

**15 Jan 2008 : Westminster Hall : Adjournment Debate  
Science and Technology Facilities Council**

**Mr. Edward Vaizey (Wantage) (Con):** It is a great pleasure to conduct this debate under your elegant chairmanship, Mr. Hancock.

The title of our debate should perhaps be “The Crisis in the Science and Technology Facilities Council”, rather than the “Science and Technology Facilities Council”. As the Minister for Science and Innovation knows, I am lucky enough to represent two of this country’s pre-eminent scientific institutions. One is the Diamond synchrotron, which has recently opened, and we thank the Government for that, because it represents a significant investment in science. The other is the Rutherford Appleton ISIS station and laboratory, which has been open considerably longer. Those are major scientific institutions, so it is with some consternation that we learn that the STFC has circulated a letter to employees at Rutherford Appleton asking for voluntary redundancies, and the same has happened in Daresbury and at the Astronomy Technology Centre in Edinburgh. As a result, certainly at Rutherford, between 300 and 600 scientists could be made redundant.

That is not the only crisis facing physics. There will also be a 25 per cent. cut in university research grants, which amounts to £20 million. In addition, there will be cuts to nuclear physics research programmes—in the same week that the Government have announced their commitment to nuclear power. Finally, the STFC has withdrawn from major international projects, such as the Gemini observatory and the international linear collider.

One might ask how on earth we have reached such a position. The STFC says that it has an £80 million deficit, so it is looking to make savings of £120 million and it is making scientists redundant. At the same time, the Minister is going around saying that he has increased the STFC budget by 13.6 per cent. We know that is what he will say again today because that is what he said at departmental questions last week. The attitude of the Minister and the Government seems to be that there is nothing that they can or should do. They are nowhere to be seen during this crisis and they say that they are not responsible for it—in effect, they are saying, “Crisis? What crisis?”

Indeed, the Minister has gone further. Apparently, the media were briefed before his now infamous appearance on the “Today” programme on 11 December that his Department—the Department for Innovation, Universities and Skills—would not give in to “complainers”. Unfortunately for the Minister, the complainers are some of the country’s most eminent physicists. If anything is more complicated than a comprehensive spending review, it is probably particle physics, so I am indebted to those physicists, who have put their intelligence to use analysing how the STFC’s deficit has come about at a time when the Minister is going around saying that he has given the council a 13.6 per cent. increase.

If we analyse the extra £185 million in funding to the council, we find that £11.6 million, or 6.8 per cent., represents the increase in capital, £81.7 million, or 52.4 per cent., represents the non-cash increase and £91.9 million, or 8 per cent., represents the near-cash increase. Non-cash represents the provisions on the balance sheet for things such as future liabilities and depreciation,

15 Jan 2008 : Column 248WH

and the important point is that it cannot be spent as cash at all. What matters is near-cash, which can be spent on facilities, university grants and subscriptions. As I have shown, the

annual rate of increase for the next three years is 2.7 per cent., which in effect constitutes a flat-cash settlement and is far below the 17 per cent. average given to other research councils. Of the so-called increase in funding, £40 million has already been eaten up by redundancy costs at the synchrotron radiation source at Daresbury and £35 million will go to meet the additional costs of running Diamond and ISIS 2. The important point, which has had to be teased out through freedom of information requests by some of our scientists, is that the STFC has been telling Ministers about the problem since July and painting clear scenarios of what will happen, depending on which settlement it was given.

Other factors that have come into play include the fact that money previously channelled to university research through the Higher Education Funding Council is now being channelled through the research councils. Although it looks as though the research councils have had a cash uplift, they are in fact spending not new money, but old money that was going towards research costs. That money is certainly welcome, and we welcome the reforms that the Government have made in terms of meeting full economic costs over the past few years, but the money that is being channelled through the research councils is not new. There is also the ongoing problem, not caused by the Government, of the growing cost of our international subscriptions, which are linked to gross domestic product growth.

Let me add as an aside that the cause of the STFC's huge deficit was emphatically not cost overruns at Diamond. A rumour was put about just before Christmas that Diamond had somehow exceeded its bill costs, but that is not the case, and the project came in on budget and on time.

