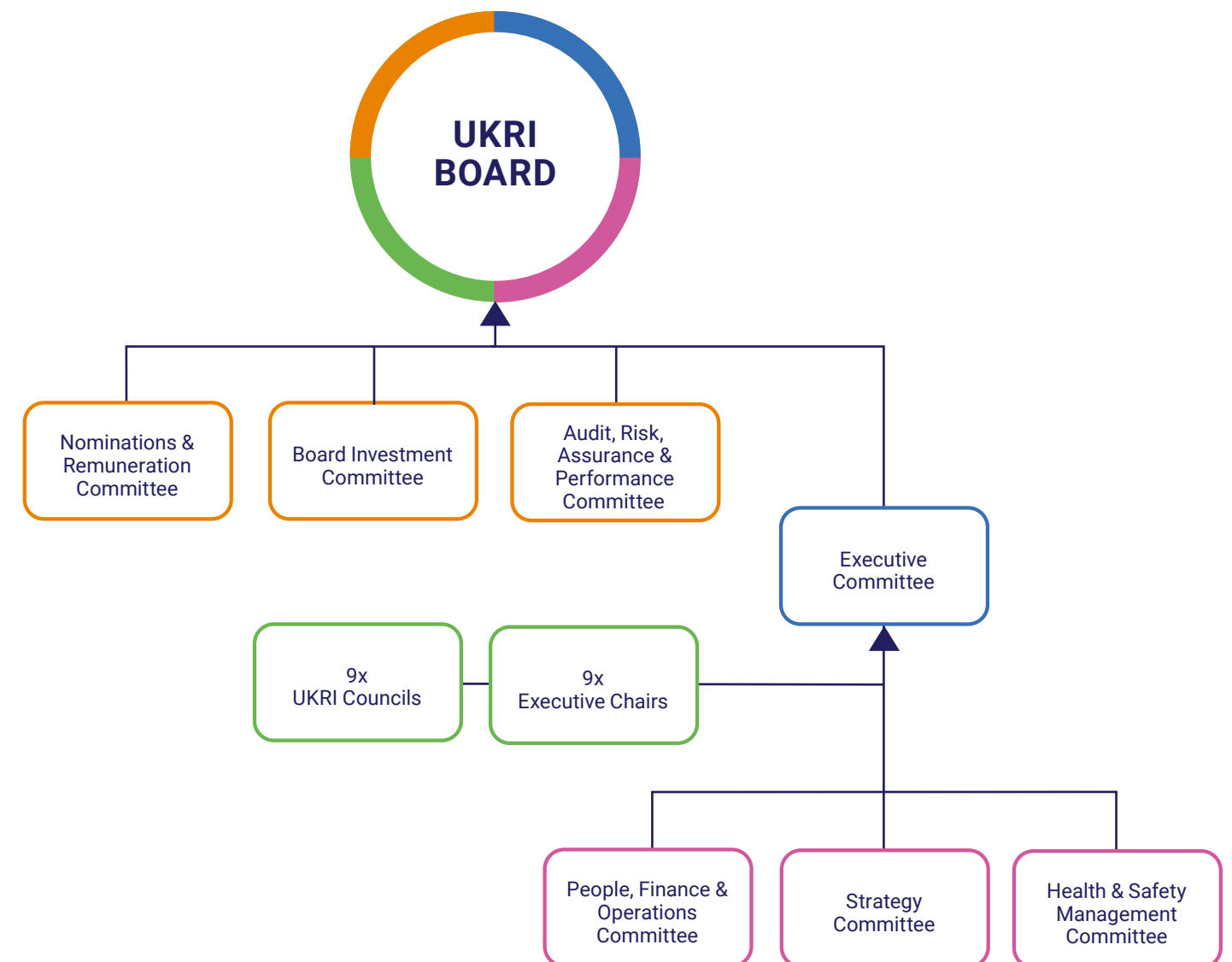
Our Board consists of the Chair, Sir John Kingman; the Chief Executive Officer (CEO), Professor Dame Ottoline Leyser; the Chief Financial Officer (CFO), Siobhan Peters; and between nine to twelve non-executive board members.

Our Executive Committee provides strategic advice to the Board and is responsible for delivering the Board's vision by overseeing the organisation's overall

performance and delivery. The Executive Committee consists of the CEO; the CFO; the Executive Chairs of the nine UKRI councils; the Executive Director of Strategy, Performance and Engagement; and the Chief Operating Officer. Our Chief People Officer is also in regular attendance.

Each council is led by an Executive Chair advised by a council of external members. Our nine councils work with their research and innovation communities and wider stakeholders to develop and implement delivery plans that contribute to delivering our strategic objectives. They collectively allow us to capture the synergies needed to steward a thriving research and innovation system.

The Executive Committee is supported by the People, Finance and Operations Committee; the Health and Safety Management Committee; and the Strategy Committee.

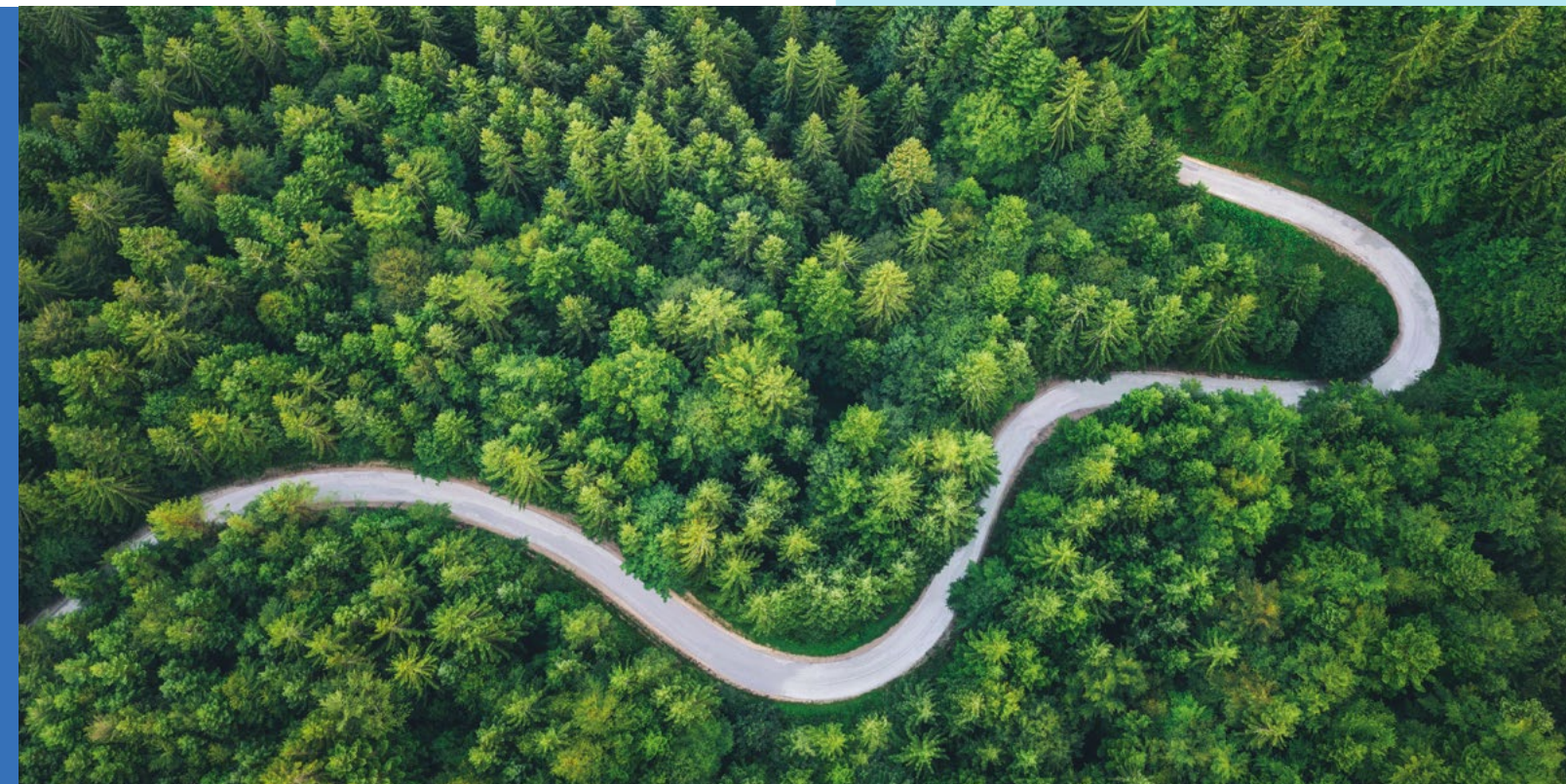


We care about equality diversity and inclusion (EDI) within our organization, in the research and innovation system and in society



Our success depends on harnessing the collective and collaborative power of diverse approaches, ideas, skills and experiences. We are working to address the systemic failures that compromise our ability to foster work environments that support diversity and inclusion. This includes considering who we represent, who we partner with, who we fund and who we include in our networks and as our advisors.

You can read our statement on [Black Lives Matter](#) on our website



Who we are

Our leadership provides advice to the Board and the BEIS Secretary of State and is responsible for delivering an environment and culture for our staff that enables them to thrive and fulfil their potential. We seek to be a responsible organisation, in the activities, research and innovation we fund, through the ways we catalyse, convene and conduct, and in how we inspire, lead and engage our staff, our partners and our communities. We aim to embed our core organisational values in everything we do, working with integrity to capture the power of collaboration and innovation and deliver excellence.

Our transparency and accountability

We are accountable for our choices and for what we deliver in our stewardship of the research and innovation system. To demonstrate this, we are developing a performance and impact framework that enables us to judge success robustly and transparently and to manage our performance to maximise our impact. For 2020–21, we will measure our performance against four perspectives, based on a balanced scorecard approach:

- **Outcomes and impacts**
(what we achieve for our stakeholders)
- **Our communities and partners**
(how our stakeholders experience us)
- **Our organisational structures and processes**
(what we must excel at)
- **Our resources, learning and growth**
(how we learn and create value)

We care about sustainability and the environment



2020 sees the adoption of the UKRI Environmental Sustainability Strategy. This brings to life the commitment in the UKRI Strategic Prospectus to 'embed sustainability in everything we do'. This Strategy commits UKRI to be net zero for its operations by 2040. **To achieve this, we must begin now.**

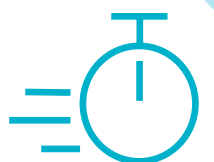
The [UKRI Environmental Sustainability Strategy](#) includes a detailed set of objectives for the next five years.

We believe in openness and transparency, both in what we do and what we fund



We aim to ensure that the data and information we hold and create are accessible and usable by the wider community, and that our communities can help us hold ourselves to account.

