House of Commons

Science and Technology Committee

Work of the Committee in 2005–06

First Report of Session 2006–07

Report, together with formal minutes

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The Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Office of Science and Innovation and its associated public bodies.

Current membership

Mr Phil Willis MP *(Liberal Democrat, Harrogate and Knaresborough)(Chairman)*
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Previous Members of the Committee during Session 2005–06

Dr Ian Gibson MP (*Labour, Norwich North*)
Margaret Moran MP *(Labour, Luton South)*
Anne Snelgrove MP *(Labour/Co-op, South Swindon)*

Powers

The Committee is one of the departmental Select Committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No.152. These are available on the Internet via www.parliament.uk

Publications

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at www.parliament.uk/s&tcom
A list of Reports from the Committee in this Parliament is included at the back of this volume.

Committee staff

The current staff of the Committee are: Dr Lynn Gardner (Clerk); Dr Celia Blacklock (Second Clerk); Dr Anne Simpson (Committee Specialist); Ana Ferreira (Committee Assistant); Robert Long (Senior Office Clerk); and Christine McGrane (Committee Secretary).

Previous staff of the Committee during Session 2005–06

Mr Chris Shaw (Clerk); Mrs Emily Commander (Second Clerk); Dr Alun Roberts (Committee Specialist); and Dr Hayaatun Sillem (Committee Specialist).

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1 Introduction

1. The Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Office of Science and Innovation (OSI), and its associated bodies.[1] As well as its role in advising the Chief Scientific Adviser (CSA) and the Director General of Science and Innovation (DGSI) on the allocation of the Science Budget, OSI has a role in overseeing science and technology policy across Government. The Committee has a similarly broad remit.

2. This is the Committee's fourth Annual Report. It covers the period since the appointment of the Committee on 19 July 2005 following the General Election to December 2006. In this Report we provide an account of the ways in which our work in 2005 and 2006 addresses our core tasks.[2] The establishment of these tasks follows a recommendation made by the Liaison Committee, which in turn arose from a resolution of the House on 14 May 2002. The purpose of defining the core tasks was to provide a clearer structure for the scrutiny of Government by select committees. Our 12 core tasks have been adapted from the Liaison Committee template to take account of the unique position of the OSI within the Department of Trade and Industry (DTI) and the role of the CSA in promoting the use of science across Government. The Report also follows up some of the more general issues that arose during 2005 and 2006.

3. During 2005 and 2006 we held 48 meetings and took oral evidence at 40 of them. We published seven Reports and pursued major inquiries into carbon capture and storage technologies; scientific advice, risk and evidence-based policy making; Research Council support for knowledge transfer; human enhancement technologies in sport, and Research Council Institutes. The status of inquiries conducted in 2005 and 2006 is outlined in Table 2.

1 Our remit has changed to reflect the merger of the Office of Science and Technology and the Innovation Group within the Department of Trade and Industry in April 2006 to create the Office of Science and Innovation.

2 See Box 1 and Table 1

Core tasks and objectives

Box 1: Committee objectives and core tasks

OBJECTIVE A: To examine and comment on science and technology policy

Task 1: To examine policy proposals from the UK Government and the European Commission and other outputs from the Office of Science and Innovation

Task 2: To conduct inquiries as appropriate, identifying and examining areas of emerging policy, or where existing policy is deficient, and making proposals

Task 3: To scrutinise legislation and proposed legislation on science and technology matters

OBJECTIVE B: Government expenditure on science and technology

Task 4: To examine the expenditure plans and outturn of the Department of Trade and Industry, so far as it relates to science and technology, and of the Research Councils

Task 5: To examine other Government Departments' expenditure on research and advice on science and technology

Task 6: To monitor European Union expenditure on scientific research

OBJECTIVE C: Administration of the Office of Science and Technology and the Research Councils

Task 7: To examine the Office of Science and Innovation's objectives and performance

Task 8: To monitor the work of the Research Councils

Task 9: To scrutinise major appointments made by the Secretary of State for Trade and Industry

Task 10: To examine the implementation of legislation and major policy initiatives, following up earlier Reports by the Committee

Task 11: To hold Ministers to account

OBJECTIVE D: To assist the House in debate and decision

Task 12: To produce Reports informing the House on science and technology matters and of the science perspective on public policy issues, some of them being suitable for debate in the House, including Westminster Hall, or in debating committees

Table 1: Relationship of inquiries and evidence sessions to objectives and core tasks

Inquiries/ Evidence Sessions	Objective A			Objective B			Objective C					Objective D
	1	2	3	4	5	6	7	8	9	10	11	12
Carbon Capture and Storage		x									x	x
Strategic Science Provision in English Universities: A Follow-up[3]		x								x	x	x
Research Council Support for Knowledge Transfer		x		x				x				x
Watching the Directives: Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive	x	x			x						x	x
Drug classification: making a hash of it?		x			x						x	x
Identity Card Technologies: Scientific Advice, Risk and Evidence	x	x			x						x	x
Scientific Advice, Risk and Evidence Based Policy Making		x					x			x	x	x
Chief Executive of the Natural Environment Research Council: Introductory Hearing								x	x			
Avian Influenza		x						x				
Forensic Science on Trial: Follow-up		x								x	x	x
Strategic Science Provision in English Universities: Follow-up[4]		x								x	x	
Chief Executive of the Particle Physics and Astronomy Research Council: Introductory Hearing								x	x			
Human Reproductive Technologies and the Law		x	x							x	x	x
Scrutiny of the Office of Science and Innovation 2006	x			x		x	x	x			x	
Human Enhancement Technologies in Sport		x			x						x	
Research Council Institutes				x	x			x				
Space Policy		x		x	x	x		x			x	

3 Science and Technology Committee, Second Report of Session 2005–06, *Strategic Science Provision in English Universities; A Follow-up,* HC 1011

4 Oral evidence taken before the Committee on 2 November 2005, HC 571–i, following up the Committee's Eighth Report, Session 2004–05, *Strategic Science Provision in English Universities,* HC 220, April 2005.

Status of inquiries

Table 2: Inquiries undertaken in 2005–06

Name of Inquiry	Number of Evidence Sessions	Status	Government Response
Forensic Science on Trial	5	Reported March 2005 (HC 96)	July 2005 (HC 427)
Strategic Science Provision in English Universities	4	Reported April 2005 (HC 220)	July 2005 (HC 428)
Carbon Capture and Storage	3	Reported February 2006 (HC 578)	April 2006 (HC 1036)
Strategic Science Provision in English Universities: A Follow-up	1	Reported April 2006 (HC 1011)	July 2006 (HC 1382)
Research Council Support for Knowledge Transfer	3	Reported June 2006 (HC 995)	October 2006 (HC 1653)
Watching the Directives: Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive	2	Reported June 2006 (HC 1030)	October 2006 (HC 1654)
Drug classification: making a hash of it?	3	Reported July 2006 (HC 1031)	October 2006 (Cm 6941)
Identity Card Technologies: Scientific Advice, Risk and Evidence	3	Reported July 2006 (HC 1032)	October 2006 (Cm 6943)
Scientific Advice, Risk and Evidence Based Policy Making	5	Reported November 2006 (HC 900)	Expected in January 2007
Chief Executive of the Natural Environment Research Council: Introductory Hearing	1	Evidence published October 2005 (HC 491)	
Avian Influenza	1	Evidence published November 2005 (HC 713–i)	
Forensic Science on Trial: Follow-up	1	Evidence published November 2005 (HC 685–i)	
Strategic Science Provision in English Universities: Follow-up	1	Evidence published November 2005 (HC 576–i)	
Chief Executive of the Particle Physics and Astronomy Research Council: Introductory Hearing	1	Evidence published April 2006 (HC 808–i)	
Human Reproductive Technologies and the Law	1	Evidence published (HC 1308–i)	
Scrutiny of the Office of Science and Innovation 2006	1, plus 4x Science Question Time	Report expected early 2007	

Name of Inquiry	Number of Evidence Sessions	Status	Government Response
Human Enhancement Technologies in Sport	4	Report expected early 2007	
Research Council Institutes	4	Report expected early 2007	
Space Policy	1, 6 expected in 2007	Report expected 2007	

