

Save British science, again

The UK government is about to reveal a research spending plan that is too conservative for purpose, warns **Colin Macilwain**.

Once upon a time, there was an organization called Save British Science. This grass-roots outfit, established in 1986, campaigned energetically against the dire conditions then prevalent in British universities.

And lo, British science was saved. Its saviour-in-chief was Gordon Brown, who, as Chancellor of the Exchequer for the decade from 1997, doubled funding for university-based research. This so restored academic morale that, in 2005, Save British Science changed its name, to the Campaign for Science and Engineering in the UK (CASE).

Imran Khan became director of CASE in May, just as Brown was voted out of office — taking with him the already-slim prospects that science funding could be protected from impending UK public-spending cuts. Khan soon became fed up with hearing the same joke: “You changing your name back to Save British Science, then?”

The omens for British science are not good. The economy and the pound are in the doldrums and the new Conservative-led coalition government is threatening deep spending cuts in its three-year Comprehensive Spending Review (CSR) due out on 20 October.

But the universities are in much better shape now than they were 24 years ago, in good physical condition and attracting more international talent than anywhere outside the United States. And even if next year is tough, the government's determination to cut overall spending may not last. Organizations such as CASE still have everything to play for: with its financial sector weakened, Britain faces chronic competitiveness challenges which science and technology could help to address.

Reading the runes

The threat of belt-tightening has, however, already fuelled squabbling between scientists and engineers, many of whom feel that the Brown approach benefitted university research at the expense of applied work. The fissure went public in July, when the Royal Academy of Engineering advised the government to reduce UK spending on particle physics in general and on CERN — Europe's particle-physics laboratory near Geneva, Switzerland — in particular.

The magnitude of the threatened cuts has also grown. In the spring, talk of a 10% reduction in public spending was commonplace; since the election, 25% over 4 years has been



the number in vogue. It's a scary number, for researchers like everyone else in the public sector. It is also unprecedented and, in a democracy, perhaps unrealistic: too many livelihoods are at stake. Public spending, for research and development (R&D) and most other things, will indeed fall by 4–5% next year — what happens thereafter is anyone's guess.

The CSR will identify what the government would like to do with science. Various scenarios are possible: in the least likely, the government could ring-fence science for three years. It could cut support for technology through the Labour-created Technology Strategy Board, and protect old-fashioned, investigator-led grants at the research councils. Or it could leave the science budget to sink in the dysfunctional cauldron that is the Department for Business, Innovation and Skills, opening up all disciplines to cuts.

CASE and other science lobbyists have been hunting for clues in the public statements of two ministers, David Willetts and Vince Cable. Willetts, the Conservative minister for science and the universities, is an economist who instinctively favours the concentration of resources on intellectually rigorous work at places like his alma mater, the University of Oxford.

Willetts has been citing a paper¹ by Jonathan Haskel of Imperial College London and Treasury official Gavin Wallis. It says that support for the research councils correlates with improved national productivity over the past 20 years, whereas other types of research investment — including government and industrial R&D — do not. The paper says nothing about causation; its observation that one trend has followed another after a suspiciously short three-year gap is a slim basis indeed for setting research policy.

Willetts' Liberal Democrat boss, business secretary Vince Cable, was the most popular

politician in the country before the election because of his readiness to publicly confront the great vampire squid that is the City of London. Last week, Cable was sharply criticized over remarks in which he seemed resigned to hefty cuts in research funding. But what Willetts or Cable say or think is less important than people imagine. In the British system of government, it is the Treasury that counts. What will determine science funding is the philosophy of the central ruling clique: in this case, chancellor George Osborne and Prime Minister David Cameron.

Power players

Last autumn, Osborne expressed some interest in reviving the United Kingdom's productive sectors. This hinted at the kind of modernization agenda that has consumed British politicians for half a century, and to which Gordon Brown, in his early career, was fully committed. When Brown splurged on university science, he hoped it would underpin sectors of British industry that were already competitive — such as pharmaceuticals and aerospace — and spur new ones such as biotechnology. The strategy was always a long-term one, and the jury is still out on its success.

Now Osborne is in the driving seat, and there are two paths available to him. The modernization one, as pursued by Brown (and by Barack Obama), holds that public investment in science and technology creates innovation, and hence growth. Then there's the anti-regulation, non-interventionist, pro-City approach — so fashionable worldwide before 2008 — which holds that government should concentrate on lower taxes, and leave business to get on with R&D investment. It looks likely that Osborne will take the latter path.

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There's no political mileage in attacking science and there will be no great massacre of projects or programmes in the CSR. However, Osborne's

ideology points to curtailment of overall spending, with the deepest cuts falling on innovative multidisciplinary programmes that Labour favoured, in areas such as energy and the environment, and on things that could be left to the market, such as knowledge transfer. In this way, a Conservative-led government will pursue a science policy that is too conservative to meet Britain's glaring needs. ■

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1. Haskel, J. & Wallis, G. *Public Support for Innovation, Intangible Investment and Productivity Growth in the UK Market Sector* (Institute for the Study of Labor, 2010).