Enabling a rapid response to the pandemic



We launched a series of rapid-response open calls, including the UKRI open call for ideas that address COVID-19, delivered by a cross-council team and steered by a task force of research and innovation leaders, including Chief Scientific Advisors and the devolved administrations. We simplified application forms and introduced an accelerated review process to provide feedback in less than two weeks. Researchers and innovators have risen to the challenge, submitting over 1,400 applications and enabling us to invest £25 million within the first 10 weeks in high-potential-impact projects.

delivering our vision and mission

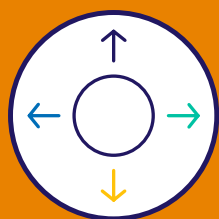
We will fulfil our stewardship role through the ways in which we catalyse, convene, incentivise, invest in, and conduct research and innovation

This Corporate Plan sets out our goals and ambitions for the financial year 2020–21, illustrated with some specific examples of how we are working with partners right across the research and innovation system to tackle local, national and global challenges.

The research and innovation system is complex and multidimensional and must be considered holistically. This is reflected in the interconnected nature of the four elements of our mission. They are not separable, and all contribute to multiple outcomes. As stewards of the system, our role is to use the levers at our disposal in an integrated and coordinated way to support a diverse portfolio of outstanding research and innovation, and the people and infrastructure needed to deliver it; this will drive up prosperity, improve societal outcomes and support efficient, effective public services. We will work across sectors and places, and with government, industry, academia, civic society and the third sector to realise our vision and the ambitions of the Government's UK Research and Development Roadmap.

In this Corporate Plan we set out our objectives for the current year, matching each to the element of our mission it is most relevant to, while recognising that they are all deeply interconnected.





convene and catalyse

We will convene and catalyse, by listening to and connecting diverse communities to create new combinations, working in partnership with others. We will also help to make things happen, catalysing new activities through our work and investment.

It is our mission to bring together the depth and breadth of expertise across institutions, businesses and wider society to create new knowledge and tackle the many challenges we face as individuals and communities, locally, nationally and globally. Our contributions to the sector's response to the COVID-19 pandemic are a good illustration of our convening and catalysing roles. Drawing on our unique ability to connect extraordinary and talented people and ideas across the whole system, we have facilitated world-leading innovations both to tackle the immediate effects of the pandemic, from vaccines to ventilators, and to develop our understanding of the longer-term implications for the UK and beyond. Our networks across industry, universities and research institutes have allowed us to support a diverse range of ideas and teams spanning disciplines, rapidly addressing the many challenges the pandemic has raised.

We have learned valuable lessons by working rapidly across the organisation through the pandemic. We are integrating this experience into our ongoing Reforming our Business (RoB) programme, working closely with our stakeholders to ensure that all our processes are both effective and efficient.

We want to foster a research and innovation system where diverse and transformative people and ideas can thrive, both outside and inside our own organisation. Central to this is a holistic understanding of the system that considers not only the researchers and innovators but also the wider support they need, including technical and administrative support, infrastructure and deep engagement with diverse

stakeholders. We need open discussion with voices from all backgrounds, from universities and businesses to policy makers and the public. Similarly, we are working with our own staff to make sure that they are heard, regardless of who they are and where they work in our organisation. We must ensure they have the support and confidence they need to achieve their full potential, contributing to building a strong research and innovation system and excellent relationships with our many communities.

We must also build on our existing convening strengths to enhance our international reach and economic impact and to continue to attract and foster private sector research and development.

Connecting communities to policy makers

Through the Economic and Social Research Council (ESRC), we have partnered with the Government Office for Science (GO-Science) to fund two fellows focused on Areas of Research Interest (ARIs) – the main research questions facing government departments. The Fellows are collaborating with Chief Scientific Advisors and departments to identify cross-cutting ARIs that address priorities central to rebuilding from COVID-19. These insights will help researchers and innovative businesses to identify opportunities for collaboration and co-funding around these priorities.



Our priority objectives for this year include:

Responding to global emergencies, we will:

- inform and contribute to the national response to COVID-19 by continuing to fund research and innovation delivering impact within 12–18 months and deploying our capabilities to tackle the challenges presented by the pandemic
- support preparations for the 2021 United Nations Climate Change Conference of the Parties (COP26), so that researchers and innovators will influence the discussions.

Enabling a dynamic, diverse and inclusive system of research and innovation, we will:

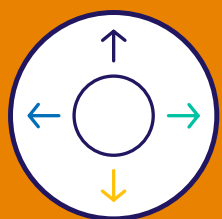
- work collaboratively with the Department for Business, Energy and Industrial Strategy on a People and Culture Strategy
- develop an equality, diversity and inclusion programme that will deliver a research and innovation system 'for everyone, by everyone'
- reduce bullying and harassment in research and innovation, by bringing together funders and regulators to promote culture change and the adoption of institution-wide approaches to prevention
- work with communities across the UK, to hear their priorities for the future of research and innovation and how it affects their lives.

Connecting international communities, we will:

- set out an ambitious international offer for our partners and stakeholders in the UK and overseas, providing a clear direction for our international activities and opportunities for collaboration
- play our role in attracting and retaining global talent to the UK, including through our funding programmes and as an endorsing body for the Global Talent Visa
- maintain and grow key bilateral and multilateral relationships with the world's leading and emerging funding agencies for research and innovation through our UK teams and the UKRI offices in North America (US and Canada), Brussels, China and India.

Strengthening networks across the research and innovation landscape, we will:

- work in a more proactive and coherent way across councils to engage with industry and innovation leaders
- continue to invest in networks and programmes that support these stronger connections, such as the Connected Capability Fund (CCF), Prosperity Partnerships and Knowledge Transfer Partnerships.



Catalysing investment: Reforming our Business

We have made the first steps to simplify our processes by removing the Pathways to Impact statement used in applications for funding. We are developing further simplifications to inform the implementation of the UK Research and Development Roadmap.



Simplifying and improving our business processes, we will:

- implement a plan to improve and simplify our funding processes through the Reforming our Business (RoB) programme, creating true systemic reductions in bureaucracy rather than simply moving the burden to another part of the system
- set up our major projects to succeed and give them a robust foundation by improving the quality of our business cases
- create a holistic review of our data landscape, to enable the easy and sustainable use of data within UKRI.

Building an organisational culture and environment that enables us to recruit, include and support the best and diverse talent, we will:

- review our existing human resources (HR) strategy: 'One HR', to assess whether it meets UKRI's needs and produce a revised or new strategy and plan as appropriate, with local plans for each of our councils
- provide high-quality, highly responsive HR support services, advice and insight to enable our staff to fulfil their potential in an environment that promotes employee engagement; equality, diversity and inclusion (EDI), learning and development and wellbeing

- implement pay proposals for the 2020–21 pay year that maximise the value of the available pay envelope, that address key recruitment and retention concerns, and that are compliant with wider public sector pay policy
- deliver on our commitment to develop a leadership strategy.

Beyond 2020–21:

UKRI moved swiftly this year to improve near-term understanding of the COVID-19 virus, and will continue to apply our unique breadth and reach to harness the power of research and innovation to better understand and tackle its far-reaching consequences.

We will minimise unnecessary bureaucracy to free up researchers', innovators' and business leaders' time and make our processes as efficient and effective as possible. Internally we will continue improving our capabilities to support staff in making evidence-based decisions.

We will also set a clear direction for our engagement in global collaboration by developing an international strategy that will set a bold ambition to be the international partner of choice for world-leading research and innovation, driving and benefiting from partnership with the world's most innovative nations and working across borders to tackle global challenges.

Supporting global collaboration



We are working with partners in developing countries to develop equitable partnerships and to maximise the impact of our Official Development Assistance (ODA) activities.

This year we will invest £435 million through our ODA Funds to help secure fairer, healthier and more sustainable futures for millions and contribute to the aims of the United Nations 2030 Agenda for Sustainable Development Goals.

Catalysing communities: Connecting to global decisions



In July we awarded four fellowships through Engineering and Physical Science Research Council and Economic and Social Research Council to support international climate negotiations ahead of COP26. The fellows' work will play an important part in highlighting how UK research and evidence can contribute to collaborative decision-making on our international transition to net zero.

Driving transdisciplinary international research collaborations: Infectious diseases



Through our Fund for International Collaboration (FIC), our councils are driving the integration of mathematical, computational social sciences with life sciences research to explore the ecological, evolutionary, and social drivers that influence the transmission dynamics of infectious diseases of animals, humans and plants. The Biotechnology and Biological Sciences Research Council (BBSRC), with ESRC, the Medical Research Council (MRC) and Natural Environment Research Council (NERC) are partnering with funders in the US, Israel and China to improve our understanding of the interactions between humans, livestock, crops, wild animals and plants that lead to infectious diseases such as Zika, Ebola, African Swine Fever and Avian Influenza.



incentivise

We will incentivise the development of a research and innovation system that realises our vision through all the choices we make, how we behave, and in our policies and activities.

We have a critical role to play in supporting the flow of people and ideas through the system, putting new knowledge to use and catalysing economic impacts and other societal benefits both through our funding and through the connections we help forge. We will continue to work closely with business and other users of research across a whole range of sectors to understand differing needs and to develop partnerships models that incentivise and enable public/private co-investment in research and innovation. We will focus our energy on the areas that make research, innovation and industry stronger and more resilient to support a research and innovation led recovery.

Crucially, we must consider how we reward and recognise the full range of activities required for a truly excellent research and innovation system. We will continue to develop our work on research integrity and openness. It is essential to build trust, collaboration and data reuse across the entire research and innovation system and to address the systemic challenges that individual researchers and organisations can face in supporting this agenda.

As well as ensuring the right incentives are in place for researchers and innovators and the organisations and businesses they work with, we must look carefully at our own processes and how we can do better. It is vital that our approach to supporting research and innovation is based on a strong understanding of 'what works' in terms of the best ways to create a vibrant, creative system that stimulates and enables excellent research and innovation which enriches lives. As part of this effort, in addition to considering the incentives we create for our external stakeholders, we will continue to evolve our internal services for HR, finance, and procurement so that they are appropriate for the scale of our integrated organisation.

Incentivising new collaborations to tackle societal issues

The £10 million Modern Slavery Policy and Evidence Centre brings together academics, policymakers, businesses, civil society, survivors and the public on a scale not seen before in the UK to collaborate on solving the global challenge of modern slavery and transform the effectiveness of law and policies designed to overcome it. AHRC and ESRC fund the centre, which is led by the Bingham Centre for the Rule of Law, through the Strategic Priorities Fund (SPF).



Our priority objectives for this year include:

Building assurances for openness and integrity into the research system, we will:

- establish a national research integrity committee that has the dual role of championing research integrity in the UK and providing a second line of assurance for the current system of self-regulation
- lead an open research strategy to ensure we influence and adopt best practice in open and transparent research
- modernise our research evaluation policy to reward openness and diversity in research
- explore with our community how the peer review process impacts culture across the system.

Transforming the way we maximise the impacts from research, we will:

- support our councils to enhance their focus on commercialisation activities, paying due attention to evidence from successful programmes such as the Biomedical Catalyst
- enhance and mobilise the value of research and innovation through engagement and collaboration between researchers, government, industry and the public.