The Minister goes around saying that there has been a huge cash increase, but the STFC is slightly more straightforward. In its circular 01/08, which contains the news that staff at Daresbury, Rutherford and the Astronomy Technology Centre will be asked to apply for voluntary redundancy, the STFC states:

“The...Financial Settlement was significantly less than STFC had been hoping. Consequently there has been an urgent review of the Council's programme.”

On 7 November, the STFC wrote to the Minister, saying:

“The settlement contained an increase for full economic cost and support for the SRS closure costs but otherwise represented a flat-cash allocation.”

So the STFC is saying that it has had a flat-cash allocation, while the Minister is telling Parliament that it has had a 13.6 per cent. increase. It will be interesting to see how the Minister squares that circle.

**Sir Peter Soulsby (Leicester, South) (Lab):** I congratulate the hon. Gentleman on securing this important debate on what he rightly describes as a crisis in the STFC's funding. Is he aware that the crisis affects not only the organisations and institutions in his constituency that he mentioned, but similar internationally renowned facilities elsewhere, including those carrying out physics and astronomy work at Leicester university, in my constituency? That vital work is being brought to a dramatic conclusion as a result of the council's announcement, and the prospect of redundancy and of major programmes being halted is as great in Leicester as it is in the hon. Gentleman's constituency.

**Mr. Vaizey:** I thank the hon. Gentleman for that information. In fact, my entire speech could be a catalogue of the cuts that are taking place throughout the particle physics community. As far as I am aware, every physics community in every university is affected by these cuts.

As I said, it is impossible to square the circle: on the one hand, the Minister is saying that there has been a 13.6 per cent. increase, but on the other hand, the STFC is saying that it has had a flat-cash settlement. One wonders whether our scientists are living in a parallel universe—perhaps some physicist has discovered one in their research. The Royal Society says that

“the STFC seems landed in a situation where it could inflict seriously damaging cuts on university physics departments”.

The Royal Astronomical Society and the Institute of Physics say that the reductions

“represent a hammer blow to the morale and future prospects of...physics and astronomy”.

A member of the Standing Conference of Astronomy Professors has told me that there is a

“huge amount of anger and frustration”.

A senior member at Rutherford, who must of course remain anonymous, tells me that “morale at...STFC establishments...is at rock bottom”.

Some 559 young researchers have written to the Minister to say that they are

“baffled and dismayed by the swingeing cuts that are about to do serious damage”.

An Oxford physicist has written to tell me that

“this will tarnish, perhaps irreparably, the UK’s reputation in the international physics community”.

The debate provides at least two important opportunities. One is an opportunity for the Minister, for the first time, to set out in Parliament what is going on. So far he has merely responded to questions, and it is a pretty poor situation when people have to submit freedom of information requests to his Department and scabble through documents reading obscure footnotes to try to find out what on earth has been going on. Now is the Minister’s chance to put his case, in time for next Monday’s Select Committee.

I do not entirely blame the Government. There is great frustration in the relevant community at the way the STFC has gone about its business. However, at the heart of the matter lies the fact that the Government have told the scientific community that there has been a generous settlement, when every fact tells us that it is a flat-cash settlement, which is the reason why there must be cuts.

The second opportunity provided by the debate is for the Minister to take action. That is what he is there for. He has commissioned a review by Professor Bill Wakeham, but it will be pointless if it reports in the summer after so much extensive damage has been caused. The Minister must put a stop to the cuts. I am told that a £20 million cash injection would carry the physics community forward until proper decisions could be taken, at a proper pace. He must

bring the Wakeham review forward so that those two things can coincide; there would then be a moratorium on the cuts, a cash injection to support the physics community, and the Wakeham review—a proper review of the physics community. That is the opportunity that is being presented to the Minister.

I have been in touch with physicists from all over the country. There is enormous interest in the debate. It is probably the first debate in Westminster Hall to be piped live to the Royal Astronomical Society. I have kept my speech shorter than I normally would, because I know that the hon. Member for Oxford, West and Abingdon (Dr. Harris), who also represents people who work at Rutherford Appleton, wants to make a few points; and other hon. Members may want to make brief comments before the Minister explains the Department's permission.

