

UK Research and Innovation



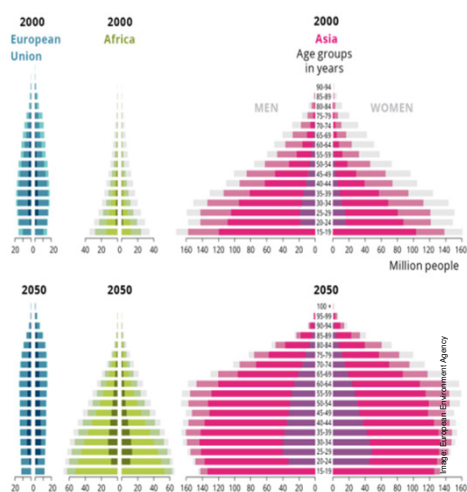
A Strategy for UK Research and Innovation

Sir Mark Walport
CEO UK Research & Innovation
Wednesday 28 February
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The world is changing

- Population growth
- Changing demographics
- Migration
- Anthropocene

Grand challenges

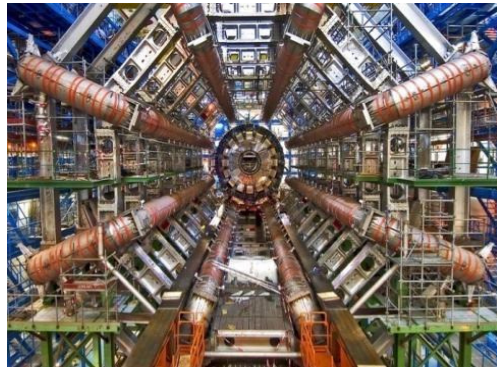


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The world of science is changing

- New tools
- Big data
- Increasing interdisciplinarity
- International landscape

New solutions



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The world of business is changing

- Fourth industrial revolution
 - Fusion of physical, digital and biological
 - Data driven eg precision agriculture
 - Blurring of manufacture and services
 - Circular economy

Industrial strategy



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Society is changing

- Trust in the establishment and experts
- Role of social media
- Globalisation
- “Science meets values”

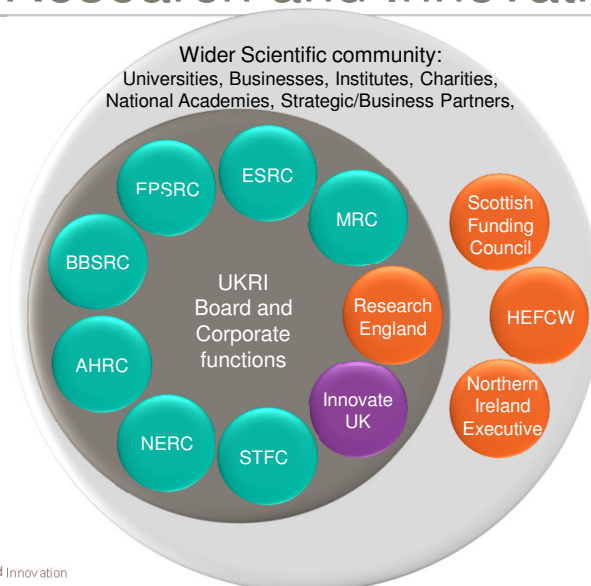
Public engagement



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Wider Scientific community:
Universities, Businesses, Institutes, Charities,
National Academies, Strategic/Business Partners,



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Our objectives



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Early priorities for UKRI

- Industrial Strategy Challenge Fund
- Infrastructure Roadmap
- Innovation and Commercialisation
- International Collaboration
- Regional Innovation and Growth
- Strategic Priorities Fund
- Supporting Research and Research Talent
- Supporting Societal Impact
- Working towards 2.4%

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Industrial Strategy Challenge Fund

The Industrial Strategy White Paper has announced £725m for a second wave of ISCF:

Six challenges in Wave 2 were announced:

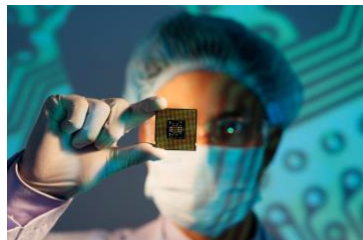
- Prospering from the energy revolution
- Transforming construction
- Transforming food production
- Data and early diagnosis in precision medicine
- Healthy ageing
- Audience of the future

Two Pioneer Challenges were announced:

- Next generation services
- Quantum technologies

Wave 3:

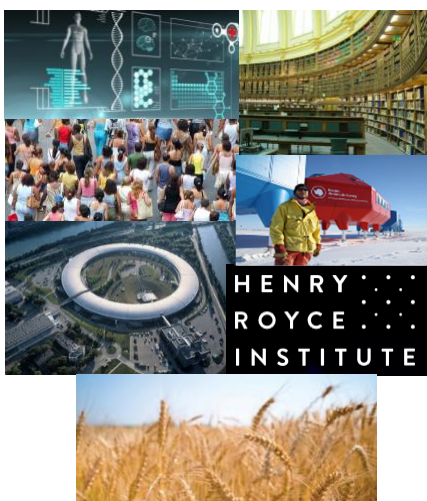
- Expressions of interest launched today – calling for industry-led consortia to come forward with major industrial and societal challenges



