The Economic Prioritisation Framework for Welsh European Funds:

A Guidance Document providing an Investment Context for the Implementation of EU Programmes in Wales

Version 2: March 2014

Investment for jobs and growth

European Regional Development Fund (ERDF) European Social Fund (ESF) European Agricultural Fund for Rural Development (EAFRD) European Maritime and Fisheries Fund (EMFF)

Please ensure that you read the Economic Prioritisation Framework in conjunction with the relevant Operational Programme (ERDF and ESF) or Programme documents (EAFRD, EMFF).

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Introduction

What is the Economic Prioritisation Framework (EPF)?

The Operational Programmes constitute our contract with the European Commssion, setting out the overall policy context for the use of the Funds, the overall objectives of each Programme and the activities to be funded. The Economic Prioritisation Framework (EPF) supports the delivery of the Operational Programmes; it is one element of a suite of tools and guidance documents that the Managing Authorities will use in determining how to target the activities set out within the Operational Programmes/programme documents.

The EPF will help to guide the use of EU funding over the 2014–2020 funding period by setting it within a broader investment context. It provides an overview of areas of key economic opportunity in Wales, highlighting important investments which are underway or being planned.

Key Principles

For the purposes of the EPF, we have defined an <u>economic opportunity</u> as an opportunity, based in a specific region of Wales or around a specific business sector, for economic growth.

Investments listed for each Opportunity are classified as <u>key demand drivers</u> or <u>existing capabilities</u>:

- <u>Key demand drivers</u> are major / significant investments which will drive the demand for goods, services, supply chains, and people.
- Existing capabilities are investments, initiatives, organisations, resources, assets etc. which are delivering to or meeting an element of a requirement being created by or arising from a demand driver.

Most operations seeking EU funding support will be expected to describe how they can contribute to, interact with or complement relevant investments, in ways which can add value into the investment context and provide wider benefits.

The EPF is a live document. It will be updated throughout the 2014-2020 programme period to reflect changes to the economic and strategic environments, emerging economic opportunities and progress made on the implementation of the EU programmes.

Why is the EPF needed?

The key recommendation to emerge from the Guilford Review of Arrangements for the Implementation of European Structural Funds Programmes 2014-2020 is the importance of achieving closer alignment between the investment of EU funds and Welsh Government and EU strategies for jobs and growth. Specifically, Dr Guilford recommended the development of the EPF to support the targeting of EU Funds on key areas of economic opportunity.

EU funding in Wales will continue to be deployed in accordance with the UK Partnership Agreement and Operational Programmes/programme documents agreed with the European Commission. The Operational Programmes/programme documents set out the specific objectives and targets to be achieved and the financial parameters we must operate within. However, in order to maximise the impact of EU funding, more can be done to ensure that investments build on what has been achieved to date and are better joined up with other investments being made by the Welsh Government, the private sector and others.

The aim of the Welsh Government and our partners is that EU funds contribute to the delivery of sustainable economic growth and jobs, as well as supporting transformation change across the Welsh economy. EU funds are worth approximately £350 million a year to Wales and this must be set in the context of an economy which has a GVA of over £47 billion a year. In order for EU funding to have significant and transformational impacts, it is important that investments are focused on specific priorities and operate in a more integrated way as part of a wider portfolio of investments.

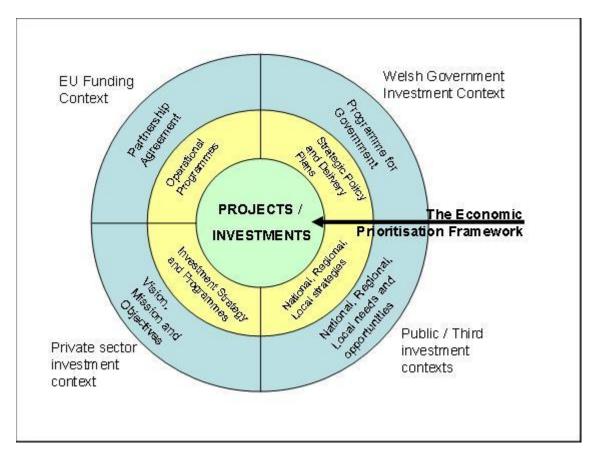
What will the EPF do?

EU funds are therefore only one piece in the overall investment jigsaw. The EPF seeks to highlight some of the other pieces of that jigsaw (i.e. where other investments are happening or planned) and in so doing to act as a guide to joining up the pieces.

Each EU funded operation, taken in isolation, has its own merits and can deliver an impact within its chosen sphere; but in order to deliver transformational change we need to take a much wider view. Operations must also be able to demonstrate their value and importance within a coordinated portfolio of investments. The EPF doesn't aim to describe what operations are needed; it is intended to help those who are developing operations to better understand the existing investment portfolio and to consider how their proposed operations might work as an integral part of that portfolio.

The EPF is where various policies, strategies, programmes and investment plans meet on the ground, as illustrated in Diagram 1 overleaf:

Diagram 1: Investment programmes and scope of EPF (e.g. about alignment of activity on the ground, not about policy alignment)



How should the EPF be used by those who are developing proposed operations?

Organisations developing operations will still need to demonstrate that their proposals deliver the aims and objectives of the relevant EU Fund, as set out in the relevant Programme documents. Operations will also be expected to demonstrate how they meet eligibility and selection and assessment criteria, as well as how they are contributing to the Cross-Cutting Themes of Tackling Poverty, Sustainable Development and Equality; separate guidance documents to help in meeting each of these requirements will be published by the Managing Authorities.

The EPF should be used to help demonstrate that an operation is an integrated part of the wider investment jigsaw; that it has the potential to add real value to other investments supporting jobs and growth. It will not be enough to simply identify a link with an existing initiative or investment area; developers of operations should be able to describe how their proposals can contribute to these investment programmes.

The EPF will help to identify what other investments are happening in a specific thematic or geographical area. Where appropriate, developers of

operations should demonstrate how their operation shares key demand drivers¹ and builds on existing capability².

Skills:

The Welsh Government published its Policy Statement on Skills in January 2014.³ The Statement recognises the need to develop a skills system that is effective at delivering joined-up employment and skills support which reflects the needs of local communities and can work seamlessly alongside national support programmes. A range of mainstream national programmes will be developed by the Welsh Government and other key stakeholders throughout the 2014-2020 programme period. Support for demand-led skills activity arising from economic opportunities will be met through mainstream provision in the first instance. ESF will provide the opportunity to add value to mainstream, national provision to meet varying regional and local needs.

The Economic Opportunities sections

The economic opportunities set out in the following sections are those investment areas identified across Europe, globally and within Wales as key economic opportunities. While the headings may appear broad, it should be emphasised that in themselves these are only a means to organise the investment opportunities which collectively will create the critical mass necessary for transformational change. Operations will therefore need to demonstrate how they are a key part of the investment portfolio set out under the relevant heading(s) and how they are building on the existing strengths. This is not simply linking to the heading or related policy; it will involve a combination of:

- Identifying the key demand driver to which the operation is linking;
- Identifying existing capability on which the operation is building; and
- Demonstrating where in the investment portfolio the operation will fit and how it will coordinate with other key investments.

This is a <u>live document</u> and will be subject to on-going review and amendment to ensure that it presents an up-to-date picture of the broader investment climate across Wales. If you have any suggestions, in particular if you are planning, or aware of, major planned investments under any of the economic opportunity headings, please contact WEFO for consideration in future iterations of this document.

¹ Significant investments which will drive the demand for goods, services, supply chains and people

² Investments that increase capacity and capability related to a specific economic opportunity that meet or can act as enablers to support meeting an element of a requirement resulting from one or more demand driver.

³ http://wales.gov.uk/topics/educationandskills/skillsandtraining/policy-statement-on-skills/?lang=en

Backbone Operations

A missing part of this investment picture is where key strategic EU funded operations (or "backbone" operations) are anticipated. There has been a clear call for these to be set out as early as possible in the programme to prevent duplication of activity. To this end an initial list of key activities that the Managing Authorities expect to come forward in the form of core strategic or "backbone" operations are set out in Table 1. Backbone operations will include a range of Welsh Government and other partners' operations.

If you are considering an operation in one of these areas you should first speak with your Managing Authority contact. They will be able to discuss whether a "backbone" operation is already in development, how mature that development is and, if appropriate, put you in touch with those developing it.

The backbone activities have been organised according to the activity headings identified as part of the Guilford Review. Each will be expected to interact with the others and it is expected that all operations should be working together as the core (or "backbone") of the EU programmes. For example, the schemes delivering business support must be coordinated with the schemes delivering skills and employment measures (i.e. matching supply and demand).

Each operation that proposes to deliver backbone activity will be tested against the EPF to ensure opportunities are not lost to add value to wider investments and to make sure that they are fully considering key demand drivers and existing capabilities.

A section is included for each opportunity to set out indicative examples of where EU funds might add value; these are illustrative only and not intended to be exhaustive. If there is a good fit with a wider programme of investment and there is clear added value, the Managing Authority will work with operations to identify the most appropriate funding package.

Where to find further information

For further information or if you have any questions, please contact:

ERDF			
Finance and Business Branch	WEFOPMDFinanceBranch@wales.gsi.gov.uk		
Connectivity Branch	WEFOConnectivityBranch@Wales.gsi.gov.uk		
Research and Innovation Branch	WEFO- ResearchandInnovationBranch@Wales.gsi.gov.uk		
Energy Branch	WEFOEnergyBranch@wales.gsi.gov.uk		
ESF			
Skills Branch	wefoskillsbranch@wales.gsi.gov.uk		
Employment and Young People Branch	WEFOEmploymentYoungPeople@Wales.gsi.gov.uk		
Ireland-Wales Programme			
Territorial Co- Operation Unit	IrelandWalesCrossBorderProgramme@wales.gsi.gov.uk		
Or the WEFO Helpline: Tel: 0845 010 3355; Email: enquiries- wefo@wales.gsi.gov.uk.			
Rural Development Programme	RDP2014-2020@Wales.GSI.Gov.UK		

Table 1: Potential "backbone" or core activity to be funded through EU programmes

Individual Support	
individual Support	
 Apprenticeships across Wales. Graduate and higher level skills linked to Knowledge Infrastructure. Work-based learning schemes, particularly linked to Labour Market Intelligence (LMI) Employability schemes targeting specific barriers causing social/digital exclusion and poverty and improving labour market participation, Schemes addressing in-work health barriers and caring responsibilities: Schemes seeking to address gender equality in the workplace Youth unemployment schemes addressing specific barriers to work. Attainment and engagement schemes for those at risk of NEET. Workforce development for childcare and early years workforce. 	
Physical Infrastructure	
 Sustainable connectivity to and between the City Regions and their hinterlands. Address targeted pinch points in East-West TEN-T routes. Completion of ICT networks. Exploitation of 4G rollout and opportunities to upgrade communications infrastructure on the back of private sector investments. Targeted integrated investments in limited number of strategic sites (e.g. regeneration area, Enterprise Zone, tourism asset, etc.). Development of key sites for marine energy Support for the establishment of small scale / community energy schemes Targeted investments improving energy efficiency in housing 	

THEMATIC ECONOMIC OPPORTUNITIES

1. ENERGY

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Energy security is identified as significant challenge and opportunity worldwide, including by the Welsh Government⁴, and addressing those challenges through the transition to a low carbon and energy efficient economy is essential to address climate change goals. Volatility of energy prices and reducing resources make energy efficiency and the transition to a low-carbon economy even more important for future jobs and growth.

There is a need for a more balanced energy mix, through increasing the generation and use of renewable as well as other forms of low carbon electricity, including nuclear. Wales possesses significant advantages in terms of its natural resources, existing expertise and existing national grid transmission capacity (although some strengthening is needed to support the emergence of new energy generation facilities)⁵. It is important to capture as many benefits e.g. jobs in generation, operation and maintenance and (potentially for new technology) advanced manufacturing in the programme area as possible. Major energy generation infrastructure and facility development also has the potential to generate significant employment for the construction industry and its supply chains. Welsh clusters have been identified in the Enterprise Zones of Anglesey, Haven Waterway and Snowdonia, all with an emphasis on the development of low carbon energy. There is also the potential for significant investments in wind generation in mid Wales.

Key to improving energy security is reducing usage, recognised as an opportunity for smarter technology as well as through behavioural change and energy efficiency. This has close links with opportunities for resource efficiency and the environmental goods and services sector (see Economic Opportunity 3 – Climate Change and Resource Efficiency) and is a key way to help address fuel poverty.

Research, development and innovation (RD&I) are also key components of advancing affordable low carbon energy and flexible energy generation and in improving energy efficiency. There is already a good range of related research capacity across Wales upon which to build and the real opportunity comes from realising the benefits from that RD&I within Wales.

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⁴ Energy Wales: a low carbon transition (March 2012), Welsh Government

⁵ Marine Energy Infrastructure Study : Stage A - Industry Consultation and Concept Design (July 2012), Halcrow

(B) WHAT IS THE INVESTMENT CONTEXT?

Key Demand Drivers

Major low carbon energy generation

- The Anglesey Enterprise Zone for the Energy Sector, incorporating the <u>Anglesey Energy Island</u> programme, indicates total potential investment of £25bn over the next 10-15 years. This accounts for approximately half of the predicted investment in low carbon electricity generation in Wales over that period (including offshore wind, onshore wind, marine, hydro, solar and biomass production) and includes:
 - £12bn by Horizon Nuclear, Power, a subsidiary of Hitachi Ltd., on a new <u>Nuclear Power Station - Wylfa Newydd</u>, who are planning on the basis of site works from 2015, leading to the start of major on-site work in 2018 and first nuclear construction around 2019.
 - Defueling of existing Nuclear Power Station by Magnox in 2017.
- o Lateral Power proposed Biomass and Eco Park, potentially in 2015.
- Major investment in off shore wind power via RWEnpower, <u>Gwynt y</u> <u>Mor</u>, off the North Wales Coast €2bn to install 160 turbines creating 576MW installed capacity by the end of 2014
- Proposed 2.2GW Centrica / Dong Rhiannon Wind Farm as part of the Celtic Array in the Irish Sea Zone, some 19km from the Anglesey coast and landing the power generated on Anglesey. Construction of up to 440 turbines depending on the final investment decision. The Port of Holyhead is well located as a potential operations and maintenance base
- Transmission Infrastructure National Grid investment to upgrade and strengthen the <u>North Wales Network</u> to accommodate increased electricity generation from low carbon and renewable generation.
- Consent granted for <u>Tidal Array</u> on January 2013 for a 10MW array between the Skerries islands and Carmel Head, about 1km off the Anglesey coast. £70m investment planned, with installation of the foundation structures planned for the summer of 2014, with devices installed the year after
- National Grid major project in <u>Mid Wales</u> connecting wind farms through Mid Wales & Shropshire.
- <u>Crown Estate</u> runs a range of marine renewable leasing rounds and opportunities to demonstrate new technology. For example, the Round 3 Offshore wind leasing round closed in September 2013 and invitations to tender for floating wind technology in October 2013.
- Significant onshore wind development. Multiple projects are consented, and preparing for build, including Pen Y Cymoedd (which has recently awarded £100m of Welsh contracts), Mynydd Y Gwair, and Brechfa Forest West. Further multiple developments in planning with significant decisions to be made by the Mid Wales conjoined inquiry in September 2014.

