



Helpu Cymru i leihau
ei Hôl Troed Carbon
Help Wales reduce
its Carbon Footprint



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

Capturing the Potential

A Green Jobs Strategy for Wales

July 2009



An electronic version of this document can be found on the Welsh Assembly Government's website via the Business and Economy section of:

<http://wales.gov.uk/about/strategy/publications/?lang=en>

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Ministers' Foreword

This strategy delivers the commitment made in the One Wales programme of Government¹ to develop a Green Jobs Strategy. It will be an important component in stimulating the recovery from the current economic downturn, as well as strengthening our commitment to combat the causes and impacts of climate change.

This complements our Sustainable Development Scheme (One Planet: One Wales) and shares its vision of a resilient and sustainable economy for Wales that is able to develop whilst stabilising, then reducing, its use of natural resources and reducing its contribution to climate change. This document will be the overarching strategy for the Welsh Assembly Government to achieve a sustainable economy for Wales and will be a critical element in Wales' transition to a sustainable nation.

We will promote the **greening of existing jobs** through more efficient use of resources and **stimulate new green jobs** by helping to develop skills, innovation and new technologies, and **strengthening the low carbon energy sector** in Wales. We want businesses to be equipped to face the future with confidence, by seizing opportunities for growth and increasing their competitiveness.

We will encourage the **transition to a more sustainable economy** through the way that we plan and deliver infrastructure, regeneration investment and procurement; and by making it easier for citizens and businesses to embrace and take advantage of the opportunities arising.

We have set ourselves challenging targets. We aim to achieve:

- reductions in greenhouse gas emissions of 3 % per year in areas of devolved competence from 2011 onwards;
- 70 % recycling of waste across all sectors by 2025;
- by 2025, generating more renewable electricity than we consume as a nation.

New technology will be the key to meeting these targets and it will also provide opportunities for business development. The latter will arise, in particular, from the diversion of waste from landfill into new products for beneficial use, and the increased provision and use of renewable and other low carbon energy sources, including harnessing the power of the marine environment.

We will continue to work with our carbon-intensive industries to maintain their competitive needs and carbon-efficiency rather than risk their relocation to countries with less demanding standards.

¹ One Wales – A Progressive Agenda for the Government of Wales. Welsh Assembly Government. 2007.

In direct response to our consultation exercise we have strengthened our emphasis on:

- how to support businesses across the economy through the transition to a more sustainable economy;
- how to develop the new technologies and innovation which will be needed to compete successfully;
- our underpinning actions to support the transition to a more sustainable economy.

Our aim is to support businesses in Wales in the transition to a more sustainable economy, and to capture the potential opportunities in new technology and innovation. We also need the Welsh economy to become more sustainable and resilient as it comes out of recession in due course. This strategy document sets out the direction we will take.

We will take the lead on this strategy and will look to all relevant organisations and delivery partners, including businesses, social enterprises and third sector organisations, to support the strategy and to promote a consistent approach. We will be acting with our partners in the wider public sector, particularly the Health and Local Authorities and other organisations across Wales.

Whilst the main focus of this work inevitably falls on the economy, we are determined to ensure that, in delivering this strategy, benefits accrue to citizens and communities across Wales.



Ieuan Wyn Jones A.M

Deputy First Minister and
Minister for the Economy and Transport



Jane Davidson A.M

Minister for the Environment,
Sustainability and Housing

Chapter 1 Developing the Approach

Policy Context

This Green Jobs Strategy is a One Wales commitment, which has been developed following a consultation exercise, which has clearly positioned the pursuit of green jobs in the context of a transition to a more sustainable economy. This will lead to employment opportunities in low carbon solutions and climate change adaptation measures, as well as enhancing business competitiveness through improvements in resource efficiency.

This Green Jobs Strategy, **'Capturing the Potential'**, provides an important delivery mechanism for our Sustainable Development Scheme, One Wales: One Planet, and describes in more detail how we can achieve our vision of:

A resilient and sustainable economy for Wales that is able to develop whilst stabilising, then reducing, use of natural resources and reducing its contribution to climate change.

A key outcome of the Scheme is that 'Our long term future is secured by achieving the transition to a low-carbon, low-waste economy'.

The Scheme confirms that sustainable development will be the central organising principle of the Welsh Assembly Government, so that it informs everything we do.

'Capturing the Potential' responds to the growing national and international regulatory and policy context which continues to drive low carbon, resource efficient and environmentally sustainable products and processes. It sets out how businesses and other organisations in Wales could be helped to both adapt to and capitalise on the opportunities presented.

We want businesses in Wales to be resilient to the challenges of the global economy and climate change and to come out of recession more resilient. We also want to take advantage of the opportunities that a transition to a more sustainable economy offers, and emerge stronger as a result.

The overall aim of this strategy is to help businesses to:

- enhance competitiveness and profitability by being more energy, water and waste efficient;
- explore and develop products and services needed in a low-carbon low-waste society and stimulate their demand;
- strengthen the low carbon energy sector in Wales.

Our Approach

The responses we received from businesses, support providers and citizens suggested a series of common themes and the need for a wide, encompassing strategy. We have carefully considered the suggestions made and amended our approach as a result. This document now goes beyond purely 'jobs' in aiming to address some of the wider issues in our transition to a low carbon economy. We have also noted the need to embed a consistent approach to achieving this transition across Government and our partners in Wales.

