



The Save British Science Society

SUPPORTING SCIENCE & THE APPLICATIONS OF SCIENCE

29-30 Tavistock Square, London, WC1H 9EZ

Tel: (020) 7679 4995 • Fax: (020) 7916 8528 • E-mail: sbs@dial.pipex.com

SBS 02/06

Campaigning for a strong science base in Northern Ireland

Talk at the University of Ulster

during the day of events
commemorating the unveiling
of the foundation stone of the
Centre for Molecular Biosciences

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Dr Peter Cotgreave
Director, Save British Science

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It is a real pleasure to be here in Coleraine today, not least because I have never been to any part of the island of Ireland before this morning. It is always nice to visit new places, and particularly so when the people are all so friendly and welcoming. The weather could have been more inviting, but since I come from Wales, I am used to getting wet.

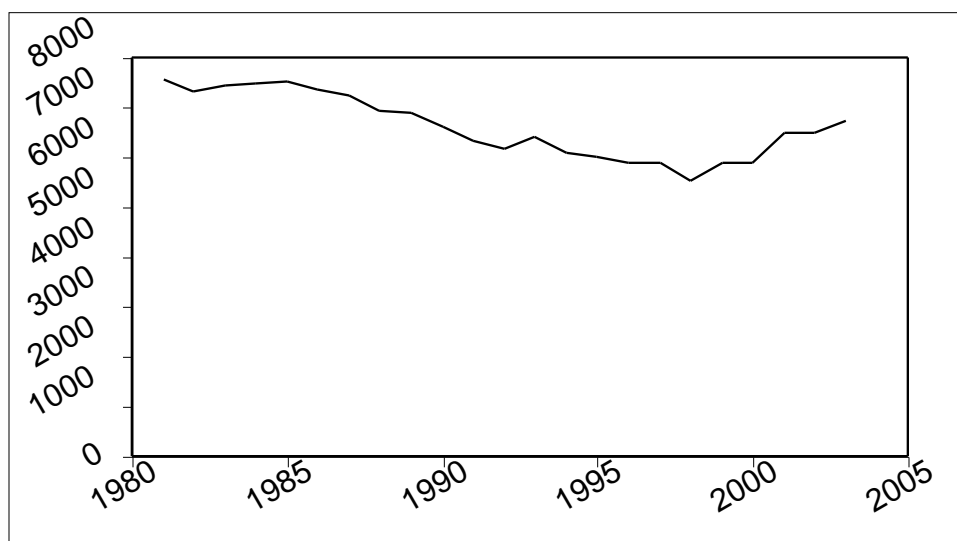
I have another reason for being pleased to be here. When your job is to campaign for a strong science base, and when you are continually pointing out the problems that exist with UK science, it is a genuine pleasure to be present at the opening of a fantastic new and exciting project, like the Centre for Molecular Biosciences. Lord Sainsbury has already reminded us that, among institutions researching in the field of subjects allied to medicine, the University of Ulster was the only one to obtain a prestigious 5-Star rating in the Research Assessment Exercise in both 1996 and 2001. You have a strong base and an exciting new Centre that builds on that base, and it is wonderful to be present at the start of this new exciting venture.

But we cannot pretend that everything is rosy. You and I know that the science base in general is not in the same vibrant shape as your new Centre, and that a secure future for it depends on improvements in the nation's science policies.

I am here to talk about how we can enhance our efforts to campaign on science policy issues, and I am going to start by showing you some shocking statistics demonstrating why we as a scientific community need to campaign for a strong science base, and why Northern Irish science in particular needs a voice. Then I will explain a few ideas about how SBS works, and finally, I shall float some ideas about how SBS can work together with you, the scientists of Northern Ireland, to campaigning as hard as we can to ensure that the Northern Ireland Assembly hears what we have to say.

Some statistics

The graph below shows the overall level of UK government investment in research and development, since 1981. The figures include all investment by Westminster, Stormont, Holyrood and Cardiff, and obviously the numbers for future years are estimates, but they were published by the various governments in December 2001, so they are based on the most recent evidence.



Total UK government investment in research and development from the early 1980s to 2003 [£ million in real terms at 2000 values]ⁱ

There are two things to notice about this graph. First, we are, as Lord Sainsbury has said, in a period during which investment in science is growing, and for that we should all be thankful. But second, we can see that even after the full effects of the two spending reviews that have been trumpeted as being generous to science, the UK as a whole will still not be investing as much in scientific research as it was in the mid to late 1980s.

Not surprisingly, UK investment in science is lower, as a proportion of the national wealth than that of competitor countries like the USA, Germany, Japan and France.

Now for the really depressing bit. The table below shows how much money the governments of the UK invest in the science base in the different constituent parts of the UK.ⁱⁱ

	Science base funding per head of the population in 2001
Scotland	£58
England	£44
Wales	£35
Northern Ireland	£24

Investment in the science base of Northern Ireland is lower than in any other part of the UK, very considerably lower than in England, and a good deal less than half of the Scottish figure.

