

Science Matters

Science Matters

No. 33

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Honorary Patrons

Sir Tom Blundell
Mrs. Anne Campbell
Dr Ian Gibson, MP
Sir Paul Nurse
Lord Martin Rees
Lord David Sainsbury



Scientists for Labour



Conference 2007 Bournemouth

Dr Ian Pearson MP

Minister for Science and Innovation



"The importance of science and innovation to our economy and our society cannot be over estimated."

The Department for Innovation, Universities and Skills was created to deliver the Government's long-term vision to make Britain one of the best places in the world for science, research and innovation and to raise the level of education and skills at every level in our economy.

The UK science budget has doubled since 1997, standing at around £3.5 billion a year.

Also in this Conference special edition:

SfL mobilises in defence of the Science Select Committee
Ian Pearson on Climate change opportunities
AGM highlights
A vision for a Ministry of Research
Science Education- special report

The new Science Select Committee

SfL and large sections of the Science community welcomed the formation of the Department of Innovation Universities and Skills under Secretary of State John Denham.

However think tank Sense about Science www.senseaboutscience.org, the Royal Society and SfL all expressed their desire to maintain the status of the Science Select Committee.

SfL's concern

Stephen Keevil wrote to John Denham expressing our concern.



John Denham

Dear Secretary of State

I am writing to you on behalf of Scientists for Labour (SfL), a socialist society affiliated to the Labour Party. SfL enjoyed an excellent working relationship with Lord Sainsbury and also met twice with Malcolm Wicks during his short tenure. We are looking forward to working with DIUS, which we see as an exciting development that brings science and innovation closer to the cabinet table, and have already made preliminary contact with Ian Pearson.

The specific issue I am writing to you about now is the future of the Science and Technology Select Committee. I appeared in front of the committee last year (on a matter unrelated to my role in SfL), and am well acquainted with the excellent work of the committee in scrutinising science across government. SfL feels that it would be a mistake for this very important activity to be merged into a DIUS committee, which, even if a science and technology subcommittee were to be established within it, might understandably be dominated by DIUS issues and lose the more cross-cutting role that the committee has had in the past.

The crucial point, I think, is that the Science and Technology Committee has not functioned as a typical departmental select committee, focusing on the work of OSI, but rather has taken a very valuable broader view of science-based policy throughout government. The official terms of reference of the committee do not reflect how it has operated in practice or how we believe it should operate in the future. For example, the inquiry I was involved in did not involve OSI at all, and the minister and officials who appeared were from DWP and other agencies.

Thus retaining a separate science and technology committee in addition to a DIUS committee would not duplicate scrutiny of the science and innovation activity of DIUS, but rather failure to do so might reduce scrutiny of science-based policy across other parts of government. That would have been a serious omission in the matter I was involved in, and is surely undesirable more generally. It would send the wrong message about the government's view of science to the scientific community, implying that science is entirely the province of DIUS when in fact the Prime Minister has frequently emphasised its broader importance across many areas of policy.

Yours sincerely
Stephen Keevil
Vice Chair, Scientists for Labour



Steve Keevil

Immediate support from members

Twenty four notes of support from SfL members received within 24 hours of the letter issued.

Glyn Ford MEP, Willie Russell, David Caplin, Martin Yuille, John Unsworth, Bobbie Nichols, Sean Munro, Ann Kingsbury, Fred Mellon, Peter Stern, Nigel Titchen, Owais Rajput, David Taplin, Kenneth Smith, M. Saiful Islam, John Finney, Dennis Risby, David Mervyn Phillips, Diane Hayter, Michael Fox, Peter Bunyan, David Whalley, Steve Waltho, and Anthony Parsons

Sir Paul Nurse, another of our Patrons, wrote directly to John Denham

Dear John,

Let me add my support for retention of the Science and Technology Select Committee which has operated extremely well. My position is well stated in the letter from Scientists for Labour sent to you last week.

sincerely, Paul Nurse

2001 Nobel Prize for Physiology or Medicine

Member of Council of Science and Technology

President of The Rockefeller University



UK engineers must lead the world on climate change technology

From a speech given to industry representatives attending a Global Sustainability forum at Imperial College

Ian Pearson, Minister for Science and Innovation, challenged the next generation of engineers to lead the world in developing environmentally friendly technologies to combat climate change.

