

Physics funding becomes a farce

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The Science Budget Allocations report of the House of Commons Innovation, Universities, Science and Skills Select Committee, published last week, concludes with a clear and condemnatory message for the Science and Technology Facilities Council in the wake of October's Comprehensive Spending Review and the ructions in physics that followed. The report acknowledges that the STFC emerged only last year from the disbanding of the Particle Physics and Astronomy Research Council and the Council for the Central Laboratory of the Research Councils, but its assault is sustained and withering, nonetheless.

“STFC's problems have their roots in the size of the spending review settlement and the legacy of bringing CCLRC and PPARC together,” the report accepts, before adding, “but they have been exacerbated by a poorly conceived delivery plan, lamentable communication and poor leadership, as well as major senior management misjudgements.

“Substantial and urgent changes are now needed in the way in which the council is run in order to restore confidence and to give it the leadership it desperately needs and has so far failed properly to receive,” it notes. “This raises serious questions about the role and performance of the chief executive, especially his ability to retain the confidence of the scientific community as well as to carry through the necessary changes outlined here.”

I listened to the select committee sessions online and was pleased at how well informed and incisive the MPs were in their questioning. This is reflected by a thorough report that shows that there really have been, and still are major problems in the STFC, despite attempts by the chief executive, Keith Mason, to suggest otherwise.

Astronomers have been fed woolly and sometimes contradictory statements by the STFC about the cause and size of the deficit. As a result there have been rumours, alarm and confusion. The committee's report at last makes things much clearer – although you wouldn't know that from the STFC's dismissive reaction to it.

Major problems remain. Mason's mantra, ill matched to astronomy, is “wealth creation”. While it is often hard to see the immediate economic value of astronomy, many things underlying modern life, such as digital cameras, have their origins in astronomical research. Most of what we do is ‘curiosity driven’, which is a good definition of basic research. But the STFC appears to have dropped the word ‘curiosity’ from its considerations and chosen to emphasise ‘driven’ instead. And this at a time when, with extrasolar planets and dark energy, astronomy continues a remarkable phase of discovery. Meanwhile, government and ministers insist that they will fund and support excellent basic scientific research.

Surprisingly, the STFC has not capitalised on the UK's strong international standing in astronomy and space science to secure funding. We are second to the US in terms of annual publications and citations. This suggests that we have done things right in the past.

We are not so far ahead of the rest of the world, however, that we can risk damaging our position. The report notes that misjudgements by STFC senior management “could still

significantly damage Britain's research reputation in this area, both at home and abroad." For example, a significant number of papers in astronomy are due to observations from common-user instruments on mature observatories, both ground and space-based, where small groups can be the intellectual leaders in their area. Such mature observatories have mostly been ranked lowly in the recent STFC prioritisation exercise, at the expense of exciting, but often narrow, new projects that are a decade or more in the future.

Furthermore, the UK is particularly strong in theory and modelling, including computational work. This research relies on grants to post-docs, and has suffered heavily and will continue to bear the brunt of cuts.

The 'community consultation exercise', which the STFC appears proud to emphasise, is close to a farce. This consultation should have happened before the prioritisation exercise, not after. The process is too hasty and is bound to be uneven and biased, with no sense of the independence that underlies good peer review.

Where do we go from here? The Wakeham review of physics (and astronomy) is the next major step, and should provide a considered appraisal. As recommended by the select committee, we hope that there are no project closures before Wakeham reports. After that, we need to ensure that the STFC adopts a much more transparent, sensible, far-sighted and widely accepted process for future planning in astronomy. We also need to re-establish many of the peer review processes that have served us well in the past.

Finally, many of us feel that the level of support for astronomy and space science that existed before last year's spending review was fair and reasonable. We need to return to that level for the next one.

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