

**2006 Sustainable Development
Action Plan Progress Report**

Department of Trade and Industry
With SDC Commentary
November 2007

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DTI'S SELF-ASSESSMENT SUMMARY

This is a summary of DTI's progress report; the full version begins on page 7.

The former Department of Trade and Industry's (DTI's) ambition was to deliver 'Prosperity for All'. The DTI was responsible for trade, business, employees, consumers, science and importantly the Government's energy policy, which is central to sustainable development. The SDAP covered the core Department and all of DTI's Executive Agencies. On 28th June 2007, DTI was disbanded, and its functions transferred to the new Department for Business, Enterprise and Regulatory Reform (BERR).

Progress against actions

The DTI reported the following key successes:

- Increased capacity through doubling the size of the team leading on SD issues; establishing a network of champions to advise and report back on SD issues; and appointing a Board level Champion
- Reducing the DTI HQ's environmental footprint – topping the table in the SDC's most recent Sustainable Development in Government (SDiG) league table.

Embedding sustainability

- Considered that it had integrated SD into all of its key policy activities
- Made several advances in embedding sustainability into its people and developing the capacity to take forward SD within the organisation.

Procurement

- Reported that some progress had been made.

SDC'S SUMMARY COMMENTS

This is a summary of SDC's commentary; the full version begins on page 4.

The DTI report was well written and included a number of interesting examples of the Department's work. It is clear from the way the DTI has integrated its report back on progress with its forward looking plan, that it is making links between current performance and setting future priorities. The SDC welcomes this joined up approach. However, it would like to see more detail on progress against specific actions in the DTI's SDAP, and on the thematic areas covered by the guidance tool in future reporting.

Strengths:

- Made a lot of progress on increasing the department's capability for sustainable development.

Weaknesses:

- There is no clear overview of how the DTI felt it performed against its actions overall
- The DTI did not use the Flexible Framework or an alternative tool to assess its progress on sustainable procurement.

Challenges for next year's SDAP progress report:

- Evidence to show that it is considering the impact of its actions
- Details of how it is embedding sustainability into its governance, monitoring and reporting mechanisms
- Provide information on what had helped and what had hindered progress
- Provide information on the links between the DTI's SDAP and those of its Agencies.

INTRODUCTION

Government has made it clear that it wants the public sector to be a leading exponent of sustainable development (SD). The UK SD strategy, *Securing the Future*,¹ requires all central government Departments and their Executive Agencies (EAs) to produce Sustainable Development Action Plans (SDAPs) and report progress on them regularly. An SDAP sets out the strategic actions that the organisation intends to take to integrate sustainable development into its decision-making and everyday operations. It thereby helps the organisation make its required contribution to the delivery of the Government's commitments and goals set out in *Securing the Future*.

Securing the Future also empowers the Sustainable Development Commission (SDC) to act as the Government's watchdog for sustainable development. This includes "scrutinising and reporting on Government's performance on sustainable development".

Most Departments published their first SDAP in 2006. These plans contained commitments for 2006/07, and the SDC is now reporting on progress made by Departments against those commitments.

The purpose of progress reporting is three-fold:

1. To see what progress had been made against the first plans
2. To encourage Departments and others to evaluate the quality, purpose and contribution of their SDAPs, as well as the individual actions and policies, in regards to the UK's SD goals
3. To strengthen the quality of future SDAPs and reporting by identifying strengths, weaknesses and priority areas for improvement.

To help Departments and EAs produce quality progress reports, the SDC designed a self-assessment guidance tool. The tool covers the following areas:

- **Progress against actions:** Report progress against 2006/07 commitments and against any significant actions that did not feature in the original SDAP
- Consider the impact of actions and the contribution these actions would make to the SD

¹ *Securing the Future – Delivering the UK Sustainable Development Strategy*, HM Government, March 2005.

"shared priorities for immediate action"² (from here on referred to as the "SD shared priorities")

- **Embedding sustainability:** Consider how well SD had been embedded into policies, people, operations and reporting mechanisms
- **Procurement:** Gauge progress on sustainable procurement against the criteria in the Flexible Framework or a suitable alternative
- **Taking stock:** Identify what had helped and hindered the organisation in delivering its SDAP.

At the time when the SDC's self-evaluation guidance tool was launched, the Department of Trade and Industry (DTI) had almost completed a combined new SDAP for 2007/08 and report back on its first Action Plan. As such, it was agreed that this year's report would not follow the structure of the SDC's guidance tool.

This report comprises the SDC's commentary, followed by DTI's full progress report.³ The SDC's commentary evaluates the progress reported by DTI, as well as the quality of reporting.⁴ The SDC did not verify the content of DTI's progress report.

In June 2007 DTI was disbanded and its functions were transferred to the new Department for Business, Enterprise and Regulatory Reform (BERR). The SDC therefore expects its commentary and recommendations to be considered by BERR.

The SDC's commentary does not review the content of the original SDAP. As such, comments should not be taken as an endorsement of actions and policies pursued. The SDC has already commented on Departments' first SDAPs and provided summarised assessments in the 2006 report *Off the Starting Block*.⁵

² The SD shared priorities for immediate action, as outlined in *Securing the Future*, are: sustainable consumption and production, climate change and energy, natural resource protection and environmental enhancement, and sustainable communities.

³ *DTI Sustainable Development Plan for 2007/8 and Report Back on 2006/7*, DTI, May 2007.

⁴ Please see SDAP Progress Report methodology paper – www.sd-commission.org.uk.

⁵ *Off the Starting Block*, Sustainable Development Commission, November 2006.

SDC'S COMMENTARY

As explained in the introduction, the DTI did not use the SDC's progress reporting tool to report progress against its SDAP this year.

For consistency of approach, the SDC has drawn out details of progress relating to each of the core assessment themes in the progress reporting tool. However, it has not attempted to rate the DTI's progress on the different sections: It would not be possible to accurately do this based on the information provided, but moreover, the progress reports are intended to be self-assessments.

Progress against actions

The DTI's first SDAP included over sixty actions to contribute to delivering the UK Shared Priorities on sustainable development. However, for clarity and brevity, it chose to only report back on the most significant and strategic achievements over the year. It reported that its **key successes were:**

- **Increased capacity** through doubling the size of the team leading on SD issues; establishment of a network of champions to advise and report back on SD issues; and appointment of a Board level Champion
- **Reduction of the DTI HQ's environmental footprint** – it topped the table in the SDC's Sustainable Development in Government (SDiG) 2006 league table.

In future progress reports, the SDC would expect BERR, as the new Department in place of DTI, to provide coverage of all actions, together with an overall assessment of how it performed against its actions. It would also like to know what had helped or hindered progress, and to see evidence of how the department is considering the impact of its actions.

Embedding sustainability

The DTI **considered that it had integrated SD into all of its key policy activities:**

- Promoting science and innovation
- Supporting enterprise
- Ensuring fair markets
- Work on developing future energy policy.

It demonstrated areas where it had joined up policy goals under the SD umbrella. For example:

- The Energy Review – one of its major policy outputs – highlighted the need for a coordinated energy strategy, with energy efficiency and the need for cleaner and more sustainable energy at its heart
- The Energy Review also reaffirmed commitments to tackling fuel poverty
- In response to the Stern Review on climate change,⁶ the DTI and four founder energy technology companies committed up to £500 million to match private sector funding over ten years to identify and accelerate the deployment of technologies with the greatest promise of delivering energy policy objectives
- The DTI and Defra established a Commission to review how the UK could capitalise on the key opportunities that environmental protection presents for wealth creation and employment growth.

The DTI reported that its approach to Regulatory Impact Assessment (RIA) was positively assessed by the NAO.⁷ It also reported that RIAs on the Waste Electrical and Electronic Equipment (WEEE) Directive and the Air Quality Strategy Review were carried out within the SD framework, although it acknowledged general problems it had in monetising environmental costs and benefits. **The SDC would welcome the application of an SD approach to all RIAs, and further progress on quantification of impacts. The SDC looks forward to seeing how BERR takes forward the new Impact Assessment (IA) process, which was transferred from Cabinet Office in June 2007.**

The DTI reported a number of examples of working with others to deliver SD policy goals:

- Continued support of the National Consumer Council's work on sustainable consumption and the SCP Business Taskforce

⁶ Stern N. (Feb 2007) *The Economics of Climate Change: The Stern Review*, Cabinet Office & HM Treasury, Cambridge University Press, ISBN 0-521-70080-9.

⁷ National Audit Office (2006), *Evaluation of Regulatory Impact Assessments 2005-06*, HC 1305 Session 2005-2006, 28 June 2006.

