

Department for Business, Innovation and Skills (BIS)

Departmental Adaptation Plan Update

May 2011

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Update on Adaptation Plan – May 2011

In March 2010 each Central Government Department published an adaptation plan explaining its proposed actions to meet the challenge of a changing climate. In order to assess progress on those actions, and to set out new priorities, a series of updates have been produced. This update is for the Department for Business, Innovation and Skills (BIS). All updates are available at:

http://www.defra.gov.uk/environment/climate/government/departmental-adaptation-plans/

1. Why it is important for BIS to act on climate change

BIS understands that climate change will present both challenges and opportunities for the UK economy and that its effects are with us now and are already increasing the risks to the successful operation and profitability of British businesses. Climate impacts such as heatwaves, floods and droughts have the potential to disrupt our infrastructure, our water supply and our energy sources as well as our supply of products, raw materials and natural resources, all of which are vital components for manufacturing. People issues are also important in the context of climate impacts, both in terms of new green skills for employees and changing consumer demand.

Set against this however, there will certainly be opportunities in terms of new markets for products and services which UK companies can take advantage of as we take the action necessary to protect ourselves from these negative climate impacts and exploit benefits. In particular, encouraging innovation and the diffusion of environmentally sound technologies is critical if the UK is to reduce global warming and build a low carbon economy. An Intellectual Property (IP) framework that facilitates private sector investment in innovation and technology deployment will be one important element of this.

2. Update on work since March 2010

In addition to what is reported under Section 4 below, BIS can report progress across a range of areas:

- **UKTI** has identified key global markets where opportunities exist for UK businesses based on the requirement for adaptation good and services, the availability of funding, the ease of doing business, and where the UK has the skills to provide the necessary adaptation solutions. UKTI will be helping UK businesses maximise these opportunities through its support such as trade missions and trade shows. **(Action 5 of section 4 and paragraphs 5.18-5.20 of DAP refer).**
- The Solutions for Business product portfolio has recently been reviewed and is now formed of 13 products designed to help businesses overcome key challenges and provide the assistance they need to improve. The **Improving Your Resource Efficiency** (IYRE) product remains in the new portfolio. (Action 8 in section 4 and paragraphs 5.23-5.24 of DAP refer).
- In November 2010, the final report of the **low carbon construction Innovation and Growth Team** was published. This report considers how the UK construction industry can rise to the challenge of the low carbon agenda, including adaptation, and includes a number of recommendations to both Government and the industry. **(paragraphs 5.30-5.31 of DAP refer).**
- As part of its work on Intellectual Property and climate change, the Intellectual Property Office's 'Green Channel' for patent applications received 220 requests in its first year (May 2009-April 2010) and is on track to receive a similar number in 2010/11. Applications were received in all areas of technology ranging from natural sources of power such as wind, wave and solar energy, to recycling and transport. To date, 84 patents have been granted. (paragraphs 7.7-7.11 of DAP refer).
- In March 2011, the Intellectual Property Office's Green Channel was one of four shortlisted finalists for the inaugural Climate Week Awards 'Best Initiative by a Government or Statutory Body'. This favourable publicity continues to help to spread the message that patents can be of assistance in dealing with the challenge of climate change and builds credibility for the approach with other IP offices internationally. (paragraphs 7.7-7.11 of DAP refer).
- In 2010, the **Technology Strategy Board** (TSB) funded strategies for 26 high-quality projects. Through this funding the TSB were supporting adaptation work in 120 companies and 9 local authority clients. (Action 13 in section 4 and paragraphs 7.12-7.14 of DAP refer)