Committee visits

Table 3: Committee visits undertaken since July 2005

Location of Visit	Date of visit	Participants	Purpose of Visit
Home Office Scientific Development Branch, St Albans	22 November 2005	4 Members, 2 staff	Scientific Advice, Risk and Evidence Based Policy Making
E.ON UK's Ratcliffe power station & British Geological Survey	24 November 2005	5 Members, 2 staff	Carbon Capture and Storage
BP, Sunbury	28 November 2005	4 Members, 2 staff	Carbon Capture and Storage
Brussels (Conference)[5]	24–25 January 2006	1 Member (travel in a representative capacity)	Carbon Capture and Storage
Washington & New York	5–9 March 2006	5 Members, 2 staff	Scientific Advice, Risk and Evidence Based Policy Making
ASEP Meeting, Helsinki[6]	4–5 May 2006	1 Member, 1 staff	Carbon Capture and Storage
Brussels	10 May 2006	4 Members, 3 staff	Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive
Lausanne (Conference)[7]	6–7 June 2006	2 Members, 1 staff	Human Enhancement Technologies
Research Councils, Swindon	20 September 2006	1 Member, 1 staff	OSI Scrutiny
Sydney & Canberra	6–14 October 2006	6 Members, 2 staff	Human Enhancement Technologies
Office of Science and Innovation	24 November 2006	5 Members, 2 staff	OSI Scrutiny
Loughborough	29 November 2006	3 Members, 2 staff	Human Enhancement Technologies

5 Joint meeting of MEPs and national Parliamentarians organized by the Committee on Industry, Research and Energy of the European Parliament.

6 Fourth Asia-Europe Parliamentary Partnership Meeting, Helsinki

7 The 11th Annual Congress of the European College of Sport Science (ECSS) in Lausanne

2 Committee activities and objectives

Box 2: Impact and results of the Committee's work

- We undertook an inquiry into strategic science provision in English Universities focusing on the University of Sussex's plans to close its Chemistry Department. Following the publication of our Report, the University of Sussex decided to keep its Chemistry Department open.
- Our Report on Research Council support for knowledge transfer was warmly received and many of the recommendations were accepted by the Research Councils.
- Following the publication of our Report on carbon capture and storage (CCS) technologies, the Government launched a consultation on CCS that subsequently fed into the Energy Review.
- Our Report, *Human Reproductive Technologies and the Law,* was debated on the floor of the House on an Estimates Day.
- Our Report on scientific advice, risk and evidence has been well received and is widely expected to be influential. We await the Government's response.
- We provided an opinion on the Seventh Framework Programmes 2007-2013 to the European Scrutiny Committee.
- Two of our Reports were debated in Westminster Hall: *Forensic Science on Trial*, and *Scientific Publications: Free for all?*. Both debates were well-attended by interested organisations and members of the public.

Objective A: To examine and comment on science and technology policy

Task 1: To examine policy proposals from the UK Government and the European Commission and other outputs from the Office of Science and Innovation

4. On 22 March 2006, the Government published an update to its long-term strategy for science and innovation, the *Science and Innovation Investment Framework 2004–2014.*[8] This update, the *Science and Innovation Investment Framework 2004–2014: Next Steps*, was compiled jointly by the Treasury, the DTI, the Department for Education and Skills (DfES), and the Department of Health (DoH).[9] It set out proposals to create a Large Facilities Council by merging the Council for the Central Laboratory of the Research Councils (CCLRC) and the Particle Physics and Astronomy Research Council (PPARC); to consult on changes to the Research Assessment Exercise; to consult on the creation of a single health research fund by combining the Department of Health's R&D budget and the Medical Research Council's budget; and to increase the role of the Technology Strategy Board. We held an evidence session on 24 April 2006 with Rt Hon Alan Johnson MP, Secretary of State for the Department of Trade and Industry regarding the proposals, and questioned Lord Sainsbury of Turville, Parliamentary Under-Secretary of State, Science and Innovation about the proposals during science question time on 20 June 2006.[10] The Committee is continuing to follow up developments on the *Next Steps* proposals and will hold evidence sessions early in 2007 relating to the review undertaken by Sir David Cooksey on the creation of a health research fund, and to the creation of the Science and Technology Facilities Council.[11]

5. A major topic of discussion in 2006 was the Government's energy policy. The Government launched a consultation on its energy policy on 23 January 2006.[12] We published a Report on carbon capture and storage technologies on 9 February 2006 that fed into the consultation process.[13] Following the publication of our Report, the Government launched a consultation on carbon capture and storage in March 2006 as part of the Budget.[14] The results of that consultation then fed into the Energy Review. The Government's Response to the Committee's Report was published on 24 April 2006 and the Government's Energy Review was published in July 2006.[15] Both documents responded

8 HM Treasury, DTI and DfES, *Science and Innovation Investment Framework 2004–2014,* July 2004

9 HM Treasury, DTI, DoH, and DfES, *Science and Innovation Investment Framework 2004–2014: Next Steps,* March 2006

10 Oral evidence taken before the Committee on 24 April 2006, HC 490–iii and on 20 June 2006, HC 490–iv. These transcripts are currently available at www.parliament.uk/s&tcom and will be published with our OSI Scrutiny Report 2006.

11 Press Notice No.5 of Session 2006–07; Press Notice No.9 of Session 2006–07

12 "Energy Debate kicks off as Ministers warn doing nothing not an option", Department of Trade and Industry Press Release No. P/2006/013, 23 January 2006

13 Science and Technology Committee, First Report of Session 2005–06, *Meeting UK Energy and Climate Needs: The Role of Carbon Capture and Storage,* HC 578-I

14 DTI, *Carbon Capture and storage: A consultation on barriers to commercial deployment,* March 2006

15 Science and Technology Committee, Third Special Report of Session 2005–06, *Meeting UK Energy and Climate Needs: The Role of Carbon Capture and Storage: Government Response to the Committee's First Report of Session 2005–06,* HC 1036; DTI, *The Energy Challenge,* Cm 6887, July 2006

positively to recommendations made by the Committee in relation to support for a full-scale demonstration project, an increase in international co-operation, and clarification of the regulatory framework.[16] At the launch of the Carbon Capture and Storage Association on 13 March 2006, the then Minister of State for Energy, Malcolm Wicks MP, said that "The House of Commons Science and Technology Committee report, on the role of Carbon Capture and Storage in meeting the UK Energy and Climate change needs, has also been timely, and I thank them for their clear support".[17]

6. We have also examined science-related policy at a European level. As part of our over-arching inquiry into scientific advice, risk and evidence-based policy making, we considered the way that scientific advice was used to inform the EU Physical Agents (Electromagnetic Fields) Directive, both in Brussels and in the UK.[18] This inquiry was undertaken in response to concerns from the medical research community about the potential impact of this Directive on the use of Magnetic Resonance Imaging (MRI) equipment for diagnosis, treatment and research. Our Report was critical of the response of the Health and Safety Executive and the Health Protection Agency to concerns expressed about the potential impact of the Directive and found that the Commission had been heavily reliant on one source of advice. We recommended that horizon-scanning of EU activities be carried out and incorporated into the policy making process.