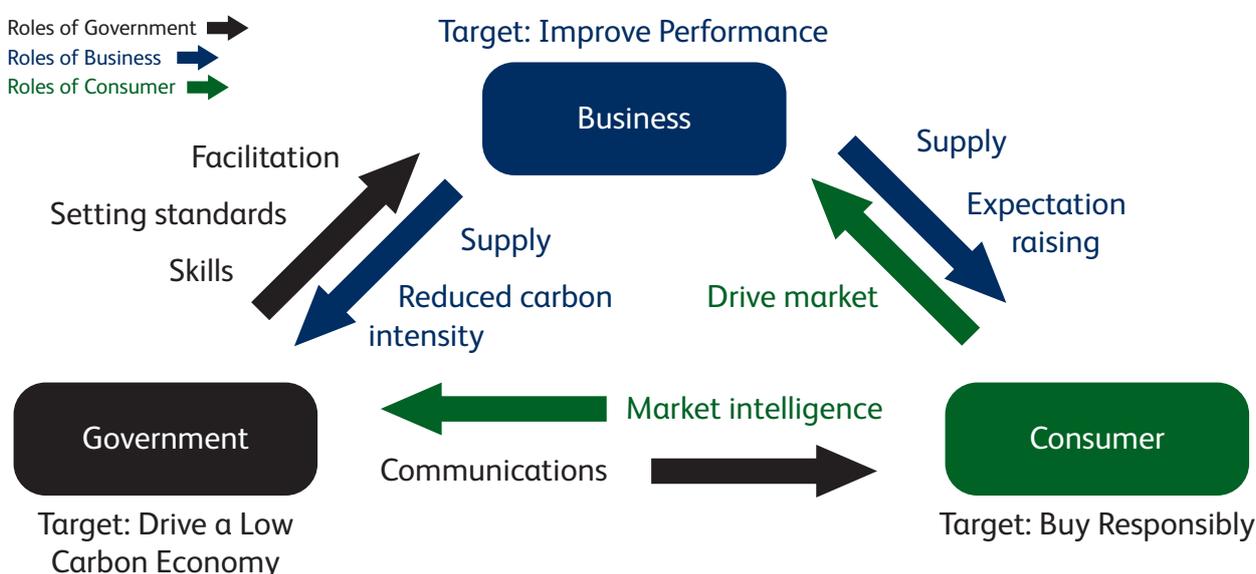
Much good work is being done already, but we are seeking to increase the momentum and help businesses in Wales capture the new opportunities that will arise. There will be strong competition at a global level, and we aim to get a fair share of these opportunities for Wales.

Currently, our economy, like many others, is vulnerable to pressures from the global market, changes in climate and fuel costs. This has a direct impact on businesses in Wales, the people that work for them and the families that rely on that income. The Welsh Assembly Government and other public sector organisations need to help businesses to adapt effectively and efficiently to these pressures – whilst at the same time realising the long-term economic benefits that this will bring. Although some programmes have already started this process, this strategy aims to create a common purpose for us and our partners that will in turn result in consistent support and motivation for our businesses and citizens.

Who do we need to Influence?

Some aspects of this strategy are entirely within our remit, while others require us to use our influence to drive change, lead by example and assist partners in the public, private and voluntary sectors.

The key stakeholders involved in moving towards a sustainable and future-ready economy include 'Business', 'Government' and 'Consumers'. Each has a role as shown in the simplified model below:



- **Businesses** supply goods and services to both consumers and government. They influence each other through supply chain pressure and have a key role in raising and managing the expectations of consumers. The role of business is also played by voluntary organisations which provide goods or services to the market. By improving their performance and reducing their carbon intensity, businesses assist Government in reaching national and international targets for carbon reduction, as well as delivering a better and potentially cheaper quality of service to their consumers. These changes and the process of diversification create and sustain the business opportunities of the future.
- **Consumers** have a pivotal role as they make choices based on many factors and increasingly, awareness of environmental and social issues is altering buying patterns. Analysis of consumer buying patterns can assist Government by highlighting areas where Government input can make the greatest difference.
- **Government** and the wider public sector (including Health and Local Authorities, organisations providing support using Government funds etc.) have a responsibility to drive a more sustainable economy. They provide information to the consumer, thereby raising awareness and influencing consumer decisions, as well as setting and enforcing the regulatory standards to protect and enhance our environment. In addition, and perhaps most importantly, Government has a role in facilitating change within business, creating market demand through its own procurement and providing or directing skills development.

All of these stakeholders should have a common and united purpose and commitment to a more sustainable economy in order for progress to be achieved.

Framework for Delivery

Our strategy is organised into three high-level priorities:

Priority 1: Supporting Business

We will develop the way that we support businesses to help them successfully adapt and seek competitive advantage through resource efficiency and new low carbon products and services.

Priority 2: Fostering Innovation and Technology

We will support the development and commercialisation of new sustainable technologies, energy services and low carbon products for the future.

Priority 3: Investing in a More Sustainable Economy

We will build upon the way that we make our own decisions and investments to help drive the transition to a more sustainable low carbon economy.

These priorities, and our commitments and specific actions in pursuit of these priorities are set out in the next three Chapters.

At the end of each Chapter we set out guidelines on how the Assembly Government and our partners can translate these commitments into their further detailed policies, business plans and actions, in such a way as to embed this change i.e. how we will work differently in future.

