

UK Research and Innovation

UK Research and Innovation – narrative

Building on success

The UK has a world class research and innovation system. Our expertise spans all fields of knowledge, from the discovery of penicillin and monoclonal antibodies, to the jet engine and the world-wide web. Our inspirational creative industries are strong in art, design and the innovative use of new materials and technologies.

Our universities and laboratories produce a disproportionate percentage of the world's top research, and their academics are highly-sought as international colleagues and co-authors and are among the world's best at attracting overseas students

Nor is this excellence confined to university campuses and research centres. Our engineering, automotive and pharmaceutical industries are successful in part because of the superb graduates they can hire and the top rate researchers that support them. Thriving UK businesses, ranging from household-name multinationals to small specialist companies, are expert at devising new products and services. Many are now changing the world through the use of data to drive business decisions.

UK research and innovation funding is spent in a highly effective way. As well as new insights into science and technology, it generates original thinking in the social sciences, the arts and the humanities. It improves the conduct of government and business and helps sustain the UK's internationally-admired arts and media.

Why change a winning system?

The world is changing fast, and the UK needs a research and innovation system that is fit for the future. Such a system must be able to respond to demographic, economic and environmental change on a global scale.

Economic growth depends increasingly on new knowledge, and the UK must translate excellent research into better business outcomes more effectively. Commercialising new ideas will ensure that we maximise the economic benefit we gain from our world class research.

New ideas are also critical to addressing the complex challenges facing our society, and others around the world. Climate change, ageing, security threats and the provision of better public services all call for policy and solutions that are informed by evidence from the research community.

Data-driven innovation is transforming all sectors of the economy. Deep insight from the arts, humanities and social sciences is needed to reap the benefits of this extraordinary technological development for the whole of society.

Individual components of the UK research and innovation system have great strengths. Now we intend to build a new system which is more than the sum of its parts. This system will reward audacity, ambition and agility, and encourage imagination and innovation. It will ensure that good ideas are supported that might once have been blocked by artificial

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organisational divides.

The new structure we are creating will deliver a much deeper understanding of the research and innovation landscape, including its sustainability and the strengths and weaknesses of the system. This knowledge will allow us to invest wisely to maximise value.

These are not new issues. The Dainton review of 1971 identified them, and they were echoed 44 years later by Sir Paul Nurse. There have been important reforms to the system over the years, but we need to ensure that it continuously adapts and improves.

These aims have never been more important. The globalisation of research and development, in which the UK is a key player, means that we are working in an intensely competitive international environment.

What is UK Research and Innovation?

Operating across the whole of the UK and with a combined budget of more than £6 billion, UK Research and Innovation is bringing together the seven Research Councils, Innovate UK and a new organisation, Research England.

UK Research and Innovation will be an independent organisation and a strong voice for research and innovation, both to government and internationally, and will be supported and challenged by an independent chair and board. But independence doesn't mean isolation. We will work with our stakeholders to understand their objectives and needs

Our present system is a success and key elements of it will remain. There will be a strong focus on quality and competition, epitomised by the Haldane principle, now enshrined in legislation. The dual support system will ensure that the university sector remains sustainable, efficient and effective, and the UK will retain its status as a key partner for international collaboration on the most ground-breaking projects.

The UK Research and Innovation partner bodies will each bring unique assets to this cooperation.

- Innovate UK helps businesses to identify the commercial potential in new technologies and turn them into the new products and services that will drive economic growth and increase productivity;
- Strong discipline-facing Research Councils will encourage breadth and diversity, curiosity-driven research, and priority-driven initiatives;
- Research England's work on knowledge exchange will focus on capacity and culture in universities and provide balance to the funding system. It will drive quality and impact through the REF and work closely with its counterparts in the devolved administrations.

What is the vision for UK Research and Innovation?

We intend to be an outstanding organisation that ensures the UK maintains its world-leading position in research and innovation. We will do this by creating the best environment for research and innovation to flourish.

UK Research and Innovation's objectives

We want to invest every pound of taxpayers' money wisely in a way that maximises impact for citizens, in the UK and across the world. UK Research and Innovation will be measured

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by the impact we deliver, and this will have three elements:

- We will push the frontiers of human knowledge and understanding;
- We will deliver economic impact and social prosperity;
- We will create social impact by supporting our society and others to become enriched, healthier, more resilient and sustainable.

How to achieve our objectives is clear. We need to invest in the highest-quality research and innovation, across the UK. We want to foster a collaborative environment for universities, researchers and businesses which is able to attract funding from new sources.

We need to develop the talent pipeline for research and innovation to support those with the greatest talent and potential. We will champion equality, diversity and inclusion across the research and innovation sector, and support a healthy and high-integrity culture.

We will also ensure that UK researchers and innovators enjoy the world's best infrastructure. To do this, we need to understand the landscape to understand how best to grow and sustain our infrastructure and maximise the value of our assets.

The need to achieve the best possible impact has shaped our objectives for the organisation. We aim to become a strong, single voice for UK research and innovation at home and abroad. To do this we need to inspire, engage and learn from our people, valuing and promoting equality and diversity in all their forms. Their expertise and enthusiasm are crucial to achieving our goals. UK Research and Innovation will need their participation to develop a coherent strategy and voice, to work closely with stakeholders and government, and to support a strong, happy and productive workforce. We intend UK Research and Innovation to be resilient, efficient and agile. It will be a great place to work.

Because it is vital for us to have the best people at all levels throughout UK Research and Innovation, we will also make the most of external expertise, by encouraging researchers and innovators to work with us in integrated programmes of work that address the big challenges for science and society.

So what comes next?

There are two phases in the near-term development of UK Research and Innovation. First is the transition phase, which involves the creation of a fully-functioning organisation by 1 April 2018. This stage is well under way. The second is transformation, to ensure that we can deliver our ambitions. Transformation has already started with the creation of the Shadow Executive Team, and the excellent progress which is now being made towards new ways of working together including the delivery of the Industrial Strategy and Global Challenges funds.

In addition, we have several more immediate priorities. It is important that the UK maintain its reputation as a world-leading research and innovation nation with a role in tackling global challenges. We are working with our colleagues in government to develop an international strategy.

A strong and ongoing relationship between researchers and innovators in the UK and in the European Union is in all of our best interests. It is also vital to the global endeavour of scientific discovery and solving the greatest challenges currently facing society. We will work with our colleagues in government to develop an international strategy. This will build on our excellent, existing relationships with our European and international partners, which we expect to continue after the UK leaves the European Union.

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And we are working to develop advice on how to allocate the additional £4.7bn from the 2016 Autumn Statement, in order to ensure that research and innovation remain at the heart of the government's Industrial Strategy.