Energy efficiency

- Energy Company Obligations introduced in 2013, funding home improvements worth around £1.3bn per year, providing energy efficiency measures in housing, including targeting at low income and vulnerable households living in rural areas
- Arbed support of c.£47.15m funded by the 2007-2013 EU programmes to improve the energy efficiency of homes in Wales, reduce greenhouse gas emissions to help with the change from Community Energy Savings Programme (CESP) to Energy Company Obligation (ECO).
- Range of financial support available for viable small scale and community scale energy schemes (e.g. from banks, under the Green Deal or specialist lenders).

Existing Capability

- Menai Science Park (Bangor University) backed by £10m of Welsh Government funding for infrastructure development, the aim of the Park is to increase collaboration and knowledge exploitation by bringing together academic researchers and commercial expertise, with a particular focus on energy and clean technology.
- Innovative and bespoke apprenticeship scheme for Offshore wind Turbine Maintenance Operatives (Grwp Llandrillo Menai with RWE nPower).
- Grŵp-Llandrillo Menai's Energy Centre and Nuclear Skills Academy in Llangefni, Anglesey; a one-stop-shop for all the skills needed in order to underpin a new generation of energy production.
- The Energy Centre, Pembrokeshire College, providing gas, oil and water training, accredited assessment and live renewables installation and servicing facilities.
- Scottish Power network upgrade over the next 5years. Plans for £60m scheme to connect wind farms in Mid Wales to the National Grid network.
- Low Carbon Research Institute (LCRI). The multidisciplinary LCRI aims to support the energy sector to develop low carbon generation, storage, distribution and end use technologies⁶.
- The University of South Wales' Sustainable Environment Research Centre (SERC), leading on hydrogen, biogas and biopolymers generation from renewable and anaerobic sources.
- The University of South Wales' Hydrogen Research and Demonstration Centre at Baglan Energy Park, a platform for the experimental development of renewable hydrogen production and novel hydrogen energy storage. The Centre enables further research and development

⁶ Carries out research, education and training around eight main themes of low carbon:

Photovoltaics; Hydrogen Energy Systems; Marine energy; Bioenergy; Low or Zero Carbon Built Environment; Large Scale Power Generation; Low Carbon Transitions and Policy; and Graduate School

- of hydrogen vehicles, fuel cell applications and overall hydrogen energy systems.
- <u>Sustainable Buildings and Envelope Centre</u> (SBEC). Focus on accelerating the development of low and zero carbon solutions for the built environment using steel in combination with other materials. Tata Steel and LCRI are working closely with other Welsh technology companies and developing supply chains for the installation and maintenance of any solutions that emerge.
- <u>Cardiff EcoDesign Centre</u>, which develops and delivers collaborative multi-sectoral ecodesign projects and is a centre of excellence for ecodesign.
- Swansea University's <u>Sustainable Product Engineering Centre for Innovative Functional Industrial Coatings (SPECIFIC)</u> project, which aims is to develop functional coated steel and glass products, for roofs and walls that generate, store and release renewable energy transforming buildings into power stations and delivering significant environmental and economic benefits.
- The <u>Sustainable Expansion of the Applied Coastal and Marine Sectors in Wales (SEACAMS)</u> project is a strategic development project to integrate research and business opportunities around the coast of Wales, with specific interest in marine energy. Based at Swansea, Bangor and Aberystwyth Universities, the aim is to assist businesses with their product and service development in order to expand the coastal and marine business sectors in Wales.
- The Low Carbon, Energy and Environment National Research Network has been awarded £7m grant funding and is led by the Aberystwyth Bangor Universities Strategic Alliance, with the host being in Bangor University. The Network's principal research focus will be on the food/agri/water/energy nexus, undertaking interdisciplinary research into natural resources (agri/farming for food, genomics and phenomics, managed and unmanaged water, bulk land produced materials (biofuels, biomass, timber)) and managing these while minimising the impacts and inter-relations these have on the natural ecology and environment.
- Sêr Cymru Research Chair in Solar Energy Research (appointed October 2013), College of Engineering, Swansea University. Will establish and lead a world class, dedicated research facility at a new Solar Futures Laboratory (SFL) based in SPECIFIC Innovation and Knowledge Centre (Baglan). Partnership between universities in Wales (led by Swansea) and Imperial College London
- Swansea University's Energy Safety Research Institute: established
 with an award of £12m from the UK Research Partnership Investment
 Fund, together with support from industrial sponsors, the Institute will
 become a focus for energy and safety-related research. Research will
 be carried out into the global safety of all types of energy creation,
 recovery, extraction and supply.
- Academic Expertise for Business programme (A4B), which promotes knowledge exchange and collaborative research commercialisation of IP. The A4B programme, funded by the 2007-2013 EU programmes,

- commenced in 2008 and will complete in early 2015 by which time around £50m will have been invested.
- <u>SMART Cymru</u> programmes, which support businesses to develop and bring new products and processes to market, from initial feasibility studies through to exploitation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Business Innovation, an integrated programme of advice and specialist support that helps smaller businesses to take their first steps into innovation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Extensive energy efficiency supply chain & service capability.
- The <u>NEST</u> fuel poverty scheme, managed by British Gas on behalf of the Welsh Government and investing up to £100m between 2011 and 2016 to improve the energy efficiency of privately owned and rented properties. It provides advice and support to up to 15,000 householders in Wales each year to help people to reduce their fuel hills
- <u>Salix Finance</u> provides interest-free loan programmes to public sector organisations in Wales to support energy efficiency projects.
- Existing WG property assets at Parc Cybi and Llangefni (Anglesey),
 Parc Bryn Cegin (Bangor) and Waterston (Milford Haven) have the potential to support delivery of energy sector projects and in the case of proposed truck stop at Parc Cybi, enable port related development.
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones.

Horizon Scanning

Investments in the Pipeline

- Investments linked to the three Enterprise Zones in Anglesey, Snowdonia and Haven Waterway Enterprise Zone boards are considering how wider sector development can be supported:
- The Trawsfynydd decommissioning site, part of the Snowdonia Enterprise Zone: a Strategic Options Assessment is underway, as is an Energy Pricing Study for the entire Zone.
- The Haven Waterway Enterprise Zone offers both renewable and traditional energy companies an established industry base and supply chain, together with a skilled workforce, an established distribution infrastructure, a variety of sites and a network of universities with a range of energy-related fields. It focuses on further investment in energy projects, the creation of green jobs and the development and enhancement of existing jobs. Key projects include:
 - Inviting Expressions of Interest from potential investors for various sites, including the Waterston site.
 - Explore the future potential of the brownfield site at Blackbridge, with deep water access

- A feasibility and scoping exercise to explore the potential of a Maritime Centre of Excellence
- The <u>Bridge Innovation Centre</u> for business, innovation and enterprise
- Investment proposals expected as a result of Marine Energy Infrastructure study, Technology Innovation Needs Assessment (TINA) studies on energy in addition to proposals for Welsh ports to support energy.
- Investments linked to future proofing grid capacity to include SMART grid and renewables, including offshore.
- A National Grid investment of £4.7bn in expanding and reinforcing the UK transmission grid.

Possible Future Investments to Monitor

- Emerging smart specialisation expertise in smart living and alternative fuels.
- Tidal lagoon opportunities around Wales to exploit tidal range energy potential. Planning application submitted for potential development of Tidal Lagoon on border of Swansea and Neath Port Talbot.
- Supply chain opportunities across all sectors, for example arising from expertise gained at Wylfa and Trawsfynydd or with regard to tidal range and tidal stream projects e.g. tidal lagoons.
- Consents from Crown Estates for marine test areas and leasing rounds for offshore wind and marine energy.
- Pipeline of onshore wind development, together with supply chain and finance opportunities.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- Dedicated priority axes in ERDF programmes for Renewable Energy and Energy Efficiency, particularly for related research and innovation. ERDF can also support research and innovation related to all aspects of energy security (e.g. non-renewable), including energy efficiency.
- ESF can support demand-led skills activity to up-skill the workforce of the sector and its ancillary supply chains, thereby supporting development and expansion and increasing competitiveness and productivity. ESF can also provide support and training for unemployed people or young people seeking to access the labour market to enable them to access employment opportunities within this sector and its ancillary supply chains. Enhancing participation in STEM subjects amongst young people, particularly young girls, will support the longer term aspirations for developing a skilled, agile and resilient workforce in this sector.
- The **Rural Development Programme** could support micro-generation and piloting of innovative approaches within communities.
- The **Maritime and Fisheries fund** will be unlikely to be relevant unless direct links are evident to aquaculture or coastal communities.

2. FOOD AND FARMING

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

There is a significant opportunity for green growth targeted at a 30% increase in the turnover of the food and farming priority sector by 2020. Food security is identified as a significant challenge but also an opportunity worldwide and for Wales. Farming (and to a lesser extent fisheries and aquaculture) are important sectors within Wales, and the need for sustainability, diversification, resilience and increasing added value is important for their survival and prosperity. Challenges such as food security and climate change also create significant economic opportunities.

The growth of the food sector is identified as a particular opportunity where value is added to primary processing, with particular emphasises on the further development of both the domestic market and exploiting significant export potential. Allied to this, the development of food culture, food tourism, local markets and public procurement opportunities for food businesses will be advanced. More Foreign Direct Investment in Wales by food businesses will also be a focus in the Action Plan for Food. The wholesome image of Welsh food and drink will be exploited through securing more Protected Food Name products.

The Food and Farming industries provide significant employment in Wales. Food sector growth will create jobs and a trained and skilled workforce will be essential to future development. Food and farming also impact significantly on our natural resources including water, energy and the natural environment. Embedding sustainable farming practices and integrated land management are key to managing Wales' natural resources effectively in support of sustainable development, building environmental resilience and supporting ecosystem services and tourism. Food manufacturers could reduce Wales's ecological footprint and improve business performance through more efficient energy, water and wider resource management.

(B) WHAT IS THE INVESTMENT CONTEXT?

Key Demand Drivers

 Half of the regionally important companies in Wales are food businesses and consequently essential to economic development goals of the Welsh Government's Economy, Science and Transport Department.

- 80% of food businesses are very small, employing less than 10 employees and many are important in providing employment in rural areas and consequently essential to community sustainability.
- The food supply chain (primary production through to retail employs circa 170,000 people in Wales with potential for growth).
- Direct payments under the Common Agricultural Policy (CAP) will continue, albeit with significant changes to be phased in (€1.908bn over 7 years).
- The Rural Development Programme 2014-2020 will provide £302m of EU funding over 7 years which when combined with Welsh Government co-financing at 55% and a 15% transfer from CAP direct payments will provide £964m over the period.
- The ongoing development of a trade identity, 'Food and Drink Wales', to champion the provenance of Welsh food.
- A well supported business development programme including a well established business mentoring intervention (<u>Levercliff</u>, <u>Menter a</u> <u>Busnes</u>).
- A well established trade development programme which supports businesses with export intentions.
- Food poverty is a real issue in Wales, existing initiatives (food co-ops, community growing and food banks) need to be further developed.
- Food safety is an ongoing concern. There is a need to support businesses to acquire the knowledge and develop the skills to be compliant with food safety legislation.
- £6m Welsh Government fund for Natural Resource Management perhaps with the potential to assist businesses with improved water, energy and waste management
- There is a dedicated Food Park in Cross Hands, Carmarthenshire. This
 is a joint venture between Welsh Government and the Local Authority.
 There is potential to further expand this Food Park. Also, a feasibility
 study is currently in progress for a Food Park at Withybush near
 Haverfordwest in Pembrokeshire.
- Target in the Wales Marine and Fisheries Strategic Action Plan to double fish and shellfish production from aquaculture by 2020.

Existing Capability

- Institute for Biological, Environmental and Rural Sciences (IBERS) in Aberystwyth, a research and teaching centre providing a base for research in response to global challenges such as food security, bioenergy and sustainability, and the impacts of climate change.
- £35m agriculture research facility and innovation centre in Aberystwyth University (the Aberystwyth Innovation and Diffusion Campus). Work will start in 2014 and be completed by March 2015. Investment includes a £14.5m grant from the Biotechnology and Biological Sciences Research Council of which £2.5m is for research into improving upland farming (part of the UK Agricultural Technology Strategy).

- £6.8m <u>National Plant Phenomic Centre</u> (Biotechnology and Biological Sciences Research Council (BBSRC) and Welsh Government funded) in Aberystwyth now open with the UK's most advanced research greenhouse.
- Food Sector Network in Wales part funded by the Welsh Government and through the three centres (Cardiff Metropolitan, Horeb and Coleg Menai) to stimulate innovation, up-skilling and food safety compliance. It provides food businesses with a range of developmental assistance including new product development, product testing, 'starter' production facilities and training and accreditation.
- Hybu Cig Cymru part funded by the Welsh Government (and levy from producers/processors) to promote and market red meat from Wales. Protected Geographical Indication (PGI) Welsh Beef and PGI Welsh Lamb now have an international quality reputation with significant new markets potential (North America, China, Russia, Middle East).
- <u>DairyCo</u> some funding from the Welsh Government (and levy from producers/processors) to market dairy products.
- Academic Expertise for Business programme (A4B), which promotes knowledge exchange and collaborative research commercialisation of IP. The A4B programme, funded by the 2007-2013 EU programmes, commenced in 2008 and will complete in early 2015 by which time around £50m will have been invested.
- <u>SMART Cymru</u> programmes, which support businesses to develop and bring new products and processes to market, from initial feasibility studies through to exploitation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Business Innovation, an integrated programme of advice and specialist support that helps smaller businesses to take their first steps into innovation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones).

Horizon Scanning

Investments in the Pipeline

- The Welsh Government's Delivering Growth: An Action Plan for the Food and Drinks Industry 2014-2020 sets out a series of targeted actions to deliver sustainable jobs and growth for Wales that are both economically and environmentally sound. The Plan has three overarching themes which focus on creating an overarching Federation to improve networking and communication throughout the industry, developing a new marketing identity for Wales and addressing the skills needs for the industry. There are the seven key priorities identified-.
 - Market development and growth.
 - Food culture, heritage and tourism.

- Climate Change.
- Supply chain efficiency.
- Integration, government and supply chain collaboration.
- Food assurance and resilience.
- Health and social impacts.
- There are a number of proposed actions to baseline and improve our knowledge of the food industry and subsectors to enable more accurate economic measures. Horizon scanning studies and comprehensive reviews of current Government interventions and supports will be completed to ensure the most appropriate and resource efficient support provision towards 2020.