These principles are set out under the following headings:

- **Capturing Opportunities**
- **Delivering differently**
- **Monitoring improvements**

In going forward, the Welsh Assembly Government has the following levers at its disposal:

- Leading by example
- Regulation
- Enforcement
- Procurement
- Investment
- Grant aid to encourage high standards of development
- Planning and environment related policies
- Demonstration and pilot projects
- Facilitating partnerships
- Raising awareness of the business benefits of sustainability
- Measures to support behaviour change.

For other areas of influence, we will continue to work with and seek to influence the UK Government and the EU.

Departments across the Welsh Assembly Government and our wider partners have a part to play in delivering this strategy.

In response to the priorities identified in this strategy, specific actions need to be developed by those best placed and able to deliver within their areas. These are then embedded in their business plans and delivery mechanisms.

We in the Welsh Assembly Government will:

- identify how our current actions promote resource efficiency and wider sustainable practices to safeguard existing and create new employment opportunities;
- identify what we need to do differently to accelerate the process;
- set targets for achievement;
- introduce methods of measurement;
- feedback progress through our normal business reporting lines;
- continuously review, improve and update our approach.

This process of **embedding delivery** will be supported by a network of advocates and technical experts, who will work with teams within the Assembly Government and other organisations, to help drive this process forward.

By developing the way we work and looking for opportunities to deliver this agenda across the full spectrum of our activity, we will deliver tangible new benefits for Welsh businesses and the economy. In turn, businesses and consumers will also need to respond. They have an essential role to play in this transformation.

Chapter 2 Supporting Business

Priority 1: Supporting Business

Businesses in Wales are helped to play their part in a more sustainable economy.

This priority relates to the ways in which the Welsh Assembly Government will support businesses to:

- become more resource efficient to improve their competitiveness and profitability by, for example, being more energy, water and waste efficient;
- where possible using low carbon energy, including where practicable generating such energy on site;
- take advantage of the commercial opportunities that will appear as consumers change their purchasing decision in favour of more environmentally-sensitive products and services; and,
- adapt to the impacts of climate change and new legislation.

We will help and encourage businesses to be aware of, and then prepare for, the changes that will occur as our policies, global agreements, regulation and consumers demand more efficient and sustainable products.

Legislative obligations and fiscal measures are key drivers for emission reduction that will lead to business opportunities for efficiencies and products.

Some examples are:

- EU Emissions Trading Scheme (EU ETS);
- Carbon Reduction Commitment (CRC);
- Pollution Prevention and Control (PPC) regime;
- The Energy-using Products Directive and related legislation which establishes a framework for the setting of eco-design requirements for energy-using products. It aims to improve the environmental performance of products throughout the life-cycle, by systematic integration of environmental aspects at a very early stage in the product design;
- EU requirement that by 2020, 20 % of Europe's energy should come from renewable sources.

Our Commitments

Commitment 1: Support for Sustainable Business

The Welsh Assembly Government provides support for businesses (including social enterprises) at various stages of the business life-cycle, in a range of sectors and business activities. The EU Commission supports the general objective of environmental protection, and provides specific state aid rules to allow member states to provide support in these areas.

The Low Carbon Partnership

The Low Carbon Partnership (LCP) was a Welsh Assembly Government Programme delivered between March 2003 and August 2006. Its main objectives were to make eligible SMEs more competitive by delivering energy cost savings and reduce CO₂ emissions. The programme achieved £1.8 m per annum in energy cost savings, with 74% of companies involved reporting reduced costs as a result of the scheme.

Businesses have a crucial role in contributing to a sustainable, low carbon economy. As raw materials and resources such as energy or water become increasingly scarce and expensive, businesses will need to adapt to these changes to remain competitive.

We will communicate a clear and consistent message about the need for lower carbon and increasingly efficient modes of working across all our business support activities.

Flexible Support for Business

All business support provided or funded by the Welsh Assembly Government and its partners will include advice and assistance for the transformation of companies to sustainable and low carbon models. This will be provided through the Welsh Assembly Government's Flexible Support for Business. The service will also encourage the start up and growth of businesses.

Flexible Support for Business will provide specialist advice and support on environmental and sustainability issues to all the businesses we support. This will cover all aspects of resource efficiency (energy, materials, waste and water), the principles of ecodesign and life cycle analysis of products. We will be working in partnership with specialist providers including the Carbon Trust, Constructing Excellence Wales, the Ecodesign Centre, Envirowise and the Waste and Resources Action Programme (WRAP) to deliver this service.



Cymorth Hyblyg i Fusnes Flexible Support for Business

Business Support

- Advice on mitigation and adaptation measures
- Relationship Management
- Technology and Innovation
- Support for Resource Efficiency
- Funding for start ups
- Incubation
- Trade and investment

The availability of this environmental and sustainability service means that the first key component of the Green Jobs Strategy is already in place. It will ensure that businesses will be able to access the best practical advice and support to improve their competitiveness and capture opportunities for growth.

Key Benefits and Outcomes

The key benefits and outcomes from these actions will be that:

- Businesses find it easy to get consistent and useful support from the Welsh Assembly Government or its partners which helps them become more sustainable in their own practices as well as in the products or services they produce;
- Businesses maximise efficiencies and in doing so increase profits without contributing unnecessarily to carbon emissions and waste;
- Businesses increase their use of lower carbon energy sources, including those under their direct control which will provide stable energy prices;
- Businesses are able to adapt to the impact of climate change;
- Businesses in Wales find it easy to make ethical decisions which also result in profit and long-term employment for the workforce;
- Wales is considered an ideal place for businesses to start up, grow, mature and prosper.