- Research into the environmental impacts of health is a priority in the **Medical Research Council** (MRC) strategic plan. The MRC has made strategic investments in this area through the creation of the MRC/HPA Centre for Environment and Health in partnership with the HPA in 2009, held jointly between Imperial and King's College London. The Centre aims to integrate individual level and small-area analysis of environmental exposures and health to tackle environmental health problems. **(paragraph 7.20 of DAP refers)**.
- The **Science and Technology Facilities Council** (STFC) provides facilities, technologies and expertise that are relevant to environmental research across the board, including climate change adaptation. STFC also operates facilities and data centres on behalf of the Natural Environment research Council (NERC) that support grant-funded environmental research. We have established a Futures Programme to ensure that skills and technologies originally developed to address fundamental research questions are harnessed effectively to provide solutions in four Global Challenge areas: Environment, Energy, Healthcare and Security. (**New to DAP**).
- Foresight, part of GO-Science, launched its latest report 'Global Food and Farming Futures' in January 2011. The report calls for a radical redesign of the global food system to meet new and unprecedented demand over the next forty years. Climate Change will interact with the global food system in two important ways: firstly, changing climatic conditions will affect crop growth, livestock performance, the availability of water, fisheries and the functioning of ecosystem services in all regions. The extent to which adaptation in agriculture occurs will delineate the extent of these effects. Secondly, policies for climate change mitigation will have a significant effect on the global food system. A wide range of measures to reduce GHG emissions from agriculture and the remainder of the food system were reviewed, including incentivising and spreading current best practise, as well as the opportunities offered by new scientific, engineering and social science research. (paragraph 7.29 of DAP refers).
- As part of its role in cross-Whitehall resilience work including the National Risk Assessment and the Critical Infrastructure Resilience Programme, BIS has produced a **Sector Resilience Plan for telecoms** which considers the overall resilience of the sector in terms of all relevant natural hazards. (paragraphs 8.1-8.6 of DAP refer).
- In February 2011 the Cabinet Office Emergency Planning College undertook an independent internal review of the **BIS Business**Continuity Management System to examine its compliance to British Standard 25999-2:2007. Certification of alignment to the Standard was awarded on the basis that the observations made are addressed. Certification to BS25999-2:2007 ensured the Department meets the mandatory requirement of alignment set by the Cabinet Office. (paragraphs 8.7-8.8 of DAP refer).

• In terms of adaptation and the BIS estate:

- (a) the Core Department and its four Executive Agencies make up the BIS target and great efforts are being made to achieve the 10% Carbon Reduction Commitment launched in May 2010. Following on from the 10% target there will be a further greenhouse gas emissions reduction target to be achieved by 2014/15. The level ambition for this has yet to be announced. (paragraph 8.9 of DAP refers).
- (b) the installation of voltage reduction equipment at 1 Victoria Street was completed in October 2010. The total project cost was £382,058.84, which was covered by a Salix loan. This will be paid back through the savings achieved in the reduction in electricity consumption. (paragraph 8.10 of DAP refers).
- (c) SOGE targets were replaced by the Greening Government Commitments in February 2011. BIS has attended a workshop on the new targets and will engage Executive Agencies and NDPB's once the guidance is published. (paragraph 8.11 of DAP refers).
- (d) on retrofitting the BIS estate, two suppliers received funding for trial projects to be implemented in 1 Victoria Street. The first, a lighting project, has re-lamped one floor with different colour lights which emulate natural daylight and enable some lights to be removed thereby saving energy. The second project is an ICT/behaviour change project. An online platform has been developed where the energy use of three banks of desks is displayed. Staff can view the platform to see how they can adjust behaviours at their desk to limit energy use of computers, monitors and mobile chargers. (paragraph 8.13 of DAP refers).
- BIS provided input into the development of **British Standards Institute** (BSI) guidance on climate change adaptation published on 21st March 2011. This tool is aimed at those tasked with developing an adaptation strategy for an organisation, project, programme or policy and complements four existing British Standards: ISO 14001 (Environmental Management); ISO 9001:2008 (Quality Management); BS 25999-2: 2006 (Business Continuity); and BS 31100: 2008 (Risk Management). (New to DAP).
- In order to develop the **evidence base** on the opportunities around climate change adaptation and mitigation, BIS with DEFRA have commissioned some work that provides data on the size of sectors which either work towards climate change adaptation or mitigation. This scoping study included the following sectors: construction & retrofit; finance, investment & insurance; risk management & business continuity; urban environment redesign & re-engineering; sustainable drainage & water management; energy storage infrastructure resilience; transport infrastructure & logistics resilience; and water irrigation & foot printing. (New to DAP).
- Adaptation to climate change will be integrated into the investment decision making of the proposed Green Investment Bank. (New to DAP)

3. Future adaptation priorities for BIS

We would expect the priority areas specified in the DAP to remain broadly as they are going forward – essentially the construction, retail and service economy sectors as well as critical infrastructure, trade and investment and resilience work. In particular, the development of new skills is considered as fundamental to the UK successfully adapting to the impacts of climate change and is a cross-cutting issue of interest to a number of other Government Departments.