**Mr. Mike Hancock (in the Chair):** I now call someone who I thought had lived in a parallel universe for quite a long time—Dr. Evan Harris.

**Dr. Evan Harris (Oxford, West and Abingdon) (LD):** Thank you for that compliment, Mr. Hancock.

I thank the hon. Member for Wantage (Mr. Vaizey) not only for securing a debate on such an important subject at such an important time, but for introducing it so coherently and expertly in the time available, and for giving me time to say a few words. I am not only my party's science spokesman but a member of the Select Committee on Innovation, Universities and Skills, which is meeting on Monday to consider the matter, at the request of several Members, including me. I have received correspondence similar to the hon. Gentleman's—not just in volume, but in the concerns raised about what will happen. The concerns are not about what will happen to the writers of the letters, many of whom are senior scientists; they are concerned about the future generation of scientists who are threatened by the cuts, and about the implications of the cuts for some subjects currently being studied in the fields of particle physics, astrophysics and astronomy.

If there are to be cuts—there is no doubt that cuts are planned—there is a need to plan them coherently, instead of sending out redundancy requests, a scatter-gun approach that will not allow the science community and people who plan research programmes to work out the priorities. I hope that there will not be cuts. I entirely share the view of the hon. Member for Wantage about the figures. The Government cannot stand for panic cuts on their watch.

I spoke at a debate on science teaching in this Chamber earlier today, and it is important to recognise that we are short of home-grown physics graduates. The impact of the cuts on some of the relevant areas, for people who planned a career in physics and were looking forward to studying for a doctorate or to post-doctoral work, will be devastating. It will mean a flight of science and scientists from the area in question. I shall pursue the matter at Monday's Select Committee sitting, but I hope that the Minister will acknowledge not only the figures that he has been given, but also the likely impact of the cuts, even before we consider who is to blame.

**Mr. Mike Hancock (in the Chair):** Thank you for keeping to your time, Dr. Harris. I am grateful for that courtesy.

**Sir Peter Soulsby:** rose—

**Mr. Mike Hancock (in the Chair):** Does the hon. Gentleman have the permission of the Minister and the hon. Member for Wantage (Mr. Vaizey)?

**Mr. Vaizey:** I am happy.

**Mr. Mike Hancock (in the Chair):** Minister?

The Minister for Science and Innovation (Ian Pearson) indicated assent.

**Mr. Mike Hancock (in the Chair):** I thank both hon. Gentlemen for their courtesy.

**Sir Peter Soulsby (Leicester, South) (Lab):** I thank the hon. Member for Wantage (Mr. Vaizey) and the Minister for allowing me to speak briefly in this important debate. As I said in my intervention earlier, the cuts affect a wide range of institutions throughout the UK, but I am obviously particularly concerned about the one in my constituency, the university of Leicester, which has an enormous international reputation for its work on physics and astronomy. Very exciting programmes being undertaken there are under threat as a result of the funding cuts. I hope that what are, no doubt, unplanned and unintended cuts in the work of that institution and other institutions can be protected while the situation is reviewed.

As the hon. Member for Wantage suggested, it is not good enough to have to wait for the Wakeham review, which will be too late to save the programmes that are under immediate threat. We need to know how the STFC got into the present mess. We need processes to ensure that its decision making is in future transparent, rational and responsive to the research community that it is supposed to serve. Above all else I hope that the Minister will be able to give an assurance that the immediate threats can be lifted, and that it will be possible to buy time to continue those essential programmes while the entire STFC funding situation is reviewed and assurances are established to prevent similar situations from threatening vital research in the future.

**The Minister for Science and Innovation (Ian Pearson):** I congratulate the hon. Member for Wantage (Mr. Vaizey) on securing the debate, and welcome the opportunity to debate the Science and Technology Facilities Council. The STFC deals with some of the key research challenges of our time, and has a growing role in the innovation agenda. Its portfolio of activities is very wide ranging and includes, as the hon. Gentleman said, the Government's shareholding in the Diamond synchrotron at Harwell, which opened last year after being built to time, budget and specification. The STFC participates in major international research projects, such as the large Hadron collider at CERN—the European organisation for nuclear research—and funds research in UK universities.