- Established a Retail Environmental Sustainability Expert Group
- Set up a cross departmental group on sustainable construction
- Worked with other Government Departments and third parties to help improve resource productivity, particularly in business, to ensure good governance and environmental awareness, to promote the market opportunities of sustainable development, and identify emerging markets and technologies.

The DTI reported that it **made several advances in embedding sustainability into its people and developing the capacity to take forward SD within the organisation:**

- Making a good start on awareness raising, including poster campaigns
- Developing an environmental training module for its Human Resources induction programme
- Attendance by some of its most senior civil servants and managers of training/workshops to strengthen awareness and leadership skills
- Ran (through UK Trade and Investment⁸) 70 courses with over 800 participants to raise awareness and encourage staff to make UK businesses aware of the need to take account of their economic, social and environmental impacts when trading internationally.

The SDC welcomes the progress made on increasing capacity within the Department, in line with its recommendations on the 2006/07 SDAP, and its commitment to continued improvement.

The DTI also reported that it was **actively embedding SD principles into the management of its own estate** and ways of working. The DTI topped the league table in the SDC's annual SDiG report. It reported a number of examples of operational improvements over the year, including:

- Continued ISO 14001 certification and operation of the EMS

- Reduced environmental footprint of its estate by reducing the number of buildings occupied and introducing a 'hot desking' strategy
- Requiring Facilities Management Agent (FMA) and Operation and Maintenance (OM) contract specifications to achieve the Carbon Trust's Energy Efficiency accreditation
- Installed infrared taps in HQ building
- Exceeded - ahead of time - the government target of 10% electricity from renewable sources by March 2008 at its headquarters (33%), with intentions to reach 100%.

The SDC considered the DTI to be a leader within Government on sustainable operations, and encourages BERR to make further year on year performance improvements, now that it has taken on the DTI estate. Energy efficiency remains a challenge, for example.

The SDC would also like to see further details of how the BERR is embedding sustainability into its governance, monitoring and reporting mechanisms in future SDAP progress reports.

Procurement

The DTI did not use the Flexible Framework (or alternative) to assess its progress on procurement. The text provided indicated that **some progress had been made.** For example:

- Guidance was published on the DTI intranet for all business areas which purchase goods and services on behalf of the department
- It ran training programmes for DTI procurement personnel on sustainable procurement
- It worked closely with Defra on the Sustainable Procurement Task Force report and follow up actions.

In future SDAP progress reports **the SDC would like to see how BERR is progressing with analysing its key expenditure and the related sustainability impacts, the extent to which it is including sustainability criteria in its contracts, compliance with Quick Wins, and how it is engaging with its key suppliers to deliver sustainable procurement.** The criteria covered in the Flexible Framework are a useful prompt.

⁸ A joint DTI/FCO organisation responsible for promoting UK businesses abroad and encouraging inward investment.

Taking stock

The DTI reported that its 2006/07 SDAP was significantly altered over the year as its resources and its understanding of the issues grew. **The SDC welcomes the use of SDAPs as living documents.**

The SDC would have liked to see information on what had helped the DTI deliver its SDAP – for example leadership, capacity improvements – and what had hindered its progress.

Summing up

The DTI report was well written and included a number of interesting examples of the Department's work. By producing the report as a combined report back on progress and forward looking plan, the DTI used progress reporting as a means of informing future priorities. It reported

that the experience of producing the report enabled it to develop a more tightly focussed and strategic plan for 2007/08. **The SDC welcomes this joined up approach, but would like to see more detail on progress against specific actions in the SDAP, and on the thematic areas of the guidance tool in future reporting.**

The SDC **also welcomes the level of engagement** evidenced in the development of the DTI's report (discussions with business stakeholders, experts in the field of SD, and with the CLG).

The DTI reported that its Executive Agencies would produce separate SDAPS for 2007/08. However it did not explain how all the plans would be coordinated, the level of DTI support to its Agencies on the SDAP process, or how it would present the whole 'package' of SDAPs to the SDC.

**2006 Sustainable Development
Action Plan Progress Report**

**Department of Trade and Industry's
Self-Assessment
May 2007**



dti

**DTI SUSTAINABLE DEVELOPMENT
PLAN FOR 2007/8 AND REPORT
BACK ON 2006/7**



SUSTAINABLE DEVELOPMENT PLAN FOR 2007/8 AND REPORT BACK ON 2006/7

FOREWORD BY LORD TRUSCOTT

The importance of sustainable development has never been greater, nor has the need for Government to develop effective action plans to draw together our efforts on this wide ranging agenda.

The past year has seen the publication of the Stern Review – which made the economic case for action now on climate change – and the clearest statement yet by international scientists that we could be looking at a potential temperature increase of over 5°C from pre-industrial levels. Such changes would transform the physical and human geography of our planet – how and where we live our lives. The need for action could not be more urgent.

Sustainable development is now a key business driver for leading companies. We have seen welcome and significant environmental improvements and initiatives from leading British businesses. Consumers are showing it is a priority by driving the growth in carbon offsetting.

Climate Change is a global problem that requires a global solution. Government has been leading the way in international fora. The European Union has now committed to substantive cuts in carbon emissions that will set the benchmark for other nations. However, there is much to be done locally, not least because this agenda also encompasses work to promote sustainable consumption and

production, as well as wider issues of economic and social sustainability.

For DTI, as this report shows, we are integrating sustainable development into all of our activities – promoting science and innovation, supporting enterprise, ensuring fair markets, and perhaps most clearly in our work on developing future energy policy. We are also actively embedding sustainable development principles into the management of our own estate and ways of working. We were recently recognised for our efforts by the Sustainable Development Commission, coming top in the most recent survey of how departments manage land and buildings. This was very welcome feedback but we recognise there is always more to do.

This is an important report for the Department which has been approved by the Department's Management Board. It sets out a clear programme of actions for the next year on sustainable development. This report shows our continuing commitment to sustainable development, and to pushing further and faster on this agenda for the future.



Lord Truscott

INTRODUCTION

This is the DTI's second report on the actions it has taken, and plans to take, over the short and longer term to embed sustainability into everything we do.

Our role is to work with business and industry to strengthen our economic performance and develop a more innovative, competitive, resource-efficient economy. We want a strong economy that anticipates and equips the UK for changes in future markets and which provides for affordable, secure supplies of goods and services with reduced environmental impact across their whole life cycle, from design to manufacture to disposal, while being sensitive to the social impact of our policies.

We recognise that we have a major part to play in contributing to the Government's activities on sustainable development through:

- delivering sustainable and reliable energy supplies with effective engagement of the public;
- contributing to reduced carbon emissions and increasing the proportion of energy supplied through renewables and other low carbon technologies, distributed energy, waste-to-energy and energy efficiency improvements;
- increasing the use of renewable, sustainable bio-based feedstocks for the production of biomaterials and chemicals, contributing to energy savings and reducing carbon emissions and noxious waste throughout the lifecycle;
- contributing to sustainable development worldwide through international trade negotiations and EU's bilateral trade agreements;

- increasing the business contribution to sustainability by promoting co-operative approaches to sustainable consumption and production and promoting corporate social responsibility;
- leveraging the innovation opportunity from the Government's commitment to sustainable procurement;
- our lead on the overall policy framework within which the Regional Development Agencies (RDAs) deliver government policies; and
- integrating sustainability into DTI policy areas including business support.

Through our links with business and consumers and our role in setting energy policy, we are well placed to make a major contribution to the Government's sustainable development strategy – but we are aware that stimulating and embedding radical change in thinking and behaviour requires the building of capacity – skills, knowledge, resource, processes and systems; and changing mindsets – leadership, awareness raising, and effective monitoring, reporting and evaluation. Together these will ensure that future planning is modified to deliver change where it is most required and help us create a sustainable economy.

If we get it right we will be at the forefront of the agenda, making a vital contribution to a more sustainable future, and ensuring British business is well placed for the challenges ahead. If we get it wrong we risk failing to play our full part and will see businesses and consumers struggle in changing global markets.

This Report sets out what we aim to achieve, how we will achieve it, as well as our progress in 2006/7.

SUSTAINABLE DEVELOPMENT SECURING OUR FUTURE

In 1999 Government set out a strategy to help deliver a better quality of life for all, and to make sure we make the right choices now so we can secure a future that is fairer, and where we can all live within environmental limits.

In 2005 that strategy was strengthened and broadened in 'Securing the Future'. This set out the goal to enable "all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations". It set out the key principles and priorities necessary to achieve that goal, looking as far ahead as 2020, and set indicators to help Government monitor its progress towards that goal.

The five key principles are:

- living within environmental limits;
- ensuring we are a strong, healthy and just society;
- achieving a sustainable economy;
- promoting good governance; and
- using sound science responsibly.

