to work on a Raman spectrometer – a laser-based technique which reveals both the minerals of a rock as well as organic molecules indicative of life that might be there. Raman spectrometry is a classic example of a technology that has been tried and tested in civil applications, proving itself time and time again before being adopted for space missions. It is now used for analysing the pigments used in oil paintings to spot fakes, drugs testing, and security scans for traces of explosives at airports. ExoMars will be the first mission to try Raman spectrometry beyond the Earth; scrutinising martian soil and rocks.

... everything from Mars missions to distant solar systems...

The transfer of knowledge and equipment also flows in the opposite direction: space hardware – technology literally out-of-this-world – being repurposed to solve real-world problems back down on solid ground. Instruments designed to be launched to explore other planets need to be simultaneously miniaturised and compact, lightweight, and have very low power demands. These are exactly the attributes required for portable devices – to be used by health workers in rural Africa testing for compounds indicative of different diseases, for example.

This isn't the only down-to-Earth benefit of astrobiology and space exploration. I devote a lot of my time to delivering public lectures and outreach events at schools (I also hold a Science in Society fellowship from the Science & Technology Facilities Council, STFC) and I have found that few things inspire young minds like hearing about our on-going exploits in exploring other worlds and searching for life. Encouraging more students to continue with STEM subjects (Science, Technology, Engineering and Mathematics) through A-levels and undergraduate degrees is utterly critical if the UK is to continue as a world-leader in fundamental discovery and innovation, and for us to financially thrive as an information economy.

Dr. Lewis Dartnell is a research fellow at University of Leicester, and author of 'Life in the Universe: A Beginner's Guide'

HOUSE OF LORDS SCIENCE AND TECHNOLOGY SELECT COMMITTEE

The members of the Committee (appointed 12 June 2014) are Lord Dixon-Smith, Baroness Hilton of Eggardon, Lord Hennessy of Nympsfield, Lord O'Neill of Clackmannan, Baroness Manningham-Buller, Lord Patel, Lord Peston, Lord Rees of Ludlow, Viscount Ridley, the Earl of Selborne (Chairman), Baroness Sharp of Guildford, Lord Wade of Chorlton, Lord Willis of Knaresborough and Lord Winston.

Lord Krebs' term as Chairman concluded at the end of the 2013-14 session. He has been succeeded by the Earl of Selborne. Baroness Perry of Southwark rotated off the Committee at the end of the 2013-14 session. New Members of the Committee are Lord Hennessy of Nympsfield and Viscount Ridley.

Behaviour Change

In May and June 2014, the Committee took oral evidence from witnesses to follow up on its 2011 report into behaviour change and assess what progress has been made in this area. This focused on the two behaviour change case studies that the Committee had investigated in its original inquiry: modal shift in transport and obesity.

International STEM students

In January 2014, the Committee launched a follow up inquiry to its 2012 report on higher education in science, technology, engineering and mathematics (STEM) subjects. The inquiry focused specifically on the effect on international STEM students of immigration policy. More than forty written submissions were received, seven oral evidence sessions were held in February and March, and a report published on 11 April 2014. A Government response is expected shortly.

Waste and the bioeconomy

The Committee launched an inquiry into waste and the bioeconomy in July 2013. The Call for Evidence closed on 27 September. Evidence was collected on the technology used to exploit bio-waste and waste gases in order to generate high-value products. The inquiry aimed to assess the potential for this technology to enable bio-waste and waste gas to replace current feedstocks, and the potential contribution this could make to a bioeconomy. The Committee published its report on 6 March 2014. A Government response was received in early June.

Scientific infrastructure

The Committee launched an inquiry into scientific infrastructure in May 2013. The call for evidence closed on 22 June. Oral evidence was taken across June and July on the large and medium-sized scientific infrastructure currently available in the UK with a particular focus on: future needs and strategic planning, funding and governance arrangements, international partnerships and partnerships with industry. The Committee published its report on 21 November 2013. A Government response was received in February 2014 and a debate held on 13 May 2014.

