

UKCGE Conference 2010

Professor Steve Smith, President, Universities UK

Wednesday 7th July, 10.15am to 10.50am

SPEECH

CHECK ON DELIVERY

Sustainable Postgraduate Education – Quo Vadis?

Thank you, Malcolm, for your introduction and for the invitation to address your conference today.

Twenty years ago I wrote an article with my great friend, the late Martin Hollis, that we titled 'Beware of Gurus'. Our aim then was to warn against an over-simplified approach to international relations. Our government now, of course, is more concerned with cutting budgets than with cutting arms stockpiles, but my basic message might remain the same: we must be wary of simplistic approaches to difficult problems. University research is a precious resource and a complex entity. As President of Universities UK I will be pressing that message on government as its approach to research evolves.

It is, of course, a time of uncertainty and considerable worry for anyone who receives public funding. In my speech today I want to set out where I think we are with the big picture of government spending plans. We also have some early indications of what their plans might be for research policy – that will form the second part of my comments. Within that I will also touch upon the vital issue of

internationalisation. And I want to conclude by exploring how we, as university researchers, and our institutions, might respond to those challenges.

The public spending environment

Let me begin, then with the broad outlook in terms of public spending. We should be under no illusions about the scale of the fiscal squeeze that we face in the coming years.

The Budget made clear the government's commitment to eliminating the current structural deficit by 2015. To achieve that, government cash borrowing has to fall from £149 billion to £20 billion by 2015/16. The government has also committed itself to achieving 80% of the consolidation through spending cuts, with just 20% coming from tax increases. When the last Conservative government reined in public borrowing in the early 1990s, it aimed, roughly, for a 50:50 split between spending cuts and increased revenue.

The consolidation plan envisages six years of spending cuts. The Institute for Fiscal Studies has pointed out that, since the war, we have never had more than *two* consecutive years of spending cuts. So we face a truly unprecedented era of retrenchment.

The government has stuck by its commitment – set out in the coalition agreement – to protect spending on the Department of Health and the Department for International Development. Because of that, as George Osborne acknowledged in the Budget, spending on other Departments will have to fall by 25% by 2015. It

gives me no pleasure to note that I was warning of exactly that outcome back in March.

It could be more, of course. It depends whether some departments are asked to contribute less than others. And it depends how much of a saving the government can squeeze out of welfare payments and pensions. But let's be optimistic. Let's say we face a budget cut of *only* 25%. That means around £3.6 billion being taken off annual spending on science and higher education by 2015.

That is a massive task that will have a real and lasting impact on the way we deliver higher education and research in this country.

So far, then, we know the scale of the overall task. The outer envelope for public spending has been set. The next step in the process comes with the Spending Review. This will be published in October and will tell us what each government department will be able to spend over the next five years.

Officials in the Department for Business are already working on this. With cuts of the scale set out in the Budget, we have to accept that higher education will take a share of the pain. We are pressing our case hard to officials in BIS, the Treasury and in Number Ten. That case is built around three elements: stressing the value of higher education in delivering future economic growth; emphasising the impact of cuts already made to our budgets; and seeking to limit the damage of any future cuts.

I will return to our positive message about the value of higher education – and of research within that – in a moment. But I want to underline the scale of what has been announced so far and how important it is to influence decisions about future spending.

Between December last year and the March Budget, the previous government handed down £1 billion of spending cuts to higher education. George Osborne added another £200 million to that immediately after the election. That was our share of the £6 billion of current year cuts that the coalition committed itself to delivering. And it is worth mentioning that the VAT increase announced in the Budget will leave universities upwards of £200 million a year in additional irrecoverable costs.

We want BIS to leave maximum flexibility in determining how the further cuts are implemented. We are also arguing strongly that reductions to the higher education budget should be back-loaded as far as possible. In other words, that our share of reduced spending by BIS ought to come in the later years of the cycle.

This is not the result of empty special interest pleading. It is because we need to achieve exactly what your conference title suggests: a sustainable future for the sector. We need the politicians and the officials to recognise that early cuts will have an impact on current students. Students who are signed up to a three year undergraduate degree, or a 'one plus three' post-grad programme. Students we are committed to supporting and who deserve to see that commitment fulfilled.

