



UK Research
and Innovation

UKRI Strategy 2022–2027

Transforming tomorrow together



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Sir Andrew Mackenzie (Chair)



Professor Dame Ottoline Leyser (Chief Executive)

UKRI Strategy 2022–2027

Transforming tomorrow together

Foreword

A historic moment: Research and innovation at the heart of society and the economy

We are at one of the most important and exciting times in the history of research and innovation in the UK. The rate of discovery and technological advance is astonishing, with unprecedented opportunities to create value for society and the economy. The science fiction of just a few decades ago, from video calls to bionic limbs, is now part of everyday life. This is a new industrial revolution, driven by the pace of technological change.

At the same time, there are major challenges as we tackle the unintended consequences of the first industrial revolution, from the environmental impacts of fossil fuels to the health impacts of sugar, together with the many impacts of the COVID-19 pandemic.

These are complex and demanding challenges, but the new industrial revolution presents major opportunities to address them and to enrich and improve lives in the UK and around the world.

We must seize this historic moment of national reinvention to transform our economy and our society, embedding research and innovation across them and creating opportunities and benefits for all. We have seen the power of this approach in the UK's work to combat COVID-19 – from the development of the Oxford-AstraZeneca vaccine to the world-leading RECOVERY trial identifying safe and effective therapeutics. There are powerful lessons to learn, set out in the Government's Innovation Strategy. With a clear and shared vision, we can work at pace and with agility to drive change. Working together, we have the opportunity to harness the extraordinary potential of research and innovation to fuel the UK's recovery. Everyone has a stake, from primary school pupils to care home residents. This is a shared national endeavour.

Towards 2.4%: Creating a global science superpower

The UK government has set a clear ambition for the UK as a global science superpower and an innovation nation. It has put science and technology at its heart, creating the new National Science and Technology Council (NSTC) chaired by the Prime Minister, recognising the centrality of research and innovation to the future of every citizen in the UK – our prosperity, security, and national identity. The government's Research and Development (R&D) Roadmap, Innovation Strategy, Plan for Growth, R&D People and Culture Strategy, Integrated Review, Levelling Up, and related strategies across the departments of the UK and Devolved Nations'

governments all recognise the vital importance of research and innovation to our futures, locally, nationally and globally.

The UK leads the world in discovery-led research, ranking first for research quality in the G7 for more than a decade and we are home to some of the fastest growing and most innovative businesses globally. That leadership is an important component of our domestic prosperity, global identity and international relationships¹.

However new countries have emerged as significant R&D nations and more will continue to emerge. We will not be able to match them all in the scale of our investment in research and innovation. But we have exceptional breadth and depth of expertise and can turn our size to our advantage. We can build a fully connected, creative and agile research and innovation system through which people and ideas can move freely, across disciplines and across sectors.

In support of these ambitions, government has pledged to reach 2.4% R&D intensity in the UK by 2027, catalysed by a substantial increase in public investment in R&D, rising to a record £20 billion by 2024–25 and embedding R&D across government departments². This must attract more than double that in private sector R&D investment. The new National Science and Technology Council will provide strategic leadership and coordination at Cabinet level. The new Advanced Research and Invention Agency will further diversify the UK's research and innovation investment portfolio with ambitious and pioneering programmes, inspired by the success of the US Advanced Research Projects Agency (ARPA).

Research and innovation enrich and improve lives and increase prosperity by creating, applying and delivering value from new knowledge and ideas. Capitalising on the UK's extraordinary talent and creativity, UKRI will put the UK at the forefront of solutions to national and global challenges, from climate change and healthy ageing to national security

UK Research and Innovation (UKRI) has a unique and critical role to play in this new landscape. We are the main investor of taxpayer's money in research and innovation, spanning all disciplines and sectors. We work to deliver a dynamic aligned portfolio of investments on behalf of the UK taxpayer to support a creative and agile research and innovation system that drives economic, social, environmental and cultural benefits for all citizens. As the landscape for research and innovation continues to evolve and strengthen, UKRI is here to shape and support it – transforming tomorrow together.

Powering an innovation-led economy

We are proud to be leading UKRI at this crucial time. Through our strategy we will power an innovation-led economy, securing the UK's position as a leader in science, technology and innovation and a global partner of choice. We will empower researchers, innovators and entrepreneurs to turn challenges into opportunities, driving up prosperity and wellbeing across the UK and globally.

To drive our innovation-led economy, we must support the full range of people, talents and skills needed, and the full range of ideas and enabling infrastructures. We must create a fully joined up system that leverages clusters of research and innovation excellence throughout the UK, so that problems can rapidly find solutions, and solutions can rapidly find markets.

Research and innovation enrich and improve lives and increase prosperity by creating, applying and delivering value from new knowledge and ideas. Capitalising on the UK's extraordinary talent and creativity, UKRI will put the UK at the forefront of solutions to national and global challenges, from climate change and healthy ageing to national security. Our reach across sectors and across disciplines is central to delivering on the UK government's global mission, enhancing the UK's research and technology leadership, and securing a research and innovation system that is the envy of the world and a magnet for global talent, businesses and investment.

Delivering our strategy

This strategy signals the start of an exciting new chapter in UKRI's history, providing us with a five-year vision and unity of purpose to work together with and for our many partners and stakeholders. It sets out how we will catalyse transformational change in the system and in how we work as an organisation.

Later this year, we will publish our UKRI Corporate Plan together with the Strategic Delivery Plans developed by each of our nine Councils, detailing the combined and collective actions we will take to deliver our strategy.

Professor Dame Ottoline Leyser
Chief Executive, UKRI

Sir Andrew Mackenzie
Chair, UKRI

March 2022

Outcomes and impacts from world-leading research and innovation

Our strategy will deliver the ambitions of the UK Government, securing benefits from research and innovation for all citizens by:

- creating the conditions for increased private sector investment in R&D.
- enhancing our global discovery research and technology leadership, attracting businesses and talent from around the world.
- supporting thriving research and innovation clusters across the UK, creating diverse high value jobs and local economic growth.
- joining up the academic, business, policy and investor communities to make the UK the best place in the world to innovate and invest in or grow a business.
- securing UK strategic advantage in game changing technologies such as AI, quantum computing, and engineering biology, enriching and improving lives and opening up transformative opportunities for research and business.
- strengthening the deep and enduring international science and technology partnerships needed to make the UK a global science and technology superpower.
- catalysing growth in key sectors of our future economy, such as space, life sciences and the creative industries.
- driving the development, adoption and diffusion of green technologies, building a sustainable circular economy and a greener future for the UK as we move to net zero.
- developing preventative measures, interventions and treatments to improve the nation's health and wellbeing, reducing health inequalities and tackling the threats of infectious disease.
- enhancing our national security, virtually and physically, and strengthening the UK's resilience in a rapidly changing world.
- delivering new insights and understanding to tackle social, economic, cultural and place-based disparities, and improving outcomes for individuals, families and communities.

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Building an outstanding research and innovation system

The UK's world-class research and innovation is the foundation of our health and wellbeing, our economic prosperity and our nation's global influence. But the world is changing fast, and the UK needs a research and innovation system that is fit for the future: able to respond with agility to social, environmental, technological and economic change on a global scale.

The UK has a long and proud tradition of excellence in research and innovation. The government wants to capture the power of this extraordinary talent and creativity to secure the UK's status as a science superpower and innovation nation. As we emerge from the pandemic, the UK has a once in a lifetime opportunity to capture the full benefits of our research and innovation prowess.

We need a more connected and agile system. We must capitalise fully on the breadth and depth of talent across the UK and create a nexus for global talent and investment. To achieve this goal, our strategy focuses on four ‘shifts’ to drive the necessary change: diversity, connectivity, resilience and engagement.

Diversity

Diversity is key to future success: diversity in people, who are the beating heart of our research and innovation system, with diverse skills and ambitions; diversity in infrastructure, providing the full range of facilities and equipment needed to set creativity free: diversity in ideas, pushing forward the boundaries of knowledge and understanding, and capturing the benefits to build a better future for all.

The criteria by which we judge excellence in research and innovation are often too narrow. This risks homogenous thinking at both the institutional and individual level. The career paths people can take through the system are restricted, resulting in precarity, particularly at early career stages, and creating silos between sectors, roles and disciplines. There are gaps in the UK’s talent offer at different career stages and low awareness and high friction in navigating the wide variety of career opportunities available. At the institutional level, competition against narrow excellence criteria contributes to limiting the balance and range of institutions that make up the research and innovation landscape. A holistic consideration of the institutional landscape is needed to ensure the right diversity of activity and this is currently under review³.

Principles for change

Diversity

We will champion a creative and dynamic research and innovation system by:

- supporting diversity of ideas, people, activities, skills, institutions and infrastructures.
- broadening incentives to avoid homogenisation and promote a diverse portfolio of research and innovation activity in the UK.

Connectivity

We will build connectivity and break down silos across the system, nationally and internationally, by:

- catalysing the flow of knowledge and skills through the movement of people and ideas.
- using our reach to broker and support collaborations that drive forward new disciplines, activities and structures.

Resilience

We will increase the agility and responsiveness of the system by:

- working closely with UK and devolved governments and other funders using our investment, policies and convening power to improve the financial resilience of the UK’s research and innovation system.
- reducing bureaucracy and ensuring our operating systems and processes are effective and efficient to deliver the best return for the UK taxpayer.

Engagement

We will help to embed research and innovation in our society and economy by:

- breaking down barriers between research and innovation and wider society.
- involving a broader range of people and organisations in the design and delivery of research and innovation.

Connectivity

The full benefits of diversity are only captured through connectivity and collaboration, bringing diverse ideas, skills and knowhow together in novel combinations to catalyse discovery and innovation. Breaking down barriers, shifting the focus from individuals to diverse teams, and enabling the movement of people between business and academia, across disciplines and sectors, and between the UK and its international partners is essential to ensure that ideas and knowledge flow freely.

Incentives in the research and innovation system can value too narrow a range of contributions, drive undue pressures on individuals and undermine research in both its culture and its outputs. Within the system there are still too many silos separating people and knowledge, acting as a barrier to interdisciplinary work and reinforcing a model in which there is a linear, one-directional relationship between research and innovation. This approach is detrimental to both research and innovation. To support creativity and capture its value requires a system which enables diverse, dynamic careers that span research and innovation, across disciplines and sectors.

Resilience

Resilience ensures that our research and innovation system has the capability, flexibility and capacity to withstand shocks and deliver long-term goals, and the agility to pivot to capture new opportunities and to take risks. Resilience has many dimensions, but recent experience highlights both strengths and weaknesses in the funding landscape. The UK's dual support system for universities seeks to balance flexible, reliable, stable support at institutional level with opportunities for researchers and teams to compete for funding to pursue their ideas.

A similar balance is needed for other publicly funded research and innovation organisations. A robust and accessible funding landscape for commercialisation and scale-up is also essential. Difficult choices need to be made, at different timescales, to ensure the right balance of activities is prioritised and properly resourced.