Doing what we do better, we will:

- begin the first phase of our 'what works' evidence programme by launching a call for research-on-research-and-innovation proposals
- begin funding the Productivity Institute and learn how to better diffuse innovation
- deliver and implement plans for a new grant funding process 'The Funding Service', including pilots across four councils, delivering a continuous improvement approach
- ensure a thorough understanding of our business requirements, and approval for, a new HR, Accounting, Reporting and Procurement (SHARP) programme to improve our internal processes.

Encouraging private investment

Success in our Covid Fast Start competition encouraged Wowsome XR, a multinational immersive tech company, to open a UK office and recruit staff in the UK. The £50,000 funding they received was relatively small, but it was enough to demonstrate the support the UK Government is providing to UK innovators. Wowsome XR plan to run their whole European operation out of the UK.





Leading by example: promoting technical skills

UKRI became the first funding organisation to sign the Technician Commitment, which seeks to provide greater visibility for the vital work of the UK technician workforce and to secure their future skills and careers.



Beyond 2020–21:

To understand what the right incentives are, we must become a truly evidence based organisation, that understands the interconnectedness and complexity of our and others' interventions. We will apply this principle to all our activities, learning by doing and drawing on untapped analysis and evidence.

For example, building on evidence from existing waves of the Industrial Strategy Challenge Fund (ISCF), we will develop an ambitious approach for the future programme and explore how to build on this portfolio. We will also undertake a review of our Higher Education Innovation Fund method, ensuring that it incentivises knowledge exchange and drives higher performance across the higher education institution sector.

The transformation of our funding service will include replacing all systems, reducing and harmonising funding types, and simplifying processes and policies. Alongside this, we must also work to improve the pipeline of ideas that our funding supports and the integrity of the research landscape as a whole.

Forging connections to build confidence in the digital economy

With the £33 million Trustworthy Autonomous Systems programme, funded through the SPF, we are ensuring that we can fully integrate technical & social sciences and humanities research to unlock the huge potential industrial and societal benefits of systems that can make decisions without human intervention.

Our Industrial Strategy Challenge Fund Digital Security by Design programme, launched in 2019, has awarded £10 million to nine grant holders who can help radically update the security foundations of the digital computing infrastructure that underpins the entire economy.



Supporting private and public sector collaboration: The Biomedical Catalyst

Supported through MRC and Innovate UK, the biomedical catalyst encourages academia and businesses to pursue the most innovative life sciences opportunities, by de-risking innovative science and commercialising the ideas that come from academia and industry.

Over £450 million of funding has helped speed up diagnosis and treatment of numerous medical conditions and helped UK Small and Medium-sized Enterprises develop into competitive and sustainable businesses. An independent evaluation of the programme highlighted its success and recognised that it is at least as effective as R&D tax credits, leveraging between £3.99 and £5.09 per £1 of public spending and increasing employment by 11–15% over three to five years.





invest

We will invest in people, ideas and infrastructure, through a portfolio of investments that ensures public benefit from the system as a whole, informed by engagement and evidence. We will fund well – efficiently and effectively.

Crucial to UKRI's mission is our support for the people, infrastructure, and ideas that contribute to building a greener, healthier and more resilient UK. It is therefore important that we minimise the impacts of the COVID-19 crisis on the people and projects we fund and that we work with government and our stakeholders to support an inclusive and sustainable knowledge economy.

To achieve this ambition, we must build a diverse and multidimensional portfolio of both public and public/private investment, balancing responsive funding for early stage innovation and curiosity-led research with targeted investments focused on the greatest challenges and opportunities of today, such as Net Zero, digitisation, national security, and inequalities across our society.

This requires collaborating and investing across the whole system from knowledge generation through innovation, development, deployment and adoption, and back again. We will invest in people and talent to foster the growth and flow of ideas, knowhow and skills through the system, and to strengthen international collaboration to become a partner of choice globally. To support this ambition, we will invest in a pipeline of diverse, internationally competitive, high-quality and accessible research and innovation infrastructure.

We are committed to building on the research and innovation strengths that exist in every region and nation of the UK to ensure that our investments benefit the whole country. We will also improve how we collect and analyse our data on the distribution of funding and its impact, including building an understanding of where research and innovation is really happening, and the geography of networks and collaborations.

Investing to stabilise our sectors

We acted quickly in response to the impacts of the pandemic on the research base. We are delivering over £750 million of support, over 2 years, for innovative businesses affected by the pandemic. In the University sector we approved non-costed extensions and allowed extensions to start dates to make project timelines more flexible. We granted costed extensions to UKRI funded PhD students ending before 31st March 2021, and we are working with the Department for Business, Energy and Industrial Strategy (BEIS) to deliver the University Research Sustainability Package which will provide £180 million worth of UKRI costed extensions to projects.

Our priority objectives for this year include:

Stabilising the system, we will:

- mitigate the impact of disruption from COVID-19 on the grants we fund, securing the UK talent pool and the continuation of key projects
- stabilise the wider research system, working with the Department for Business, Energy and Industrial Strategy and wider government to shape additional support to speed recovery.

Growing the world's first Compound Semiconductor (CS) cluster

CSconnected in South Wales spans the entire CS innovation chain with applications in diverse fields such as healthcare, digital communications, energy, clean transport and counter-terrorism.

EPSRC's varied support has helped to establish a Future CS Manufacturing Hub in Cardiff, set up a Centre for Doctoral Training (CDT) in CS Manufacturing to develop knowledge and skills, acquire equipment like the CS growth reactor at Swansea University and fund fundamental research in a range of application areas.

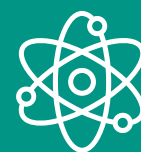
Bolstered by private investment, the cluster delivered £464 million turnover in the region in 2019 and will receive £25 million in support from our Strength in Places Fund as part of a major £44 million project.

Investing in the best people, ideas, and infrastructure, we will:

- continue to deliver integrated programmes and activities, through and across each of our councils. Examples are included in the *delivering together* section
- ensure effective delivery of all 34 Strategic Priorities Fund programmes and the fund as a whole, while preparing for potential future rounds
- continue delivering the Industrial Strategy Challenge Fund (ISCF) as a substantial programme of research and innovation investment
- ensure effective delivery of our 32 programmes with international partners under the Fund for International Collaboration and utilise its strategic opportunities. stream to support international collaborations as part of our COVID-19 response
- increase access to, and investment in, world-leading research and innovation infrastructure, facilities and centres through our World Class Labs budgets and Infrastructure Fund, continued support for the UK Research Partnership Investment Fund, and establishing centres of excellence for research technology professionals



Investing in challenge-led recovery



The Industrial Strategy Challenge Fund (ISCF) continues to act as our flagship challenge-led innovation programme, now encompassing over £2.6 billion in public investment with £3 billion in committed co-investment by industry. Three waves of ISCF investments have been established, supporting research and innovation in pioneering areas from battery technology, to the future of flight and the commercialisation of quantum technologies.

- create consensus for the core technology choices for UK digital infrastructure and establish regular cycles of investment prioritisation to refresh the Infrastructure Fund pipeline
- ensure international research networks continue to flourish. If the UK does not associate to Horizon Europe, we will work with National Academies, Devolved Administrations and BEIS to co-create a UK Discovery Fund, supporting disruptive, investigator-led research across all areas of research endeavour, retaining top UK talent and attracting the best researchers worldwide.

Funding to build our capability: COVID-19 Vaccines



We are increasing the UK's ability to manufacture vaccines through a new £100 million state-of-the-art Cell and Gene Therapy Catapult Manufacturing Innovation Centre due to open in December 2021 as well as through an additional £131 million investment to accelerate the development of the Vaccines Manufacturing Innovation Centre which was originally launched through a £93 million fund via the ISCF.

Applying a place-based lens to what we do, we will:

- work with the government to develop the UK Research and Development Place Strategy by building on strengths across the UK, and evolving our Strength in Places fund
- improve our reporting on the regional distribution of our funding, progressing from our initial publication in January 2020.

Improving in-house procurement, we will:

- develop sufficient commercial team capacity, capability, skill, and flexibility to undertake complex procurement in-house
- drive value for money by improving procurement planning, sourcing and contract management.

Engaging with others: Investing together



Through Innovate UK's investor partnership competition, Cell Mogrify Ltd was awarded £0.4 million, leveraging a further £0.9 million of investment to transform cell therapy by the systematic discovery of novel cell conversions. The company has since raised a further £12.5 million of additional capital.

Beyond 2020–21:

We will support the development of the positive, diverse, interdisciplinary research and innovation culture that is central to the success of our system and will back our researchers and innovators to do their best work, delivered with minimal red tape and supported by a high-quality research environment. We will also expand our regional footprint to develop stronger relationships with, and understanding of, key strategic partners across the UK, building on the strong foundations of our councils.

We will review the long-term sustainability issues both revealed and caused by COVID-19 in the research and innovation sector, researcher careers and publicly funded research and innovation.

Subject to the Comprehensive Spending Review, we will deliver the UK Research and Development (R&D) Roadmap commitment to restore and increase our support for long-range discovery research, business-led innovation and private sector investment in R&D through a balanced portfolio of research and innovation within and across disciplines.

Alongside this we will help develop and implement the Government's UK Research and Development People and Culture Strategy and Place Strategy. We will continue to enhance our support for talent across the UK including through the development of a Talent Strategy, increasing our understanding of long-term career pathways including our portfolio of fellowship schemes. We will ensure they meet the needs of the research and innovation system and will also create a new deal for postgraduate research funding.

Long-term investment plans for sustainable infrastructure



The UKRI Infrastructure Opportunity Report describes existing UK infrastructure and key international facilities in which the UK participates. It also identifies future needs and opportunities that will inform a long-term, flexible pipeline of investment priorities for the Infrastructure Fund for the next 10 to 20 years.

The Infrastructure Fund is the first UKRI fund to include environmental sustainability as one of the criteria for assessment.



conduct

We will conduct high-quality research and innovation and provide critical national capabilities through our own centres, units, and institutes.

A properly functioning research and innovation system needs the right support structures and core capabilities including access to the right equipment and facilities, high quality technical and administrative support and the sharing of knowledge and ideas.

We fund and operate a wide array of institutes, laboratories, centres, units, Catapults, and infrastructures, ranging from Rutherford Appleton Laboratory (RAL) Space to the Medical Research Council Laboratory of Molecular Biology. These play a unique and valuable role in the research and innovation landscape, providing access to facilities that would otherwise be out of reach, connecting academia to business, connecting innovators to large businesses, and enabling us to push the boundaries of frontier research and pursue high risk, high reward and long-term activities. We will continue to support these centres across the UK, providing the long-term funding they need to create a critical mass of skills,

expertise, knowledge, and equipment. We will improve the connections between our centres, and with the wider ecosystem of public and private labs and facilities.

Our centres and institutes are providing critical infrastructure and support as part of the national response to the COVID-19 pandemic – from the Francis Crick Institute reassigning lab space to provide testing capabilities, to the 200+ grants that are being repurposed across our centres, institutes and units to focus on research related to COVID-19.

Supporting a diverse research ecosystem

Independent Research Organisations are an important part of our research ecosystem and help us deliver our vision. For example, through the Arts and Humanities Research Council, we support organisations such as The National Archives, The British Library, The British Museum and The National Trust.

