

engage with all sectors of society, the science community and policy-makers to address the questions in the consultation document.

We are trialling a number of new ways

to run this consultation in order to reach as many people as possible. The consultation has a strong on-line focus as a gateway to other ways to take part. <http://interactive.dius.gov.uk/scienceandsociety>

I believe that Science in Parliament's audience has a key role to play in the success of this strategy and I encourage you to participate in the consultation and development of the final strategy and implementation plan.

OPINION

Science in Parliament

*The Rt Hon Lord Jenkin of Roding
President of the Parliamentary and Scientific Committee*

It has always surprised people when I have to admit that I did almost no science at school. We had evening biology lectures by a brilliant retired teacher who put marvellous pictures on the screen with an epidiascope – but this was extracurricular and happily did not involve examinations. That was where I first learned about sperm whales, penguins, chimpanzees and even the duck-billed platypus. I am not aware of having learned any physics or chemistry at school. I did Latin and Greek, ancient history, French, and some maths (indeed I have on my bookshelves a maths prize). At university, it was the same – classics and law. – but no science.

This came sharply home to me when, after a brief and undistinguished career at the Bar, I got a job in the chemical industry. On my first day, I was asked if I knew what was meant by 'organic chemistry' – and had to confess that I did not. So I was given a school textbook to read on organic chemistry – my first encounter with the world of molecules and atoms, chemical compounds and suchlike. At the end of my first week in the office which I shared with a chemistry PhD who looked after process licensing for the company, I wondered aloud how I could ever be of any use to my employers! Yet, I stayed with them for 13 years, so perhaps I must have been.

However, when I expressed an interest in standing for Parliament – Oh dear! I was almost sacked on the spot! It was only when they began to complain that no-one in the House of Commons seemed to understand industry, and I replied that if they named a company I could tell them an MP it had sacked, that they began to get the message!

There may not be a lot of MPs today who have had as little scientific education as I had 70 years ago, but, equally, there are not a lot of trained scientists or engineers who find their way into Parliament. It is my impression that, with some notable exceptions, we are still a pretty unscientific lot!

Before I was elected in 1964, I had heard about the Parliamentary and Scientific Committee, and had been advised by a friend to join – it was my first All-Party Group – indeed, I learned later that it was the first All-Party Group. I have never regretted this decision. It has always seemed to me to be a valuable bridge between the worlds of science and technology and the world of politics. Over the years, the benefit of hearing, month after month, eminent scientists, engineers and academics discussing the issues of the day as they affected their businesses, professions and research has been incalculable. Often, the topics chosen have directly borne on controversies relevant to legislation coming before Parliament – I need only instance the recent legislation on human fertilisation and embryology to make this point. Under successive Chairmen, and with the help of successive experts to advise them, the P & Sci has attracted speakers and audiences of real distinction whose wisdom has had a real influence on our debates, both in the Commons and in the Lords. Conversely, the influence can go the other way – as for instance on the issue of the public engagement in science, or on other subjects investigated by our S & T Select Committees.

When I say 'audiences', it is necessary



to point out that these days most of those attending our meetings are not Parliamentarians but represent outside organisations. These men and women are certainly very welcome and add much of value to our discussions; but I am not alone in regretting that we do not attract more MPs and Peers to come to the meetings. With science impinging on so many of the concerns that we have to deal with, week in week out, I think that more of my Parliamentary colleagues, *of all Parties*, would find the hour-and-a-half spent once a month time very well spent in helping them to find solutions to those concerns. Climate change, energy conservation, food standards, industrial innovation, as well as the teaching of science in our schools, research in our universities, and the ever-accelerating pace of scientific discovery, are all issues that regularly come up at Question Time or in Select Committee Inquiries. They are also all issues that have regularly featured in the programme of the P & Sci.

Newspaper articles, TV and radio programmes, the internet and even specialist All-Party Groups are of course useful sources of information and advice on which we all rely to make ourselves better informed. But

they need to be accompanied by the chance of listening to real experts with a variety of experience and different opinions and of cross-examining them.