Commitment 2: Future Skills and Training

The Welsh Assembly Government is responsible for the National Curriculum in Wales, and provides funds for courses and education throughout the country. As well as formal education this includes help for those who have left full-time education, but wish to improve their skills, retrain, or re-enter the workforce after a period of time away.

Through our Education for Sustainable Development and Global Citizenship (ESDGC) work, we will continue to support sustainable development within the school curriculum and work towards mainstreaming the principles into other forms of learning.

Skills development and training provision must anticipate the changing requirements of employers in order to provide the next generation of skilled employees.

The Welsh Assembly Government, in conjunction with Sector Skills Councils, is acting to identify the practical skills which will help to create a pool of “renewables champions”. These will promote best practice in reducing household energy consumption to domestic consumers and small businesses and maximise local low carbon energy generation. Furthermore, the range of skill sets needed by the Onshore Wind Power generating companies as they look to expand in Wales has also been identified as a priority.

We will work to increase the number of learners gaining the training and the skills necessary to support this important and growing source of renewable energy generation.

We are working with the Sector Skills Councils to identify how upskilling might support unemployed residents in those communities in Wales which have been designated as strategic regeneration areas.

Key Benefits and Outcomes

The key benefits and outcomes from these actions will be that:

- Business advisors in the public and private sector have the skills to diagnose and help businesses that need to change or adapt to a lower carbon economy;
- Businesses are able to hire a suitably qualified and/or experienced workforce to help them respond in a timely fashion to demand for more sustainable/lower carbon products and services;
- Businesses know where to find suitable training courses or learning resources to train and improve the knowledge or understanding of their existing workforce;
- Employees understand the drivers for a more sustainable economy and are able to apply that knowledge to their job;
- People find it easy to get additional skills to improve their employability.

Embedding Delivery

The following guidelines are provided to assist the Welsh Assembly Government and partner organisations in considering, and responding to, the development of their policies, business plans, and detailed actions in order to deliver on these commitments. We will follow these guidelines and encourage our partners to do likewise.

Capturing Opportunities

- Assess and review existing business support and skills provision to determine “fitness for purpose and integration with other services” of services to businesses and employees.
- Seek to maximise opportunities for low carbon low waste resource efficient initiatives created through business support activities.
- Identification of business opportunities for participation in major low carbon projects and their supply chains.

Delivering Differently

- Seek to include carbon measurements in the calculations for levels of business funding or other support.
- We will use business support mechanisms to encourage and enable businesses in Wales to adopt sustainable development as their central organising principle.

- Train our business advisors to recognise the opportunities for the businesses that they work with to become more resource efficient and aware of opportunities created through new emerging low carbon markets.
- Promote sustainable procurement practices.
- Work with Sector Skills Councils in developing learning which meets business needs.
- We work actively with our partners including our universities, colleges and training providers, private sector business support and skills providers to encourage them to adopt sustainable development as their central organising principle.
- Utilise the people best placed to make change in particular areas i.e. those who currently work in those areas, with expert advice from others.
- Identify how decisions for funding or loans made through business support can be linked to resource efficiency and sustainability criteria as identified in Priority 3.

Monitoring Improvements

- Identify any barriers to progress and report on these and work to overcome them.
- Identify performance measurements or indicators, including appropriate employment indicators, carbon emissions reduced as well as those specific to achieving the outcomes listed above to demonstrate changes have been made.

Chapter 3 Fostering Innovation and Technology

Priority 2: Fostering Innovation and Technology

Our support will assist businesses to develop new products and services and pursue new commercial opportunities.

As part of Priority 1, we outlined our commitments to help prepare businesses to adapt to changes that we anticipate will occur as governments and consumers demand more sustainable, low-carbon and low-waste products. This priority outlines how we will help businesses innovate and take new products and services to market through a combination of business support and commercialisation of intellectual property.

In order to bring a more strategic focus and maximise the benefit of public expenditure, Ministers have recently agreed the following priority sectors for R&D and Commercialisation funding within Wales:

- Low Carbon Economy
- Digital Economy (ICT)
- Health and Biosciences
- Advanced Engineering and Manufacturing
- Cross Cutting /Enabling Technologies.

This strategy has implications for all these priority sectors. In particular the Carbon Economy Sector, which includes:

- sustainable building technologies
- opportunities arising from large scale renewables and other low carbon energy technologies
- low carbon vehicles
- climate change adaptation.

Fostering Innovation and Technology

- Advice
- Incubation
- Specialist advice for high growth companies
- Market information
- Facilitating collaboration and Knowledge Transfer
- Supporting R&D
- Funding
- Trade and investment

Our policy commitments, legislative changes and the need to meet the challenges of environmental pressures within Wales, are driving a potentially huge market for low carbon and environmental goods and services. We need to ensure that we capture this potential.

In the short term, we will focus on those areas for which we have, or could quickly develop, the relevant skills base, and a strong extended value supply chain. Focussing on areas where Wales has a comparative advantage will make our businesses better able to compete in the global market for these technologies.

The global market value of the Low Carbon and Environmental Goods and Services (LCEGS) was £3,046 billion in 2007/8². Within this, traditional Environmental activities account for 21.6 %, Renewable Energy 30.9 % and the Emerging Low Carbon activities for 47.4 %.

