



London

Cite this as: *BMJ* 2020;370:m2684<http://dx.doi.org/10.1136/bmj.m2684>

Published: 06 July 2020

Government unveils roadmap for making UK a “science superpower”

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The government has published a plan for strengthening science, research, and innovation to help the economy and society recover from covid-19 and to “build a greener, healthier and more resilient UK.”¹

Before covid-19 the science community had warned of the damage that Brexit would do to the UK’s science base in terms of lost research funding and collaborative opportunities, as well as difficulties in recruiting top scientists.²

Robert Lechler, president of the Academy of Medical Sciences, said that the roadmap provided welcome recognition of the critical role that research and innovation played in the UK’s future and the global recovery from covid-19. “The UK’s track record of innovation has never been more important,” he said. “What’s more, investing in medical research will improve society beyond covid-19 by addressing health inequalities, helping patients, and creating highly skilled jobs across the country.”

The plan reiterates the government’s commitment in March to increase UK investment in research and development (R&D) to 2.4% of GDP by 2027 and to increase public funding for R&D to £22bn (£24.4bn; \$27.4bn) a year by 2024-25.

Ambition

Richard Torbett, chief executive of the Association of the British Pharmaceutical Industry, said, “The ambition for Britain to be a science superpower is exactly the direction we need to take as we leave the EU and emerge from the pandemic. The life sciences sector invests more than any other in UK research. That’s why it is critical that these plans are delivered in partnership with our companies if we are to reach the ambitious target of spending 2.4% of GDP on R&D.”

The aim is for “a close and friendly collaborative relationship” with European partners, seeking to agree “a fair and balanced deal for participation in EU R&D schemes.” And if the UK does not take part in the next generation of EU programmes such as Horizon Europe, any funding shortfalls will be met, the government said. Going forward, it pledges a new funding offer for collaboration to ensure that the UK can further benefit from the opportunities of international scientific partnerships.

The plan also builds on its global talent visa reforms announced in January by allowing highly skilled scientists and researchers from around the world to come to the UK without needing a job offer.³ International students who complete a PhD from summer 2021 will be allowed to stay in the UK for three years.

An Office for Talent will be established to take a proactive approach to attracting and retaining the most promising global science, research, and innovation talent to the UK, and there will be a new R&D People and Culture Strategy to attract and develop diverse, talented people and the teams of researchers, technicians, innovators, entrepreneurs, and practitioners critical to delivering the government’s vision of a science superpower.

More welcoming

Paul Nurse, director at the Francis Crick Institute, said, “The recognition by the government that science has a crucial role in the success of the UK is to be warmly welcomed, as is the importance of participation in EU research programmes and the need for the UK to be open to scientific talent from around the world.

“For this to come to fruition, there needs to be a concerted government effort to change its rhetoric to be more welcoming, to fully embrace the future and think less about the past, and to engage the many young people and scientists who were overwhelmingly against Brexit and are essential for the future of our country.”

A UK R&D Place Strategy to maximise local growth and societal benefit from R&D around the UK as part of the government’s “levelling up” agenda will be published later this year, the plan says, and an Innovation Expert Group will be established to review how the government supports research through all stages of development.

1 Department for Business, Energy & Industrial Strategy. UK research and development roadmap. 1 Jul 2020. <https://www.gov.uk/government/publications/uk-research-and-development-roadmap/uk-research-and-development-roadmap>.

2 Limb M. Hard Brexit could cripple UK science, warn top scientists. *BMJ* 2018;363:k4468. doi: 10.1136/bmj.k4468 pmid: 30352812

3 Torjesen I. UK offers fast track visas to top researchers and scientists. *BMJ* 2020;368:m342. doi: 10.1136/bmj.m342 pmid: 31992544