Much of the Department's focus since May 2010 has however been on developing the Growth Review, of which construction and retail have been highlighted as particular focus areas. BIS has also been fully engaged in the development of a Green Economy Roadmap together with DECC and DEFRA, which will set out what the transition to a green economy means for business and the roles that both Government and business need to play over the next 10 years. The Roadmap will include a section on adaptation to climate change.

In terms of specific policy areas for future action:

- BIS economists are represented on the Steering Group which is developing draft **Green Book** supplementary guidance on climate resilience in the context of informing policy appraisal within Government Departments. **(Action 6 of section 4 and paragraph 3.11 of DAP refer).**
- As a result of the dissolution of the Forum for a Just Transition, BIS will continue to engage with Forum members on identified topics, including through stakeholder engagement, as part of the development of the Roadmap to a Green Economy. The Coalition has created the Green Economy Council which is business-led and advises Government on issues of strategic importance to business relating to the green economy. It acts as a mechanism for business to bring forward issues relating to the green economy, which includes views on what further Government policies may be needed to ensure the development of the green economy to facilitate green growth, including climate resilience, and ensure natural capital is used sustainably. (Action 9 in section 4 and paragraph 5.25 of DAP refers).
- The response to the **low carbon construction Innovation & Growth Team's report** will be published before summer recess 2011. This will highlight specific actions to be taken forward by Government and by industry to help the construction sector rise to the challenge of the low carbon agenda, including adaptation. **(paragraphs 5.30-5.31 of DAP refer).**

- BIS will shortly be participating in a European collaborative project for the European Commission, which is assessing how EU policy could support growth opportunities for **high-value business services** better. It is planned that one strand of this project will consider business services which support smart and sustainable tourism, which will potentially take account of adaptation challenges. (Action 11 below and paragraphs 5.34-5.36 refer).
- On Further Education (FE) Capital, following the recent Spending Review outcomes the Skills Funding Agency is considering what a future FE capital investment programme will look like. Announcements about a continuing programme are expected later in 2011. (paragraph 6.12 of DAP refers).
- While the skills system is demand-led, the scale of the skills needed for transition to a green economy, including addressing the impacts of climate change, presents particular challenges such as responding to the pace of change required. This is as relevant to all business sectors as it is to the Low Carbon and Environmental Goods and Services (LCEGS) sectors as all industry moves towards more resource efficient business practices. BIS, together with DECC and DEFRA, are therefore considering, with partners such as Sector Skills Councils, whether any additional measures are needed within the overall context of the skills system to ensure businesses have the skills they need for a green economy. (paragraph 6.10 of DAP refers).
- In terms of skills and the transition to a green economy, the proposals emanating from the BIS/DECC/DEFRA project described above are planned to be announced in the **Green Economy Roadmap** and are likely to include action to:
 - ensure that skills needs are better articulated:
 - improve vocational information and guidance available about 'green careers';
 - improve the available training provision;
 - raise awareness and understanding about the green economy; and
 - maintain the focus on STEM (Science, Technology, Engineering and Mathematics) skills

(New to DAP)

- In addition to the skills element of the Green Economy Roadmap, the Deputy Prime Minister recently announced that up to 1,000 Apprenticeship places would be made available, subject to employer demand, for the **Green Deal.** (New to DAP).
- The £50m a year **Growth and Innovation Fund** (GIF) has been set up by the Government to help businesses develop the skills for, and to overcome the barriers preventing, growth. Successful bidders could use the funding, for example to deliver new training to boost

innovation and productivity, enable industries to set new professional standards, or support new or extended National Skills Academies. Alongside the GIF there is also an **Employer Investment Fund** (EIF) open only to Sector Skills Councils, to enable them to pilot small scale innovative solutions to raise skill levels and business performance within their sector. Both the GIF and EIF may attract bids related to climate change. (**New to DAP**).