Government support for the science base remains strong. We shall be spending almost £6 billion on research by 2010-11, which is made up of the science budget allocation and £2 billion of funding to reach universities in England through the quality-related funding stream of the Higher Education Funding Council for England. We remain second only to the United States in global scientific excellence as measured by citations, and we have a stronger performance across the range of scientific disciplines than most other countries. Of course, we retain our lead over all G8 countries on scientific productivity measures.

Many factors have contributed to the growth in UK economic productivity in the past decade, and the science and innovation measures that the Government have introduced, including the highly successful research and development tax credit for industry, and new bodies such as the National Endowment for Science, Technology and the Arts, are making a valuable contribution to science, technology and innovation. In addition, we are funding university knowledge transfer activities to the highest ever level. The higher education innovation fund will rise to £150 million a year by the end of 2010-11, which will help universities further to develop the professional capability to undertake top quality knowledge transfer.

The Science and Technology Facilities Council was created on 1 April 2007 by merging the former Particle Physics and Astronomy Research Council and the Council for the Central Laboratory of the Research Councils. Any new organisation inevitably experiences a period of transition, and like all research councils the STFC faces challenging decisions to determine its priorities in the light of the resources available to it.

To restate the basic facts of the matter, which have all too frequently been incorrectly reported in recent weeks, the STFC's budget will go up over the next three years; it will rise by 13.6 per cent. by the end of the comprehensive spending review period. The hon. Member for Wantage went into some detail on that point. However, he must recognise that there has been an overall increase, amounting to £185 million, and a total budget for the STFC of £1.9 billion. Of the seven research councils, the STFC has the second highest budget. We spend more on it than we do on medical research through the Medical Research Council.

The STFC's delivery plan for the three years reflects its assessment of priorities across its activities, allowing it to manage its resources within the budget increases allocated to it. As the Secretary of State for Innovation, Universities and Skills, my right hon. Friend the Member for Southampton, Itchen (Mr. Denham) explained to the House last week, the Government are fully committed to the Haldane principle, which protects the autonomy of research councils in deciding what research should be pursued. On occasion, I get the impression that the hon. Member for Wantage has not looked in detail at the STFC's delivery plan, from which I shall quote two short sentences to give a flavour of what I mean. The plan states:

“The implementation of our strategy will require us to think in new ways about how we focus our investments.”

That is right. The STFC's mission is to promote and deliver world-class science and to achieve a step change in the economic impact that the UK derives from its science through knowledge exchange and the training of skilled people. However, that does not mean that nothing should ever change.

The STFC has determined its highest priorities. The delivery plan states:

“To accommodate the major facilities coming on line and create sufficient financial flexibility to enable us to pursue some existing high priority planned programmes and new opportunities, we will implement a substantial programme of organisational restructuring.”

I accept that point. The STFC is making its own decisions in its delivery plan about its new and highest priorities. We believe that, based on its assessments of the science, and in accordance with the Haldane principle, the STFC should make those decisions.

**Mr. Vaizey:** Is the non-cash part of the settlement available for near-cash expenditure? Given what the Minister has just said, why is the STFC telling its employees that it has had a flat-cash settlement?

**Ian Pearson:** Non-cash cannot be transferred to near-cash. I do not pretend that the STFC has not had difficult decisions to make. The implications of full economic costing for all research councils make it a challenge to maintain research volume. If the hon. Gentleman is suggesting that full economic costing should not be pursued, I think that he would have the support of only a small number of academics. The vast majority strongly support full economic costing. The STFC's delivery plan ensures that the research community will continue to have access to a range of world-class facilities, including CERN, the European southern observatory—which has not been appreciated sufficiently—the European synchrotron research facility, the Institut Laue Langevin and programmes of the European Space Agency.

A significant contribution—more than £200 million per annum by the end of the CSR period—for international subscriptions will retain membership of those international organisations for the delivery of STFC's science strategy and give UK researchers access to world-class facilities. Priorities must be set and decisions taken, such as on the Gemini observatory in the southern hemisphere, which is why the STFC thinks that investment in the European southern observatory is a priority.

**Dr. Harris:** We all agree that the debate is not about full economic costings, which apply to all research councils, for which there is broad support.