Engagement

For research and innovation to thrive, they must serve the society that fund them. Engagement is needed to build effective collaboration and genuine partnerships between the research and innovation system and its many stakeholders, including those who may not see themselves as part of the system. The removal of barriers across the research and innovation system must be matched by the removal of barriers between research and innovation and wider society.

Research and innovation can often be perceived as activities separate from the rest of society. This hampers development of an open and collaborative culture in which everyone can participate and from which everyone benefits. Disconnection between research and innovation and wider society makes it harder to reap the benefits and harder to identify and prioritise the challenges people really care about. It inhibits the adoption and diffusion of discoveries and innovations, which are not grounded in the needs of the societies they serve. Fully embedding a range of insights, expertise and perspectives makes research and innovation outcomes more relevant, impactful and trustworthy. And it makes visible the many and varied careers available in research and innovation, attracting in a new generation of people to fuel an innovation-led economy.

The aligned application of these principles for change – diversity, connectivity, resilience and engagement – will enhance the UK’s reputation as a globally leading research and innovation nation, boosting creativity, increasing agility and building a new relationship between research, innovation and society.

UKRI is in a unique position to drive the shifts needed for our world-class research and innovation system to flourish.

Through our nine Councils, we connect all sectors and all disciplines. We convene, catalyse and invest in research and innovation at all stages and in the people, ideas and infrastructures that deliver them. By engaging with our many stakeholders, aligning incentives and investments across all the necessary elements, and making the difficult choices needed with a whole system view, we empower the UK’s research and innovation system to push boundaries, take risks and tackle priority and global challenges, placing the UK at the forefront of the technologies and industries of the future.

Through our strategy we will foster an outstanding research and innovation system in the UK that is an inspiration for the world. We will make the UK the most exciting place for research and innovation talent, a global hub for innovation, and the global partner of choice for ground-breaking discovery.



Our strategic objectives

Our strategy is structured around six objectives. These objectives will ensure the UK has the people, institutions, infrastructures and partnerships to be a global science superpower with the world's most innovative economy, attracting globally mobile business and talent. We will power transformative research and breakthrough innovations, secure competitive advantage in key technologies and sectors, and strengthen clusters of research and innovation excellence. We will contribute to economic growth, creating jobs, drawing in private sector investment and increasing prosperity across the UK. We will deliver benefits for society and the environment, in the UK and globally, tackling security threats, infectious disease and climate change and improving people's lives.

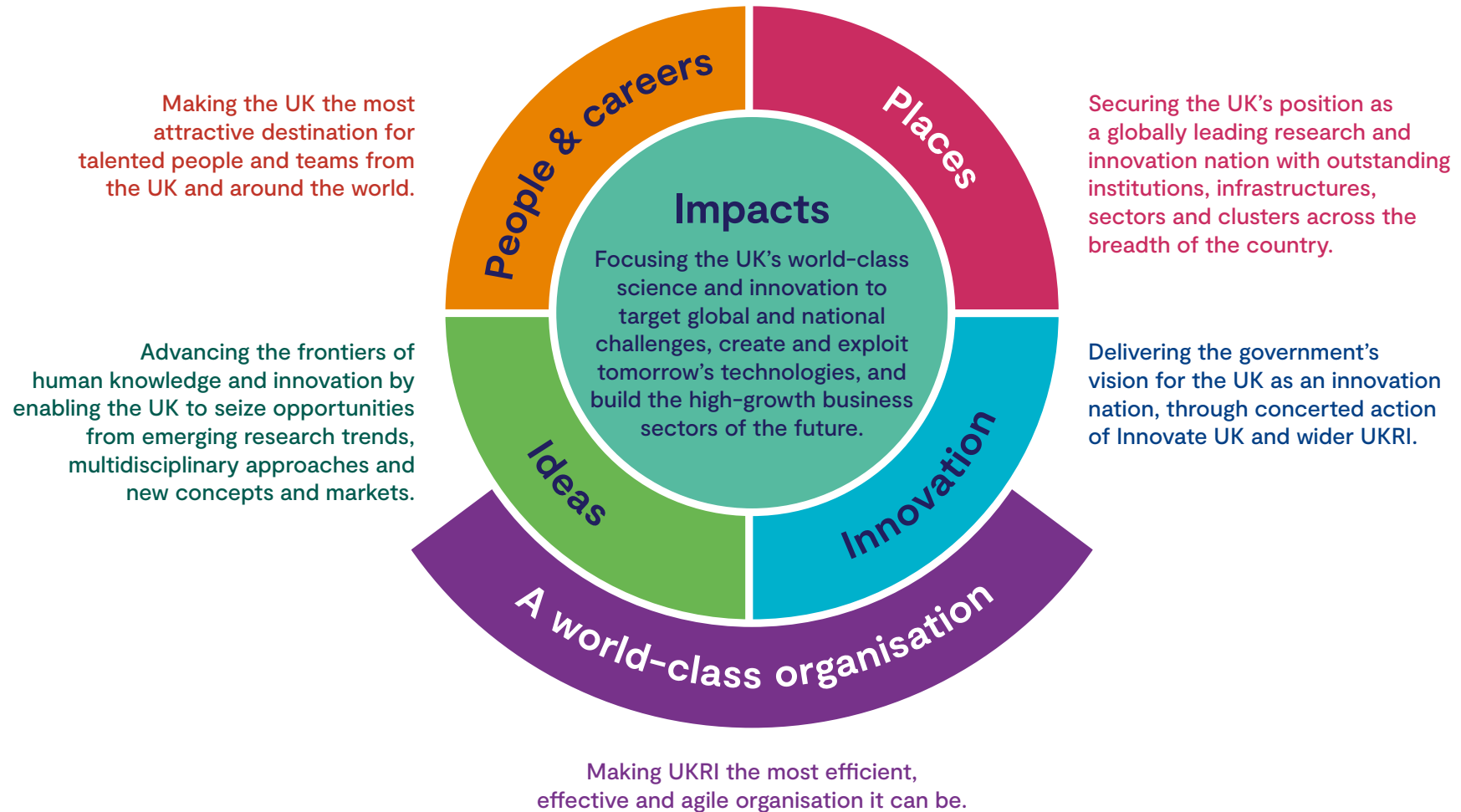
Underpinning the delivery of these outcomes is our commitment to being an efficient and agile organisation, tackling bureaucracy in the system, maximising value for the taxpayer and working in a more connected way across our Councils to increase the impact of our activities and investments.

Within each objective we have identified a number of key priorities. These are areas on which we need to focus if we are to achieve our shared vision for research and innovation in the UK and deliver the government's ambitions. Detailed plans to drive these priorities forward will be published later in the year in our UKRI Corporate Plan and the Strategic Delivery Plans of our nine Councils.

Over the next five years, we will work with our partners and communities to monitor progress, understand barriers and adjust the emphasis across our priorities as needed. To track progress, we are developing a set of indicators that we will monitor through our performance management framework. The performance indicators will help us determine whether we are achieving our strategic objectives.

The following sections set out our objectives and key priorities in more detail.

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



Objective 1: World-class people and careers

Making the UK the top destination for talented people and teams.



The UK has a world-class research and innovation system, which is in the top four of the Global Innovation Index⁴, and has ranked first for research quality in the G7 for over a decade⁵. Importantly, public investment in R&D is the catalyst for additional private investment: for every £1 of public money, we attract a further £2 of private R&D investment, well above the OECD average of £1.60⁶. We can drive further national and global benefits from this UK success story by growing R&D spending to 2.4% of GDP by 2027, and by nurturing a more diverse, agile, resilient research and innovation ecosystem, creating opportunities and benefits for everyone.

Our research and innovation success depends on people. Not only researchers, innovators and entrepreneurs, but technicians, project managers, administrators and people in many other roles, all working together to create new knowledge, understanding, technologies, products and services. The UK has a highly talented and skilled R&D workforce, and investment in people and skills underpins R&D activity across the economy. But there are significant, long-term challenges to address if we are to meet future needs, as set out in the government's R&D People and Culture strategy⁷.

The research and innovation workforce is globally mobile, so we must strengthen our offer to attract, develop and retain talent, making sure research and innovation careers in the UK are globally attractive to talented individuals and teams. We must redefine outdated views of a 'traditional' research career path, making more visible the full range of careers available in research and innovation and creating exciting opportunities to attract a new generation of talented individuals and teams.

Our current system is too siloed. Many essential skills, capabilities and talents are undervalued, and measures of success and excellence can be too narrow. This restricts career paths across roles, sectors and disciplines, reinforcing silos by reducing connectivity and the flow of people and ideas. Combined with the competitive nature of research and innovation funding, this creates precarity especially for early career researchers. These factors work together to create high pressure working cultures that can compromise creativity, excellent research and innovation, and retention of talented people. We must take a more holistic approach that values the entire workforce and the breadth of skills needed to deliver high-quality research and innovation, and we must design a more flexible and agile system which is responsive to the needs of talented people and teams.



Priority 1.1: Make the UK the most attractive destination for talented people and teams from the UK and around the world

The UK's success in research and innovation has been underpinned by its ability to attract, develop and retain international talent. As competition for global talent increases, we must ensure that the UK has an ambitious and attractive talent offer, with sector-permeable career paths and world-leading fellowship schemes, including to support creative disruptive thinkers who may not fit the typical researcher profile. This depends critically not only on support for researchers and innovators (priority 1.1), but on creating the right research and innovation careers and culture (priorities 1.2 and 1.3).

We will:

- design and implement world-leading postgraduate research and fellowship programmes to attract, develop and retain the world's best researchers, positioning the UK as a destination of choice for the full range of top talent.
- work with government to signpost opportunities in the UK for international researchers and innovators at all career stages, supporting talent through appropriate visa mechanisms.

Priority 1.2: Develop the breadth of skilled people and teams essential for the future R&D workforce

The government's R&D People and Culture Strategy is clear that if we are to boost the UK's R&D intensity to 2.4% of GDP by 2027⁸, we need to grow and diversify the R&D workforce by an estimated 150,000 people by 2030. We are also seeking a shift away from traditional, siloed academic and non-academic careers, towards careers that are mobile between sectors, and an increased focus on diverse technical and vocational pathways in research and innovation. We must create a research and innovation culture that supports the wellbeing and creativity of all those working in the sector, valuing all roles that make research and innovation a success, recognising the power of collaboration, and reflecting the breadth of skills needed for the wide range of careers options available.

We will:

- incentivise diverse, flexible careers, so that people can pursue great ideas without barriers, moving easily between disciplines, sectors, business and academia.
- improve support for the wide range of people, skills and roles necessary for research and innovation to thrive, working with the sector to ensure visibility, recognition and career development pathways for everyone involved in delivering and realising research and innovation outcomes.