Regenerative medicine

The Committee launched an inquiry into regenerative medicine before the 2012 summer recess. A group from the Committee visited the California Institute for Regenerative Medicine. Oral evidence was taken from October to March 2013. The Committee reported on 1 July 2013 and a Government response was received on 1 October. A debate was held in the Chamber on 13 March 2014.

Nuclear follow-up

In July 2013, the Committee undertook an

evidence session with Professor David Mackay, Chief Scientific Advisor at the Department of Energy & Climate Change, to follow up on its November 2011 report, Nuclear research and development capabilities. A further follow-up evidence session was held with the Minister for Energy, Rt Hon Michael Fallon MP, on 10 December 2013.

Science spend

In May 2013, ahead of the Comprehensive Spending Review, the Committee held a one-off evidence session on the topic of science spend. A letter was sent to the Chancellor of the Exchequer on 4 June 2013 calling for an increase in the science budget. In a separate but related development, on 4 December 2013, the Committee wrote to the Rt Hon David Willetts MP, Minister for Universities and Science, to seek clarity on claims in the media suggesting that the ring-fenced science budget may be used to shore up the Department's budget in other areas.

FURTHER INFORMATION

The reports, Government responses, written and oral evidence to the Committee's inquiries mentioned above, as well as the Calls for Evidence and other documents can be found on the Committee's website. Further information about the work of the Committee can be obtained from Chris Clarke, Committee Clerk, clarkechr@parliament.uk or 020 7219 4963. The Committee Office email address is hlscience@parliament.uk.

PARLIAMENTARY OFFICE OF SCIENCE AND TECHNOLOGY (POST)

RECENT POST PUBLICATIONS

There have been no recent POST Publications

CURRENT WORK

Biological Sciences – Minimum Age of Responsibility, Childhood Allergy, Population Health Management, GM Crops, Biobanks, Parity of Esteem between Physical and Mental Health

Environment and Energy – Short Lived Climate Pollutants, Ancient Woodlands, Reducing Diffuse Water Pollution from Agriculture, REDD+, Smart Metering of Energy and Water, Energy Storage, Phosphate Resources, Environmental Citizen Science, GM Insects, Integrated Management of Floodplains, Biodiversity Auditing

Physical sciences and IT – Unmanned Aerial Vehicles, Big Data Overview, Big Data in Business

Social Sciences – Big Data, Crime and Security, Big and Open Data in Transport, End of Life Care, Alternative Currencies

CONFERENCES AND SEMINARS

Urban Green Infrastructure

On 6th May, POST hosted a breakfast briefing on urban green infrastructure for parliamentarians on the evidence for the effectiveness of urban green infrastructure in supporting different aspects of human wellbeing and challenges to its implementation and maintenance, with representatives from academia, planning, policy and local authorities. It was chaired by Chi Onwurah MP and presentations were made by: Professor Richard Mitchell, Professor of Public Health at Glasgow University and Co-Director of Centre for Research on Environment Society and Health (CRESH), Professor Jim Harris, Chair of Environmental Technology, Cranfield University, Professor Rosie Hails, Centre for Ecology and Hydrology, Chair of the Natural Capital Initiative and Member of the Natural Capital Committee, Diane Smith, Interim Chief Executive, Town & Country Planning Association, Dr Shepley Orr, Department of Civil & Environmental Engineering, UCL, Dr Ian Mudway, Analytical & Environmental Sciences Division, King's College London, Dr Mathew White, European Centre for Environment and Human Health, Exeter University, Peter Massini, Urban Greening Team Leader, Greater London Authority and Tom Butterworth, Natural England's Senior Adviser for Local Government. A summary of the discussion at the event is available on the POST website.