'Securing the Future' set out four priority areas for immediate action: sustainable consumption and production, climate change and energy, natural resource protection and environmental enhancement, and sustainable communities.

In the foreword to the strategy the Prime Minister promised that each Government Department and its Executive Agencies would produce its own Action Plan to ensure delivery. This Report is the DTI's second response to that commitment, all our Executive Agencies are reporting separately.

Responsibility for delivering the plan rests ultimately with Lord Truscott, DTI Minister for Sustainable Development and the Environment, supported by the DTI Board and the Director for Sustainable Development and Regulation.

STRATEGIC APPROACH TO DTI'S 2007/8 WORK STREAMS

In considering our future activity, we have taken a strategic approach to our workstreams. We have two key priorities. Firstly, we believe **Government should lead by example**, this will empower it to advise industry credibly and with confidence about what can be achieved and how, at what cost and what benefit to their own bottom line and to the environment. To do that we need to raise our awareness within DTI, to improve our own performance and to provide advice and support on sustainability activities to industry. This activity will inform us about barriers that we and companies face, or believe we face, in our efforts to be more sustainable. This will also enable us to work with our



Wind turbine at Ness Point in Lowestoft, Suffolk

own staff and industry to overcome those barriers and set frameworks which help to deliver the right incentives for individuals, businesses and organisations to respond to those challenges.

Secondly, our role in setting **energy policy plays a vital role** in the 'Securing the Future' priorities of climate change and energy, natural resource protection and environmental enhancement, as well as being vital to a sustainable economy and to almost every aspect of our lives. It is therefore a key priority for us. Underpinning these two priorities are the necessity for a robust evidence based approach to everything we do and a good understanding and close relationship with business and the consumer.

The four key outcomes that we want to achieve through 2007/8, and their owners charged with overseeing progress against those outcomes, are to:

- continue to reduce DTI HQ's environmental footprint and develop a strategy for further reductions – responsibility DG Operations;
- quantify and start to raise the level of understanding, and awareness, of sustainable development within DTI as a building block towards integrating it into policy making – responsibility Vicky Pryce Board level Sustainable Development champion;
- develop an understanding of the barriers that industry faces with regard to sustainable development and how we might be able to help it overcome these barriers; responsibility Vicky Pryce Board level Sustainable Development champion;
- and through publication of the Energy White Paper, promote positive sustainable and environmental

behaviours eg by facilitating the demonstration and deployment of sustainable and low carbon technologies; saving energy; strengthening delivery of renewables generation; and, delivering on our wider social and environmental objectives through continued commitment to an international price for carbon; responsibility DG Energy.

These build on the key outcomes for 2006/7 of:

- Increased capacity – through
 - doubling the size of the team leading on sustainable development issues;
 - establishing a network of champions to advise and report back on sustainable development issues; and
 - appointing a Board level Champion.
- Reducing the DTI HQ's environmental footprint – DTI topped the Sustainable Development Commission's (SDC) league table of Departmental performance with four out of five stars awarded and a score of 83%.

Our recent and future activity on these and other priority areas are recorded in this report and plan, with 30 specific commitments highlighted which are critical to these outcomes. The Board is responsible for ensuring delivery and review of these commitments. We have discussed this report with business stakeholders, experts in the field of sustainable development, and with the Department of Communities and Local Government (DCLG) where we have synergies in some of our objectives. We have amended the plan as a result of those comments, changing the presentation of the report to aid clarity, setting out a clearer vision of what we want to achieve, and sharpening some of the deliverables.

MONITORING, EVALUATING AND REPORTING

Our 2006/7 strategy (www.dti.gov.uk/innovation/sustainability/Policy) has been significantly altered over the year as our resources and as our understanding of the issues has grown. For the sake of clarity and brevity we have reported back on the most significant and strategic achievements over the year. We have used this experience to develop a more tightly focussed and strategic plan for 2007/8.

Progress against our commitments for 2007/8 will be monitored by our network of Sustainable Development Champions. They will be tasked with reporting back on formal projects and commitments together with recommendations for future areas of work. Their reports will be formalised

into a progress report to the DTI Management Board to ensure visibility and learning goes right to the top of the organisation. These will be built up into a detailed report back and plan for 2008/9 for publication in 2008. We will also engage with business and our external stakeholders through the year on our priorities for 2008/9 to ensure the plan addresses current issues and has a sharp business focus.

We will continue to monitor and report on targets for our management of the DTI estate, our Public Service Agreements and other indicators through the Sustainable Operations on the Government Estate (SOGES) reporting process and the Departments' Annual Report. Departmental publications are placed on the Department's web site at www.dti.gov.uk



Effects of coastal erosion: East Lane Bawdsey, Suffolk

SUSTAINABLE DEVELOPMENT PLAN FOR 2007/8 AND REPORT BACK ON 2006/7

1 BUILDING CAPACITY AND CHANGING MINDSETS

In 2006/7 we appointed a cross Department Board level Champion, Vicky Pryce, to build our capacity for the task facing us: to ensure that sustainable development is thoroughly understood, debated and factored in to all Board level decisions. We set up a supporting network of Sustainable Development Champions across all parts of the Department to co-ordinate activity and report on progress in their area; and we doubled the size of our dedicated unit leading activity on Sustainable Development across the Department. We have also revised our induction e-learning package which became available in March 2007, to incorporate sustainable development issues and signpost people to the relevant guidance.

OBJECTIVE

1. In 2007/8 we will review Departmental business plans with a view to ensuring sustainable development is mainstreamed within them. We will report on our progress in our 2008 report.

In 2007/8 the additional resource we have put in place will be used to lead a strengthened understanding and awareness of sustainability across the Department and in the sectors with which we work. We will work towards ensuring sustainable development is an active consideration in all policy and delivery activities across the Department, and we will build the

knowledge and skill level of our staff through formal training and other activities so they can increase their effectiveness within the Department and with our stakeholders.

2 AWARENESS RAISING

We made a good start on awareness raising in 2006/7. To support the drive to integrate sustainable development into all areas of the Department's work some of our most Senior Civil Servants and managers have attended the Cambridge Programme For Industry Prince of Wales's Business and the Environment Programme or the Cabinet Office workshop to strengthen awareness and leadership skills. UK Trade & Investment (UKTI), the joint DTI/FCO organisation responsible for promoting UK businesses abroad and encouraging inward investment to the UK has provided a comprehensive tailored package of training to raise awareness and encourage staff to make UK businesses aware of the need to take account of their economic, social and environmental impacts when trading internationally. We ensure staff are aware of companies' responsibility to comply with UK law on bribery and corruption overseas, and other internationally agreed standards that seek to promote sustainable and responsible business practices. In 2006 we ran 70 such corporate courses with over 800 participants.

In our own estate we conducted awareness raising poster campaigns and developed an environmental training module for the DTI Human Resources induction program. DTI set up

the Retail Environmental Sustainability Experts Group as a forum to discuss how the retail sector can effectively support environmental protection through, for example, addressing the energy usage of its products. We also set up a Cross-Departmental Group on Sustainable Construction to share ideas with industry representatives to deliver the Sustainable Construction Strategy. Each year as part of the DTI sponsored 'Science week' the Minister for Science and Innovation invites a figure of international standing in the science world to address an audience composed of scientific representatives from academia, business and the policy-making communities. In March 2007 we invited Al Gore to deliver his environmental lecture 'An Inconvenient Truth' at the Royal Society.

Another instrument to raise awareness is the Queen's Awards Scheme. Sustainable Development is one of the three business Award categories and applicants are required to show strong commitments and progress in social, economic and leadership/management dimensions, in addition to their impact on the environment. 2007 will be the Sustainable Development Awards' seventh year, and winners were announced on 21 April, the Queen's birthday.

Despite this good start more needs to be done. In 2007/8 we will extend the awareness raising campaign to spread practical knowledge to all our staff about the importance of sustainable development, how we can stimulate this understanding, and practical action, in the sectors we sponsor and monitor. Activities will include promotion of our Action Plan, showing Al Gore's film 'An Inconvenient Truth', lunchtime seminars themed around sector

activity, best practice on sustainable development, and competitions and features on sustainability in DTI's in-house magazine.

OBJECTIVES

2. We will review what actions are required to further raise awareness and capability on how our own staff can adopt more sustainable working practices and encourage sustainability in the sectors with which they work. We will monitor the effectiveness of action to increase awareness of sustainable development through staff surveys or other methods and report on our progress in 2008.

3. We will design a communications strategy by July 2007 aligned to this Action Plan which will address how we engage with DTI staff and our external stakeholders to increase awareness further. Over the year ahead we will use the knowledge we gain to refine this strategy to target particular areas where impacts will be greatest and/or where more work needs to be done.