- pivot our skills and training provision to ensure researchers and innovators are equipped with the breadth of professional, entrepreneurial, and technical skills needed for a wide range of career options, including through collaborative training in partnership with business.
- inspire interest and participation in research and innovation through innovative public dialogue, youth and educational engagement, and community participation.
- champion open research and innovation through bold and ambitious policy, practice and technological innovations to achieve transparent, collaborative and diverse research that operates globally.
- reduce bureaucracy in the system and create a research and innovation environment that enables people and teams to focus on delivering exciting, and ambitious research and innovation goals (See *Objective 6*).

Priority 1.3: Shift research culture to support, rather than hinder, talented people and teams to pursue their ideas

We support the ambition set out in the government’s R&D People and Culture Strategy to ensure the UK has an outstanding research and innovation culture that fully enables discovery and innovation. We are uniquely positioned to catalyse efforts to deliver this, working with our many partners nationally and globally, to gather evidence on what works.

We will:

- create opportunities to develop, test and evaluate ideas to improve research and innovation culture sourced from the community.
- establish the UK Committee on Research Integrity (UK CORI) to promote and support high integrity in research, working closely with other organisations to develop, identify and share good practice.

Championing open research

Open research improves research efficiency, quality and integrity through collaborative, transparent and reproducible research practices. UKRI’s priorities include open access to research publications and making research data as open as possible but as secure as necessary.

UKRI is building on the UK’s longstanding global leadership in open research with our new open access policy, which was developed through extensive consultation with the sector. The policy delivers on the ambition in the government’s R&D Roadmap, for publicly funded research to be accessible to all, and will boost the global impact of UK research by increasing opportunities for findings to be shared and used across all disciplines and sectors.

Case studies

Attracting global talent to enrich the UK research and innovation base

A thriving R&I system requires ensuring that we are attracting, retaining and developing talented people with diverse skills and experiences. The Global Talent Visa (GTV) facilitates international collaborations and enriches the UK research base with new ways of thinking and doing research. UKRI's role in delivering the GTV, endorsing over 1,000 applicants to date, is a key component of our approach to create a research environment in which everyone can flourish, without limitations on their ability to move around the sector or between countries to do their work.



Incentivising diverse careers and skills

In 2021, UKRI began to pilot the adoption of a narrative CV format for researchers and innovators based on the Royal Society's *Résumé for Researchers*. The *Résumé for Research and Innovation (R4RI)* allows people to evidence a wider range of activities, beyond the publication lists and research grant income focus of traditional academic CVs. Adopting the R4RI is one of the ways in which UKRI is catalysing change in the sector by shifting what is visible, valued and rewarded, encouraging greater diversity of people, skills and knowledge in research and innovation.

Bringing fresh perspectives into the heart of the research process

Involving more people in research – as participants, co-researchers or audiences – can improve the quality of research and its impact by revealing new ideas and insights. UKRI is investing in five Citizen Science Projects that actively involve members of the public in conducting research, working with researchers to identify the questions they want to ask and designing the best approaches to explore

them. The projects, which cover a range of topics including addressing the history and contemporary legacies of transatlantic slavery in our cities and innovating in the treatment of mental health issues, involve a range of people with different backgrounds who can bring a variety of knowledge and personal experiences to inform the research.

Objective 2: World-class places

Securing the UK's position as a globally leading research and innovation nation with outstanding institutions, infrastructures, sectors and clusters across the breadth of the country.



The UK's leading status in research and innovation is founded on a well-established institutional landscape of globally renowned universities and research institutes, vibrant R&D intensive businesses and agile and creative small and medium-sized enterprises (SMEs) and scale-ups. However, with the UK's competitive advantage in research and innovation increasingly contested and other countries investing heavily in their research and innovation institutions and infrastructures, there is a need for the UK to take a much more strategic approach to maintain and enhance these strong foundations to secure and advance our status as a global science superpower and leader in research and cutting-edge technologies.

R&D-active sectors are at the heart of high value job creation and economic growth. We want to grow capacity to perform R&I across the country, recognising that growth is strongest when the focus is on agglomeration, clustering and comparative strengths. There is a real opportunity for UKRI to use targeted research and innovation investments as a significant lever for levelling up.

Historically, infrastructure and institutional investment decisions were often made in a fragmented way that lacked sufficient consideration of the wider landscape across the UK and internationally. Institutional resilience and agility is threatened when funding is spread too thinly or new institutes and infrastructures are established without long-term planning for their proper resourcing. The government's R&D Roadmap,

UKRI's analysis of the UK research and innovation infrastructure landscape, and Sir Paul Nurse's review of the research, development and innovation organisational landscape all seek to address these challenges. It is widely recognised that diversity in institutions gives countries a strategic national advantage in the face of growing competition, as well as advancing regional strengths in specialist clusters.

UKRI maintains vital national and global capabilities through our institutes, centres and investment in physical and virtual research and innovation infrastructures. This also helps to anchor clusters of R&I excellence that drive growth and crowd in private sector investment in all parts of the UK.

We must support the right balance of capabilities, making the hard choices needed to ensure their sustainability and agility. And we must tune our investments and incentives to create new thriving research and innovation clusters and world-class infrastructures and partnerships.



R&D-active sectors are at the heart of high value job creation and economic growth. We want to grow capacity to perform R&I across the country, recognising that growth is strongest when the focus is on agglomeration, clustering and comparative strengths.

Priority 2.1: Strengthen clusters and partnerships – locally, nationally and globally

World-leading research and innovation is a shared endeavour. Our success will depend on connecting and leveraging the entire research and innovation ecosystem, across academia and business domestically and internationally, to advance the creation and application of knowledge to deliver transformational outcomes. That means connecting academia, research institutes, business, the investor community, policymakers, the public and charities. It means strengthening research and innovation clusters across the UK, including in areas of low R&D intensity.

We will:

- enhance connections across research and innovation, involving a broader range of people, organisations and businesses in the design and development of activities.
- strengthen research and innovation clusters in key locations across the UK by connecting people, ideas and sectors, to build partnerships and businesses, attract investment, drive growth and create jobs to help level up.
- take a strategic approach to international partnering through a renewed international strategic framework (See *Objective 3*).
- support the government in the development of a new model of Innovation Accelerators to invest in high-quality projects to grow R&D strengths, attract private investment, boost innovation diffusion, and maximise the combined economic impact of R&D institutions.

Levelling up: Delivering impact in all parts of the UK

UKRI will deliver economic, social, and cultural benefits from research and innovation to all UK citizens, including by developing research and innovation strengths across the UK in support of levelling up.

UKRI supports research and innovation in all nations and regions of the UK. Over the period of this Strategy we will further enhance the place-based benefits of our actions and investments, contributing to the wider levelling up agenda. For example:

- enhancing the growth of capabilities and clusters of research and innovation excellence, and innovation ecosystems – including those centred around our own institutes and campuses – that build on regional strengths and enable local economic growth and social benefits.
- supporting the development of evidence to inform local, regional and national policies and interventions to address regional disparities and enhance place-based livelihoods and economies.
- engaging with place-based actors and communities to help shape our work and, where relevant and where it can add value, factoring place considerations into our decision-making.
- doing more to understand and evaluate the geographic distribution and impacts of our actions and investments.
- working in partnership with devolved research, enterprise and higher education funding bodies, recognising different innovation system architectures in each devolved nation and capitalising on opportunities for synergy.

Priority 2.2: Improve the financial sustainability of research and innovation in organisations across the UK

The long-term sustainability of the UK's research and innovation ecosystem is critical to maintaining our global leadership and leveraging our competitive advantage. Continued public and private partnership will be key to long-term sustainability and UKRI will work with all parts of the system to catalyse investment from the private sector which is crucial to achieving the government's 2.4% R&D intensity target.

We will:

- enhance our understanding of the different financial pressures on the system, working with the sector, with the Department for Business, Energy and Industrial Strategy (BEIS) and with other UK national funding bodies.
- balance project funding with strategic long-term investment, including through partnership with devolved higher education funding bodies. This will enable universities and research organisations to plan and deliver vital research and innovation agendas, and drive-up research quality sustainably.
- respond to the recommendations of the 2021–22 'Nurse Review' of the research, development and innovation organisational landscape and make the difficult choices needed to support a balanced portfolio of investments across institutions including diverse Higher Education Institutions (HEIs), Research Institutes, Public Sector Research Establishments (PSREs), Independent Research



The importance of dual support

UK universities receive funding for research and knowledge exchange activities through block grant and development funding provided by the four national Higher Education Funding bodies in England, Scotland, Wales and Northern Ireland, informed by the outcomes of the Research Excellence Framework. These bodies also provide grant funding for knowledge exchange activity. Universities can be awarded project-specific funding on a competitive basis by UKRI Research Councils, government, charities, businesses, and other funders.

Complementarity and balance across the two strands of this dual support system are crucial to achieve sustainability so that the higher education research and innovation system can build long-term programmes; maintain investment in research areas; pursue new and emerging priorities; sustain a diverse academic workforce; and partner with business, charities, and other organisations.

Organisations (IROs), businesses, Catapults, campuses and clusters, to build high-performing research and innovation ecosystems.

- empower innovative businesses to grow and scale through a bespoke set of services, including from our Innovate UK KTN and Catapults, innovation loans, and venture growth investments (see *Objective 4*).

Priority 2.3: Secure cutting-edge infrastructures for world-class research and innovation

Outstanding research and innovation rely on modern and accessible infrastructures, from large-scale research and demonstration facilities, supercomputers and national collections, to laboratory equipment, data resources and communication networks. The availability of world-class infrastructures and associated technical expertise are a crucial factor in attracting globally mobile businesses or SMEs to the UK and private investment in R&D.

We will:

- develop and maintain cutting-edge research and innovation infrastructures, including data infrastructures, taking advantage of technological innovations and reducing our environmental impact.
- ensure the UK remains an active partner in priority international research infrastructures and leverage our significant investments in international facilities, to benefit from sharing of knowledge, expertise, data and capability across borders.
- work with researchers and innovative businesses to identify strategic infrastructure necessary to drive growth of research and innovation clusters throughout the UK.

Building innovation clusters to help creative industries grow

Cardiff has a rich industrial heritage and is now home to thousands of creative industries enterprises and the third largest film and TV cluster in the UK. Through seed funding and networking, and undertaking the first comprehensive survey of workforce, training and education needs for film, television, animation, games, visual effects and post-production in the Cardiff City Region, Clwstwr has helped enterprises like the inclusive theatre company Taking Flight to conduct R&D and grow. Clwstwr is part of the AHRC Creative Industries Clusters Programme – a UK-wide initiative designed to drive innovation, growth, and sustainability in the creative industries.



Case studies

Growing the UK's research and innovation capabilities

The UK has over 750 research and innovation infrastructures including the European Molecular Biology Laboratory – European Bioinformatics Institute (EMBL-EBI) – whose world class life sciences data and services contribute to the realisation of future research impacts estimated to be worth £465 million annually, the ISIS Neutron and Muon source at the Harwell Science and Innovation Campus which has paid for itself twice over with a return

on investment of £2.14 per £1 spent and the Digital Catapult that helped 141 companies raise over £320 million investment in 2020 from centres in London, Sunderland, Brighton and Belfast. UKRI is taking a long-term portfolio approach through the Infrastructure Fund to deliver a step-change in the capability available to the next generation of researchers and innovators, investing across the entire research and innovation spectrum.