- On **Further Education (FE) Capital**, the Skills Funding Agency, in collaboration with the Association of Colleges, are considering options for how best to provide advice and guidance on sustainable estates management, with a pilot study expected to be introduced later in 2011. **(paragraph 6.12 of DAP refers).**
- The Intellectual Property Office aims to build on the success of the Green Channel for patent applications and continue to explore practical ways to stimulate innovation and encourage technology transfer. (paragraphs 7.7-7.11 of DAP refer).
- In terms of future activities and how they are prioritised, the **Technology Strategy Board** (TSB) will continue to support activity on the basis of global market opportunity and the strength of UK capability and where relevant (for example buildings and agri-food) it will take account of the need to adapt to future climate change. (paragraphs 7.12-7.14 of DAP refer).
- Two of the three research priorities of the **Biotechnology and Biological Sciences Research Council's** (BBSRC) Strategic Plan 2010-2015 are directly relevant to climate change adaptation: food security, and bio-energy and industrial biotechnology. BBSRC is leading the development of the UK's multi-agency Global Food Security programme (see bullet below) which is designed to address the challenge of providing a growing world population with a sustainable supply of food in the face of climate change and other pressures. (paragraph 7.17 of DAP refers).
- The Arts and Humanities Research Council (AHRC) has identified 'Care for the Future' as one of four priority themes for the coming spending review period which has clear applications with respect to climate change. The theme will encompass debates about alternative future visions and pathways for sustainable communities, processes of change, how we balance current needs with those of future generations and ways to enhance our quality of life. Key issues will include improving the way historical knowledge and experience informs future policy, and enhancing the stewardship of cultural heritage for the benefit of future generations. (New to DAP).
- The Living With Environmental Change (LWEC) partnership is scoping an annual report card covering adaptation to the impacts of climate change that will inform the National Adaptation Programme (Action 14 below and paragraph 7.23 of DAP refer).
- Due to report by Summer 2011, the **International Dimensions of Climate Change (IDDC) Foresight Project** aims to improve our understanding of how climate change in other parts of the world could impact the UK up to 2100 and will augment the evidence base for

the UK's first Climate Change Risk Assessment (CCRA). (paragraph 7.29 of DAP refers).

- The Global Food Security (GFS) programme brings together the interests of the major UK public funders of food-related research and training. Partners include Government (BIS, DEFRA, DFID, FSA, Scottish Government, WAG), Research Councils (BBSRC, EPSRC, ESRC, NERC, MRC) and the Technology Strategy Board. A key aim of the GFS programme is to address the multidisciplinary research challenges of supplying sufficient food for the growing world population in ways that are environmentally, socially and economically sustainable. The GFS programme recently launched its five-year strategic plan and this details a number of priorities directly relevant to climate change. In terms of adaptation, there is a clear need to adapt food production to a changing climate. (paragraph 7.29 of DAP refers).
- In terms of **telecoms resilience**, BIS is fully engaged in the European Framework Directive, which will introduce significant new measures to increase the security and resilience of public communications networks and the security of publicly available electronic communications networks. These measures are designed to enhance levels of network availability, as well as to protect against and prepare for disruptions to availability whatever form they may take. Ofcom will be required to enforce these provisions, which will be enacted into law in May 2011. (paragraphs 8.1-8.6 of DAP refer).
- BIS will work in partnership with DEFRA's ACC Programme to make a step change in the business advice and support offer via the new delivery body of the Environment Agency from September 2011. (New to DAP).

Update on actions from March 2010 DAP		
Priority or action in DAP	Progress	Deadline
1. BIS will consider through its network of Business Relationship Managers and with DEFRA further work on a dissemination plan for the UK Climate	BIS's Working Lead on adaptation has worked with relevant Business Relationship Managers, DEFRA and their appointed contractors to develop the Business and Services Sector report under the CCRA. We will continue to engage with the various CCRA processes until the Act Report is laid before Parliament in January 2012 and going further forward as it informs development of the National Adaptation	Ongoing