Possible Future Investments to Monitor

- Payments for Ecosystem Services work linked to Natural Resource Management looking at how farming and land management can access wider markets such as carbon.
- Comprehensive appraisal of past and current interventions including The Welsh Government's Processing and Marketing Grant Scheme (PMG), Supply Chain Efficiency (SCE), Food Centre Network support, Business and Trade Development support.
- Possible investigation into more eco sensitive packaging and delivery options.
- Consideration may be given to developing support for large processors outside the Assisted Area and Rural Development Plan frameworks.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- As a key sector, food and farming will be prioritised for support should key sector development proposals come forward.
- The Rural Development Programme will be setting out a series of activities directly aimed at supporting the development of the farming and the food sector. A range of activities will support farmers, the agricultural sector, food manufacturing and the rural business sector more widely.
- Projects under the ERDF and ESF will include food, farming and fisheries businesses and employees will be able to access a wide range of support.
- The Maritime and Fisheries Fund will also have elements directly aimed at supporting aquaculture, maritime and fisheries businesses.
 Measures will also support the delivery of the Marine and Fisheries Strategic Action Plan.

3. CLIMATE CHANGE AND RESOURCE EFFICIENCY

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Further to the related opportunity set out for Energy earlier in this document (Economic Opportunity 1) there are additional opportunities for businesses and the people of Wales through ensuring a resilient environment and encouraging greater resource efficiency. Wales has a distinct advantage over other areas with its wealth of natural resources and an attractive, safe and resilient environment in which businesses can invest and locate. There are a range of potential economic opportunities from not only protecting those resources, but also through their strategic management; for example tourism or through providing a more attractive environment for inward investors and skilled labour.

The environmental goods and services sector⁷ is rapidly expanding and Wales is well placed to take advantage of new opportunities arising⁸. Sales in this sector in Wales in 2011/12 were around £1.16 billion, with the sector employing over 10,000 people. Businesses will need customers outside Wales for their products and services in order to survive, grow and continue to innovate; developing international trading opportunities is vitally important.

The secure supply of affordable raw material resources is a key factor of production for many businesses. Efficiencies in the use of resources can support the competitiveness of businesses, whilst also contributing to addressing environmental and social concerns; for example resource efficiency of manufacturing, eco-design, using fewer or high quality secondary materials and investing in systems to reprocess waste materials.

It is proposed that food sector business support, towards 2020, should always marry up business growth objectives with climate change objectives e.g. any business applying for growth support should also demonstrate how they will reduce their ecological footprint such as energy or water efficiency improvements.

The construction industry has a key role to play, with significant opportunities through related infrastructure investments and ensuring resilience and resource efficiency are built-in.

⁸ Figures from Department for Business, Innovation and Skills: Low Carbon and Environmental Goods and Services (LCEGS) Report for 2011 to 2012.

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⁷ That is, organisations engaged in activities such as recycling, waste management, water supply/waste water, addressing pollution and land contamination, noise and vibration control, building technologies and environmental consultancy and monitoring.

(B) WHAT IS THE INVESTMENT CONTEXT?

Key Demand Drivers

- UK and EU Legislative Commitments, including:
 - The <u>EU Emissions Trading Scheme</u> (ETS) sets a cap on the total amount of certain greenhouse gases that can be emitted by the factories, power plants and other installations and, by setting a price on carbon emissions, promoting investment in clean, low-carbon technologies.
 - The <u>EU Habitats Directive</u> (together with the <u>Birds Directive</u>) is built around two pillars: the <u>Natura 2000 network</u> of protected sites and the strict system of species protection. Obligations include the management and protection of these sites, inclusive of taking appropriate conservation measures to maintain and restore the habitats and species and undertaking an appropriate assessment when a plan or project is likely to have a significant effect on a Natura 2000 site.
 - The <u>EU Waste Framework Directive</u> sets out measures for Member States to reduce the overall impact of resource use and to improve the efficiency of such use and requires that Member States adopt waste management plans and waste prevention programmes.
- The Welsh Government's waste infrastructure procurement programme helps local authorities secure the necessary municipal waste treatment infrastructure to meet landfill diversion targets and avoid the risk of EU infraction fines. The programme has a forecast capital value of £750m, the bulk of which is now coming from private sector investment and is focused on delivering food and residual waste treatment facilities. It is being delivered by local authorities working with the Welsh Government.
- <u>WRAP</u>'s Accelerating Reprocessing Infrastructure Development (ARID) fund: capital funding to develop Wales' reprocessing infrastructure and develop the market for high quality recyclates.
- Low Carbon Vehicle infrastructure development (c.£3m).
- Significant investments in flood defences and climate mitigation, including £50m of 2007-2013 EU funding invested in the Welsh Government led <u>Flood and Coastal Erosion Risk Management European Strategic Programme</u>. The Programme, delivered in partnership with local authorities and Natural Resources Wales, supports 28 projects that:
 - build defences, sustainable urban drainage systems and use land management techniques to better manage flooding;
 - o raise awareness of flooding in vulnerable communities; and
 - o improve a community's ability to recover quickly if a flood happens.
- Major land management schemes focussed on improving ecosystems and resilience.

Existing Capability

- <u>SPECIFIC Innovation and Knowledge Centre</u> (Sustainable Product Engineering Centre for Innovation in Functional Industrial Coatings), lead by Swansea University and Tata Steel, to turn buildings into power stations.
- <u>Sustainable Buildings and Envelope Centre</u> (SBEC). Focus on accelerating the development of low and zero carbon solutions for the built environment using steel in combination with other materials. Tata Steel and LCRI working closely with other Welsh technology companies and developing supply chains for the installation and maintenance of any solutions that emerge.
- <u>Cardiff EcoDesign Centre</u>, which develops and delivers collaborative multi-sectoral ecodesign projects and is a centre of excellence for ecodesign.
- The University of South Wales' <u>Sustainable Environment Research</u> <u>Centre (SERC)</u>, leading on hydrogen, biogas and biopolymers generation from renewable and anaerobic sources.
- Institute for Biological, Environmental and Rural Sciences (IBERS) in Aberystwyth, a research and teaching centre providing a base for research in response to global challenges such as food security, bioenergy and sustainability, and the impacts of climate change.
- Bangor University is part of National Environmental Research Council <u>Centre for Ecology and Hydrology</u>, the UK's Centre of Excellence for integrated research in terrestrial and freshwater ecosystems and their interaction with the atmosphere.
- <u>Climate Change Consortium for Wales</u>, a 10-year, £4m programme funded by the Higher Education Funding Council for Wales, with additional support for outreach work provided by Natural Resources Wales, aiming to improve understanding of the causes, nature, timing and consequences of climate change.
- The Waste and Resources Action Programme (WRAP) Cymru, working with businesses and individuals to help them reap the benefits of reducing waste, develop sustainable products and use resources in an efficient way.
- <u>Carbon Trust Wales</u>, nurturing low carbon innovators while giving energy saving advice to public and business organisations.
- Wales Environmental Research Hub, helping to co-ordinate environmental research in Wales to strengthen the evidence base for the Wales Environment Strategy. The Hub promotes collaboration between research providers in universities and research institutes, and users of research - primarily government and its agencies.
- The Low Carbon, Energy and Environment National Research Network has been awarded £7m grant funding and is led by the Aberystwyth Bangor Universities Strategic Alliance, with the host being in Bangor University. The Network's principal research focus will be on the food/agri/water/energy nexus, undertaking interdisciplinary research into natural resources (agri/farming for food, genomics and phenomics, managed and unmanaged water, bulk land produced materials

- (biofuels, biomass, timber)) and managing these while minimising the impacts and inter-relations these have on the natural ecology and environment.
- Academic Expertise for Business programme (A4B), which promotes knowledge exchange and collaborative research commercialisation of IP. The A4B programme, funded by the 2007-2013 EU programmes, commenced in 2008 and will complete in early 2015 by which time around £50m will have been invested.
- <u>SMART Cymru</u> programmes, which support businesses to develop and bring new products and processes to market, from initial feasibility studies through to exploitation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Business Innovation, an integrated programme of advice and specialist support that helps smaller businesses to take their first steps into innovation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Cynnal Cymru. a networking organisation working across a broad range of issues - from climate change to economy and fair-trade to health - increasing awareness of sustainability issues and good practice examples, and raise awareness of practical resources encouraging sustainable living in Wales.
- <u>Centre for Alternative Technology</u>, an education and visitor centre near Machynlleth demonstrating practical solutions for sustainability, covering all aspects of green living: environmental building, ecosanitation, woodland management, renewable energy, energy efficiency and organic growing.
- Five designated areas of outstanding natural beauty:
 - Anglesey.
 - The Clwydian Range in North-East Wales.
 - Gower.
 - o Llŷn Peninsula.
 - o The Wye Valley.

Horizon Scanning

Investments in the Pipeline

- Three Enterprise Zones in Anglesey, Snowdonia and Haven Waterway; packages of support to encourage cluster development (see Thematic Economic Opportunity 1 – Energy – for details of these Enterprise Zones and key associated projects).
- The Energy and Environment Sector Panel are considering how wider sector development can be supported. The Tourism Advisory Board may also be considering options for ecotourism, linked to environmental improvements.

Possible Future Investments to Monitor

- Emerging smart specialisation expertise in climate change adaptation.
- Natural Resources Wales will be considering investment programmes.
- Strategic green infrastructure planning and delivery to support ecosystem services and support for payments for ecosystem services to be able to exploit emerging markets around water, carbon and energy.
- The Welsh Housing Quality Standard.
- Low Carbon Vehicles.
- SMART Grids.
- Emerging opportunities for collaboration on the utilisation of household residual waste to produce green energy.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- Outside of backbone projects and building environmental resilience as part of wider investments, ERDF programmes will encourage a focus on related research and innovation where commercial opportunities exist. Further support would be available for related sector / supply chain development. Resource efficiency is expected to be a key component of wider support provided to SMEs.
- ESF can support demand-led skills activity in support of ERDF Research and Innovation priorities, thereby supporting development and expansion and increasing competitiveness and productivity. ESF can also provide support and training for unemployed people and young people seeking to access the labour market to enable them to access employment opportunities within this sector and its ancillary supply chains. Enhancing participation in STEM subjects amongst young people, particularly young girls, will support the longer term aspirations for developing a skilled, agile and resilient workforce in this sector.
- The Rural Development Programme will have a significant focus on all aspects of this priority area, including those areas with no demonstrable commercial benefit (yet still important for Wales).
- The Maritime and Fisheries Fund will support environmental resilience in our marine environment and coastal communities, particularly where linked to blue growth opportunities.

4. EXPLOITATION OF ICT ASSETS AND OPPORTUNITIES OF THE DIGITAL MARKETPLACE

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Active participation in the digital economy is essential to remaining competitive in the global economy. Significant assets are being developed in Wales and these need to be exploited to realise their full potential and to stimulate further investment by the private sector. These assets include ICT infrastructure, as well as intellectual property in the form of digital content and services that make use of that infrastructure. Fully exploiting the opportunities of the digital economy can address issues of exclusion and peripherality and promote growth, exports, mobility, competitiveness and productivity. Taking the lead in these areas can potentially provide a competitive advantage and encourage further investment. Businesses will need customers outside Wales for their products and services in order to survive, grow and continue to innovate; developing international trading opportunities is vitally important. The "digital marketplace" presents opportunities across the economy but it is primarily driven by the ICT and Creative sectors, which create the methods by which commercial exploitation of digital technology can take place.

The radical changes promised by the rise of the digital economy will have profound implications for all sectors and provide significant opportunities for productivity growth, including through research, development and innovation. For example there are opportunities for the construction sector to take advantage of the forecast £200bn global market for integrated city systems by 2030⁹.

(B) WHAT IS THE INVESTMENT CONTEXT?

Key Demand Drivers

- Roll out of next generation fast fibre broadband across all regions of Wales:
 - Next Generation Broadband (Superfast Cymru), a partnership with BT deploying fast fibre broadband in areas where there has

⁹ Technology Strategy Board estimate, see https://www.innovateuk.org/web/corporate1/feature-display-page/-/asset_publisher/b61wJfKPbeu8/content/the-city-of-the-future

- been market failure, funded by over £425m of public and private investment.
- Access Broadband Cymru scheme for small businesses, residents, third sector organisations and communities which cannot achieve broadband speeds of greater than 2Mbps and that are not covered by Superfast Cymru programme or where no date has been published for the roll-out of superfast broadband. The Scheme will run until 31 March 2016.
- Taken together, and in conjunction with fibre roll-out by commercial operators, these investments will result in 96% of the population of Wales having access to fast fibre broadband by 2016.
- Investment in mobile infrastructure through the UK Government's Mobile Infrastructure Project, a £150m investment to address mobile notspots and provide mobile coverage across the four UK nations, including the A470 in Wales.
- Investment (public and private) in Wales in creative digital content and services, including:
 - Public sector procurement. Approximately £300m per annum spent by Welsh Government, NHS Wales and Welsh Local Authorities on ICT and creative businesses.
 - Public Service Broadcasting (PSB) more than £200m a year spent in Wales by BBC, S4C, Channel 4 and ITV.
 - Private sector investment in new creative and digital content and services for commercial and non-commercial markets.
- International demand for film and TV studio space and production locations.
- Development of media clusters and film and TV production infrastructure creating demand for specialist skills and supply chains (e.g. <u>BBC Drama Village at Porth Teigr</u>, Cardiff; *Da Vinci's Demons* around Bay Studios in Neath Port Talbot; *Atlantis* in Chepstow; plans to establish Pinewood Studios Wales at the former Energy Centre building in Wentloog, Cardiff; a £30m ring-fenced budget for commercial investment by the Welsh Government in film and TV development, production and distribution).
- Welsh Government funding packages for creative businesses including repayable and non-repayable funding for job creation, capital investment, film and TV production, property improvement (e.g. to convert buildings into working studio space) and the £2m Digital Development Fund pilot which provides up to 50% of the cost of projects that exploit new digital technologies in international markets. http://business.wales.gov.uk/creative.
- UK-wide Tax Reliefs for Film, High-End TV and Animation.
- The €1.46bn European MEDIA and Culture funding (will become "Creative Europe" from 2014) provides a boost for the cultural and creative sectors. Creative Europe will provide funding for at least 250,000 artists and cultural professionals, 2,000 cinemas, 800 films and 4,500 book translations. It will also launch a new financial guarantee facility enabling small cultural and creative businesses to access up to €750m in bank loans.