Objective 3: World-class ideas

Advancing the frontiers of human knowledge and innovation by enabling the UK to seize opportunities from emerging research trends, multidisciplinary approaches and new concepts and markets.



A commitment to supporting the best ideas wherever they are found has positioned the UK as a global leader in research and innovation, and an international partner of choice. This is key to our future success. The government's R&D Roadmap recognises that a vibrant research and innovation system depends on talented people having the freedom to follow their curiosity, to take risks and test radical new ideas. If we are to seize the opportunities for the UK from ground-breaking discoveries, technologies or new markets we must unleash one of our most impressive assets – the creativity and ingenuity of our researchers and innovators.

The UK is one of the few nations with broad strength in research and innovation, spanning multiple disciplines and sectors. This provides agility to respond rapidly to emerging opportunities. But there is much more we could do to bring disciplines and sectors together to catalyse new ideas, and to promote the adoption and diffusion of new tools and technologies, unlocking novel areas of research and accelerating innovation and commercialisation.

Providing funding opportunities for a diverse range of research and innovation activities is a key role for UKRI. We ensure that talented people and teams in universities, research organisations and businesses can pursue bold ambitious goals, embrace risk and seize opportunities, so that the UK maintains the breadth of expertise that allows us to respond rapidly to current and future challenges.

We invest in a full spectrum of research and innovation from blue skies to applied, from rapid proof-of-concept projects to long-term, large-scale programmes, and everything in between. We must build a balanced portfolio of activity, making the hard choices needed to ensure that people, teams and institutions are properly incentivised, powered and connected to deliver. We must catalyse ideas by promoting new ways of working and supporting unique collaborations, nationally and globally, that spark creativity and inspire breakthroughs and technological advances. We must escape the constraints of narrow definitions of excellence and excessive focus on the performance of individuals to harness the power of diverse collaborative teams.

Priority 3.1: Invest in a diverse and dynamic portfolio of high-quality, creative research and innovation

The routes to unlock the transformative benefits of research and innovation are diverse and often indirect or unexpected. In research and innovation one size will never fit all. A toolbox of funding mechanisms is needed to ensure the right mix of ideas thrive. Flexible and responsive funding is essential in allowing knowledge to be built up over the long-term, as well as providing the agility to pursue new directions, together with a research and innovation culture that recognises the value in ideas and technologies that fail as well as those that flourish.

We will:

- champion an agile and responsive research and innovation funding environment that embraces curiosity, creativity, and risk-taking and encourages a diversity of ideas across all disciplines and sectors, recognising the importance of teams.
- support the development and use of cutting-edge tools, technologies and infrastructures – and in particular leverage the rapid advances in digital, data-driven and computational approaches – that enable researchers and innovators to push boundaries.
- build greater agility into our funding schemes so that we can adapt quickly to changing circumstances and priorities.
- work with research and innovation funders in the devolved nations to forge connections between researchers and innovators in all parts of the UK, ensuring existing research partnerships can thrive, and new cross-UK working can be developed.
- strengthen global partnerships, enabling UK researchers and innovators to collaborate with the best in the world, and secure the UK's position as a global research and innovation leader.

Priority 3.2: Incentivise and remove barriers to multi- and inter-disciplinary working

Many exciting breakthroughs occur at interfaces between disciplines and through the convergence and integration of diverse knowledge, mindsets and expertise.

We will:

- identify and remove barriers to multi- and inter-disciplinary working in the design, assessment and delivery of our funding programmes, creating the right portfolio of funding to support the best ideas, from the best partnerships.
- support and empower multi- and interdisciplinary networks that enable diverse research and innovation communities to exchange knowledge and ideas and build new collaborative partnerships.
- catalyse multi- and inter- disciplinary approaches to tackling global challenges (see *Objective 5*).

A globally connected research and innovation nation

UK research and innovation thrives because we engage with the best minds, organisations and facilities wherever they are in the world.

Our new International Strategic Framework will set out the unique role UKRI can play in building the strong and varied network of international science and technology partnerships needed to deliver on the ambitions of the Integrated Review and make the UK a global science nation.

Through our international activities we will forge new equitable partnerships and deepen existing relationships with trusted partners, making the UK a collaborator and destination of choice for international talent, innovative companies and inward investment.

We will mobilise the UK's research and innovation strengths to ensure the UK plays its part in addressing global challenges that require a truly global and coordinated response (See *Objective 5*).

We will work with our international partners and play a leading role in multilateral forums, to shape an open international order for international research and innovation based on the highest standards of research integrity, earning the public's confidence and trust.

Collaborating internationally will help us discover new science, develop new technologies, enable UK companies to succeed globally and access overseas markets, improve our security and resilience, and increase our global influence.

Case studies

Pushing the frontiers of knowledge to help treat respiratory illnesses

Award-winning Scottish company Nebuflow has developed a new nebuliser platform that delivers medicines in a breathable mist, improving their effectiveness. The technology has a lower carbon footprint than current nebulisers and could deliver fragile or difficult-to-deliver medicines which may prove critical for treatment of, for example, cystic fibrosis. BBSRC frontier bioscience funding enabled researchers to develop an understanding of how acoustic waves behave within liquids and how this could be used for drug delivery. A prototype was developed as part of an EPSRC fellowship, and the MRC provided Confidence in Concept funding to accelerate the transition of the technology from “discovery to translation” through the development of an integrated device.



Using multidisciplinary approaches to inform policy and protect human health

Researchers helped to reduce malaria mortality rates in Malaysian Borneo by linking social and satellite-based environmental data with medical records and blood tests. By tracking incidences of humans picking up a strain of malaria found in local macaque monkeys, they discovered a

relationship between human disease, deforestation and changes in habitats of the animal host. This holistic view of disease and its causes can be used to influence appropriate policy interventions and protect human health. This and other discoveries were funded by the multidisciplinary Environmental

and Social Ecology of Human Infectious Diseases initiative – supported by BBSRC, MRC, NERC and ESRC.

Objective 4: World-class innovation

Delivering the government's vision for the UK as an innovation nation, through concerted action of Innovate UK and wider UKRI.



The government's UK Innovation Strategy sets out a vision for the UK to be a global hub for innovation by 2035¹⁰. Innovation is the lifeblood of the UK's future economic growth. It boosts productivity¹¹, helps businesses grow and scale and drives the creation of a wide range of high-quality jobs. Innovation not only delivers new products and services, it also transforms processes, supply chains, and public services. It creates new business models and enables all kinds of organisation to increase productivity and adapt to change. A successful innovation environment will enable UK businesses to succeed on the global stage, and crowd in private sector investment towards the 2.4% R&D intensity target by ensuring the UK is an attractive destination for investors and companies around the world.

UKRI is proud to bring together Innovate UK – the UK's innovation agency – with the disciplinary Research Councils, and Research England. We will exploit this powerful combination of capabilities, to unleash the UK's innovation potential and deliver the government's Innovation Strategy, taking down barriers between research and innovation, building diverse careers at and across the interface. We will harness the full power of Innovate UK to lead a pro-innovation charge across the whole research and innovation community, maximising the benefit of its unique business-led focus within UKRI.

Working with our many partners across the UK and globally, we will make the UK the best place in the world to innovate, to invest, and to grow a business. We will inspire, involve and invest in innovation in many forms and at all stages. We will drive adoption and diffusion of innovation by working

Towards 2.4%: Boosting private sector investment

We support increasing UK investment in research and development to 2.4% of GDP by 2027. From ensuring the supply of skilled people needed by existing and future industries, to providing access to cutting-edge research facilities and high-quality research in universities, our actions will help to build the competitive research, innovation and business environment needed to attract global investment and incentivise companies to locate their R&D here.

Many of UKRI's funding programmes also directly leverage significant private sector co-investment. For example:

- every £1 of Innovate UK grant funding is associated with £13 of follow-on Venture Capital investment.
- Innovate UK grants have been directly matched by £3.4 billion of private sector investment, at a rate of £0.67 for each

£1 of grant funding followed by net additional private investment of between £1–£5 within 1–4 years of receiving a grant.

- EPSRC's Prosperity Partnerships have attracted £167 million funding from industry partners alongside £125.2 million from EPSRC, £3.6 million from BBSRC, and £39.2 million from universities.
- the Industrial Strategy Challenge Fund (ISCF) is forecast to deliver between £3.8 billion and £5.6 billion of leveraged co-investment from industry and other non-public sources – up to double that of the original target for the fund (£2.8 billion) and of the fund budget (£2.5 billion).
- the UK Research Partnership Investment Fund, which supports investment in higher education facilities across the UK, leverages £2 from non-public sources for every £1 invested by the fund.

with business to understand and remove barriers to success and setting the conditions for businesses to embrace risk. We will invest broadly in knowledge exchange, enhancing connectivity to enable the productive use of research to meet real-world challenges, and transforming processes and ways of working across the private, public and voluntary sectors. The innovation we drive will ensure all kinds of organisation can adapt to change, understand risk, and make effective strategic decisions.

Through Innovate UK's *Plan for Action for UK Business Innovation*¹², we will help businesses to grow through the development and commercialisation of new products, processes, and services, supported by an outstanding research and innovation system.

Priority 4.1: Deliver the skills, finance and collaboration opportunities needed to boost private sector investment

Integration across the innovation ecosystem is central to realising the UK's innovation nation ambitions. Businesses and research and innovation organisations must be able to rapidly access the right expertise and support at the right time. Driving up the UK's R&D intensity to 2.4% of Gross Domestic Product (GDP) requires strong partnerships that incentivise public/private co-investment, improve programme design, and help businesses to scale and compete internationally.

We will:

- strengthen innovation and entrepreneurial capabilities (see also Objective 1 and Priority 4.2) to drive innovation-led growth and increase private sector investment in all UK regions and nations, with a particular focus on innovation clusters.
- enable businesses to collaborate globally through existing and new bilateral programmes. We will remain a committed member of the Eureka network – the largest public network for international cooperation in R&D and innovation, present in 45 countries.
- grow UKRI's investments in innovation, fuelled by Innovate UK's extensive support for UK businesses, aligned with Research Council domain expertise and business collaboration, and Research England's knowledge exchange programmes in England.
- support UK businesses to innovate by increasing the availability of private finance in key areas of our future economy such as net zero, life sciences and data and digital technologies, encouraging all parts of the ecosystem to support business innovation (see also Objective 5).



Innovation is the lifeblood of the UK's future economic growth. It boosts productivity, helps businesses grow and scale and drives job creation, maximising potential in all parts of the UK.