7. We have also continued our scrutiny of the European Commission's Seventh Framework Programme, complementing the work undertaken by the House of Lords European Union Sub-Committee on Internal Markets in its Report on the *Seventh Framework Programme for Research.*[19] In January 2006, we provided an opinion to the House of Commons European Scrutiny Committee on the Seventh Framework Programmes 2007–2013. This opinion was published as an annex in the European Scrutiny Committee's Seventeenth Report of Session 2005–06.[20] We used Science Question Time with Lord Sainsbury of Turville on 18 October 2006 as an opportunity to follow up this work and ask further questions about the development of the Seventh Framework Programme.[21]

Task 2: To conduct inquiries as appropriate, identifying and examining areas of emerging policy, or where existing policy is deficient, and making proposals

8. We have undertaken three inquiries during 2005 and 2006 which have focused on Government policy in relation to emerging technologies: carbon capture and storage, identity card technologies, and human enhancement technologies in sport. Our inquiry

16 HC (*2005–06)* 1036, pp. 6–8, 13; DTI, *The Energy Challenge*, Cm 6887, July 2006, p 112

17 http://www.dti.gov.uk/about/dti-ministerial-team/page32275.html

18 Science and Technology Committee, Fourth Report of Session 2005–06, *Watching the Directives: Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive,* HC 1030

19 House of Lords European Union Committee Internal Market (Sub-Committee B), Thirty-third Report of Session 2005–06, *Seventh Framework Programme for Research,* HL 182

20 House of Commons European Scrutiny Committee, Seventeenth Report of Session 2005–06, HC 34–xvii, paras 3.6–3.10, pp 13–23

21 Oral evidence taken before the Committee on 18 October 2006, HC 490-v. This transcript is currently available at www.parliament.uk/s&tcom and will be published with our OSI Scrutiny Report 2006.

into carbon capture and storage (CCS) technologies considered the potential of pre- and post- combustion capture, oxyfuel capture and geological storage, specifically in oil and gas fields and deep saline aquifers. Our Report emphasised that there was significant scope for CCS technologies to contribute both to reducing CO_2 emissions in the UK and abroad, and to enhancing the security of the UK's future energy supplies.[22] This inquiry effectively highlighted the role that CCS could play in the UK's energy portfolio and the Report has been referred to by the media, by Parliamentarians during debates and by policy specialists.[23]

9. As part of our over-arching inquiry into scientific advice, risk and evidence, we considered the Government's proposals for an identity cards programme using biometric technologies and information communication technology (ICT). In our Report we emphasised the importance of undertaking technology trials and retaining flexibility regarding the biometrics that the scheme used.[24] The Government assured the Committee that if there is no evidence that any particular biometric technology will enhance the overall performance of the system, it will not be used.[25] The Government also accepted our recommendation that an ICT Assurance Group be established to provide specialist advice regarding ICT within the programme.

10. On 1 March 2006, we announced an inquiry into human enhancement technologies (HETs) in sport, with particular reference to technologies that are likely to impact upon the 2012 Olympics. During the inquiry, we have considered the potential for different HETs, including drugs, genetic modification and technological devices, to be used legally or otherwise for enhancing sporting performance. This inquiry has drawn attention to this policy area, both within and outside Government.[26] We will be publishing a Report on this subject early in 2007 and are optimistic that the Government will be sympathetic to our recommendations. On 12 December 2006, Rt Hon Richard Caborn MP, Minister for Sport, told us that "It is very important that we look towards the back end of next year, when WADA [the World Anti-Doping Agency] will be having the international conference. I am sure that what you are going to be putting in your report will have some influence on that."[27]

22 HC (2005–06) 578-I

23 HL Deb, 25 April 2006,col 68; HC Deb, 15 February 2006, col1426; 'UK "should pursue" carbon capture', *BBC News Online,* 9 February 2006, news.bbc.co.uk; *Royal Society of Chemistry*, 'Can we bury our carbon dioxide problem?', *Policy Bulletin* Issue 3; David Reiner, University of Cambridge,'Prospects for Carbon Capture and Storage', EPRG Spring Seminar, 19 May 2006

24 Science and Technology Committee, Sixth Report of Session 2005–06, *Identity Card Technologies: Scientific Advice, Risk and Evidence,* HC 1032

25 Home Office, *Identity Card Technologies: Scientific Advice, Risk and Evidence: The Government Reply to the Sixth Report from the House of Commons Science and Technology Committee, Session 2005–06,* Cm 6942, October 2006

26 *BBC News Online*, 'Sport "social drugs" ban queried', 12 December 2006, news.bbc.co.uk

27 Oral evidence taken before the Committee on 12 December 2006, HC 67–ii, Q 119. This transcript is currently available at www.parliament.uk/s&tcom and will be published with the Report on human enhancement technologies in sport in 2007.

Task 3: To scrutinise legislation and proposed legislation on science and technology matters

11. In March 2005, the previous Committee published a Report on human reproductive technologies and the law, which revisited the Human Fertilisation and Embryology (HFE) Act 1990.[28] The Report was debated on the floor of the House during an Estimates day debate on 3 July 2006, and we held a follow-up evidence session on 12 July 2006 with Caroline Flint MP, Minister of State for Public Health, Mr Hugh Whittall and Mr Ted Webb from the Department of Health.[29] The Queen's Speech on 15 November announced a draft human tissue and embryos bill and on 14 December 2006 the Government published its proposals on revision of the existing Human Fertilisation and Embryology Act.[30] We look forward to the publication of the draft bill in 2007 and expect to play some part in its scrutiny.

12. The Government announced proposals relating to the creation of a Large Facilities Council in the *Science and Innovation Investment Framework 2004–2014: Next Steps* in March 2006.[31] It carried out a consultation on the proposals and in December 2006 brought forward secondary legislation to create a Science and Technology Facilities Council. Three Members of our Committee were Members of the Delegated Legislation Committee that considered the draft Order setting up the new Council.[32]

Objective B: Government expenditure on science and technology

Task 4: To examine the expenditure plans and outturn of the Department of Trade and Industry, so far as it relates to science and technology, and of the Research Councils

13. We examine the relevant parts of the estimates produced by the DTI and seek written explanations of major changes as a matter of routine from the DTI and the Research Councils. In this task we are greatly assisted by the Scrutiny Unit. In November 2005, we wrote to the umbrella body, Research Councils UK and asked for a breakdown of the outturn of each of the Research Councils for the 2004–05 financial year, along with an explanation for any under- or over-spends. Following a response from the Research Councils, we sought further clarification of the MRC's underspend and the overspends of the Biotechnology and Biological Sciences Research Council (BBSRC) and Council for the Central Laboratory of the Research Councils (CCLRC). In February 2006, we asked for further information about the management of the End Year Flexibility in four of the Research Councils: Engineering and Physical Sciences Research Council (EPSRC), Economic and Social Research Council (ESRC), MRC and Natural Environment Research Council (NERC). In relation to the Winter Supplementary Estimates, we wrote to the

28 Science and Technology Committee, Fifth Report of Session 2004–05, *Human Reproductive Technologies and the Law,* HC 7-I

29 Oral evidence taken before the Committee on 12 July 2006, HC 1308–i.

30 Department of Health, *Review of the Human Fertilisation and Embryology Act,* Cm 6989, December 2006

31 HM Treasury, DTI, DoH, and DfES, *Science and Innovation Investment Framework 2004–2014: Next Steps,* March 2006

32 Third Delegated Legislation Committee, Draft Science and Technology Facilities Council Order 2007, 11 December 2006

Office of Science and Technology to seek clarification regarding significant increases in resources for three Research Councils: Particle Physics and Astronomy Research Council (PPARC), CCLRC and ESRC. Our analysis of the responses that we have received from the DTI and the Research Councils will be contained in our OSI Scrutiny Report to be published in the spring.

14. We have used our thematic scrutiny of the Research Councils to focus upon different aspects of their expenditure. In our Report, *Research Council Support for Knowledge Transfer,* we noted that whilst some Councils have a simple funding structure for knowledge transfer, in other cases, a high level of confusion has been created since there are so many schemes in operation.[33] We recommended that the Research Councils all simplify their knowledge transfer funding strategies. In our current inquiry into Research Council Institutes (RCIs), we have considered the funding strategies for various RCIs. We have focused in particular upon the funding support given by the Department for Environment, Food and Rural Affairs (Defra) to institutes such as the Institute for Animal Health, Rothamsted Research, and the Institute of Grassland and Environmental Research.[34]

Task 5: To examine other Government Departments' expenditure on research and advice on science and technology

15. All Government departments use science and technology, either to inform or to implement their policies. Consequently, many of our inquiries examine the work of departments other than DTI. During 2005 and 2006, we conducted a major inquiry that considered the treatment of scientific advice, risk and evidence across Government. This inquiry followed on from the previous Committee's Reports on the scientific advisory system.[35] During this inquiry, we considered the work of several Government departments and took evidence from, among others, the Government Chief Scientific Adviser, the Chief Government Social Researcher, the Head of the Government Economic Service and Departmental Chief Scientific Advisers in the Home Office, Department for International Development and the Department for Transport. We held informal meetings with the previous Government Chief Scientific Adviser, Lord May, and with Baroness Greenfield. The Report was wide-ranging and considered the structures for scientific advice, evidence based policy making and the treatment of risk throughout Government.[36] It recommended that the Government Chief Scientific Adviser be relocated from DTI to the Cabinet Office, that Departmental Chief Scientific Advisers be external appointments and that a scientific civil service be established. The Government will respond to this Report early in 2007.