Projections and for future evidence from the Climate Change Risk Assessment (CCRA). Following this work, BIS will draw upon its expertise within sector teams to further develop the key risks and opportunities from climate change to feed into DEFRA's Adaptation report to Parliament in 2012.	Programme. In partnership with DEFRA's ACC Programme, an adaptation dissemination event for BIS staff was held on 21 March 2011 which sought to highlight the climate risks and opportunities for business and what they might mean for the Growth Agenda. Generally, capacity building within the network of Business Relationship Managers has been slower and less rigorous than anticipated given other priorities and resource constraints.	
2. BIS economists will use current research on clustering together with UKCIP09 projections to potentially identify the clusters most at risk from climate change related events. This will be carried out to feed into the Climate Change Risk Assessment work commissioned by DEFRA due in 2012.	It did not ultimately prove possible to secure funding for this project against other priorities and demands for limited funds.	N/A
3. BIS economists will feed back suggested adaptation measures to the crossdepartmental working group for adaptation measurement for a report due to be published in 2012	This relates to a project on indicators for businesses in relation to adaptation which did not ultimately proceed to completion. The Adaptation Sub-Committee (ASC) of the Committee on Climate Change is now undertaking work on this area.	N/A

4. Publish the final report and sector specific studies through Business Link following the publication of the report in May 2010	This action was overtaken by events since DEFRA are now arranging publication of the sector reports through their own delivery systems	N/A
5. Global business opportunities identified for adaptation good and services will be incorporated into UKTI marketing by 2011/2012	UKTI has identified key global markets where opportunities exist for UK businesses based on the requirement for adaptation good and services, the availability of funding, the ease of doing business, and where the UK has the skills to provide the necessary adaptation solutions. UKTI will be helping UK businesses maximise these opportunities through its support such as trade missions and trade shows.	Ongoing
6. On the basis of the CCRA evidence BIS will review existing action to embed adaptation in departmental and BIS-influenced decision making and actions to build the UK's adaptive capacity. The conclusion of this assessment will be fed back through the Departmental Adaptation Plan when it is reviewed circa 2011-2012	BIS economists are represented on the Steering Group which is developing draft Green Book supplementary guidance on climate resilience in the context of informing policy appraisal within Government Departments.	End-2011
7. BIS will expand on existing work to identify at-risk business clusters and explore the variation in regional impacts of climate change following the publication of the CCRA in January 2012.	It is unlikely that this will be progressed given that funding for the first phase (action 2 refers) was not forthcoming.	N/A

8. The Solutions for Business team in BIS will work with DEFRA's Adapting to Climate Change (ACC) and Sustainable Business and Resource Efficiency (SBRE) teams to ensure that the Business Link adviser fact sheet for the IYRE Product is updated to reflect its relevance to adaptation and to explore the relevance of other SfB products in support of this agenda	The Solutions for Business product portfolio has recently been reviewed and is now formed of 13 products designed to help businesses overcome key challenges and provide the assistance they need to improve. The Improving Your Resource Efficiency (IYRE) product remains in the new portfolio and will continue to offer guidance and support to help businesses become more resource efficient: reducing their costs, carbon footprint, potentially reducing vulnerability to climate impacts (e.g. reduced water availability) and increasing their competitiveness. Given the changes to the business improvement delivery landscape, factsheets for Business Link regional offices are no longer appropriate but might still be useful for Local Enterprise Partnerships (LEPs) and their partner organisations such as the BCC, FSB, Enterprise Agencies and other intermediaries. Businesslink.gov will be the main source of generic information to business in future, in addition to specialist support from WRAP and Carbon Trust. Through the Environment and Efficiency Theme Board, DEFRA will ensure that Businesslink.gov includes guidance and signposting to appropriate Solutions for Business products and other sources of generic advice in relation to adapting to climate change. There will also be a role for the national Contact Centre who will support businesses that have difficulty in accessing the internet.	Completed
9. BIS will invite the Forum for Just Transition to consider the outcome of BIS's research on atrisk business clusters and will explore the variation in regional impacts of climate change following the publication of the CCRA in 2012	This objective has been overtaken by events. The Forum for a Just Transition met on two occasions. It provided the opportunity to discuss the delivery and social impact of the transition to a low carbon economy, focusing in particular on the previous Government's 2009 UK Low Carbon Industrial Strategy, and offered views to Ministers on what further policies were needed to ensure a fair distribution of costs and benefits across the economy.	Completed