STAFF, FELLOWS AND INTERNS AT POST

Fellows

Adriana De Palma, Natural History Museum, Biotechnology and Biological Sciences Research Council
Oscar Branson, University of Cambridge, Natural Environment Research Council
Mark Richardson, University of Reading, Natural Environment Research Council
Rosalind Davies, University of Birmingham, Engineering and Physical Sciences Research Council
Daniel Rathbone, Imperial College London, Engineering and Physical Sciences Research Council
Maria Thorpe, University of Manchester, Engineering and Physical Sciences Research Council
Elizabeth Duxbury, University of East Anglia, BBSRC
Helen Brewer, Rothamstead Research Centre, BBSRC
Clare Wenham, University of Aberystwyth, Nuffield Council on Bioethics
Louise Moyle, King's College London, Nuffield Foundation Flowers Memorial Fellowship
Rachel Stocker, University of Durham, British Psychological Society
Paul Gilbert, University of Sussex, Economic and Social Research Council
Stephen Hanley, University of Leeds, Economic and Social Research Council
Rosanna Greenop, University of Southampton, Natural Environment Research Council
Kimberley Pyle, Cardiff University, Natural Environment Research Council
Lucy Anderson, University of Leeds, Natural Environment Research Council
Ian Keyte, University of Birmingham, Royal Society of Chemistry

Visiting Researcher

Dr Anusha Panjwani, Pirbright Institute

Staff

Nadine Walters, Publication and Events Secretary, is leaving POST in July 2014.

HOUSE OF COMMONS SELECT COMMITTEE ON SCIENCE AND TECHNOLOGY

The Science and Technology Committee is established under Standing Order No 152, and charged with the scrutiny of the expenditure, administration and policy of the Government Office for Science, a semi-autonomous organisation based within the Department for Business, Innovation and Skills.

The members of the Science and Technology Committee are:

Jim Dowd (Labour, Lewisham West and Penge), David Heath (Liberal Democrat, Somerton and Frome), Stephen Metcalfe (Conservative, South Basildon and East Thurrock), Andrew Miller (Labour, Ellesmere Port and Neston), David Morris (Conservative, Morecambe and Lunesdale), Stephen Mosley (Conservative, City of Chester), Pamela Nash (Labour, Airdrie and Shotts), Sarah Newton (Conservative, Truro and Falmouth), Graham Stringer (Labour, Blackley and Broughton), David Tredinnick (Bosworth) and Hywel Williams (Plaid Cymru, Arfon).

Andrew Miller was elected by the House of Commons to be the Chair of the Committee on 9 June 2010. The remaining Members were appointed to the Committee on 12 July 2010. Caroline Dinenage, Gareth Johnson, Sarah Newton and Hywel Williams were appointed to the Committee on 27 February 2012 in the place of Gavin Barwell, Gregg McClymont, Stephen McPartland and David Morris. Jim Dowd was appointed to the Committee on 11 June 2012 in the place of Jonathan Reynolds. David Morris was re-appointed to the Committee on 3 December 2012 in place of Gareth Johnson. David Tredinnick was appointed to the Committee on 4 February in place of Caroline Dinenage. David Heath was appointed to the Committee on 25 November 2013 in place of Roger Williams.

CURRENT INQUIRIES

Climate: public understanding and its policy implications

On 28 February 2013 the Committee announced an inquiry: Climate: public understanding and its policy implications.

On Monday 9 September 2013, the Committee took evidence from James Randerson, The Guardian, Catherine Brahic, New Scientist; Fiona Harvey, The Guardian, Lewis Smith, Freelance Correspondent and Richard Black, Former BBC Environment Correspondent.

On Wednesday 11 September the Committee took evidence from Tony Grayling, Environment Agency, Phil Rothwell, Environment Agency, Paul Crick, Kent County Council and Katie Stead, Kirklees Council; John Hirst, Met Office and Professor Julia Slingo OBE, Met Office.

On Wednesday 9 October the Committee took evidence from Rt Hon the Lord Deben, Chairman, and David Kennedy, Chief Executive, Committee on Climate Change; Rt Hon David Willetts MP, Minister of State for Universities and Science, Department for Business, Innovation and Skills; Rt Hon Gregory Barker MP, Minister of State for Climate Change, Department of Energy and Climate Change, Professor David MacKay, Chief Scientific Advisor, and David Warrilow, Head of Science, Department of Energy and Climate Change.