4. We will work to understand and remove barriers to sustainability faced by our key business sectors wherever possible. We will identify priority areas based on environmental impact and take into account recommendations of expert groups to produce a strategy to remove/overcome barriers by March 2008.

3 LEADING BY EXAMPLE: DTI AS AN ESTATE MANAGER

It is important that we lead by example and apply sustainable development principles to our internal operations. We support the community by disposing of redundant office furniture and carpets through an organisation which reworks and redistributes them. We are encouraging new, more flexible ways of working, including home-working and a pooled correspondence resource the 'Response Centre', that will help to reduce DTI's environmental footprint across the board and improve the work-life balance of our staff. Comprehensive recycling facilities are now being introduced in our Head Quarter buildings.

OBJECTIVES

5. In 2007/8 we aim to reduce our environmental footprint further and vacate one of our London buildings by summer 2007.
6. We will extend waste recycling facilities and work towards reduced packaging on goods delivered to DTI through provisions in our contracts with major suppliers.
7. We aim to achieve compliance with the EU directive on energy efficient buildings by January 2009.
8. We will establish and implement an action plan to achieve Energy Efficiency Accreditation in 2007/8.
9. We plan to participate in a new initiative to save energy with British Gas Business. BGB is encouraging private and public sector organisations to save energy, reduce their carbon footprint and help retailers save money to become more business efficient.

In 2006/7 against a Government target of 10% electricity from renewable sources by March 2008 the Head Quarters buildings were supplied with 33% green energy, and we are working towards a target of 100% green energy. We have continued with ISO14001 certification and operation of the Environmental Management System (EMS) by which DTI manages its functional environmental impacts. An EMS is a requirement of the SOGE framework and provides a structured approach to managing our environmental impacts. We have reduced the environmental footprint of our estate by reducing buildings occupied and introducing a 'hot desking' strategy; we enhanced our Facilities Managing Agent (FMA) and Operation and Maintenance (OM) contract specifications. Building infrastructure efficiency projects including looking at the feasibility of on-site and off-site micro-generation following an earlier project with the Carbon Trust. We now require the FMA and OM specification/procurement to achieve the carbon trust energy efficiency accreditation and to work to achieve compliance with the EU directive on energy efficient buildings by January 2009.

During 2006/2007 infrared taps have been installed in the London HQ building which should reduce water consumption further.

The SDC reports on progress against targets for efficient estate management by Government Departments. We are delighted that DTI topped the Commission's league table on progress for 2006/7 but we know we have further improvements to make. We are committed to doing more.

4 DTI AS A MAJOR PROCURER OF GOODS AND SERVICES

In order to ensure compliance with procurement guidelines we have published guidance on the DTI intranet for all business areas which procure goods and services on behalf of the Department. We regularly issue updates to procurement staff where changes have occurred. To assist the Department in meeting its sustainable development objectives in 2006/7 we began updating all guidance to ensure DTI personnel procure in a sustainable manner. We also ran training programmes for DTI procurement personnel on sustainable procurement.

DTI has been working closely with Defra on the June 2006 Sustainable Procurement Task Force Report and follow up action. We are represented on the Sustainable Procurement and Operations Board, which has been overseeing progress.

In 2006/7 the joint DTI/Defra Environmental Industries Unit worked with procurement professionals to demonstrate 'the Forward Commitment Procurement Model', pioneered by the business led Environmental Innovations Advisory Group. The project aimed to show at working level how the power of public sector procurement can be harnessed to create much needed innovative solutions for pressing environmental problems, such as waste management and energy efficiency.

In this model, procurement becomes a means of delivering policy objectives. It requires no additional funding, and promises to deliver better, cheaper sustainable solutions. It involves making changes in the way specifications are developed, by focussing on outcomes rather

than products, and the way in which procurement and supply chains are managed, by involving early market engagement. The public sector receive the solutions they need, and innovating companies get a visible market for their products.

OBJECTIVE

10. In 2007/8 we will produce and disseminate the Forward Commitment Procurement Model. A second phase of demonstration projects is being put in place in the public sector. We will identify 'quick wins' for government to stimulate innovative sustainable product and service markets through forward commitment procurement. Specifically we will complete current Her Majesty's Prison Service and London Fire and Emergency Planning Authority pilots by summer 2007.

5 DTI AND ENERGY POLICY

There are two major long term challenges facing UK energy policy:

- Tackling climate change by reducing carbon dioxide emissions both within the UK and abroad; and,
- Ensuring secure, clean and affordable energy as we become increasingly dependent on imported fuel.

The UK's Energy Review examined the UK's progress against the medium and long-term 2003 Energy White Paper goals and considered options for further steps to achieve them. The conclusions, published in the Energy Review Report in July 2006, are a large, ambitious, evidence-based package of measures including further action on both the energy supply and demand side. They reflect the scale

and complexity of the challenges and (necessarily) propose action on many different fronts.

The Energy Review Report made clear that it was Government's responsibility to put in place the right regulatory framework; to remove barriers; and; to incentivise the market to come forward with timely investment in low-carbon generation.

It is also clear that we require a coordinated energy strategy, with energy efficiency and the need for cleaner and more sustainable energy at its heart. To achieve this we need to bring forward new technologies and strengthen our commitment to renewables. Within the review we announced a consultation on the Renewables Obligation on whether and how to move to banding to facilitate the prospects of emerging technologies (eg wave/tidal stream) becoming commercial. The consultation closed in January 2007 and as this report is being written responses are being considered.



Photovoltaic cells producing electricity directly from solar energy

OBJECTIVE

11. We aim to complete the Microgeneration Strategy actions to tackle some of the wider barriers preventing development of a sustainable market for microgeneration technologies by April 2008. These range from an assessment of existing communications to a review of the permitted development regime. Of 25 actions, seven were complete as at March 2007.

Microgeneration (the production of heat and/or electricity on a small-scale from a low carbon source) has the potential to help us achieve our objectives. The Government's Microgeneration Strategy aims to create conditions under which microgeneration becomes a realistic alternative or supplementary energy source for the householder, for the community and for small businesses. In 2004 there were some 82,000 UK microgeneration installations. A study we commissioned from the Energy Saving Trust suggested that by 2050 it could provide 30-40% of the UK's electricity needs and help reduce annual household carbon emissions by 15%.

The government provides grant funding for installation of microgeneration technologies under the Low Carbon Buildings Programme. £30 million has been made available to support projects in households, community and other organisations. Phase 2 takes forward the 2006 Budget commitment of an additional £50 million of capital grant funding for the installation of microgeneration technologies in the public and charity sectors (social housing, libraries, hospitals, schools etc).

OBJECTIVES

12. In 2007/8, with Defra, we will finalise allocations for phase 2 of the EU Emissions Trading Scheme and with Defra and the Office of Climate Change we will negotiate the UK position on future trading. The scheme will provide clear incentives for investment in energy efficiency and cleaner technology at lowest cost.

13. Following the 2005 strategy to develop and commercialise Carbon Abatement Technologies (CATs) some £3-4 million will be made available annually in the Department's Technology Programme for research and development of CAT. Proposals for funding worth £10 million are under assessment.

14. We will make two additional calls for proposals between 2007 and 2009 worth £25 million in total.

15. In his Budget statement on 21 March 2007, the Chancellor announced a competition to develop the world's first full carbon capture and storage demonstration project in the UK, in recognition of the potentially important role that this technology could play in reducing carbon emissions world-wide. He also announced more funding for microgeneration and collaborative R&D projects. DTI will lead this work.

16. DTI will work with other Government departments, for example Defra and the Department for Transport (DfT) to engage consumers to support informed choices on the full range of low carbon, sustainable energy options.

We are also tackling carbon emissions by supporting the commercialisation of Carbon Abatement Technologies (CATs). Following the 2005 strategy DTI launched a Hydrogen Fuel Cells and CAT Demonstration Programme in 2006 which allocated £35 million for carbon abatement and carbon capture and storage technologies.

While we are supporting a number of promising technologies it is clear that at a time when much of our existing electricity generating capacity is due to close, we must ensure that any energy strategy provides secure and affordable supplies for the future. Taking forward a major package of further work involving significant public consultation and analysis, it became clear that the context within which the UK set out its energy policy in the Energy Review was changing. As highlighted by Sir Nicholas Stern, climate change is a global problem requiring a co-ordinated global response.

The Energy Review is part of an ongoing programme of work leading towards a final Energy White Paper in 2007.