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Infrastructure Roadmap



- Long-term roadmap based on existing UK infrastructure and future requirements

- Collaborative

- Autumn 2017 to Spring 2019

The roadmap will cover:

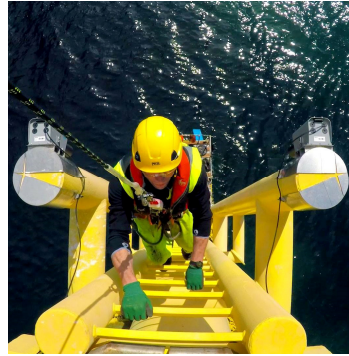
- Key assets supporting research and innovation
- Publically-funded and accessible infrastructure supported by UKRI and beyond
- All disciplines

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Innovation & Commercialisation

- Cross-cutting funds which span research & innovation
- Navigate the complex knowledge exchange funding landscape
- Facilitating collaborative partnerships between businesses, universities and researchers
- Business support mechanisms and Catapult network



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International collaboration

- New 'International Research and Innovation Strategy' in early 2018
- £110m fund for International Collaborations
- Within UKRI, international strategy and policies (including cross-council activities such as GCRF and Newton Fund) will be managed centrally

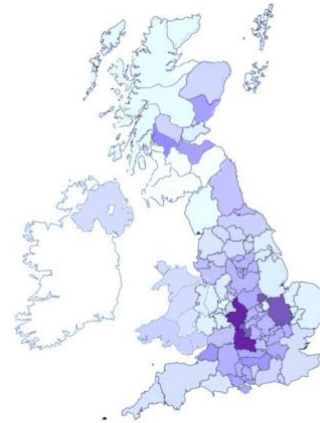


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Regional innovation and growth

- £115m Strength in Places Fund
- Supporting regional growth by identifying and supporting areas of emerging R&D strength
- Growing the capacity of existing research excellence and high quality innovation in identified areas



Innovate UK funding intensity per capita in different areas of the UK

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Strategic Priorities Fund

- Building on Sir Paul Nurse's vision of a 'common fund'
- Supporting high quality strategic R&D priorities which would have otherwise been missed
- Working with researchers and businesses to identify multi and inter-disciplinary programmes



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Supporting Research & Research Talent

- Investing £300m over the next three years in world-class talent
- New cohorts of PhDs and Knowledge Transfer Partnership positions
- £45m investment to support additional PhDs in AI and related disciplines, increasing numbers by at least 200 extra places a year by 2020-21



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Supporting Societal Impact

- Cultural Impact
- Economic Impact
- Global Impact
- Governmental Policy
- Health, Wellbeing, Resilience, Security



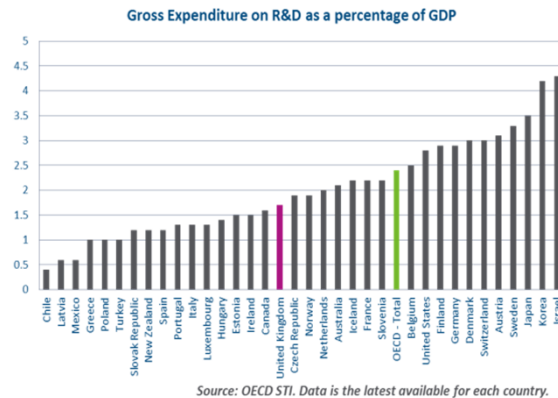
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Working towards 2.4%

The Government has committed to reaching:

- 2.4% of GDP investment in R&D by 2027
- Reaching 3% in the longer term
- Additional £7bn by 2021/22



In 2015 UK's expenditure on R&D represented 1.7% of GDP – below the OECD **average R&D intensity of 2.4%**.

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You said

1. UKRI should pursue the benefits of bringing research and innovation together; while retaining the distinctiveness of both parts
2. Research Councils must continue to attract high quality leaders
3. UKRI's governance should respect the autonomy of its component parts
4. UKRI should be a strong advocate for research and innovation to Government

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What we've done

1. UKRI is delivering the ISCF, bringing researchers and businesses together
2. 7 Executive Chairs have been appointed – a mixture of current council CEOs and new, high-calibre senior leaders in their fields
3. UKRI's governance strikes a balance between council autonomy for matters within their natural remits; and greater strategic coordination on cross-cutting matters
4. UKRI has successfully advocated for an additional £7bn in R&I funding and supported an HMG commitment to reach 2.4% of GDP in R&D by 2027.

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