The valley of death

In the UK, the contribution that higher education makes to our society is considerable. In purely economic terms, higher education contributes £59 billion of output to the UK economy. That's 2.3% of annual GDP, a bigger direct contribution to the economy than the advertising industry.

For every £1 billion of output from higher education, UUK research has shown that a further £1.38 billion is generated in other sectors of the economy. More than 370,000 staff are directly employed in higher education and the knock-on effects are responsible for over 350,000 jobs in other parts of the economy.

Our university system is one of the country's greatest national assets. But this success is threatened by, what I refer to as, a funding 'valley of death'. Let me briefly explain the metaphor. Universities stand on the top left of the valley looking down at impending funding cuts. On the other side of the valley there is the prospect of increased funding from Lord Browne's review of university financing, allowing institutions to climb their way up the other side of the valley.

At Universities UK, we worry most about how far down we will go before we reach the valley floor. And I have already outlined the extent of the cuts we are anticipating.

On the other hand, Lord Browne has been given a broad remit to examine the future of HE funding and student finance and UUK looks forward to his report, which we expect in the autumn. UUK

has made the case that his recommendations need to be taken together and implemented in full. We must be able to climb up the other side of the valley. If not, the sustainability of the sector's success will be in jeopardy. Clearly, we understand that the UK's deficit reduction programme involves difficult decisions about public spending. We must bear our share of the burden. But Universities UK will continue to stress that universities are an essential ingredient in our future prosperity, as agents of social mobility and agents of prosperity and growth of our economy and our society.

We will continue to argue the case for investment in our universities. We need a sustainable funding system for the future; a funding system which can accommodate growth to meet the skills needs of the economy, and a funding system which supports increased and widened participation. This is why the recommendations of the Browne review matter so much.

We cannot shy away from the implications of the cuts – we will have to take the lead in adapting to the new environment – and I will return to that later in my comments. But we need the government to recognise the commitments that have already been made to students and the importance of maintaining a high quality experience for them.

The government's approach to research

What, then, can we glean from the government's early pronouncements about its likely attitude to research?

Well, the coalition agreement itself talks mainly about undergraduate education. This is not surprising given the political difficulties that the government faces over tuition fees.

We do get some hints from the document. It talks of taking forward proposals made by James Dyson in his review of innovations policy. These are aimed at making the UK the leading high-tech exporter in Europe. Diversification of the economy away from financial services and investment in green technologies both point to a future role for university-based research.

All of that is to be welcomed and we must be ready to take advantage of those commitments.

Of course, the ministerial personnel have changed with the government and their own personal political agendas will be important in setting the direction of travel.

Our new Secretary of State is Vince Cable. He is a man with a rich hinterland. It goes well beyond a competence in ballroom dancing. He was in his mid-fifties when he first entered parliament and before that he had made a career with some of Britain's industrial giants. He has a PhD from Glasgow and worked as a government adviser in the late 1970s. So he is no novice when it comes to government and industry.

On joining the government he was keen to stress his credentials as a 'small l' economic liberal.

He set out his priorities early in a keynote speech. He stressed the need to revitalise the private sector while reducing the size of the public sector. And he pointed to the range of ‘public goods’ that the private sector relies upon for its success. High quality university education, science and research featured among those essential public goods.

So, while Dr Cable is a very different political being from Lord Mandelson – and serving in a very different government – it seems that he understands what university research can add to the UK economy.

Coalition politics, of course, means that policy making is rarely about a single person.

The new Higher Education Minister is well known to the sector. David Willetts is a clever, thoughtful and cautious man. He has developed a deep understanding of higher education through his work in opposition. He will challenge us. He will not easily accept that things should be done merely because they always have been done. But we should welcome his appointment as a critical friend of the sector.

He made his first speech as HE Minister at Birmingham University and his choice of words was revealing. He dwelt on Birmingham’s industrial heritage. But he also made clear that he values diversity in teaching and research.

There is, he said '*enormous value in further and higher education which cannot just be captured by utilitarian calculation.*'

He emphasised his belief in the value of education for education's sake. He indicated his support for curiosity-driven research whose applications may take time to emerge.

That is an encouraging backdrop to the government's approach. It should certainly not be taken as an invitation to complacency – the wider public spending environment is enough to ensure that. But it does mean that we have a minister who understands the long lead times between research and impact and who understands the more diffuse benefits that derive from research. Whether it is, in David Willetts' own words, research into engineering or Shakespeare.

