

## **The Economic Prioritisation Framework for Welsh European Funds:**

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

Version 4: September 2018

### **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**

### **Background**

The Economic Prioritisation Framework (EPF) was originally produced in 2013 following the findings of the Guilford Review which recommended the importance of achieving closer alignment between the investment of EU funds and Welsh Government and EU strategies for jobs and growth.

It was designed to help guide the use of EU funding over the 2014-2020 funding period by setting it within a broader investment context by providing an overview of areas of key economic opportunity in Wales, including important investments underway or planned. This will help avoid duplication of EU operations and ensure that these build upon 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 use and effectiveness of the EPF was reviewed and a revised version produced in 2018 in consultation with partners. This latest version involves a slimming-down of the original document with more prominence given to the regional economic opportunities. It will be further updated as necessary to reflect changes to the economic and strategic environments, emerging economic opportunities and progress made on the implementation of the EU programmes.

### **Use of the EPF**

The EPF recognises that EU funds are only one piece of the overall investment jigsaw across Wales and it points the way to joining up the pieces. In doing so, it assists both WEFO and potential beneficiaries in determining how to target the activities set out within the Welsh Operational Programmes/ programming documents.

The EPF will help identify the opportunities and investments in a geographical or specific thematic area. Operations seeking EU funding support will be expected to describe how they can contribute to, interact with or complement relevant opportunities or investments in ways which can add value and provide wider benefits.

## **REGIONAL ECONOMIC OPPORTUNITIES**

This section considers the EPF from a regional perspective and covers North Wales, Mid Wales, South West Wales and South East Wales. The text for each region covers:

- (A) Description of the area, strengths and opportunities
- (B) What is already happening – which attempts to capture those key investments that are already taking place, have been announced or are already complete.
- (C) What might happen in the future.

## **NORTH WALES**

### **(A) DESCRIPTION OF AREA, STRENGTHS AND OPPORTUNITIES**

North Wales is a region characterised by its unique cultural and environmental heritage, driving a strong sense of community and identity within its population of 697,000 people<sup>1</sup>. It is a diverse region both economically and geographically, hosting a range of urban and rural settlements and strategic employment sites. Offering some of Wales' best kept landscapes, it not only offers a high quality of life for its residents but is also internationally renowned as a must-see tourism destination having been awarded 4<sup>th</sup> best destination in Lonely Planet's top 10 regions in the world to visit in 2017<sup>2</sup>.

North Wales' economy is distinguished by contrasting economic opportunities and challenges, reflective of its well-placed geographical location with access to markets across Wales, the UK and Ireland and a mix of opportunities emanating from the growth hubs designated as Enterprise Zones at Anglesey (Low Carbon Energy), Deeside (Advanced Materials & Manufacturing) and Snowdonia (Low Carbon, ICT & Aerospace). Key to the continued success and growth of the region's employment opportunities are cross-border linkages, such as extra-regional labour mobility (30,700 people travel into the region to work<sup>1</sup>) is connectivity. The region is currently served by a number of key road and rail links most notably the A55 (part of the European TEN-T network), the A470, A487 and A483, the North Wales mainline, Cambrian Coast and Wrexham-Bidston railway links. The region is also served by two strategic ports in Holyhead and Mostyn and air links from Anglesey and Flintshire as well as Liverpool and Manchester airports.

This geographic proximity to markets, strengths of its current industrial and commercial companies, and the economic interrelationship between North Wales and North West England and the West Midlands<sup>3</sup>, offers significant opportunity to deliver

<sup>1</sup> <http://regionalskillsandemploymentplan2016.co.uk/>

<sup>2</sup> <http://www.visitwales.com/latest-news/2016/october/best-in-travel-2017>

<sup>3</sup> <http://www.merseydealliance.org.uk>

economic growth and add value to the Welsh and UK economies. This opportunity for growth is identified in the North Wales Economic Ambition Board's "Growth Vision" (a single joined-up vision for regional economic and employment growth from £13.2bn GVA<sup>4</sup>, to up to £26bn by 2035). The vision outlines the conditions necessary to capitalise on the region's existing strengths and opportunities in driving growth in high value economic sectors (Energy, Advanced Manufacturing & Digital).

### **The Growth Vision sets out three Aims:**

#### **Smart North Wales**

With a focus on innovation in key sectors to advance economic performance, we will do more to:

- Capture the value from our science, research and creativity and support innovation that drives our productivity.
- Address barriers that impact on collaboration and the flow of knowledge between research and industry.
- Improve access to capital and ensure that business support and advice is coherent and co-ordinated, especially in view of "new forces" impacting businesses such as, decarbonisation, automation, artificial intelligence and other forms of digitalisation.
- Deliver high quality sites and premises across the region to accommodate expansion, diversification and innovation in the business base.
- Play a leading role in providing the low carbon technologies, innovations and services in maximising opportunities stemming from the global shift to "clean growth".

#### **Resilient North Wales**

Retaining young people, raising employment levels and improving skills, we will do more to:

- Embed a culture of career-long learning, so as to give people the opportunity to adapt, learn new skills and grow their earning power.
- Reduce the number of workless households and remove barriers faced by workers to access good jobs.
- Inspire young people to access opportunities and exciting careers in the region, and we will equip people for jobs shaped by next generation technology, driving up digital skills.
- Ensure people and businesses have a co-ordinated and joined up service to skills and employment support and advice in the region.
- Ensure that there is sufficient supply of housing in the region especially of affordable types, to support employment growth and community needs.

#### **Connected North Wales**

Improving transport and digital infrastructure to upgrade connectivity to and within the region, we will do more to:

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<sup>4</sup> <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Regional-Accounts/Gross-Value-Added-GDP/gva-by-measure-welsh-economic-region-year>

## **ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018**

- Plan and deliver a strategic approach to our investments, ensuring that they are well targeted in order to drive economic development and employment growth.
- Upgrade digital networks and infrastructure across the region, with a focus on full fibre broadband, new 5G networks and smart technologies.
- Address and reduce traffic congestion on strategic road routes across the region.
- Develop integrated transport hubs and to deliver low carbon transport solutions.

The North Wales Economic Ambition Board is developing more detailed proposals for UK and Welsh Government to secure investment in the first phase of work to deliver this Vision through the North Wales Growth Deal.

Low carbon energy, building on existing expertise and capability by capitalising on investments in major projects and initiatives are a key regional economic opportunity. Demand drivers developing through the Anglesey Enterprise Zone (Energy Island) and Snowdonia Enterprise Zones such as the planned Wylfa Newydd nuclear power station, the Trawsfynydd Nuclear Decommissioning Site as the leading location in the UK for new innovative nuclear technology such as Small Modular Reactors, and developments at Snowdonia Aerospace Centre in relation to Remotely Piloted Aerial Systems and possible spaceport development as well as investments in biomass, offshore wind and tidal developments. Synergies between the cluster and neighbouring regions will be fully exploited through supply chain and research & innovation linkages to further strengthen the UK's low / zero carbon energy knowledge and offer.

Advanced Manufacturing has long been an established cornerstone of the North Wales economy with an existing strong network of internationally recognised anchor companies and a competitive edge in aerospace, materials and processes, marine and environmental engineering, automotive, electronics and food. Demand opportunities for this sector will primarily be driven through investment in the Deeside Enterprise Zone as well as additional and possible further activity in the Northern Gateway (Deeside), Wrexham Industrial Estate, St Asaph Business Park, Parc Bryn Cegin (Bangor) and Parc Cybi (Holyhead).

The region is also home to a burgeoning digital cluster due to its competitive advantages in terms of academia, quality of life and outstanding natural beauty and continual improvements to its significant digital infrastructure. Key regional strengths in industries such as software development, health technology, financial, science and media offer the opportunity to drive significant economic growth. Driven by strong applied research from the region's Universities and Further Education institutions, and facilitated through strategic hubs, such as Parc Menai, Wrexham Technology Park, St Asaph Business Park and developments such as MSParc, Wales' first Science Park, located on Anglesey.

North Wales also has a vibrant tourism sector. The tourism and hospitality sector continues to be a key contributor to the economy in North Wales, generating £2.98 billion to the region per annum. The 2016 STEAM figures indicate that 29.5m visitors come to the Region each year, with 19.6m day visitors and 8.94 staying visitors. 40%

of overnight stays throughout Wales are taken in North Wales. We have 40,000 people employed within the sector in the region, with 3,340 tourism businesses.

The sector has outstanding environmental assets coupled with a rich cultural and historic heritage, particularly the region's bilingualism and UNESCO World Heritage Sites. The adventure tourism sector in North West Wales is a source of significant growth.

Underpinning the region's economic strengths and potential for growth is the region's leading Higher and Further Education Institutions. The region is host to two universities; Bangor University and Wrexham Glyndwr University, offering knowledge bases for R&D and Innovation. Bangor University has developed expertise in Biocomposites, Computing & Behavioural Science, Marine and Low Carbon research whilst Glyndwr University has strengths Advanced Manufacturing and Optoelectronics. In addition, Grŵp Llandrillo Menai, which is the largest further education college in Wales (5th in the UK), and Coleg Cambria in North East Wales both have important strategic links with the business sector. In particular, Grŵp Llandrillo Menai has strong relationships with Horizon Nuclear Power and Hitachi while Coleg Cambria has strong links with Airbus.

### (B) WHAT IS ALREADY HAPPENING?

#### (B1) Investing in the growth of the region

Specific opportunities have been identified in North Wales, primarily focused around the three Enterprise Zones in the area; with over £1bn also being invested in Wrexham Industrial Estate (WIE) by existing business growth and a planned 30ha extension is identified with the LDP making WIE one of the largest industrial estates in Europe. These complement significant expertise developed over many years in terms of skills and research, investment by anchor companies, and associated development of assets.

- The North Wales Growth Vision highlights a number of strategic sites as priorities for investment in order to achieve ambitious economic growth targets. The North Wales Economic Ambition Board is working alongside UK and Welsh Government to secure the investment needed to facilitate private sector development. 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 / tidal, hydro, solar and biomass production) and includes:
    - [Horizon/Hitachi Nuclear New Build \(Wylfa Newydd\)](#).
    - [Orthios Eco-Park, Anglesey](#)
  - Morlais tidal energy demonstration zone to the west of the Anglesey coast.



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- [Deep Green](#) tidal energy technology by Minesto at Holyhead Deep.
- Transmission Infrastructure National Grid investment to upgrade and strengthen the [North Wales Network](#).
- The [Snowdonia Enterprise Zone](#) includes the Trawsfynydd power station decommissioning site (the leading potential site in the UK for the development of cutting edge Small Modular Reactor technology) and the Snowdonia Aerospace Centre at Llanbedr, offering dedicated Remotely Piloted Aircraft Systems (RPAS) facilities, business park and possible spaceport development.
- Supporting the low carbon transition is the £13.5m investment in the first test bed for MVDC in Europe being taken forward by Scottish Power Energy Networks in collaboration with Isle of Anglesey and Gwynedd County Councils which will improve management of the local networks increase the capacity for renewable energy to connect and opening up potential new markets.
- The National Grid Electricity Transmission is establishing the “Off-grid substation environment for the acceleration of innovative technologies” which is located at Deeside.
- SP Energy Networks are building Angle-DC, the UK’s first DC link using the existing electricity distribution network.
- There is a developing energy cluster in Deeside as part of wider cross-border energy corridor.
- Advanced Manufacturing:
  - As of 2015, the region was home to 740 companies employing 34% of all people employed in the sector pan Wales.<sup>5</sup>
  - 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.
  - Development of the [North Wales Advanced Manufacturing Research Institute](#) in Deeside.
  - The [Snowdonia Enterprise Zone](#), which includes Snowdonia Aerospace Centre, a key location for the development of Wales’ excellent Remotely Piloted Aircraft Systems (RPAS) capability, home to the longest North-South runway in the UK (2,286m) and a shortlisted location for a UK Spaceport.
- Tourism attractions and centres, including outdoor pursuits driving tourism and visitor demand:
  - [UNESCO World Heritage Sites](#)
    - The Castles and Town Walls of Edward I (Caernarfon, Conwy, Harlech and Beaumaris)
    - Pontcysyllte Aqueduct and Canal, near Wrexham and Llangollen
    - The Slate Industry of North Wales tentative World Heritage Site
  - Unique built and natural environments and recent investments in the adventure tourism sector and the development of internationally renowned

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<sup>5</sup> <http://regionalskillsandemploymentplan2016.co.uk/>



developments such as [Zipworld](#) in Bethesda, [Marsh Tracks BMX International](#) standard facilities at Rhyl, [Bounce Below and Antur 'Stiniog in Blaenau Ffestiniog](#), [Plas Heli](#) National Sailing Academy and [Surf Snowdonia](#). The Clwydian Range Area of Natural Beauty is also a major attraction with the Loggerhards County Park, and the Mountain Bike Centre.

- Food and Farming:
  - Knowledge Transfer Partnerships exists with several food production companies and manufacturing businesses, supporting product [development](#) and international business development.
  - [Food Technology Centre](#) (FTC) at Coleg Menai, Llangefni.
  - The Rural Development Programme 2014-2020 will provide £302m of EU [funding](#) over 7 years which when combined with Welsh Government co-financing at 57% and a 15% transfer from CAP direct payments will provide £957m over the period.
- The Growth Vision for North Wales also envisions the development of a Rural Economy Hub by Grŵp-Llandrillo Menai to be located at Glynllifon in Gwynedd.
- Creative industries: Bangor University's £46m [Pontio](#) Project – an Arts and Innovation Centre in Bangor providing performing arts facilities and supporting innovation, research and new technologies, including digital technologies. The region hosts a large number of businesses in the creative and digital sectors including renowned media companies such as Rondo Media and Cwmni Da and international digital businesses including ARM, Moneypenny and Secure Trading.
- Public Sector: A major £250m investment in the new [Wrexham "Super Prison"](#) (HMP Berwyn).

### ***(B2) Supporting Infrastructure and Skills investments***

- Research and Skills Capacity: Energy
  - [MSParc](#) (Bangor University) – backed by £10m of Welsh Government funding for infrastructure development, the aim of the Parc is to increase collaboration and knowledge 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.
  - Coleg Llandrillo's Renewable and Environmental Centre in Colwyn Bay.
  - [Sustainable Buildings and Envelope Centre](#) (SBEC), Shotton - 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.