On Wednesday 6 November the Committee took evidence from Professor Sir Mark Walport, Chief Scientific Adviser to HM Government and Head of the Government Office for Science.

The evidence received is on the Committee's website. A Report was agreed and was published on 2 April 2014. The Government's response was published on 23 June 2014.

Government Horizon Scanning

On Wednesday 23 October the Committee took evidence from Alun Huw Williams, Principal, SAMI Consulting, Doug McKay, Vice President, International Organisations, Shell International, and Natalie Day, Head of Policy, Oxford Martin School, University of Oxford; Dr Martyn Thomas, Royal Academy of Engineering, Jonathan Cowie, former Head, Science Policy, Institute of Biology, and Professor Ann Buchanan, Academy of Social Sciences.

On Wednesday 27 November the Committee took evidence from Fiona Lickorish, Head, Institute for Environment, Health, Risks and Futures, Cranfield University, Jessica Bland, Technology Futures Analyst, Nesta, and Marcus Morrell, Senior Futures Analyst, Arup; Professor Burkhard Schafer, Professor of Computational Legal Theory, Edinburgh School of Law, Professor Paul Newman, Mobile Robotics Group, University of Oxford, Nick Reed, Intelligent Transport Systems UK, and Dr Graeme Smith, Business Manager, Connected Services, Control and Electronics, Ricardo UK Ltd.

On Wednesday 4 December the Committee took evidence from Sir Mark Walport, Government Chief Scientific Adviser, and Jon Day, Chair, Horizon Scanning Oversight Group, Cabinet Office.

The evidence received is on the Committee's website. A Report was published on 4 May 2014.

Women in STEM careers

On Wednesday 16 October the Committee took evidence from Dr Bryn Jones, Visiting Fellow, School of Physics, University of Bristol, Jenny Marsden, Principal Physicist, Hull and East Yorkshire NHS Trust, and Dr Nicola Patron, Head, Synthetic Biology, Sainsbury Laboratory.

On Wednesday 30 October the Committee took evidence from Dr June McCombie, former Chair of IOP Project, Juno Panel, Institute of Physics, Sarah Dickinson, Manager, Athena SWAN Charter, Equality Challenge Unit, Professor Dame Julia Higgins, Chair of Diversity Programme, Royal Society, and Dr Pia Ostergaard, Senior Fellowship Advisor, Daphne Jackson Trust; Professor Uta Frith, Emeritus Professor of Cognitive Development, University College London, representing Russell Group, Professor Jane Powell, Deputy Warden, Goldsmith's, University of London, representing 1994 Group, and Clem Herman, Senior Lecturer, Computing and Communications, Open University.

On Monday 4 November the Committee took evidence from Dr Lesley Thompson, Engineering and Physical Sciences Research Council (representing the Research Councils UK), and David Sweeney, Director, Research, Innovation and Skills, Higher Education Funding Council for England.

On Monday 18 November the Committee took evidence from Rt Hon David Willetts MP, Minister of State for Universities and Science, Department for Business, Innovation and Skills.

The evidence received is on the Committee's website. A Report was agreed and was published on 6 February 2014. The Government response was published on 7 May 2014.

Antimicrobial resistance

On Wednesday 18 December the Committee took evidence from Dr Pat Goodwin, Society of Biology, Professor Laura Piddock, British Society for Antimicrobial Chemotherapy, Professor John Threlfall, Society for Applied Microbiology, and Professor Sharon Peacock, Cambridge Infectious Diseases Initiative, University of Cambridge.

On Wednesday 8 January 2014 the Committee took evidence from Professor Anthony Kessel, Public Health England, Dr Michael Moore, Royal College of General Practitioners, Professor Alison Holmes, Imperial College London and Dr Susan Hopkins, Royal College of Physicians; John Hardcastle, Novolytics, Dr David McIntosh, Novartis, Professor George Lewith, University of Southampton Medical School and Doris-Ann Williams, British In Vitro Diagnostics Association.