The value of UK LCEGS was £106.5 billion in 2007/8, which in terms of size puts this sector somewhere between the UK's healthcare and construction sectors. It is forecast to grow at an average rate of over 5 % per year, despite the recent financial crisis. Given the size of the sector and its growth rate in both domestic and global markets, environmental activities offer an attractive opportunity for the UK's manufacturing base to exploit current and emerging technologies. For example in Wales alone, it is estimated that there could be £50 billion of investments in low carbon electricity production over the next 10 to 15 years.

According to the above DBERR industry analysis, the largest LCEGS industries in Wales in terms of employment and market value are:

- Emerging Low Carbon
 - Alternative Fuels
 - Alternative Fuels for Vehicles
 - Building Technologies
- Renewable Energy
 - Wind and Geothermal
- Environmental
 - Water and Waste Water

The fastest growing industries are Wind, Geothermal, Biomass, Photovoltaics and Wave and Tidal (all Renewables).

In addition, there are untapped and growing opportunities for innovation and upskilling in the waste and resource efficiency sector. These opportunities are identified in our draft Waste Strategy (2009 – 2050) *Towards Zero Waste*, and have the potential to be hugely beneficial to the Welsh economy in the medium to long term – with eco-design and new, innovative

² Low Carbon Environmental Goods and Services; an industry analysis. Department for Business, Enterprise and Regulatory Reform (DBERR) March 2009

techniques in waste reduction and recycling playing key roles. There are also potentially significant opportunities in managing the natural environment, climate change adaptation and in tourism infrastructure and facilities.

Our Commitments

Commitment 1: Support for R&D and Commercialisation

The ability to innovate and adapt is crucial to the survival and growth of businesses. As the lifecycle of each product or service becomes shorter, especially in high technology fields, the pursuit of new products and services provides opportunities for new methods of design and manufacture, new materials and more sustainable lifecycles to be built in. Eventually, products should have a longer lifespan in use, and this in itself will present a challenge to existing ways of thinking.

We will continue to support high level research through the Higher Education Institutions in Wales, and associated centres such as the All Wales Low Carbon Research Institute.

We will assist businesses that are adapting their products and services through Flexible Support for Business and specialised Innovation support. For example, the Ecodesign Centre Wales which is an applied research organisation that aims to build capacity and capabilities to enable effective eco-design.

We will also assist innovation and subsequent commercialisation through the new EU-funded Business Innovation programme.

Business Innovation – A new approach to innovation support

Delivered by the Welsh Assembly Government's Flexible Support for Business, Business Innovation offers an integrated package of support to help businesses at different stages of the innovation process. From the recognition and development of new ideas, through design and manufacture, to the protection of intellectual property and the successful commercialisation of products, services, processes and technologies – Business Innovation support is available at every step.

Delivered by a team of highly experienced Innovation Managers, private sector design advisers and manufacturing advisers, Business Innovation aims to help businesses become more competitive and achieve business improvement and growth.

Key Benefits and Outcomes

The key benefits and outcomes from these actions will be:

- Businesses find it easy to get consistent and useful support from the Welsh Assembly Government and its partners, which helps them to identify opportunities for product lines which are more efficient and environmentally friendly in use, manufacture and at end of life;

- Businesses consider the long-term implications of their product design, as well as short term factors;
- Inventors and businesses are encouraged to share ideas and collaborate in a model of open innovation;
- Wales is increasingly seen as an ideal place for businesses to innovate and take new products to market;
- Increasing employment in the growing sustainable technologies market.

Commitment 2: Skills for Innovation

The skill-set required to support businesses that are undertaking innovation and commercialisation tends to be quite specialised. Businesses that innovate require problem solvers, expertise in intellectual property, knowledge and experience of seeking finance, as well as the ability to manage a business that could grow at an accelerated rate. Wales needs a significant number of individuals with these specialist skills if our innovating companies and organisations are to prosper. In many cases this will involve training existing employees.

We will continue to strengthen the skills base to undertake high level research, develop innovative solutions and products and, importantly, transfer knowledge from the higher education sector to the private sector for exploitation and commercialisation.

We will encourage the development of specific Continuous Professional Development (CPD) training courses for business in this sector and also encourage the wider management and leadership skills through the Centre of Excellence and Leadership.

We will progress ‘Reach the Heights – Routes to the Summit’ which supports the implementation of Delivering Skills that Work for Wales, with sponsors to develop a range of information, advice guidance and support for young people, promoting the interest and take up of Science Technology Engineering and Mathematics.

Key Benefits and Outcomes

The key benefits and outcomes from these actions will be:

- Businesses find it easy to recruit new employees with the will and ability to invent and commercialise new products or services;
- More businesses are able to take new products and services to market in Wales as a result of available employee expertise;
- Businesses and their investors consider Wales an ideal place to start up or place their high technology or fast growth companies due to the availability of a skilled and inventive workforce.

Embedding Delivery

The following guidelines are provided to assist the Welsh Assembly Government and partner organisations in considering, and responding to, the development of their policies, business plans, and detailed actions in order to deliver on these commitments. We will follow these guidelines and encourage our partners to do likewise.

Capturing Opportunities

- Assess and review existing specialist R&D or commercialisation support and skills provision in order to enhance support to those businesses involved in developing sustainable technologies.
- Consider the carbon impact of activity to support businesses developing new products or services.
- Assess likely future demand for sustainable skills, and how this can contribute to improving the abilities and knowledge of innovation, of people in Wales.
- Based on research we will target our support for those industries that will generate new green jobs.
- Explore the most effective ways of achieving external R&D knowledge transfer to businesses of all sizes.