This, then, is the framework that we must work within as we seek to build a sustainable future for postgraduate education. We face the prospect of painfully tight public spending for at least the next five years and probably for longer. We cannot tell how long the coalition government will last but we have to plan on the basis that it will serve a full term. Its priorities are different from those of New Labour – even leaving aside the deficit reduction programme. And we can be sure that we will have to explain our value and to take the lead in delivering change.

Why research matters

That sounds like a daunting prospect, and indeed it is. But I am enthusiastic about the strength of our case.

The sector enjoyed a decade of funding growth under the previous government and that was thanks to a clear political commitment on their part. So it is vitally important that we maintain that positive outlook from ministers. We have a fantastic message to sell.

The latest Higher Education-Business Community Interaction survey shows that UK higher education institutions provided ideas and services worth at least £3 billion to the economy over the last year. It highlights how universities boosted the economy in 2008-09 through a variety of interactions with business, public and community partners.

The survey shows that there has been a 5.5% increase in income from knowledge exchange activities: rising from £2,812 million in 2007-08 to £2,966 million in 2008-09. This is despite the recession which led to a 2% fall in GDP during this period.

Collaborative research income has risen by 5% from around £700 million to £732 million in 2008-09. Of the total reported, £612 million was from public funders. Contract research income has also risen by 12% from £835 million to £937 million.

Income from Intellectual Property has increased by 24% from £45 million in 2007-08 to £56 million in 2008-09.

The number of new spin-off companies fell from 221 to 191, but the number of companies that have survived three years or more has increased by 12% to 982. Fifty three new companies were

started by HEI staff, and 2,031 by recent graduates, up 29% and 4% respectively on last year.

All of that is real impact at the sharp end of the economy.

UK universities are unquestionably one of the country's outstanding success stories. That success is the result of a sustained investment in quality. As we look to a sustainable future with lower levels of public investment we must not lose sight of that fact. And that brings me to a really important point: the international context that we work within.

The international context

Simply put, we are world-beaters when it comes to the quality of our higher education system.

We have four universities among the top 10 in the rankings, and a total of 17 in the top 100. In our teaching and research we have considerable reach, producing nearly 14% of the world's most highly cited research papers, second only to the US. This is despite our size and relatively poor levels of public and private funding. The UK invests 1.3% of GDP in higher education, compared to an OECD average of 1.5% and a figure of 2.9% in the U.S.

Vince Cable has acknowledged that a globalised economy means we have to invest in the right skills, knowledge, technology and innovation. Yet other nations recognise that too and are investing heavily in higher education and research.

At the same time, our government is planning to cap migration in a way that could damage our ability to compete.

Over recent years UK universities have attracted significant numbers of international academic staff. In 2007/08 there were 18,406 non-EU academic staff in UK higher education institutions. These numbers have increased in recent years with a 17.6% increase in non-EU academic staff between 2005/06 and 2007/08.

The HESA data indicates that international academic staff are concentrated in significant numbers in certain subject areas. These include STEM areas with over ten per cent of academic staff in the biological sciences, physical sciences and engineering coming from outside the EU in these areas. There are also significant numbers of international staff in the social studies area and mathematical and computer sciences.

A significant number of international academic staff were previously international students in the UK. In terms of international students, the direct value of overseas students to the UK economy is estimated at £8.5bn according to the latest figures from the British Council.

Playing our part in cutting-edge research means being involved in international collaboration. Growing our networks and expanding our horizons. Maintaining our position as a world-leader means retaining the ability to attract the very best academic staff and research students from around the world.

Almost half of the UK's scientific output now involves international collaboration. The volume of international collaboration increased significantly in the decade to 2005. This trend is apparent across many countries and across all the main disciplines. The increase – in absolute volume of collaborative papers - varies from 30% for France to 50% for the UK and over 100% for China.

The importance of international collaboration within research output has increased is most marked for the UK where the share of international collaboration has increased relative to domestic volume more rapidly - by over 11% in five years - than for other G7 economies. The average impact of internationally coauthored work is also significantly higher than the overall average.

We are increasingly dependent upon each other for success in research and international collaboration in research is the best hope in addressing some of the big issues in the world today. Global problems really do require global solutions.