- Research and Skills Capacity: Advanced Manufacturing
  - Wrexham [Glyndŵr University Business Incubation OpTIC Centre](#), supporting young technology and start-up companies with a focus on taking new technologies to market.
  - The [BioComposites Centre](#) at Bangor University, at the forefront of research, development and the commercial application of bio-based alternatives to synthetic materials in manufacturing and industry.
  - [The Advanced Composite Training and Development Centre](#) at the Hawarden Industrial Park, Broughton, a partnership between Glyndŵr University, Airbus, Coleg Cambria and the Welsh Government helping Airbus employees and apprentices to develop their composite manufacturing skills.
  - Construction is underway of the Advanced Manufacturing Research Institute in Broughton with the development of a further campus for the centre planned.
- Improvements in Connectivity encouraging inward investment, better access to labour markets and supporting growth:
  - Implementation of the roll out of next generation ICT networks ([Superfast Cymru](#), deploying fast fibre broadband in areas where there is market failure), building on and adding to the [Fibrespeed](#) network – see Thematic Economic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace. The NWEAB North Wales Digital Connectivity Strategy will underpin all future investment in digital infrastructure in the Region. Continued Welsh Government investment in site infrastructure across the region to ensure an adequate range of sites for inward investment. Activity includes funding and constructing the main highway across the 420 acre Northern Gateway site on Deeside Enterprise Zone, a pivotal development to open up the site and unlock its potential, releasing 220 acres of prime employment land with the capacity to build 3.1million sq. ft. of employment facilities to accommodate up to 5000 jobs.
  - Proposed investment in road and rail modernisation (including further improvements to the [A55](#), [A494](#) the [A487 Caernarfon to Bontnewydd](#), and the A483 Junction and A483/A5 improvements will open up development opportunities in Wrexham and support 1000+ jobs and 1500 new homes, a business case for electrification of the North Wales railway network and associated links to Liverpool, Crewe and Warrington). [Moving North Wales Forward: Vision for North Wales and the Welsh Government North East Wales Metro](#)
- Strategic Sites:
  - Core property assets to support development / provide property solutions, including Parc Bryn Cegin on the outskirts of Bangor, Hawarden Park and Parc Cybi. The North Wales Growth Deal prioritises investment at the strategic sites in Bodelwyddan, Warren Hall, Wrexham Technology Park and Bryn Cegin.
  - Welsh Government [Property Development Loans](#) and [two ERDF backed funds](#) as mechanisms to deliver new floor space focussed on key sectors and Enterprise Zones.

- Investments in town centres (Holyhead, Caernarfon, Colwyn Bay, Rhyl, Wrexham and Bangor) through [Welsh Government Regeneration Funding, Business Improvements Districts and Town Centre Loans](#).
- **Education and Skills:**
  - [21<sup>st</sup> 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 21<sup>st</sup> 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, [Grŵp Llandrillo Menai](#) and [Coleg Cambria](#) both of which are the largest and consistently highest performing FE colleges in the UK. Two projects in particular, SEE (Skills for Employers and Employees) led by Coleg Cambria in partnership with [Grŵp Llandrillo Menai](#), and [North Wales Business Academy, led by Grŵp Llandrillo Menai in partnership with Bangor University, Glyndwr University and Coleg Cambria both aimed at developing the skills of the workforce for increased commercial success](#).
- **Research Capacity:**
  - Bangor University's [Centre for Applied Marine Sciences \(CAMS\)](#), 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; and
    - Survey and Instrumentation.

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- 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. Funded through the ERDF Tourism Attractor Destinations operation ([Holyhead](#), [Caernarfon](#), Colwyn Bay & Llandudno), and the [Rhyl Waterfront](#) project funded by Welsh Government, Rhyl Town Council and Denbighshire County Council.

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- Regional sites & premises projects in development stage in North West Wales.
- Possible investments in town centres through Building for the Future project.
- Bangor University's [Science and Technology Quarter](#)
- Snowdonia Enterprise zone - £25m investment (including £7.5m of European funds) in developing operational capacity, facilities and access to Snowdonia Aerospace Centre to support expansion of Remotely Piloted Aerial Systems activity and potential Spaceport development.

### *Possible future investments to monitor:*

- Exploratory Stage – Tidal power off Colwyn Bay / North Wales Coast, with feasibility studies underway on the potential for a tidal lagoon running from Rhos Point near Colwyn Bay to Prestatyn.
- [Snowdonia Enterprise Zone](#) –Trawsfynydd Nuclear Decommissioning if the frontrunner for the development of the UK's first Small Modular Reactor power plant and investment in the site's infrastructure has been included in the North Wales Growth Vision.
- 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 has made an annual £3.5m direct impact to the economy of Wales (excluding tours).
- Work undertaken to develop the North Wales Growth Bid has resulted in 'A Growth Vision for North Wales', and its Draft Proposition Document, which outlines that there is clear ambition for the region to position itself as one of the leading UK locations for energy generation and advanced manufacturing – as well as becoming a hub of innovation and technology expertise, and a centre of excellence for high value tourism. This ambition builds on strengths and opportunities, and its delivery will create a more sustainable and balanced approach to economic development.
- The Growth Vision is founded on three key aims: **Smart** North Wales, with a focus on innovation in high value economic sectors to advance economic performance; **Resilient** North Wales, with a focus on retaining young people, increasing employment levels and skills to achieve inclusive growth; and **Connected** North Wales, with the focus on improving transport and digital infrastructure to enhance strategic connectivity to and within the region.
- These aims, which are broad statements of desired outcomes for the region, set the context for our Strategic Programmes for future investment. There are eight Programmes which are key drivers to deliver our vision and to create the conditions for growth: Land and Property Development; Smart Access to Energy; Smart Technology and Innovation Hubs; Regional Growth Business Fund and Hubs; Pathways to Skills and Employment; Skills Centres of Excellence; Digital Connectivity; and Strategic Transport.
- A further consideration will be on the theme of the foundation economy, particularly around social care and health, whereby supporting these sectors will underpin the growth in the key Programmes outlined above.

- Future investment in the region will be aligned to this Growth Vision, providing a single joined-up vision for economic and employment growth, with a commitment between all the partners to work together collaboratively for a common purpose

## MID WALES

### (A) DESCRIPTION OF AREA, STRENGTHS AND OPPORTUNITIES

Mid Wales is distinguished by a rural economy and high quality environment. While the region makes up 39% of the land area of Wales, it has a population of just over 200,000 (2011 UK census). It is almost entirely rural in nature, characterised by a dispersed pattern of small market towns with the larger population centres of Aberystwyth and Newtown. Population density is amongst the lowest in England and Wales at 0.3 people per hectare (Wales 1.49 people per hectare), raising real challenges in terms of service delivery and accessibility.

Despite the challenges of rurality, there are low levels of unemployment. Historically, the claimant count is low – just 1% of the resident working age population claims any sort of benefit - and there are high levels of self-employment and micro-businesses. The region has a narrow economic base, dominated by agriculture and tourism, with a high reliance on employment in the public sector. Despite the high levels of employment, productivity is low. The Teifi Valley and key locations of Newtown, Llandrindod Wells and Brecon in Powys have been designated both as Local Growth Zones and strategic priority towns for investment under the WG Targeted Regeneration Investment Programme (TRIP) in an effort to encourage economic growth and create jobs.

The region does benefit from its leading further and higher educational institutions, with Aberystwyth University providing world class research in a wide variety of areas. Particular strengths include research in geography, computer science and the bio-economy. Research in the latter is led by the Institute of Biological and Rural Sciences - generally referred to as IBERS - which has a unique position in Wales as a recipient of strategic funding from the [Biotechnology and Biological Research Council](#) or BBSRC part of UK Research and Innovation. The University of Wales, Trinity Saint David has also partnered with Coleg Ceredigion to provide integrated academic and vocational pathways across the region and NPTC Group provide similar opportunities in Powys.

The [Growing Mid Wales Partnership's Framework for Action](#) identifies a number of 'significant opportunities' for the region. Key sectors include: Energy and Environment; Food and Farming; Advanced Materials and Manufacturing; Life Sciences; and Tourism. The key objectives of the strategy are:

- To grow the economy and create jobs in Mid Wales



- To raise productivity and increase competitiveness
- To develop a collaborative approach to economic regeneration
- To diversify the economic base of the region
- To build on existing strengths and create critical masses and clusters
- To improve accessibility within the region and to neighbouring markets

Mid Wales' geographic location at the heart of Wales offers significant opportunities to work with all other economic regions within the country. The economic interrelationship between Mid Wales and the 'Midlands Engine', especially in The Marches region, is also key and provides potential for growth. Improved connectivity is vital to exploiting these employment opportunities.

Tourism is clearly of particular importance to the economy of Mid Wales, with 11.3% of all employment in the region being in the tourism sector, the highest proportion of any region in Wales. In 2014, employment in the sector was 17,600, an increase from the figure of 15,100 in 2005. The proportion of employment which is in the tourism sector has also increased over this period.

The region has benefited from significant investments in its infrastructure over the past decade, including the ongoing regeneration of Aberystwyth and other town centres. However, the majority of the infrastructure and connectivity in the region still reflects its inherently rural nature. There are no major motorways in the region, but there are key trunk roads such as the A470, - the main arterial road linking North and South Wales, and the A487 West Wales Strategic Coastal Corridor. There are also several key East-West road routes that link to the Marches and West Midlands. Public transport services are limited in places but major investment has been made in the TrawsCymru network. Rail routes link Aberystwyth and Shrewsbury across to Birmingham Airport, Swansea and Shrewsbury via the Heart of Wales line and to North Wales via the Cambrian Line. ICT accessibility across the region is improving as the roll out of fibre broadband is being progressed, and great effort is being put into dealing with the large number of areas without mobile coverage.

### (B) WHAT IS ALREADY HAPPENING?

#### ***(B1) Growth of the Mid Wales region***

- Life Sciences:
  - Mid Wales hosts a number of key businesses active in the Life Sciences Sector;
    - [BTG Protherics](#), a market leading innovative medical product and specialty pharmaceutical, research based company, located near Llandysul in Mid Wales and a part of a significant cluster which includes Micropharm and IG Innovations.
    - [Cellpath](#) - the UK's leading independent pathology consumables supplier based in Newtown

- [PCI Pharma Services \(UK\)](#) is currently the largest private sector employer in Mid Wales, with more than 300 staff based at its UK HQ site in Hay-on-Wye. There is also a speciality pharma centre dedicated to potent pharmaceuticals in nearby Talgarth.
- [IBERS \(Institute of Biological, Environmental and Rural Sciences\)](#), Aberystwyth University is a leader in biotechnology, especially in the fields of parasites, human and animal disease. They have also undertaken pioneering research into chronic lung disease and innovative early detection methods for some cancers. Other distinct strengths include;
  - A recipient of strategic funding from the [Biotechnology and Biological Sciences Research Council \(BBSRC\)](#)
  - [National Plant Phenomics Centre](#), hosting the UK's most advanced research greenhouse
  - The award-winning [BEACON bio-refining centre](#) which develops products for industry including pharmaceuticals, chemicals, fuels and cosmetics
  - Veterinary Bioscience and Equine Veterinary Bioscience have recently been introduced as degree subjects.
  - [Wales Veterinary Services Centre](#): Aberystwyth Veterinary Services Hub providing post mortem and TB requirements and tissue and cell skills.
  - VetHub1 - a modern fully equipped state-of-the-art Category 3 bio-science facility to promote and protect animal and human health and to support animal health, veterinary, bio-technology and allied industries.
  - [Aberystwyth Innovation and Enterprise Campus \(AIEC\)](#), is a research and innovation centre co-located with Aberystwyth University (funded by ERDF, the Biotechnology and Biological Sciences Research Council (part of UKRI) and Aberystwyth University). Opening in 2020 it will allow businesses to develop and evaluate new products, processes and services in collaboration with university experts and provide specialist equipment and scale up facilities and a community to support business growth.
- Food and Farming:
  - One of the largest and most recently developed UK livestock markets is located in Mid Wales at [Welshpool](#).
  - [Centre for Alternative Technology](#) - an educational and visitor centre demonstrating practical solutions for sustainability, covering all aspects of green living including renewable energy and energy efficiency.
  - Centre of food technology excellence - [Food Centre Wales, Horeb, Llandysul part of Food Innovation Wales](#).
  - Mid Wales hosts a number of significant businesses in the Food and Farming Sector;
    - Mid Wales has major meat slaughtering and processing capacity ([Randall Parker Foods](#), Llanidloes, and [Dunbia](#), Lampeter respectively) and a whey processing facility serving whole of UK ([Volac](#), near Lampeter)
    - Leading food manufacturers in companies such as [Rachel's Dairy](#), a leading organic dairy brand operating out of Aberystwyth; [Sidoli's](#), who



- manufacture a large range of artisan desserts for the food service industry and are based in Welshpool; and Beacon Foods, Brecon who are the UK's leading specialist producer of roasted and char grilled vegetables and fruit ranges, relishes, chutneys and compotes. .
  - [Wynnstay Group Ltd](#) is a regionally important company based in Llansantffraid, North Powys, producing and selling animal feed on a national scale.
  - [The Royal Welsh Show](#) is one of Europe's premier agricultural shows, and is the most connected rural venue in Europe with a permanent mobile telephone mast on site. The show regularly attracts over 200,000 visitors per year and makes a substantial contribution to the regional economy as an all year round events venue.
  - IBERS, Aberystwyth University has world leading knowledge and expertise in this sector (*please also see Life Sciences* thematic section) including;
    - [The IBERS Grassland Development Centre](#), which delivers science and information to livestock farmers to improve their efficiency of grassland production
    - The [Pwllpeiran Upland Research Platform](#), a centre for the study of upland farmed ecosystems
- Advanced Manufacturing:
  - Mid Wales hosts a number of key businesses active in the Advanced Manufacturing sector;
    - Anchor Company Nidec [Control Techniques](#), Newtown, is a leading manufacturer of variable speed drives, servos and power conversion technologies.
    - Regionally Important Companies [Invertek Drives](#) (Welshpool) and [Compact Orbital Gears](#) (Rhayader) both have national headquarters in the region.
    - [Riversimple](#), who are developing hydrogen-powered fuel cell electric vehicles for commercial production, are based in Llandrindod Wells.
  - Aberystwyth University has the top ranked [Computer Science Department in Wales](#), and 11th in the UK. The Intelligent Robotics Group (IRG) is one of the most prominent in the UK. Work has been undertaken in several high-profile space robotics projects, including Beagle 2 and various Mars missions.
  - The [Aberystwyth Centre for Earth and Space Monitoring \(ACSEM\)](#) at Aberystwyth University is a world leading research cluster delivering services to industry and commercial interests, and is part of the Welsh Academic Space Partnership (WASP). ACSEM also works with the UK Space Agency as part of the Satellite Applications Cluster scheme. Specialising in downstream satellite and earth observation, the Institute of Geography and Earth Sciences is a world leader in practical big data delivery.
  - The University also has the [Earth Observation and Ecosystems Dynamics Laboratory](#). This hosts a [Definiens Centre of Excellence](#), one of only six worldwide.
- Tourism:
  - An outstanding natural environment, including the [Brecon Beacons National Park with the iconic Pen-y-Fan Mountain](#), which is a particular focus of upland tourism and activities, containing both a UNESCO Global Geopark and an