Delivering Differently

- Consider carbon measurements in the calculations for levels of funding or other support, including incubation or inward investment.
- Consistently encourage businesses and other organisations that we engage with, to consider how to make their product and services more sustainable through new research, design and understanding new developments in the market.
- Train our specialist technology advisors to recognise the opportunities for the businesses that they work with, to take advantage of new markets and supply to new markets for a more sustainable economy.
- Work with partners including our universities, colleges and training providers, private sector business support and trades unions encouraging them to adopt sustainable development as their central organising principle.
- Utilise the people best placed to make change in particular areas with expert advice from others.
- Identify how decisions for funding or loans made through business support can be linked to resource efficiency, low carbon energy and sustainability criteria as identified in Priority 3.

Monitoring Improvements

- Identify any barriers to progress, report on these and work to overcome them.
- Identify performance measurements or indicators, including appropriate employment indicators, carbon emissions reduced as well as those specific to achieving the outcomes.

Chapter 4 Investing in a More Sustainable Economy

Priority 3: Investing in a More Sustainable Economy

Our policies, infrastructure development and investment decisions will lead the change to a more sustainable economy and the resulting green jobs.

The transition towards a low carbon, resource efficient and sustainable economy will require change in the way that we as a Government and the wider public sector do things. If we invest in goods and services that result in high levels of carbon emissions and/or waste production during their production or usage, then we need to take account of those emissions – whether through direct procurement of goods and services, funding regeneration activity or investment in business. We will ensure that the wider impacts of our investments are central to our decision-making.

We will build this thinking into our policies, actions and investment decisions for the development of physical infrastructure, strategic regeneration, public procurement and the use of European Structural Funds. This will send clear and consistent signals to the market to drive demand for low carbon, and environmental products and services. Our commitments under Priorities 1 and 2 of this Strategy will help Welsh businesses and other organisations respond to and capture these opportunities.

Our Commitments

Commitment 1: Investing in Physical Infrastructure

Our investments in infrastructure will consider sustainability impacts from the outset. By doing this we will minimise expenditure on unsustainable practices, such as polluting or waste-producing activities or those that lock us into unsustainable activities for long periods. Such action will help to generate demand for low carbon, resource efficient and eco-friendly products and services.

Through our growing suite of sustainable development policies, we will continue to develop an increasingly favourable climate for the development of sustainable infrastructure.

Physical Infrastructure

- Energy
- Water
- Transport
- Buildings
- Housing
- Broadband and ICT
- Waste Management
- Environmental Infrastructure

For example, our proposed strategy “Towards Zero Waste” (consultation period to end on 22 July) will stimulate investment in sustainable waste infrastructure. Our developing Climate Change Strategy will speed up the development of renewable energy and climate change adaptation responses in Wales.

We will use the Wales Spatial Plan process to achieve longer term changes in the spatial pattern of development and the way services are provided to improve access to housing, jobs and services and reduce demand for everyday travel.

We will use our six Spatial Plan Area Groups to formulate and help implement an integrated area response to the climate change challenge and to translate Welsh Assembly Government targets into actions at the regional level. A core part of this will be applying the concept of a low carbon region to each area and identifying how this can be achieved.

We will encourage, especially through supply chain development support, the maximum involvement of businesses in Wales within all major low carbon energy and other sustainable infrastructure projects within the UK and overseas.

Supporting community energy generation

A Programme to support the development of community energy projects, focused on projects below 5MW and to assist projects up to 25MW looking particularly at business and commercial opportunities at this scale. Components will include:

- Community Scale Renewable Energy Projects – two strategic projects under the Convergence and Competitiveness programmes intended to support social enterprises to develop around 22 community scale energy installations. Business Plan in development for submission to the Wales European Funding Office.
- Wood Energy Business Scheme II – strategic programme under the Convergence and Competitiveness programmes intended to support development of the whole supply chain for wood energy developments.
- Rural Development Plan Axis 2 – the availability of capital grants for renewable energy projects has been announced from 2012 onwards.

Our Sustainable Tourism Framework, launched in November 2007, and Sustainable Tourism Action Plan will support the development and promotion of tourism products that capitalise on Wales’ environmental and heritage assets, leading to job creation in tourism, recreation, conservation, land and coastal management.

The development and use of Information and Communications Technology (ICT) – enabled technology will play a key role in improved energy and resource efficiency across all sectors. ICT can also reduce the need to travel through increase opportunities for use by business,

home working, as well as remote access to services. Development and investment in ICT will also create direct benefits for Welsh businesses and jobs in this sector.

The Welsh Assembly Government recognises that widespread access to affordable, secure broadband is important to businesses and citizens across Wales and that the telecommunications infrastructure in Wales is able to meet this challenge. To this end, we are working with the telecommunications industry and the communications regulator, Ofcom, to share information on communications infrastructure issues, understand barriers to investment, and inform future policy making in this area.

The Welsh Assembly Government has an aspiration to achieve 'zero carbon' new build from 2011. It is also committed to reducing green house gases in Wales by 3% a year from 2011 in areas of devolved competence.

The new established 'Zero Carbon Hub Wales' (a coalition of key members of the building industry, housing and voluntary sectors) will play a key part in helping Wales achieve its carbon reduction targets.

The hub will provide leadership for those who want to cut emissions from all buildings, promote commercial opportunities from low carbon building and investigate what skills and training are needed to achieve this in the construction industry.

We will ensure that all support and investment decisions we make for the provision of new physical infrastructure consider the wider sustainability implications to provide long term long lasting solutions.