On Wednesday 29 January 2014 the Committee took evidence from Phil Sketchley, National Office of Animal Health, John FitzGerald, Responsible Use of Medicines in Agriculture Alliance, Catherine McLaughlin, National Farmers' Union and Cóilín Nunan, Alliance to Save our Antibiotics.

On Wednesday 26 February 2014 the Committee took evidence from Professor Jeremy Farrar, Wellcome Trust, Professor Sir John Savill, Research Councils UK, Kush Naker, Universities Allied for Essential Medicines UK and Professor Sir Anthony Coates, Antibiotic Discovery UK; Dr Louise Leong, Association of the British Pharmaceutical Industry, James Anderson, GlaxoSmithKline, Dr David Williams, Discuva and Michael McIntyre, European Herbal and Traditional Medicine Practitioners Association.

On Wednesday 12 March 2014 the Committee took evidence from Professor Dame Sally Davies, Chief Medical Officer, Sally Wellsteed, Department of Health, and Nigel Gibbens, Chief Veterinary Officer; George Eustice MP, Department for Environment, Food and Rural Affairs, Jane Ellison MP, Department of Health, Professor Dame Sally Davies, Chief Medical Officer and Professor Peter Borriello, Veterinary Medicines Directorate.

The evidence received is on the Committee's website. A report is being prepared.

Blood, tissue and organ screening

On Wednesday 5 February the Committee took evidence from Mark Ward and Joseph Peaty, TaintedBlood, Liz Carroll, Haemophilia Society, Dr Matthew Buckland, UK Primary Immunodeficiency Network and Christine Lord; Professor Marc Turner, Advisory Committee on the Safety of Blood, Tissues and Organs Prion Group, Dr Roland Salmon, Advisory Committee on Dangerous Pathogens and Dr Sheila MacLennan, UK Blood Services Joint Professional Advisory Committee.

On Wednesday 5 March 2014 the Committee took evidence from Dr Steven Burton, ProMetic Biosciences Ltd, Dr Kelly Board, DuPont Chemicals and Fluoroproducts, Dr Alex Raeber, Prionics AG, Nigel Talboys, Terumo BCT and Professor John Collinge, MRC Prion Unit.

On Wednesday 26 March 2014 the Committee took evidence from Professor Richard Knight, National CJD Research and Surveillance Unit, Professor Sheila Bird, Medical Research Council Biostatistics Unit, Dr Paula Bolton-Maggs, Serious Hazards of Transfusion (SHOT) Haemovigilance Scheme and Dr Simon Mead, Association of British Neurologists.

On Monday 28 April 2014 the Committee took evidence from Dr Richard Baker, British Transplantation Society, Dr Mike Knapton, British Heart Foundation, Ed Owen, Cystic Fibrosis Trust and Keith Rigg, Transplant 2013.

On Wednesday 30 April 2014 the Committee took evidence from Professor James Neuberger, NHS Blood and Transplant, Dr Lorna Williamson, NHS Blood and Transplant, Dr Paul Cosford, Public Health England, and Dr Katy Sinka, Public Health England; Jane Ellison MP, Parliamentary Under-Secretary of State for Public Health and Professor Dame Sally Davies, Chief Medical Officer, Department of Health.

The evidence received is on the Committee's website. A report is being prepared.

National health-screening programmes

On Wednesday 7 May 2014 the Committee took evidence from Professor Jane Wardle, Academy of Medical Sciences, Jessica Kirby, Cancer Research UK and Dr Sian Taylor-Phillips, Warwick Medical School.

On Wednesday 11 June 2014 the Committee took evidence from Robert Meadowcroft, Muscular Dystrophy Campaign, Professor Michael Baum, Advocates for Honesty and Transparency in Breast Screening and Steve Hannigan, Children living with inherited metabolic diseases (Climb); Síle Lane, Sense About Science, Dr Margaret McCartney and Dr John Middleton, UK Faculty of Public Health.