- International Dark Sky Reserve. Other outstanding features include the [Cambrian Mountains](#); [Elan Valley](#); [Lake Vyrnwy and the Berwyn Mountains](#); and [Dyfi Biosphere](#).
- 'Trails Mid Wales' for biking (mountain/road and walking) and cross-border developments on the Offa's Dyke showcasing '[Offa's Country](#)'. Other walking offers include [Glyndwr's Way](#) and the [Wales Coastal Path](#).
  - Cultural and heritage assets including the [National Wool Museum](#), Drefach Felindre, and the [National Library of Wales](#) in Aberystwyth. Historic castles and heritage visitor attractions such as [Cardigan Castle](#), [Strata Florida Abbey](#) near Aberystwyth, and [Powis Castle, Welshpool](#). New assets as a result of the restoration and refurbishment of the Grade 2\* Listed Brecon Museum and Art Gallery building along with a new library, community and education facilities to create a Cultural hub.
  - The long-term project by the [Vale of Rheidol Narrow Gauge Railway](#) to build a world class Railway Museum in Aberystwyth displaying locomotives and carriages collected over a fifty year period, which have never been seen in public before.
  - The Wales Way is a suite of three tourism routes with international appeal launched in late 2017. Official titles for the 3 principle routes are:
    - A55 – The North Wales Way/ Ffordd Gogledd Cymru
    - A487 – The Coastal Way/ Ffordd Arfordirol
    - A470 – The Cambrian Way/ Ffordd Cambria
  - The routes are open to personal customisation and encourage trips off the main route (e.g. 40 minutes off the main road). They will each seek to represent the best of Wales – from visitor experience to hospitality and tourism businesses and embrace what makes Wales unique.
  - The Royal Welsh Show is one of Europe's premier agricultural shows, and is the most connected rural venue in Europe with a permanent mobile telephone mast on site. The show regularly attracts over 200,000 visitors per year and makes a substantial contribution to the regional economy as an all year round events venue.
  - Defence and Security
    - Aberporth range occupies 6,500km<sup>2</sup> of sanitised airspace, from surface to unlimited altitude and overlaps the Welsh Military Training Area, which offers some unique low-flying options, opportunities for remotely piloted aerial systems and provides a controlled safe environment for the release of land-, air- and sea-launched missile firings and the ability to manage supersonic trials activity.
    - The [Aberystwyth Centre for Earth and Space Monitoring \(ACSEM\)](#) at Aberystwyth University is a world leading research cluster delivering services to industry and commercial interests, and is part of the [Welsh Academic Space Partnership \(WASP\)](#). ACSEM also works with the UK Space Agency as part of the Satellite Applications Cluster scheme. Specialising in downstream satellite and earth observation, the Institute of Geography and Earth Sciences is a world leader in practical big data delivery.
    - Aberystwyth University has the top ranked Computer Science Department in Wales, and 11th in the UK. The [Intelligent Robotics Group \(IRG\)](#) is one of the

most prominent in the UK. Work has been undertaken in several high-profile space robotics projects, including Beagle 2 and various Mars missions.

- One of Mid Wales' assets is the amount of space available, with large areas of land given over to the MOD. Sennybridge training area lies in Mid Wales covering approx. 37,000 acres, and is the third largest training area in the UK.

### ***(B2) Supporting Infrastructure and Skills investments***

- Research and Development:
  - Aberystwyth University is a major, globally-ranked, research university. According to the Research Excellence Framework 2014, 95% of the university's research is of an internationally recognised standard or higher. University of Wales Trinity Saint David has at its Lampeter campus a distinguished research tradition. According to the Research Excellence Framework 2014, 84% of research output by University of Wales Lampeter Archaeological Services in areas of geography, environmental studies and archaeology deemed to be internationally recognised or better.
- Education and Skills:
  - [21<sup>st</sup> Century Schools Programme](#) - a major long-term, Welsh Government strategic capital investment programme, with the aim of creating a generation of 21<sup>st</sup> century schools and educational facilities in Wales. The programme is being used in Powys to part-fund several capital build projects, including the Beacons Learning Campus which will include an 11 -16 secondary school, sixth form academy and vocational college.
  - As a member of the University of Wales Trinity Saint David Group, Coleg Ceredigion provides 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 with an increased learner offer.
  - NPTC Group provides these opportunities in Powys.
- Connectivity:
  - Improvements to rail links from Ceredigion between Aberystwyth and regional airport / West Midlands and London (part hourly services). Complemented by redevelopment of the rail station at Aberystwyth and Regeneration Area-funded works to improve links between the transport hub and the town.
  - A series of investments in road infrastructure, including;
    - [The Newtown Bypass](#) – a 6.5km bypass to the south of the town to alleviate traffic congestion in the town.
    - A partly upgraded link road from Aberystwyth and the West Wales coast to the M4 and Swansea City Region, including the Llandysul bypass.
    - A470 Cwmbach to Newbridge-on-Wye road improvement scheme, improving safety and travel time on the main north-south road in Wales
    - The £6m A483 Four Crosses bypass scheme
    - Glan Dyfi road improvement scheme on the A487, a key north-south link

- Strategic Infrastructure:
  - Regeneration of [Aberystwyth town centre](#), including the re-development of Mill Street car park to accommodate two major retail chains, with associated car parking provision.
  - [West Wales Airport, Aberporth](#): the only site in Europe that can enable the flying of Remotely Piloted Aerial Systems, with recent developments including a hotel and training facilities.
  - The Severn Valley Regeneration scheme in Llanidloes, Newtown and Welshpool town centres, which delivered improvements to commercial properties and the built environment, along with the creation of infrastructure for business premises at Offa's Dyke and Abermule business parks.
  - Health & Social Care infrastructure investments in the region including the innovative £6m Cylch Caron joint Health and Social Care scheme, the £20m Cardigan Integrated Resource Centre, a new £1.7m maternity unit in Llandrindod Wells and the £37m redevelopment of Bronglais General Hospital, including new A&E and operating theatre facilities, to enhance its strategic role as a Rural General Hospital and help deliver the strategic aims of the Mid Wales Health Collaborative. This investment has been supported by the establishment of the Centre of Excellence in Rural Healthcare.

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- The restoration and refurbishment of [Hay Castle](#).
- Brecon cultural hub Y Gaer.
- [A487 New Dyfi Bridge, Machynlleth](#)
- The [restoration of a section of Montgomery Canal](#) to link Welshpool to the national canal network
- Aberystwyth University plans to [redevelop the Grade 1 listed Old College](#) building into an educational, cultural, community and tourism heritage destination and business hub for Creative Industries.
- A487, A44 and A470 Trunk Road Pinch Point Programme
- T2 and T5 TrawsCymru Infrastructure Corridor investment
- T4 TrawsCymru Infrastructure Corridor Investment and extension of service
- Llandrindod Wells Transport Hub
- Centre for Photonics Expertise (Glyndwr, Aberystwyth, Bangor, University of South Wales) to deliver cross sector, industry driven photonics solutions, strengthening the Photonics market penetration of Wales
- Green Valleys CIC, based in Llangattock, is part of the Ecco €5.4m Interreg NWE project, investing in Community Renewables projects

#### ***Possible future investments to monitor:***

- Development of plans, including a bypass at Pencader, to link Mid Wales via an improved highway network to the Swansea Bay City Region.

- [Bow Street Station and interchange](#)
- Machynlleth Transport Hub
- Welshpool Transport Hub
- The development of a cultural hub for the creative industries in Ystradgynlais.
- The development of strategic business units and pedestrian links with the new Newtown Bypass link.
- Road linkages, including the A483 Welshpool (Pant to Llanymynech) road improvement scheme and the A458 (Buttington-Wollaston Cross) road improvement scheme.
- Brecon Cathedral is seeking HLF funding for a multi-million pound upgrade to their fabric and visitor facilities
- The development of a Heritage Exploratorium in Lampeter by University of Wales Trinity Saint David.
- The announcement of the former Nant Helen open cast mining site in Southern Powys as the preferred site for a global centre of rail excellence, offering a bespoke innovation accelerator, rolling stock and infrastructure testing, storage, decommissioning, maintenance and servicing asset to the industry and wider supply chain.

## SOUTH WEST WALES

### (A) DESCRIPTION OF AREA, STRENGTHS AND OPPORTUNITIES

The Swansea Bay City Region (SBCR) covers the four local authority areas of Neath Port Talbot, Swansea, Carmarthenshire and Pembrokeshire. The area has a resident population of approximately 691,961<sup>6</sup> supporting some 260,100 jobs, and containing around 19,930 businesses including globally significant firms, for example anchor firms TATA Steel in Neath Port Talbot and Valero in Pembrokeshire. 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 [Swansea Bay City Region Economic Regeneration Strategy](#) 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. The announcement of the City Deal on the 20<sup>th</sup> March 2017 will ensure that a number of the key projects highlighted within the Strategy will progress and enhance the economic prospects of the region.

The manufacturing sector in the SBCR has evolved in recent years to incorporate some of the very best businesses in the world. *Swansea University's new Bay Campus* has created an innovation hub for collaborative research in Advanced Engineering, Digital Economy and Low Carbon. It has also created facilities to support major collaborative projects with Rolls Royce and TATA Steel through the *SPECIFIC project*. These developments will be supplemented by the University of Wales Trinity Saint David's Box Village and Innovation Precinct, located at its new SA1 Swansea Waterfront Development, a development based on the idea of converting shipping containers to provide flexible, affordable space for start up companies thus bringing students, academics, and businesses together to share expertise to explore new ideas for growth.

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<sup>6</sup> 2011 census



The Creative sector across the SBCR already boasts world class ambassadors for the industry. Tinopolis, an international media producer and distributor and Bay Studios, the only major studio facility that can service large international film and TV production, are the main players in the sector with a number of smaller creative businesses developing in the region.

The academic excellence associated with the region also generates exciting spin-outs from the many education and cultural institutions. Further investment in the sector includes Canolfan S4C Yr Egin, the new home for Wales' national broadcaster S4C, at the University of Wales Trinity Saint David's Carmarthen Campus, which will also provide further opportunities for growth in the sector. Indeed the University of Wales Trinity Saint David's International Institute for Creative Entrepreneurial Development (IICED) is widely recognised as one of the world's foremost institutions in creativity based entrepreneurship education, IICED has not only been active in advising the UK Government in the field of entrepreneurship education but its publications have also been leading discussions at the international level.

Furthermore, University of Wales Trinity Saint David partners - Swansea bid to deliver the Swansea based Creative Bubble initiative. This provides a physical space and support for students to put their entrepreneurial skills into practice. It acts as a hub to link students with local entrepreneurs/ businesses and positively impacts upon Swansea's economy and cultural scene. It also engages less affluent communities in creative activity to increase aspirations and skills.

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.

The Food sector has always had a strong presence in the SBCR. Many prominent UK food producers are located there and the region is renowned for natural wholesome produce and for the expertise of its people. Pembrokeshire has manufacturing on a scale from micro to large, with an innovative approach to food and food production. There is also an enviable logistics network serving the UK and beyond; with key employment sites across the region such as Cross Hands Food Park in Carmarthenshire and Withybush in Pembrokeshire.

The ICT sector is thriving and home to a growing number of digital tech start-up's. With activity primarily clustered around Swansea, the sector is bolstered by academic excellence at Swansea University, including the new Computational Foundry; and ICT companies such as BT, who with Welsh Government support are refurbishing specific areas of the BT Tower to accommodate 100 new technical support staff.

Major names representing the Financial and Professional Services: include Admiral, workplace services provider PHS, PricewaterhouseCoopers and Amazon. The region is also home to an emerging cluster of technology businesses, linked to the Baglan Bay Innovation Centre and the Tech Hub in Swansea and spin out activities from the region's universities. Regional commuting flows are strong and fast to the major



employment centres of Haverfordwest, Swansea, Neath, Port Talbot, Carmarthen, Llanelli and Ammanford.

With the rapid evolution of a Life Science sector in the region driven by the Institute of Life Sciences at Swansea University, strengths have emerged in Medical Engineering; e-health; informatics and neurosciences. The Centre for NanoHealth (CNH) brings together Clinicians, Life Scientists and Engineers/Physical Scientists, where they work closely with business to deliver innovations in healthcare. There are also exciting developments in Carmarthenshire with the development of the £200m Life Science and Well-being Village in Delta Lakes, Llanelli. The forecast increase in spin-out activity from collaboration between businesses in situ and academia demonstrates that the Life Sciences and Health sector across the region will no doubt become a world leader.

The Region has grown from strength to strength in terms of research and innovation including the £450m investment in the new Swansea University Campus and the new University of Wales Trinity Saint David Campus in SA1 Swansea Waterfront (which includes the Construction Wales Innovation Centre). The new world class facilities and leading research expertise will attract global companies and help support the development of small to medium size enterprises and start-ups. The Bridge Innovation Centre is Pembrokeshire's premier location for stimulating innovation in businesses along with Baglan Bay Innovation Centre and The Beacon, Llanelli. They all provide an impressive environment for innovation and business growth, affording opportunities for knowledge sharing, collaboration and networking. Another example of how the region is leading in this area is through the SPECIFIC Innovation and Knowledge Centre (Sustainable Product Engineering Centre for Innovation in Functional Industrial Coatings), led by Swansea University and TATA Steel, located in Baglan Bay, to turn buildings into power stations.

Tourism and Leisure in SBCR is seen as one of the region's key strengths. With its natural assets of open water and countryside it is a haven for businesses operating in this sector. Accommodation providers, outdoor pursuits and some of the UK's top attractions thrive in the region including the Gower Peninsula; the National Botanic Garden of Wales, Pembrokeshire Coastal National Park and Afan Forest Park. Domestic overnight visits to South West Wales have risen over the last nine years, from an annual average of 1,815,000 in 2006-08 to 2,089,000 per year in 2012-14. Spend has also risen, from £326 million to £390 million per year over the same period.

Tourism is important to this region, with 9% of employment in the region in the tourism industry. The proportion of employment which is in the tourism industry varies depending on the region, with 11% of all employment in Pembrokeshire being in tourism, but only 6% in Carmarthenshire.

The region has benefited from significant investments in its **infrastructure** over the past decade, including the ongoing regeneration of Swansea City Centre 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. Specific support and training for construction industry professionals facilitated by the development of the new Faculty of Architecture, Computing and Engineering at IQ, located at the University of Wales Trinity Saint David's new SA1 Swansea Waterfront Development as well as the new Construction Wales Innovation Centre that will also be located there.