“Tackling climate change and the effects of population growth could generate at least £700 billion globally by 2015. This is an opportunity that British engineers should capitalise on, while helping mitigate the most damaging features of climate change.”

“In the UK there are over 17,000 companies that are already focusing on the environment. I expect the value of this £25 billion industry to more than double within the next ten years, with employment growing by at least 100,000 over the same period.”

“Major names like Unilever, Ford and BMW are all moving to more sustainable means of production. The sustainable companies of tomorrow will need engineers that can help them find ethical, environmentally sound solutions to the even tougher challenges to come.”

Mr Pearson called on employers to engage closely with Sector Skills Councils, including the Science, Engineering and Manufacturing Technologies Alliance (SEMTEA) to ensure UK engineering has the highly skilled workforce it will need to successfully compete. Through working closely with business, Sector Skills Councils will provide detailed analysis of future engineering skills requirements, ensure that the future supply of skills and qualifications is driven by what employers need and work to raise employer investment in skills at all levels.

The Energy Technologies Institute - a new partnership with some of the world's biggest energy companies, will play a major role in international technology developments that support the UK's climate change goals and a new Environmental Transformation fund will support renewable energy, biofuels and low carbon technologies

SfL is pleased to share web links with Compass:

www.compassonline.org.uk/

compass
DIRECTION FOR
THE DEMOCRATIC LEFT

SfL AGM Opening Address from Malcolm Wicks, Minister of State for Energy



Malcolm Wicks

With Science in the mainstream we can build the scientifically based knowledge economy.

This requires a scientifically skilled workforce. The UK is already a centre of excellence in bioscience and also in space science with spin off in computers and robotics.

Climate change is an economic opportunity. We are looking for innovation in carbon capture and storage, and nuclear power generation and storage.

We need a scientifically skilled society, with a scientifically literate democracy. Our people need to understand the democratic processes that lead to decisions in the cutting edge of ethical technology such as stem cells and embryo research. Society understands the essential nature of properly regulated animal experimentation and the government supports that wholeheartedly.

The UK science budget has doubled since 1997, it is now about £3.5 billion a year. Science funding needs to balance public need with stability in the funding councils. SfL has a role as a mechanism for expressing mainstream scientific concerns.

Minutes of the 2007 Annual General Meeting of Scientists for Labour

10th July 2007, Committee Room 21, House of Commons

Present

Michael fox, Willie Russell, Bobbie Nichols, Peter Stern, David Caplin, Stephen Keevil, John Unsworth, Alex Barros-Curtis (note Martin Jones PA), Clr Mrinal Choudhury, Ian Flintoff, Ian Gibson MP, Owais Rajput, David Taplin, Ann Kingsbury, Dennis Risby, Simon Haskell, Kevin Gilligan, Martin Yuille, Doug Naysmith MP, Brian Iddon MP, Martyn Johns MP

Apologies

Sean Munro, Gordon Adam, David Whalley, Dianne Hayter, Robin Weiss, Sir Tom Blundell, David Maslin Martin Yuille, Archive Director of the UK DNA Banking Network, compared the organisation of research in the EU and the UK, proposing the establishment of a UK Ministry of Research structured along the same lines as DG Research.

1. Minutes of 2006 AGM

The meeting voted to accept the minutes as a true record of the 2006 AGM.