Now, we turn to a comparison with your immediate neighbour, the Republic of Ireland. Although the data are slightly older and prepared by a different organisation, they show a genuine comparison between the North and South of Ireland.ⁱⁱⁱ

	Government funding for university research per head of the population in 1998
Republic of Ireland	US\$40
Northern Ireland	US\$25

The UK is investing less in science than other countries are, and within the UK, Ulster is investing less than Scotland, Wales or England. The North of Ireland is investing less than the South.

Whichever way you look at it, Northern Ireland is the poor relation.

We have heard a great deal from Lord Sainsbury, Sir Reg Empey and Mrs Carmel Hanna about how politicians understand the economic importance of science. Well, if the economy of Northern Ireland depends in any way on its science base, the Assembly had better start looking at ways in which it can increase its investment in science. There are many calls on the budget, but this one is absolutely crucial to Ulster's future success.

We have heard about how the number of spin-out companies being started by UK universities is rising steeply, and how the University of Ulster is a leading player in the field, with six new companies due to be launched this year. That kind of success deserves proper investment. Just think what Northern Ireland could achieve if its science base had the same level of investment as those in other parts of the UK.

There is a clear need for a strong voice making the case for science in Northern Ireland. The two Universities are already doing a lot, but I want to talk about how we can more, together. To that end, I want now to talk a little bit about how SBS works.

How SBS operates

SBS is a pressure group – a campaigning organisation.

This is my diagram of what we do.



How to campaign

Quite simply, SBS is successful because of a constant flow of pressure. Drip, drip, drip, drip, drip.....

Week in, week out, the people we seek to influence are hearing what we

something, other people are just about starting to get the message. When I have repeated something so many times that I am muttering it in my sleep, a few people have taken the message on board. That is the time to repeat it again and again.

Take the figures I have shown about the low level of investment in Northern Ireland's science base. I am going to keep repeating them ad nauseam to anyone who will listen. I hope that you will do the same. After a while, they will sink into the minds of some politicians at Stormont, and something may start to be done about them.

Just two days ago, the Member of Parliament Mark Hoban told the UK Minister for the Universities that he does not get many letters in his constituency postbag on the subjects of science and universities. He gets letters about the railways and the National Health Service.v

Unless politicians gets a constant drip, drip, drip, drip, drip of pressure about the science base, nobody can blame them for concentrating on other issues.

What SBS does

I want to turn briefly to telling you about what SBS actually does in our campaign for the science base.

In essence we do three things –

- (i) we meet with ministers and their advisers,
- (ii) we keep science policy issues alive in the media and in the minds of backbenchers, and
- (iii) we publish documents of various kinds, about which I will say a bit more later.

Meeting ministers

Our philosophy when it comes to meeting with ministers is that we just keep trying until it happens. We keep asking for a meeting until we get one. Even the most recalcitrant minister can be worn down eventually.

Second, we are not too proud to deal with lower-ranking people. Sometimes a minister will say that he or she is too busy to see us, but that the undersecretary's assistant's dogsbody could fit a meeting into his busy schedule. We go along and present a coherent case and then next time, we get to see the undersecretary's assistant, who informs the undersecretary about our visit, who informs his boss and so on.

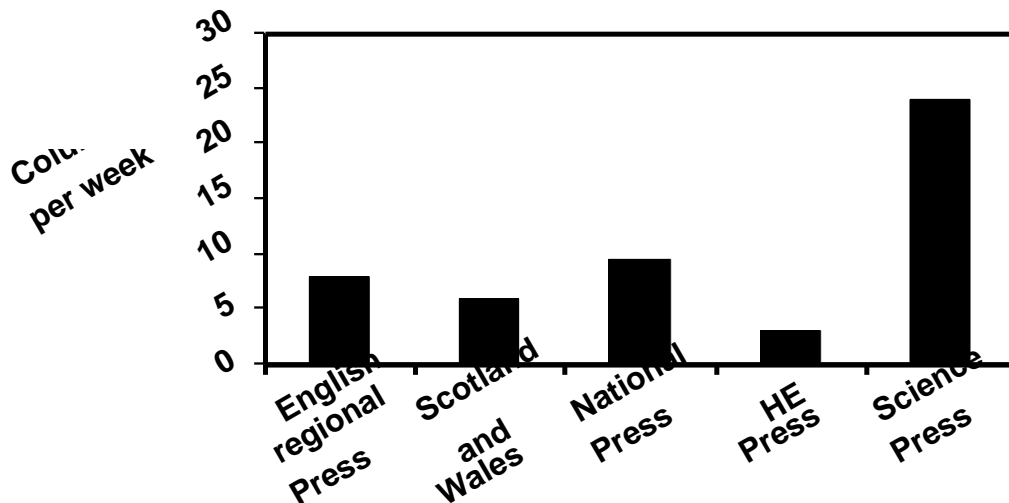
Last, as perhaps most importantly, when we meet with key decision-makers, we have a clear and authoritative message. We decide what we are going to say, and have a simple take-home lesson for the minister, and we back it up with facts that we know are correct, and which we know how to justify. One of the lessons that SBS has learned is that however much people disagree with us, our effectiveness is enormously enhanced because they respect the authoritativeness of our