6 SUSTAINABLE CONSUMPTION AND PRODUCTION

DTI and Defra jointly lead on delivering the Sustainable Consumption and Production (SCP) commitments set out in 'Securing the Future'. SCP seeks to deliver products and services with lower social and environmental impacts across their life cycle, whilst at the same time boosting competitiveness.

We work with other Government Departments and third parties to help improve resource productivity, particularly in business. We do so in order to contribute to growth in the nation's wealth and competitiveness in a way that is sustainable in the

long term. Sustainable products and processes are more cost-effective and socially beneficial as well as more resource and energy efficient.

DTI has wide ranging contacts with business from major international firms through our sector specialists, to small businesses through our Small Business Service (SBS). We have interactions with businesses and consumers through a range of services and seek to ensure good governance and environmental awareness and responsibility through those arrangements.

We have a particular responsibility for helping industry to appreciate how social, environmental and economic factors need to be integrated and we encourage commercial organisations to appreciate that the changes required for sustainable development are not only in the best interest of the planet – but also in their own best interests in terms of retaining an increasingly environmentally aware and knowledgeable customer base and can lead to new and exciting market opportunities and increased profitability.

A good example of the activity undertaken is the Business Support Simplification programme. A pan-Government initiative aiming to make publicly-funded business support easier for businesses to understand and access, more effective and better value for money. In order to achieve this, it is creating a shared set of business support products and services including initiatives that help people run their business in a more environmentally sustainable way.

Our Industrial Biotechnology Strategy aims to ensure that the world class science base in industrial biotechnology is translated into innovation, jobs

and prosperity for the UK. We are working with key organisations and the Bioscience for Business Knowledge Transfer Network to grow Industrial Biotechnology company capability to enable a wide range of industries to manufacture products in an economically and environmentally sustainable manner.

Our retail unit set up a Retail Environmental Sustainability Expert Group for retailers, the British Retail Consortium, other Government departments and other stakeholders to develop a clearer understanding of how we can work together on retail sustainability. The group will meet regularly as the main information sharing forum for assisting the retail sector in their sustainability endeavours in the wake of the Stern Review.

In 2006/7, in support of our SCP objectives, we continued to support the National Consumer Council (NCC) in its work on sustainable consumption. The Sustainable Consumption Roundtable, jointly run by the Sustainable Development Commission and the NCC, works to promote sustainable consumption, and produced practical recommendations for actions to create a shift to more sustainable lifestyles. DTI's support for the NCC will continue in 2007/8.

We are working with the relevant Trade Associations and the Chemistry Innovation Knowledge Transfer Network (CIKTN) to encourage the embedding of sustainability in the chemicals, and chemistry using, industries. This is recognised by leading trade bodies. The strategy developed by the former Chemistry Leadership Council – A Vision for the Sustainable Production and Use of Chemicals – is being taken forward by



Pump-turbine hall at Dinorwig hydroelectric power station

the Chemical Industries Association, the Royal Society of Chemistry and the Institute of Chemical Engineers. The CIKTN has identified five key platforms within its innovation agenda – which includes sustainable technologies – the design of processes and products so as to minimise environmental impact, and sustainable manufacturing – the lowering of industry's environmental impact through process and product innovation whilst maintaining regulatory compliance and increasing competitiveness. We will continue to monitor activities through the trade associations and stakeholder groups.

The Government remains firmly committed to the Manufacturing Advisory Service (MAS), working in partnership with programmes such as Envirowise. By its very nature, MAS has had some impact on resource efficiency and this will remain the case as we enter the next phase of MAS. A project plan will be initiated by August 2007 setting out the desired outcomes for future activity in this arena.

An important contribution to SCP announced in the Budget Statement on 21 March 2007, is to explore through the Technology Strategy Board three new Innovation Platforms focussing on low impact buildings, low cost carbon vehicles and assisted living technologies.

OBJECTIVES

17. We will develop a joint Government/industry strategy for sustainable construction which will seize the opportunity in construction and operation of new and existing buildings and infrastructure, and include robust and achievable targets by Autumn 2007.

18. DTI will co-ordinate a Government response to retailers' comments on the 2006 Stern Review. The response is part of an ongoing dialogue with retailers who share a strong degree of enthusiasm to meet sustainability challenges and are keen to exploit the pivotal role they play in delivering the sustainable products agenda and influencing consumer behaviour in the future. A key aspect of the ongoing work will be how we can work together to remove barriers to a truly sustainable retail sector.

In 2007/8 we will work with key business sectors to encourage best practice and understand the barriers sectors face to sustainable consumption and production, we will work with them to overcome barriers and increase competitiveness.

DTI and Defra support the Sustainable Consumption and Production Business Taskforce. The Taskforce looks at practical ways in which businesses

can move to more sustainable patterns of consumption and production in ways that boost competitiveness and contribute to economic growth. The Taskforce will make recommendations to Government on how policy can support such progress.

The Taskforce is promoted by four business networks – Business in the Community (BitC); the Business Council for Sustainable Development UK, the Prince of Wales's Business and the Environment Programme and the University of Cambridge Programme for Industry – the Secretariat for the Taskforce. The group was set up in February 2006 and will complete its work by March 2008.

7 IDENTIFYING AND SUPPORTING EMERGING MARKETS

Another thread to our work supporting the sustainable consumption and production agenda, and that of sustainable development more generally, is working with business to identify emerging markets technologies and trends and support to allow commercialisation of beneficial technologies.

In 2006/7 DTI and four founder energy technology companies published a prospectus for the Energy Technologies Institute committing up to £500 million to match private sector funding over 10 years to a 50:50 public private partnership to identify and accelerate the deployment of technologies with the greatest promise for delivering energy policy objectives. By January three additional private sector funding partners brought total private sector commitment to £312.5 million over 10 years. It is intended to bring a new strategic focus to industrially-relevant energy R&D in the UK and contribute

to the UK's response to the challenges identified in the Stern Review on Climate Change.

The business-led Environmental Innovations Advisory Group (EIAG) is tasked with identifying practical measures to tackle barriers to innovation in the environmental industries sector, and to mobilise key stakeholders to bring about change. It was established jointly by DTI and Defra in April 2003 to build on and take forward the work of the Environmental Innovations and Growth Team, which had looked at the strategic challenges and opportunities facing the environmental industries sector.

In November 2006 DTI and Defra announced a review of how the UK can make the most of the key opportunities that environmental protection can present for wealth creation and employment growth. A Commission was set up, drawn from business, NGO's, academia, trade unions and public sector organisations to investigate the likely growth of global markets in environmental goods and services over the next 20 years building on the economic analysis and opportunities identified by EIAG. It was asked to consider among the issues – what kinds of environmental policy/regulatory approaches best drive innovation and whether there are gaps in the current framework. It will report back in spring 2007.

8 DTI AND THE REGULATORY ENVIRONMENT

DTI also has an important function to ensure appropriate business and consumer regulation which supports fair trade and consumer rights; and enforces compliance with environmental regulations. Our

regulatory activity can support the 'Securing the Future' environmental and community objectives by removing unnecessary barriers to innovation and environmental activity and supporting a fair society where there is social inclusion and cohesion.

For example, in relation to environmental legislation the DTI plays a lead role in areas of extended producer responsibility (Waste Electrical & Electronic Equipment, End of Life Vehicles, and Batteries). DTI also works closely with Defra on wider Air, Water, and Waste legislation.

The DTI is the Government Department which deals with consumer policy issues. We want to ensure that UK consumers are treated fairly, know their rights and can use them effectively. Whether shopping and trading traditionally, or nationally and internationally on the internet, we want to ensure they can rely on better service, safer products, and fair advertising, marketing and pricing. This requires effective enforcement of consumer standards – which will not only protect the consumer, but also strengthen British business.

In 2006/7 the Consumers, Estate Agents and Redress Bill was introduced, it completed its passage through the House of Lords, and was given its First Reading in the House of Commons in February 2007. Proposals include measures to:

- provide a power to extend to solicited visits, the cancellation rights and cooling off period such as those that consumers currently enjoy for unsolicited visits to their home;
- strengthen and streamline consumer representation, require suppliers in the

energy and postal services sectors to belong to a redress scheme to ensure complaint resolution for consumers and award compensation where warranted;

- extend Consumer Direct to cover enquiries and simple complaints from customers in the gas, electricity and postal services sectors to provide a simpler line of communication between a complainant in the regulated sectors and a single consumer advice service;
- require estate agents to belong to an independently approved ombudsman scheme which will determine disputes between estate agents and buyers or sellers of residential property in the UK;
- require estate agents to make and keep adequate records of their dealing with a client for six years; give the Office of Fair Trading (OFT) and Trading Standards Officers powers to inspect an estate agent's files on a transaction; and give the OFT more scope to consider an estate agent's fitness to practice.