2. Matters arising

None were raised

3. Chair's report

John Unsworth said that science is riding on the crest of a wave at the moment, as evidenced by its prominence in major speeches at the Party conference. Gordon Brown has been a strong supporter of science, and the new Department for Innovation, Universities and Skills (DIUS) could become essentially the Ministry of Research that Martin Yuille had called for in his presentation. There is a real opportunity to engage with the government. However, SfL is a small organisation made up of busy people, and needs to focus on a limited number of activities. Over the coming year SfL will attempt to engage with the new Secretary of State at DIUS, John Denham. John thanked Paul Connell and David Caplin particularly for their help during the year.

The meeting voted to accept the report.

4. Secretary's report

Steve Keevil said that the deputy leadership election had provided SfL with its first opportunity to participate as an affiliated socialist society, and the process had been greatly simplified as the Party had engaged Popularis to conduct the ballot with central funding. He reported the first preference results as follows.

Valid ballot papers: 98
 Spoilt ballot papers: 20
 Total ballot papers received: 118
 Total ballot papers dispatched: 275

Benn	24
Cruddas	23
Harman	28
Blears	8
Hain	6
Johnson	9

The meeting voted to accept the report.

5. Treasurer's report

In Sean Munro's absence, Steve Keevil read highlights of his report. SfL's financial situation continues to be healthy, with £1,075 in the current account and reserves of £4,500. Sean plans to coordinate membership payments with the membership list and hence improving the issuing of subscription reminders. He still intends to move the SfL bank account to the Co-op Bank or its online subsidiary, Smile.

Martin Yuille pointed out that this change of bank account would require all existing direct debit instructions to be changed. John Unsworth suggested that the existing account should be retained to receive these direct debit payments, and the balance then transferred to the new account.

John Unsworth reported that the previous two years' accounts had now been audited.

Owais Rajput asked how much the Labour Party affiliation fee costs SfL. John Unsworth said that it was around £250.

The meeting voted to accept the report.

6. Editor's report

Paul Connell said that the major achievement this year had been to produce a conference special edition of Science Matters. This year, Science Matters will include summaries of the annual meeting speeches. Good ideas are needed for the conference special. Paul plans to improve coordination between Science Matters and the SfL website.

Martin Yuille suggested including greetings from related organisations and unions such as Unite in the conference special.

The meeting voted to accept the report.

7. Report on Socialist Societies

David Caplin said that affiliation gives SfL a means for two-way communication with the Party and input to the National Policy Forum (NPF). It also makes it easier to secure meetings with ministers and to access shared meeting facilities at conference.

Willie Russell asked whether SfL's membership is sufficient to maintain affiliated status. David Caplin said that a special case had been made, but it is important to maintain or increase membership to retain affiliation.

John Unsworth said that SfL had a loyal membership, despite high-profile issues that had eroded membership elsewhere in the Party. He called for recruitment ideas.

Willie Russell suggested that the NPF would have increased influence under Gordon Brown. Some of the socialist societies have an anti-science agenda, so it is important to contribute a strong positive message.

David Caplin said that the socialist societies have three representatives on the NPF, who report back but are not mandated or accountable. Although SfL could nominate, we are a small organisation and would need to engage with others. This may not be the best route to gain influence.

The meeting voted to accept the report.

7a. Membership Secretary's report

Ann Kingsbury reported that her main task during the year had been to prepare an address list for the deputy leadership ballot. There had been a steady trickle of new members, but there is an ongoing need to coordinate membership and subscription records. She suggested a recruitment drive via local councillors and CLP general committees, perhaps also publicity among Unite members by advertising in their publications. David Caplin suggested a mailshot to UCU members, and Paul Connell suggested the Association for Science Education magazine.

The meeting voted to accept the report.

8. Election of EC members

The following were elected to serve for 2007-2008:

Bobbie Nichols, Fred Mellon, Ann Kingsbury, David Caplin, John Unsworth, Nigel Titchen, Paul Connell, Sean Munro, Peter Stern, Willie Russell, Steve Keevil, Owais Rajput, Kevin Gilligan, Martin Yuille, David Taplin.