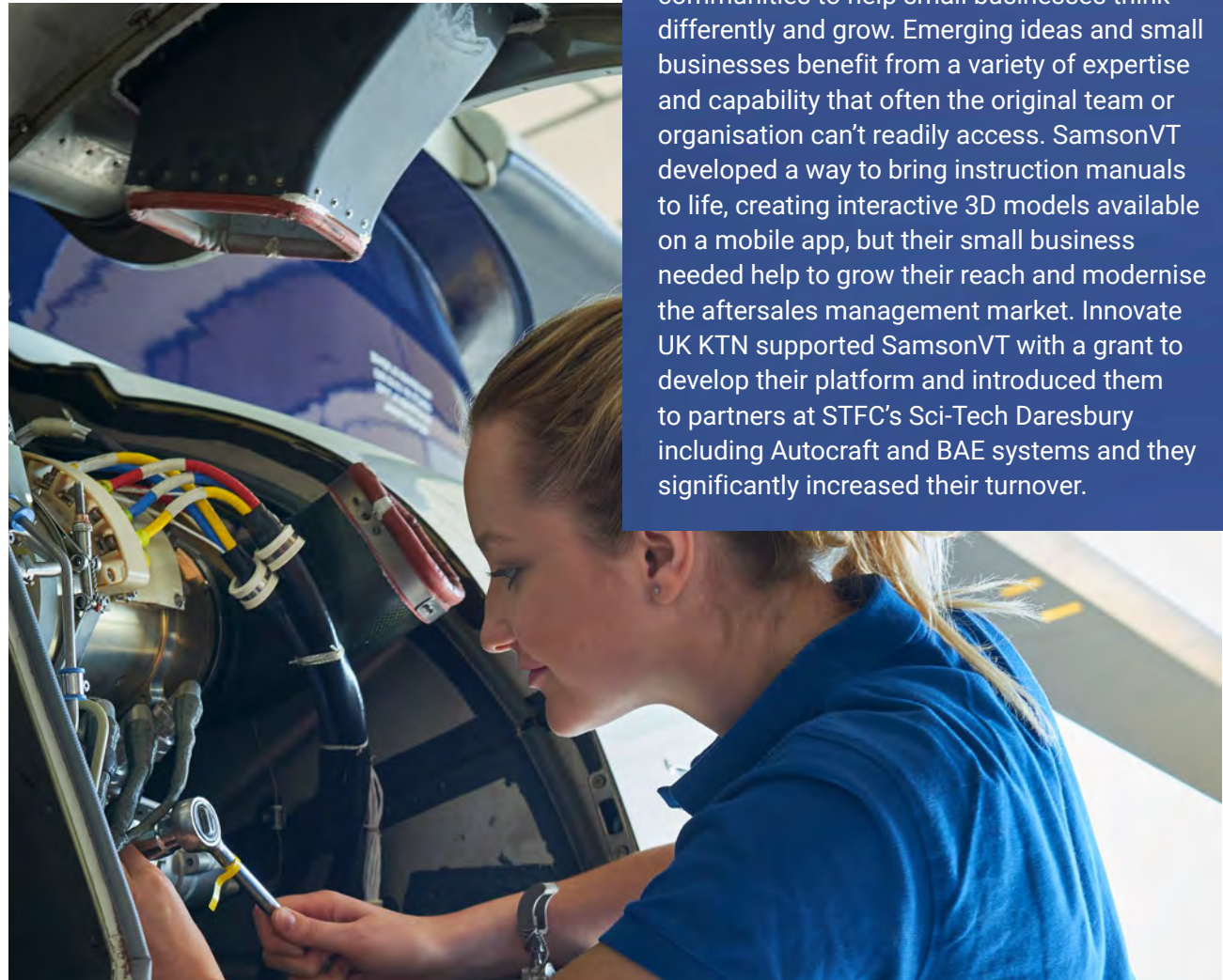
Priority 4.2: Accelerate translation, commercialisation and knowledge exchange

Effective support for commercialisation at all stages helps to create the conditions for businesses to embrace risk taking, advancing new/improved technologies, products and services. This is crucial for innovators to move to later stage commercialisation by industry/private funding. There is no one-size-fits-all model; approaches must be responsive to the needs of different business sectors. It also requires more people who can connect, translate and mediate between academic, business, and investor communities.

We will:

- strengthen support for the commercialisation of research through a UKRI-wide funding framework covering capability, development, translation and commercialisation.
- foster collaboration and co-investment between businesses, universities and the wider research base, including through Catapults and Knowledge Transfer Partnerships to increase adoption and diffusion of innovations by businesses across the UK.
- develop new ways of financing innovation through investor partnerships bringing in private sector investors and investment into the innovation cycle much earlier.

- expand cross-sector training and people movement to develop business, commercialisation and enterprise skills in all parts of the innovation ecosystem and lay the foundations for exciting careers that bridge research and innovation.



Case studies

Brokering connections to accelerate development

Innovate UK KTN connects ideas, people and communities to help small businesses think differently and grow. Emerging ideas and small businesses benefit from a variety of expertise and capability that often the original team or organisation can't readily access. SamsonVT developed a way to bring instruction manuals to life, creating interactive 3D models available on a mobile app, but their small business needed help to grow their reach and modernise the aftersales management market. Innovate UK KTN supported SamsonVT with a grant to develop their platform and introduced them to partners at STFC's Sci-Tech Daresbury including Autocraft and BAE systems and they significantly increased their turnover.

Case studies

De-risking technologies to crowd in private investment

UKRI invests in and connects fundamental research and its commercial applications. One example is Zentide – an innovative synthetic biology approach to produce new and versatile peptide-based materials with 98% less environmentally damaging waste products.

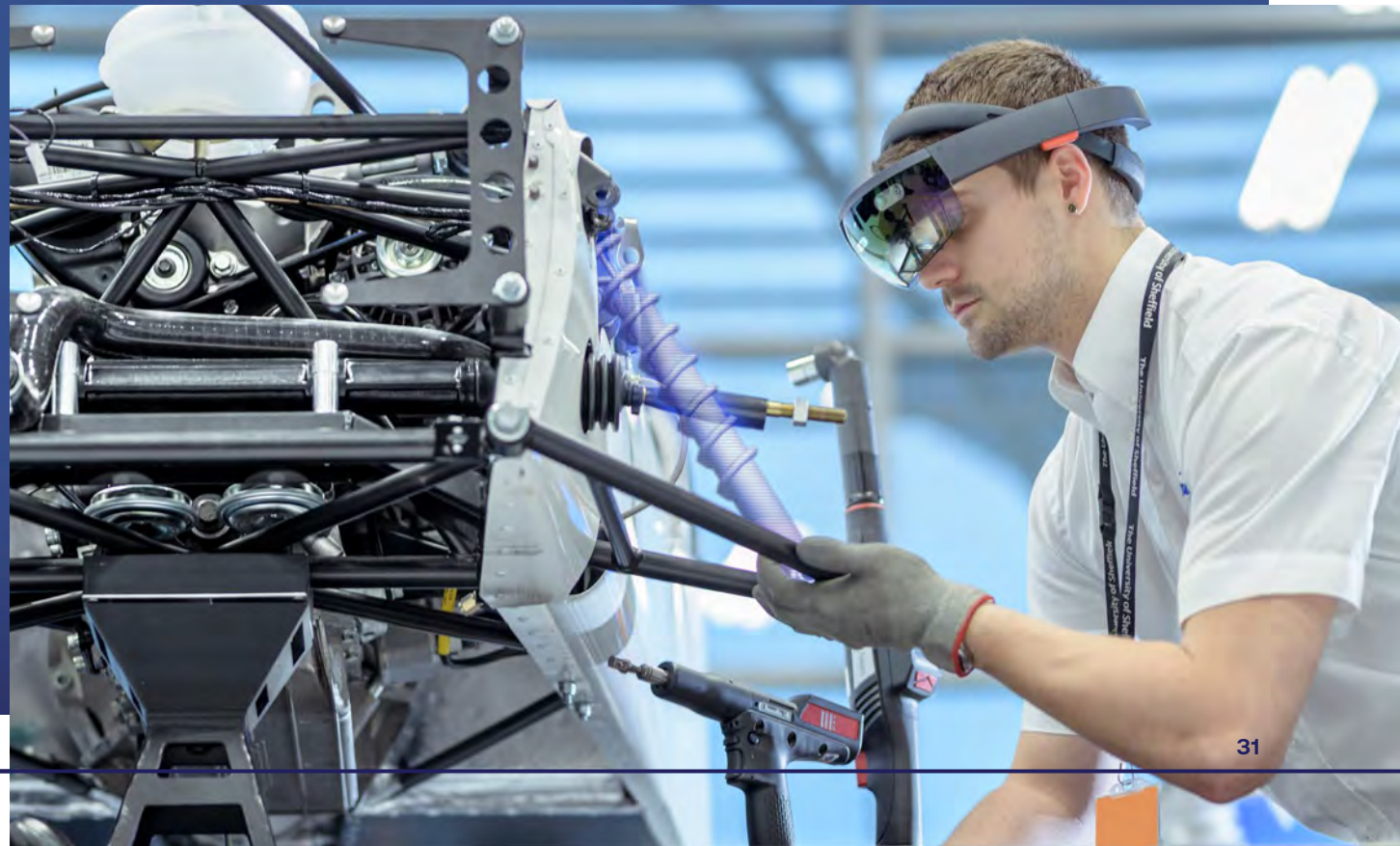
Early application of products included an adhesive peptide for the Defence Science and Technology Laboratory and surgical and dressing adhesives for healthcare. BBSRC, EPSRC and Innovate UK supported the initial engineering project and follow-on commercialisation of the technology, leading to the establishment of spin-out company Zentraxa in 2017.

Zentraxa has since secured private sector investment leveraged through the aligned investments of Innovate UK and the UK Innovation and Science Seed Fund (UKI2S), which is supported by STFC, BBSRC and NERC.

Building an advanced manufacturing cluster in Rotherham

Where the Orgreave colliery and coking works once dominated the landscape, there are now around 100 thriving companies employing 2,000 highly skilled workers on the Advanced Manufacturing Park in Rotherham. The research and innovation excellence and skills pipeline of the nearby Universities of Huddersfield, Leeds, Nottingham and Sheffield – including Sheffield's Royce Translation Centre, and their Advanced

Manufacturing Research Centre (AMRC) and Nuclear AMRC (both part of the High Value Manufacturing Catapult) – has attracted some of the world's biggest manufacturers including Rolls-Royce, Boeing and McLaren, and the UK Atomic Energy Authority. Grants and support from Innovate UK, EPSRC and Research England have helped develop the area into a thriving manufacturing innovation ecosystem.



Objective 5: World-class impacts

Focusing the UK's world-class science and innovation to target global and national challenges, create and exploit tomorrow's technologies, and build the high-growth business sectors of the future.



The UK is among a small group of nations that has the breadth and depth of research, innovation and technological capabilities to lead the response to global challenges¹³.

By connecting our exceptional research base to our innovative businesses and public services, we can turn into opportunities for transformative change. The world is reeling from the impacts of climate change and resource scarcity, geopolitical and economic instability, threats to public health, and demographic change. But there are opportunities to advance the technologies and sectors that will transform the future. The UK must seize the opportunity to capitalise on its research and innovation strengths and be the global partner of choice for our friends and allied nations, responding to global challenges. We should be investing wisely to secure competitive advantage in emerging technologies, and create opportunities for UK businesses in expanding global markets such as life sciences, space, green energy, AI, fintech and the creative industries.