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33 Science and Technology Committee, Third Report of Session 2005–06, *Research Council Support for Knowledge Transfer,* HC 995-I, June 2006, para 65

34 Oral evidence taken before the Committee on 1 November 2006, HC 1307–ii. This transcript is currently available at www.parliament.uk/s&tcom and will be published with our Report on Research Council institutes in 2007.

35 Science and Technology Committee: Fourth Report of Session 2000–2001, *The Scientific Advisory System,* HC 257; Third Report of Session 2000–2001, *Scientific Advisory System: Scientific Advice on Climate Change,* HC 14; Third Report of Session 1999–2000, *Scientific Advisory System: Diabetes and Driving Licences,* HC 201; Third Report of Session 1998–99, *Scientific Advisory System: Mobile Phones and Health,* HC 489; First Report of Session 1998–99, *Scientific Advisory System: Genetically Modified Foods,* HC 289.

36 Seventh Report of the Committee, Session 2005–06, *Scientific Advice, Risk and Evidence Based Policy Making,* HC 900-I, November 2006

16. The inquiry included three case studies that focused upon: the EU Physical Agents (Electromagnetic Fields) Directive; the classification of illegal drugs; and the technologies supporting the Government's identity cards proposals. We mentioned above our findings on the EU Physical Agents (Electromagnetic Fields) Directive.[37] The case study on the classification of illegal drugs focused upon the relationship between the Advisory Council on the Misuse of Drugs (ACMD) and the Home Office.[38] It found that there were significant anomalies in the classification of individual drugs and a lack of consistency in the rationale used to make classification decisions. It recommended that the Government pursue its review of the classification system and suggested the creation of a more scientifically based scale of harm decoupled from penalties for possession and trafficking. The case study on the technologies supporting the Government's identity cards proposals outlined in paragraph 9 also concentrated on the Home Office.[39]

17. The Government has repeatedly emphasised the importance of Departmental science strategies and we have monitored the publication of these strategies.[40] In November 2005, we attended the launch of the *Home Office Science and Innovation Strategy 2005–08* at the Home Office Scientific Development Branch, Sandridge and questioned the Departmental Chief Scientific Adviser, Paul Wiles, about the success of the strategy during the scientific advice inquiry in June 2006.[41] The Department for International Development has still not released its science and technology strategy. We are particularly interested in the scientific advisory structures in this department, following our 2004 Report on *The Use of Science in UK International Development Policy* and we used the scientific advice inquiry as an opportunity to question the Departmental Chief Scientific Adviser, Sir Gordon Conway, about the timescale for the release of the strategy.[42]

18. Several of our inquiries have considered Government Departments' expenditure upon science and technology. The inquiry into the identity cards case study considered the technology and operating costs involved in the proposals. The cost of the programme has caused fierce debate within and outside Parliament, fuelled in part by the London School of Economics' Identity Project Report.[43] We expressed our scepticism about the validity of the costs produced by the Home Office and strongly recommended that the Home Office publish a breakdown of the technology costs once the procurement process has taken place. The Government Response stated that the "IPS [Identity and Passport Service] will publish whatever information it can but will need to ensure that it does not compromise the competitive position of any of its suppliers in doing so'".[44] Our inquiry into Research

37 HC (2005-06) 1030

38 Science and Technology Committee, Fifth Report of Session 2005–06, *Drug classification: making a hash of it?,* HC 1031

39 HC (2005–06) 1032

40 HM Treasury, DTI and DfES, *Investing in Innovation: A Strategy for science, engineering and technology,* July 2002, p 90; HM Treasury, DTI and DfES, *Science and Innovation Investment Framework 2004–2014,* July 2004, p 112

41 Home Office, *Science and Innovation Strategy 2005–08,* November 2005; Seventh Report of Session 2005–06, *Scientific Advice, Risk and Evidence Based Policy Making,* HC 900–II, Q 1101

42 Science and Technology Committee, Thirteenth Report of Session 2003–04, *The Use of Science in UK International* Development Policy, HC 133-I; HC (2005–06) 900–II, Q 1102

43 LSE, The Identity Project *Report,* June 2005; HC (2005–06) 1032, paras 99–105

44 Home Office, *Identity Card Technologies: Scientific Advice, Risk and Evidence: The Government Reply to the Sixth Report from the House of Commons Science and Technology Committee, HC 1032 Session 2005–06,* Cm 6942, August 2006 para 32

Council Institutes has highlighted the impact of changes in Defra funding upon the Institute for Animal Health, Rothamsted Research and the Institute of Grassland and Environmental Research. We will publish our Report on this subject early in 2007.[45]

Task 6: To monitor European Union expenditure on scientific research

19. We have monitored progress on the Seventh Framework Programme, as mentioned in paragraph 6, providing an opinion to the European Scrutiny Committee and asking Lord Sainsbury for updates during Science Question Time. Our work on the Framework Programme in our 2002–03 Report, *UK Science and Europe: Value for Money?,* has been updated by the House of Lords European Union Sub-Committee on Internal Markets in its Report on the *Seventh Framework Programme for Research.*[46]

20. We have recently begun an inquiry into space policy that will consider the UK's expenditure within the European Space Agency (ESA). In 2005–06, the UK spent £207 million on space programmes and approximately 65% of this money was spent through ESA. This inquiry will consider to what extent the UK obtains value for money through ESA. We are particularly interested in whether the UK is experiencing a deficit in the industrial return to UK companies from the ESA subscription in the mandatory science programme. ESA works under the principle of *juste retour,* whereby Member countries are awarded industrial contracts in proportion to the amount of money invested in the programme. Member countries in ESA should achieve a minimum return of 90% of their subscription fees in industrial contracts. Between January 2000 and December 2004, the UK only received 79% of its subscription.[47] We raised this point with Professor Keith Mason, Chief Executive of PPARC on 18 January 2006 and he responded that the situation was "improving but it is still not as good as we would want".[48] We intend to follow up this issue early in the New Year. We will also consider during this inquiry whether a European space research facility would be well-placed in the UK.

Objective C: Administration of the Office of Science and Technology and the Research Councils

Task 7: To examine the Office of Science and Innovation's objectives and performance

21. In April 2006, the Government announced that the Innovation Group within the DTI would be incorporated into the Office of Science and Technology to create the Office of Science and Innovation. The Director General of the Research Councils, Professor Sir Keith O'Nions, became the Director General of Science and Innovation, and the Director General of the Innovation Group, David Hughes, left the DTI. On 24 April, we took

45 Oral evidence taken before the Committee on 1 November 2006, HC 1307–ii. This transcript is currently available at www.parliament.uk/s&tcom and will be published with our Report on Research Council institutes in 2007.

46 Science and Technology Committee, Sixth Report of Session 2002–03, *UK Science and Europe: Value for Money?,* HC 386; House of Lords European Union Committee Internal Market (Sub-Committee B), Thirty-third Report of Session 2005–06, *Seventh Framework Programme for Research,* HL 182

47 Particle Physics and Astronomy Research Council, *Delivery Plan 2005/06–2007/08,* p 14

48 Oral evidence taken before the Committee on 18 January 2006, Chief Executive of the Particle Physics and Astronomy Research Council: Introductory Hearing, HC 808-i, Q 24.

evidence from the then Secretary of State, Rt Hon Alan Johnson MP, Sir Brian Bender, Permanent Secretary, Professor Sir David King, Government Chief Scientific Adviser and Head of the Office of Science and Innovation, and Professor Sir Keith O'Nions, Director General of Science and Innovation. We discussed the impact of the changes upon staffing, the focus of the OSI and reasons for the changes. This session will form the basis of our OSI Scrutiny Report 2006.