Practical science in schools

The Committee held a one-off session to discuss proposals from Ofqual to change the practical assessment of science at A level.

On Monday 12 May 2014 the Committee took evidence from Professor Julia Buckingham, SCORE, Dr Sarah Main, Campaign for Science and Engineering, Professor Ian Haines, UK Deans of Science and Malcolm Trobe, Association of School and College Leaders; Dennis Opposs, Ofqual, Glenys Stacey, Ofqual and Janet Holloway, Ofqual; and Elizabeth Truss MP, Parliamentary Under-Secretary of State for Education and Childcare.

Proposed takeover of AstraZeneca

The Committee held a one-off session to discuss the implications of Pfizer's proposed takeover of AstraZeneca on the UK science base.

On Wednesday 14 May the Committee took evidence from Dr Mikael Dolsten, Pfizer, Dr Rod MacKenzie, Pfizer and Ian C. Read, Pfizer; Pascal Soriot, AstraZeneca plc, Dr Mene Pangalos, AstraZeneca plc and Dr Jane Osbourn, AstraZeneca plc; and Rt Hon David Willetts MP, Minister of State for Universities and Science.

REPORTS

Government horizon scanning

On 4 May 2014, the Committee published its Ninth Report of Session 2013-14, *Government horizon scanning*, HC 703.

GOVERNMENT RESPONSES

Government Response to the Committee's report 'Women in scientific careers', the Committee's Sixth Report of Session 2013–14

On 7 May 2014 the Committee published the Government Response to the Committee's report on Women in scientific careers.

Government Response to the Committee's report 'Communicating climate science', the Committee's Eighth Report of Session 2013–14

On 23 June 2014 the Committee published the Government Response to the Committee's report on Communicating climate science.

FURTHER INFORMATION

Further information about the Science and Technology Committee can be obtained from the Clerk of the Committee, Stephen McGinness, or from the Senior Committee Assistant, Darren Hackett, on 020 7219 2792/2793; or by writing to: The Clerk of the Committee, Science and Technology Committee, House of Commons, 7 Millbank, London SW1P 3JA. Enquiries can also be e-mailed to scitechcom@parliament.uk. Anyone wishing to be included on the Committee's mailing list should contact the staff of the Committee. Anyone wishing to submit evidence to the Committee is recommended to obtain a copy of the guidance note first. This can be found at www.parliament.uk/commons/selcom/witguide.htm. The Committee has a website, www.parliament.uk/science, where recent publications, terms of reference for inquiries and press notices are available.

HOUSE OF COMMONS LIBRARY SCIENCE AND ENVIRONMENT SECTION

Staff in the Science and Environment Section provide confidential, bespoke briefing to Members and their offices on a daily basis. They also provide support to Commons Select Committees, and produce longer notes and research papers which can be accessed on line at http://www.parliament.uk/topics/topical-issues.htm

Opposite are summaries of some recent briefings.

For further information contact:
Sarah Hartwell-Naguib
Head of Section
Tel: 020 7219 1665
email: hartwellnaguibs@parliament.uk

RECENT PUBLICATIONS

Planning for Nationally Significant Infrastructure Projects

SN06881

The Planning Act 2008 introduced a new development consent process for Nationally Significant Infrastructure Projects. NSIPs are usually large scale developments (relating to energy, transport, water, or waste) which require "development consent". An extension of the regime in 2013 allows certain business and commercial projects to opt into this process.

A Development Consent Order (DCO) removes the need to obtain several separate consents, including planning permission, and is therefore a much quicker process. Applications for DCOs are decided in accordance with National Policy Statements (NPSs), which after a process of consultation and Parliamentary scrutiny are formally "designated" by Government. There are currently 12 designated or proposed NPSs, which fall under the categories of hazardous waste, water supply, energy, transport networks, aviation and ports.

In November 2013 the Government concluded that there was no need for a wholesale change to the DCO regime, which could damage developer confidence, but that some minor changes were needed to provide more clarity about the process and to speed it up. These changes will be introduced through the Infrastructure Bill introduced in June 2014.