Ensuring high quality capability

Our staff range from leading edge researchers and technicians in our centres, institutes and laboratories, to subject matter experts and those who ensure our processes work smoothly.

Catapults

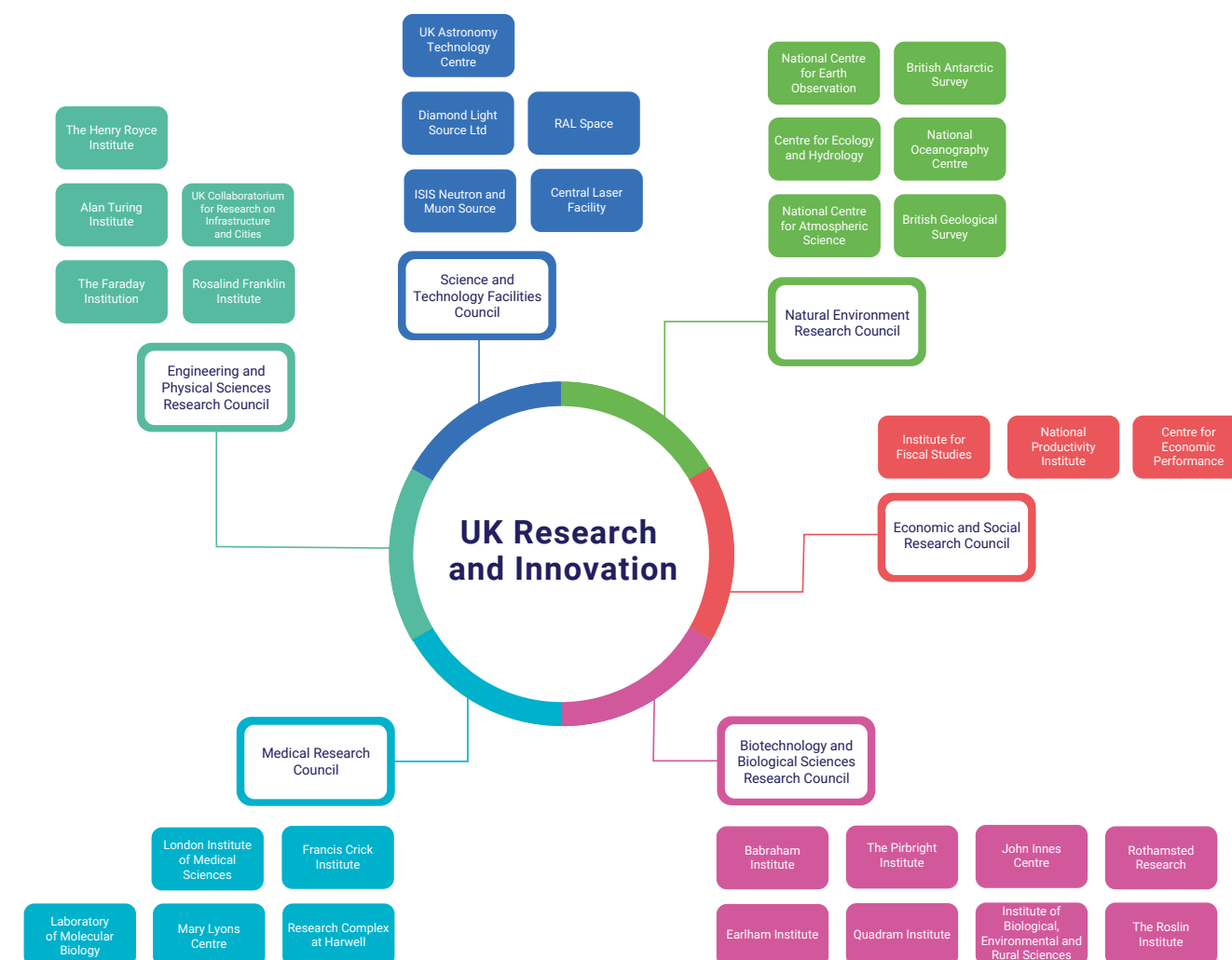
Catapults invest in people, technologies and facilities so that the UK is able to maintain its position in sectors where it has established strengths, and punch above its weight in emerging, high value markets.

This year the Digital Catapult has selected 13 cutting edge startups to join the Machine Intelligence Garage, giving them access to the vast amount of compute power needed to train their models as well as the mentoring needed to help their companies grow.



Image credit: John Willoughby

A selection of the institutes, laboratories, centres and units supported by our councils





Access to unique National and International facilities

With the UK's large-scale multidisciplinary facilities (the ISIS Neutron and Muon Source, the Central Laser Facility and Diamond Light Source) we have unique capabilities for academic and industrial researchers across many research fields. We also partner in complementary international facilities such as the X-Ray Free-Electron Laser Facility, the European Synchrotron Radiation Facility and the Institut Laue-Langevin. Collectively they enable us to explore and understand the structure of the world around us, from advanced materials for the aerospace industry to the fundamental processes affecting life.



The **ESRC Centre for the Microeconomics of Public Policy** at the **Institute for Fiscal Studies** has been key to analysing the economic response to the pandemic, including its effects on household finances, inequality, home learning, returning to work and financial risk and resilience. It has also been key in setting up the Economics Observatory, a hub focused on communicating key economics insights on the response to the pandemic to policymakers, students and the public.

The Rosalind Franklin Institute, funded through the Engineering and Physical Sciences Research Council, has led a collaborative project with Protein Production UK, resulting in the isolation of nanobodies which bind to the spike protein of the SARS-CoV-2 virus. This has enabled world-leading imaging of the virus at atomic scale using advanced imaging techniques.

The MRC Biostatistics Unit in Cambridge has developed the methodology for real-time tracking of the COVID-19 pandemic – or “**nowcasting**”. Working closely with Public Health England, the researchers are using a transmission model, data on daily COVID-19 confirmed deaths and the time from infection to death, to reconstruct the number of new COVID-19 infections over time. This has helped to estimate a measure of ongoing transmission (R); and predict the number of new COVID-19 deaths in different regions and age groups to help inform the public health response to the outbreak.

The Pirbright Institute, funded by the Biotechnology and Biological Sciences Research Council (BBSRC), has been working with UKRI-funded researchers at the University of Oxford and Imperial College London to support the development of three vaccine candidates for COVID-19. Long-term investment in talent, infrastructure and zoonosis expertise has resulted in the UK being able to respond rapidly at a time of national and global emergency and furthered knowledge of vaccine candidates to tackle the pandemic.

Research and Innovation Campuses that foster innovation

Through BBSRC and STFC we support the National Research and Innovation Campuses which form a vital component of the UK innovation ecosystem, providing space and other support for business incubation and scale-up. The campuses create a low-risk environment to foster early-stage innovation, accelerating excellent research into tangible social and economic benefits for the UK and internationally. They also attract significant levels of private sector investment – the 60 early-stage bioscience companies on the Babraham Research Campus, for example, have secured over £1.2 billion in private investment to date.



The STFC **Hartree Centre** is providing supercomputing power to assist in global computational drug discovery efforts to help speed up identification of potential coronavirus treatments.

The British Antarctic Survey, part of the Natural Environment Research Council, is engaged in a decade long programme of work to modernise our Antarctic Infrastructure to facilitate ongoing climate related research in Antarctica. A new wharf capable of welcoming the RRS Sir David Attenborough is being constructed and a new Discovery Building is being built that will provide a world-leading capability to ensure the UK remains at the forefront of climate, biodiversity and ocean research in the polar regions. Long-running datasets and research investigations improve our understanding of how marine and terrestrial species are responding to climate change and enhance our ability to model climate change and predict sea level rise.

The North Wyke Farm Platform is a unique research facility or ‘living lab’ for the study and comparison of grazing livestock and cereal farming systems. Part of the Biotechnology and Biological Sciences Research Council-funded **Rothamsted Research**, the facility provides access to a range of state-of-the-art instrumentation in hydrologically-isolated field-scale catchments alongside remote open access to the data generated by the facility. This supports research and analysis of the benefits and trade-offs of grazing livestock or cereal farming systems for soils, water, air, plants animals and economics.

Beyond 2020–21:

Our institutes and centres will contribute to the delivery of the governments ambitions around levelling up and developing research and innovation talent across the UK, providing high-level skills for technicians, and working across sectors to identify and meet future skills needs.

To achieve our organisational ambitions around net zero we will look across all parts of UKRI to challenge and change the way we operate and invest. As part of our Environmental Sustainability Strategy we will put in place a ‘Carbon Innovation Fund’ for investments in our buildings and infrastructure to meet their net-zero targets.



delivering together

Our nine councils work together in innovative ways to deliver an ambitious agenda, drawing on our great depth and breadth of expertise and the enormous diversity of our portfolio. Through our councils we maintain and champion the creativity and vibrancy of disciplines and sector specific priorities and communities. Our councils shape and deliver both sectoral and domain specific support. Whether through research council grants, quality related block grants from Research England, or grants and wider support for innovative businesses from Innovate UK, we work with our stakeholders to understand the opportunities and requirements of all the different parts of the research and innovation landscape, maintaining the health, breadth and depth of the system.

In this way, maintaining and enhancing the strength and capacity of our councils allows us to address shared priorities and to tackle challenges that require collaboration across disciplines and domains, enabled by cross-cutting funds. In developing and implementing strategies from international collaboration and environmental sustainability, to open research, levelling up, and the flow of talented people, we need to harness the richness of the research and innovation landscape. By working together, we can take into account and benefit from the variety of needs, experiences and ways of working that exist across all our endeavours to deliver on our vision and our responsibility as stewards of the research and innovation system.

Details of our councils' current priorities can be found in their delivery plans published last year. Here we capture just some of the priority activities we will deliver together over the coming year.

Pan-UKRI funds	Shared Priorities
Fund for International Collaboration (FIC)	Infrastructure and digital infrastructure
Future Leaders Fellowships (FLF)	International collaboration
Global Challenges Research Fund & Newton Fund (Official Development Assistance)	Maximising impact from research
Industrial Strategy Challenge Fund (ISCF)	Open research
Infrastructure Fund	Place
Strength in Places Fund (SIPF)	Research Culture
Strategic Priorities Fund (SPF)	Talent and Skills
	COVID-19 response

Council Delivery Plans published in June 2019.



Arts and Humanities Research Council

AHRC funds outstanding original research across the whole range of the arts and humanities. This research provides economic, social and cultural benefits to the UK, and contributes to the culture and welfare of societies around the globe.



Biotechnology and Biological Sciences Research Council

BBSRC invests in world-class bioscience research and training. This research is helping society to meet major challenges, including food security, green energy and healthier, longer lives and underpinning important UK economic sectors, such as farming, food, industrial biotechnology and pharmaceuticals.



Economic and Social Research Council

ESRC is the UK's largest funder of research on the social and economic questions facing us today. This research shapes public policy and contributes to making the economy more competitive, as well as giving people a better understanding of 21st century society.



Engineering and Physical Sciences Research Council

EPSRC invests in world-leading research and postgraduate training across the engineering and physical sciences. This research builds the knowledge and skills base needed to address scientific and technological challenges and provides a platform for future UK prosperity by contributing to a healthy, connected, resilient, productive nation.