OBJECTIVE

19. In 2007/8 we will supervise the passage of the Consumers, Estate Agents and Redress Bill through Parliament.

In 2006 we provided substantial input to the European Commission's review of state aid guidelines for research and development and innovation securing changes to protect state funding of demonstration projects and for innovation infrastructure which encourages business to invest in and interact with cutting edge technology and research. Renewable energy will be amongst the prime beneficiaries of the new rules. In 2007/8 we will work towards removing obstacles

to using public funds to engage business in sustainability actions when the EU Guidelines on State Aid for Environmental Protection are reviewed in December 2007.

OBJECTIVE

20. We will commence relevant provisions of the Companies Act 2006 on 1 October 2007. The Companies Act 2006 added to the information which quoted companies are required to include in the business review in their annual directors' report. The additional specified requirements include, to the extent necessary for an understanding of the company's business, information about environmental matters, including the impact of the company's business on the environment. The relevant provisions of the Act will commence for financial years beginning on or after 1 October 2007. We will review their operation after two years.

In 2007/8 as part of the employment law simplification review we will carry out a number of projects aimed at reducing the costs and complexity of employment law without diluting employee or union rights – including a review of Government support for resolving disputes in the workplace with recommendations in Spring 2007; and development of a tool to give clarity on individuals' employment status – and what rights apply.

OBJECTIVE

21. Addressing fuel poverty is one of the four key goals of energy policy, with targets for 2010 and 2016. DTI share with Defra the aim of eradicating fuel poverty in England with targets to seek an end to fuel poverty in vulnerable households (ie one containing children or those who are elderly, sick or disabled) by 2010. Fuel poverty in non-vulnerable households in England will be tackled once progress has been made on the vulnerable groups, with a target that by 2016, as far as reasonably practicable, no one in England should live in fuel poverty. Commitments to tackle fuel poverty and provide affordable warmth were reaffirmed in the 2006 Energy Review. In 2007/8 we will examine the effectiveness of current measures on the vulnerable fuel poor.

A range of further actions on fuel poverty were announced in the Energy Review, published in July 2006. We acknowledged that we needed to get details of what help is available to those who need it most, and that further action might need to be considered. Subsequently, we have worked with the Pension Service, energy suppliers and others to co-ordinate a mail out to some of the most vulnerable pensioner households this winter, which was completed in November 2006. The mail-out included details of assistance currently available and received a relatively high response rate of 7%. DTI is considering how to take forward the lessons learnt so these can be used to determine how we take forward work for next winter.

DTI has helped employers to become high performing workplaces where employees' potential is realised in a sustainable manner that promotes good health and wellbeing and delivers real business benefits; in 2006/7 we supported Union Learning Representatives to encourage workers to develop new and sustainable skills. In 2006 there were over 14,000 trained representatives, estimated to help 100,000 of their fellow workers into training and learning that year. By 2009 we will launch two pilots which will develop local partnerships to help vulnerable workers secure their employment rights, and put them in touch with opportunities to develop their skills; they will also help employers to comply with the law, and help raise workplace standards.

9 STANDARDS AND TECHNICAL REGULATIONS

Common regulatory requirements for products across Europe mean that goods can be traded freely to a common standard. The DTI's Technological Innovation Group works to negotiate technical regulations at European level and implement them into UK law. Products that comply carry the familiar CE marking and cover a vast range of items from common household electrical goods to heavy industrial machinery. We offer a comprehensive range of guidance material on the EU Directives and corresponding UK Regulations.

We work to build a standards and conformity assessment infrastructure which meets the needs of UK industry through a range of policy activities and through our relations on behalf of Government with the British Standards Institution (BSI) and the United Kingdom Accreditation Service (UKAS).

In 2006/7 DTI worked with BSI on BS 8900, Guidance for Managing Sustainable Development, the first standard on sustainable development, which was published in March 2006.

OBJECTIVES

22. In September 2007 BSI and DTI will launch BS 8901 a standard for sustainable events management and a response to the London 2012 Games.

23. In 2008 we will finalise ISO 26000 the Corporate Social Responsibility Standard.

ISO 26000 the development of Corporate Social Responsibility standard at ISO level is an important project. DTI is playing an active role in the development of this standard which we aim to finalise in 2008 and in 2006/7 we secured funding for UK experts to feed into the standards development process.

10 CORPORATE SOCIAL RESPONSIBILITY

Alongside our involvement in the International Standard on Corporate Social Responsibility (CSR) we are supporting CSR at home. DTI has secured the transfer of the CSR Academy to a not for profit organisation which will enable it to continue to grow and develop business led educational tools on CSR. We are promoting the DTI sponsored Business in the Community Annual Impact on Society Awards which are part of a wider series of annual Awards for Excellence, announced in July 2007.

We also aim to make sure our own house is in order – UK Trade & Investment has put in place a monitoring survey that provides a

Case Study | Good governance standards

DTI encouraged Royal Mail to put sustainable development at the heart of its planning processes and Royal Mail has responded to that challenge and is committed to sustainable development both nationally and locally. It is involved in the Energy Savings Trust to assist the development of its Transport Charter and is working with the Carbon Trust in their Carbon Management Programme to assess cost effective operational carbon reduction opportunities focused on energy management measures.

robust economic evaluation of its services helping to promote good governance in its internal management. In 2006 the Patent Office reviewed its social impacts and formalised its objectives in respect of CSR. During 2007/8 the Patent Office will review its CSR activity to ensure it continues to make a positive contribution to the community.

DTI also retains a shareholding in some companies and as a shareholder aims to ensure good governance standards are maintained.

11 REGULATORY IMPACT ASSESSMENTS

Regulatory Impact Assessments (RIAs) are an important part of effective risk management and help evaluate environmental impacts. DTI's approach to RIAs was positively assessed in the 2006 National Audit Office Compendium Report on Evaluation of Regulatory Impact Assessments.

The integration of sustainable development concerns and analysis is an important part of the development of RIAs in DTI. In the case of the EU environmental directive on Waste Electrical and Electronic Equipment (WEEE) the analysis was almost entirely an assessment of the most cost-effective and cost-beneficial way of achieving sustained environmental quality. In other cases, such as the

Air Quality Strategy Review, the RIA underpinning the proposals has been cast in an entirely sustainable development framework.

Where necessary a pragmatic approach is taken, for example to ensure proportionality or appropriate timeliness, or sometimes on cost grounds. For example in the case of the Air Quality Strategy the sustainable development concerns were addressed by looking at the distributional impacts of measures in a qualitative sense, rather than providing a full monetisation of all the cost and benefit implications on local communities, societies or regions. So where the RIAs conducted recently in government such as the WEEE directive have tried to monetise costs and benefits as much as possible, overall there are a number of analyses conducted, especially on the environmental front, where monetisation of full quantification is still not feasible, and more qualitative analyses are provided.

Further work needs to be done and Government economists are working together through the Inter-Departmental Group on Costs and Benefits to try to identify and agree methodologies about how to quantify effects of negative externalities so that they can be included in RIAs.

12 DTI AND GLOBAL MARKETS

DTI promotes responsible trade in global markets through UKTI. We recognise that promoting international business opportunities for UK-based companies can bring about very significant environmental and social benefits to our overseas trading partners.

Trade brings economic stability and modernisation, and can help developing countries leap frog some of the most environmentally damaging intermediate technologies associated with industrialisation. 'Prosperity in a Changing World' launched in July 2006 set out how UKTI would co-ordinate the Government's efforts to create the conditions in which business can flourish in a global market place. It seeks to market the UK economy internationally whilst fully embracing sustainability.

A key priority is to bring environmental benefits of mature and innovative technologies to new and emerging markets. Knowledge-intensive businesses and innovative sectors working in partnership with the research and academic communities have a critical role to play in helping high growth markets such as China and India adopt the technologies necessary

to achieve transformational change to support climate change targets.

British expertise in areas such as renewable technologies and emissions trading, restructuring and environmental consultancy, and waste management are highly regarded globally. Showcasing British expertise internationally in these fields helps to spread good practice in sustainable business development for the wider benefit of local communities as well as helping to support the UK economy. Examples in 2006/7 include a wide range of activity from mainstream education, through specialist areas such as special needs. Specific initiatives include backing model classrooms in rural South Africa and taking a leading role in the Rebuild Iraq exhibition.

Through UKTI's Aid-Funded Business Service we raise awareness of opportunities offered by the multilateral development agencies. Agencies such as the World Bank Group work to improve the prosperity and wellbeing of people in developing countries but need businesses to successfully deliver projects. They also recognise that promoting joint ventures, partnerships and investment between UK companies



UK Coal's Harworth Colliery headquarters near Doncaster, South Yorkshire

and those in the developing world assists the development process. Fostering the private sector in poorer countries promotes growth and employment, develops capacity and encourages the transfer of technology. Through these links DTI is working to respond to the challenge of sustainable development for future global markets and sees this as a distinct value-added that the Department can bring to the sustainability agenda.