9. Future strategy and activities

It was agreed that Willie Russell will continue his efforts to arrange a meeting with the Director General of the European Research Council.

Paul Connell offered to seek additional ideas through Science Matters.

10. AOB

Peter Stern said that SfL has very limited resources, whereas the Fabian Society attracts 700 people to its annual conference. This is held at Imperial College in January, and it might be feasible to hold a parallel session on science. He agreed to check the conference topic – it may be the millennium development goals.

David Caplin said that contact with the Fabians had been attempted previously – there is always a positive response, but no practical outcome. Bobbie Nichols suggested that Martin Yuille's proposals for a Ministry of Research might be attractive to the Fabians, as it is a policy proposal.

The meeting adopted Peter Stern's motion

11. Motion

This AGM instructs/requests the incoming Executive Committee, to approach the Fabian Society, with a view to holding a joint meeting on a relevant topic.

It was agreed that David Caplin would take this forward with the Fabian Society.

Stephen Keevil, 25th July 2007

Minutes of the Scientists for Labour Executive Committee

10th July 2007, Committee Room 21, House of Commons

Present

John Unsworth, Steve Keevil, Ann Kingsbury, Paul Connell, Fred Mellon, Owais Rajput, Peter Stern, Martin Yuille, Bobbie Nichols, Kevin Gilligan, David Taplin, David Caplin, Willie Russell

Apologies

Sean Munro

The main business of the meeting was election of officers. The following were elected:

- | | |
|------------------------------|---|
| 1. Chair | John Unsworth |
| 2. Vice Chair | Steve Keevil |
| 3. Treasurer | Sean Munro |
| 4. Secretary | Paul Connell |
| 5. Membership Secretary | Ann Kingsbury (with assistance from Owais Rajput) |
| 6. Editor of Science Matters | Paul Connell (with assistance from Martin Yuille) |
| 7. Webmaster | Fred Mellon |
| 8. Socialist Societies Rep | David Caplin, deputy Owais Rajput |
| 9. Conference Delegate | John Unsworth |

The Treasurer had confirmed that Malcolm Hill and Barry Tylee are able to continue as auditors, and the meeting agreed to reappoint them.

It was agreed that SfL will try to arrange a conference fringe meeting at the socialist societies venue, with a topic chosen to attract a wider audience.

Stephen Keevil, 25th July 2007

SfL is pleased to share web links with Progress:

www.progressonline.org.uk/



DR Martin Yuille, Director UK DNA Banking Network at The Centre for Integrated Genomic Medical Research, University of Manchester makes the case for reorganising the highly fragmented government structure of research along a model more integrated with our European partners.



Ministry of Research: a blueprint

The case for a radical reappraisal of research efforts is made by DEMOS in “The Atlas of Ideas: Europe and Asia in the new geography of science and innovation.” Leadbeater C., O’Connor S, Wilsdon J, Bound K and Webb M. 2007 Demos. This cannot exclude the way government organises itself to manage research.

The UK economy is experiencing a major structural change in the way we trade with the rest of the world. Over the past ten years there has been a decisive shift towards exports in knowledge based services and high tech manufacturing and away from trade in other manufactured goods. We are trading in ideas, knowledge, and the exploitation of science to a greater extent than at any point in the past century.

This change is unique among the world’s major economies. The UK economy has specialised in areas where we clearly have comparative advantage by consolidation traditional strengths such as the City, business services, and higher education and moving into rapidly growing areas such as computer and information services and the creative industries. The UK has developed as an unrivalled world-leader in knowledge services trade.

Our economic structures have changed and policy needs to focus on strengthening and supporting the strengths we have in high tech manufacturing and knowledge based services as well as addressing continued underlying weaknesses in the manufacturing base.

In this paper we provide some evidence for the emergence in a number of states of ministries for research. We have not sought to provide a comprehensive analysis of the organisation or reorganisation of research at government level around the world. The most significant institution that has a unified administration of research is the European Commission which, in response to the UK-endorsed Lisbon Agenda, is undertaking the establishment of the European Research Area.