### B) WHAT IS ALREADY HAPPENING?

#### *(B1) Growth of the Swansea Bay City Region*

- Life Sciences & Health:
  - 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 including the Centre for Nanohealth.
  - FARR Institute, 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.
  - ARCH – this world-class, visionary project is collaboration between two university health boards, Abertawe Bro Morgannwg (ABMU) and Hywel Dda; and Swansea University.
  - ARCH also works together with social care, voluntary and other public bodies – offering a truly whole systems approach.
  - The Llanelli Life Science and Well-being Village - a wellness education and leisure facility that will include a health and well-being academy, out of hours GP services, therapies centre, hotel and conferencing and business facilities.
  - Celtic Advanced Life Sciences Innovation Network (CALIN) led by Swansea University, in partnership with Irish and Welsh universities. The network aims to support the development of new technologies, products, processes and services, leading to new jobs and further investment in the life science sectors.
  - BUCANIER (Building Clusters and Networks in Innovation Enterprise and Research) is an Ireland/Wales Co-operation project concerned with inspiring innovation in food and drink, renewables and life sciences. The project is led by Pembrokeshire County Council with Swansea University Institute of Life Sciences and Carmarthenshire County Council as Welsh joint beneficiaries, and in Ireland Wexford County Council, Institute of Technology Carlow and Bord Iascaigh Mhara (the Irish Fisheries Board).
  - ACCELERATE is a programme launched and led by the Life Sciences Hub Wales in collaboration with Cardiff university, Swansea University and the University of Wales Trinity Saint David. It aims to support and accelerate the transition of ideas from the healthcare system into new technology, products and services. ACCELERATE promotes the deployment and adoption of new technology, products and services into health and care to create a lasting economic value in Wales.
  - WIDI: The University of Wales Trinity Saint David and the NHS Wales Information Service joined forces to create the Wales Institute of Digital

Information (WIDI). The strategic partnership between both organisations has already led to the development of a number of initiatives linked to health data management and will further facilitate NWIS' work in delivering the national information and technology needed for modern patient care and over seventy digital services to users across the NHS Wales and to other parts of the United Kingdom.

- Advanced Manufacturing:

- Swansea University's ASTUTE 2020 project aims to further develop and embed Advanced and Sustainable Technologies into high-value manufacturing across Wales by working collaboratively with Welsh businesses.
- Wales Centre for Advanced Batch Manufacture (CBM), University of Wales Trinity Saint David's research centre for the impact of advanced technologies on manufacturing.
- TWI Technology Centre, Port Talbot (Structural Integrity and Non-Destructive Testing)
- Design, Simulation and Prototyping, through computational Simulation and Additive
- Layer manufacturing (Universities in Swansea and Cardiff and Swansea and Cardiff Met) and the FAB Lab in Pembrokeshire's Bridge Innovation Centre.
- Swansea University's Sustainable Product Engineering Centre for Innovative Functional
- Industrial Coatings (SPECIFIC<sub>2</sub>) project to develop functional coated steel and glass products.
- The Centre for Applied Non-destructive Evaluation Wales (CANDEW), a joint initiative between the University of Wales Trinity Saint David, TWI Technology Centre Wales, Oceaneering Inspection Services and Edyfi Technologies Ltd. This industrial focussed initiative led by the UWTDT provides unique specialised support for resources for cutting edge NDT research, engineering systems development and manufacturing, along with advanced inspection procedures and services to support this regional strategically important industrial sector.

- 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. Key projects include:
  - Egnedol's proposed £685 million Renewables Centre of Excellence on the Blackbridge and Waterston sites on the Milford Haven Waterway – Biomass to Energy facility plant & EcoParks (aquaculture & algae facility, food production units, research and development facilities).
  - South Pembrokeshire Wave Energy Demonstration Zone. The establishment of the Wave Energy Zone will enable project developers to deploy and test multi-device arrays of wave and offshore floating wind energy converters.
  - Haven Waterway Marine Energy Test Area, where technology developers can test components or procedures before deploying devices offshore in deep water.

## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- ORE Catapult's proposed Marine Energy Centre of Excellence
  - Wave-Sub - Marine Power Systems Ltd - Design manufacture and testing of a 1:4 scale WaveSub prototype WEC within the Haven Waterway Enterprise Zone.
  - Developing a Zero Carbon Area as part of Smart Living demonstration.
  - Baglan Energy Park, part of the regeneration of the Bay, with a broad range of commercial tenants including the Innovation Centre support R&D&I companies move to commercialisation of products.
  - Swansea Bay Tidal Lagoon on border of Swansea and Neath Port Talbot; £1 billion project with full equity investment in place, with both Prudential and InfraRed Capital Partners agreeing to provide an investment of £100 million each.
  - Development of Pen Y Cymoedd Wind Energy Project and significant economic benefit through community benefit fund.
  - Wind Farm developments in mid Carmarthenshire, £19 million economic development investment with £11 million community benefit over 20 years.
  - Development of the Mynydd Y Gwair wind farm with an associated c£6m community benefit fund over 25 years.
  - FLEXIS, a £2.4 m ERFD funded project to pioneer energy systems.
  - Developing a Smart/Low Carbon Programme in Neath Port Talbot building on Swansea Bay City deal energy and digital strands.
- Tourism & Culture:

The South West Wales region offers an outstanding natural environment, including the Pembrokeshire Coast National Park, providing 186 miles of unspoilt coastline, and the Brecon Beacons National Park, which is a particular focus of upland tourism and activities and the Gower Area of Outstanding Natural Beauty. Cultural and heritage assets include:

- The National Waterfront Museum, Swansea
- St David's Cathedral
- Dylan Thomas Boathouse
- Margam Castle and Park Development

Tourism investments in West Wales benefitting from Welsh Government and ERDF *Tourism Attractor Destination* funding include:

- Wales National Centre for Coastal Tourism, Saundersfoot
- Pendine Land Speed Cultural Centre and Eco Resort Complex
- Llys Y Fran Water Park, Pembrokeshire

Major investments in development include:

- Mountain-biking enterprises at Margam, Afan and Brechfa
- The regeneration of the Hafod - Morfa Copperworks to create a heritage led mixed use destination
- The £6m National Botanic Garden of Wales Heritage Lottery Fund project (HLF is also supporting restoration work at Aberglasney Gardens)

## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- Sporting facilities such as Liberty Stadium, Swansea, home of Swansea City football team and regional rugby, Parc y Scarlets, Llanelli & Ffos Las racecourse. Theme parks and activity centres such as Folly Farm Adventure Park and Zoo, Bluestone phase 3 development, Heatherton activities
- Improved facilities for cruise ships at Fishguard and Milford Haven
- £2m Celtic Routes project which is part funded via the Ireland/Wales Transnational programme, to develop newly created cross-border tourism 'routes/trails' that combine natural, cultural and heritage assets in Ireland and Wales
- Research and Development:
  - Swansea University have doubled their world leading academic researchers over the past six year and continue their ambitious expansion plans. The £31m Computation Foundry will house more than 150 computer science researchers.
  - Advanced Engineering and Materials Research Institute - the first specialised Structural Integrity centre, where advanced engineering materials and low-carbon energy innovations are developed and validated using full scale test structures currently unavailable in the UK. The centre will optimise simulation and develop high speed automated inspection to ensure the safety of critical structures.
  - *Sustainable Product Engineering Centre for Innovation in Functional Coatings (SPECIFIC)* - aims to develop functional coated steel and glass products that will transform the roofs and walls of buildings into surfaces that will generate, store and release energy. The key thematic areas of research include Photovoltaics, Battery Technology and Heating Coatings.
  - *IMPACT* – Innovation Materials Processing and Numerical Technologies – based on the Swansea Bay Campus will provide an innovative material, processing and numerical technologies research base.
  - *ASTUTE 2020* (Advanced Sustainable Manufacturing Technologies) - a partnership of Welsh HEIs collaborating with local, High-Value Manufacturing companies in Advanced Engineering research.
  - Advanced Design Engineering (ADE) University of Wales Trinity Saint David's innovative project which will collaborate with SME's to understand and adopt 14.0 technologies.

### Swansea Bay City Deal Projects

The City Deal focuses on the four areas of **energy, life science and wellbeing, economic acceleration and smart manufacturing** and aims to develop a high tech, high skilled, high value economy in the region that stands out in terms of next generation digital connectivity, innovation, test, trial and commercialisation. 11 projects have been identified so far under these headings:

#### Internet of Economic Acceleration

- **Digital Infrastructure** - implementing a regional state-of-the-art digital infrastructure to support each of the City Deal strategic themes and projects including gigabit fibre and next generation wireless networks; expansion of



the provision of 4G and Wi-Fi capabilities to benefit both urban and rural areas of the region and the development of digital infrastructure for key sectors including energy, manufacturing and life sciences

- **Swansea City & Waterfront Digital District** - developing a vibrant and prosperous City Centre that facilitates the growth of high value ICT and digitally enabled sectors, and acts as a key driver for the regional economy through the creation of a Box Village and Innovation Precinct at UWTSO SA1 Campus, Digital Village to provide grow-on space for tech businesses on the Kingsway and the new Digital Square and Arena
- **Canolfan S4C Yr Egin Digital Cluster** - creation of a digital and creative industry cluster on the University of Wales Trinity Saint David's Carmarthen Campus with S4C as the key anchor tenant and other digital and creative media SMEs as tenants. The facility will attract creative SMEs to start-up or expand through providing next generation digital infrastructure, business accelerator facilities, incubation space and networking opportunities
- **Centre of Excellence in Next Generation Services (CENGs)** - the Centre will provide a data analytics capability to turn data into commercial systems and solutions. This will bridge the gap between research and innovation and the ability to launch, develop and grow commercial opportunities Focusing on the themes of life science and energy, the core objective is to transition 'ideas' into private sector jobs creation and wealth generation.
- **Skills and Talent initiative** - the City Deal will be underpinned by the Skills and Talent initiative, being led by the SW Wales Regional & Skills Partnership, which will be a key component in ensuring that local people and businesses have the appropriate skills to benefit from each of the City Deal themes.

### Internet of Energy

- **Homes as Power Stations** - will create a new industry based around innovative and sustainable energy generation, combined with storage and efficiency. New technologies developed will be applied within the region, allowing homes and buildings to generate, store, and release their own energy
- **Pembroke Dock Marine** - will involve the development of a marine energy test area utilising the deep port of Milford Haven, a Marine energy engineering centre of excellence, and a wave and offshore floating wind energy demonstration zone. By creating a cluster of resources, knowledge, and capabilities, Pembroke Marine will accelerate technology development, enhancing the sector's success and ensuring continued investment and development in other test sites on a regional, Welsh and UK scale

### Internet of Life science and Well-being

- **Life Science & Well-being Village Llanelli** – The development of a Life Science and Well-being Village will be a truly unique initiative within the UK and at its heart would be the objective of integrating business development education, wellness initiatives, research and development and healthcare into a single physical locality. The Village will contain a primary/community care facility, an Institute of Life Science facility to support research and provide

incubation space, an education and skills development capability, and leisure and tourism facilities. The Village will be digitally connected to the campuses utilising the transformative digital infrastructure supported through the Internet of Economic Acceleration supporting interconnection across the region and creating life sciences and health employment investment opportunities.

- **Life Science & Wellbeing Campus Network** - will provide a world-class integrated research & business incubator/park secondary/tertiary clinical, research and trials environment, and skills development centres. Life science innovation hubs and satellite sites will be created across the region, in hospital and primary care settings. This will strengthen the region's capacity to commercialise research, attract additional inward investment, and further increase the export of high value services and goods, such as medical devices.

### **Internet of Smart Manufacturing**

- **Factory of the Future** - will support and continue to build the region's strong manufacturing base, this initiative will create a network of smart manufacturing innovation centres which will provide SMEs with an opportunity to invest in leading edge technologies and opportunities associated with a digital manufacturing revolution. Informed by industry 4.0 principles, and supported by world class industrial innovators, this initiative will put the region and its enterprises at the forefront of this digital and data based manufacturing movement creating a regionally integrated manufacturing ecosystem.
- **Steel Science Centre** - will address the current and future challenges of sustaining primary steel-making capacity in the region and the UK, building upon the region's centres of excellence and industrial capabilities. In doing so, it will place the region at the cutting edge of low carbon production and the utilisation of locally generated waste products such as chemical and raw materials feedstock.

### ***(B2) What's already happening - Supporting Infrastructure and Skills investments***

- Improving transport addressing barriers to future growth:
  - 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), linking Swansea, Port Talbot, and Fishguard
  - £17.4m investment programme in station improvements across the region e.g. Port Talbot Parkway station re-development
  - Improvements to A40 Llanddewi Velfrey – Penblewin. £50m. Second of two phases of improvements to the A40 west of St Clears
  - £5.6m Port Talbot Transport Hub –modal interchange facility
  - Cross Hands link road underway to open up areas of land for employment and residential use and reduce current transport pressures at Cross Hands A48 roundabout



- **Improvements in Digital Connectivity:**

- Roll out of next generation fast fibre broadband across all regions of Wales (including *Superfast Cymru and Access Broadband Cymru*)
- Broadband delivery has been prioritised for the Haven Waterway Enterprise Zone; as a key economic priority area. This investment provides a platform to expand the roll-out of fibre-based services to premises across designated sites within the Enterprise Zone to meet the needs of businesses
- BT G.fast ultrafast broadband trial in Swansea, and G.fast test lab in Swansea's BT Tower which is available for academic researchers, start ups and communications providers

- **Strategic Site Developments:**

- Regional strategic sites prioritised by the SBCR Board:  
The Kingsway; Felindre; Port Talbot Harbourside; Withybush; Cross Hands East Phase 2 under Welsh Government Strategic Sites and Premises and Canolfan S4C Yr Egin.
- Other strategic sites and developments include:
  - The Bridge Innovation Centre in Pembroke Dock. An established centre for innovative businesses has been enhanced by the recent introduction of a Fab Lab facility for the educational and commercial use
  - The adjacent Pembrokeshire Science and Technology Park provides 22ha of development land for high-tech companies
  - SA1 Swansea Waterfront and residual docks £600m mixed-use development scheme
  - Urban Village, a mixed use commercial, retail and residential development in Swansea City Centre
  - £6m investment in site acquisition and clearance at former St David's shopping centre site Swansea in preparation for the phased development of the Swansea Central retail/leisure scheme Developers creating plans for this site and the Civic Centre site which has been identified as a national priority site for Wales
  - 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.
  - Waterston/Blackbridge – strategic employment sites of over 100 acres within the Haven Enterprise Zone
  - Baglan Energy Park
  - Junction 38 of the M4, Margam – infrastructure investment proposed to provide some 25 acres of employment land
  - Development of the Llanelli Coastal belt, including major infrastructure and a coastal link road; residential and office development and the renovation of the harbour.