Existing Capability

- Strengths in creative content production including animation, music, TV and film industries, and their supply chains.
- Archived creative content (music, film, TV, literature etc.) with potential for commercial exploitation.
- Industry events and networks in creative and digital sectors, including:
 - <u>ESTnet</u> (a network of technology organisations whose members design, develop, manufacture or integrate electronic and software technologies).
 - o Digital 2014 annual event.
 - o Wales Games Development Show.
 - Do Lectures.
 - <u>GamesDev South Wales</u>, a social meet-up for video game developers.
- Expertise in mobile applications: (<u>CEMAS The Centre of Excellence in Mobile Applications and Services</u>) and digital media innovation and enterprise (<u>MediaLab</u> The Cardiff School of Creative and Cultural Industries, University of South Wales). Focused HE provision, with nearly 200 undergraduate and postgraduate courses on offer in the Creative Industries, and a <u>Cardiff School of Journalism</u>, <u>Media and Cultural Studies</u>.
- Two pilot projects, Pathways to Digital Employment and Pathways to Digital Growth, to meet employer demand for IT professional roles in Wales.
- Wales Research Institute of Visual Computing (Cardiff University, Swansea University, Aberystwyth University and Bangor University), funded by HEFCW.
- Public Sector Broadband Aggregation Network project which delivers effective, efficient and affordable connectivity to public service organisations throughout Wales.
- Cardiff and Newport Super-Connected cities funding from UK
 Government to designated cities to help provide ultrafast broadband
 access and large areas of public wireless connectivity.
- e-Crime Wales programme, which provides information to Welsh businesses about arming against electronic/cyber crime and advice on what to do should they become a victim.
- <u>EADS Foundation Wales</u> a joint venture company between WG, Cassidian Newport and Cardiff University (representing all universities) to support projects which generate research and technology in the fields of Advanced Engineering & Manufacturing, the digital and low carbon economies and cyber security.
- The <u>Alacrity Foundation</u>, based in Newport, is a joint venture between Wesley Clover, The Waterloo Foundation and the Welsh Government to mentor and train the brightest and best graduates and create a new generation of British Hi-Tech companies.

- Development of the first TechHub site in Wales, providing support for technology start-ups and physical space where they can work, meet, collaborate, network and learn.
- The Welsh Innovation Centre for Enterprise (ICE) An enterprise
 centre which aims to help entrepreneurs launch and grow their
 business, based at the former offices of National Britannia at Caerphilly
 Business Park, provides shared office space for start-ups and also
 provides access to business advice from a team of advisors.
- Welsh Government interest in <u>Porth Teigr</u> through development agreement with Igloo, and ownership of property assets at Fabian Way.
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones).

Horizon Scanning

Investments in the Pipeline

- Investments linked to Enterprise Zones, including sector specific requirements from Snowdonia Enterprise Zone, to increase the competitiveness and attractiveness for investment through investments in digital infrastructure. Broadband delivery has been prioritised for the Enterprise Zones; initial planning has been completed and is scheduled to go life mid 2014.
- The ICT Sector Panel has advised how wider sector development can be supported by increasing ICT adoption and exploitation by other sectors.
- Newport Business Development Project, which will explore the business growth potential of Newport City Centre, including the development of the ICT sector.

Possible Future Investments to Monitor

- Emerging smart specialisation expertise and clusters in software, digital and entertainment media (e.g. Apps, games and multi-platform digital content development), m-health, e-health and m-banking.
- ICT and the digital economy identified as being of cross-cutting importance for all National Research Networks, so specific proposals may emerge once networks and Star Teams in place.
- Investments linked to feasibility studies into Enterprise Class
 Connectivity across Wales, viability of providing ubiquitous Wi-Fi
 access in key public areas throughout Wales, provision of open access
 duct network mobile voice and data services on trains and trunk road
 corridors for high speed telecommunications networks.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- ERDF programmes can support ICT infrastructure and the development of digital IP, and specific investments to exploit those assets. All projects should be challenged to take advantage of digital economy. Specific support possible for sector and cluster development.
- ESF can support demand-led skills activity, especially in support of ERDF Research and Innovation priorities and skills for both employed and unemployed individuals to support the exploitation of infrastructure investments. ESF can also provide support and training for unemployed people to enable them to access employment opportunities in this sector and its ancillary supply chains. Enhancing participation in STEM subjects amongst young people, particularly young girls, will support the longer term aspirations for developing a skilled, agile and resilient workforce in this sector.
- The Rural Development Programme will focus on addressing specific gaps in provision in ICT infrastructure, skills, and ICT exploitation by rural communities and agricultural businesses (where not met by ERDF or other provision).
- The Maritime and Fisheries Fund will support investments where they are linked to the development of the fisheries industry, supporting coastal communities or promoting blue growth (and where mainstream support not flexible enough).

5. ADVANCED MANUFACTURING

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Manufacturing is a larger proportion of the Welsh economy than the UK as a whole and has been undergoing a transition from low skilled high volume, to more advanced manufacturing capability built on high skills in emerging clusters and areas of expertise. Advanced manufacturing is closely linked to research and innovation strengths and attracts a large amount of research and innovation funding, particular the development and production of advanced materials for a range of industries. Manufacturing is further characterised by high salaries and high levels of exports, and Wales has several blue chip large employers in this sector.

As future sustainable development targets and commitments are made, there will be a demand to accelerate the engagement with businesses to deliver impacts in areas including: waste, recycling and reuse, remanufacturing, emissions, resource use (including water and energy), and resource resilience (scarce metals). These terms are being grouped under the banner of the Circular Economy. Investment in eco-design offer opportunities for the manufacturing sector to gain a competitive edge in a resource constrained future.

(B) WHAT IS THE INVESTMENT CONTEXT

Key Demand Divers

- Significant available UK Research & Development funding including Research Councils, the Technology Strategy Board and Horizon 2020.
- Anchor companies, with considerable employment footprints in Wales.
- Supply Chain Development opportunities, from existing contestable contracts, to growing on-shoring from lower cost economies and delivering solutions through open-innovation relationships. Clusters of expertise in the following sub sectors:
 - Aerospace Components and Wing Technology.
 - Aerospace Maintenance, Repair and Overhaul.
 - o Aerospace Remotely Piloted Air Systems.
 - Automotive Engine Technology and Power Systems.
 - Automotive Chasis and body parts.
 - o Sensing & metrology, incorporating Opto Electronics.
 - Process Manufacturing, including steel and chemicals.
- Four Enterprise Zones with a focus on Advanced Manufacturing:
 - Deeside Enterprise Zone an area of excellence in aerospace, automotive and process engineering, electronic,

- pharmaceuticals, construction, food, paper and packaging and sustainable energy.
- Snowdonia Enterprise Zone the Llanbedr Aviation Centre and Enterprise Park, which has the capacity to accommodate a range of both airside and non airside uses and the potential to significantly increase Wales' Remotely Piloted Aircraft Systems capability.
- St Athan / Cardiff Airport Enterprise Zone to develop the area into an internationally recognised centre of excellence for the aerospace industry and Maintenance, Repair and Operations activities in particular.
- Ebbw Vale Enterprise Zone creating a vibrant, world class high technology hotspot for manufacturing companies.

Existing Capability

RD&I capability and centres of excellence

- <u>RPAS (Remotely Piloted Air Systems)</u> strategic sites at Aberporth and Llanbedr, with regulated airspace for test, evaluation and demonstration.
- Maintenance, Repair and Overhaul (MRO) strategic site at St Athan / Cardiff Airport, with one airport and two runways.
- SPECIFIC Innovation and Knowledge Centre (Sustainable Product Engineering Centre for Innovation in Functional Industrial Coatings), lead by Swansea University and Tata Steel, to turn buildings into power stations.
- £6.5m <u>Sustainable Building Envelope Centre (SBEC)</u> created by the <u>Low Carbon Research Institute</u> (LCRI) with Tata Colors and the Welsh Government to research, develop and showcase products that can be readily integrated into new and retrofit building structures.
- The <u>BioComposites Centre</u> at Bangor University, at the forefront of research, development and the commercial application of bio-based alternatives to synthetic materials in manufacturing and industry.
- <u>Eco-Design Centre</u> (Cardiff Metropolitan University), a knowledge-intensive organisation specialising in making ecodesign happen.
- Morgan-Botti Laboratory Cardiff University for Lightning Research and Testing.
- <u>CAPSE</u>, <u>University of South Wales</u> (Centre for Automotive Power Systems Engineering). Expertise in battery, powertrain and control electronics / software for automotive and renewable energy applications with on-going research and test projects with several OEM and tier 1.
- The University of South Wales' <u>Sustainable Environment Research</u> <u>Centre (SERC)</u>, leading on hydrogen, biogas and biopolymers generation from renewable and anaerobic sources.
- The University of South Wales' <u>Hydrogen Research and Demonstration</u>
 <u>Centre</u> at Baglan Energy Park, a platform for the experimental
 development of renewable hydrogen production and novel hydrogen

- energy storage. The Centre enables further research and development of hydrogen vehicles, fuel cell applications and overall hydrogen energy systems.
- <u>TWI Technology Centre</u>, Port Talbot (Structural Integrity and Non Destructive Testing).
- Design, Simulation and Prototyping, through Computational Simulation and Additive Layer manufacturing (Swansea University, Cardiff University, Swansea Met and Cardiff Met).
- <u>ASTUTE</u> (Advanced Sustainable Manufacturing Technologies), a
 partnership of Welsh Universities supporting companies to adopt
 advanced technologies. This programme is part-European funded
 under the 2007-2013 programmes.
- OPTIC and E-ELT (European Extra Large Telescope), a project harnessing leading edge opto-electrics.
- Swansea Bay Campus, which is currently under construction and will accommodate:
 - High tech research laboratories.
 - The Innovation Hub and Engineering Manufacturing Facility colocating industry and College of Engineering research
 - Swansea Materials and Research Testing (SMaRT), a materials testing centre and research institute focusing on materials research and testing. The centre combines existing research activity and a spin out company which provides commercial services based on the research output and takes responsibility for facilities management and service provision.
 - The Energy Safety Research Institute (see Thematic Economic Opportunity 1 – Energy).
- <u>EADS Foundation Wales</u> a joint venture company between WG, Cassidian Newport and Cardiff University (representing all universities) to support projects which generate research and technology in the fields of Advanced Engineering & Manufacturing, the digital and low carbon economies and cyber security.
- The <u>Alacrity Foundation</u>, based in Newport, is a joint venture between Wesley Clover, The Waterloo Foundation and the Welsh Government to mentor and train the brightest and best graduates and create a new generation of British Hi-Tech companies.
- Ser Cymru National Research Network for Advanced Engineering and Materials led by Swansea University and supported through £7m over 5 years.
- Advanced Engineering and Materials Science for Wales Grand
 Challenge Knowledge Exchange Project, University of South Wales establishing a regional strategy to address the Advanced Engineering and Materials Grand Challenge and to improve the economic impact of scientific research in Wales.
- The Waste and Resources Action Programme (WRAP) Cymru, working with businesses and individuals to help them reap the benefits of reducing waste, develop sustainable products and use resources in an efficient way.

 <u>Carbon Trust Wales</u>, nurturing low carbon innovators while giving energy saving advice to public and business organisations.

Skills and RD&I support in Wales

- Modern Apprenticeship schemes funded by the 2007-2013 European Programmes.
- Academic Expertise for Business programme (A4B), which promotes knowledge exchange and collaborative research commercialisation of IP. The A4B programme, funded by the 2007-2013 EU programmes, commenced in 2008 and will complete in early 2015 by which time around £50m will have been invested.
- <u>SMART Cymru</u> programmes, which support businesses to develop and bring new products and processes to market, from initial feasibility studies through to exploitation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Business Innovation, an integrated programme of advice and specialist support that helps smaller businesses to take their first steps into innovation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.

Property

- Existing WG property assets have the potential to support development/ provide property solutions for the identified sub sectors: Hawarden/ St Athan (aerospace); Aberporth (UAVs); Felindre/ Rhyd y Blew/ Brocastle (automotive); St Asaph (opto electronics); Baglan (process manufacturing).
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones).

Horizon Scanning

Investments in the Pipeline

- Four Enterprise Zones:
 - The <u>Deeside Enterprise Zone</u> currently accommodates 20,000 jobs mainly in the high value manufacturing sector. Areas of excellence include aerospace, automotive and process engineering, electronics, pharmaceuticals, construction, food, paper and packaging and sustainable energy. Current investment proposals will deliver a further 7,000 new job opportunities, together with 1,300 new residential units in a parkland setting. Key projects include the DEZ proposal for an AMSTP (Advanced Manufacturing Skills & Technology Park).
 - The <u>Snowdonia Enterprise Zone</u> includes the Llanbedr Aviation Centre & Enterprise Park, which has the capacity to accommodate a range of both airside and non airside uses and the potential to significantly increase Wales' Remotely Piloted Aircraft Systems (RPAS) capability. A Master Plan for this site is underway.

- The <u>St Athan / Cardiff Airport Enterprise Zone</u> aims to develop the area into an internationally recognised centre of excellence for the aerospace industry, with particular focus on maintenance, repair and operations (MRO) activities. Key projects and developments include:
 - The refurbishment of Building 858, Aerospace Business Park.
 - Improvements to the airfield at St Athan.
 - Agreement secured with the MoD for partial access to the Super Hanger at St Athan, enabling a Welsh Government commercial tenant to locate within this area. Ongoing negotiations to agree the full transfer of the Super Hanger into Welsh Government ownership by March 2017.
 - MoD plans to base 14 Signal Regiment at St Athan.
 - The Gileston Bends Project to improve the B4265 between Gileston and Oldmill, improving connectivity within the St Athan / Cardiff Airport Enterprise Zone.
- The <u>Ebbw Vale Enterprise Zone</u> aims to build on the area's successful track record for delivering manufacturing projects to create a world class high technology hotspot for manufacturing companies in Wales. The Zone will attract businesses of all sizes spanning many key subsectors.
- The above includes packages of support to encourage cluster development
- Advanced Materials and Manufacturing Sector Panel are considering how wider sector development can be supported.

Possible Future Investments to Monitor

- Potential investments from anchor companies, including those in aerospace (wing technology, MRO and RPAS) and automotive (power systems, low carbon technologies, chassis and body components) industries.
- A potential proposal for an Advanced Engineering and Materials Research Institute (AEMRI).
- Emerging smart specialisation expertise in photonics, layer manufacturing, finite element modelling, and medical devices.
- A feasibility study to identify the greatest alignment between industry needs and Welsh High Value Manufacturing (HVM) capability, and subsequent option appraisal and delivery is likely. Potential technology development areas include Structural Integrity (Test, Inspection, and Measurement) or Additive Layer Manufacturing / 3D printing.
- Establishing a Welsh TSB-funded Catapult. There is no current UK HVM Catapult in Wales.
- The AM&M Industry Wales body will support the Welsh Government's interaction with key BIS departments and through this, appropriate responses and solutions will be developed around those identified key sectors and initiatives such as:
 - the Aerospace Technology Institute (ATI) with the National Aerospace Technology Exploitation Programme (NATEP).