But even before the new government came into office we were experiencing problems. The new points based system was not working well and our attractiveness to international students and the best researchers risked damage from that.

Economists have consistently warned against the danger of sliding into protectionism in response to the economic crisis. I sense that such a move would be against all the instincts of the coalition government. But we, as a sector, want to contribute our full

potential to economic recovery. If we are to achieve that we have to have consistency in government policy. And that includes avoiding policies that risk limiting our ability to engage fully with the international academic community.

It also demands policies that actively promote the strengths of our system in the international market. UK universities have a strong reputation internationally, but with increasing competition we need to actively promote the UK 'brand' if we are to remain competitive.

Evidence suggests that the UK system of post graduate research is not widely understood internationally. Potentially the diversity of provision in the UK can be a key strength, but this needs to be marketed more effectively. We have called for the development of a joint strategy by those organisations actively involved in promoting UK research and higher education internationally. He may no longer be in office, but it is worth recalling Gordon Brown's prediction that education could soon become the UK's biggest export.

Arts, humanities and social sciences

I am conscious that I have talked a good deal about economic returns and the impact of research in monetary terms.

I do want to stress that this does not imply a wholly instrumentalist outlook, either on my part or what I perceive is that of the new

government. It is an issue close to my heart as I have, after all, enjoyed a thirty-year career in social science research.

I have been fortunate enough to address the British Academy twice in the last few months, most recently at the launch of their valuable report into the impact of arts and humanities research. I understand that impact measurement is a sensitive issue for the community. And I fully appreciate the importance of the dual funding mechanism to research in these disciplines.

In 2007-08 dual support funding for arts, humanities and social sciences amounted to around £426m. For arts, humanities and social sciences the balance between QR and Research Council funding was 80:20. This compared to 58:42 for overall funding of all subjects. The research funding provided by the Arts and Humanities Research Council totalled £60m, which in 2008-09 was only about 5 per cent of total combined Research Council funding. It is clear from these data that arts and humanities and social sciences areas are heavily reliant on QR funding.

It is critical, therefore, for the future of these disciplines that we continue to press for the need to sustain the overall balance of funding across dual support. Sustained funding in QR enhances the ability of the sector to respond to new and emerging challenges and sustain research in key areas.

We must also continue to highlight the impact of humanities and social sciences. As well as the British Academy, the AHRC has also done a great job in explaining what we get in exchange for

investment, and that the £60m per year is a high impact high value investment for the tax payer. UUK has also sought to promote and where necessary defend the arts and humanities and social sciences; and the story that can be told is a very convincing one.

The way forward: creating the framework for sustainability

So let me turn, now, to what I see as the recipe for sustainability in higher education research. I think it will consist of three elements. It will depend, of course, on government creating the right framework for the future. It will require universities to work ever more closely with employers. And it will mean universities themselves seizing control of the agenda when it comes to delivering meaningful research as efficiently as possible.

Some vexed questions arise in relation to research concentration of course. I don't propose to go into that in detail now – although it might come up in our discussion. But I do want to be clear where Universities UK stands. We accept that critical mass in research is important in some – but not necessarily all – areas of research. As with much else in this speech, effective collaboration may point the way ahead. The structure we work within may well evolve into something new over time to accommodate those realities. It may fall to us as a sector to show how we intend to make that work and that is a theme I want to return to in a moment.

I mentioned that the government wants to re-balance the economy so that it is able to cope with the demands of the future.

NESTA – the National Endowment for Science, Technology and the Arts – published a report on the subject a few weeks ago. They recognise that it is a complex and controversial agenda. For years, governments have been resistant to any suggestion that their industrial policy involves ‘picking winners’. But NESTA goes on to point out that the very complexity of the economy makes the encouragement of innovation more important.

NESTA suggests that government procurement programmes and taxation policies should harness existing resources to boost high tech industries. Now, we have to be clear that not all research is applied; not all research leads directly to definable economic returns in the short, or even the medium, term. We know that David Willetts, at least, understands that. But in the current climate we have to be clear what makes us relevant. And we must accept that the government will be keen to target its spending as sharply as possible in areas where it believes it will secure a return.

In our submission to Adrian Smith’s review of post graduate education, we made clear that skills up to and including Masters and Doctoral level are a key driver of innovation, entrepreneurship and creativity within the economy. And they are critically important for our competitiveness in the global knowledge economy, in which emerging economies are increasingly knowledge-based and are investing in their own higher education.