These are the opportunities offered regularly by the P & Sci. Happily, today there are very few of my colleagues in both Houses who arrive with as little scientific expertise as I

had 44 years ago – but equally, there are few who would not learn something to their advantage by drawing on those opportunities.

OPINION

Time is running out for jaw, jaw

Colin Challen MP

The science of climate change loomed large in the Lords debates on the Climate Change Bill. With a few exceptions – notable sceptics like Lord Lawson – parliamentarians in both Houses have taken their cue from the science, sometimes perhaps with the intention of adding an aura of invincibility to their arguments. Perhaps sceptics will object to my assertion that they don't refer to the science, but usually their reference to it is so selective as to be almost worthless. They use the old familiar rhetorical trick of taking things out of context, or looking for just one piece of counter information to assert that the whole theory has crumbled.

Nevertheless, the sceptics do serve a useful purpose in scientific dialogue, by forcing the 'true believers' to test their case against the evidence, so ensuring that their case is ever more robust. In this context, it was a relief to read a press release from the Met Office headlined "Climate Scientists clear up discrepancy in global temperature record." The report laid to rest one of the main sceptics' charges, that in the mid-20th century there was a drop in temperature which climate change scientists could not explain. Look deep enough, and eventually explanations will emerge. Personally, I would rather for the sake of all of us that one day the sceptics would be proven utterly right, and we could all relax and breathe a sigh of relief. The future might be much brighter. As it is, I much prefer that the basis of policy is tested evidence.

Sadly, the link between science and policy is often lost. What we seem to have, as I mentioned in an article in *Science* (I'm name dropping here), is a game of 'climate change poker.' We

commissioned climate change scientists to tell us what was going on at a pre-G8 summit conference in Exeter in 2005; then we commissioned the Stern Review to tell us what the interplay between the physical science and the economic science might be. Now we have commissioned, so to speak, a Climate Change Bill which will attempt to put the lessons into practice.

I'm not sure it will succeed. Political science has stepped in, and we are now trying to marry real reality with political reality, always a Herculean task. Here we enter into the territory of cognitive dissonance, the term coined by psychologist Leon Festinger in 1957 to describe 'a psychological state that describes the uncomfortable feeling when a person begins to understand that something the person believes to be true is, in fact, not true.' (Wikipedia's definition).

We would like to believe that we are taking climate change seriously – hence the sound of energy-saving lightbulbs being screwed into sockets – but we are beginning to realise that our efforts are little more than displacement activities to keep us busy. Another example of this phenomenon, at the highest level, was described in the press recently as 'the optimism of global climate change negotiations.' Now we're not allowed to be pessimistic, lest we forsake the politics of hope. So it is convenient to use the science only as a kind of reference point, almost in a parallel universe that we can look in on before retiring to the 'real' world of politics. Scientists themselves sometimes seem content with this arrangement, since they abhor the possibility they may become politicised themselves.



Somebody has to call 'House' on this game. The climate change numbers are being used so loosely, they're almost irrelevant. For example, reviewing the literature, the Stern Review came up with an average figure of 1% GDP spent on mitigation to avoid between 5% and 20% later damages to GDP. Problem solved – until one realises that that 1% is predicated on an upper limit of a 550 parts per million by volume (ppmv) Greenhouse Gas atmospheric concentration, which Malthe Meinshausen told the Exeter conference would effectively lead us into the territory of up to or more than a 4 degrees temperature rise. Nothing like the 2 degrees we hear so much talk of, and which EU and UK policy is meant to be compatible with. If we were serious about say, a 450ppmv target, the GDP spend on mitigation would be around 3%. In 2006, when Stern's report was published, that would have amounted in the UK to £40 billion. We didn't spend anything like it – and it needs to be understood that the effort we fail to make one year merely compounds the following year's task. This stuff doesn't go away merely because we spent another year talking about it.

To solve the problem faster than we're creating it is the only useful definition of a solution we can afford. As it is, what has often been described as a game of numbers – politics – is failing catastrophically to pay any attention to the numbers of climate change. What we are doing could be worse than useless if it lulls us into a false sense of doing something useful.