- o the Automotive Advanced Propulsion Centre (APC).
- Electrification of rail lines.
- Emerging expertise in eco-design.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- **ERDF** programmes will have an emphasis on related research and innovation where commercial opportunities exist. Further support would be available for related sector / supply chain development.
- ESF can support demand-led skills activity to up-skill the workforce of the sector and its ancillary supply chains including skills to support ERDF Research and Innovation priorities thereby supporting development and expansion and increasing competitiveness and productivity. ESF can also provide support and training for unemployed people and young people seeking to access the labour market to enable them to access employment opportunities within this sector and its ancillary supply chains. Enhancing participation in STEM subjects amongst young people, particularly young girls, will support the longer term aspirations for developing a skilled, agile and resilient workforce in this sector.
- The Rural Development Programme unlikely to be of direct relevance, and potentially only if there's a link to agricultural manufacturing or links to rural communities.
- The Maritime and Fisheries Fund will also be unlikely to be relevant unless direct links are evident to aquaculture or coastal communities.

6. LIFE SCIENCES AND HEALTH

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Addressing global challenges associated with an ageing population and changing demographics offers market opportunities for life sciences businesses to generate economic growth. This will increase employment and the productivity of the workforce, and develop knowledge, capability and solutions that can be exported globally. Businesses will need customers outside Wales for their products and services in order to survive, grow and continue to innovate; developing international trading opportunities is vitally important.

Demand for personalised medicine is increasing as NHS budgets decrease. Commercial innovation is the necessity that will transform healthcare delivery. Wales and Welsh businesses need support to fully embrace this opportunity. There are significant opportunities for eco-design in medical equipment and in the manufacturing and use of pharmaceutical products. Associated infrastructure and facility development has the potential to generate significant employment for the construction industry and its supply chains.

Demographic changes are also likely to see white-collar jobs in the healthcare sector grow to meet increasing demand, including equally valuable jobs at the lower end of the skills spectrum. This creates skills needs, but also offers opportunities for innovation in the sector – particularly in harnessing the budget available through the NHS.

(B) WHAT IS THE INVESTMENT CONTEXT?

Key Demand Drivers

- £100m commercial investment fund for life sciences an equity fund managed externally by Arthurian Life Sciences.
- Recent inward investment success will take Wales' academic strength in stem cells closer to commercialisation. This investment by ReNeuron Limited has generated significant international interest in this subsector and in Wales. It is anticipated that this will attract further jobs and growth from within this transformative subsector.
- Significant available UK Research & Development funding including Research Councils, the Technology Strategy Board and Horizon 2020.
- Major infrastructure investments in health and social care planned including the NHS All-Wales Capital Programme which supports infrastructural developments and has a baseline annual budget of c.£220m.

Existing Capability

- The Welsh Wound Innovation Centre, a Wound Healing Centre of Excellence – £4m investment from Welsh Government and all Welsh NHS Trusts. The centre will focus on RD&I and its translation into therapeutic developments.
- Life Sciences Hub £2m capital investment, £6m revenue over three years. The Hub will act as the nerve centre and focal point of the life sciences business development activities from both public and private sector organisations in partnership.
- High Performance Computing (HPC) Wales is an innovative collaboration which gives businesses access to world-class, secure and easy to use high performance computing (HPC) technology. The project supports activity at the E-Health Industries and Innovation Centre at Swansea University in developing the SAIL database. The database is an anonymised NHS databank of over 3 million people.
- <u>Institute of Life Sciences</u> (ILS1 and ILS2 buildings) in Swansea and associated cluster. A purpose-built medical research facility to advance medical science through multi- and interdisciplinary research and innovation for the benefit of human health.
- Research at Cardiff University, including the MRC Centre for Neuropsychiatric Genetics and Genomics.
- <u>Cardiff medicentre</u>, a business incubator centre for biotech and medtech startups.
- The Gwaun Elai Medi Science Campus, industrial and manufacturing units aimed at the medical science industry.
- Ser Cymru and National Research Network on Life Sciences and Health, awarded £7.3 million and led by Cardiff University, with Swansea, Aberystwyth and Bangor Universities.
- Academic Expertise for Business programme (A4B), which promotes knowledge exchange and collaborative research commercialisation of IP. The A4B programme, funded by the 2007-2013 EU programmes, commenced in 2008 and will complete in early 2015 by which time around £50m will have been invested.
- <u>SMART Cymru</u> programmes, which support businesses to develop and bring new products and processes to market, from initial feasibility studies through to exploitation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Business Innovation, an integrated programme of advice and specialist support that helps smaller businesses to take their first steps into innovation. The current programme, which is funded by the 2007-2013 EU programmes, will run until early 2015.
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones).

Horizon Scanning

Investments in the Pipeline

- The Life Sciences Sector Panel are considering how wider sector development can be supported.
- Cell Therapy Centre initial capital investment of circa £4.5m.
- Institute of Life Sciences (ILS) 3 A third phase is under consideration.
- FARR Institute £20m investment in an MRC-funded UK health informatics research institute based in Swansea University.

Possible Future Investments to Monitor

 Emerging smart specialisation expertise in neurosciences, medical devices, NHS collaboration, e-health, wound healing and regenerative medicine.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- **ERDF** programmes will encourage a focus on related research and innovation where commercial opportunities exist. Further support will be available for related sector / supply chain development.
- ESF can support demand-led skills activity to up-skill the workforce of the sector and its ancillary supply chains in support of ERDF Research and Innovation priorities for sector development thereby supporting development and expansion and increasing competitiveness and productivity. ESF can also provide support and training for unemployed people, and young people seeking to access the labour market, to enable them to access employment opportunities within this sector and its ancillary supply chains. Enhancing participation in STEM subjects amongst young people, particularly young girls, will support the longer term aspirations for developing a skilled, agile and resilient workforce in this sector.
- The Rural Development Programme is unlikely to be of direct relevance but can be kept under review should support involve agriculture or rural communities.
- The Maritime and Fisheries Fund is unlikely to be of direct relevance but can be kept under review should support involve aquaculture or coastal communities.

7. TOURISM, RECREATION AND LEISURE

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Leisure and recreation and the associated benefits of tourism are significant opportunities for growth and jobs given the relative importance of the sector in Wales – as well as offering needed opportunities for lower skilled employment. Wales has significant natural assets and is a world class activity tourism destination. We have three National Parks of distinctive character, five areas of outstanding natural beauty and, since 2012, the 870 mile long Wales Coastal Path, the only one of its kind anywhere in the world. Wales also has 31 blue flag beaches and five blue flag marinas, 35 Green Coast and 105 seaside awards on Wales' coastline. The spectacular natural landscape provides an unrivalled backdrop to support a wide range of sports and outdoor activities. As well as a well-populated calendar of significant cultural festivals, Wales has hosted a range of major sporting events in recent years including the Ryder Cup and the Ashes. In addition, many historic features remain in the landscape, including three World Heritage Sites and Wales has two living languages, providing a distinct cultural identity.

The regional sections of this framework will each identify tourism as an economic driver for their economies and should be read in conjunction with this section. Investments should seek to reflect the national priorities set out in this section whilst also building on regional strengths and opportunities to be set out in each regional section. The ambition of the new tourism strategy for Wales 'A partnership for Growth: 2013-2020' is to grow tourism earnings by 10% or more by 2020.

The development and growth of tourism, recreation and leisure across Wales creates opportunities for a wide range of sectors and makes those areas more attractive for inward investment and for skilled labour, for example associated infrastructure and facility development has the potential to generate significant employment for the construction industry and its supply chains.

(B) WHAT IS THE INVESTMENT CONTEXT?

Key Demand Drivers

- Development of tourism centres of excellence within the countryside and around coastline of Wales via the £37m Sustainable and Coastal Tourism Projects funded by the 2007-2013 ERDF Programme:
 - Swansea Watersports: berthing at Swansea, facility development at St Helens and Knab Rock.
 - Pembrokeshire Coastal Tourism: improved access to the water, especially for the young, elderly and disabled; a new landing

- stage at Castle Beach, Tenby and a pontoon at Tenby harbour; improvements to visitor facilities at Coppet Hall, Solva and Porthgain.
- Aberdaron Business Group: looking at ways of improving the tourism offer in Aberdaron.
- Green Sea: investment in existing or potential Blue Fag or Green Coast award beaches, supporting activities such as facility development, improvements to slipways, the extension of footpaths, promenade and car park improvements and the provision of visitor information.
- Cognation Mountain Bike Trails South Wales: extend the Afan Forest Park trail, develop a commercial bike park at Gethin Woods and a mountain bike events centre at Margam Park.
- North Wales Cycling: extend facilities at the Visitor centre at Llyn Brenig, create an activity hub at Betws y Coed, develop new trails linking existing trails in the Clwydian and Hiraethog ranges, develop an off-road and activity centre at Clocaenog Forest.
- Eryri Centre of Excellence: a new accommodation block, new mountain biking trails at Coed y Brenin with a new Activity Centre, a new downhill facility at Llechwedd and improvements to facilities for anglers at Trawsfynydd Lake.
- One Historic Garden: improvements to gardens and visitors facilities at sites including Bryngarw, Margam, Cwmdonkin Country Park, Penllegare Valley Woods, Abergasney, Scolton Manor and Colby Woodland.
- £30m investment in the <u>Valleys Regional Park</u> to co-ordinate, drive and promote activities related to the environment and heritage and associated tourism across the valleys of South Wales, funded by the 2007-2013 ERDF programme.
- £4.7m per annum investment to stimulate major sporting and cultural events to come to Wales, via the Welsh Government Major Event Unit in line with the Major Events strategy.
- £9m via the <u>Digital Tourism Business Framework</u> (DTBF) to ensure Wales' tourism industry will have moved from relative E-business immaturity firmly into the digital age.
- The Destination Marketing Project invested £9.5m in 2012, which generated £163m in additional visitor spend.
- Circa £12m of support to develop a <u>Wales Coastal Path</u> via Environment for Growth, funded by the 2007-2013 ERDF programme.
- Investment in mobile infrastructure through the UK Governments'
 Mobile Infrastructure project will benefit the tourism sector (see
 Thematic Economic Opportunity 4 Exploitation of ICT Assets and
 Opportunities of the Digital Marketplace for details).
- Development of routes into Cardiff International Airport will create new demand for the tourism sector in Wales from our priority international markets.
- The perceived distance/time it takes to get to Wales has been identified in key research as a barrier to visiting. Investment within road and rail networks will address this barrier.

- Investment within on-shore tourism facilities at key ports will allow demand to occur within the cruise market.
- Investments available to the sector via the <u>Coastal Communities Fund</u> (circa £1.5m per annum). The Fund is designed to support the economic development of coastal communities by promoting sustainable economic growth and jobs.
- Dissemination and utilisation of the <u>Pan Wales Interpretation Plan</u> coordinated by Cadw which has the potential to add depth and authenticity to Wales' heritage product.
- £6m Welsh Government fund for Natural Resource Management will build on recent investment within our natural and built environment.

Existing Capability

- 6% of Wales' area is owned and managed by the Welsh Government via Natural Resources Wales, with unrivalled capacity for absorbing visitors and a pre-existing network of recreation and tourism opportunities.
- All tourism destinations around Wales have been developing public/private sector 'destination partnerships' and created destination management plans. The plans identify the strengths and weaknesses of an area and prioritise future development requirements.
- <u>UNESCO World Heritage Sites</u>:
 - Blaenavon: homes to the Big Pit: National Coal Museum, the Pontypool and Blaenavon Railway and the Blaenavon Ironworks.
 - The Castles and Town Walls of Caernarfon and Conwy.
 - Harlech and Beaumaris Castles.
 - Pontcysyllte Aqueduct and Canal, near Wrexham.
- An outstanding natural environment, including the Pembrokeshire Coast, the Brecon Beacons and Snowdonia National Parks and the Glamorgan Heritage Coast.
- A network of National Trust properties and managed landscapes.
- £25.5m investment in <u>St Fagans</u> to create an integrated indoor and outdoor experience and to redevelop Wales's most popular visitor attraction into a National History Museum for Wales.
- The <u>Tourism Investment Support Scheme (TISS)</u> providing financially support tourism capital projects.
- Cadw's <u>Heritage Tourism</u> project, a £19m project funded by the 2007-2013 ERDF programme, has supported developments at key cultural and heritage sites across West Wales and the Valleys, including the castles at Caernarfon, Conwy, Denbigh, Harlech, Caerphilly, Oystermouth and Carew; St Davids Bishop's Palace; Blaenavon Ironworks and Strata Florida Abbey near Aberystwyth.
- The <u>Communities and Nature</u> programme, led by Natural Resources Wales, a £14m project funded by the 2007-2013 ERDF programme, has invested in a number of sites across West Wales and the Valleys to optimise the tourism potential of Wales' natural environment. Sites

benefitting from investment include the Dyfi Biosphere in mid Wales, Cwm Idwal in Snowdonia, Bury Port Canal, Dee Valley Rivers and Railways, Ewenny Moors in Bridgend and Swansea's Nature Network (a network of 12 wildlife sites and natural open spaces).

- The <u>Pwllheli National Sailing Academy and Events Centre</u>, an £8.3m project funded by the 2007-2013 ERDF programme Scheduled to open at Easter 2015, the centre:
 - host national and international sailing events;
 - o develop the area as a sailing destination for world-class sailors;
 - offer opportunities for more people to become involved in sailing and develop skills in outdoor activities; and
 - host community events and activities.
- <u>Development of Anglesey's Coastal Environment Project</u>, funded by the 2007-2013 ERDF programme, which has developed maritime infrastructure, improved accessibility to coastal zones, improved facilities on the coast and invested in historical, cultural and environmental assets.
- Significant investment in the rural tourism offer via the Rural Development Programme (Business Plan 1 and 2, via Axis 313/314). Initiatives include marketing the tourism offer of Aberystwyth, establishing a Church Tourism Programme and developing an Open Doors European Heritage Days programme in Conwy County, developments at Chepstow Museum and Llanyrafon Manor Rural Heritage Centre (near Cwmbran), and supporting Milford Haven Port Authority's aim to develop Seafair into a bi-annual maritime festival.
- HE research capability, for example, the Welsh Centre for Tourism Research within the School of Management, Cardiff Metropolitan University', which currently undertakes research around four main themes:
 - Sustainable destination development and marketing
 - Social, cultural and spatial policies of inclusion, citizenship and social justice
 - Critical interpretations of the interplay between tourism, representation, landscape and social structures, experiences and identities
 - Interpretative and critical modes of tourism inquiry.

Horizon Scanning

Investments in the Pipeline

- The Tourism Advisory Board are considering how wider sector development can be supported in line with the new tourism strategy 'A Partnership for Growth 2013.
- A number of strategic tourism projects are at development stage, emerging from destination management plans. These will be aligned to the emerging priorities within the City Regions, Enterprise Zones and Local Growth Zones.