Shale Gas and Fracking

SN06073

Drilling for shale gas is at the exploratory phase in the UK. The rapid development of shale gas resources in North America has transformed the world gas market.

The consensus is that shale gas will not be a 'game changer' in the UK as in the US. There is, for example, less land available to drill and landowners do not own the rights to hydrocarbons beneath their land. However, in June 2013 Centrica acquired a 25% stake in Cuadrilla's exploration licence in Lancashire and the Government and British Geological Survey published raised estimates of the shale gas resource in Northern England. The Government is

also consulting on tax incentives for shale gas exploration, and has announced community financial benefits. Existing onshore petroleum exploration and development licences, which are not specific to shale gas, are therefore now likely to be explored for their shale potential.

The Royal Society and Royal Academy of Engineering reviewed the risks of hydraulic fracturing, or 'fracking', concluding that the health, safety and environmental risks can be managed effectively in the UK and calling for more research on the carbon footprint of shale gas extraction. A report published by DECC in September 2013, in which shale gas emissions were said to be similar to those of conventional gas and lower than those of coal and LNG, led the Secretary of State to describe shale gas as a 'bridge' to a low-carbon future.

The Queen's Speech in 2014 confirmed Government plans to streamline the underground access regime and make it easier for companies to drill for shale gas.

Broadband – Update 2014

SN06643

The Government's ambition is to provide everyone in the UK with access to broadband with a download speed of at least 2 Megabytes per second (Mbps) and to provide 90% of the UK with 'superfast broadband' (at least 24Mbps).

The Government allocated £530 million to do this with a strategy for Britain's superfast broadband future (December 2010) which incentivises the deployment of broadband through a variety of technologies. It also set up Broadband Delivery UK (BDUK) to manage the roll-out of broadband in rural areas.

On 5 July 2013 the NAO report on the Government's broadband programme noted that Departmental forecasts predict the programme will complete its rollout 22 months later than originally planned.

Marine Conservation Zones in England

SN06129

Marine Conservation Zones (MCZ) are being introduced under the Marine and Coastal Access Act 2009 to protect important marine wildlife, habitats, geology and geomorphology. They will sit alongside other protected areas such as those designated under European law. Controls on damaging activities may be required in some MCZ. As a result their designation may be controversial in some cases.

127 MCZ were identified by regional stakeholder groups in 2011. An independent Science Advisory Panel concluded that the 127 sites would contribute to an ecologically coherent network of marine protected areas, but that the network would need to be strengthened. In July 2013 the Government said that it would not take forward all of the 127 MCZ at this stage due to concerns about the evidence.

On 21 November 2013, the Government designated 27 MCZ covering 8,000 sq km offshore and around 2,000 sq km of inshore waters. Measures to protect these sites will be developed after conservation bodies publish "site-specific conservation advice". This process would involve dialogue with stakeholders. The Government plans to designate two more phases of MCZs over the next three years. A consultation on the next phase will be launched in early 2015.

Carbon Price Floor

SN05927

Fluctuations in the price of carbon in the form of EU ETS allowances have resulted in uncertainty for investors in low carbon technologies. This has contributed to a lower level of investment in these technologies, below what is required to meet UK carbon reduction and renewable targets.

To address this, the Coalition Government committed to introduce a floor price for carbon and published a consultation on carbon price support in December 2010. Following this it announced in the March 2011 Budget that it would be introducing price support via the Climate Change Levy and fuel duty with a target price of £30 per tonne of carbon dioxide in 2020. The floor price will start at about £16 per tonne. At the time of the announcement the trading price was around £15 per tonne, but by January 2013 it had fallen to under £4.

The Treasury published carbon prices three years in advance from April 2013, together with indicative prices up to 2017. These were due to rise every year until 2020, with all revenue raised retained by the Treasury. However in the Budget 2014 the Government announced that prices would be capped at £18 per tonne from 2016 to 2020 to limit the competitive disadvantage faced by business and reduce energy bills for consumers.