- 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, Pembroke, Milford Haven and Haverfordwest Welsh Government Property Development for Business Development Grant and Property Infrastructure Fund as a mechanism to deliver new floor space, focussed on key sectors.
- Welsh Government Building for the Future to assist the regeneration of town centres by tackling derelict under utilised land or buildings in Haverfordwest, Carmarthen, Llanelli, Neath, Port Talbot and Swansea
- Welsh Government Targeted Regeneration Investment Programme which is supporting economic regeneration activities in Neath, Port Talbot, NPT Vallyes, Swansea City Centre and Tawe Riverside, Morriston, Ammanford, Llanelli, Haverfordwest and Pembroke

### • **Education and Skills**

The sectors within the economy that can be deemed as aspirational are high value and high growth sectors and are an important source of investment and GVA growth. The employment within these sectors typically require higher skills levels with a greater number employed in the higher occupational groupings, wages also tend to be higher to reflect the demand for skilled individuals and a greater number are in full time employment.

The nature of many sectors within the aspirational economy will mean that there is a significant need for higher level skills which will increase the pressure and requirements on the skills infrastructure to deliver the required level skills. *'Alongside a demand for more graduates there will be demand for a greater number of workers with higher – but not necessarily degree level – qualifications.'* It is important to highlight however that 'new' labour supply alone will not be the only supply to the labour market as there remains a significant number of individuals who require up-skilling to a higher level. 'While this indicates a shift towards a more highly skilled – and in particular, graduate-based – labour force, even by 2020, the majority of the working age population (53%) will still hold zero, low or mid-level qualifications.'

The 2016/17 Regional Employment and Skills Plan <http://www.rlp.org.uk/wp-content/uploads/Employment-and-Skills-Plan.pdf> details the skills requirements to meet the demands of the aspirational projects already identified within the Swansea Bay Region and will provide additional support for skills from apprenticeships through to higher level skills for the emerging projects through the City Deal.

Significant investment is already being made in this area through the creation for example of the Wales Institute of Work Based Learning, a division of the University of Wales Trinity Saint David, which aims to work with local employers on the bespoke training needs of their employees and which will in turn result in

accredited qualifications which reflect the specific needs of both employee and employer.

Furthermore, the Construction Wales Innovation centre (CWIC) is a unique CITB funded all-Wales training centre with its hub forming part of the SA1 Swansea Waterfront Training Centre.

### C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### *Investments already announced for future investments:*

- Plans for an £80million biomass plant in Trecwn, North Pembrokeshire
- Transport strategic corridor routes linked to TEN-T network
- A proposed Local Food Park at Withybush to support small, medium and large food producers
- Milford docks redevelopment - marina and leisure and fishing industry facilities; mixed use development up to 21,904 sq. m, including commercial, retail, residential, additional marina berths, replacement boat yards; Milford Haven cruise liner berth
- Milford Haven rail interchanges
- Water supply and sewerage investments across the region
- Redevelopment of the Swansea Civic Centre site in Swansea into a new commercial and leisure destination with residential and community uses
- Rheola tourism accommodation and leisure with a residential development
- Hydrogen technology including refuelling stations in Wales and the M4 corridor
- Potential 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
- Briton Ferry Dock (Brunel Dock) – Mixed use commercial and leisure regeneration development
- Orithios Eco Park £2bn development in Port Talbot – a combined energy and food plant
- Ethos Project Carmarthenshire – development of iconic landmark Quayside Commercial office complex
- Carmarthen Town Masterplan.
- Tourism projects including Mumbles Pier, Pembrey, Burry Port Harbour and Towy Valley Cycleway.

## **SOUTH EAST WALES**

### **(A) DESCRIPTION OF AREA, STRENGTHS AND OPPORTUNITIES**

The Cardiff Capital Region is widely recognised as a region with major strengths, an attractive environment, a strong heritage, a growing economy and emerging opportunities.

It is comprised of ten local authorities: Blaenau Gwent; Bridgend; Caerphilly; Cardiff; Merthyr Tydfil; Monmouthshire; Newport; Rhondda Cynon Taff; Torfaen; and Vale of Glamorgan. It is the largest city-region in Wales, accounting for approximately 50% of the total economic output of the Welsh economy, 49% of total employment and has over 38,000 active businesses.

The Cardiff Capital Region is an area where people want to live and work. With two cities (Cardiff and Newport) at its core, the region has seen significant regeneration and investment over recent decades. Cardiff, as the capital city, is now dynamic, fast growing and forecast to have a higher population growth rate over the next 20 years than any other city in the UK.

The area is home to a range of competitive business clusters with significant international and indigenous businesses across sectors such as: financial services; creative and digital industries; advanced manufacturing; life sciences; energy; and energy supply.

There are currently three Enterprise Zones: 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).

The region is serviced through a wide and supportive ecosystem which contains a thriving higher education sector, comprising Cardiff University, Cardiff Metropolitan University and the University of South Wales.

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 offers an opportunity to build on these existing assets and to develop a vibrant and inter-connected city-region, enhancing prosperity and well-being for all through economic growth.

### ***The Cardiff Capital Region City Deal<sup>7</sup>***

Cardiff Capital Region has secured a deal worth £1.2 billion. Over its lifetime, local partners expect the City Deal to deliver up to 25,000 new jobs and leverage an additional £4 billion of private sector investment.

This City Deal will provide local partners with the powers and the resources to unlock significant economic growth across the Cardiff Capital Region. It is a deal that builds on the region's sectoral strengths, its high skill base and three successful universities. The City Deal also provides an opportunity to continue tackling the area's barriers to economic growth by: improving transport connectivity; increasing skill levels still further; supporting people into work; and giving businesses the support they need to innovate and grow.

This deal will also develop stronger and more effective leadership across the Cardiff Capital Region, enabling ten local authority leaders to join up decision making, pool resources and work more effectively with local businesses.

#### **The Cardiff Capital Region City Deal includes:**

***Investment of £1.2 billion in the Cardiff Capital region's infrastructure*** - A key priority for investment will be the South East Wales Metro, including the Valley Lines Electrification programme.

***Connecting the region*** - The Cardiff Capital Region will establish a new non-statutory Regional Transport Authority to co-ordinate transport planning and investment, in partnership with the Welsh Government.

***Support for innovation and improving the digital network*** - To develop capabilities in Compound Semiconductor Applications the UK Government will invest £50 million to establish a new Catapult Centre in Wales. The Cardiff Capital region will also prioritise investment in research and development and provide support for high value innovative businesses. This is the first Catapult to be secured in Wales and will be a significant component in the compound semi conductor cluster in South Wales.

***Developing a skilled workforce and tackling unemployment*** - The Cardiff Capital Region Skills and Employment Board will be created (building on existing regional skills partnership, LSKIP<sup>8</sup>) to ensure skills and employment provision is responsive to the needs of local businesses and communities. The Cardiff Capital Region and the Welsh Government will work with the Department of Work and Pensions to co-design the future employment support from 2017, for people with a health condition or disability and/or long term unemployed.

***Supporting enterprise and business growth*** - The Capital Region Business Council has been set up as part of the overall City Deal initiative, and its role is to

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<sup>7</sup> [http://cardiffcapitalregioncitydeal.wales/Cardiff\\_Capital\\_Region\\_City\\_Deal.pdf](http://cardiffcapitalregioncitydeal.wales/Cardiff_Capital_Region_City_Deal.pdf)

<sup>8</sup> <http://www.lskip.wales/default.aspx>

provide a strong business voice to guide both the design and delivery of significant economic development and regeneration activities across the region.

<http://capitalregionbc.co.uk/A> Cardiff Capital Region Business Organisation will be established to ensure that there is a single voice for business to work with local authority leaders.

***Housing development and regeneration*** - The Welsh Government and the Cardiff Capital Region commit to a new partnership approach to strategic planning. This will ensure the delivery of sustainable communities, through the use and re-use of property and sites.

Working alongside the Cardiff Capital Region City Deal structures are 2 strategic partnerships:

- **CCR Economic Growth Partnership** will directly advise the CCR Regional Cabinet, and is responsible for reviewing the CCR economic strategy, making recommendations with regards to how the CCR City Deal is implemented, and advise on investment decisions throughout the Cardiff Capital Region. It will also have an advocacy role, promoting the Region as a prime investment opportunity and visitor location.
- **CCR Skills Partnership** will identify and respond to the social, economic and skills needs of the CCR, engaging with employers and other stakeholders to identify current and future skills needs and plan accordingly. The partnership will support the alignment of delivery with future demand, stimulating innovation and enabling an inclusive regional response to CCR City Deal and Welsh Government policy initiatives.

The current Employment and Skills Plan can be accessed here. The plan sets out the challenges, opportunities and key priorities for the region.

[http://www.lskip.wales/downloads/170731\\_Employment%20 Skills\\_Plan\\_eng.pdf](http://www.lskip.wales/downloads/170731_Employment%20Skills_Plan_eng.pdf)

The CCR City Deal has now published its first 5 year strategic business plan which can be accessed here:

<http://www.cardiffcapitalregioncitydeal.wales/ccr-business-plan/CCR-Strategic-Business-Plan.pdf>

|  |  |
|--|--|
| <b>Our Vision</b>                        | <b>“A Prosperous Capital City-Region for Wales”</b> - a decision making centre, a global gateway for capital, trade, and visitors, a knowledge hub and a major population centre and business cluster for Wales <sup>1</sup>   |
| <b>Our Regional Strategic Objectives</b> | <ol style="list-style-type: none"><li>1. <b>Prosperity and Opportunity</b> - Building the capacity of individuals, households, public sector and businesses to meet challenges and grasp opportunity creating a more productive economy</li><li>2. <b>Inclusion and Equality</b> - A vibrant and sustainable</li></ol> |



|                          |  |   |
|--------------------------|--|---|
|                          | <p>economy which contributes to the well-being and quality of life of the people and communities in the region now and in the future</p> <p>3. <b>Identity, Culture, Community and Sustainability</b> - Forging a clear identity and strong reputation as a City-Region for trade, innovation, and quality of life</p> |   |
| <b>Strategic Themes</b>  | <b>Skills &amp; Employment</b> Developing a Skilled Workforce and Tackling Unemployment  | <b>Connecting the Region</b> Improving Connectivity Globally, Regionally and Locally                          |
|                          | <b>Innovation</b> Creating an Innovation District and Increasing Entrepreneurial Activity and Innovation   | <b>Regeneration &amp; Infrastructure</b> Providing the right physical place and environment to support growth |
| <b>Measuring Success</b> | Job Creation, Private Sector Leverage, Employment and Skill levels, Productivity levels, GVA   |   |

## **(B) WHAT IS ALREADY HAPPENING?**

Investments are being made across the region by the private, public and third sectors. Where these investments complement each other and work together they can have a greater impact across the whole region, compared to investments happening in isolation. The strategies and opportunities highlighted in Section A provide a broad framework for the region reflecting key investment priorities and opportunities.

This section attempts to capture those key investments that are already taking place, have been announced or are complete already. The intention is to encourage future investments to look to add to, and build on, these. ESI fund investments in particular will be expected to demonstrate they have properly considered how they contribute to this wider investment context.

### **(B1) Growth of the Cardiff Capital Region and South East 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.

- Financial and Professional Services: 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
- The conditional acquisition of Grade A office space in Capital Quarter, Cardiff.
- **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 located 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.

The CCR City Deal's first investment was in the Compound Semiconductor Project, which will generate over £380m of private sector investment and deliver 500 highly skilled jobs, and potentially cultivate an innovation cluster creating a further 2,000 jobs

- **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 Sêr Cymru Research Chair. More detail is provided below.
- **Tourism:**
  - The proportion of jobs in the tourism sector in South East Wales is 9.2%, very similar to the Wales average. This means that about one in eleven jobs in this region is in the tourism sector.
  - This region sees more international visitors than any other part of Wales, with half of all international visits to Wales in 2012-14 being to this region. The spend on international visits in this region is also high; 47% of all spend on international visits to Wales was spent in this region in 2012-14.
  - The [Brecon Beacons National Park](#) and the [Glamorgan Heritage Coast](#).
  - The [Blaenavon UNESCO World Heritage Site](#) and [St Fagans National History Museum](#).

## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- Concert Halls, such as the [Wales Millennium Centre](#), [New Theatre](#) in Cardiff 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 the [Wales National Velodrome](#) 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](#), Bike Park Wales and the new visitor centre at the Royal Mint act as regional visitor attractions.
- Other 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 Energy Project](#).
  - Creative industries: Development of media clusters and film and TV production infrastructure creating demand for specialist skills and supply chain - [BBC Drama Village at Porth Teigr](#), Cardiff; and *Atlantis* in Chepstow (see Thematic Opportunity 4 – Exploitation of ICT Assets and Opportunities of the Digital Marketplace), [Pinewood Studios Wales](#) in Wentloog, Cardiff.
  - ICT and Digital:
    - The sector is thriving and worth some £8 billion in turnover to the Welsh economy. The South East is home to a number of innovative and high growth companies, which contribute to the Anchor companies in the area, including Airbus, IQE and General Dynamics.
    - South Wales is recognised as having the largest and most vibrant Cyber Security cluster in the UK. The University of South Wales (USW) and Welsh Government have developed the National Cyber Security Academy to help address a shortage of cyber security skills and develop the next generation of cyber security experts.
    - The National Software Academy aims to address the shortage of qualified software engineers. It is a collaborative project between the Welsh Government, Cardiff University and Alacrity where students are given the opportunity to directly engage with businesses on real-life projects.
  - Life Science: The current re-purposing of the Life Sciences Hub Wales will ensure it is optimally placed to drive jobs and economic growth within the sector and be a focal point for NHS-industry engagement, whilst exploring mutual benefits across the Economy and Health agendas and improving patient pathways.
- Anchor and significant companies: International/multi-national companies, such as Anchor companies [Sony](#) in Bridgend (generating R&D and cluster activity), [Pinewood Studios](#) Group in Cardiff and Admiral Group PLC in Cardiff and Newport. Also, significant companies including Airbus Group, including Testia Limited, a new venture with a site in Newport that provides world-class bespoke training, consultancy and research and development in Aerospace Non Destructive Inspection, [Alacrity Foundation](#), Kennametal in Newport and the [Royal Mint](#) in Llantrisant.

### ***(B2) Supporting Infrastructure and Skills investments***

- Improving transport:
  - [Cardiff Capital Region 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 [Modernisation](#) 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; as key economic priority areas. This investment provides a platform to expand the roll-out of fibre-based services to premises across designated sites within the Enterprise Zones to meet the needs of businesses.
  - Next Generation Data's [Newport Data Centre](#), providing a secure data environment for corporate, government and smaller service provide organisations.
  - The Cardiff Internet Exchange, one of only five in the UK.
- Strategic Site Investments:
  - Welsh Government [Property Development Fund](#) as a mechanism to deliver new floor space focussed on key sectors and Enterprise Zones).
  - Core economic development sites to provide property solutions for business, including sites at [Imperial Park, Newport](#), Brocastle, Pencoed, Llantrisant and, Wentloog. Includes site infrastructure development currently underway 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).

## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- 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).
  - [CAPSE](#), University of South Wales (Centre for Automotive Power Systems Engineering) (see Thematic Opportunity 5 – Advanced Manufacturing).
  - [EADS Foundation Wales](#) - 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).
  - [CUBRIC](#)'s provides:
    - World-class imaging capacity / facilities
    - Hospital-standard clinical suite for patient research and clinical trials
    - Laboratory suites
    - Office space for people / students, with Hot-desking for researchers / external collaborator visitors
- Education and Skills:
  - Supply of local, skilled graduates from [Cardiff University](#), [Cardiff Metropolitan University](#) and the [University of South Wales](#), with the highest concentration of Financial and Professional Services related graduates in the UK outside London. Cardiff University's Business School [Trading Room](#), providing students with the opportunity to gain practical skills required for life at the Stock Exchange.
  - [21<sup>st</sup> 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 21<sup>st</sup> 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.

## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- [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 Tondy 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.
- **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 in Llantrisant, industrial and manufacturing units aimed at the medical science industry.
  - [Cardiff medicentre](#), a business incubator centre for biotech and medtech start-ups.
  - GE Innovation Village based at the GE Healthcare Cardiff site comprising of shared office and lab space for Life Sciences SMEs.
  - Life Sciences Hub in Cardiff Bay accelerating and facilitating collaboration between business, academia and the NHS.
  - 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).

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment***

- [Universal Engineering](#), which makes components for the off-shore oil and gas, car, defence and aerospace industries, proposal to set up a centre of excellence in Llantrisant.
- 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.

## THEMATIC ECONOMIC OPPORTUNITIES

This section considers the EPF from a thematic perspective and covers:

- (A) Description of the thematic in question and the opportunities arising from it.
- (B) What is already happening – which attempts to capture those key investments that are already taking place, have been announced or are already completed.
- (C) What might happen in the future.

## ENERGY

### (A) OVERVIEW & OPPORTUNITIES

Energy security is identified as significant challenge and opportunity worldwide, including by the Welsh Government<sup>9</sup>, 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.

The Welsh Government's energy priorities were set out in the [Energy Statement](#). These are:

- To use energy more efficiently,
- To reduce our reliance on energy generated from fossil fuels,
- To actively manage the transition to a low carbon economy.

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)<sup>10</sup>. 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 and energy efficiency investment also have 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.

<sup>9</sup> Energy Wales: a low carbon transition (March 2012), Welsh Government

<sup>10</sup> *Marine Energy Infrastructure Study : Stage A - Industry Consultation and Concept Design* (July 2012), Halcrow



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 service 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.

### (B) WHAT IS ALREADY HAPPENING?

#### ***Major Investments***

##### *Major low carbon energy generation*

- The Anglesey Enterprise Zone for the Energy Sector, incorporating the [Anglesey Energy Island](#) 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 [Nuclear Power Station - Wylfa Newydd](#), who are planning on the basis of site works from 2018, leading to the start of major on-site work in 2020 and transmission in mid 2020's.
  - Defueling of existing Nuclear Power Station by Magnox in 2017.
  - Lateral Power proposed Biomass and Eco Park, potentially in 2015.
  - Major investment in off shore wind power via RWE npower, [Gwynt y Môr](#), off the North Wales Coast - €2bn to install 160 turbines creating 576MW installed capacity, now nearing completion, with majority of the turbines now operational.
  - [Deep Green technology](#), a £25m tidal energy project led by Minesto and supported by ERDF funding, which will deploy one underwater "kite" off the coast of Anglesey, bringing 31 jobs to the area by 2018 and providing the basis for a full scale 80MW array.
  - Wave Sub, a £3.5m wave energy project lead by Marine Power Systems and supported by ERDF funding, which will design, build, deploy and test a 1:4 scale wave energy converter within the Haven Waterway.
  - Ocean Wave Rower, a £5.8m wave energy project led by Wave-Tricity and supported by ERDF funding, which will develop and test a power take-off device and the Ocean Wave Rower. The operation aims to test the technology through modelling and real-world validation at sea on a 25m concrete barge using full size Power Oars©. Additionally, R&D will focus on technical development of the final 80m commercial OWR barge.

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- Transmission Infrastructure – National Grid investment to upgrade and strengthen the [North Wales Network](#) to accommodate increased electricity generation from low carbon and renewable generation.
- In [Mid Wales](#) there are investigations to facilitate connecting wind farms to the distribution network. [Crown Estate](#) has leased marine renewable wave and tidal demonstration zones in Wales. The zones are located on the edge of the most prospective commercial areas of the UK. Morlais (Menter Môn) has been appointed manager of the West Anglesey tidal demonstration zone and Wave Hub the manager of the South Pembrokeshire wave demonstration zone. Wave Hub has been awarded ERDF funding to carry out a feasibility study for the South Pembrokeshire Zone.
- Significant onshore wind development. Multiple projects are consented, and preparing for build, including [Pen Y Cymoedd](#) which is now operational, and was awarded £100m of Welsh contracts during the build.
- The [Mynydd y Gwrhyd](#) community wind project owned by local community society Awel Co-op, consists of two 2.35 MW Enercon wind turbines.
- *Energy efficiency*
  - The UK [Energy Company Obligation](#) (ECO) is an energy efficiency scheme for Great Britain, introduced in 2013. ECO places legal obligations on larger energy suppliers to deliver energy efficiency measures to domestic premises including targeting at low income and vulnerable households living in rural areas. The UK Government's Spending Review 2015 announced plans for a supplier obligation to run for five years from April 2017 at an estimated level of £640m per year, rising with inflation. The latest iteration, 'ECO2T' runs from April 2017 to September 2018.
  - Between 2011 and 2016, Welsh Government has invested over £217 million in the *Welsh Government Warm Homes Programme*, which includes the Nest and Arbed schemes, to improve the energy efficiency of over 39,000 homes of those on low incomes or living in the most deprived areas of Wales.
  - This included match funding for the [Arbed](#) 2 ERDF scheme, which received support totalling c.£47.15m part-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).
  - Welsh Government is investing £104 million in the *Warm Homes Programme* between 2017-2021 to improve the energy efficiency of up to a further 25,000 homes.
  - This includes match funding for the Arbed EU 3 scheme, which is receiving total support of c. £35.5m part funded by the 2014-2020 EU programmes to provide a pan Wales area based energy efficiency programme which will target predominantly households facing severe fuel poverty. It will increase the energy efficiency of homes within deprived communities across Wales to tackle fuel poverty and reduce carbon emissions. The operation will also deliver opportunities for the development of the energy efficiency market across Wales by strengthening the energy efficiency supply chain and signposting Welsh SMEs to appropriate training and accreditation schemes.
  - 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).

- The Rural Development Programme 2014-2020 will provide £302m of EU funding over 7 years which when combined with Welsh Government co-financing at 57% and a 15% transfer from CAP direct payments will provide £957m over the period.
- Welsh Government's Green Growth Wales initiative is investing support and finance in public sector energy efficiency projects. The programme has the objective of growing, accelerating and de-risking the adoption of energy efficiency and renewable energy measures in the Welsh public sector, thereby demonstrating leadership, reducing carbon emissions, generating substantial revenue savings and driving economic growth.
- Green Growth Wales has three main components of: commercial, financial and procurement support to enable projects identify the best commercial routes for delivery and remove barriers; Re:fit Cymru, a support function, which enables the public sector secure guaranteed energy savings through and energy performance contract with a private sector partner; and finance in the form of 0% interest loans or repayable grants administered through the Invest to Save – Green Growth facility and Salix Finance
- By the end of the current Government term, it is expected that over £65m will be invested in projects. Over the life of the programme it is modelled that the investments will enable public sector energy bill savings equivalent to £650m and emissions reductions of 2.5 tonnes CO<sub>2</sub>e will be achieved.

### ***Current Projects***

The UK National Nuclear Thermal Hydraulic Facility at MSParc on Anglesey.

- A five-year programme of R&D on digital nuclear reactor design in the following areas:
  - Work package 1:  
Virtual Engineering  
Modelling and Simulation
  - Work package 2:  
Thermal Hydraulics Model Development  
UK National Nuclear Thermal Hydraulic Facility

Menai Science Park Ltd (M-SParc), a wholly owned subsidiary of Bangor, is developing a Science Park on Anglesey to drive growth in knowledge based science, with an early focus on low carbon energy, the environment and ICT sectors. The project will align with the Welsh Government's Innovation Strategy, as well as contributing to the growth of region's economy. Work on what will be Wales' first dedicated Science Park began in 2016, with the Park becoming operational towards the end of 2017. The 20 acre site will be sympathetically landscaped within a parkland setting, and the first building will house start-ups, accelerator and mature projects as well as an open innovation area with cafe. All potential tenants will be provided with outstanding facilities and excellent business support.

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- The vision is to create high level, long term employment for Anglesey, Conwy and Gwynedd – keeping young people in the area and raising the average wage.
- 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 5 years. Plans for £60m scheme to [connect wind farms in Mid Wales to the National Grid](#) network.<sup>11</sup>
- 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 of hydrogen vehicles, fuel cell applications and overall hydrogen energy systems.
- [Sustainable Buildings and Envelope Centre](#) (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.
- [Cardiff Eco-Design Centre](#), which develops and delivers collaborative multi-sectoral eco-design projects and is a centre of excellence for eco-design.
- Swansea University's [Sustainable Product Engineering Centre for Innovative Functional Industrial Coatings \(SPECIFIC\)](#) 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 [Sustainable Expansion of the Applied Coastal and Marine Sectors in Wales \(SEACAMS\)](#) 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 and

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<sup>11</sup> 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

managing these while minimising the impacts 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.
- SPARC II (the Solar Photovoltaic Academic Research Consortium) will be led by Swansea University in partnership with Bangor and Aberystwyth universities. The research will focus on new applications for next generation solar technology including mobile products, aircraft and the space industry. Needs to be moved as currently delivering. 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.
- The [Centre for Alternative Technology](#): an educational and visitor centre near Machynlleth demonstrating practical solutions for sustainability, covering all aspects of green living including renewable energy and energy efficiency.
- [SMART Innovation](#): part funded by ERDF as a backbone operation, providing Pan-Wales support for innovation and commercialisation in the form of specialist advice for SMEs and large companies. This operation forms one part of an integrated innovation support package for businesses.
- Smart Living Wales is an initiative bringing forward demonstrators incorporating innovative technologies, processes and systems to address place-based needs-led outcomes. Key demonstrators in the first platform include Smart Systems and Heat (Bridgend); Smart/Low Carbon Urban Development Citizens focus (Neath Port Talbot); Angle DC (Isle of Anglesey); Catalysing Local Energy (Blaenau Gwent); Sustainable Fuels (Cardiff); Zero Carbon Areas (Milford Haven); Local Generation and Use Case for Change (Flintshire) and RCT (Hydrogen). Extensive energy efficiency supply chain & service capability.
- The *Welsh Government Warm Homes Programme*, which consists of the Nest and Arbed schemes, is designed to tackle fuel poverty, reduce carbon emissions and create green jobs and business opportunities in Wales by improving the energy efficiency of homes of those on low incomes or living in the most deprived areas of Wales. Welsh Government is investing £104 million between 2017 and 2021 to improve the energy efficiency of up to 25,000 homes. This will lever in EU funding, in addition to funding from the Energy Company Obligation.
- Welsh Government's Green Growth Wales initiative is investing support and finance in public sector renewable energy and energy efficiency projects. The programme has the objective of growing, accelerating and de-risking the adoption of energy efficiency and renewable energy measures in the Welsh public sector, thereby demonstrating leadership, reducing carbon emissions, generating substantial revenue savings and driving economic growth.
- 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 Fund](#) as a mechanism to deliver new floor space focussed on key sectors and Enterprise Zones. [Riversimple](#), who are developing hydrogen-powered fuel cell electric vehicles for commercial production, are based in Llandrindod Wells.
- The announcement of the former Nant Helen open cast mining site in Southern Powys as the preferred site for a global centre of rail excellence, offering a bespoke innovation accelerator, rolling stock and infrastructure testing, storage, decommissioning, maintenance and servicing asset to the industry and wider supply chain.

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

***Investments already announced for future investment:***



## FOOD AND FARMING

### (A) OVERVIEW & OPPORTUNITIES

The food and drink industry is ideally placed to deliver on the four cross cutting strategies in Taking Wales Forward as well as the Well Being of Future Generations goals.

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, 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. Pestel challenges, such as food security, climate change and Brexit also create significant economic opportunities.

The growth of the food sector is identified as a particular opportunity where value is added to primary agricultural processing, with particular emphasis 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 continue to be a focus while the offer to investors will have to be redrawn in the Brexit context. The wholesome image of Welsh food and drink will be exploited through building a strong and credible Wales brand as well as development of sub-brands including 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 will be 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' carbon footprint further and improve business performance through more efficient energy, water and wider resource and waste management.

### (B) WHAT IS ALREADY HAPPENING?

#### ***Major Investments***

In 2014, the Welsh Government published 'Towards Sustainable Growth: an Action Plan for the Food and Drink Industry 2014-2020'. The document sets out the ambition to sustainably grow the Welsh food and drinks sectors by 30%, to an industry turnover of £7 billion by 2020. Progress towards achieving this target is good, with 17% growth to a turnover of £6.1 billion achieved by December 2015. The Action Plan aims to encourage an integrated approach and prioritises areas for action, such as food security, food safety, dietary health and obesity challenges and inequalities,

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tackling food poverty and strengthening supply chains by efficiently managing our natural resources better.

A key aim is encouraging a sustainable, productive and profitable industry. Other priorities include delivering against the targeted areas of:

- Building a strong and credible brand that is recognisable on the global stage .
- Advancing education, training, up-skilling and Innovation.
- Enabling business growth and developing markets.
- Building resilience through ensuring supply chain Food safety and Food security.

The Welsh Government established a Food and Drink Wales Industry Board to bring the sector together and help drive sustainable growth. The Board is industry-led and advises ministers on the sectors development needs, while also engaged in delivering change. The Board is the voice of industry enabling food chain stakeholder engagement. The Board has joint ownership with Government of the Action Plan for the Food and Drink industry.

A Food Tourism Action Plan is in place. The plan delivers synergistic benefits through growing food and tourism together. Local supply chains, slow food, food festivals and food events are an established part of Wales' food culture and important in the sustainability of micro and SME businesses.

Half of the regionally important companies (RICs) in Wales are food businesses and consequently essential to economic growth and job creation

Upwards of 85% of food businesses are micro scale, 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).