Our work on liberalisation of trade in environmental goods and services will facilitate the export of technologies and skills which can promote sustainable development. In particular we have worked to reduce the levels of trade distorting subsidies, particularly in agriculture and fisheries. Disciplines on fish subsidies will help reduce over fishing. In 2005/6 we also contributed to sustainable development worldwide through strong advocacy of the Doha Development Agenda, and through our work to take forward Economic Partnership Agreements (EPA) and the EU's bilateral Free Trade Agreements (FTA).

We have also supported the use of Sustainability Impact Assessments by the European Commission, to assess the impact of trade liberalisation and identify flanking measures that may be needed to support environmental and social objectives.

We have worked to prevent trade barriers being established in the name of the environment, which would impede sustainable development in developing countries and lessen competitiveness in Europe.

In 2007/2008 we will continue to work to achieve an ambitious, pro-development outcome to the Doha

Development Agenda and we will conclude the EPA negotiations by the end of 2007 and ensure a strong focus on sustainable development in the new FTA negotiating mandates.

13 DTI AND SCIENCE & TECHNOLOGY

Using Sound Science responsibly is one of the five principles of 'Securing the Future'. It is explained in that document as 'Ensuring policy is implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes/values.'

Science and technology provide an essential contribution to understanding the challenges of climate change and sustainable development, and thus providing the science-based evidence to inform policy, as well as offering the practical solutions to help to tackle these challenges. DTI contributes over £3 billion annually to the UK's research base through funding to the UK Research Councils from its Science Budget. High priority is given to addressing sustainability issues, including developing a better understanding of the environment and the impact we have upon it, and helping to develop technologies and practices essential to tackle the issues of sustainable development.

The Research Councils support basic, strategic and applied research and related postgraduate training across the sciences and humanities. They fund a variety of research work which has the potential to impact on a broad range of sectors. For example: The Natural Environment Research Council (NERC), with £382 million from the Science Budget for 2006/7, is focusing on understanding Earth's life-support systems; predicting and mitigating

the impacts of climate change; and identifying sustainable solutions to the challenges of energy, land use and hazard mitigation.

The Engineering & Physical Sciences Research Council is supporting research into the goal of a sustainable future society and supports engineering and innovative manufacturing – together amounting to over £148 million in 2006/7.

In October 2006 the UK Energy Research Council, supported by the Office of Science and Innovation, DTI and the Energy Research Partnership, published a review of UK activities and capabilities in relation to the development of low carbon energy technologies designed to enable an action plan to be developed.

In 2006/7 we undertook a thorough reappraisal and reinforcement of Science and Technology policies and delivery mechanisms through our engagement with the House of Commons Select Committee Inquiry and Reports (including the Case Studies) into Scientific Advice, Risk and Evidence Based Policy Making.

In January 2007 Malcolm Wicks, Minister for Science and Innovation, launched the *sciencehorizons* project – to explore public aspirations, expectations and concerns around the health, safety, ethical, social and environmental implications of new and emerging areas of science and technology over the next 15-20 years. This will report in Autumn 2007.

In March 2007 we held National Science and Engineering Week the UK's premier showcase for science, engineering, technology and social science. We chose energy and climate change as our theme.

OBJECTIVES

24. In 2007 we will update and refresh the Code of Practice for Scientific Advisory Committees in light of the House of Commons Select Committee Report recommendations into Scientific Advice, Risk and Evidence Based Policy Making.

25. We will review the role and support to Chief Scientific Advisers by December 2007. CSAs aim to deliver scientific evidence into all policy-making.

26. We have already hosted networking events on evidence and risk in policy-making and will in 2007/8 support at least six best practice workshops which promote good practice and consistency in policy development and delivery across Whitehall, including on the use of horizon scanning in Government, scientific peer review, analytical co-ordination, and how to engage the scientific community (both internal and external).

The Foresight Programme and its Horizon Scanning Centre

Foresight, and its Horizon Scanning Centre is an important vehicle supporting our aim of creating a society that is confident about the development, regulation and use of science and provides challenging visions of the future, to ensure effective strategies. It provides a core of skills in science-based futures projects and unequalled access to leaders in government, business and science. The Horizon Scanning Centre aims to inform Government decision-making and identify the implications of emerging science and technology and enable others to act on them. It

provides tools and support to spread good practice in departmental horizon scanning, including coaching, providing advice, brokering agreements and creating synergies that make the best use of resources. Outputs feed directly into cross-government priority-setting and strategy formation. The work of the Centre is informed by the science base and by the best of existing work in Government, the private sector and elsewhere.

OBJECTIVES

27. In May 2007 Foresight will co-sponsor a 'Futures Fair' conference with the Royal Institute of British Architects on how sustainability might be delivered in the built environment.

28. In October 2007 the findings of the Foresight project on tackling obesity will be launched. The project aims to identify how to deliver a sustainable response to obesity over the next 40 years. It has assembled the state-of-science evidence base – published in March 2007 – and undertaken an analysis of obesity in the UK. It has developed future scenarios and is exploring policy implications. Foresight is working closely with a number of other Government Departments to ensure findings inform the wider obesity strategy.

29. In 2007/8 we will commission the state of science evidence base and build on it to explore future drivers and uncertainties in relation to the challenges identified in the Foresight project on Mental Capital and Wellbeing. The five key challenges identified were Learning through life; Mental ill-health; Mental wellbeing and work;

Learning difficulties, and Mental capital through life. Cross cutting themes on wellbeing, cohesion, and sustainability with an ageing demographic profile will be explored. In the second half of 2007 the project will identify and focus on a number of key policy challenges for the future. We will work with DfES, DH, DWP and others.

The current round of Foresight operates through a rolling programme that looks at three or four areas at any one time. The starting point for a project area is either a key issue where science holds the promise of solutions, or, an area of cutting edge science where the potential applications and technologies have yet to be considered and articulated.

In 2006/7 the Foresight Programme included an analysis of demand for energy in the built environment and the potential future role and relationship of centralised and decentralised energy generation – looking at scientific, technical and economic issues from demand management to barriers to changes in behaviour. The work will be used to inform future strategies.

Foresight also launched findings of the Project on Intelligent Infrastructures. The project explored how science and technology might be applied over the next 50 years to the design and implementation of intelligent infrastructure systems for transport and alternatives that are robust, sustainable and safe. In the year since the findings were launched over 50 follow-up actions were taken with a diverse range of stakeholders. Some of these actions contributed to the broad sustainability agenda – the findings informed the NERC Centre for Ecology and

Hydrology's work on Environmental Sustainability; the Sustainable Business Taskforce; and Sustainable Development Commission.

The Technology Strategy Board

The Technology Strategy Board (TSB) is playing a key role jointly with business in supporting research and innovation which responds to the sustainability agenda. Since the Board was established within DTI over two years ago, it has funded (with support from DTI, Defra, Research Councils, RDAs and Devolved Administrations) collaborative research and development projects in areas such as renewable energy, energy efficiency, non-food crops, waste management, resource efficiency and environmentally friendly transport.

In addition, a number of Knowledge Transfer Networks (KTNs) bringing together academics and business have been supported, including Resource Efficiency, Integrated Pollution Management and Low Carbon & Fuel Cell Technology KTNs. The Board is also taking forward Innovation



Effects of coastal erosion, Covehithe Suffolk

Platforms, in conjunction with a number of Government Departments, which aim to join up research with future procurement opportunities in areas where major societal challenges are faced such as traffic congestion and low carbon vehicles and buildings.

Due to the success of the TSB to date, later this year it will be established as an Executive Non Departmental Public Body with responsibility for delivering the Government's support for technology and innovation. It will have sustainable development built into its assessment framework and is required

Case Study | £800,000 project to create 'greener' air-conditioning in planes, trains and buildings

The UK Government is funding a consortium to help develop 'greener' air-conditioning systems, which are more energy efficient, cost effective and environmentally friendly for planes, high-speed and underground trains and buildings.

Adoption of aircraft-style 'air cycle' air-conditioning technologies in buildings would eliminate emissions of conventional hydro fluorocarbon, or greenhouse gases.

Air traffic is forecast to double over the next 15 to 20 years, so this project is of vital importance. A reduction of only 10% in the fuel burn for heating and ventilating air for the 25-year lifetime of the current fleet could reduce emissions of CO₂ by 14.4 Mega tonnes, the same energy usage as 2,526,315 homes.