Innovate UK

Innovate UK drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas, including those from the UK's world-class research base. They connect businesses to the partners, customers and investors that can help them turn these ideas into commercially successful products and services, and business growth.



Medical Research Council

MRC is at the forefront of scientific discovery to improve human health. Its scientists and clinical professionals tackle the greatest health problems facing humanity in the 21st century, from the rising tide of chronic diseases associated with ageing to developing new medicines to treat rare genetic disorders.



Natural Environment Research Council

NERC is the UK's leading investor in environmental science. Its world-class research, skills and infrastructure solve major global issues such as the climate crisis and plastic pollution, and bring benefits to the UK, such as affordable clean energy, sustainable agriculture, clean air, and resilience.



Research England

While Research England has responsibility for English-only universities in relation to research and knowledge exchange (KE) activities, we are focused on creating and sustaining the conditions for a healthy and dynamic research and KE system in England. This system works to complement similar systems across the Devolved Administrations, to ensure, as practicably as possible, system wide approaches are identified and implemented.



Science and Technology Facilities Council

STFC is a world-leading multi-disciplinary science organisation. Its research seeks to understand the Universe from the largest astronomical scales to the tiniest constituents of matter, and creates impact on a very tangible, human scale.

Arts and Humanities Research Council

The AHRC sustains a culture of innovative research and researchers across the humanities and the creative and performing arts, to enhance the role of research in generating creative, diverse and inclusive communities of knowledge, and to enable cultural participation, address contemporary social challenges and rebuild a stronger economy and a more cohesive society.

A strong commitment to investigator-led research across all our disciplines and at all career stages will enrich our extensive research ecosystem and exemplify how to connect discovery with prosperity and public good.



Our priority objectives for this year include:

Cultural and Creative Industries

Our Cultural and Creative Industries programmes generate substantial external investment, demonstrating how AHRC subject areas leverage innovative research and innovation investment across the country. The programmes provide new investment to level up productivity, employment opportunities, economic growth and sustainable regeneration across the UK in an area of critical vulnerability. **We will:**

- continue to deliver the world's two biggest research and innovation programmes for the cultural and creative industries: the Creative Industries Clusters and Audience of the Future programmes
- deliver 'Boundless Creativity', a major initiative exploring the impact of COVID-19 on culture and the creative economy. As part of this initiative we will conduct an unprecedented research project, in partnership with the Department for Digital, Culture, Media and Sport, responding to the threat to our creative economy
- complete year one of delivery of two major international programmes funded through the Fund for International Collaboration: a £14 million five-year programme with the US, focused on digital research in cultural institutions; and a £10 million four-year collaboration with China to build new research industry partnerships between our creative economies.

Cultural Assets

The AHRC will steward a culture of collaboration between universities, Independent Research Organisations, and other cultural heritage partner organisations to boost the heritage economy and enhance public engagement with research, both nationally and internationally. **We will:**

- commission up to 5 large investments up to £15 million under the Strategic Priorities Fund (SPF) 'Towards a National Collection' programme to be ready to start in early autumn 2021–22
- deliver a major public exhibition on forced displacement in partnership with the Imperial War Museum and the Economic and Social Research Council, responding in innovative ways to the challenges of exhibiting in the context of the pandemic
- work in partnership with the BBC to showcase arts and humanities thinking to a wide audience, through the new short films commissioned in collaboration with BBC Arts for Culture in Quarantine and continuing our fortnightly podcast series into 2020–21.

Contemporary Challenges

The AHRC will use its expertise to address systemic injustices and the challenges to local, national and global communities, and to foster exemplary and interdisciplinary research communities embedded in society. **We will:**

- through our Modern Slavery Policy and Evidence Centre, make up to eight awards aimed at improving the current support system for victims and survivors of modern slavery
- work in collaboration with the Medical Research Council and the Economic and Social Research Council on a major new programme of research on adolescence and mental health
- address issues related to climate uncertainty through three arts and humanities led awards in the SPF UK Climate Resilience Programme
- award five new ED&I Fellowships, underscoring our view of the challenge of racial prejudice and inequality not only as a matter of process but as an area where research can make a real difference.

Strategically-driven, efficient processes

The AHRC will ensure our processes are fully effective and efficient in delivering our strategic aims. **We will:**

- deliver exemplary processes for grant applicants and award-holders, with high level support throughout the process
- evolve our Peer Review College through recruitment and training as a diverse, inclusive and supportive network to assure and enhance research excellence.

Beyond 2020–21

We will continue to push the frontiers of creative research and define how research and innovation creates value in the creative industries as well as opportunities for levelling-up across the UK. We will create a 21st Century research infrastructure that fully meets the needs of the humanities and creative and performing arts at local and national levels, aligned with the wider ambitions of UKRI for our economy and society.

Arts and humanities research will play an increasingly ambitious and pivotal role in the commitment to address inequality; meet the pressing challenges facing society within the UK and globally; and, through creativity and innovation, contribute to rebuilding and strengthening the economy.

Biotechnology and Biological Sciences Research Council

In 2020–21 BBSRC will continue to drive forward UK bioscience, working with our partners to support the UK's world-leading bioscience researchers and innovators as they contribute to the global response to COVID-19, as well as providing the means to achieve a cleaner, greener recovery for society and the economy.



Our priority objectives for this year include:

Advancing the frontiers of bioscience discovery

To continue to prioritise excellence in discovery research that will deliver transformative new understanding of the fundamental rules that govern biological systems, and breakthrough innovations for research and business.

We will:

- Invest up to £139 million in creative, curiosity-driven discovery research through our flagship Responsive Mode programme, including strategic Longer and Larger Awards (sLoLas)
- Publish and begin to take forward the recommendations arising from our review of data-intensive bioscience.

Furthering UK leadership in Engineering Biology

To build on the capabilities established to date to consolidate and grow the UK's global leadership in engineering biology, for the benefit of the wider UK economy. **We will:**

- Lead work across our Councils, Government, academia, and industry to develop plans for a new National Engineering Biology Programme

Tackling major societal challenges

To harness the UK's world-leading bioscience expertise to deliver sustainable, resilient food and agriculture, drive clean economic recovery and growth through new bio-based industries, and tackle global threats to human and animal health. **We will:**

- Invest £25 million in interdisciplinary research aimed at transforming the UK food system by linking healthy and accessible diets with sustainable food production and supply
- Award funding to establish up to five Greenhouse Gas Removal (GGR) Demonstrators, with the Arts and Humanities Research Council (AHRC), the Economic and Social Research Council (ESRC), the Engineering and Physical Sciences Research Council (EPSRC), the Natural Environment Research Council (NERC), Innovate UK and Government partners
- Commence delivery of the second phase of investment in our Bacterial Plant Diseases programme with NERC, Defra and the Scottish Government, and establish a programme coordination team
- Support multidisciplinary, collaborative research involving researchers in the UK and US, China and/or Israel through the international multi-agency Ecology and Evolution of Infectious Disease programme.

Building strong foundations

To support the people, infrastructures and collaborations that are fundamental to the success of UK bioscience. **We will:**

- Launch a call to support world-class industry-led collaborative doctoral training in the biosciences through Collaborative Training Partnerships
- Complete construction of the £40.5 million Aberystwyth Innovation and Enterprise Campus with the Welsh Government and Aberystwyth University, to support enterprise and innovation in the biotechnology, agri-tech, and food and drink sectors
- Invest at least £6 million to support the early-stage translation of BBSRC-funded research into wider applications through our Follow-on Fund and Impact Acceleration Accounts.

Beyond 2020–21

Beyond 2020–21 we will continue to prioritise investment in the ideas and people that are the bedrock of the UK's world-leading position in bioscience, driving forward new data-driven, multi-scale and integrative approaches to deliver deeper and more integrated understanding of biological systems.

We will use our catalysing and convening power to seize new opportunities, connecting communities and working in partnership nationally and internationally to develop and deliver new large-scale, multidisciplinary programmes. Priorities will include advancing UK Engineering Biology, establishing a 'one health' approach to tackle zoonotic and other infectious diseases and, working closely with the Natural Environment Research Council, building a research agenda that encompasses biodiversity, the heterogeneity of land use and agriculture in the UK.

We will boost early-stage translation of bioscience research and business engagement with sectors right across the UK, and support the development of key infrastructures, including national capabilities for plant and crop science (John Innes Centre / The Sainsbury Laboratory), viral disease (The Pirbright Institute) and data science (EMBL-EBI) as well as world leading research and innovation campuses to maximise the economic benefit from the research we fund.

Economic and Social Research Council

ESRC will contribute to promoting a fair and sustainable economy, improving understanding of ourselves and the world around us and inform public policy and the effectiveness of the UK's spend on public services. In addition to specific research priority areas such as productivity and social care, investment in four pillars will underpin ESRC's approach to maintaining the UK's position as a world leader in economic, social and human data science research with impact: data and data infrastructure; world-leading research talent, methods and research leadership; knowledge exchange and impact to ensure research we fund addresses the pressing questions faced by decision makers to improve lives and international collaboration with our scientific partners globally.

The UK's current and future challenges and opportunities are, at heart, about people and behaviour: some 60% of UK government departments' main questions, or Areas of Research Interest (ARI) are economic and social research issues, and a further 20% require significant input from these fields.

Our priority objectives for this year include:

Economic and Social data and research to improve lives

To develop and invest in new programmes and partnerships so that economic and social research, data and evidence can be brought to bear in addressing fundamental societal challenges and opportunities for the UK and the world, which include the 'productivity puzzle', the future of public services, changing demographics, and the UK in a changing world. **We will:**

- Complete the commissioning and establishment of a flagship £42 million Productivity Institute and associated programmes that will provide a deep understanding of the drivers of productivity, as well as what individuals, firms, regions and national policy can do to improve productivity
- In partnership with the Health Foundation, fund a new £15 million Evidence Centre for Adult Social Care that aims to increase uptake of high-quality evidence, build capability and connectivity and improve understanding of behaviours around evidence uptake in the adult social care sector
- Through our 2020 Centres Competition, launch the commissioning of a Changing Populations Centre
- Complete the commissioning of the second wave of our Governance after Brexit programme

- Scope future research needs in the areas of international trade and living online.

Data and infrastructure

To maintain the UK's world-class national data portfolio and support innovation in existing data and infrastructure resources. **We will:**

- Continue to expand the Administrative Data Research UK (ADR UK) partnership to enable vital research using linked administrative data to support better informed policy decisions and more effective public services across the UK, by securing £105 million funding to grow the programme for a further five years
- Launch the commissioning process for a new pilot birth cohort study and secure longer-term investment.

Talent, methods and leadership

To build the skills social scientists need to lead large international interdisciplinary projects and to exploit our data resources by extending ESRC support across researchers' entire careers. **We will:**

- Undertake a comprehensive review of the structure of the UK social science PhD focused on the future needs of social science graduates
- Develop and pilot interventions to support researcher development across the life course.