The breadth of UKRI allows us to work right across the UK's world-class research and innovation system, bridging the gap between research and innovation, and harnessing multiple disciplines and sectors to tackle grand challenges and put the UK at the forefront of tomorrow's technologies and the industries of the future. We will work with our partners and stakeholders in government, business, the public, the wider research and innovation sector and international partners to understand their priorities and opportunities, including those

Building a sustainable, productive net zero economy

The UK government's ambitious target to reduce all greenhouse gas emissions to net-zero by 2050¹⁸, coupled with commitments to protect and enhance the environment¹⁹ and rebuild biodiversity²⁰ provides UKRI with the opportunity to play a leadership role in protecting and improving the health of our environment for the long term whilst securing future economic prosperity across the whole of the UK.

For more than 50 years, UKRI, its councils and predecessors have worked to develop a globally-recognised research and innovation base across the Net Zero landscape. Through our new strategic theme "Building a green future" we will use our extensive convening power, working across the business, academic, policy and regulatory interfaces to deliver fundamental change in how we tackle the global

climate crisis. We will leverage national and international research and innovation strengths across multiple disciplines and sectors to deliver the new knowledge, technologies, skilled people and multi- and interdisciplinary partnerships needed to keep the UK at the forefront of a new, green industrial revolution. We will target priorities co-designed with government and industry in areas such as:

- targeting the 'final 20%' of GHG reductions.
- realising a circular economy.
- protecting our nature, biodiversity and agricultural landscape.
- developing and deploying net zero technologies.

identified by the National Science and Technology Council (NSTC). We will remain agile and responsive to new ideas and emerging challenges through active horizon-scanning. Our work will support delivery of key sector strategies such as the AI Strategy, the National Space Strategy and the Life Sciences Vision and drives strategic advantage within the UK Innovation Strategy's key technology families.

Priority 5.1: Address major national and global challenges

We have identified five strategic themes where, by working across UKRI and leveraging new and existing investment and activity, we will harness the full power of the UK’s research and innovation system to tackle large-scale, complex challenges. These themes speak directly to national and global priorities including the government’s NSTC priorities and underpin key sectors of the UK economy.

Over the first year of our strategy, we will further develop our approach to these themes, working in partnership with researchers, policymakers, practitioners, funders, business and civil society to co-create research agendas, coordinate actions and leverage private investment.

Our UKRI strategic themes:

- **Building a green future** – helping to improve the health of our environment and deliver net zero, securing prosperity across the whole of the UK. Our whole systems solutions will secure business growth, jobs, skills and increased productivity, ensuring a green future for all, addressing environmental and net-zero challenges in all sectors of the economy.
 - **Securing better health, ageing and wellbeing** – advancing people’s health and promoting wellbeing to maintain prosperous, productive and resilient communities throughout the UK and globally, supporting the UK Life Sciences Vision by addressing challenges around ageing, living with multiple conditions, mental health and health inequalities.
 - **Tackling infections** – protecting and enhancing health, our food supply and our natural capital by building knowledge and capabilities to detect and disrupt the emergence and spread of human, animal and plant diseases, accelerate new vaccines and therapeutics, and halt the ‘slow motion pandemic’ of antimicrobial resistance.
 - **Building a secure and resilient world¹⁴** – strengthening social and economic resilience, and enhancing national security across virtual and physical spaces, by improving awareness of risks and threats; preparedness, decision-making and response; and allowing change to be understood as a force for good.
 - **Creating opportunities, improving outcomes** – understanding the causes and effects of place-based disparities and finding empowering new solutions that promote prosperity and improve outcomes for people and communities across the UK.
- We will:**
- develop more coordinated and collaborative approaches across UKRI and with our many partners utilising the breadth of our disciplinary and sector expertise to tackle major societal challenges.
 - develop new funding opportunities for multi-disciplinary programmes aligned to our strategic themes, seeking opportunities to coordinate and leverage additional investment with other public, private, third sector and international funders.
 - build strategic international partnerships and support UK leadership and participation in international research and innovation programmes to address challenges on a global scale.
 - embed insight on public values and priorities in the development of our strategic themes, and in the design, delivery and evaluation of research and innovation programmes.
 - lead by example by achieving net zero across our own estate and infrastructure by 2040 (see *Objective 6*).

Backing tomorrow's technologies

UKRI supports the emergence, development and exploitation of disruptive technologies that have the potential for radical positive impact on our society and economy. Our challenge is to maintain and grow the UK's international position in a highly competitive global context.

We support technologies at all stages from early emergence through to adoption and diffusion, building the necessary UK skills and leadership to secure long-term strategic advantage.

Our approach builds broad capabilities in platform technologies to maximise their benefit across multiple sectors and in multiple application areas. Our wide reach allows us to do this in a fully joined-up way.

The National Quantum Technologies Programme (NQTP) is one example of how UKRI works to coordinate multiple streams of investment, providing the right support at the right time to build a Quantum Technology ecosystem in the UK which has the highest level of venture capital investment in Europe. Quantum Technology Research Hubs have leveraged £75 million in partnerships and investment, start-ups have raised more than £135 million and employ over 370 people and the industry challenge fund to commercialise Quantum technologies has funded over £125 million of industry led innovation projects.

Priority 5.2: Harness the opportunities from tomorrow's technologies

The UK government's Innovation Strategy identifies seven technology families in which the UK has a global advantage, and that present significant opportunities to shape the future of our economy and society:

- advanced materials and manufacturing
- AI, digital and advanced computing
- bioinformatics and genomics
- engineering biology
- electronics, photonics and quantum technologies
- energy, environmental and climate technologies
- robotics and smart machines

Decades of UKRI investment underpin the UK's leadership position within and across the seven technology families. Our challenge now is to invest and incentivise the connected, collaborative partnerships needed to maintain and grow the UK's international position in a highly competitive global context, building on strong foundations to realise the UK's strategic advantage, levelling up regional infrastructure and skills in the process.

We will:

- build on existing, and establish new, national programmes to deliver UK strategic advantage in key technology families such as AI, Quantum¹⁵ and Engineering Biology, coordinating across UKRI and with government departments, the research base and industries to harness these opportunities.
- enhance UK capabilities in transformative technologies through national and regional hubs, centres of excellence and research and innovation clusters providing the technological foundations and nuclei for collaboration across disciplines and sectors.
- develop the skills base to catalyse the emergence and exploitation of transformative technologies through targeted training and wider skills development across career stages and skill-types.
- stimulate the development and adoption of disruptive technologies across all sectors of the economy, including helping businesses to access technology expertise and facilities in the research base, support for early-stage translation and scale-up, academic-business partnerships models that leverage private investment.
- develop international partnerships that will enable access to, and develop, scientific and innovation expertise that help attract foreign investment into the UK and create export opportunities, while protecting UK strategic advantage in priority technologies.

Priority 5.3: Transform sectors that are key to the future economy

UKRI works across the full research and innovation system, underpinning a wide range of sectors, from aerospace to manufacturing, agriculture to the creative industries, life sciences to communication and information technologies. We work in partnership with industry to identify market failure and target investment where it is most needed across the entire value chain, from investment in research and innovation through to the provision of facilities to support businesses and commercialisation. Tackling the complex societal challenges set out in our strategic themes will highlight opportunities for UK leadership in expanding global markets and platform technologies that have the potential to revolutionise multiple sectors.

We will:

- in partnership with government departments, agencies, devolved governments, industry and the public, advance research and innovation underpinning key high growth sectors such as the creative industries, space¹⁶ and life sciences¹⁷.
- through our strategic themes (see *Priority 5.1*) and priority technologies (see *Priority 5.2*), develop the knowledge, capabilities and innovations needed to enable UK companies to lead and compete in emerging and expanding markets such as quantum technologies, clean technologies and the bioeconomy.

Boosting the UK's thriving life sciences sector

The Life Sciences Vision recognises the UK's life sciences sector as among the most valuable and strategically important in the UK economy, and critical to the country's health, wealth, and resilience.

Working in partnership with government and business, UKRI will play a vital role in ensuring the UK continues to be a globally leading location for life sciences R&D and manufacture.

We will invest in research to drive the next generation of life science discoveries and healthcare innovations. Through our new strategic themes *Securing Better Health, Ageing and Wellbeing* and *Tackling Infections*, we will take a coordinated, multidisciplinary approach to research and innovation aligned to the healthcare missions set out in the Life Sciences Vision, including:

- understanding the biology of ageing, including neurodegeneration.
- build a portfolio of industry-inspired programmes to boost productivity and economic growth in key sectors, aligned with government priorities.

- sustaining the UK position in vaccine discovery, development and manufacturing.
- increasing understanding of mental health conditions.

We will enhance the UK's leadership in technologies that are revolutionising the life sciences sector, such as genomics, bioinformatics and engineering biology, and support key facilities for life sciences research and innovation, including data resources.

By strengthening the UK's innovation ecosystem, we will support UK life sciences businesses to innovate and grow, accelerate the translation and commercialisation of life sciences innovation into treatments and therapies that benefit patients, and leverage private sector investment in life sciences R&D.

Case studies



Leveraging space sector leadership to drive innovation

Enterprises and research organisations benefit from nationwide expertise in developing, launching and operating satellites, and in collecting and analysing data from space. UK start-up company Smart Green Shipping (SGS) used integrated analyses of decades of data to develop an innovative autonomous wing-sail system that could reduce the fuel consumption of cargo ships by 20%. SGS was supported by STFC and the UK Space Agency,

through the ESA Business Incubation Centre UK, as well as Research England and NERC. They benefitted from access to world-leading technical expertise, facilities and business development support held. They benefitted from access to world-leading technical expertise, facilities and business development support held within clusters across the UK including Harwell Science and Innovation Campus and the National Centre for Earth Observation (NCEO).

Case studies



Exploring the uses of transformative technologies to improve lives

From driverless cars to surgical robots and decision-making algorithms, autonomous systems can deliver better services and products at lower costs, and can make major contributions to global challenges. Our Trustworthy Autonomous Systems (TAS) programme brings together experts from over 10 disciplines from more than 20 UK Universities to address important technical, socio-technical and humanities questions to ensure autonomous systems can be designed, developed and implemented in a way that earns trust, engaging broadly with academia, business and industry, the third sector and policymakers.

The programme was developed from a submission to EPSRC's Big Ideas scheme and secured £33 million from the Strategic Priorities Fund, working alongside AHRC and ESRC.

Tackling a global pandemic

UKRI investments were pivotal in supporting public health practitioners, UK government, local authorities, Devolved Administrations and the public in the fight against COVID-19. These included investments in: developing the Oxford-AstraZeneca vaccine; the RECOVERY clinical trial through MRC, which uncovered the life-saving benefits of the drug dexamethasone; longitudinal population studies to inform the design of mitigation strategies and understand the impact of infection control measures on our physical and mental health through ESRC and Research England; observing how different countries experienced the pandemic to understand how language and politics can impact on society; and accelerating innovative ways to bring cultural experiences into people's lives and homes during lockdown through AHRC.