We recommend that UK government builds a similar unified administration of research in the UK.

- to develop and implement UK policy on research in the natural and social sciences
- to coordinate UK and European research policies and to promote international activities
- to support other UK policy areas (eg health, energy, regional development)
- to promote a better understanding of the role of research
- The departments would be sub-divided along the EU model.

Advantages

- Enables full debate on the societal agenda for research
- Recognises research as driver of the knowledge-based Recognises horizontal nature of research (Teflon, www, ethics)
- Permits rational resource allocation for societal agenda and researchers’ agenda
- Replaces an over-complex, contradictory structure
- Facilitates stated goal of 2.5% GDP by 2010 [cf 0.55% UK GDP (OECD 2003)]
- Enables better UK input into and benefits from EU
- Fulfils 1993 John Smith pledge

The full draft paper is on the SfL website. Members are asked to send any suggestions to Martin before the report is finalised.

Education Special

At last year's AGM SfL hosted a meeting of unaligned experts to discuss recent changes in the School Science curriculum. The full text of individual contributors is to be found on the SfL website.

Members are invited to comment on the reports and to submit comments to Paul Connell, the Secretary as contributors are invited to bring their work up to date.

The final report will also include material on two examples of excellent practice in the Science Education, namely:

Science in the Twenty First Century www.21stcenturyscience.org/ and
Salters Nuffield Advanced Biology www.advancedbiology.org/.

“ Will the current and proposed changes to the way school students learn science lead to a more scientific literate and competent workforce?”

Joyce Porter North West ASE Field Officer for the ASE

The ASE is a non-political membership organisation – the largest subject association with over 17,000 members – primary and secondary teachers, teaching assistants, advisers, technicians, lecturers, industrialists – all with an interest in science education.

Science teachers are generally optimistic about the new GCSEs so they would give a cautious “yes” to the question. Teachers feel that the new GCSEs are engaging the students more and the emphasis on contemporary science is very welcome.

Students are beginning to debate issues such as, “should a couple be allowed to have expensive IVF treatment to produce a sibling for a child ill with a rare genetic disorder?” These debates are generating real passion in the science classroom.

Pupils need more opportunities to visit science museums, fieldwork, industry etc. Teachers need more time, money and support for CPD. There has been a terrific investment in education since 1997 but there continues to be more to do, particularly in bringing facilities up to date. Dedicated ICT suites/laptops are needed. Teachers also need time before the next initiative hits them.

Finally look after the teachers. We can train and enthuse them but we need to nurture them to retain them. They are the key to inspiring young people in science. It is true that “no-one forgets a good teacher.”

Jan Green from Manchester Metropolitan University and the North West Regional Science Learning Centre

You will all know that in 1803 John Dalton developed his atomic theory of matter in this city, but what you might not have heard is that in harder times he made his living here (the Friend's Meeting House) teaching mathematics in the basement. By 1919, just a spit away from here at Manchester University, the first atom had been split by Rutherford.



When you ask young people what they think is good about this country, pride in our leading scientific nation status isn't on their list. Neither do they have much knowledge or, for the most part, any real attraction to the diverse employment opportunities the science sector has to offer at support, technical and elite levels of work. The global issues of the day like energy, genetic engineering and so on, are contradictory and confusing to them as they try to reconcile school science with media representations. Their initial enthusiasm tends to draw them into single issue activism rather than broader social engagement. This produces a dangerous fragmentation and skewed view of science in

society. Youngsters and, in many cases, their teachers and parents don't identify themselves as citizens in a country with a vibrant scientific culture.

When Labour first came to office there was a massive job to do in education. Huge in roads have been made from the very substantial investment that has gone in. Teaching and learning is much better, assessment is better, inclusion and individual tracking is improving. Reform of the workforce is producing much more coherent teaching and learning teams to support children and their families in more holistic ways. Buildings and facilities – especially important in practical subjects, are being upgraded; and so on... there is a lot to celebrate!