**Mr. Vaizey** indicated assent.

**Dr. Harris:** Does the Minister think that a programme of requests for voluntary redundancies is the model research councils should use to set out their re-prioritisation according to their science plan?

**Ian Pearson:** I shall come to the redundancy situation in a moment.

I emphasise the fact that major new UK-based science facilities, such as Diamond and the ISIS second target station, will provide opportunities for exciting scientific research, in addition to the international collaborations about which I have spoken. The funding will also enable the STFC to support major development of the Daresbury and Harwell science and innovation campuses—the Daresbury development will be in partnership with the Northwest Regional Development Agency.

The hon. Member for Wantage talked about the science and innovation campuses, but they were not the major focus of his speech. Harwell and Daresbury will develop into prime locations for world-class research and development. Harwell will be a scientific and high-technology commercial cluster and provide the opportunity for the public sector to work alongside businesses exploiting research. We are close to announcing the commercial partner selected to take forward the development of the campus, by means of a joint venture company that will be formed between the STFC and the United Kingdom Atomic Energy Authority, representing public sector interests at the Harwell and Rutherford Appleton laboratory sites and a private sector developer. The commercial developer has been selected on the basis of its sharing the Government's vision for Harwell and of its relevant expertise and its commitment to financial investment in the development of the campus on a 50:50 basis. I am

sure that the hon. Gentleman will be as enthusiastic as I am to see the campus developed further as a major, world-class centre of expertise.

In response to the comments made by my hon. Friend the Member for Leicester, South (Sir Peter Soulsby) and the hon. Member for Oxford, West and Abingdon (Dr. Harris), the Government recognise the concerns expressed about the STFC's decisions about the relative priority of research grants and infrastructure. The discipline of physics is supported by several research councils, such as the Engineering and Physical Sciences Research Council and the Biotechnology and Biological Sciences Research Council, and through the funding council's quality-related stream.

It is important that the individual funding decisions of all those bodies collectively underpin the health of the disciplines, which is why, as has been said, Ian Diamond, chair of Research Councils UK, is to organise a series of reviews into the health of key disciplines, particularly those that rely on funding from several research councils. The first review will be on physics, which plays a pivotal role in the science, technology, engineering and mathematics—STEM—agenda, and will be led by Professor Bill Wakeham, who is vice-chancellor of the university of Southampton. It is for him and Research Councils UK to discuss the length of time that it will take to conduct a thorough review of the health of physics as a discipline.

Members have mentioned the redundancy situation, and concern has been expressed that the STFC's decisions on its priorities will involve reductions in the council's work force to deliver its highest priorities. We are dealing with a new research council that is restructuring and focusing on its priorities for the future and which will spend £1.9 billion over three years.

It is important to state the facts. The consequences for staff at Daresbury working on the synchrotron radiation source have been known for several years, since its closure and replacement by Diamond was announced. Beyond that, the circular of 2 January, to which the hon. Member for Wantage referred, invited applications from staff for voluntary redundancy. However, the circular does not mention the number of jobs to be lost, about which there has been some speculation that has not been particularly helpful. Certainly, the STFC will consider those applications carefully in the coming months, in the light of its priorities. However, the research council must set its own priorities for the future and determine its strategy.

Looking ahead, the STFC's mission—to deliver world-class science, to increase the UK's influence in the international arena, especially in relation to large facilities, and to achieve a step change in economic impact through knowledge exchange and the training of skilled people—is fully aligned with its new strategy. The STFC is well placed to contribute to cross-cutting priorities, which address some of the major, long-term challenges that we face; for instance, in energy, STFC research into fuel cells, photovoltaic devices, renewable energy sources and technology for clean-burning coal offers potential for breakthroughs.

The Government's commitment to the country's research base is clear. The research settlement announced on 11 September last year showed significant increases for all the research councils, including the STFC. It might not be as much money as some would like, but it reflects—

**Mr. Mike Hancock (in the Chair):** Order. Unfortunately, 2 o'clock has come and we do not have sufficient time to finish the debate. I thank the hon. Member for Wantage and the Minister for allowing interventions and speeches by other Members. I thank everyone for their courtesy.

It being Two o'clock, the motion for the Adjournment of the sitting lapsed, without Question put.