



COUNCIL FOR  
SCIENCE AND  
TECHNOLOGY

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Prime Minister  
10 Downing Street  
London SW1A 2AA

21<sup>st</sup> July 2016

Dear Prime Minister

### Science and technology in the new government's programme

On behalf of the Prime Minister's Council for Science and Technology (CST), we would like to congratulate you on your appointment. CST has been an advisory body to successive Prime Ministers, advising on the implications of all of the sciences, engineering and technology right across the range of the government's responsibilities. Its members are appointed by, and report to, you. They include national leaders from the worlds of academia, business and finance, and the four Presidents of the National Academies *ex officio*.

Following the referendum, a new economic and industrial strategy is needed to reflect the UK's place in the world. This brings significant opportunities and science and innovation have much to offer. In science, we are best in the world per capita, and second only to the US in absolute terms. UK science and innovation are exceptional areas of outward-facing global leadership. Capitalising on these immense strengths is critical.

The **economic arguments** for research, technology and engineering investment are very powerful. Excellence in innovation and research and development is critical to driving productivity growth, in developing high value exports, and in the creation of new, highly skilled, jobs. This applies right across the economy, including service sectors where the potential for productivity-led growth is particularly strong. Universities are already playing a key part in the economic growth of many regions. The Witty Review found that in 2013 our universities and research centres were a draw for some £10 billion of industrial R&D investment across the whole country. Now more than ever, the UK must re-examine its strategy for growth in a competitive world where other countries are prioritising R&D.

The quality of our science and innovation is a significant draw for **foreign investment**. Inward investment in sectors like aerospace, pharmaceuticals and telecoms is a reflection of UK expertise. The government should aspire to create the strongest possible environment for high value research and development investment, putting the right incentives in place for globally mobile R&D to stay, and grow, in the UK.

Science and innovation are central to tackling **major societal challenges**, such as responding to the needs of an ageing population, bringing in the financially excluded, building cities for the future, securing a sustainable and affordable energy supply, and developing an infrastructure that is fit for purpose in the 21<sup>st</sup> century. In each of these areas the need for high quality evidence, analysis, and the development of technical solutions is stronger than ever.

The UK has a particular advantage in the **breadth of its research leadership**, which spans the natural and social sciences and the humanities. The insights that come at the interface of these will be critical to driving growth in the service sector and to tackling complex, multi-dimensional societal challenges.

Our track record of world-leading achievement in areas where the government is a major investor, including defence, health, and cybersecurity, is also important. This is a powerful draw for private investment, and our global technical leadership secures the UK a seat at the top table in international fora.

A number of building blocks are essential to a successful strategy:

- A **simple and consistent narrative** needs to be conveyed to our international partners, setting out the role of science and innovation at the heart of the UK's "offer" to potential investors and partners. Global businesses need to hear a powerful, joined-up, single voice.
- The development of **new global strategic science and innovation partnerships** working with the brightest minds across the world, wherever they are found.
- Support for a **coherent research and innovation ecosystem**. The implementation of the recent Nurse Review of the Research Councils will be critical. The aim should be to create the step change in international science and innovation leadership that will be much needed in the coming years.
- Seizing new opportunities in terms of **regulations and standards**. CST has advised in the past on the importance of standard-setting in new technology areas (like autonomous vehicles) as a means of capturing economic value. Expertise in areas like medicine already makes us a centre of excellence in regulation. The UK should aim to lead in developing and negotiating new frameworks, developing new standards that others will follow.

A successful research, innovation and industrial strategy means that we need to develop the right skills base. A dual approach is needed, driving excellence in education, training and lifelong learning, and a migration policy that matches our requirements for a highly skilled workforce. We need to encourage entrepreneurship, and make our innovation ecosystem work better to enable innovative businesses to reach their full potential within the UK. We are ready to advise you further on these issues.

The time is right to put UK science and innovation at the heart of our thinking about the future of the UK economy, society, and place in the world. We would welcome the opportunity to discuss those areas where we could be most useful in support of the government's emerging programme.

We are copying this letter to the Chancellor of the Exchequer, the Secretary of State for Business, Energy and Industrial Strategy, the Minister for Universities and Science, and Sir Jeremy Heywood, Sir Martin Donnelly and Alex Chisholm.



**Sir Mark Walport (co-chair)**



**Dame Nancy Rothwell (co-chair)**