The Science Learning Centre Network was set up and funded by DFES and Wellcome Trust to the tune of 51M to provide contemporary and inspirational CPD to address this very issue. There are 10 Centres, 9 regional and 1 national. We are working with teachers, technicians and teaching assistants across the 4 to 19 age range and they are telling us it is just what they have needed.

Steve Tilling Field Studies Council

Fieldwork; the canary that's stopped singing?

Most science teachers and researchers would agree that achieving scientific literacy and competence can only be achieved if there is a balance between Prescription and Practice in the curriculum. One of the areas of science teaching which has suffered the most from lack of Practice is fieldwork – practicing science outside the classroom. This is a great pity; working outside the classroom provides many opportunities to try out 'real' science – the type that doesn't always work perfectly, where the book may sometimes be wrong. Fieldwork introduces the scientific enquiry approach in the most demanding of 'laboratories', highlights synergies across scientific disciplines and, if local, makes links with everyday lives. It can inspire and reach learners who are disinterested or intellectually excluded by conventional classroom teaching. Fieldwork and excursions are listed as being the most enjoyable elements of science education and provide an important recruitment tool.



For the current and proposed changes to enable more fieldwork to take place a number of further interventions will be needed such as a less formulaic and inflexible approach to assessment. The assessment tail should not be allowed to wag the science body.

Teacher training to be provided at two levels: through statutory training in initial teacher training courses; and CPD for practicing teachers. The SLCs are a welcome facility – but take-up is slow. The changes in the statutory ITT curriculum – recently opened for consultation by TDA - are more worrying. There has been a dilution in the need for fieldwork training over recent years, there are no minimum standards and current trainee training is piecemeal and patchy. All of this needs to be remedied, urgently.

Can intervention work? London Outdoor Science is a small two-year project funded by ODPM. Led by FSC, but working with SLC London, one person working with secondary science teachers in five Inner London boroughs (52 secondary schools) has been tasked to build local fieldwork. By producing simple resources based on local sites and providing some teacher training 25% (15) new schools have been recruited to do fieldwork – 1,000 14-16 year olds studying science who would not otherwise have done fieldwork.

In summary, if really want to see how well the changes in science education are doing, including their capacity to develop scientifically literate and competent citizens, the best indicator we can use is the amount of fieldwork that is going on.

A word from the Chair

Opportunities

Science is riding on the crest of a wave at the moment, as evidenced by its prominence in major speeches at the Party conference. Gordon Brown has been a strong supporter of science, and the new Department for Innovation, Universities and Skills (DIUS) could become essentially the Ministry of Research that Martin Yuille had called for in his presentation. There is a real opportunity to engage with the government. However, SfL is a small organisation made up of busy people, and needs to focus on a limited number of activities. SfL members are asked to get their suggestions in to me.



Engagement

Over the coming year Sfl will attempt to engage with the new Secretary of State at DIUS, John Denham. There has been change too in Science Minister with Lord Sainsbury retiring November last year after an unprecedented period of stability for this office and an impressive performance successfully promoting science within our Government. As an organization I think we should recognize his contributions here. The role that science plays in the Labour Party and the support science receives in Government has moved forward a long way since 1997. Nowhere was this more in evidence than at the 2006 Conference, which I attended as Sfl delegate.

It was Sfl what did it!



When you look at the Sfl votes for the Deputy Leadership election you can see that Sfl members made all the difference.

We welcome both Gordon Brown as our new Party Leader and Prime Minister, and Harriet Harman as Deputy Leader.

Gordon has spoken of his belief in Science as the driver for the economy many times in the past.

Benn	24
Cruddas	23
Harman	28
Blears	8
Hain	6
Johnson	9

‘Science Matters’ is the newsletter of **Scientists for Labour, a Socialist Society affiliated to the Labour Party.**

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new Labour
for Britain