The media

Using the media is another key plank of our programme of activities. I spend a great deal of time scanning the newspapers looking for excuses to write letters, and by trial and error have worked out what sort of letters get into what sort of papers.

You may think that having a letter in the press is a relatively small achievement, but on occasion, I have been telephoned by Labour Party headquarters to say that they were unhappy about a letter I have published in the press. My reaction was “good, my message is starting to get home”.

The graph below shows how successful SBS has been in getting material into the press. If you remember that we have two and half members of staff, and that we work in what is perceived as a very narrow field, I think you will agree that our track record is pretty impressive.



SBS press coverage in the print media, including only those paragraphs specifically written by or about SBS's activities and policies.^{vi}

Publications

Publications come in all sorts, but I will briefly run down the different kinds that SBS publishes, and give a few details of how we go about them.

First, the **consultation**. Government organisations are always having consultations, and we try always to respond. If we don't, they might accuse us of not caring about the issues on which they are consulting, and we will have reduced our right to complain when they do something of which we disapprove. Even when they consult about the same things over and over again (and let's face it, at any given moment in history, there's always at least one consultation going on about funding policies

of the Higher Education Funding Councils), we keep saying the same things over and over again.

And importantly, we don't stick to the questions if we think there are other things that it is more important to say.

The next kind of publication is the **briefing**, in which we give a short overview of an issue of interest. In general, our philosophy is that if they're not going to have a consultation, we send them a response anyway. Just because nobody asks our opinion, it doesn't mean we are not going to give it.

Next come **surveys and studies**. We never let anyone get away with saying there is no evidence of problem. Two years ago, high profile government spokespeople were saying that there was "no evidence" of a problem with recruiting and retaining good research staff into universities. Now you know and I know that this is nonsense. The new Centre that is being started today will, I am sure, have few problems attracting good people, but that is not universally true of university careers. Everyone who works on the ground knows this to be true, but the government was happy to say there was "no evidence".

So SBS undertook two studies, one a bibliometric study, which showed that of the people who took PhDs in UK universities in 1988, the ones who had produced the best work while they were actually doing their PhDs were the ones who have ended up in the United States.^{vii} Many of the rising stars of research have emigrated. The second study was a survey of UK Deans of Science, which showed that 57% of universities have handed back grants, or left jobs unfilled, because they could not attract researchers of the right calibre.^{viii}

It is no longer possible to say there is "no evidence" of a problem, and I am happy to say that I have seen encouraging signs that the UK government is changing its unhelpful attitude, and beginning to think about taking the problem more seriously.

The final kind of publications that SBS produces is **policy statements**. A good example is our booklet Science Policies for the Next Parliament: Agenda for the Next Five Years, which we published a year ago in advance of the general election. It contains a series of thirty or so policies that we believe would strengthen science in the UK, together with the detailed evidence and reasoning behind them. It has proved a powerful tool in our campaigning efforts, and we are currently issuing some supplements to ensure that it is comprehensive and up-to-date.

Campaigning in Northern Ireland

So, what can we do together to campaign for the science base in Northern Ireland?

Well, to start with, I want to demonstrate that SBS is taking devolution

strengthen our activities in Scotland and Wales. We have had meetings in five Scottish towns and three Welsh towns, as well as meetings with the Scottish Parliament and Welsh Assembly. We have had coverage on BBC Radio Scotland and in a whole variety of Scottish and Welsh newspapers. We have published documents about all sorts of aspects of science policy in Scotland and Wales

Now we want to do something similar in Ulster, and we would like to be ambitious about what we can achieve.

If SBS is to be effective in doing this, we will need three kinds of support from within Northern Ireland, namely

- (i) information, both through formal processes and through informal, unprompted channels – a significant proportion of what we do comes about because of a tip-off from one of our members or supporters, who happens to have noticed something that we need to take seriously, and which we might otherwise have missed
- (ii) administrative and logistic support – if, say, we are to have hustings meetings before the Assembly elections, as we did before last year's general election, we will need to work closely with organisations on the ground in Ulster
- (iii) financial support – we need more members, including more institutional members. We can do a great deal on a shoestring, but that string is currently stretched very tightly.

Some specific first steps

The first thing I think we should all do is to use today's unveiling of the foundation stone of a new and exciting project as an excuse to publicise the policy importance of science.