Task 8: To monitor the work of the Research Councils

22. The previous Committee held separate scrutiny sessions with each of the Research Councils over the course of the Parliament and published Reports on each in turn. In October 2005, we decided to take a different approach to scrutinising the Research Councils and we began a programme of thematic scrutiny. In December 2005, we launched our first thematic inquiry focusing on Research Council support for knowledge transfer. We considered the work undertaken by each Research Council in relation to knowledge transfer, the role of the over-arching body Research Councils UK, and stakeholder engagement. Scrutiny across the Research Councils revealed the wide variety of knowledge transfer schemes and different approaches to knowledge transfer. We recommended that more effort be made to share best practice across the Councils and highlighted the work undertaken by PPARC and the Arts and Humanities Research Council in this area.[49]

23. Our second thematic inquiry into Research Council Institutes (RCIs) was announced in March 2006. We invited evidence on the role of RCIs in maintaining the UK research and skills base, the approaches of different Research Councils to supporting RCIs, and the progress on current reorganisations involving RCIs, including the Centre for Ecology and Hydrology (CEH), the National Institute for Medical Research and the Roslin Institute. In December 2005, the Natural Environment Research Council (NERC) announced that it intended to restructure CEH by focusing its work at four of its sites and closing the other sites over a four-year transition period.[50] NERC held a consultation on the proposals from December 2005 to February 2006. On 25 January 2006, we raised the question of the reorganisation with Lord Sainsbury during Science Question Time.[51] We recognised that NERC's proposals were controversial and on 15 February 2006 held an informal meeting with the Chief Executive and Finance Director of NERC. On 13 March 2006, NERC Council confirmed its plans to restructure CEH. We were particularly concerned to ascertain the impact of the restructuring upon scientific research in the UK. We have continued to monitor the situation and on 12 December 2006, as part of our inquiry into Research Council Institutes, we took evidence from Professor Patricia Nuttall, Director of CEH regarding the impact of the reorganisation.[52] During the Research Council Institutes inquiry, we have also returned to the topic of the previous Committee's Report, *The Medical Research Council's Review of the Future of the National Institute for Medical*

49 HC (2005-06) 995-I

50 www.nerc.ac.uk/about/consult. 'Letter from Professor Alan Thorpe, Chief Executive Natural Environment Research Council', 7 December 2005

51 Oral evidence taken before the Committee on January 2006, HC 490–ii. This transcript is currently available at www.parliament.uk/s&tcom and will be published with our OSI Scrutiny Report 2006.

52 Oral evidence taken before the Committee on 12 December 2006, HC 68–i. This transcript is currently available at www.parliament.uk/s&tcom and will be published with our Report on Research Council institutes in 2007.

Research.[53] On 13 December 2006, we took evidence from representatives from Amicus, the University and College Union, and the Medical Research Council.[54]

24. Due to the number and variety of Research Council Institutes, we decided that individual Members would visit different Institutes and report back to the Committee. Between September 2006 and December 2006, Members visited the MRC Human Genetics Unit in Edinburgh, the British Antarctic Survey in Cambridge, the National Institute for Medical Research at Mill Hill, the John Innes Centre and the Tyndall Centre for Climate Change Research in Norwich, the Centre for Terrestrial Dynamics in Sheffield, the Institute for Atmospheric Composition in Leeds, the Proudman Oceanographic Institute in Liverpool, and the Babraham Institute in Cambridge. We found that this approach was an effective way to discuss informally the issues involved with as many people as possible. We expect to produce a Report early in 2007.

25. We have found our new thematic approach to scrutinising the Research Councils to be effective. It results in continual rather than periodic scrutiny for each Council and it highlights best practice within the Councils. We have discussed this new approach with the Research Councils and have heard informally that it is working well.

26. As well as undertaking thematic inquiries, we also scrutinise the work of the Research Councils during other broader inquiries and in one-off evidence sessions. Our new inquiry into space policy will focus, for example, upon the work of PPARC. During our inquiry into human enhancement technologies in sport, we have considered the role for the Research Councils in funding research in this area. On 30 November 2005, we also held a one-off evidence session to consider the Medical Research Council's support for research into avian influenza.[55] This evidence session was undertaken in response to the confirmation of the presence of the H5N1 virus in poultry in Turkey and Romania.[56] Professor Colin Blakemore, Chief Executive of the MRC, Dr Alan Hay, Director of the World Health Organisation Influenza Centre at NIMR, Professor Andrew McMichael, Professor of Molecular Medicine at the MRC Human Immunology Unit at the University of Oxford, and Professor Anne Johnson, Deputy Chairman of the MRC Infections and Immunity Board from University College London gave evidence covering vaccine development, funding and R&D. Our work in this area complemented the inquiry into contingency planning for avian influenza that was undertaken by the House of Lords Science and Technology Committee.[57]

Task 9: To scrutinise major appointments made by the Secretary of State for Trade and Industry

27. We have examined new appointees to important posts in the science world. It has not proved necessary to publish short Reports in the period covered by this Annual Report.

53 Science and Technology Committee, Fourth Report of Session 2004–05, *The Medical Research Council's Review of the Future of the National Institute for Medical Research,* HC 6-I

54 Oral evidence taken before the Committee on 13 December 2006, HC 68–ii. This transcript is currently available at www.parliament.uk/s&tcom and will be published with our Report on Research Council institutes in 2007.

55 Oral evidence taken before the Committee on 30 November 2005, HC 713–i.

56 www.who.int/csr/disease/avian_influenza/timeline.pdf

57 House of Lords Science and Technology Committee, Fourth Report of Session 2005–06, *Pandemic Influenza,* HL 88

Although we have no power to ratify or to veto appointments, such sessions provide us with the opportunity to satisfy Parliament that the post has been filled with someone of sufficient calibre; to establish the views and the principles that the new incumbent brings to the job; to alert them to our interests and concerns; and to heighten awareness of our role in scrutinising the work of organisations with an impact on science policy and of the individuals that work within them. In October 2005, we held an introductory session with the new Chief Executive of NERC, Professor Alan Thorpe.[58] In January 2006, we held an introductory session with the new Chief Executive of PPARC, Professor Keith Mason.[59] Further such sessions are planned for the forthcoming year.

Task 10: To examine the implementation of legislation and major policy initiatives, following up earlier Reports by the Committee

28. We have followed up Reports published by our predecessor Committee in a number of ways: holding one-off oral evidence sessions; publishing a follow-up Report; initiating debates in Westminster Hall and on the floor of the House; writing to the Department involved; and holding informal meetings with those affected by our Reports.

29. In April 2005, the previous Committee published a Report on strategic science provision in English Universities.[60] We received the Government Response to this Report in July 2005.[61] We were dissatisfied with the Government's rejection of several of the Report's recommendations, in particular the idea of a "hub and spokes" model to ensure science provision throughout the regions. On 2 November 2005, we held a follow-up evidence session with Bill Rammell MP, Minister of State for Lifelong Learning, Further and Higher Education, Department for Education and Skills, and Sir Howard Newby, Chief Executive, Higher Education Funding Council for England (HEFCE).[62] During this evidence session, we raised several issues that concerned us, such as the role of HEFCE and the Government's market-led approach to strategic science provision. On 12 March 2006, the University of Sussex announced that it was reorganising its Chemistry Department and creating a Chemical Biology Department.[63] We were keen to ascertain to what extent HEFCE had been involved in the process and took evidence on 27 March 2006 from Professor Alasdair Smith, Vice-Chancellor of the University of Sussex, Dr Gerry Lawless, Head of Chemistry at Sussex, and Mr Steve Egan, Acting Chief Executive at HEFCE. On 4 May we produced a short Report, *Strategic Science Provision in English Universities: A Follow-up,* that used the developments at Sussex to draw out lessons of general relevance to strategic provision of science, technology, engineering and mathematics (STEM) subjects.[64] On 15 May 2006, the University of Sussex announced its plans to retain chemistry

58 Oral evidence taken before the Committee on 19 October 2005, HC 491–i.

59 Oral evidence taken before the Committee on 18 January 2006, HC 808–i.

60 HC (2004–05) 220-I

61 Science and Technology Committee, Second Special Report of Session 2004–05, *Strategic Science Provision in English Universities: Government Response to the Committee's Eighth Report of Session 2004–05,* HC 428

62 Oral evidence taken before the Committee on 2 November 2005, HC 576-i.

63 University of Sussex Press Release No. 546, 'Development of biosciences and changes to chemistry provision', 12 March 2006 (www.sussex.ac.uk/press_office)

64 HC (2005-06) 1011

provision at the University.[65] We have since raised the subject of the strategic provision of STEM subjects in the UK with the Science Minister at Science Question Time and we will continue to monitor developments.