Possible Future Investments to Monitor

- Investments relating to the tourism offer within the City Regions, Enterprise Zones or Local Growth Zones including maximising opportunities arising from Premier League status for Cardiff City and Swansea City.
- Investments relating to securing major events in Wales.
- The development of an International Conference Centre/Arena within the capital region.
- Improvements in connectivity (both transport and ICT) could open more parts of Wales to a wider customer bases.
- Swansea Bay Tidal Lagoon.
- Development of our inland waterways (canals) in partnership with Glandwr Cymru.
- Development of improved visitor/conference accommodation linked to large scale tourism developments and accommodation development linked to Wylfa Newydd.
- Improvement of facilities and visitor infrastructure at iconic heritage clusters, led by Cadw but with a broad partnership.
- Development of visitor centres/facilities within key strategic destination locations.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- ERDF programmes will encourage a focus on integrated actions to development of specific places, of which tourism and leisure may be an integral part. The tourism sector can also access support to develop the sector where specific opportunities are identified.
- ESF could support dedicated demand-led skills activity at all levels, supporting access into entry level jobs and progression to higher skilled jobs. ESF could also provide support for unemployed people, and young people seeking to access the labour market, to access employment opportunities in the sector and to help meet labour requirements aligned to proposed ERDF investments.
- The Rural Development Programme will support the development of rural areas, including development of the tourism offer and tourism assets in those areas in line with priorities emerging via the destination management planning agenda.
- The Maritime and Fisheries Fund will look to develop coastal communities and support integrated action for regeneration including developing the tourism offer

REGIONAL ECONOMIC OPPORTUNITIES

8. NORTH WALES REGIONAL OPPORTUNITIES

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

The North Wales region is distinguished by contrasting economic opportunities and challenges around the growth hubs emanating from the Welsh Government Enterprise Zones in Anglesey, Deeside and Snowdonia as well as a strong tourism sector.

North Wales' geographic location, with its proximity to the Republic of Ireland in the North West and the economic interrelationship between North East Wales and North West England/West Midlands¹⁰, offers significant opportunities. Key to employment opportunities are the connectivity between those opportunities, for example: advanced manufacturing jobs in North East Wales and the populations of the rest of North Wales, including opportunities arising out of the Energy sector in North West Wales'. North Wales also has two strategically placed ports at Holyhead and Mostyn and a business case is in preparation for the modernisation and electrification of the North Wales railway line from Holyhead to Chester.

Despite having areas of commonality, the region is distinguished by contrasting economic challenges and opportunities around the growth hubs designated as Enterprise Zones at Anglesey, Deeside and Snowdonia. The North Wales Economic Ambition Board has agreed an economic strategy with partners across North Wales and will be key in helping prioritise investments in the region. Two core strategic areas for transformational economic change have been identified, building on these existing strengths and clusters.

Low carbon energy, building on existing expertise and capability, is a major growth opportunity, primarily through the Energy Island Programme in North West Wales, providing huge economic potential for the whole of the region. This is primarily linked to the proposed new nuclear power station, Wylfa Newydd, off shore wind investments and potential of tidal power.

The Advanced Manufacturing Sector has been embedded into the economy of North Wales for a significant period and a growth hub has been identified in North East Wales (Flintshire and Wrexham). Broughton has a long history of aeronautics and avionics, and the significant investment by Airbus, the introduction of advanced materials has provided the region with an international competitive advantage. It is also served by a healthy automotive sector, with a range of capabilities in both production and niche product development and innovation.

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¹⁰ See also: http://www.merseydeealliance.org.uk

North Wales also has a vibrant tourism sector, valued at £2.4bn (2011) and 40,870 FTEs jobs. The sector has outstanding environmental assets coupled with a rich cultural and historic heritage, particularly the region's bilingualism and UNESCO World Heritage Sites.

North Wales is also host to two universities; Bangor University and Glyndwr University, offering knowledge bases for R&D and Innovation. Bangor University has developed expertise in Biocomposites, Marine and Low Carbon research whilst Glyndwr University has focused upon Advanced Manufacturing and Optoelectronics. In addition, Grŵp Llandrillo Menai is the largest further education college in Wales, (5th in the UK), and has important strategic links with the business sector. In particular, there is a strong relationship with Horizon Nuclear Power and Hitachi.

(B) WHAT IS THE INVESTMENT CONTEXT?

The demand drivers are set out in two sections. The first (B1) relates to the core demand drivers identified for the region – the development of two key sectors – covering the Energy sector and Energy Island / the Snowdonia Enterprise Zone, and Advanced Manufacturing in Deeside. The second (B2) relates to other key sector developments that should be read in conjunction with the relevant thematic sections of this document as proposals should demonstrate both a regional and thematic fit.

(B1) Growth of key sectors and clusters in Energy and Advanced Manufacturing

Specific opportunities have been identified in North Wales, primarily focused around the three Enterprise Zones established in the area. These complement significant expertise developed over many years in terms of skills and research, investment by anchor companies, and associated development of assets. These demand drivers represent the key drivers currently identified at present and are not intended to be exhaustive – further detail on the examples for each sector is given in the thematic sections.

Demand Drivers

- Energy (for further details see also Thematic Opportunity 1 Energy)
 - The Anglesey Enterprise Zone for the Energy Sector indicates total potential investment of £25 billion over the next 10-15 years. This accounts for approximately half of the predicted investment in low carbon electricity generation in Wales over that period (including offshore wind, onshore wind, marine, hydro, solar and biomass production) and includes:
 - Horizon / Hitachi Nuclear New Build (Wylfa)

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- Biomass Eco-Park
- Development of the first phase of a logistics and distribution hub at Parc Cybi Business Park by Conygar Investment Company PLC
- o RWEnpower, Gwynt y Mor
- Centrica / Dong Rhiannon Wind Farm
- Skerries Tidal Array
- Transmission Infrastructure National Grid investment to upgrade and strengthen the North Wales Network
- The Trawsfynydd decommissioning site, part of the Snowdonia Enterprise Zone: a Strategic Options Assessment is underway, as is an Energy Pricing Study for the entire Zone.

Advanced Manufacturing:

- North East Wales has developed a cluster of businesses in the high value manufacturing sector, focused on transport equipment (particularly aerospace and automotive drive train sectors), pharmaceuticals, green energy paper and food. There are 120 companies in this sector across the region providing an estimated 30,000 jobs.
- The Deeside Enterprise Zone currently accommodates 20,000 jobs mainly in the high value manufacturing sector. Anchor companies Airbus, Tata and Toyota are located within the Zone. Areas of excellence within the Zone include aerospace, automotive and process engineering, electronics, pharmaceuticals, construction, food, paper and packaging and sustainable energy.
- Current investment proposals will deliver a further 7,000 new job opportunities, together with 1,300 new residential units in a parkland setting. Taken together this investment will create a catalyst for significant economic growth across the region
- Development of the North Wales Advanced Manufacturing Skills and Technology Centre in Deeside
- The Snowdonia Enterprise Zone, which includes the Llanbedr Aviation Centre & Enterprise Park, which has the capacity to accommodate a range of both airside and non airside uses and the potential to significantly increase Wales' Remotely Piloted Aircraft Systems (RPAS) capability. A Master Plan for this site is underway.

Development of assets to meet demands of growing clusters

Energy

- Innovative and bespoke apprenticeship scheme for Offshore Wind Turbine Maintenance Operatives (Grŵp Llandrillo Menai with RWE nPower).
- Menai Science Park (Bangor University) backed by £10m of Welsh Government funding for infrastructure development, the aim of the Park is to increase collaboration and knowledge

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- exploitation by bringing together academic researchers and commercial expertise, with a particular focus on energy and clean technology (adding value to other Energy Island Programme activities).
- Grŵp-Llandrillo Menai's Energy Centre and Nuclear Skills Academy in Llangefni, Anglesey; a one-stop-shop for all the skills needed in order to underpin a new generation of energy production.
- The Renewable and Environmental Centre in Colwyn Bay.
- Sustainable Buildings and Envelope Centre (SBEC) accelerating the development of low and zero carbon solutions
 for the built environment (for further details see also Thematic
 Opportunity 1 Energy).
- Sêr Cymru programme, which includes the development of three new National Research Networks (the Low Carbon, Energy and Environment National Research Network is being led by Bangor and Aberystwyth Universities – see Thematic Opportunities 1 (Energy) and 3 (Climate Change and Resource Efficiency) for details.

Advanced Manufacturing

- Glyndŵr University Business Incubation OpTIC Centre, supporting young technology and start-up companies with a focus on taking new technologies to market
- The <u>BioComposites Centre</u> at Bangor University, at the forefront of research, development and the commercial application of biobased alternatives to synthetic materials in manufacturing and industry.
- The Advanced Manufacturing and Aerospace Centre at Coleg Cambria
- Improvements in Connectivity encouraging inward investment, better access to labour markets and supporting growth:
 - Roll out of next generation ICT networks (Superfast Cymru, deploying fast fibre broadband in areas where there is market failure) by 2016 – see Thematic Economic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace.
 - Proposed investment in road and rail modernisation (including further improvements to the A55, A494 and the A487 Caernarfon to Bontnewydd and a business case for electrification of the North Wales railway network and associated links to Liverpool, Crewe and Warrington)

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(B2) Other key sectors and cluster developments creating demand

Relevant sectors should be cross-referenced with the thematic sections of this document as not all drivers or assets are repeated across all sections, though there will be a degree of duplication. This is intended to offer a flavour of the key drivers and assets in the region, but is not intended to be exhaustive.

Demand Drivers

- <u>Tourism</u> attractions and centres, including outdoor pursuits driving tourism and visitor demand:
 - UNESCO World Heritage Sites
 - The Castles and Town Walls of Caernarfon and Conwy
 - Harlech and Beaumaris Castles
 - Pontcysyllte Aqueduct and Canal, near Wrexham
 - Unique built and natural environments and recent investments in the Outdoor Sector and the development of internationally renowned developments such as Zipworld in Bethesda, Dolgarrog, Marsh Tracks BMX International standard facilities
- <u>Food and Farming:</u> Knowledge Transfer Partnerships exists with several food production companies and manufacturing businesses, supporting product development and international business development
- <u>Creative industries:</u> Bangor University's £46m <u>Pontio</u> Project an Arts and Innovation Centre in Bangor providing performing arts facilities and supporting innovation, research and new technologies, including digital technologies, providing a gateway for businesses to access expertise and facilities, encouraging companies to develop new ideas and bring them to market.
- <u>Public Sector:</u> A major £250m investment in the new North Wales
 Prison at Wrexham will offer short to medium term opportunities, as will prospective investment in road and rail improvements

Development of assets to meet demands of growing sectors and clusters

- Core property assets to support development / provide property solutions, including Parc Bryn Cegin on the outskirts of Bangor and Hawarden Park.
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones.
- 21st Century Schools Programme a major long-term, Welsh
 Government strategic capital investment programme, delivered in
 collaboration with the Welsh Local Government Association (WLGA),

local authorities and CollegesWales to create a generation of 21st century schools and educational facilities in Wales. Projects in North Wales include:

- Rhyl Community College (£3.4 million grant), part of the Grŵp Llandrillo Menai campus, maximising opportunities for post 16 learners. The College offers students over 50 AS and A Level programmes and range of vocational programmes, including Health & Care and Motor Vehicle.
- Ysgol y Hendre in Caernarfon (£9.3 million grant), providing a community resource for children, adult learners and families.
- Two major Further Education Establishments, Grwp Llandrillo Menai and Coleg Cambria both of which are the largest and consistently highest performing FE colleges in the UK
- Bangor University's <u>Centre for Applied Marine Sciences (CAMS)</u>, linking academic research to real world applications, able to support a range of different marine related research of relevance to different sectors, with expertise in
 - Analytical Chemistry
 - Applied Marine Biology
 - Applied Oceanography
 - Coastal Zone Management
 - Marine Geosciences
 - Survey and Instrumentation

Horizon Scanning

Investments in the pipeline:

Exploratory Stage – Tidal power off Colwyn Bay / North Wales Coast

Possible future investments to monitor:

- A number of strategic tourism and heritage projects are in development stage, with a major focus on further enhancing the outdoor sector, with a backdrop of appreciating and valuing the natural and historic environment.
- Possible development of ports at Holyhead and Mostyn based around the Energy and Cruise sector, particularly from Holyhead and potential at Llandudno. The Cruise sector, annually has made a £3.5m direct impact to the economy of Wales (excluding tours).

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(C) HOW MIGHT EU FUNDS ADD VALUE?

- All elements of the ERDF programmes will be able to add value, dependent on the type of investment being considered.
- **ESF** can work alongside the ERDF to support through both nationally and regionally delivered demand-led skills activity and local employment support to meet immediate and future labour requirements. The opportunity exists to work alongside and ensure integration with other mainstream initiatives such as Communities First, Families First
- Rural Development Programme will support the development of rural areas, including specific focuses on energy, research and innovation and regeneration of rural areas.
- The Maritime and Fisheries fund will look to develop coastal communities and support integrated action for regeneration including developing aquaculture in Wales.

9. SOUTH EAST WALES REGIONAL OPPORTUNITIES

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

South East Wales is home to 48% of the population of Wales. It has 60 miles of heritage coastline and a diverse urban and rural landscape. The city of Cardiff has the greatest concentration of population and provides a focus of economic activity. Other major concentrations of population are focussed in the Valleys area and coastal settlements such as Newport and Barry.

Transport and connectivity is provided by major inter-regional highway links to the north and south through the M4, A465 and A470 and rail mainline links directly to Bristol and London. There are TEN-T routes and locations within the region, including the M4 motorway, providing connections throughout Europe by road, rail, sea and air. The region contains Cardiff Airport, Wales' major international airport while the rail network also comprises the comprehensive Valleys lines which connect many key settlements to Cardiff and the mainline from London to West Wales. All of this leads to close proximity and connections to markets in the Bristol region and further in England.

The region is a major focus for business and employment, with 630,900 jobs and 88,000 businesses. It has a GVA of £22bn, which equates to £16.9k per head of population, 81% of the UK average and ahead of the 75.2% average for Wales. It contains three Enterprise Zones: in Central Cardiff (focusing on the financial and professional services sector), St Athan / Cardiff Airport (focusing on advanced manufacturing and the aerospace industry) and Ebbw Vale (focusing on advanced manufacturing). But there are significant variations in employment, educational attainment and wealth across the region and the agglomeration effects of this City Region (extending into the Valleys) offer a major opportunity for economic growth. Investments in connectivity within the City Region and to other urban centres such as London can help drive this economic growth and job creation for the region, as well as the whole of Wales.

(B) WHAT IS THE INVESTMENT CONTEXT?

The demand drivers are set out in two sections. The first (B1) relates to the core demand driver for the region – the growth of the South East Wales City Region – which in itself contains specific elements that are being developed in tandem. The second (B2) relates to other key sector developments that should be read in conjunction with the relevant thematic sections of this document as proposals should demonstrate both a regional and thematic fit.

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(B1) Growth of the South East Wales City Region

The City Region covers two cities (Cardiff and Newport), as well as the resources and workforce of the Valleys urban settlements; comprising very considerable human assets. The demand drivers listed represent the key drivers currently identified at present and are not intended to be exhaustive – further detail on specific sectors is given in the second section and in the thematic sections.