The farming industry continues to be heavily dependent on direct payments under the Common Agricultural Policy (CAP) and faces significant change once the UK leaves the EU,

The Rural Development Programme (RDP) 2014-2020 is providing £302m of EU funding over 7 years which when combined with Welsh Government co-financing, at 57% and a 15% transfer from CAP direct payments provides £957m over the period.

The current programme provides capital grant support to food businesses through the Food Business Investment Scheme (FBIS). EU funding through Interreg will enable continuation, expansion and development of the food business clusters and innovation initiatives that has engaged 350 food/ drink businesses in collaborative working.

‘Bwyd a Diod Cymru / Food and Drink Wales’ is now a well established trade identity that emphasises the Welshness of food and drink from Wales. Work is ongoing to strengthen the credentials of the ‘brand’ setting it apart in terms of its quality and uniqueness based on FGA and EA principles.

A well established international development programme supports businesses with export capability and ambitions to grow and develop their export customer base.

Food poverty is a real issue in Wales; the Food Poverty Alliance tackles food poverty through the public, private and voluntary sector partnering to deliver a variety of initiatives such as the SHEP (School Holiday Enrichment Programme).

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. Too few manufacturers have acquired the necessary certifications to supply multiple retailers and larger foodservice businesses.

Dedicated Food Parks such as in Cross Hands, Carmarthenshire deliver benefits through provision of food specification buildings, co-location, collaboration and logistics. A new food park is being progressed at Withybush near Haverfordwest in Pembrokeshire. This is essential to sustainably grow the industry offering and develop export markets.

Food Innovation Wales provides innovation and support services to the food and drink sector across Wales from the ZERO2FIVE Food Industry Centre, based at Cardiff Metropolitan University, the Food Centre Wales, based at Horeb, near Llandysul in Ceredigion and the Food Technology Centre based at Coleg Menei; Grwp Llandrillo Menai.

### ***Current Projects***

Project Helix represents the coming together of the Food Innovation Wales network comprising Coleg Menai, Zero 2 Five (Cardiff Met) and Horeb food centres to provide research and product development resources to food businesses. Helix works with other Higher Education establishments in Wales to draw on a wide range of complimentary strengths and expertise to support both farming and food manufacturing businesses.

Institute for Biological, Environmental and Rural Sciences (IBERS) in Aberystwyth is 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. It has particular expertise in animal health to include research into parasitology and Bovine TB.

Future Food: supporting ambitious Welsh food businesses by embedding research and technology to improve competitiveness and secure future growth, promoting consumer well-being through development of healthier products, diets and nutritional

services, assuring product quality and safety and protection from food fraud and encouraging environmentally sustainable practices.

Four Intereg (Ireland/Wales) operations are addressing different aspects of climate change - Acclimatise, EcoStructure, Blue Fish and CHERISH.

Aberystwyth Innovation and Enterprise Campus (AIEC) is a research facility and innovation centre co-located with Aberystwyth University. Opening in 2020 it will allow businesses to develop and evaluate new products, processes and services in collaboration with university experts and provide specialist equipment and scale up facilities and a community to support business growth.

Swansea University's Centre of Excellence for Sustainable Food Production focuses on food safety and food security and the aquaculture facility is important to the seafood industry and the research establishment is the only one in Wales.

Hybu Cig Cymru is a Non departmental body owned by the Welsh Government and funded through levy from producers/processors and rural programmes. HCC promotes and markets 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). The family of Protected Food Name products has now increased to fourteen, also including Carmarthenshire ham and seafood produce.

DairyCo – some funding from the Welsh Government (and levy from producers/processors) to promote and market dairy produce.  
AHDB works with the Welsh Government and stakeholders to provide market intelligence, research and knowledge transfer to the other food sectors who do not have a Wales specific levy body.

SMART Innovation: part funded by ERDF as a backbone operation, providing Pan-Wales support for innovation and commercialisation in the form of specialist advice for SMEs and large companies. This operation forms one part of an integrated innovation support package for businesses.

Welsh Government Property Development Fund as a mechanism to deliver new floor space focussed on key sectors and Enterprise Zones).

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- 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 FBIS, Helix, Business Clusters, 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.
- New projects identified in Gwynedd and Wrexham in the food sector within the Growth Bid.

## CLIMATE CHANGE AND RESOURCE EFFICIENCY

### (A) OVERVIEW & OPPORTUNITIES

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 sector<sup>12</sup> is rapidly expanding and Wales is well placed to take advantage of new opportunities arising<sup>13</sup>. 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.

### (B) WHAT IS ALREADY HAPPENING?

#### ***Major Investments***

- UK and EU Legislative Commitments, including:

<sup>12</sup> 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.

<sup>13</sup> Figures from Department for Business, Innovation and Skills: *Low Carbon and Environmental Goods and Services (LCEGS) Report for 2011 to 2012*.



- The [EU Emissions Trading Scheme](#) (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 [EU Habitats Directive](#) (together with the [Birds Directive](#)) is built around two pillars: the [Natura 2000 network](#) 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 [EU Waste Framework Directive](#) 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.
- [WRAP](#)'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 [Flood and Coastal Erosion Risk Management European Strategic Programme](#). 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;
  - raise awareness of flooding in vulnerable communities; and
  - improve a community's ability to recover quickly if a flood happens.
- Expanding [SEACAM](#)'s success with a focus to develop innovative change in the marine/coastal Low Carbon Economy of Wales, SEACAMS 2 will boost investment in renewable energy and sustainable resource sectors by facilitating the translation of research to business activity, meeting burgeoning demand for coordinated information, data and modelling of coastal/marine processes
- Major land management schemes focussed on improving ecosystems and resilience.
- The Rural Development Programme 2014-2020 will provide £302m of EU funding over 7 years which when combined with Welsh Government co-financing at 57% and a 15% transfer from CAP direct payments will provide £957m over the period.

### ***Current Projects***

- [SPECIFIC Innovation and Knowledge Centre](#) (Sustainable Product Engineering Centre for Innovation in Functional Industrial Coatings), led by Swansea University and Tata Steel, to turn buildings into power stations.
- [Sustainable Buildings and Envelope Centre](#) (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 which emerge.
- [Cardiff Eco-Design Centre](#), which develops and delivers collaborative multi-sectoral eco-design projects and is a centre of excellence for eco-design.
- The University of South Wales' [Sustainable Environment Research Centre \(SERC\)](#), 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 [Centre for Ecology and Hydrology](#), the UK's Centre of Excellence for integrated research in terrestrial and freshwater ecosystems and their interaction with the atmosphere.
- [Climate Change Consortium for Wales](#), 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.
- [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.
- [SMART Innovation](#): part funded by ERDF as a backbone operation, providing Pan-Wales support for innovation and commercialisation in the form of specialist advice for SMEs and large companies. This operation forms one part of an integrated innovation support package for businesses.
- [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.

- [Centre for Alternative Technology](#), an education and visitor centre near Machynlleth demonstrating practical solutions for sustainability, covering all aspects of green living: environmental building, eco-sanitation, 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;
  - Llŷn Peninsula; and
  - The Wye Valley.
- The [Dyfi Biosphere](#) is the first biosphere in Wales and one of only three in the British Isles. It is a destination recognised by UNESCO for its outstanding commitment to the environment.
- Cambrian Mountains
- Parc Natural (Leader project)

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- 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.

## EXPLOITATION OF ICT ASSETS AND OPPORTUNITIES OF THE DIGITAL MARKETPLACE

### (A) OVERVIEW & OPPORTUNITIES

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 2030<sup>14</sup>.

### (B) WHAT IS ALREADY HAPPENING?

#### *Major Investments*

- 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 been market failure, funded by £224m of public investment.
  - [Access Broadband Cymru](#) funds (or part-funds) the installation costs of new broadband connections for homes and businesses in Wales that deliver a step change in download speeds. The Scheme will run until 31 March 2018.
  - The Ultrafast Connectivity Voucher Scheme The Ultrafast Connectivity Voucher scheme is available businesses across Wales to help meet the initial capital costs incurred in installing ultrafast broadband services. The Scheme will run until 31 March 2018.

<sup>14</sup> Technology Strategy Board estimate, see [https://www.innovateuk.org/web/corporate1/feature-display-page/-/asset\\_publisher/b61wJfKPbeu8/content/the-city-of-the-future](https://www.innovateuk.org/web/corporate1/feature-display-page/-/asset_publisher/b61wJfKPbeu8/content/the-city-of-the-future)

## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- 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. GloWorks and [BBC Drama Village at Porth Teigr](#), Cardiff; *Da Vinci's Demons* around Bay Studios in Neath Port Talbot; [Pinewood Studio Wales](#) in Wentloog, Cardiff; a £30m ring-fenced budget for investment by the Welsh Government in film and TV development, production and distribution). A planned investment of a cluster of Creative Industries businesses in the Old College in Aberystwyth.
- 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 £3m Digital Development Fund pilot which can provide 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 “[Creative Europe](#)” fund for the cultural and audiovisual sectors, providing 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.
- Established Innovation Point (funding of £1m per annum) to work at arms length to Welsh Government. Based in Newport, its remit to identify and exploit the opportunities emerging from the growth of the Digital Economy.

### Current Projects

- 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:
  - [ESTnet](#) (a network of technology organisations whose members design, develop, manufacture or integrate electronic and software technologies).
  - Annual Digital showpiece event and the monthly Digital Tuesday networking session.
  - [Wales Games Development Show](#).
  - [Do Lectures](#).
  - [GamesDev South Wales](#), a social meet-up for video game developers.
- Expertise in mobile applications: ([CEMAS – The Centre of Excellence in Mobile Applications and Services](#)) and digital media innovation and enterprise ([MediaLab](#))



- 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 [Cardiff School of Journalism, Media and Cultural Studies](#).
- [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, and could provide the opportunity to reach remote communities with full fibre 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.
- [EADS Foundation Wales](#) - a joint venture company between WG, Airbus Defence and Space, 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 [Alacrity Foundation](#), 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 in Swansea, 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 [Porth Teigr](#) through development agreement with Igloo, and ownership of property assets at Fabian Way.
- Welsh Government [Property Development Fund](#) as a mechanism to deliver new floor space focussed on key sectors and Enterprise Zones).
- Riversimple – who are developing hydrogen-powered fuel cell electric vehicles for commercial production, based in Llandrindod Wells.
- The announcement of the former Nant Helen open cast mining site in Southern Powys as the preferred site for a global centre of rail excellence, offering a bespoke innovation accelerator, rolling stock and infrastructure testing, storage, decommissioning, maintenance and servicing asset to the industry and wider supply chain.

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- Up to £80 million of public funding has been announced to provide superfast broadband to those premises still unserved by either a commercial deployment of broadband or under the Superfast Cymru programme.



- A planned investment of a cluster of creative industries businesses in the Old College in Aberystwyth.

### ***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.

## ADVANCED MANUFACTURING

### (A) OVERVIEW & OPPORTUNITIES

Manufacturing is a larger proportion of the Welsh economy than the UK as a whole and has been undergoing a transition from low skilled, low productivity to more advanced manufacturing capability built on higher skills in emerging clusters and areas of expertise and the pursuit of operational excellence. Key markets exhibiting regional and / or global growth include aerospace, automotive and rail, alongside opportunities resulting from the growing take-up of technologies such as composite and alloy materials, photonics, automation and net shape and additive manufacturing.

The focus is moving increasingly to improvements in productivity and academic research suggests that the move towards Industry 4.0, or the fourth industrial revolution will, in the short term, be a threat to employment levels, although in the longer term, it suggests there will be an increase in employment, much of it higher skilled and of higher value. This is very much dependent upon moving existing employees up the value chain in terms of skills and engaging more employees of the future in STEM related activities.

Advanced manufacturing is closely linked to research and innovation strengths and attracts a large amount of research and innovation funding, in particular the development and production of advanced materials for a range of industries. Advanced manufacturing represents high quality and high productivity with educated, knowledgeable people operating in a sophisticated manufacturing environment. Design capability is a key future requirement. Manufacturing is further characterised by high salaries and high levels of exports, and Wales has several blue chip large companies operating 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 ALREADY HAPPENING?

#### ***Major Investments***

- Significant available UK Research & Development funding including Research Councils, [Innovate UK](#) 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 and Aircraft Interiors
- Remotely Piloted Air Systems.
- Space and Defence.
- Automotive Engine Technology and Power Systems.
- Automotive Chassis and body parts.
- Sensing & metrology, incorporating Opto Electronics.
- Foundation Industries, including metal refining and chemicals.
- Advanced Materials.
- Precision Engineering.
- BEACON - EU funded collaboration led by Aberystwyth University and Bangor and Swansea Universities specialising in bio-refining and working with SMEs to develop renewable materials, fuels and chemicals as well as modified and new environmental and economically sustainable processes.
- 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, and is bidding for UK Space Agency support to host small satellite and / or sub orbital flight launches.
  - Cardiff Airport and St Athan Enterprise Zone – to develop the area into an internationally recognised centre of excellence for the aerospace industry and Maintenance, Repair and Overhaul Operations activities in particular.
  - Ebbw Vale Enterprise Zone – creating a vibrant, world class high technology hotspot for manufacturing companies.

### **Current Projects**

#### *RD&I capability and centres of excellence*

- [RPAS \(Remotely Piloted Air Systems\)](#) strategic sites at [Aberporth](#) and [Llanbedr](#), with regulated airspace for test, evaluation and demonstration. Llanbedr Airfield is also the location for the candidate site for a UK Spaceport (Government decision expected September 2017).
- Maintenance, Repair and Overhaul (MRO) strategic site at [Cardiff Airport and St Athan EZ](#), with one airport and two runways.
- The Wales Academic Space Partnership provides a single voice for universities with a track record of supporting some of the world's leading space projects. Members include Aberystwyth University, Bangor University, Cardiff University, Glyndwr University, Swansea University and the University of South Wales.
- The Centre for Solar Energy Research (CSER) at Glyndwr University's Optic Centre undertaking testing of solar cells for UK Space Agency's Cube Sat programme. (St Asaph also hosts a UK Space Agency business incubator centre for young space companies.)
- [SPECIFIC Innovation and Knowledge Centre](#) (Sustainable Product Engineering Centre for Innovation in Functional Industrial Coatings), led by Swansea University to turn buildings into power stations.