	The Forum ceased to exist following the change of administration. The areas of work identified by the Forum covered regional and sectoral imbalances, impacts on energy intensive industries, supply chain opportunities, skills and energy efficiency. All of these work areas are being taken forward in different work programmes across BIS, DECC & DEFRA.	
10 (a) The British Retail Consortium is publishing a guide to adaptation for retailers, including both risk management and business opportunities, drawing on Government expertise and advice. This guidance will be aimed at large corporate members and is due to be published by summer 2010. The information and guidance will then be re-purposed and targeted towards specific retail sub-sectors and SMEs. The guidance will also be disseminated through Business Link and other appropriate channels by the end of 2010.	10 (a) Currently on hold. The BRC hopes to work with Government in due course to take forward adaptation awareness activity. However, delivery dates have yet to be set due to the immediate focus of BRC and its members on both the current economic situation for retail and dealing with the impacts on retail of the Government's programme of regulatory and legislative change.	None yet set
10 (b) The Climate &	10 (b) CERAP was suspended due to changes in Government and industry priorities, resources and administrative structures. However, Environment and Climate Change	None yet set

Environment Retail Action Plan (CERAP) is working to develop a mechanism for retailer input and feedback to non-BIS DAPs, which will be in place in autumn 2010. 10 (c) The Action Plan will continue to monitor adaptation activity in the Retail sector.	is a key strand of the BIS/Retail Strategic Partnership Action Plan, which identifies priority areas of joint working for BIS and the retail sector. Once immediate priority actions have been addressed, we will seek to introduce adaptation activities to this strand (subject to agreement with the sector). Many large retailers are signatories to the BRC-led "A Better Retailing Climate" initiative, which commits them to significant improvements in environmental impact and resource efficiency - which they are achieving. The major retailers are already undertaking their own analysis and taking action to adapt their supply chains (but these are mostly commercially confidential). 10 (c) Comment at 10 (a) refers.	N/A
10 (d) The Action Plan will input to Other Government Departments' Adaptation Plans looking at both the potential role of Retail in delivery and consumer education, and ensuring the potential impacts of other activities and policies on	10 (d) Comment at 10 (b) refers.	N/A
Retail are fully considered. 10 (e) BIS retail team in conjunction with Communities and Local Government (CLG) will	10 (e) This activity was suspended at the change of Government. It has been superseded in part by development of the Green Deal by DECC (and to which retailers are making a significant contribution), and it is likely that future	Overtaken by events

work with home improvement retailers on how best to advise customers on adaptation issues, including relevant planning restrictions.	DEFRA/DECC public awareness activities would encompass working directly with home improvement retailers.	
11. BIS will continue to take account of adaptation to the impacts of climate change, alongside mitigation, in its work with industry to promote market opportunities for business and professional services	BIS continues to work with the business and professional services sector to support business growth. Businesses in this area have consistently identified, in discussions, sustainability as a pole for growth, including the many and varied opportunities associated with adaptation to the impacts of climate change. BIS will shortly be participating in a European collaborative project for the European Commission, which is assessing how EU policy could support growth opportunities for high-value business services better. It is planned that one strand of this project will consider business services which support smart and sustainable tourism, which will potentially take account of adaptation challenges.	Ongoing
12. The first output of the Infrastructure and Adaptation Project is a review of long-term risks to infrastructure from climate change impacts, which will report at the end of January 2010.	BIS has been fully engaged in this project, and has most recently been represented on the Steering Committee for a follow-on report by HMG entitled 'Climate Resilient Infrastructure: Preparing Infrastructure For A Changing Climate'. This document emphasises the importance of early action to adapt the country's national infrastructure sectors (energy, communications, transport and water) to the impacts of climate change and is due for publication as a Government Command Paper during May 2011. BIS will continue to play a full role in this work.	Ongoing
13. Technology Strategy Board (TSB) to deliver <i>Design for Climate Change</i> initiative and launch competition focused on this theme under its Low Impact	In 2010 TSB funded strategies for 26 high quality projects which included schools, offices, mixed use housing developments, healthcare buildings and a supermarket. Through this funding TSB were supporting adaptation work in 120 companies and 9 local authority clients. A conference showcasing the learning from these 26 projects will be held in early May 2011 and a second funding competition on Design	Completed

Buildings Innovation Platform in Spring 2010.	for Future Climate will open in June 2011	
14. The Research Councils are developing a detailed plan setting out how the evaluation of Living with Environmental Change (LWEC) will be progressed.	The action is now for the LWEC partnership to scope an annual report card covering adaptation to the impacts of climate change that will inform the National Adaptation Programme.	End-2011

Further information on the Adapting to Climate Change programme can be found here:

http://www.defra.gov.uk/environment/climate/adapting/