Demand drivers

- <u>Financial and Professional Services</u>: a key growth sector in Central Cardiff, with targeted investment in a dedicated Enterprise Zone. Anchor companies including Lloyds Bank plc, Admiral Group plc, British Telecommunications plc and Centrica (British Gas) are located within the Zone. The Zone aims to attract new investment, facilitate the development of high quality offices and supporting infrastructure and support the creation of high quality jobs. Key projects and developments include:
 - The acquisition / procurement of Grade A office space in Callaghan Square (Building 1, which will be available to let by Spring 2015 and Site E04)
 - The conditional acquisition of Grade A office space in Capital Quarter, Cardiff – JR Smart Building to be complete and available for let by April 2014
- Advanced Manufacturing: advanced manufacturing growth clusters, including Enterprise Zones in St Athan / Cardiff Airport and Ebbw Vale:
 - The St Athan / Cardiff Airport Enterprise Zone aims to develop the area into an internationally recognised centre of excellence for the aerospace industry, with particular focus on maintenance, repair and operations activities. The Anchor company British Airways Maintenance Cardiff is Icoated within the Zone. Key projects and developments include:
 - The refurbishment of Building 858, Aerospace Business Park
 - Improvements to the airfield at St Athan.
 - Agreement secured with the MoD for partial access to the Super Hanger at St Athan, enabling a Welsh Government commercial tenant to locate within this area. Ongoing negotiations to agree the full transfer of the Super Hanger into Welsh Government ownership by March 2017.
 - MoD plans to base 14 Signal Regiment at St Athan.
 - The Ebbw Vale Enterprise Zone aims to build on the area's successful track record for delivering manufacturing projects to create a world class high technology hotspot for manufacturing companies in Wales. The Zone will attract businesses of all sizes spanning many key subsectors.

Research and Innovation: Cardiff University, Cardiff Metropolitan
University and the University of South Wales, major Welsh universities
which are driving excellence in research. Cardiff University is part of
Russell Group, carrying out world class research and is home to
significant assets, spin outs, and a Ser Cymru Research Chair.
Specific R&I assets are listed below under "Development of assets to
meet the demands of a growing City Region".

Development of assets to meet the demands of a growing City Region

- Improving connectivity addressing barriers to future growth, including:
 - South Wales Metro, creating better bus, rail and walking cycling links and offering further opportunities for associated development.
 - Great Western Mainline Electrification between London Paddington and Cardiff / Swansea with investment worth £1bn plus which will improve journey times, frequency and reliability.
 - Valleys Lines infrastructure and station improvements.
 - The development of an £11m extension of the railway line from Ebbw Vale Parkway to the Ebbw Vale Works site.
 - Eastern Bay Link Road, linking Cardiff Bay to the A48
 - M4 Relief Road and improvements to the M4 corridor in South East Wales
 - A465 Heads of the Valleys dualling project
 - Cardiff Wales International Airport improvements and developments
 - The Gileston Bends Project to improve the B4265 between Gileston and Oldmill, improving connectivity within the St Athan / Cardiff Airport Enterprise Zone.

• Improvements in Digital Connectivity:

- Cardiff and Newport local authorities have recently been successful in unlocking £15m investment into super-fast broadband infrastructure for the urban heartlands of South-East Wales via the Super-Connected Cities fund from DCMS. Homes and businesses in these areas will enjoy speeds of over 80 mbps as a result.
- Broadband delivery has been prioritised for the St Athan / Cardiff Airport and Ebbw Vale Enterprise Zones; initial planning has been completed and is scheduled to go live mid 2014.
- Next Generation Data's <u>Newport Data Centre</u>, providing a secure data environment for corporate, government and smaller service provide organisations.

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Site and infrastructure development:

- Welsh Government Property Development Grant as a mechanism to deliver new floorspace focussed on key sectors and Enterprise Zones).
- Core economic development sites to provide property solutions for business, including sites at Imperial Park, Newport, Rhyd y Blew, Wentloog, Cardiff. Including site infrastructure development at the Rhyd y Blew site to facilitate the delivery of this strategic site for the Ebbw Vale Enterprise Zone.
- Investments included within the Wales Infrastructure Investment Plan, including:
 - the redevelopment of Old Town Dock, Newport (a £38.8m mixed use development covering residential, retail and commercial uses and a health centre).
 - Merthyr Tydfil Town Centre Regeneration £24m project to undertake environmental and connectivity improvements and refurbish and redevelop a number of key buildings and sites within Merthyr Tydfil Town Centre.
 - Regional food waste and residual waste treatment projects, the development of shared regional facilities and sites.
- The Works Ebbw Vale, re-developing the former steelworks site to house a variety of facilities including The Learning Zone (a post 16 education facility), The General Offices and Visitor Attraction and Ysbyty Aneurin Bevan Hospital.

Research and Innovation:

- Design, Simulation and Prototyping, through computational Simulation and Additive Layer manufacturing, Cardiff University and Cardiff Metropolitan University (see Thematic Opportunity 5

 – Advanced Manufacturing).
- Morgan-Botti Laboratory Cardiff University for Lightning Research and Testing (see Thematic Opportunity 5 – Advanced Manufacturing).
- <u>CAPSE</u>, University of South Wales (Centre for Automotive Power Systems Engineering) (see Thematic Opportunity 5 – Advanced Manufacturing)
- <u>EADS Foundation Wales</u> research and technology in Advanced Engineering & Manufacturing, the digital and low carbon economies and cyber security (see Thematic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace)
- Alacrity –creating Welsh base technology companies (see Thematic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace).

Education and Skills:

 Supply of local, skilled graduates from Cardiff University, Cardiff Metropolitan University and the University of South Wales, with

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- the highest concentration of Financial and Professional Services related graduates in the UK outside London.
- O 21st Century Schools Programme a major long-term, Welsh Government strategic capital investment programme, delivered in collaboration with the Welsh Local Government Association (WLGA), local authorities and CollegesWales to create a generation of 21st century schools and educational facilities in Wales. Projects in South East Wales include:
 - Coleg y Cymoedd's campus at Nantgarw, providing a comprehensive programme of vocational courses in subjects such as creative industries, business, information technology, technology construction, engineering and electronics.
 - Penarth Learning Community transforming educational delivery within the Vale of Glamorgan, providing two new schools and a replacement for a third, as well as a new special education needs facility.
- Gateway and Valleys Comprehensive School (£39.49m) a new school building and community campus at Tondu providing a range of services and facilities to the local community with scope to become a multi-agency hub and a focus for sporting excellence.

(B2) Other key sectors and cluster developments creating demand

Relevant sectors should be cross-referenced with the thematic sections of this document as not all drivers or assets are repeated across all sections, though there will be a degree of duplication. This is intended to offer a flavour of the key drivers and assets in the region, but is not intended to be exhaustive.

Demand Drivers

Tourism:

- The Valleys Regional Park, a partnership between the ten local authorities of South East Wales, the Welsh Government and other key stakeholders to transform the Valleys as a tourism destination and promote its unique environmental, cultural, heritage and leisure offer.
- The Brecon Beacons National Park and the Glamorgan Heritage coast.
- The Blaenavon UNESCO World Heritage Site and the National Folk Museum at St Fagan's.
- Concert Halls, such as the Wales Millennium Centre, New Theatre and other centres in Valleys and coastal towns.
- Top sporting venues hosting national and international events and home to major league sporting teams such as the Millennium Stadium, Cardiff City Stadium and Rodney Parade in Newport.

- A range of environmental assets, including extensive rural areas, country parks, managed woodlands, river corridors, coastline and coastal path, wetlands and a number of SSSIs.
- Pontypridd Lido as a regional visitor attraction (£6.3m)

Key sectors:

- Energy and Environment: Significant investment in renewable energy particularly in wind turbines in Upper Valleys area such as the Pen y Cymoedd Wind farms.
- Creative industries: Development of media clusters and film +
 TV production infrastructure creating demand for specialist skills
 and supply chain <u>BBC Drama Village at Porth Teigr</u>, Cardiff;
 and *Atlantis* in Chepstow (see Thematic Opportunity 4 –
 Exploitation of ICT Assets and Opportunities of the Digital
 Marketplace), plans to establish Pinewood Studios Wales at the
 former Energy Centre building in Wentloog, Cardiff.
- o ICT and Digital: a cluster of software businesses in Cwmbran.
- Anchor and significant companies: International/multi-national companies, such as Anchor companies Sony in Bridgend (generating R&D and cluster activity and Admiral in Newport. Also, significant companies including EADS, Alacrity, Kennametal, Testia and the Royal Mint in Llantrisant.

Developing assets to supporting sector and cluster growth:

- Business Facilities' and Support Services:
 - Significant Conference Centre venues with national and international potential such as Celtic Manor in Newport.
 - Life Sciences:
 - The Gwaun Elai Medi Science Campus, industrial and manufacturing units aimed at the medical science industry.
 - <u>Cardiff medicentre</u>, a business incubator centre for biotech and medtech startups.
 - UK Shared Business Services (SBS), providing support services for public sector organisations, part of a cluster of public sector organisations based around Newport (including the Intellectual Property Office, Office for National Statistics and the Ministry of Justice).

Skills and Employability:

- Bridges into Work (£23m in 2007-2013 ESF funding) to engage, support and prepare the economically inactive in the most deprived areas to acquire skills to become job-ready and to gain sustainable employment.
- Working Skills for Adults (£12m in 2007-2013 ESF) to support individuals in employment with low skills, or no skills.

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Horizon Scanning

Investments in the pipeline

- Proposed capital programmes (2013-2017) identified by the ten local authorities in South East Wales as identified by the Local Government Collaborative Working Group in consultation with the construction industry:
 - Education, £315m; Social Care, £5m; Transport, £127m;
 Environment, £20m; Regeneration, £109m; Housing, £215m;
 Property / Buildings, £70m; Parks / Leisure, £33m; Plants / Vehicles, £23m. TOTAL, £946m

Possible future investments to monitor

 Future potential of Severn tidal power barrage or other tidal power initiatives in the Severn estuary continued growth potential of renewable energy and environment sectors.

(C) HOW MIGHT EU FUNDS ADD VALUE?

- All elements of the ERDF programmes will be able to add value, dependent on the type of investment being considered.
- ESF can work alongside the ERDF to support through both nationally and regionally delivered demand-led skills activity and local employment support to meet immediate and future labour requirements. The opportunity exists to work alongside and ensure integration with other mainstream initiatives such as Communities First, Families First
- Rural Development Programme will support the development of rural areas, including specific focuses on energy, research and innovation and regeneration of rural areas.
- The Maritime and Fisheries fund will look to develop coastal communities and support integrated action for regeneration including developing aquaculture in Wales.

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10. CENTRAL AND SOUTH WEST WALES REGIONAL OPPORTUNITIES

(A) WHY IS THIS AN ECONOMIC OPPORTUNITY?

Central & South West Wales is a large and diverse mixed urban and rural economy. It contains the Swansea Bay City Region, offering significant agglomeration effect opportunities through a comprehensive network of complementary urban and rural hubs, as well as the Haven Waterway Enterprise Zone and the Powys Local Growth Zone, with discussions underway on the potential for establishing a similar Local Growth Zone in the Teifi Valley. The city of Swansea has the greatest concentration of population and provides a focus of economic activity.

With a resident population of approximately 900,000 supporting some 377,200 jobs, and containing around 33,405 businesses, the region is a major driver of the Welsh economy. It contains globally significant firms, for example, anchor firms Tata Steel in Neath Port Talbot and Valero in Pembrokeshire, Regionally Important Company BTG in Central Wales, along with Emerson Industrial Automation. The region also benefits from its leading further and higher educational institutions, providing a valuable mix of research - orientated and applied educational and innovation opportunities, with strong links to industry internationally.

The <u>Swansea Bay City Region Economic Regeneration Strategy</u> identifies a number of 'expanding sectors' in the City Region. These include a broad range of knowledge orientated activities, in both service and more traditional manufacturing areas. Key expanding sectors include: Architectural and Engineering Services; Creative Sector, Life Sciences, Legal and Accounting; Media; IT and Business Services; Construction; and Real Estate. The Swansea Bay regional strategy is complemented by economic regeneration strategies for the Central areas covering Ceredigion (www.ceredigion.gov.uk) and Powys (http://www.powys.gov.uk/index.php?id=11912&L=0). The common themes emerging from the 3 strategies include the need to:

- Increase productivity levels
- Drive up skills and employment levels
- Address connectivity issues
- Drive the knowledge economy
- Develop distinctive places and competitive infrastructures

Energy is a key growth sector, in particular through the Haven Waterway Enterprise Zone. The Zone offers both renewable and traditional energy companies an established industry base and supply chain, together with a skilled workforce, an established distribution infrastructure, a variety of sites and a network of universities with a range of energy-related fields. Other key growth sectors for the region include life sciences and advanced

manufacturing, linked into the research expertise of Swansea University, as well as tourism and food and farming. The region benefits from an outstanding coastline and Coastal Path, urban places, extensive uplands and a rich heritage while Aberystwyth University boasts significant agrienvironmental research expertise and agriculture and food products are an important sector within the potential Teifi Valley Local Growth Zone.

The region has benefited from significant investments in its infrastructure over the past decade, including the ongoing regeneration of Swansea City, Aberystwyth and other town centres, a portfolio of incubation centres, and key transport links such as the Harbour Way project linking Port Talbot and the Docks to the M4. This is creating a vital link east to the Cardiff City Region, the wider UK motorway network and mainland Europe, as well as improvements to the A40 in Pembrokeshire improving links to wider markets within the UK and Ireland.

(B) WHAT IS THE INVESTMENT CONTEXT?

The demand drivers are set out in two sections. The first (B1) relates to a core demand driver for the region – the growth of the Swansea Bay City Region – which in itself contains specific elements that are being developed in tandem. The second (B2) relates to other key sector developments that should be read in conjunction with the relevant thematic sections of this document as proposals should demonstrate both a regional and thematic fit.

(B1) Growth of the Swansea Bay City Region

The area covers the four local authority areas of Neath Port Talbot, Swansea, Carmarthenshire and Pembrokeshire, incorporating the Haven Waterway Enterprise Zone. A major programme of work is on-going to reinforce Swansea's essential regional role as the major driver of the Swansea Bay City Region. The demand drivers listed represent the key drivers identified at present and are not intended to be exhaustive – further detail on other specific sectors is given in the second section (B2) and in the thematic sections.

Demand drivers

• Life Sciences:

- Significant investments across the region, particularly at Swansea University Singleton campus with a growing private sector cluster across the region.
- Higher Education high-end facilities with national and international impacts: Swansea University Singleton campus (<u>Institute for Life Science 1 & 2</u> see Thematic Opportunity 6 Life Science and Health), including the <u>Centre for Nanohealth</u>.

- <u>FARR Institute</u>, Swansea University £20m investment in the establishment of a UK health informatics research institute.
- High Performance Computing (HPC) Wales supporting activity at the E-Health Industries and Innovation Centre at Swansea University in developing an anonymised NHS databank (see Thematic Opportunity 6 – Life Science and Health).