I have already put out a press release saying that I am here today and saying something important – science in Northern Ireland is underfunded by comparison even with the rest of the UK, let alone with the other industrialised economies. We need to get the maximum value out of this event, and to that end, I hope you will be quoting David Sainsbury's comments this morning to anyone who will listen.

Next, I would like to distribute a written version of this talk to see if I can drum up increased interest from scientists and engineers in Ulster in campaigning for an enhanced science base. I can't do that yet, because I never write talks until after I have given them – that way I can remove the bits that turn out to be wrong, and can incorporate any additional comments you may have when I speak to you later.

Third, I have spoken to Gerry McKenna, the Vice Chancellor here at Ulster, and he is going to write something about science in Northern Ireland for the SBS newsletter. Our newsletter is read by a fair number of people in a wide range of circles, including government ministers, so something specifically about Ulster would be useful.

I would like to set up some kind of link between SBS and Northern Ireland, to ensure that we at SBS are alerted when important issues come up.

Assembly Elections

And specifically, I would like to work towards the scientific community having the same kind of impact on the elections for the Northern Ireland Assembly next year as we managed to have on the general election last year.

To that end, I have already spoken to Professor Bernie Hanigan, your Dean of Science about the possibility of holding a science hustings meeting, at which we get politicians from all parties to come and take questions about science issues from an audience of people who are interested in these matters.

I want to repeat and exercise that we have used successfully before, where we write to the all of the Party Leaders with three or four specific questions about science policy, and we publish the answers and send copies to hundreds, if not thousands, of interested people. It is surprising how seriously some Party Leaders take this exercise. Some do not, but they end up looking pretty silly when the booklet of responses says that "X, the leader of the Y Party, did not respond to our request".

And I would very much like to produce a set of Policies for the Next Northern Ireland Assembly: Agenda for the Next Four Years, based on the policy booklet we produced for the General Election, but updated and with specific reference to the issues that are of most concern in Northern Ireland.

I think that together we can do a lot to campaign for the science base in Northern Ireland.

We know that our campaigning works, because people within government are prepared to tell us so privately, usually in words that would of which Sir Humphrey Appleby would have been proud. They say things like, "the existence of SBS's activities has helped to make possible the climate in which this policy decision was possible".

I know that you are already doing a lot, but the more pressure we can collectively achieve, the more effect we can have.

February 2002

ⁱ ***The Forward Look 2001: Government-funded science, engineering and technology.*** Department of Trade and Industry, 2001 [Cm 5338].

ⁱⁱ The Science Base is technically defined as investment via the Funding Councils (including the Department for Education in Northern Ireland) and the Research Councils. Precise figures for research

research investment by the Research Councils is more difficult, but I obtained the information by trawling through their annual reports and websites. Some (e.g. the ESRC) actually reports in its Annual Report the proportions of its budget spent in England, Wales, NI and Scotland. NERC helpfully produces a table breaking down all of its expenditure by the institutions it funds. For some Councils (e.g. BBSRC), there is some money that is paid as central running costs to Institutes (none of which are in Northern Ireland), and these are reasonably easy to identify from Annual Reports and websites. Once all of those figures had been calculated, it was necessary to work out what proportion of the grants budget for each Council was spent in each part of the UK. Some Councils, (e.g. PPARC) give a table showing total grant income to each institution. For others it was necessary to go through their web-based searchable databases and identify what proportion of their grant money was awarded in each part of the country (e.g. it is easy to identify all expenditure to institutions with the name Belfast in the address, but would be painstaking to break it down by particular institution). I then made sure that my estimates added up to the correct total for each Research Council (taken from ref 1), assuming that I was trying to identify all the money invested by each Council that was not classed as "overseas" (because this is clearly not spent in the UK) or as "intramural" (central running costs and money already identified as being spent in Institutes). I sometimes had to multiply the known PROPORTIONS (e.g. from PPARC's table giving the total value of existing grants not the amount due in each year) by the known TOTAL from reference 1. Population sizes for each part of the UK were taken from the Office of National Statistics, to give a figure of investment per head.

iii Data comparing the UK with the RoI from the OECD *Basic Science and Technology Indicators* and *Main Science and Technology Statistics*, with the UK data adjusted to give a Northern Ireland figure, using the proportions from the previous table.

iv *Higher Education-Business Interaction Survey*, Higher Education Funding Council for England, 2001 [HEFCE 01/68].

v Evidence Session of the Science & Technology Committee of the House of Commons, 30 January 2002.

vi *SBS Annual Review 2001*, SBS, 2001. [SBS 01/23].

vii Sharp Pierson, A and Cotgreave, P (2000) Citation figures suggest that the UK brain drain is a genuine problem. *Nature*, **407**, 13.

viii Recruitment of researchers in university science departments, SBS, 2000. [SBS 00/20].