30. At the beginning of the Parliament, we also received the Government Response to our predecessor Committee's Report on forensic science.[66] We held a one-off evidence session to clarify the Government's Response on 23 November 2005 with Rt Hon Lord Goldsmith QC, Attorney General, Rt Hon Harriet Harman QC, Minister of State for the Department for Constitutional Affairs, and Andy Burnham MP, Parliamentary Under-Secretary of State, Home Office.[67] During the evidence session, Lord Goldsmith stated that "the report of the Committee ... has been enormously helpful. It has meant that a lot of key information has been shared across the agencies. We value that."[68] In order to bring this Report to the attention of the House, we initiated a debate in Westminster Hall on 20 April 2006, which was responded to by the Home Office Minister, Andy Burnham. The Minister said that:

> "the Committee is not celebrating its achievements enough. The publication of the report ... has led to an unprecedented focus on forensic science, certainly in this place ... I do not believe that there has ever been so much scrutiny or focus in Parliament on such matters. That focus is to be welcomed, and the Committee's report has played a vital role in stimulating the process."[69]

31. We have also kept developments in relation to the previous Committee's Report, *Human Reproductive Technologies and the Law*, under review.[70] On 3 July 2006, we debated the Report on the floor of the House and on 12 July 2006 we held a follow-up evidence session with the Minister of State for Public Health, Caroline Flint MP. We will continue to monitor changes in this area with interest.

32. In July 2006, we published a Report on the classification of illegal drugs as part of our over-arching inquiry into scientific advice.[71] We welcomed the Government's review of the classification system, criticised certain aspects of the work of the Advisory Council on the Misuse of Drugs (ACMD), highlighted anomalies in the classification of individual drugs, and recommended that the Government consider decoupling penalties from classification. The Government published its response to our Report in October 2006.[72] It rejected several key recommendations including the decoupling of penalties and classification, and stated that the Government had decided not to pursue its review of the classification system. The

65 University of Sussex Press Release No. 556, 'Council endorses merger plans to retain chemistry at Sussex', 15 May 2006 (www.sussex.ac.uk/press_office)

66 Science and Technology Committee, First Special Report of Session 2005–06, *Forensic Science on Trial: Government Response to the Committee's Seventh Report of Session 2004–05,* HC 427

67 Oral evidence taken before the Committee on 23 November 2005, HC 685–i.

68 As above, Q 1

69 HC Deb, 20 April 2006, col 179WH

70 HC (2004–05) 7-I

71 HC (2005–06) 1031

72 Home Office, *The Government Reply to the Fifth Report from the House of Commons Science and Technology Committee Session 2005–06 HC 1031; Drug classification; making a hash of it?,* Cm 6941, October 2006

ACMD published a separate response that was heavily critical of our Report.[73] We held a follow-up evidence session on 22 November 2006 with Vernon Coaker MP, Parliamentary Under-Secretary of State for Policing, Security and Community Safety, Professor Sir Michael Rawlins, Chairman of the ACMD, and Professor David Nutt, Chair of the ACMD Technical Committee.[74] During the evidence session, Professor Sir Michael Rawlins admitted that criticisms made in the ACMD's response had arisen from a misunderstanding of our Report.[75]

33. Another area of policy that we have kept under review is the development of science education in schools. In 2002, our predecessor Committee published a Report on science education from 14 to 19.[76] This Report followed by a report on science in schools by the House of Lords Science and Technology Committee in March 2001.[77] On 14 February 2006 we held a joint informal meeting with the House of Lords Science and Technology Committee to hear from representatives from the Nuffield Curriculum Centre about how these reports had influenced the curriculum. The meeting involved a panel discussion, presentation on the new 'Twenty-First Century Science Curriculum', and a question and answer session.

34. During 2006, we have monitored the developments on several Reports by writing to the Departments involved for updates. We sought information from the Home Office in relation to *The Scientific Response to Terrorism* Report and the Department for International Development about the Report on the use of science in UK international development policy.[78] Both of these Reports were also referred to during our inquiry into scientific advice. The Report on the scientific response to terrorism had noted weaknesses in the scientific culture in the Home Office that were subsequently reiterated in the *Forensic Science on Trial* Report.[79] When giving oral evidence during the scientific advice inquiry, the Home Office Departmental Chief Scientific Adviser, Paul Wiles, stated:

> "I am painfully aware you have also been highly critical of the Home Office and science within the Home Office. Indeed, to some extent the reason why I am CSA was in response to some of those criticisms. You were right to be critical. I think there were a number of things first of all to do with the organisation and influence of science in the Home Office, not particularly the number of scientists, the Home Office has always had quite a lot of scientists—good scientists—but you were right to be critical".[80]

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73 ACMD, *Response of the Advisory Council on the Misuse of Drugs (ACMD) to the House of Commons Science and Technology Committee's Report*, October 2006

74 Oral evidence taken before the Committee on 22 November 2006, HC 65–i.

75 As above, Q 103

76 Science and Technology Committee, Third Report of Session 2001–02, *Science Education from 14 to 19,* HC 508-I

77 House of Lords Science and Technology Committee, First Report of Session 2000–01, Science in Schools, HL 49, March 2001

78 Science and Technology Committee, Eighth Report of Session 2002–03, *The Scientific Response to Terrorism,* HC 415-I; HC (2003–04) 133-I

79 HC (2002–03) 415-I, Q 375; Science and Technology Committee, Seventh Report of Session 2004–05, *Forensic Science on Trial,* HC 96-I, para 7.

80 HC (2005–06) 900–II, Q 1094

In the same evidence session, the Departmental Chief Scientific Adviser at the Department for International Development, Sir Gordon Conway said that "I am very conscious that in some respects I am a kind of child of this Committee", referring the indirect effect of the Committee's *The Use of Science in UK International Development* Report in creating his post in the Department.[81]

Task 11: To hold Ministers to account

35. Our scrutiny of science policy across Government leads us to take evidence from Ministers in many different Government departments, depending on the inquiry (see table 4 below). We have taken evidence from Ministers representing six departments: DTI, the Home Office, DoH, DfES, the Department for Culture, Media and Sport, and the Department for Constitutional Affairs.

Table 4: Ministerial evidence to inquiries

Inquiries	Minister providing evidence
Strategic Science Provision	Bill Rammell MP, Minister of State for Lifelong Learning, Further and Higher Education in the Department of Education and Skills
Forensic Science on Trial	Rt Hon Lord Goldsmith QC, Attorney General Rt Hon Harriet Harman QC MP, Minister of State, Department for Constitutional Affairs Andy Burnham MP, Parliamentary Under-Secretary of State, Home Office
Carbon Capture and Storage	Malcolm Wicks MP, Minister of State for Energy, Department of Trade and Industry
OSI Scrutiny	Rt Hon Alan Johnson MP, Secretary of State, Department of Trade and Industry
Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive	Lord Hunt of Kings Heath, Parliamentary Under-Secretary of State for Work and Pensions
Identity Card Technologies	Joan Ryan MP, Parliamentary Under-Secretary of State for nationality, citizenship and immigration, Home Office
Classification of Illegal Drugs	Vernon Coaker MP, Parliamentary Under-Secretary of State for policing, security and community safety, Home Office
Scientific Advice, Risk and Evidence Based Policy Making	Rt Hon Alistair Darling MP, Secretary of State for Trade and Industry
Human Reproductive Technologies and the Law	Caroline Flint MP, Minister of State for Public Health, Department of Health
Human Enhancement Technologies in Sport	Rt Hon Richard Caborn MP, Minister for Sport and Tourism, Department for Culture, Media and Sport
Research Council Institutes	Rt Hon Lord Rooker, Minister of State for Sustainable Farming and Food, Department for Environment , Food and Rural Affairs

81 As above, Q 1089

36. We aim to take evidence from the Secretary of State for Trade and Industry at least once each year. On 24 April this year we questioned the then Secretary of State, Rt Hon Alan Johnson MP about the creation of the Office of Science and Innovation, and the *Science and Innovation Investment Framework 2004–2014: Next Steps*. This session will contribute to our OSI Scrutiny Report 2006. We also took evidence from the current Secretary of State for Trade and Industry, Rt Hon Alastair Darling, in relation to the scientific advice inquiry.