Knowledge exchange and impact

To sustain and advance ESRC's world-leading status in the development of creative knowledge exchange and impact initiatives that permit closer collaboration between researchers and research users. **We will:**

- Scope a COVID-19-focused Policy Observatory to inform decision-makers of the best evidence for recovery
- Work with the Government Office for Science to ensure the Areas of Research Interest Fellows are equipped to make recommendations for future government/UKRI partnerships.

International collaboration

To strengthen international collaboration and increase the international impact of the social sciences, within and outside academia, through our support for research from world-class multinational investigator teams. **We will:**

- Conclude commissioning for the sixth round of the international Open Research Area competition.

Beyond 2020–21

ESRC will maintain and advance national and international partnerships with other funders, both within and beyond the social sciences, and across academia, policy, business and the third sector. We will align our research priorities with national and global challenges relating to COVID-19, including partnerships with multiple international agencies on the social and economic recovery after COVID-19, as well as developing other strands of work in a "post-COVID-19" context.

ESRC will continue to build a translational infrastructure fit for UK policy needs in a rapidly changing world, and to create a research ecosystem in which social scientists' skills are enhanced throughout their careers, and social science data, infrastructure and analysis are central to the development of a prosperous society that shares the benefits of that prosperity widely.

Engineering and Physical Sciences Research Council

EPSRC provides the UK with outstanding, discovery research by funding advanced engineering, mathematical and physical sciences research and training that advances knowledge, and drives growth and prosperity in the UK and globally. We provide technological advances that are relevant, robust, ethical, secure and sustainable.

In 2020–21 EPSRC will focus on three complementary objectives: delivering economic impact and social prosperity; realising the potential of engineering and physical sciences research; and enabling the UK engineering and physical sciences landscape to deliver.

We will also focus on four priorities essential for UK prosperity:

Productive Nation: Catalysing growth through engineering and science for a competitive green UK economy

Connected Nation: Enhancing future digital technologies

Healthy Nation: Working in partnership to transform healthcare through the new materials, sensors, imaging and analytical techniques needed to improve prediction, diagnosis and treatment of disease

Resilient Nation: Enabling adaptable solutions that allows society to anticipate, adapt to and respond to change, whether natural or man-made, short or long-term, local or global.

Our priority objectives for this year include:

Delivering economic impact and social prosperity

To decrease the timescales between discovery research and impact through our Productive, Connected, Healthy and Resilient Nation priorities. **We will:**

- Support high quality research addressing specific COVID-19 issues including a £1.5 million investment into understanding the disease transmission on our public transport network. This research will provide a risk mitigation strategy that will permit public transport to be re-established and utilised to kick start the UK economy
- Establish the £93 million National Quantum Computing Centre and develop an ambitious phase 2 of the National Quantum Technologies Programme, including an international strategy for quantum technologies
- Invest £12 million in research in decarbonising heating/cooling and continue to refine the proposal with the Department for Transport to explore an investment in decarbonising transport.

Realising the potential of engineering and physical sciences research

To support and draw together people, expertise and facilities from across institutional boundaries to maximise the potential of the UK research base, promoting excellence across all our investments. **We will:**

- Generate high-risk discovery research proposals through the £10 million 'New Horizons' call using a simplified application and review approach initially assessing only the exciting, high quality and potentially transformative nature of the research

- Deliver a more accessible approach for the EPSRC fellowships programme by March 2021
- Invest up to £20 million expanding the volume, sector coverage, and supply chain linkage of our Prosperity Partnerships.

Enabling the UK engineering and physical sciences landscape to deliver

To invest in the core foundations of the research base to ensure the UK remains globally competitive and maintains its world-leading position for research and innovation including investing in research facilities and accessing talent through equality, diversity and inclusion. **We will:**

- Implement new ideas and trial mechanisms to improve participation of under-represented groups
- Deliver the next national High-Performance Computing service, ARCHER2
- Explore the use of state-of-the-art visualization tools enabling more informed interactions with our key stakeholders and early sight of emerging opportunities.

Beyond 2020–21

We aim to make the UK the global destination of choice for the highest quality and most creative researchers to deliver world-leading engineering, mathematical and physical sciences research.

We will deliver this through six priorities:

Engineering Net Zero for a Resilient Future – working in close partnership with our colleagues in government, business, regulators and charities to decarbonise our economy and society, creating an alternative energy future and developing truly circular economies

The Physical and Mathematical Sciences Powerhouse – enabling curiosity driven discovery, with boundless potential

Future Computing Paradigms – delivering next generation computational capability

AI, Digitalisation and Data – secure data and systems powering transformative change

Frontiers in Engineering and Technology – unleashing our productivity potential

Transforming health and healthcare – improving quality of life through innovative technological solutions

Through these priorities we will ensure that the engineering and physical sciences community fully play their part in building back a better post-Covid world.

Innovate UK

Innovate UK is the UK's national innovation agency. We will continue to work with partners to drive sustainable economic growth through business-led innovation, by investing in innovation and giving innovative businesses of all sizes in all sectors access to the knowledge, partners, investment and markets they need.

This is particularly important as innovative businesses face new challenges and opportunities in light of the COVID-19 pandemic, with consequences for access to finance, business models, collaboration, and more. We will put innovation at the heart of the UK's economic and social recovery, driving productivity growth, raising investment in research and innovation, and tackling the world's biggest societal challenges.

Our priorities and key deliverables for this year include:

Responding to COVID-19

To develop and implement measures to help support innovative businesses through the coronavirus pandemic. **We will:**

- Deliver £710 million commitment (over 2 years) through the fast-start COVID-19 response competition, and continuity grants and loans for businesses
- Ensure that the research and innovation ambition of the UK is maintained and expanded
- Commit £39 million (over 2 years) for an enhanced package of business growth support for Innovate UK funded businesses.

Long Term Strategy

To set a clear vision for innovation in the UK, in consultation with partners and stakeholders, and setting out how Innovate UK will work with partners to ensure long-term, innovation-led economic recovery and growth, and a supportive innovation environment. **We will:**

- Launch our new five-year strategy for innovation in the UK
- Implement an Innovation Talent and Skills strategy to enhance the impact of our wider investment by helping businesses to understand, access, and develop the skills they need to grow through innovation
- Continue to champion EDI across all our activities. Deliver c£1.5 million through competitions to reach a more diverse pool of innovators and organisations, including Women in Innovation and Young Innovators.

Investing in people and ideas

To support and invest in innovative businesses and entrepreneurs with the potential and ambition to grow. **We will:**

- Deliver a continuously evolving programme of challenge-orientated innovation support through the ISCF

- Support early and late stage research and innovation through £85 million of Smart grant funding and £20 million through Innovation Loans
- Work with partners across the globe to deliver programmes of international collaboration on research and innovation.

Enabling Impact

To maximise the impact of world-class knowledge, emerging technologies and high-growth potential sectors. **We will:**

- Invest £43 million in programmes to commercialise research, including the Innovation to Commercialisation of University Research (ICUR) programme, Knowledge Transfer Partnerships, and Innovation and Knowledge Centres
- Manage and deliver major innovation programmes on behalf of Government, including the Aerospace Technologies Institute, Advanced Propulsion Centre, and Centre for Connected Autonomous Vehicles
- Invest £239 million in the Catapult network, supporting priority sectors including High-Value Manufacturing, Offshore Renewable Energy, and Cell and Gene Therapy.

Beyond 2020–21

We will build on a new strategy for innovation in the UK, to be published this year. This strategy will set out how Innovate UK will work with partners across Councils and with external partners to deliver and be part of a strengthened innovation system in the UK. It will define our priorities and strategic objectives over the next five years, to drive sustainable economic growth through business-led innovation, to help deliver the UK R&D Roadmap, and put the UK among the very best places in the world for businesses to innovate and grow.

Medical Research Council

The Medical Research Council aims to improve human health through world class research and innovation. We will achieve this by addressing three objectives: investing in health focus themes, catalysing partnerships for health and economic impact, and supporting excellence.



Image Credit – The NIHR Biomedical Research Centre at Moorfields and UCL

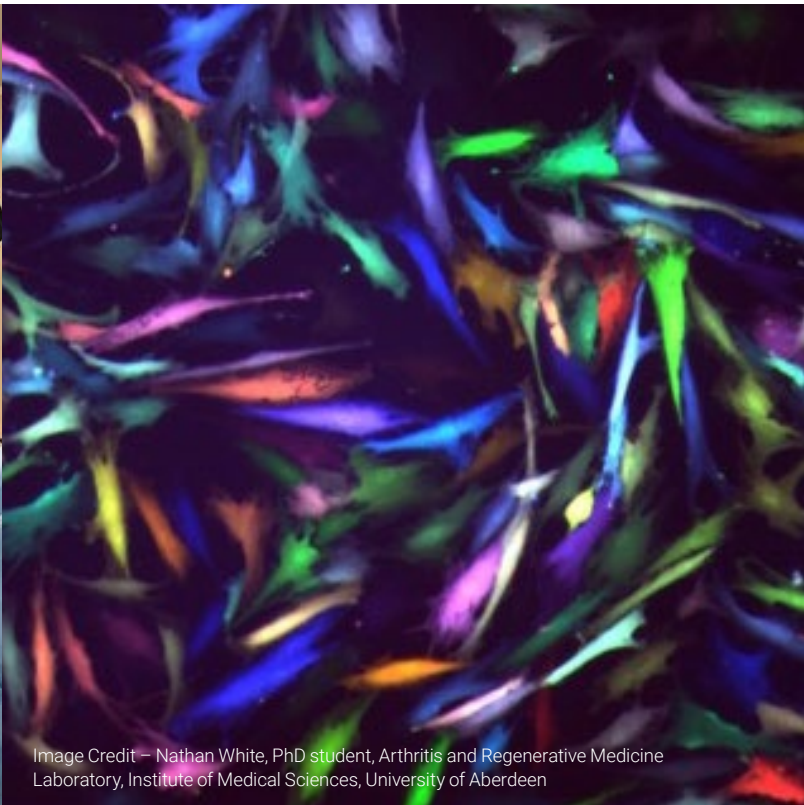


Image Credit – Nathan White, PhD student, Arthritis and Regenerative Medicine Laboratory, Institute of Medical Sciences, University of Aberdeen

Our priority objectives for this year include:

Investing in health focus themes

To support high quality research to address the challenges of COVID-19, disease prevention and health inequalities and to accelerate the early detection of diseases. Through this investment MRC will catalyse and unlock novel approaches in precision medicine and advanced therapies and address the increasing burdens of mental health problems and multimorbidities. **We will:**

- Address the challenge of COVID-19 through the establishment of national large scale clinical, sequencing and data platforms, research programmes in our units, institutes and in universities, building on our rolling call with Department of Health and Social Care/National Institute of Health Research (DHSC/NIHR), and a global call with DHSC/NIHR
- Build a UK Prevention Research Community of Practice and deliver our second UK Prevention Research Partnership (UKPRP) call for consortia and networks across the UK
- Launch pilots within the ISCF Early Disease Detection Research Project UK
- Use SPF funding to deliver: an Advanced Pain Discovery Platform with Versus Arthritis (£24 million), the 'Tackling multimorbidity at scale' programme with NIHR (£20 million), the Nucleic Acid Therapy Accelerator (NATA) initially housed in the Research

Complex at Harwell (£30 million), and multidisciplinary research into adolescent mental health (£35 million)

- Expand GMP-grade UK viral vector manufacturing capacity for early phase, academic-led clinical trials as part of our broader ambitions in gene medicine
- Establish the framework for a mental health research platform in partnership with other funders, the NHS and industry partners
- Deliver the first funding round through our newly established Applied Global Health Research Board.