For example, we require all new buildings promoted or supported by the Welsh Assembly Government (whether directly procured, the subject of financial support, joint ventures or projects on lands sold, leased or disposed of in any way for development) to meet:

- a minimum the Code for Sustainable Homes Level 3 for residential developments;
- BREEAM (or equivalent) 'Excellent' for non-residential developments;
- a minimum of 10% (by value) of recycled materials to be used in all new buildings.

Key Benefits and Outcomes

The key benefits and outcomes of these actions will be:

- Investments are considered over their entire lifecycle and long-term, long-lasting solutions chosen;
- Waste management networks exist to promote the efficient use and re-use of resources;
- High-quality, low carbon, low waste office or manufacturing space is readily available for businesses;
- Alternative, sustainable methods of building and maintenance become commonplace;

- People have a choice of sustainable modes of travel, communication or energy available to them;
- Individuals and organisations find it easier to produce, use and sell renewable energy.

Commitment 2: Strategic Regeneration

We are developing our approach to strategic regeneration in Wales, particularly in areas of high deprivation.

This approach takes a holistic view of the issues and opportunities, including the skills and employability needs of people and communities, social exclusion, health and well-being, alongside physical and environmental issues.

Our regeneration activities will be firmly based on sustainability principles and will involve and engage with communities creating an infrastructure for the future that favours sustainable ways of living and working.

Strategic Regeneration

- Community Regeneration
- Spatial Planning
- Area and Site Masterplans
- Rural Development Plans
- Natural environment and green spaces
- Forestry
- Tourism opportunities
- Food

For example when preparing area or site strategies, frameworks or masterplans in our regeneration work, we will ensure that this work both contributes to and benefits from the delivery of sustainable physical infrastructure described in Commitment 1.

We will also ensure that weight is given to issues such as accessibility, green space, tourism infrastructure, biodiversity³ and local food production.

We will devise and use guidance and tools such as the Department for the Economy and Transport's Sustainable Development Integration Tool to ensure that sustainability is built in during the early stages of our regeneration work.

This in turn will generate opportunities for local procurement and employment, as well as increased demand for sustainable products and services.

Key Benefits and Outcomes

The key benefits and outcomes from these actions will be:

- Regeneration projects act as catalysts for private investment in sustainable and low carbon, community friendly development;
- Regeneration and other projects are planned for sustainable living and working;

³ Under Section 40(1) of the Natural Environment and Rural Communities Act 2006 (the NERC Act), WAG and other public authorities have a duty to have regard to the purpose of conserving biodiversity in the exercise of their functions.

- Regeneration involves and engages with local communities and is firmly based on sustainability principles;
- People take responsibility for the quality of their local environment;
- Planning and design takes into account the needs of the natural and historic environment, biodiversity and heritage, creating places that are part of the landscape, not imposed upon it.

Commitment 3: Sustainable Investment Through Public Procurement and Structural Funds

The Welsh Assembly Government procures goods and services for its own activities as well as funding procurement by other organisations. We will ensure that this supports our long-term vision for a more sustainable economy, as outlined in One Wales: One Planet.

We will ensure that all competitively tendered procurement exercises over £25,000 will utilise the Sustainable Risk Assessment template (SRA) to ensure the social environmental and economic impacts are taken into account.

The Welsh Assembly Government through WEFO also manages the provision of funds to support development of a sustainable economy. The 2007-2013 EU Structural Fund Programmes for Wales are designed to deliver the Lisbon and Gothenburg strategies for growth, jobs and sustainable development.

The ERDF Convergence and Competitiveness programme has priority areas of activity around: Building the Knowledge Based Economy; Improving Business Competitiveness; Developing Strategic Infrastructure for a Modern Economy; Creating an Attractive Business Environment and Building Sustainable Communities, all of which offer opportunities to contribute to the delivery of this strategy.

This is further supported by the ESF Convergence and Competitiveness programmes with priority activity around Increasing Employment and Tackling Economic Inactivity; Improving Skills Levels and the Adaptability of the Workforce; Modernising and Improving the Quality of our Public Services and Supplying Young People with Skills for Learning and Future Employment. These all offer opportunities for ensuring that people now and in the future have the skills required to move us to a low carbon sustainable economy.

Public Procurement and Structural Funds

- Direct payments for goods and services
- Funding others to procure goods and services (LAs/NHS etc)
- Grant funding for third parties
- Providing loans
- Making investment

The requirement for the integration of the cross-cutting themes of environmental sustainability and equal opportunities in all SF projects, will support the move to green jobs.

Within Priority 4 (ERDF Convergence and Competitiveness programme) “Creating an Attractive Business Environment” has been set up specifically to promote sustainable business growth and new business opportunities in relation to future environmental challenges and opportunities. The qualifying sectors include renewable energy; energy efficiency; improving flood defence infrastructure; cleaning up contaminated land; and enhancing the natural, built and heritage environment. Projects in this last category are currently being developed as the basis of several Sustainable Tourism initiatives.

This approach to managing and delivering structural fund programmes support this agenda for a “resilient and sustainable economy for Wales that is able to develop whilst stabilising, then reducing, its use of natural resources and reducing its contribution to climate change”.

We will work with our partners to maximise the take up and effectiveness of Structural funding to deliver the aims of this strategy.

We will work with projects funded from the Convergence Programme to ensure integration of the cross-cutting theme of environmental sustainability. This will support the greening of existing jobs and the move to jobs in low carbon, and environmental goods and services.