37. Throughout 2005 and 2006, we held regular Science Question Time sessions with the then Science Minister, Lord Sainsbury. We held sessions with Lord Sainsbury on 19 October 2005, 25 January 2006, 20 June 2006 and 18 October 2006.[82] In January 2006, Lord Sainsbury agreed to our suggestion to alter the format from six questions in thirty minutes to four questions in forty minutes and we have found that this extra time means that scrutiny is more thorough. We have raised topics such as new nuclear build, the numbers of students studying STEM subjects, peer review, and the funding of science centres.

38. Science Question Time was originally agreed with Lord Sainsbury in November 2003 because his membership of the House of Lords denied us the opportunities enjoyed by members of other select committees to question Ministers during debates and departmental question times on the floor of the House.[83] We find that a regular question time with the Minister is an extremely useful way to follow up issues and track developments in different areas and would recommend this approach to other Departmental Select Committees. Lord Sainsbury stressed that the arrangement would have to be renegotiated with his successor. On 10 November 2006 Lord Sainsbury resigned and was succeeded by Malcolm Wicks MP. On 24 November 2006 we invited Mr Wicks to continue these brief sessions at regular intervals. We look forward to a reply from Malcolm Wicks and hope to continue Science Question Time in 2007.

Objective D: To assist the House in debate and decision

Task 12: To produce Reports informing the House on science and technology matters and of the science perspective on public policy issues, some of them being suitable for debate in the House, including Westminster Hall, or in debating committees

39. We have published seven Reports since our appointment on 19 July 2005: of these, one formed part of our ongoing scrutiny of OSI and the Research Councils; one was a short follow-up Report to a previous inquiry, and five were on major inquiries conducted during the year.

40. Two of our Reports, together with the Government responses to them, were debated in Westminster Hall. On 15 December 2005 our Report on Scientific Publications was

82 These transcripts are currently available at www.parliament.uk/s&tcom and will be published with our OSI Scrutiny Report 2006.

83 Science and Technology Committee, Fourth Report of Session 2003-04, The Office of Science and Technology; Scrutiny Report 2003, HC 316, Q 77

debated.[84] Four current Committee members, one former member and two other Members of the House spoke during the debate, which was replied to by the Parliamentary Under-Secretary of State for Trade and Industry, Barry Gardiner MP.[85] It was attended by many of those who submitted written and oral evidence to the original inquiry. Five members of the Committee participated in a debate in Westminster Hall on *Forensic Science on Trial* on 20 April 2006, to which the Parliamentary Under-Secretary of State for the Home Department, Andy Burnham MP, replied.[86]

41. On 3 July 2006, our Report *Human Reproductive Technologies and the Law* was debated on the floor of the House on an Estimates Day.[87] Six current Committee members, three former Committee members and eight other Members of the House took part in the debate, which was replied to by the Minister for State at the Department of Health, Caroline Flint MP.[88]

84 Science and Technology Committee, Tenth Report of Session 2003–04, *Scientific Publications: Free for all?,* HC 399-I

85 HC Deb, 15 December 2005, cols 501WH–548WH

86 HC (2004–05) HC 96-I; HC Deb, 20 April 2006, cols 138WH–182WH.

87 HC (2004–05) 7-I

88 HC Deb, 3 July 2006, cols 528–584.

3 Other comments

Government responses

42. Since our appointment in July 2005, we have received the majority of Government responses within the established two month deadline. We were consulted in advance over any delays. On occasion there has been a tendency, as observed in our previous Annual Reports, for Government Responses to restate existing policy. In these cases, we have held oral follow-up evidence sessions with Ministers to clarify the Government's Response to criticisms or recommendations made within the Report, for example on the classification of illegal drugs. The Government's Response to this Report was extremely clear in its acceptance or rejection of individual recommendations.[89] Each recommendation was noted with a response: "accept", "accept in principle", "reject" or "reject in principle". However, although this helped to clarify the Government's position, rejection or acceptance in principle occasionally meant that the Government had misinterpreted our arguments or had not responded directly to the point being made.

43. Two of our Reports elicited responses from organisations involved in the inquiries and referred to within the Reports. Our Report on the EU Physical Agents (Electromagnetic Fields) Directive commented upon the advice given to the Government by Health Protection Agency (HPA).[90] The HPA produced a response that sought to clarify its role. It noted that "The Agency will study the criticisms made by the Committee carefully and ensure that any lessons are learnt from this issue".[91] As mentioned in paragraph 32, the Advisory Council on the Misuse of Drugs produced a response to our Report on the classification of illegal drugs and we invited the Chairman of the ACMD to discuss the response with us in a follow-up evidence session. This evidence session on 22 November 2006 highlighted several aspects of the Report that had been misconstrued by the ACMD and the Chairman of the ACMD acknowledged that he had misunderstood aspects of the Report.[92]

Relations with OSI and Government departments

44. In general, our relations with the OSI have been good during 2005 and 2006. We have been kept informed of forthcoming announcements and have been supplied with the information on performance that we need in order to carry out our work. The OSI has, for the most part, been punctual in providing responses to our questions prior to, and after, evidence sessions. Requests for witnesses to attend oral evidence sessions have generally been met. The Chairman has held regular informal meetings with the Government Chief Scientific Adviser, Sir David King. On 1 December 2005, we held a meeting with several Department Chief Scientific Advisers. After the reorganisation of the OSI, Sir David King

89 Home Office, *The Government Reply to the Fifth Report from the House of Commons Science and Technology Committee Session 2005–06 HC 1031: Drug classification: making a hash of it?,* Cm 6941, October 2006.

90 HC (2005–06) 1030

91 HPA Press Statement, 'Scientific Advice on the EU Physical Agents Directive: Response to Science and Technology Committee Report', 29 June 2006.

92 Oral evidence taken before the Committee on 22 November 2006, HC 65–i, Q 103.

invited us to visit the Department. We found our visit on 21 November 2006 very useful: we spoke informally to staff, developed new contacts and consolidated our good relationship with the Department.

45. Due to the wide-ranging nature of our remit, we work with a variety of different departments. In 2006, we liaised extensively with the Home Office in relation to the scientific advice inquiry case studies on identity card technologies and the classification of illegal drugs. The written evidence initially provided by the Home Office for both inquiries was poor but officials subsequently answered numerous written questions promptly and provided a wide range of supplementary evidence. During the identity cards inquiry, the Committee requested that the Chairman be allowed to see the Identity Cards Programme Risk Register. Although this request was denied by the Minister on the grounds of commercial confidentiality, the Identity and Passport Service subsequently provided a confidential briefing for the Chairman, using extracts from the risk register.

Relationship with the science and engineering community and the public

46. We always seek to engage members of the science and engineering community in the work of the Committee. Following his election in July 2005, our Chairman used the summer recess to visit several organisations interested in the work of the Committee: RCUK, ESRC, PPARC, NERC, the Arts and Humanities Research Council, DTI, the Wellcome Trust, the Royal Society, and the Royal Academy of Engineering. In September 2006, he held meetings with representatives from the Royal Academy of Engineering, the Research Councils, the Royal Society and organisations interested in the recently-announced space policy inquiry. Members of the Committee have met representatives from various organisations such as the G15 Group of Engineering Institutions, the Nuffield Curriculum Centre, the Chemical Industries Association and the Biosciences Federation. On 28 November 2006, we met the British-born astronaut, Piers Sellers and his NASA crew as part of our space policy inquiry. These informal meetings are complemented by more formal partnerships that our Members take part in, such as those organised between scientists and MPs by Industry and Parliament Trust and the Royal Society.