Collectively the 3,600 COVID-19 research and innovation initiatives UKRI has supported work together across every discipline and sector and across borders to save lives and livelihoods, and uncover unintended consequences such as the impact of social distancing on the deafblind,

creating an unprecedented depth and breadth of understanding which can be shared and felt worldwide. These awards are in addition to the many active research projects repurposed to tackle COVID-19 and our longstanding investments in institutes, centres and units, many of which are on the frontline of COVID-19 research.



Objective 6: A world-class organisation

Making UKRI the most efficient, effective and agile organisation it can be.



This strategy signals the start of a new chapter for UKRI, as we build on our early learning to maximise the benefits of bringing together the seven Research Councils, Innovate UK and Research England. As we continue to mature as an organisation we will be as bold and ambitious for ourselves as we are for the sector we have the privilege to serve, making sure UKRI is one of the most efficient and effective funders in the world.

One of the unique strengths of the UK research and innovation ecosystem, and of UKRI, is the ability to bring different disciplines and sectors together to unlock new discoveries and solve the big challenges of our day. We will lead by example, exemplifying the characteristics of an outstanding research and innovation system, increasing connectivity and working collaboratively across UKRI, to break down silos, bridge the gap between innovation and research, and enhance the UK's reputation as a globally leading research and innovation nation.

We will transform UKRI to be a more confident, efficient and agile organisation, maximising return for the UK taxpayer. We will engage widely and deeply with all our stakeholders, listening and course-correcting, and we will enhance our data analytics to inform all our decisions and improve our performance. We will continue to act as a responsible organisation that prioritises the health, safety and wellbeing of our employees and of those we fund. We will also act as a responsible partner, accountable for our societal, environmental, and financial impact.

Priority 6.1: Empower talented people to collaborate and thrive

Our people are our greatest asset. We will harness and celebrate the breadth of skills, knowledge, and professions we collectively hold, working openly and collaboratively to ensure that our projects, programmes and actions foster creativity, drive innovation and enrich lives. We will take action to ensure we can attract and retain talent, creating career paths that ensure people continue to thrive over the long-term.

We will:

- incentivise the movement of people and knowledge across all our Councils and functions, embedding collaboration at all levels.
- understand our long-term skills needs to improve our workforce planning and talent offer to attract, develop and retain our diverse, passionate and creative workforce.
- embed opportunity across UKRI, supporting and developing the diversity of people we need to be a world-class organisation.



Priority 6.2: Make UKRI an efficient, effective and agile organisation

Over this strategy period we will deliver a transformative efficiency plan with new systems, streamlined processes and a simplified operating model. These changes will reduce bureaucracy, drive significant cost reductions in our operating expenditure, maximise value for the UK taxpayer, and enable us to be more agile in responding to new challenges and opportunities.

We will:

- respond to the recommendations of the ‘Grant’ (2021-22 Independent Review of UKRI) and ‘Tickell’ (2021-22 Independent Review of Research Bureaucracy) reviews to ensure that UKRI is the most efficient, effective organisation it can be.
- implement a new, simplified UKRI operating model, significantly reducing our operating expenditure by 2024–25.
- develop and launch a new integrated grants service and modern digital funding system that makes it easier for applicants to collaborate, submit applications and obtain guidance.
- reduce processing time for grant expert review – automating processes, reducing the complexity of information requested, only asking for it once – saving time.
- develop a dashboard of simple robust key performance indicators to track the efficiency of our operational delivery.

- integrate our data systems and protocols, creating effective progress monitoring, and faster and more effective information sharing, strengthening our insights and analyses to inform how we act.

Priority 6.3: Catalyse change and impact through partnership and leadership

We know that our ambitions for the UK’s research and innovation system are shared by our communities, stakeholders and partners. Only by working together will we catalyse the transformative outcomes that address the global challenges facing this generation and those to come, and achieve greater global and economic impact from UK research and innovation. As a responsible organisation, we strive to achieve the highest ethical and environmental standards and align with global best practice in all that we do, leading by example to make a positive impact on people, the planet and prosperity.

We will:

- embed new approaches to communications, engagement and partnership, improving accessibility and inclusion, and building relationships that are transparent, trusted, constructive and consistently managed.
- reduce the environmental impact and improve biodiversity of our estate and infrastructure, encouraging innovation and embedding environmental sustainability across all our investment decisions by 2025 and achieving net zero by 2040 as set out in our Environmental Sustainability Strategy.

Transforming how we work

Our strategy sets out how we will catalyse change within UKRI with a particular focus on:

Efficiency – implementing our ambitious efficiency plan and new operating model to reduce bureaucracy and operating expenditure.

Agility – harnessing the power of our new operating model and digital systems to support agile working across the organisation, capturing the full the benefits of our breadth and depth of expertise to respond to the rapidly changing R&I landscape.

Connectivity – increasing collaboration across UKRI and working closely with our broad partners and stakeholders.

Impact – aligning everything we do to our strategy, to deliver maximum impact for our society, economy and environment.

Case studies

Working with partners to catalyse change and improve working conditions in the R&I sector

Bullying and harassment have no place in a research and innovation culture – they have lasting negative impacts on people and decrease research quality and integrity. We commissioned an evidence review into the most effective approaches to tackle bullying and harassment and used this to inform our work as an employer and as a funder. To support system level change, UKRI now chairs the Forum for Tackling Bullying and Harassment in Research and Innovation collaborating with policymakers and regulators nationally and internationally. The Forum supports culture change through sharing understanding, best practice, knowledge, and learning for tackling bullying and harassment across the research and innovation landscape.

Reducing bureaucracy: Simpler, Better Funding

At UKRI we continuously strive to improve how we work. We are reducing bureaucracy in all areas of our business, including our funding processes. Through our Simpler and Better Funding Programme and our response to COVID-19 we have trialled several new ways of working. Applicants and reviewers have told us that the new system is easier to use, and that it takes less time to submit and/or review an application. This helps us achieve our goal of researchers and innovators spending less time filling in forms and instead maximise their time doing what they do best – developing great ideas and building the UK's world-class research and innovation system.



Implementing our strategy

This strategy sets out how UKRI will harness the UK's extraordinary talent and creativity, exploiting new and exciting ideas and ways of working to drive the UK as a science superpower and innovation nation. We are committed to supporting a thriving research and innovation system that drives the future economy and delivers for citizens across all parts of the UK and beyond. The rate of progress will depend on our future budgets and resources.

Our Councils' Strategic Delivery Plans

Our strategy provides us with a unifying purpose and clear objective and priorities for the next five years. It empowers our Councils and provides a high-level framework on which we will build a balanced portfolio of aligned investments. Through their Strategic Delivery Plans, to be submitted and published later in 2022, our Councils will set out the key part they will play in delivering our strategy in the context of their specific community or sector. The delivery plans will set out each Council's longer-term ambitions and near-term actions for the duration of the current spending review period. The council-specific plans are complemented by our annual Corporate Plan which sets out our cross-UKRI actions and cross-cutting priorities.

We will work together, across our Councils, to develop a cohesive suite of delivery plans, drawing on our individual and collective strengths. Each of our Councils has ambitious plans for how they will deliver our strategy, but this is a shared endeavour, and we will work across UKRI and with partners and stakeholders and the wider public, to set out our actions to create a fully joined-up, outstanding research and innovation system, to which everyone can contribute and from which everyone benefits.

Monitoring our progress, assessing our impact

We have a crucial role in creating the conditions for a UK science superpower and innovation nation, working with our partners, with BEIS as our sponsoring department and with other parts of government to deliver research and innovation priorities. To achieve this ambition, it is vital that we can monitor progress, manage our own performance, and evaluate the impact of the wider efforts and actions we support. And we must use this to inform our future strategies and plans, putting evidence at the heart of our decision-making. Additionally, we must demonstrate sound financial management of the budget entrusted to us by the taxpayer.

Tracking our performance

Monitoring and evaluating UKRI's performance against the strategy will become part of our everyday business, supported by our new performance management framework. The framework, which is being piloted throughout 2021–22, aligns with our strategy and uses an adapted balanced scorecard approach, considering our performance through four different perspectives:

- what we achieve, through the outcomes and impacts of our work.
- what our communities and partners experience from us and the role we play in the research and innovation system.
- how we excel at what we do through our organisational structures and processes.
- how we learn, improve ourselves as an organisation and create the most value from our resources.

To enable reporting against this framework, we are developing a set of indicators that support a rounded, robust assessment of our performance. The indicators make full use of evidence on our outputs, outcomes and impacts (see pages 45 to 47)

using quantitative and qualitative evidence drawn from various sources within and outside of UKRI. The performance indicators will help us determine whether we are achieving our strategic objectives and will be described in more detail in our corporate plan.

Monitoring and evaluating the impact of our activities

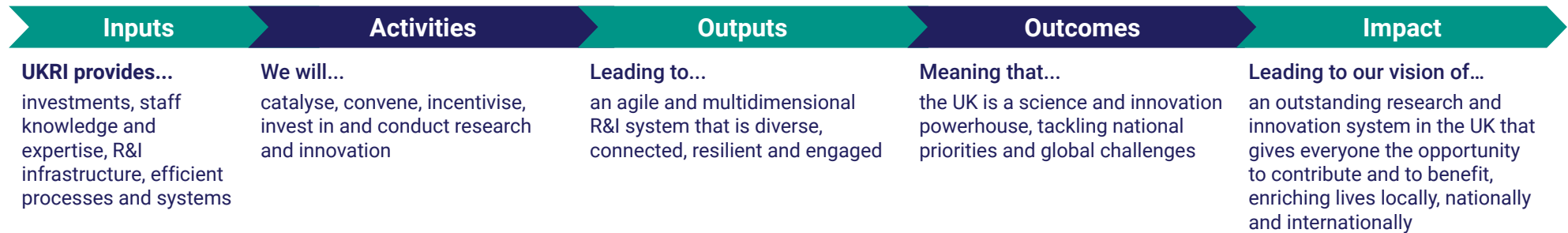
We are committed to monitoring and evaluating our investments rigorously to understand our impact and to learn from 'what works'. We will continue to monitor and evaluate the impact of our activities in line with our overarching evaluation framework, which sets out the principles and processes by which all monitoring and evaluation is undertaken within UKRI. This will include commissioning independent evaluations of our major research and innovation grants and investments, as well as continuing to build our in-house skills, capabilities and analytical frameworks.

Reporting our progress

We publish our progress and performance as we implement our strategy, in our Annual Report and Accounts.