Catalysing partnerships for health and economic impact

To support researchers and research institutions, working closely within the health sector, medical research charities and industry to maximise the impact of discovery science for health and wealth and support researcher collaboration with key science nations. **We will:**

- Integrate and provide sustained funding for interventional clinical studies, precision medicine, experimental medicine and translational research by launching a new Precision Medicine Accelerator
- Catalyse opportunities for novel collaborations between industry and academia building on local strengths to accelerate co-discovery, technology development, and commercialisation including simplifying agreements on intellectual property

- Create novel global partnerships, for example with the Japan Agency for Medical Research and Development in Regenerative Medicine (FIC £5 million, matched by Japan), and develop plans for future international collaborative activities.

Supporting excellence

To support the best people and strengthen the research base from fundamental through to applied, in biomedical, clinical and public health research. Investing in excellent discovery science to unlock breakthroughs and stepping up support for ambitious research addressing data integration across scales, models, and human studies. MRC will ensure access to new technologies and tools and foster collaborations by developing new models for collaborative investments. **We will:**

- Establish a new national mouse genetics network to promote the development and widespread use of novel preclinical experimental models
- Establish key areas of opportunity for new centres of excellence/networks and obtain advice on the evolution of our portfolio of units and centres through a portfolio review
- Catalyse novel ways to support world class labs and capital infrastructure projects across the UK
- Increase pace from research application to award, building on lessons learnt from the COVID-19 crisis.

Beyond 2020–21

We will focus on research into increasing the 'health span' aiming to reduce the variation between different socioeconomic groups. Whilst life expectancy has been increasing in much of the world, more of these extra years are spent in ill health.

A key goal will be the prevention and early detection of diseases, which is equally important for physical and mental health. We will harness the power of data from a wide variety of sources to improve health outcomes and understand the root causes of multiple diseases. We will apply new integrative approaches to gain a deeper understanding of human physiology and will advance research into precision medicine and advanced therapeutics to ensure people receive the treatment that is right for them.

Working across sectors as part of a 'one health' philosophy we will strengthen research to increase our preparedness for pandemic threats and we will advance research into how environmental change impacts health in the UK and globally.

Natural Environment Research Council

This year, NERC will continue to champion the importance of generating environmental solutions across disciplines to support the government’s ambition for clean growth and a green recovery from the economic shock caused by the COVID-19 pandemic by funding research that builds understanding of the coupled economic and environment systems. The issues are complex, and require whole system approaches, drawing on a diverse range of expertise.



Our priority objectives for this year include:

Environmental Solutions

To build a community that transcends traditional boundaries and train a generation of researchers who take a whole systems approach to complex problems as the norm. **We will:**

- Launch the £20 million Changing the Environment initiative, providing block funding to HEIs with strong track records across the range of disciplines required to address complex environmental problems
- Fund the Climate and Environmental Risk Analytics for Resilient Finance programme to support a climate and environmental risk analytics capability in the UK aligned to the requirements of the financial services sector.

Healthy and Resilient Environment

To invest in research and innovation that directly contributes to health and wellbeing and advances understanding of environmental hazards, our ability to plan, create policy, and manage vulnerability, risk,

response and recovery in a changed and changing world. **We will:**

- Invest £2.8 million in the STFC led Space Weather Instrumentation, Measurement, Modelling and Risk, a £20 million, four-year programme that will improve UK capabilities in space weather monitoring and prediction
- Lead, with the Met Office, the £18.7 million UK Climate Resilience programme, a collaboration with the Engineering and Physical Science Research Council, the Economic and Social Research Council and the Arts and Humanities Research Council funded through the Strategic Priorities Fund (SPF).

Global Infrastructure and Partnerships

To invest strategically in capital infrastructure that enables a step change in UK science capability and support our net zero ambitions by reducing carbon emissions. **We will:**

- Complete sea trials of RRS Sir David Attenborough and construction of new wharfs at Rothera Point and King Edward Point to sustain an active and influential presence in Antarctica

- Open our £7.2 million investment in a network of UK Geoenergy Observatories to help us to understand how geothermal energy, hydrogen, carbon capture and storage, and storage solutions for wind, solar and tidal energy can reduce our carbon emissions
- Invest £1.2 million in Changing North Atlantic Ocean and its Impact on Climate, a 3-year £5.1 million partnership with US National Science Foundation supported through the Fund for International Collaboration.

Beyond 2020–21

We will continue to invest in research that creates circular, resource efficient economies across whole supply chains and sectors, advances our understanding of the economic importance of biodiversity and drives an expansion in green finance and low carbon services. We will work closely with the Biotechnology and Biological Sciences Research Council, building a research agenda that encompasses biodiversity, the heterogeneity of land use and agriculture in the UK. We will harness the advances of the digital revolution to create detailed virtual environments to simulate alternative futures and will expand our use of autonomous platforms to extend our reach in hostile environments. We will advance our capability to enable decision making based on real-time feedback from the environment and combine environmental data with economic, health and social science data, to improve outcomes for people as well as the environment.

Research England

While Research England has responsibility for English-only universities in relation to research and knowledge exchange (KE) activities, we are focused on creating and sustaining the conditions for a healthy and dynamic research and KE system in England. This system works to complement similar systems across the Devolved Administrations, to ensure, as practicably as possible, system wide approaches are identified and implemented.

We will continue to work closely with colleagues and stakeholders to protect, post-Covid 19, our higher education institutions and the vital research that help to deliver on local and national economic prosperity. We will continue both to support and challenge the higher education research sector in a way that will bolster our world leading university system from pandemic through to recovery and growth.



Our priority objectives for this year include:

Aid design and implementation of the Department for Business, Energy and Industrial Strategy...

for research-active universities intended to support and sustain research and innovation activity and capacity across the sector. **We will:**

- Identify appropriate eligibility criteria and conditions to enable access to applicable schemes that complement measures introduced in response to the COVID-19 pandemic
- Support access to financial support schemes by universities where appropriate through active engagement around development, design and implementation with relevant stakeholders and interested parties
- Aid compliance with conditions of schemes to provide assurance, through a variety of mechanisms, including but not limited to monitoring and reporting and facilitating opportunities to share learning and experiences.

Review and reform our research investment and evaluation approaches...

to ensure incentives are aligned to deliver a world-leading research system and culture. **We will:**

- Take forward matters on Research England funding raised by the Government’s UK Research and Development (R&D) Roadmap
- Identify and take forward issues aligned with, and contribute to, the Government’s Place Research and Development (R&D) Strategy
- Conclude the submission phase of Research Excellence Framework (REF) 2021, initiate a programme of work to evaluate REF 2021, and publish a vision for future national research evaluations (in partnership with the other higher education funding bodies).

Deliver reforms of our funding methods for knowledge exchange Higher Education Innovation Fund (HEIF) and Connected Capability Fund (CCF)

Embedding a new performance framework (Knowledge Exchange Framework (KEF) and Knowledge Exchange (KE) Concordat) and ensuring incentives align with priorities in the Government’s R&D Roadmap, wider UKRI, the Office for Students and cross-UK approaches.

We will:

- Publish the first KEF outcomes
- Provide intelligence to inform the design and development of the Government’s Place R&D Strategy
- Initiate a new round of the CCF programme, to share best practice and capacity across the higher education sector in forging technological, industrial and regional partnerships.

Beyond 2020–21

We will consider, identify, and initiate reforms for the higher education sector to ensure resilience and increased efficiencies to feature as part of the higher education sector compact with the Government. The results from the REF 2021 exercise will be used to deliver appropriately targeted block grant funding. We will establish and implement a new HEIF method which puts at its heart the forthcoming KEF and also pays regard to the KE Concordat.

Science and Technology Facilities Council

STFC supports research in particle physics, astronomy, nuclear physics, and space science, most of which is undertaken as part of international collaborations. We also plan, design, construct and operate world-class multidisciplinary facilities used by academic and industrial researchers across the remit of UKRI.

Another vital aspect of our role is the development of a pipeline of skilled engineers, technicians and scientists required for research and innovation to thrive in the UK and inspiring people to explore science and technology.

Image credit – Alan Ford

Our priority objectives for this year include:

World-Class Research

To champion UK global leadership in research to understand the universe, its fundamental constituents, and their interactions. **We will:**

- Lead completion of UK delivery of technology inputs to the ATLAS, CMS, LHCb and ALICE detectors at CERN and analysis of data from the first operations
- Complete UK technology inputs to HARMONI and METIS instruments for the Extremely Large Telescope (ELT) and continue to develop leadership in the future science programme
- Enable the UK to play a leading role in the formation of the international intergovernmental organisation for the Square Kilometre Array (SKA), including ratification of the SKA Treaty by the UK Government.

World-Class Multidisciplinary Facilities

To ensure our National Laboratories and international facilities deliver world-leading science. **We will:**

- Return our National Laboratories to effective operation following Government Coronavirus advice – operating procedures and plans in place to work effectively at Levels 4,3 & 2 where possible
- Deliver user operations at the ISIS Neutron and Muon Source, the Central Laser Facility and Diamond Light Source to agreed modified schedules on return to effective operation
- Develop the outline business case for a National Quantum Computing Centre in collaboration with the Engineering and Physical Sciences Research Council and university partners
- Operate, develop and deploy advanced computing infrastructures for the Ada Lovelace Centre and National Facilities
- Our national research and innovation campuses at Harwell and Sci-Tech Daresbury connect world-leading facilities, academia and business, providing a coherent focus for all of this activity. Our national facilities (the ISIS Neutron and Muon Source, the Central Laser Facility and Diamond Light Source) are the powerful ‘microscopes’ of the 21st century, imaging matter at the atomic scale. They drive innovation, leading to the creation of new businesses, supporting UK industry and generating wider social and cultural impacts.

World-Class Innovation

To be innovative across all of our activities, developing advanced technologies and creating new business opportunities. **We will:**

- Launch the digital cluster at Daresbury Laboratory
- Complete the National Satellite Test Facility build and major capital equipment installation
- Develop partnerships with established organisations in specific sectors with complementary offerings to help position our facilities to address the challenges faced by companies in those markets.

World-Class Skills

To utilise our National Laboratories and Science Programme to develop a pipeline of skilled engineers, technicians and scientists. **We will:**

- Work to secure approval and budget to develop a full business case for an STFC Skills Academy
- Establish a sustainable National Centre for AI Solutions, with funding for 5 years of operation and funding for a data centre and compute infrastructure to support the programme objectives
- Develop and apply our approaches to effective evaluation of public engagement, sharing the learning and understanding that we generate with the STEM sector and beyond.