47. We communicate our work to the policy community in various ways. We regularly contribute an update on our work to the journal, *Science in Parliament.* The Chairman gives numerous speeches about our work and our Reports. For example, he spoke to policymakers about the role of the Committee in scrutinising Government at PolicyNet at the Royal Academy of Engineering on 6 July 2006. He discussed the Report on scientific advice, risk and evidence based policy making at the Foundation for Science and Technology on 15 November 2006 and at the Food Standards Agency on 6 December 2006. Committee Members also often take part in panel discussions to talk about our work. On 28 February 2006, four Committee Members took part in a panel discussion at the Royal Society of Chemistry's Voice of the Future day for young chemists. During our visit to Australia, three Members of the Committee took part in a panel discussion at the Garvan Institute of Medical Research about science policy issues ranging from stem cell research to nuclear power. This panel discussion was open to the public and was broadcast by ABC radio.

48. Many of our inquiries draw contributions from people that would otherwise have no direct contact with Parliament. Our inquiry into space policy in the UK, for example, has drawn evidence from individuals interested in the possibilities of human space flight, from individual researchers, and from students studying space medicine. We are fully aware that giving evidence before a select committee is a daunting prospect for members of the public and that the inquiry process can seem impenetrable to those who have no previous experience of it. For this reason we have developed some written guidance on the work of the Committee and the inquiry process more generally that is available on our website. In order to engage a broader range of the public, we plan to hold oral evidence sessions outside Westminster during 2007. We shall take oral evidence at the National Space Centre in Leicester for the space policy inquiry and have already contacted local schools in the area for their views on space science within the school curriculum.

49. We have also taken as many opportunities as possible to engage with politicians and scientists internationally. In July 2006, the Chairman and another Member attended the 11th Annual Congress of the European College of Sport Science (ECSS) in Lausanne. This conference provided them with an invaluable opportunity to listen to presentations on doping in sport and to discuss our inquiry with leading scientists in the field. During our visit to Australia, we were able to discuss our carbon capture and storage Report with the House of Representatives Standing Committee on Science and Innovation who were undertaking a Report into geosequestration. In Washington, we discussed science policy issues, such as the politicisation of science, the science budget and the administration of NASA, with the House of Representatives Committee on Science. The Committee has been represented by Members at several international meetings on climate change including the joint meeting of MEPs and national Parliamentarians in Brussels in January 2006 organised by the Committee on Industry, Research and Energy of the European Parliament, and the Fourth Asia-Europe Parliamentary Partnership Meeting in Helsinki in May 2006.

Working methods and innovation

50. In October 2005, we held a Committee awayday. We reviewed our working practices and as a result we agreed a method for choosing inquiries, to discuss the effectiveness of evidence sessions at the subsequent private meeting and to follow up reports published by the previous Committee. We also agreed to experiment with seminars at the start of inquiries. These have ranged from informal private seminars with experts in the field for carbon capture and storage, and space policy to a public seminar with experts and sportspeople in relation to our inquiry into human enhancement technologies in sport. The latter significantly raised the profile of the inquiry and stimulated much interest in this relatively new area of policy.

51. In January 2006, we decided to use case studies to approach the subject of scientific advice, risk and evidence based policy making. As well as conducting a broad over-arching inquiry that considered the scientific advisory structures and approaches to risk across Government, we focused on three policy areas. We found that this approach allowed us to undertake detailed scrutiny that supported our more general findings across Government. In an inquiry concerned with the evidence base, we were particularly keen to ensure that our work was underpinned by thorough research. We contracted RAND Europe, a not-

for-profit policy research consultancy, to provide an independent review of the evidence base for developing policy on the classification of illegal drugs. RAND Europe produced a report that gave an impartial assessment of the relationship between UK policy on drug classification and the international, publicly-available evidence base to underpin it.[93] The RAND Report was published on 1 March 2006 in order to coincide with the first evidence session and it informed both our inquiry and our subsequent Report.

52. During 2006, we have taken part in a pilot project across the select committees that sought witness feedback. At the end of each evidence session we gave our witnesses a feedback form on which they could comment upon the approach we had taken, the effectiveness of our questions and their expectations for the session. All select committees are now being encouraged to undertake witness feedback.

93 Ruth Levitt, Edward Nason, Michael Hallsworth, *The evidence base for the classification of drugs,* Technical Report, RAND Europe, March 2006, http://www.rand.org/pubs/technical_reports/TR362/

4 Conclusion

53. This Report marks the first full year of a new Committee under a new Chairman. We have chosen to cover a wide range of subjects, including issues as broad as the use of scientific evidence within Government policy-making as well as narrower yet still important ones such as human enhancement technologies in sport. We believe that it is right that we should interpret our remit in this way as science and technology affect the whole of Government and are key to many of the most pressing questions facing our society. We would like to note our gratitude to two members of staff who have left during the past year, our Clerk Chris Shaw and Committee Specialist Dr Hayaatun Sillem. We look forward to another full year of activities and to building a productive relationship with the new Minister for Science.

5 Acronyms used in this Report

ACMD	Advisory Council on the Misuse of Drugs
BBSRC	Biotechnology and Biological Sciences Research Council
CCLRC	Council for the Central Laboratory of the Research Councils
CCS	Carbon capture and storage
CEH	Centre for Ecology and Hydrology
CSA	Chief Scientific Adviser
Defra	Department for Environment, Food and Rural Affairs
DfES	Department for Education and Skills
DFID	Department for International Development
DGSI	Director General of Science and Innovation
DoH	Department of Health
DTI	Department of Trade and Industry
EPSRC	Engineering and Physical Sciences Research Council
ESRC	Economic and Social Research Council
ESA	European Space Agency
HEFCE	Higher Education Funding Council for England
HET	Human enhancement technologies
HPA	Health Protection Agency
ICNIRP	International Commission on Non-Ionising Radiation Protection
IPS	Identity and Passport Service
MRC	Medical Research Council
MRI	Magnetic Resonance Imaging
NERC	Natural Environment Research Council
NIMR	National Institute of Medical Research
OSI	Office of Science and Innovation
PPARC	Particle Physics and Astronomy Research Council
RCI	Research Council Institute

RCUK	Research Councils UK
STEM	Science, technology, engineering and mathematics
WADA	World Anti-Doping Authority

Formal minutes

Wednesday 17 January 2007

Members present:

Mr Phil Willis, in the Chair

Adam Afriyie
Dr Evan Harris
Chris Mole
Bob Spink
Graham Stringer
Dr Desmond Turner

The Committee deliberated.

Draft Report, *Work of the Committee in 2005-06*, proposed by the Chairman, brought up and read.

Ordered, That the Chairman's draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 53 read and agreed to.

Resolved, That the Report be the First Report of the Committee to the House.

Ordered, That the Chairman do make the Report to the House.

[Adjourned till Wednesday 24 January at Nine o'clock.

Reports from the Science and Technology Committee in the 2005 Parliament

Session 2005–06

First Report	Meeting UK Energy and Climate Needs: The Role of Carbon Capture and Storage	HC 578-I
Second Report	Strategic Science Provision in English Universities: A Follow–up	HC 1011
Third Report	Research Council Support for Knowledge Transfer	HC 995-I
Fourth Report	Watching the Directives: Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive	HC 1030
Fifth Report	Drug classification: making a hash of it?	HC 1031
Sixth Report	Identity Card Technologies: Scientific Advice, Risk and Evidence	HC 1032
Seventh Report	Scientific Advice, Risk and Evidence Based Policy Making	HC 900–I
First Special Report	Forensic Science on Trial: Government Response to the Committee's Seventh Report of Session 2004-05	HC 427
Second Special Report	Strategic Science Provision in English Universities: Government Response to the Committee's Eighth Report of Session 2004-05	HC 428
Third Special Report	Meeting UK Energy and Climate Needs: The Role of Carbon Capture and Storage: Government Response to the Committee's First Report of Session 2005-06	HC 1036
Fourth Special Report	Strategic Science Provision in English Universities: A Follow–up: Government Response to the Committee's Second Report of Session 2005-06	HC 1382
Fifth Special Report	Research Council Support for Knowledge Transfer: Government Response to the Committee's Third Report of Session 2005–06	HC 1653
Sixth Special Report	Watching the Directives: Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive: Responses to the Committee's Fourth Report of Session 2005–06	HC 1654