The £800,000 two-year research and technology project, named New Environmental Control System Technology, or NECST, will create the technology needed to develop the air-conditioning systems.

to employ mechanisms to ensure the high quality, sustainability, relevance and impact of the programmes that it funds and promote and support sustainable development in carrying out its activities.

The Innovation Platform on Low Impact Buildings, endorsed by the Board in February 2007 will accelerate the development of cost effective solutions to enable UK business to become a world leader in Zero Carbon buildings. A parallel set of initiatives being pursued will tackle key challenges to upgrade the existing stock eg as insulation of solid wall buildings and how to integrate renewable energy sources. The programme will support research where there are clear innovation gaps and will act as an accelerator for technologies that have not yet reached the market by testing clusters of new technologies in demonstrator programmes.

Biotechnologies Contribution to Sustainable Development

DTI believes that industrial biotechnology (defined as the application of biotechnology for the processing and production of chemicals, materials and energy) will be key to achieving a successful business-base in the 21st century and will form an important contribution to reducing energy consumption and waste.

In the longer term, as the human population grows, and with changing customer demands, sustained economic development will depend on a secure supply of raw materials as inputs for manufacturing. The majority of consumer goods are currently made from hydrocarbons from the petrochemical industry. The natural processes of plants and micro-organisms produce biochemicals

and raw materials that can be used to sustain industries. These materials can be converted to products by using enzymes from living organisms and processes such as fermentation. Often the products cannot be manufactured by any other means, or their production routes are cheaper and cleaner than alternative chemical routes.

Global chemical production in 2006 amounted to €1476 billion. The EU accounted for €436 billion, making it the worlds second largest producer of chemicals behind Asia. The continued pressure on manufacturers to find more efficient ways to produce chemicals has led McKinsey to predict that by 2010 10% of all European chemical production will involve a bioroute.

The OECD conducted a series of case studies in 2001 (OECD 2001. The Application of Biotechnology to Industrial Sustainability) and concluded that biotechnology invariably led to a more environmentally benign process contributing to reducing energy consumption and waste, for example the production of bio-plastics derived from cornstarch can reduce the inputs of fossil fuels by between 17-55% compared to the conventional alternatives. The study also concluded that biotechnology reduced costs, in some cases by 10-50%.

The Bioscience for Business Knowledge Transfer Network (KTN) will continue to facilitate an initiative to develop the technologies and businesses needed for the UK to become a bio-based economy. The KTN will work with Research Councils, Industry and Defra to help create sustainable manufacturing processes and the large scale deployment of second and third generation bio-refineries in the UK.



Chemical plant

14 WORKING WITH OTHERS

We see our links with business and Government and other organisations as crucial to inform our own and cross Government thinking on sustainability issues and to enable us to feed back key messages on our direction and focus. We have links with many groups and organisations – for example the European Commission which sets the framework for much of our work and where we aim to influence future policy development eg on State Aid rules relating to state support for environmental investments by industry and innovation infrastructure; Defra who we work closely with on a range of Sustainable Development issues and particularly on Sustainable Consumption and Production; the Regional Development Agencies where we set the overall policy framework; other Government Departments, the National Consumer Council, and the Research Councils who we work with or support on some common objectives; and with trade associations and businesses in a wide range of sectors from major players to small businesses.

DCLG RDAs and Executive Agencies

DTI and DCLG work together on a number of areas including improvements in the economic performance of all English regions and in 2006/7 DCLG has taken over responsibility from DTI of the objective to bring about measurable improvements in gender equality across a range of indicators, as part of the Government's objectives on equality and social cohesion. DTI and DCLG are working together to support the proposed Building A Greener Future policy on moving towards zero carbon housing development. The department is represented on the 2016 Task Force addressing barriers to delivery.

DTI leads on the overall policy framework within which the Regional Development Agencies (RDAs) deliver government policies. However, DCLG retains policy responsibility for the regeneration initiatives delivered by the RDAs.

The RDAs are required to contribute to sustainable development and produce Regional Economic Strategies setting out a clear focus on strategies for economic development and actions to implement them based on sustainable development principles. The current Tasking Framework under which RDA's operate includes a Sustainable Development Public Service Agreement (PSA) target as one of the four overarching PSA Targets. The RDAs are expected to contribute to this target, through their own interventions and those of their regional and sub-regional partners-measured through their strategic added value activities. As part of the Comprehensive Spending Review (CSR) 2007, PSAs will represent the top priority outcomes that the Government wants to achieve in the next spending period. The Government

aims to set clear outcome focused PSAs across Government according to the key challenges and opportunities facing the UK.

As part of their three-yearly regional economic strategy and corporate plan reviews, RDAs will take forward the recommendations of the Stern Review, particularly in capturing the economic opportunities that early action on climate change offers. The RDAs are also aiming to develop a common methodology to identify carbon savings from their operations and projects across each of the English regions, and their Sustainable Development Group will be meeting during 2007 to consider how this can be taken forward. They will carry out an audit of existing good practice in a joint paper on how they can support the climate change agenda. The South East's strategy already includes a CO₂ reduction target that by 2016 it will achieve a reduction of CO₂ emissions by 20% from 2003 levels, as a step towards the national target of a 60% reduction by 2050. The South West's Strategy has a strong emphasis on measuring prosperity in terms of well-being, and not just economic outputs. Environmental technologies especially renewable energy and waste are identified as one of the eight priority sectors for the region.

Operationally RDAs have a Sustainable Development Group which seeks to draw together RDA activity on sustainable development issues and DTI and Defra are actively engaged with this Group.

DTI and the RDAs are also working together on the Sustainable Consumption and Production agenda where we are looking at how we can work to strengthen our engagement on Sustainable Construction and energy policy.

OBJECTIVE

30. In 2007/8 the SBS will continue to work in partnership with the Regional Development Agencies to develop the Business Link Information Diagnostic and Brokerage service to ensure businesses have easy access to the information and support available from government including ways to make their businesses more sustainable and competitive.

In 2006/7 DTI joint funded with RDAs a £90 million project on environmentally friendly aeroengine technologies; £400,000 to a project to develop 'greener' air conditioning systems led by Honeywell; £250,000 to a biofuel project led by Green Biologics Ltd; £278,000 to a biodegradable bioplastics project.

DTI and RDAs in the North East and Yorkshire are co-funding demonstration programmes to provide gas and renewables solutions to deprived communities within the regions. The programmes will be delivered by 2009 by Community Energy Solutions, a community interest company. DTI plans to set up similar programmes in other RDA areas.

DTI's Executive Agencies

The DTI has a number of executive agencies: the Advisory, Conciliation and Arbitration Service (ACAS), Companies House, Insolvency Service, National Weights and Measures Laboratory (NWML) and the Patent Office. All the Executive Agencies have confirmed that they will report on their sustainable development plans for 2007/8 through their own, published, Sustainable Development Action Plans which will detail their activities towards increased sustainable development.

Case Study | The Patent Office

- The Office will switch to green energy by October 2007.
- An environmental information board has been introduced to increase awareness amongst staff and will include a regular update on office recycling statistics.
- The canteen providers use 100% biodegradable cornstarch in the wrappings for pre-packed sandwiches. The restaurant recycles all the plastic containers, cans and cardboard from packaging, along with cooking oils. Both facilities are shared with the Office of National Statistics (ONS).
- In 2006/7 the Office reviewed its social impacts and formalised its objectives in respect of Corporate Social Responsibility (CSR). During 2007/8 the Office will review its CSR activities to ensure they continue to make a positive contribution to their community.
- An 'environmental awareness' section will be added to many in-house training courses to improve communication of environmental policy to staff and will include a regular update on Office recycling.
- In a competition students were asked to design a device that monitors the amount of energy used in the home, and develop a marketing campaign promoting the environmental benefits of such a device. The award ceremony for the winners was attended by Lord Sainsbury.
- A 'Sustainable Development' requirement has been added to the maintenance and engineering contract. Contractors must identify their commitment to maintaining/improving the environment and help towards Sustainable Development in Government targets. The contractor is asked to encourage third parties to achieve similar environmental standards.
- To support the local economy and cut back on carbon emissions from transport, local suppliers are used when appropriate and subject to value for money considerations - the range of regional products sold in the Patent Office and ONS shop has increased.
- Increased recycling facilities including all types of plastics and batteries have been trialled successfully and this will be rolled out to all offices.
- An environmental review of the estate will be carried out by March 2008.
- A 'contract variation' is being discussed that will enable old, unwanted carpet tiles to be collected and recycled supporting sustainable development at minimum cost, and supports the manufacturers drive to become carbon neutral.





SDC review and commentary:

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Sign-off date: 25/01/08