Outputs, outcomes and impacts

Through our six strategic objectives and principles for change, UKRI will drive the shifts needed to allow the UK’s world-class R&I system to flourish. We work in partnership with HEIs and institutes, innovative businesses, investors, not-for-profit organisations and policymakers, through targeted and open funding mechanisms, leadership, knowledge, access to infrastructure, policy incentives and efficient processes.



| Inputs | Activities | Outputs | Outcomes | Impact |
|--|--|--|--|---|
| UKRI provides... investments, staff knowledge and expertise, R&I infrastructure, efficient processes and systems | We will... catalyse, convene, incentivise, invest in and conduct research and innovation | Leading to... an agile and multidimensional R&I system that is diverse, connected, resilient and engaged | Meaning that... the UK is a science and innovation powerhouse, tackling national priorities and global challenges | Leading to our vision of... 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 |
| Support for people | <ul style="list-style-type: none"> • make the UK the most attractive destination for talented people and teams. • develop, attract and retain the breadth of skills for the future R&D workforce. • build an R&I culture that supports talented people and teams to pursue their ideas. | <p>The UK attracts, develops and retains talented people and teams:</p> <ul style="list-style-type: none"> • we support people, teams and career paths across the R&I system. • career paths and R&I culture in the UK are globally attractive. | <p>The UK has the people needed to deliver diverse, high quality R&I outcomes:</p> <ul style="list-style-type: none"> • we have attracted and supported high quality people. • we have incentivised diverse career paths. • we have supported an open and collaborative R&I culture. | <p>The UK is the destination of choice for talented people and teams.</p> |
| Support for places | <ul style="list-style-type: none"> • strengthen existing and support new clusters and partnerships locally, nationally and globally. • improve the financial sustainability of UK R&I. • ensure the UK has cutting edge R&I infrastructures. | <p>The UK R&I system is diverse, connected and resilient:</p> <ul style="list-style-type: none"> • we support a diverse portfolio of institutions, infrastructures, collaborations and partnerships. • we enable national and international leverage into the UK system. | <p>The UK has the people, institutions, infrastructures and partnerships to be a global science superpower:</p> <ul style="list-style-type: none"> • we have supported research and innovation in a diversity of institutions. • we have invested in cutting edge infrastructures for UK R&I. • we have enabled & developed R&I capability, and attracted further investment, across all regions. | <p>The UK’s outstanding institutions, infrastructures, sectors and clusters have positioned the UK as a global leader in R&I, with strengths across the UK.</p> |

| Inputs | Activities | Outputs | Outcomes | Impact |
|--------------------------------------|---|---|--|--|
| <p>Support for ideas</p> | <ul style="list-style-type: none"> invest in a diverse and dynamic portfolio of high-quality, creative research and innovation. incentivise and remove barriers to multi- and inter-disciplinary working. | <p>UK R&I advances the frontiers of knowledge, discovery and innovation:</p> <ul style="list-style-type: none"> we enable new, expertly recognised major ground-breaking discoveries, products, processes, structures and services. we ensure diversity and support for new or nascent curiosity driven research disciplines and sectors. | <p>The UK can seize opportunities from emerging research trends and new markets, delivering economic and societal benefits:</p> <ul style="list-style-type: none"> we have enabled new ground-breaking or game-changing discoveries, technologies and innovations. we have advanced knowledge within new areas of human enquiry. | <p>Advances in the frontiers of human knowledge and innovation are enabling the UK to seize opportunities from emerging research trends, multidisciplinary approaches, ground-breaking discoveries and new markets.</p> |
| <p>Support for innovation</p> | <ul style="list-style-type: none"> deliver skills, finance & collaboration opportunities to boost private sector investment. accelerate translation, commercialisation and knowledge exchange. | <p>Conditions in all parts of the UK drive innovation and enhance knowledge exchange and commercialisation:</p> <ul style="list-style-type: none"> we enable new spin-outs or start-ups. there are increased levels of commercialisation activity. R&I investment is leveraged from other sources. skills are developed in areas most needed. vibrant innovation clusters, attracting significant inward investment, grow across the UK. | <p>A strong and integrated innovation ecosystem is providing the foundations for an innovation-led economy in all parts of the UK, leveraging inward investment and creating jobs:</p> <ul style="list-style-type: none"> we have responded to new or emerging industrial opportunities. we have increased prosperity across the UK. we have strengthened innovation, entrepreneurial and commercialisation capabilities. | <p>The innovation environment, capabilities and connections fostered throughout the UK are delivering the government's vision for the UK to be an innovation nation, driving economic growth, high-quality jobs and private sector investment.</p> |

| Inputs | Activities | Outputs | Outcomes | Impact |
|--------------------------------------|--|--|---|---|
| Support for impacts | <ul style="list-style-type: none"> • address major national and global challenges. • harness the opportunities from tomorrow's technologies. • transform sectors that are key to the future economy. | <p>R&I strengths are harnessed and focused to tackle priorities:</p> <ul style="list-style-type: none"> • we enable greater alignment between R&I and government priorities. • we can pivot to address new national and global priorities and opportunities. | <p>The UK has the breadth and depth of research and innovation capabilities to be at the forefront of solutions to known and unforeseen global challenges, and to secure competitive advantage in key technologies and sectors:</p> <ul style="list-style-type: none"> • we have effectively addressed industrial and societal challenges. • we have improved people's lives. | <p>UK research and innovation strengths are harnessed, putting the UK at the forefront of solutions to global challenges, key technologies and sectors of the future.</p> |
| Transforming our organisation | <ul style="list-style-type: none"> • empower talented people to collaborate and thrive. • be an efficient, effective and agile organisation. • catalyse change and impact through partnership and leadership. | <p>Our people, systems and processes are continuously improved:</p> <ul style="list-style-type: none"> • we learn from and develop our people, nurturing talent and ideas. • we reduce unnecessary bureaucracy – both for our people and for those we fund and interact with. • we spend within forecast and deliver major projects on time and within budget. • we engage deeply with our communities, partners and the public, building trusted relationships and monitoring our impact. | <p>UKRI is efficient, effective and value for money for UK taxpayers:</p> <ul style="list-style-type: none"> • we have developed, empowered and supported our staff. • we have increased efficiency, and retained effectiveness and satisfaction of our processes. • we have managed public money appropriately. • we have met our environmental sustainability goals. • we have improved accessibility and inclusion through our communications, engagement and partnerships. | <p>UKRI is a more efficient, effective and agile organisation, and a responsible partner and employer.</p> |



About us

UKRI is the UK's largest public funder of research and innovation. We invest more than £8 billion annually to advance our understanding of society and the world around us and deliver benefits for society, the economy and the environment.

Our organisation comprises nine councils – the UK's innovation agency, Innovate UK, the seven disciplinary Research Councils and Research England, which is responsible for supporting research and knowledge exchange at higher education institutions in England. As a UK-wide organisation we work across the four UK nations and with the devolved funding bodies and governments to understand and support different priorities that span research and innovation in different parts of the UK

Through our Councils and the critical national capabilities provided by our centres, units and institutes, we deliver, support and champion the creativity and vibrancy of research and innovation in the UK, for the benefit of society.

UKRI is a non-departmental public body sponsored by the Department for Business, Energy and Industrial Strategy (BEIS).



Arts and Humanities Research Council

AHRC funds internationally outstanding researchers across the arts and humanities including: history, archaeology, digital content, philosophy, languages and literature, design, heritage, area studies, the creative and performing arts. The quality and range of research supported by AHRC works for the good of UK society and culture and contributes both to UK economic success and to the culture and welfare of societies across the globe.



Biotechnology and Biological Sciences Research Council

BBSRC's vision is to advance the frontiers of biology and drive towards a healthy, prosperous and sustainable future. This is rooted in an understanding that the power of biology impacts our everyday lives, from the provision of safe and nutritious food, new pharmaceuticals and better health, to 'greener' energy, materials and other everyday products.



Economic and Social Research Council

ESRC funds world-leading research, data and post-graduate training in the economic, behavioural, social and data sciences to understand people and the world around us. Our work helps raise productivity, address climate change, improve public services and generate a prosperous, inclusive, healthy and secure society.



Engineering and Physical Sciences Research Council

EPSRC invests in world-leading research and skills to advance knowledge and deliver a sustainable, resilient and prosperous UK. Our diverse portfolio ranges from digital technologies to clean energy, manufacturing to mathematics, advanced materials to chemistry. We support new ideas and transformative technologies which are the foundations of innovations that improve our economy, environment and society. In partnership and co-investing with industry, we work to deliver both national and global priorities.



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. We 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. Our 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. Our 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

Research England has responsibility for England-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. The 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. Our 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.

UKRI Strategy – how it all fits together

Our purpose – transforming tomorrow together

UKRI is the engine for the UK as a research and innovation powerhouse. We invest more than £8 billion each year on behalf of Government, leveraging expertise across all disciplines and sectors. We inspire and enable talented people to push the boundaries of discovery, support innovative businesses to grow and scale, and target solutions to national and global priorities.

Our strategy sets out how we will work with our many partners and stakeholders to foster an outstanding research and innovation system in the UK that drives economic, social, environmental and cultural benefits for all citizens, transforming tomorrow together.

Our principles for change – we will embed these principles across all our work, to drive change and create the conditions for an outstanding research and innovation system

Diversity of ideas, people, activities, skills, institutions and infrastructures advances knowledge, increases quality and creativity.

Resilience ensures the agility, capability, and flexibility needed to withstand shocks, deliver long-term goals and capture new opportunities.

Connectivity across disciplines, sectors and borders catalyses new ideas and approaches to deliver impact.

Engagement shapes research and innovation to reflect the needs, perspectives and motivations of diverse stakeholders and the public.

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

People and careers

Making the UK the most attractive destination for talented people and teams from the UK and around the world.

Places

Securing the UK's position as a globally leading research and innovation nation with outstanding institutions, infrastructures, sectors and clusters across the breadth of the country.

Ideas

Advancing the frontiers of human knowledge and innovation by enabling the UK to seize opportunities from emerging research trends, multidisciplinary approaches and new concepts and markets.

Innovation

Delivering the government's vision for the UK as an innovation nation, through concerted action of Innovate UK and wider UKRI.

Impacts

Focusing the UK's world class science and innovation to target global and national challenges, create and exploit tomorrow's technologies, and build the high-growth business sectors of the future.

Supported by a **world-class organisation** – making UKRI the most efficient, effective and agile organisation it can be.

Acknowledgements and references

Acknowledgements

Developing our first strategy has been a pan-UKRI endeavour, drawing on expertise right across the organisation. It has been informed by ongoing dialogue and engagement with communities and stakeholders – including the deep and diverse expertise in our Councils and their boards and advisory bodies – through which we have sought to develop a shared understanding of our operating context and what makes an outstanding research and innovation system.

We are grateful to all those who have shared their inputs, expertise and insights that have helped to shape our strategy, given their time to take part in roundtable discussions, and acted as ‘critical friends’ in providing valuable feedback on early thinking and drafts.

Further reading

Our strategy provides an overarching strategic framework for UKRI and is complemented by other publications that describe our ambitions and plans in specific areas of our activity in more detail. You can find these at: www.ukri.org/about-us/what-we-do/

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