Nuclear power

SN06228

On 21 October 2013 the Secretary of State for Energy, Edward Davey, announced that a deal had been reached between EDF Energy and the Government to build the first new nuclear power station in the UK since Sizewell B was commissioned in 1995. It will be funded by the private sector but will receive a guaranteed price for the electricity it generates.

As part of the deal, under a Memorandum of Understanding on civil nuclear cooperation between the UK and Chinese Governments, EDF will be allowed to sell minority stakeholdings in Hinkley Point C to the Chinese companies, CGN and CNNC.

It is now highly likely that nuclear power will continue to make an important contribution to the UK's electricity needs within a mixed economy of gas, coal and renewables.

ACTIVITIES

In addition to its usual work providing bespoke briefings for MPs, and publishing briefing papers such as those highlighted above, the Section has contributed topical pieces to the Library's blog (See for example the blog on halal slaughter http://commonslibraryblog.com/2014/05/16/is-better-labelling-the-answer-to-concerns-about-slaughter-methods/#more-927) and collaborated with the Parliamentary Office of Science and Technology to ensure that updated briefing was available for an event on Food Banks and Food Poverty (SN06657).

The section has kept up its outreach activities participating in a trip to Warwick University to help run a workshop to inform academics

about engaging with Parliament. Following a successful visit by House staff to Lancaster University's Environment Centre (LEC) earlier this year, LEC Director, Kevin Jones, visited Westminster in May to showcase LEC's work to specialists across Parliament (read more at http://commonslibraryblog.com/2014/05/21/establishing-academic-connections/).

On 4th June Her Majesty the Queen opened the 2014-15 Session of Parliament and set out the Government's legislative programme giving rise to new areas of work for the Section. The Queen's Speech included plans to introduce an Infrastructure Bill which would reform planning law, open up access to shale and geothermal sites and maximise North Sea resources (see blog post on fracking in the Queen's Speech: http://commonslibrary blog.com/2014/06/05/fracking-in-the-queens-speech/#more-997), and provide for a scheme to set a zero carbon standard for new housing. The Infrastructure Bill has now been published and has had its second reading in the Lords. Secondary legislation was promised to implement electricity market reform and to reduce the use of plastic bags. There were also announcements on Garden Cities, and governance of the National Parks in England.

Listed opposite (grouped by subject area) is a selection of Debates on matters of scientific interest which took place in the House of Commons, House of Lords or Westminster Hall between 1st May and 24th June 2014.

A full digest of debates and PQs on scientific issues during the 2013/14 and to date in the 2014/15 sessions of Parliament can be found at http://www.scienceinparliament.org.uk/publications/uk-digests/

SELECTED DEBATES

HEALTH

Cervical Cancer Screening	1.5.14	HoC 1025	Steve Rotheram
Melbourne Declaration on Diabetes	18.6.14	HoC 94WH	Adrian Saunders
National Health Service	17.6.14	HoL GC47	Lord Crisp
Organ Donation Register	17.6.14	HoC 1WH	Andrew Griffiths
Patient Safety	24.6.14	HoC 191	Statement by Rt Hon Jeremy Hunt

INFRASTRUCTURE

Draft National Policy Statement for National Networks	8.5.14	HoL 1623	Lord Berkeley
Infrastructure Bill Second Reading	18.6.14	HoL 837	Baroness Kramer
Scientific Infrastructure (S&T Report)	13.5.14	HoL GC453	Lord Krebs
Self-Build and Custom-Build	7.5.14	HoC 246	Richard Bacon

EDUCATION

Education Institutions: Autonomy and Accountability	24.6.14	HoL GC104	Baroness Perry of Southwark
Student Visas	24.6.14	HoC 206	Statement by James Brokenshire

MISCELLANEOUS

All-party Parliamentary Groups	13.5.14	HoC 709	Kevin Barron
Migratory Birds (Malta)	7.5.14	HoC 122WH	Sir John Randall
Sulphur Regulations	18.6.14	HoC 120WH	Karl Turner