Beyond 2020–21

- Strengthen the UK’s position as a global leader and international partner of choice in frontier research, ensuring our programme remains world-leading, vibrant and ambitious. Key milestones over the next 5–10 years include commencement of operations and delivery of the first science results from major new international research infrastructures including the Square Kilometre Array, the Extremely Large Telescope, the Deep Underground Neutrino Experiment and the High-Luminosity LHC at CERN.
- Deliver a strategic long-term plan for the coherent evolution of the UK’s portfolio of world-class large-scale facilities. Key milestones over the next 5 years include, successful operation of major new facilities including the National Satellite Test Facility, the Extreme Photonics Applications Centre and the National Quantum Computing Centre.
- Plan for the next generation of projects and facilities that will be delivered 10 to 15 years in the future, due to the long-term, strategic nature of STFC’s programme.

how we will know if we are successful



Our performance and impact framework

To achieve our vision and mission it is key that we can assess our success and manage our performance. We must consider not just our inputs and activities but also the outputs, outcomes and wider impacts we enable. This is challenging for a number of reasons: the outcomes and impacts of the research and innovation we support take time to occur; when they do, they are difficult to attribute reliably to specific interventions; and they are very diverse, novel and unpredictable. This means outcomes and wider impacts are not best tracked through a set of pre-determined performance metrics, and there are potential adverse effects of becoming overly reliant on proxy metrics to judge the value of research and innovation on our community, our culture and our effectiveness. We should be cautious to avoid creating unnecessary reporting requirements and incentivising the wrong behaviours.

Nonetheless, it is important that we track and actively manage our performance to deliver robust accountability. We already systematically monitor the outputs and outcomes of all our research and innovation awards using established processes, enabling us to evidence what we have delivered for the taxpayer and providing a platform for systematic evaluations of wider impact. This allows us to adapt our investment portfolio to improve value for money. For example, from its inception Innovate UK undertook a rigorous evaluation of the Innovation Loans pilot. The evaluation process provided evidenced that even at an early stage the pilot had been successful, which

supported the decision to extend the scheme and provide an additional £25 million of funding to support businesses. We have also terminated various programmes in recent years on the basis of evidence of their performance or value, for example the Economic and Social Research Council Life Study and Medical Research Council Institute of Hearing Research.

We will go further by adopting a robust, transparent performance and impact framework that allows us to make nuanced, holistic and well-informed judgments of our performance. For 2021–22 onwards, we will develop a comprehensive performance and impact framework aligned to our strategy and put in place a process that enables us to report regularly against it. We will design our performance and impact framework, so that it:

- Enables us to judge success and provide government, our wider partners, and the public with greater visibility of how we are performing against our stated goals
- Demonstrates our impact to our stakeholders
- Generates evidence that enables us and others to assess our organisational performance holistically on an ongoing basis and informs decisions on planning, prioritisation and the continuous improvement of our activities. This will include providing performance evidence to support the setting of annual objectives and the development of our organisational strategy.

Tracking our performance in 2020–21

In 2020–21, while developing our long-term performance and impact framework, we will take a pragmatic approach to assessing our in-year performance, tracking progress against the most important areas of the business aligned to the commitments in this Corporate Plan. To judge and manage our performance meaningfully requires us to look beyond delivery of our objectives to the collective aims of those objectives and our overall vision. It also requires us to consider the building blocks of our success, from our resources, learning and growth; to our organisational excellence; how we work with our communities and partners, and the outcomes and impacts we are achieving.

We will adopt a balanced scorecard approach that enables us to assess our performance through the lens

of our key objectives aligned to the four building blocks of our success, as represented below. In assessing our performance, we will focus above all on how we are delivering against these objectives; making balanced, nuanced assessments based on a wide range of leading and lagging performance measures which recognise the differential nature of impact across the disciplines. These measures will draw on quantitative and qualitative evidence from a variety of sources including corporate performance data, programme monitoring data, outcome monitoring data, internal analyses of datasets and stakeholder views and opinions. We will pilot this approach for 2020–21 while developing and preparing to launch our longer-term performance and impact framework.

What do we achieve for our stakeholders?	OUTCOMES & IMPACTS	1a: Improving understanding of ourselves and the world around us 1b: Improving lives and increasing prosperity 1c: Addressing industrial and societal challenges (including COVID-19)
How our stakeholders experience us?	OUR COMMUNITIES & PARTNERS	2a: Being a trusted steward and champion of the R&I system 2b: Supporting and developing a strong, diverse and inclusive R&I culture and environment 2c: Shaping an R&I system that gives everyone the opportunity to engage, contribute and to benefit
What we must excel at?	OUR ORGANISATIONAL STRUCTURES & PROCESSES	3a: Identifying, incentivising and supporting people and their ideas across the UK 3b: Convening and catalysing ground-breaking R&I on a national and international scale 3c: Investing in and conducting R&I responsibly and effectively
How can we learn & create value?	OUR RESOURCES, LEARNING & GROWTH	4a: Increasing the efficiency of our processes 4b: Becoming a more evidence-based organisation 4c: Attracting, supporting and empowering our staff

Enabling early career researchers to bring fresh ideas



Through Research England’s Connecting Capability Fund we are supporting the MedTech Superconnector (MTSC), a collaboration of eight London-based academic institutions which focuses on early career researchers: nurturing their talent and training them in entrepreneurship. MTSC brings them together with bioscience incubators, industry and NHS patients to work out the most cost-effective methods of translating medtech discoveries into products that can be sold and used.

The first two MTSC cohorts have raised £2.4 million in venture capital and further grant funding, filed seven patents and formed five spin-out companies.

Monitoring and evaluating the impact of our activities

To be best able to judge our success we need to build continuously on our strong monitoring and evaluation culture and practice.

This year, we will continue to grow understanding of the outcomes of UKRI’s spend through rigorous monitoring of our research and innovation grants and expert analysis of our monitoring data. We will continue to make our grant outcomes data publicly available and undertake new, in-house analysis to generate fresh insights and build our understanding of the outcomes of our grant portfolio.

We will continue to evaluate the investments we have made under the National Productivity Investment Fund, and commission the initial phases of an independently led evaluation of our response to COVID-19. These evaluations will be led in accordance with our single, overarching evaluation framework setting out the principles and processes by which all monitoring and evaluation is undertaken within our organisation.

We will also draw where possible on evidence submitted as part of the Research Excellence Framework, a periodic, expert-led assessment of the quality and impact of research in UK higher education institutions undertaken by the four UK higher education funding bodies. Institutions submit outputs, evidence of research impact and evidence of the environment supporting research and impact into subject-based units of assessment, which are assessed using a set of agreed, common criteria.

Beyond this year, we will continue to build our in-house skills and capabilities to be better evaluation customers and practitioners and align our monitoring and evaluation processes more closely with our performance and impact framework and our ‘what works’ ambitions. We will also continue to streamline our monitoring and evaluation processes to ensure we minimize burdens on the research and innovation community as part of wider efforts to reform our business.



our budget

UKRI is principally funded by the Department for Business, Energy and Industrial Strategy (BEIS) through the Science Budget. BEIS funding for research and innovation represents the majority of public expenditure on research and innovation in the UK and is growing year on year.

Our total investment budget in 2020-21 is £9,074 million. This includes £1,370 million that we deliver from the National Productivity Investment Fund (NPIF) where the budget is held by HM Treasury, and £435m of Official Development Assistance funding (ODA).

Research and Innovation Budgets: £5,747 million, comprising UKRI's core fund for Research and Development (R&D) grants. This includes £303 million for programmes that Innovate UK manages on behalf of BEIS.

Science Infrastructure Capital: £1,306 million, including UKRI's funding for new research and innovation infrastructures, equipment and maintenance costs.

Official Development Assistance: £435 million, towards development-focused R&D grants.

National Productivity Investment Fund: £1,370 million, for the delivery of the government priority of increasing productivity, with the budget held by HM Treasury.

Corporate Funding: £135 million, made up of the administrative costs and back-office activity required for delivering our programmes (for example staff costs) and investments in improving our operational delivery.

Financial Transactions: £11 million, primarily through Innovation Loans.

Other: Higher Education Teaching Grant Contribution from the Department for Education: £57 million, which provides funding towards the Higher Education Innovation Fund and core funding for the Institute of Zoology and School of Advanced Study.

The COVID-19 pandemic has had a significant impact on the research and innovation sector and UKRI has responded to this at pace. In 2020-21 we have already redirected over £600 million of funding to support the national response. In addition, we have worked with BEIS and the Department for Education to support the higher education sector by pulling forward spending commitments relating to Research England's quality-related (QR) research funding and through the [University research support package](#).

Throughout 2020-21 we will:

- Ensure that our total allocation is used effectively to ensure spend meets our strategic priorities and plans
- Manage our funds effectively and in accordance with our delegations and wider Government control frameworks
- Ensure the delivery of our strategic objectives in support of the Government's R&D Roadmap
- Control our operational expenditure (OpEx) effectively, in line with our medium-term strategy to reduce the percentage of OpEx within our total budget.



OUR BUDGET

UKRI, £m		2020–21
Research and Innovation Budgets		5,747
of which	AHRC	104
	BBSRC	351
	EPSRC	803
	ESRC	162
	Innovate UK*	1,154
	MRC	637
	NERC	301
	Research England	1,671
	STFC	451
	Other (including Public Engagement)	22
	Grant Extension Allocation	90
Science Infrastructure Capital*		1,306
of which	AHRC	–
	BBSRC	64
	EPSRC	221
	ESRC	15
	Innovate UK	–
	MRC	85
	NERC	66
	Research England	320
	STFC	204
	Other (including Inspiring Science Fund)	31
	World Class Lab boost	300
ODA		435
of which	GCRF	379
	Newton Fund	56
	Singapore Marine Plastics (International Climate Finance)	1
NPIF Funds		1,370
of which	ISCF	550
	Skills	139
	Funds For International Collaboration	37
	Strategic Priorities Fund	138
	Other	504
Financial transactions		11
of which	Innovation Loans	25
	Other FT	-14
Corporate Funding		135
HE Teaching Grant contribution		57
Over / under allocation Over / under allocation		13
Total		9,074

* Includes programmes that Innovate UK manage on behalf of BEIS



Beyond 2020–21

In autumn 2020 the Government will lead a Comprehensive Spending Review (CSR) covering budgets for the years 2021-22 until 2024-25. In addition to key government objectives such as strengthening the UK's economic recovery from COVID-19 and levelling up economic opportunity across the UK, the CSR will prioritise making the UK a scientific superpower, including supporting the government's ambition to reach net zero carbon emissions by 2050.

The Government also recently published the UK Research and Development Roadmap, confirming its commitment to increase public investment in R&D to £22 billion by 2024-25. UKRI's approach to the CSR will be to support these ambitions, working with partners to act as a steward of the research and innovation system, building on our existing strengths to balance and integrate our investment in research, innovation, people, teams and infrastructure in a way that delivers for and with citizens across the UK and internationally.

Our approach will also focus on the need to stabilise the system in the context of the COVID-19 pandemic, responding flexibly and using our investment in research and innovation powerfully to support wider economic and social recovery.



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