Professional Masters and Doctoral Programmes in particular provide a mixed university-business environment for the

acquisition of high-level, specialist skills that are vital for innovation and competitiveness.

Universities have been working hard to ensure that researchers are equipped to be adaptable and flexible for career paths in academia and industry. Significant progress has been made through the Roberts' funding provided to support skills training.

In our submission to the Smith review we strongly supported the continuation of the Roberts' funding in a clear and identifiable way. We argued for this funding to evolve in the future to develop a wider set of skills that support inter-sectoral mobility and business skills, as recommended by Professor Paul Wellings in his contribution to the HE Framework debate last year.

The way forward: taking control of the agenda

But if I have one central message to stress today it is this: while government policy is enormously important in the future of research it is also vital that we take control of our own destiny.

We in the research community must respond to the challenges we face to build a sustainable future. First, we have to work as efficiently as possible. And secondly we have to ensure that skills, training and research that we deliver are relevant in the modern world

First, the need to deliver our outputs more efficiently. To borrow an old phrase, there really is no alternative on this. If we do not take

control of the agenda then government will impose its own efficiencies upon us.

I would like to pick out two projects where Universities UK is taking a lead, one looking specifically at research funding, the other more broadly based and examining the scope for change through co-operation.

Together with RCUK, we have published the results of an investigation into the sustainability and efficiency of research funding., which was chaired, by Sir Bill Wakeham, former vice chancellor of Southampton University,.

A decade ago reviews of research funding found substantial short-falls and significant areas of research work were largely unsustainable. The cause: funding bids were not taking account of the full economic costs; and the balance between core and grant funding and become unbalanced. This problem was addressed through the introduction of FEC and an injection of funding across both parts of dual support. This was a hugely welcome development and means we can secure our research base into the future. Bill Wakeham's work is concerned with ensuring we can protect this agenda through making recommendations that can reassure research funders this additional funding is being used as intended - notably to fund current volume of activity in a more sustainable way - and that it is being used in the most efficient way.

The second is a project that we are about to launch under the leadership of Professor Ian Diamond, vice chancellor of Aberdeen University. Ian's group will look at the options for shared services across the university sector. It aims to identify the scope for operational efficiencies in the likes of procurement, IT and back office functions. It will look at the possibilities for scaling up existing projects too.

There are practical barriers to making extensive changes in this area. But, as researchers, we know that collaboration brings great rewards.

There is another area where we must go further in maximising the returns we deliver for investment and that I want to mention here. The sector has transformed its relationship with, and relevance to, the business community in recent years. But we can do better.

The CIHE report on research absorption, published last month, called for universities to develop strategies to ensure the relevance and application of their research within the business world. It showed the importance of university research in business innovation. But it suggested universities should do more to encourage the practical application of that research. One proposal was for PhD students and researchers to learn how to conduct successful collaborations with business.

We should take on board the CIHE proposals and build training and closer business engagement into our development strategies.

We should do this in part because of the opportunities it offers. The business community has already indicated that it is prepared to increase its investment in higher education if the returns are worthwhile.

Conclusion

So, in conclusion, then, we certainly face challenging times ahead. Funding will be squeezed. Over a sustained period and to an extent that we have not witnessed before if the coalition government follows through with the courage of its convictions.

The coalition itself faces an uncertain time, not least because of potential divisions over higher education funding. We don't yet know where that debate will lead. I am confident that the Browne Review – when it reports in the autumn - will offer some radical and long-term solutions to the challenges of HE funding. I hope the government will be able to deliver them into practice.

We must maintain our international competitiveness in research and in higher education more widely. That is a national success story we must not let go.

We will continue to press for the dual support system to remain the bedrock of research funding. And we will engage with the government over the future of research assessment.

We must continue to develop the skills of our researchers so that they are relevant to the needs of employers and to hone the nature of our outputs so they are relevant to needs of the future economy.

We will have to accept the need to work more efficiently.

There are no simplistic answers; there are precious few gurus for us to follow. But if we embrace the challenges we face and are determined to shape our own future, working in collaboration with each other, I am confident that we can retain the position of the research community – of your community – as leaders in the world.

Thank you.