Advanced Manufacturing:

- Fabian Way corridor location of Swansea University's £450m
 Science and Innovation campus (see Thematic Opportunity 5 Advanced Manufacturing)
- TWI Technology Centre, Port Talbot (Structural Integrity and Non-Destructive Testing) (see Thematic Opportunity 5 – Advanced Manufacturing)
- Design, Simulation and Prototyping, through computational Simulation and Additive Layer manufacturing (Swansea University, Cardiff University, Swansea Met and Cardiff Met).
- Swansea University's <u>Sustainable Product Engineering Centre</u> for <u>Innovative Functional Industrial Coatings (SPECIFIC)</u> project to develop functional coated steel and glass products (see Thematic Opportunity 5 – Advanced Manufacturing, for further information).

Energy:

- Haven Waterway Enterprise Zone, focusing on further investment in energy projects, the creation of green jobs and the development and enhancement of existing jobs. Anchor company Valero and Regionally Important Company Murco are located within the Zone. Key projects include:
 - Inviting Expressions of Interest from potential investors for various sites, including the Waterston site.
 - Explore the future potential of the brownfield site at Blackbridge, with deep water access
 - A feasibility and scoping exercise to explore the potential of a Maritime Centre of Excellence
 - the <u>Bridge Innovation Centre</u> for business, innovation and enterprise
- Baglan Energy Park, part of the regeneration of Baglan Bay, a state-of-the-art business location with a broad range of commercial tenants.
- Planning application submitted for potential development of Tidal Lagoon on border of Swansea and Neath Port Talbot.
- Ramsey Sound Tidal Project, installing a DeltaStream unit at Ramsey Sound for twelve months to demonstrate the capability of DeltaStream as a tidal stream generator and provide evidence on how it interacts with the surrounding environment.
- Development of <u>Pen Y Cymoedd</u> windfarm and significant economic benefit through community benefit fund (see Thematic Energy Opportunity 1 – Energy).

- South Hook CHP plant; Ireland UK interconnector proposed wind farms in Ireland (and in the Irish sea) that will be connected to the UK via an interconnector coming ashore in Pembrokeshire.
- Wind Farm developments in mid Carmarthenshire, £19 million economic development investment with £11 million community benefit over 20 years.

Development of assets to meet demands of growing city region

- Improving connectivity addressing barriers to future growth, including:
 - Great Western Mainline Electrification between London Paddington and Cardiff / Swansea with investment worth £1bn plus which will improve journey times, frequency and reliability (by 2018).
 - £7m Swansea station redevelopment and quadrant bus terminal.
 - Existing and planned connectivity investments into the TEN-T network, including Harbour Way and A477.
 - Ports & international connectivity Milford Haven (which includes Pembroke Dock) is designated as a core port by the European Commission under the Trans-European Transport Network (TEN-T), Swansea, Port Talbot, Fishguard.
 - £17.4m investment programme in station improvements across the region e.g. Port Talbot Parkway station re-development.

Improvements in Digital Connectivity:

- Roll out of next generation fast fibre broadband across all regions of Wales (including Superfast Cymru and Access Broadband Cymru) – (see Thematic Economic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace).
- Broadband delivery has been prioritised for the Haven Waterway Enterprise Zone; initial planning has been completed and is scheduled to go life mid 2014.
- Technium Digital Swansea University, assisting high growth companies in the digital technology sector, featuring a Virtual Reality Cave which allows researchers to test a design or product in 3D, meaning that prototypes can be developed in a fraction of the time it usually takes.

Specific site developments:

- SA1 Swansea Waterfront
 http://www.sa1swanseawaterfront.co.uk/
 £600m mixed-use development scheme, including a number of residential developments, offices, business innovation centres, cafes, shops, restaurants, hotels.
- The Urban Village, a mixed use commercial, retail and residential development in Swansea City Centre.

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- £6m investment in site acquisition and clearance at former St David's shopping centre site Swansea in preparation for wider mixed-use scheme.
- £32m Swansea Waterfront City, regeneration of Swansea City Centre, including building enhancement programme, property development and environmental enhancements.
- Bay Studios, Fabian Way, Swansea (Europe's biggest indoor film studios).
- Swansea Vale a 400 hectare residential village, two large business parks and a range of recreation facilities, five miles from Swansea City Centre.
- Amazon distribution centre at Jersey Marine.
- Harbourside (Port Talbot) home to TATA steel, a recently constructed R&D and Innovation facility and Port Talbot docks.
- Felindre Business Park next to Junction 46 of the M4.
 Investments made in site infrastructure in order to enable the marketing of the site for development.
- Development of the Llanelli Coastal belt, including major infrastructure and a coastal link road; residential and office development and the renovation of the harbour.
- Llanelli <u>Eastgate Leisure Quarter</u> a 5 acre mixed development in Llanelli town centre including a multiplex cinema, restaurants, cafes, retail and a hotel.
- Slade Lane development, Haverfordwest (circa £100m investment in retail, including a major supermarket, and over 700 homes).
- The <u>Beacon Centre for Enterprise</u> at Dafen, Llanelli, a recognised Centre for Enterprise and a fully fledged business environment for new and established businesses. Also expansion potential with around 15 acres of land available for high value developments and spin-outs from the Beacon itself, recognised as being a prime development site
- Availability of 34.7 ha of development land at Parc Pensarn, Carmarthen with development potential.
- Coed Darcy mixed use development over 1,000 acres off Junction 43 of the M4 near Neath, providing 4,000 homes; retail, leisure, sports and community facilities; green space and 500,000 sq ft of new commercial space.
- Major regeneration investment programmes underway in key towns across the region including town centre developments in Llanelli, Neath, Port Talbot, Aberavon seafront, Pembroke, Pembroke Dock, Milford Haven, Haverfordwest and the Western Valley Strategic Regeneration Programme supporting the £1.4m Ystradgynlais Town Centre Masterplan.

Education and Skills:

 Alex project, creating a cluster of educational facilities at Alexander road, Swansea, led by the University of Wales Trinity St David's (formerly Swansea Metropolitan University). The former Central Library building is being developed into an

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International Institute of Sustainable Design, housing the School of Architectural Glass and becoming an international centre for research and design focusing on glass, automotive design and sustainable product design.

- Plans for a new multi-million pound, purpose built, central campus for the University of Wales Trinity St David (formerly Swansea Metropolitan University) on the SA1 site in Swansea.
- Further Education innovation, education & training facilities:
 Gower College Swansea, Neath Port Talbot, Coleg Sir Gar, and Pembrokeshire College further education campuses.
- Morriston Hospital regional centre for medical training and research.
- The Energy Centre, Pembrokeshire College, providing gas, oil and water training, accredited assessment and live renewables installation and servicing facilities.
- <u>Dragon Innovation Partnership</u> business-academic knowledge transfer between Swansea University and University of Wales Trinity Saint David.
- A Regional Employment & Skills delivery plan for Central and South West Wales is being developed by the Regional Learning Partnership (RLP) which will provide the evidence base for regional skills and employment needs within the region.

(B2) Other key sectors and cluster developments creating demand

Relevant sectors should be cross-referenced with the thematic sections of this document as not all drivers or assets are repeated across all sections, though there will be a degree of duplication. This is intended to offer a flavour of the key drivers and assets in the region, but is not intended to be exhaustive.

Demand Drivers

- The Powys Local Growth Zone:
 - Llandrindod Wells, Newtown and Brecon. Aimed at maximising regeneration and business opportunities:
 - Llandrindod Wells: a pilot business-led project to help develop an action plan to address the economic sustainability of the town.
 - Newtown: exploring the potential of establishing a model of community based economic development in and around the town and improvements to address town centre congestion.
 - Brecon: the FYInetwork website to enable local traders to communicate and interact with their customers to help increase trade for local businesses.
 - The deployment of the Superfast Cymru programme (see Thematic Economic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace).

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Tourism:

- An outstanding natural environment, including the Pembrokeshire Coast and the Brecon Beacons National Park, which is a particular focus of upland tourism and activities.
- Major investments in the development of the mountain-biking product focusing on Margam, Afan, Brechfa; 'App' development 'Trails Mid Wales' for biking (mountain/road and walking) and cross-border developments on the Offa's Dyke.
- o The redevelopment of Pendine.
- Cultural and heritage assets including the <u>The National</u> <u>Waterfront Museum</u>, Swansea and the <u>National Wool Museum</u>, Drefach Felindre; historic castles and <u>St Davids Cathedral</u> and heritage visitor attractions such as <u>Cardigan Castle</u> and <u>Strata Florida Abbey</u> near Pontrhydfendigaid.
- The University of Wales Trinity St David is to launch a Heritage Academy which will include Strata Florida site and both heritage skills development and construction skills opportunities.
- The regeneration of the <u>Hafod Morfa copperworks</u> to create a heritage led mixed use destination.
- o The National Botanical Garden of Wales, Carmarthenshire.
- Sporting facilities such as <u>Liberty Stadium</u>, Swansea, home of a premiership football team and regional rugby, <u>Parc y Scarlets</u>, Llanelli & <u>Ffos Las racecourse</u>.
- Theme parks and activity centres such as <u>Folly Farm</u> Adventure Park and Zoo, <u>Bluestone</u> Phase 3 development, <u>Heatherton</u> activities, sports and theme park and the Urdd centre at <u>Llangrannog</u>.
- o 5 star hotel & hospitality school in Tenby.

Food and Farming:.

- £14m investment made in site infrastructure at Crosshands strategic employment site including food park and link road.
- Institute for Biological, Environmental and Rural Sciences
 (IBERS) in Aberystwyth (see Thematic Opportunity 2 Food and Farming for details).
- Aberystwyth Innovation and Diffusion campus and National Plant Phenomics Centre at Gogerddan near Aberystwyth (see Thematic Opportunity 2 - Food and Farming for details).
- UK Upland Research Platform at Cwmystwyth, near Aberystwyth.
- Centre of food technology excellence Food Centre Wales, Horeb, Llandysul.
- Central Wales has major meat slaughtering and processing capacity and a whey processing facility serving whole of UK.

Anchor and Regionally Important Companies:

 The Region contains globally significant firms, for example, the Anchor Companies Tata Steel in Neath Port Talbot and Valero in Pembrokeshire, the Regionally Important Company BTG in Central Wales, along with Emerson Industrial Automation.

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Developing assets to supporting sector and cluster growth:

Education and Skills:

- O 21st Century Schools Programme a major long-term, Welsh Government strategic capital investment programme, delivered in collaboration with the Welsh Local Government Association (WLGA), local authorities and CollegesWales to create a generation of 21st century schools and educational facilities in Wales. Projects in Central and South West Wales include:
 - Brecon Learning Campus combined post 11 and post 16 learning and leisure and community facilities. (Powys County Council and Neath Port Talbot College). Target completion date is 2017.
- The proposed merger of Coleg Ceredigion into the Trinity St Davids Group to provide integrated academic and vocational pathways across the region that bridge 14-19 learning with post 19 studies and to translate the regional needs of employers and learners into definitive learning pathways.

Connectivity:

- Improvements to A40 Llanddewi Velfrey Penblewin. £50m to £55m. Second of two phases of improvements to the A40 west of St Clears. Construction could start in 2016.
- A partly upgraded link road from Aberystwyth and the West Wales coast to the M4 and Swansea City Region, including the Llandysul bypass.

Strategic Infrastructure:

- Regeneration of Aberystwyth town centre, including the redevelopment of Mill Street car park to accommodate two major retail chains, with associated car parking provision.
- Severn Valley Regeneration a £7.5 million programme to transform Llanidloes, Newtown and Welshpool town centres (improvements to commercial properties and the built environment) and the creation of new infrastructure for business premises at Offa's Dyke and Abermule business parks.
- Western Valley Strategic Regeneration Programme supporting the £1.4m Ystradgynlais Town Centre Masterplan.
- £25m local authority property development fund, funded under the 2007-13 ERDF programme, to develop strategic employment sites in conjunction with the private sector.
- Welsh Government Property Development Grant as a mechanism to deliver new floorspace, focussed on key sectors.
- Health & Social Care infrastructure investments in the region (£119m Wales Infrastructure Investment Plan) including Neath Port Talbot, Morriston, Prince Phillip and Bronglais hospitals and Cardigan health and social care centre.

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Horizon Scanning

Investments in the pipeline:

- Proposals for the <u>Nantymoch Wind Farm</u>, National Grid <u>Mid Wales</u>
 <u>connection</u> potential connection to Cefn Coch and local feeder from
 Nantymoch Wind Farm, potential developments in strategic search
 areas B and C in Powys and the proposed <u>Penarth Weir Hydro Electric</u>
 <u>Scheme</u>, Newtown.
- Proposals for an £80million biomass plant in Trecwn, North Pembrokeshire, which would run alongside a 20MW diesel-fired peaking plant on a different part of the Valley site.
- Expansion of the gas grid in Mid Wales.
- Transport strategic corridor routes linked to TEN-T network.
- A proposed Food Business Park at Withybush near Haverfordwest.
- Milford docks redevelopment marina and leisure and fishing industry facilities; Milford Haven cruise liner berth.
- Proposals for a <u>mixed use marina development at Fishguard</u> (450 berth marina; 253 residential apartments, a promenade and waterfront, together with visitor parking), incorporating the reconfiguration of Stena Line's existing port facilities (a 19 acre platform for the potential expansion of the existing port and an 11 acre site for a lorry stop and distribution park).
- West Wales Airport, Aberporth: planning permission for development at the airport to include a hotel and training facilities.
- Milford Haven & Pembroke Dock rail interchanges.
- Signalling (£59m) and other improvements (£13m) to rail links from Ceredigion between Aberystwyth and regional airport / West Midlands and London. Complemented by redevelopment of rail station Aberystwyth and Regeneration Area funded Gateway works ilmprovements to Aberystwyth bus station and around the train station to improve links between the train and bus stations and the town centre).
- Water supply and sewerage investments across the region.

Possible future investments to monitor:

- Potential Local Growth Zone within the Teifi Valley, which could act as a driver for investment.
- Completion of link to A48 / M4 Pencader bypass.
- Welshpool Regeneration project.
- Machynlleth Business Park development to include release of additional land for housing development and improve future access for a transport hub.
- Rheola tourism accommodation and leisure with a residential development.
- Further investments in Vale of Rheidol tourist attraction to include new station / museum facilities in Aberystwyth.
- Hydrogen technology including refuelling stations in Wales and the M4 corridor.

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(C) HOW MIGHT EU FUNDS ADD VALUE?

- All elements of the ERDF programmes will be able to add value, dependent on the type of investment being considered.
- **ESF** can work alongside the ERDF to support through both nationally and regionally delivered demand-led skills activity and local employment support to meet immediate and future labour requirements. The opportunity exists to work alongside and ensure integration with other mainstream initiatives such as Communities First, Families First
- Rural Development Programme will support the development of rural areas, including specific focuses on energy, research and innovation and regeneration of rural areas.
- The **Maritime and Fisheries fund** will look to develop coastal communities and support integrated action for regeneration including developing aquaculture in Wales.