Key Benefits and Outcomes

The key benefits and outcomes from these actions will be:

- Carbon impacts and life-cycle analysis will inform our purchasing decisions leading to increased demand for low carbon goods;
- Organisations, including SMEs and social enterprises, become increasingly sustainable through winning Welsh Assembly Government and other public sector contracts, including funding through Structural Funds and other forms of business support;
- Loans and investments made by the Welsh Assembly Government act as the catalyst for change in businesses becoming more sustainable;
- Structural Funds are fully utilised to help green existing jobs and create new green job opportunities.

Embedding Delivery

The following guidelines are provided to assist the Welsh Assembly Government and partner organisations in considering, and responding to, the development of their policies, business plans, and detailed actions in order to deliver on these commitments. We will follow these guidelines and encourage our partners to do likewise.

Capturing Opportunities

- Understand and integrate the sustainable development themes and principles, including procurement identified in One Wales: One Planet into its policies and actions at the earliest opportunity.
- Identify specific new opportunities for investing in a more sustainable economy and new employment opportunities by joining up with other areas of work, both within and outside the Welsh Assembly Government.
- Identify opportunities for sustainable skills and business development within infrastructure and regeneration planning, and develop appropriate measurements or indicators.
- Identify opportunities to maximise the take up of EU Structural Funds.
- Identify synergies and/or avoid conflicts with existing or planned infrastructure networks and ensure local and national level networks complement each other.

Delivering Differently

- Develop appropriate management systems, to ensure that opportunities identified to contribute to a more sustainable economy are followed through to delivery.
- Follow sustainable procurement policies e.g. BREEAM Excellent (or equivalent) and Code for Sustainable Homes Level 3 for new buildings developed or funded through its activities.
- Promote the use of environmental accreditation or management standards for project delivery.
- Encourage delivery/project teams to include people from relevant disciplines or Departments within and outside the Welsh Assembly Government.
- Consistently encourage and facilitate all recipients of Government grants/investment to adopt sustainable development as their central organising principle.

Monitoring Improvements

- Identify barriers to progress, report on these and work to overcome them.
- Identify performance measurements or indicators, including new green jobs, carbon emissions reduced as well as those specific to achieving the outcomes listed above to demonstrate changes have been made.

Chapter 5 Measuring Progress

Over time, progress towards the realisation of this strategy and the positive benefits for businesses, jobs and the economy in Wales can be measured by tracking changes in key economic and environmental indicators. These include:

Sustainable Economy

Headline Indicator

- Gross Value Added (GVA) and GVA per head

Supporting Indicators

- Employment
- Resource Efficiency
- Electricity from renewable and other low carbon resources
- Ratio of CO₂ Emissions to GVA at Current Prices

Sustainable Resource Use

Headline Indicator

- Wales' Ecological Footprint

Supporting Indicators

- Total resource use
- Greenhouse gas emissions
- Waste arisings⁴
- Household waste recycled or composted

Across the Welsh Economy we will:

- work with our partners to identify which of the above, and other indicators can best be used to measure progress;
- establish a baseline to understand how the Welsh economy is currently performing and against which we can measure progress;
- set targets and monitor progress.

4 The amount of waste generated in a given locality over a given period.



To monitor the delivery of this strategy by the Welsh Assembly Government and our partners, we will use our normal business planning and delivery channels, where in keeping with the principle of **embedded delivery**, described in Chapters 2 – 4, each relevant business area, Department or partner, will be encouraged to develop objectives and actions in response to the **priorities** and **embedding principles**, set out in this strategy. These will be built into their business plans, strategies and programmes where appropriate.

We will measure our success in delivering this strategy through the targets and activities we and our partners develop and build into our business plans. We will monitor and report these through our normal business planning and delivery channels to ensure that these are embedded.

Chapter 6 Conclusions

In addition to challenges caused by the current downturn in the global economy, our economy, in common with others, will be increasingly influenced by issues such as mitigating and adapting to climate change, diminishing natural resources, volatile fuel costs and tightening environmental regulation. It is important that Welsh businesses are helped to adapt effectively and efficiently to these pressures, while at the same time realising long-term economic benefits.

There have been considerable developments since we launched our consultation in November 2008. Recognising this, our emphasis has focussed on stimulating markets for sustainable, low carbon, resource efficient goods and services through our policy and investment decisions. In turn we have described how we will support businesses to adapt to these challenges and to exploit the opportunities that are emerging.

Dealing with the climate change agenda and the transition to a more sustainable economy is essential to the long term prosperity of the people of Wales, in social, economic and environmental terms. The Stern Report⁵ highlighted the costs of not responding to this agenda, as well as the potential rewards for those countries that take the lead by developing and exporting the new green technologies. We must build on the progress we have already made in this area and grasp the opportunities that exist, as well as the potential that can be created by the implementation of the priorities within this strategy

This is a long-term change agenda and this strategy has set out a common purpose for the Welsh Assembly Government and our partners to embed its priorities, commitments and principles into all activities. This approach will result in consistent support and encouragement for our businesses, communities and citizens.

We will work with others to develop and refine the environmental, energy and economic indicators needed to measure our progress towards this agenda.

Whilst we will lead this agenda, we want all relevant organisations and delivery partners to support our strategy and so promote a consistent approach. Above all we will need the support of businesses, including social enterprises and third sector organisations in Wales if we are to capture the potential.

5 Stern Review on the Economics of Climate Change. Stern The Office of Climate Change. 2006.