- The [BioComposites Centre](#) at Bangor University, at the forefront of research, development and the commercial [application](#) of bio-based alternatives to synthetic materials in manufacturing and industry.
- [Eco-Design Centre](#) (Cardiff Metropolitan University), a knowledge-intensive organisation specialising in making eco-design happen.
- [Morgan-Botti Laboratory Cardiff University](#) for Lightning Research and Testing.
- [CAPSE, University of South Wales](#) (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 and motorsport (F1)
- 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 of hydrogen vehicles, fuel cell applications and overall hydrogen energy systems.
- [TWI Technology Centre](#), 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).
- [ASTUTE](#) (Advanced Sustainable Manufacturing Technologies), a partnership of Welsh Universities supporting companies to adopt advanced technologies. This programme is part-European funded under the 2014 – 2020 programmes.
- Earth Observation, navigation and communications assets and capability at [Aberystwyth University](#).
- Aberystwyth Innovation and Enterprise Campus
- BEACON, EU funded collaboration led by Aberystwyth University and Bangor and Swansea Universities specialising in bio-refining and working with SMEs to develop renewable materials, fuels and chemicals as well as modified and new environmental and economically sustainable processes.
- Wales Centre for Advanced Batch Manufacturing (CBM), UWTSD's research centre in the impact of advanced technologies on manufacturing
- Advanced Design Engineering (ADE), UWTSD's project to collaborate with SMEs to understand and adapt 14.0 technologies
- [Swansea Bay Campus](#), accommodates:
  - High tech research laboratories.
  - The [Innovation Hub](#) and [Engineering Manufacturing Facility](#) co-locating 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.
  - [The Energy Safety Research Institute](#) (see Thematic Economic Opportunity 1 – Energy).

- [Airbus Group Endeavr Wales](#)
  - Airbus Group Endeavr Wales is a joint venture company between the Welsh Government, Airbus Defence & Space and Cardiff University who represent academia in Wales.
  - Endeavr Wales seeks to 100% fund project proposals which generate research and technology in the fields of Software, Secure Mobile and Wireless Communications, Cyber Security and Autonomous Systems innovation.
- **The EDGE**
  - The EDGE<sup>®</sup> was developed by General Dynamics in the US to provide a physical environment (laboratories / workshops / meeting space etc.) for the collaboration and experimentation between industry, academia and government.
  - EDGE partners discuss concepts and develop Trust & Security products in a mutually supportive environment that focuses on bringing customer needs and technical solutions together in rapid cycles of integration and experimentation.

Wales is home to the only EDGE<sup>®</sup> R&D facility outside of North America.

- [The Alacrity Foundation](#), The Alacrity Programme, run by the Alacrity Foundation is a charitable educational technology incubator based in Newport. It is a joint venture between Kanata Research Park Corporation, Welsh Gov, the Waterloo Foundation, Wesley Clover Wales Ltd. and the Alacrity Foundation. The Alacrity Programme aims to mentor and train the brightest and best graduates to create a new generation of Tech companies.
- Sêr Cymru [National Research Network for Advanced Engineering and Materials](#) led by Swansea University and supported through £7m over 5 years.
- [The Welsh Centre for Printing & Coating and the National Centre for Print Manufacturing](#), Swansea University, a centre of excellence for research and education for the printing and coating industries. Printing is an enabling technology underpinning many manufacturing sectors, particularly automotive, aerospace and opto-electronics.
- [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.
- Resource Efficient Wales, giving energy saving advice to public and business organisations.

### *Skills and RD&I support in Wales*

- [SMART Innovation](#): part funded by ERDF as a backbone operation, providing Pan-Wales support for innovation and commercialisation in the form of specialist advice for SMEs and large companies. This operation forms one part of an integrated innovation support package for businesses.
- SMART Expertise, part funded by ERDF to fund collaborations between universities in Wales and industry.

- SMART Cymru, part funded by ERDF, to fund research and innovation in business in Wales.
- 14.0 Wales and International Masters, UWTSB's ESF projects to up-skill and train professionals in understanding and adapting 14.0.

### *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 Fund](#) as a mechanism to deliver new floor space focussed on key sectors and Enterprise Zones).

## (C) WHAT MIGHT HAPPEN IN THE FUTURE?

### ***Investments already announced for future investment:***

- Further development of the South Wales compound semiconductor cluster
- Further developments in research and innovation with the steel /metals industry in Wales and their supply chain. Menai Science Park to be completed by year end 2017 will house businesses in manufacturing and energy.
- Roll out of a business incubator system across Wales.
- Ebbw Vale Technology Park
- Advanced Manufacturing Research Institute, Deeside
- Aston Martin
- GJD Aerospace
- Raytheon
- Rail test centre at the former Nant Helen open cast mining site in Southern Powys as the preferred site for a global centre of rail excellence,
- [Riversimple](#), who are developing hydrogen-powered fuel cell electric vehicles for commercial production, are based in Llandrindod Wells.

### ***Possible future investments to monitor:***

- TVR at Ebbw Vale EZ
- Discussions ongoing with the Materials Processing Institute, (MPI), re possibility of setting up a satellite operation.
- Regional STEM Development Centre, North Wales
- CAF at Llanwern, train manufacturer, significant inward investor



## LIFE SCIENCES AND HEALTH

### (A) OVERVIEW & OPPORTUNITIES

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. Precision Medicine will see the growth of bespoke detection and treatment for patients with medical decisions, practices, and products being individually tailored to the patient. This will include diagnostic testing aimed at selecting appropriate and optimal therapies based on the context of a patient's genetic content or other molecular or cellular analysis. 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 ALREADY HAPPENING?

#### ***Major Investments***

- £100m commercial investment fund for life sciences – a VC equity fund managed on a discretionary basis by [Arthurian Life Sciences](#) (wholly-owned subsidiary of Arix Bioscience plc).
- Significant investment in Therapia, an Advanced Therapy Medicinal Products (ATMP) facility located at Pencoed and the emergence of a regenerative medicine business cluster in Wales has reinforced the interest of NHS Wales in regenerative medicine as an area for development.
- Inward investment success will take Wales' academic strength in stem cells closer to commercialisation. The relocation to Wales by ReNeuron plc as anchor tenant of the ATMP facility 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, [Innovate UK](#) and [Horizon 2020](#).
- Major infrastructure investments in health and social care are planned including the NHS All-Wales Capital Programme which supports infrastructural developments and has a baseline annual budget of £220m.
- CUBRIC's vision is to understand variation in brain and behaviour in health and disease by developing advanced imaging methods that reveal specific, biologically informative features of brain structure and function. CUBRIC provides: World-class imaging capacity / facilities
  - Hospital-standard clinical suite for patient research and clinical trials
  - Laboratory suites
  - Office space for people / students, with Hot-desking for researchers / external collaborator visitors

### ***Current Projects***

- The Welsh Wound Innovation Centre, a Wound Healing Centre of Excellence in Llantrisant – £4m investment from Welsh Government and all Welsh NHS Trusts. The centre focuses on RD&I and its translation into therapeutic developments.
- [Life Sciences Hub](#) – £2m capital investment, £6m revenue over three years. The current re-purposing of the Life Sciences Hub Wales will ensure it is optimally placed to drive jobs and economic growth within the sector and be a focal point for NHS-industry engagement, whilst exploring mutual benefits across the Economy and Health agendas and improving patient pathways.
- Life Sciences Hub Wales and NHS Wales Informatics Services (NWIS) joint project to create an ecosystem/network to enable industry and NHS Wales organisations to share digital health innovations.
- [Institute of Life Sciences](#) (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.
- Swansea University's Bay Campus – The £450m Bay Campus is the home to the College of Engineering and School of Management.
- Research at Cardiff University, including the [MRC Centre for Neuropsychiatric Genetics and Genomics](#) and Cardiff University Brain Research Imaging Centre (CUBRIC). The £44m CUBRIC brings together world-leading expertise in brain mapping with the very latest in brain imaging and brain stimulation.
- [Cardiff Medicentre](#), 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.
- Sêr 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. The £60m second phase of Sêr Cymru includes new initiatives to strengthen the capacity of Wales' leading university research groups.
- The [SMART programmes](#), part funded by ERDF, form an overall package of support for Welsh businesses and academic establishments, enabling them to bid

collaboratively for research and development funding and access information and advice from the Welsh Government to bring new ideas to the market.

- ARCH, a £200m project aiming to create 1,800 high-quality jobs and boost the economy by £467m over 15 years which sits alongside and has several overlapping projects with the new Swansea region City deal of which Health & Wellbeing is a very prominent theme.
- Menai Science Park (M-SParc), led by Bangor University, M-SParc will encourage collaborations with research organisations on innovative projects and contribute to the growth of the region's economy.

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- Genomics Research Facility – A key priority area for development within the Genomics Strategy for Wales.
- Life Sciences Science Park – early consideration of the potential to support the long term ambitions of the Sector.
- Welsh Healthcare Innovation Technology Accelerator (WHITA). A partnership bid for EU structural funds to support commercialisation and product innovation in health and care.
- One Health – Aberystwyth University developing a One Health initiative to combat diseases to improve animal and human health.
- Aberystwyth University providing flexible postgraduate training to West Wales and the Valleys bio based sector, encompassing all aspects of the food and biotechnology pipelines.

#### ***Possible future investments to monitor:***

- ARCH and Swansea Region City deal.
- Wellness Village and Life Sciences Village in Llanelli and a Life Science & Well-being Campus project at the Morriston campus of Swansea University.
- Emerging smart specialisation expertise in neurosciences, medical devices, NHS collaboration, e-health, wound healing and regenerative medicine.
- Interventions emanating from the Genomics and developing Regenerative Medicine Strategies.
- Repurposing of the Life Sciences Hub Wales to ensure it is optimally placed to drive jobs and economic growth within the sector and be a focal point for NHS-industry engagement, whilst exploring mutual benefits across the Economy and Health agendas and improving patient pathways.

## TOURISM, RECREATION AND LEISURE

### (A) OVERVIEW & OPPORTUNITIES

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.

In the 12 months ending May 2017, there were 98.4 million tourism day visits to Wales, with an associated spend of £4,166 million. The number of visits has increased 8.5% compared to the 12 months ending May 2016, while the amount spent has increased 21.1%.

Full year results for the International Passenger Survey 2016 were published on 18 May. Trips to Wales are up 10.8% compared to 2016, while spend on trips to Wales is up 8.3%. The number of international visits to Wales in 2016 was 1.074 million, and the associated spend was £444 million; these are the highest spend figures ever recorded for Wales.

This is the first time since 2008 that Wales has attracted over a million international visitors. If you combine visits of all kinds (Great Britain overnight, Great Britain Day and International) then visits of all types were up 15% in 2016 compared to 2015.

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 ALREADY HAPPENING?

**Major Investments**

- 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: '360 Beach and Watersports', the Olga boat, Knab Rock Watersports Centre and Porthcawl Harbour, Rest Bay improvements, Bridgend.
  - Pembrokeshire Coastal Tourism: includes coastal town enhancements, facility improvements and access at Tudor Square, Milford Haven Dock Lock, Porthgain, Solva car parks and new development at Coppet Hall.
  - Porth y Swnt: New Henfaes accommodation, new Aberdaron visitor centre, retail units, improved access, interpretation and parking to beach/coast in Aberdare.
  - Green Sea: investment in existing or potential Blue Flag 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.
  - Cogeneration Mountain Bike Trails South Wales: cycling developments at the visitor centres of Afan forest, Neath Port Talbot and Cwmcarn, Caerphilly. Bikepark Wales, Merthyr Tydfil, new mountain biking trails and visitor centre.
  - 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, and 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, Antur Stiniog new downhill biking trails and a new visitor centre at Blaenau Ffestiniog and new accommodation providers for the family market at Glan Llyn, Bala.
  - One Historic Garden: improvements to gardens and visitors facilities at sites including Bryngarw, Margam, Cwmdonkin Country Park, Penllegare Valley Woods, Aberglasney, Penllegare Valleys woods, Scolton Manor and Colby Woodland.
  - [Brecon Beacons National Park with the iconic Pen-y-Fan Mountain](#), which is a particular focus of upland tourism and activities, containing both a UNESCO Global Geopark and an International Dark Sky Reserve. Other outstanding features include the [Cambrian Mountains](#); [Elan Valley](#); [Lake Vyrnwy and the Berwyn Mountains](#); and [Dyfi Biosphere](#).
  - [The Royal Welsh Show](#) is one of Europe's premier agricultural shows, and is the most connected rural venue in Europe with a permanent mobile telephone mast on site. The show regularly attracts over 200,000 visitors per year and makes a substantial contribution to the regional economy as an all year round events venue.
  - The long-term project by the [Vale of Rheidol Narrow Gauge Railway](#) to build a world class Railway Museum in Aberystwyth displaying locomotives and carriages collected over a fifty year period, which have never been seen in public before.



## ECONOMIC PRIORITISATION FRAMEWORK – Version 4: Summer 2018

- £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 for Wales](#).
- £9m via the [Digital Tourism Business Framework](#) (DTBF) to ensure Wales' tourism industry will have moved from relative E-business immaturity firmly into the digital age.
- Cadw's [Heritage Tourism](#) 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 [Communities and Nature](#) 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 [Pwllheli National Sailing Academy and Events Centre](#), an £8.3m project funded by the 2007-2013 ERDF programme. Scheduled to open at Easter 2015, the centre will:
  - host national and international sailing events;
  - 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.
- [Development of Anglesey's Coastal Environment Project](#), 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.
- Circa £12m of support to develop a [Wales Coastal Path](#) via Environment for Growth, funded by the 2007-2013 ERDF programme.
- 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.
- 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.
- Investments available to the sector via the [Coastal Communities Fund](#) (circa £1.5m per annum). The Fund is designed to support the economic development of coastal communities by promoting sustainable economic growth and jobs, with priorities around the theme of maritime heritage and skills with a focus on projects



in the tourism area, and the development and sustainability of small business opportunities.

- Dissemination and utilisation of the [Pan Wales Interpretation Plan](#) coordinated by Cadw which has the potential to add depth and authenticity to Wales' heritage product.
- Welsh Government [Nature Fund](#) will build on recent investment within our natural and built environment, tackling declining biodiversity and delivering benefits to communities, supporting investments in the following geographic areas:
  - The Brecon Beacons;
  - The Cambrian Mountains;
  - The Conwy Valley;
  - The Pembrokeshire coast;
  - The South Wales Valleys;
  - Berwyn and Migneint; and
  - The Llyn Peninsula.

### ***Current Projects***

- The Tourism Attractor Destination (TAD) programme will see more than £65 million of EU, Welsh Government, Private and Charitable funds invested in tourism projects across Wales over the next five years. This includes £27.7 million of European funding - the single biggest EU investment made in the tourism sector. The focus of the programme is to create eleven 'must visit' destinations to drive interest in Wales as a holiday destination for new and repeat visitors.
- The [Tourism Investment Support Scheme \(TISS\)](#) providing financial support for tourism capital projects. Since April 2013 the Tourism Investment Support Scheme has made offers of capital funding to 105 businesses totalling £17m, inducing investment of £42m and assisting with 1,173 jobs.
- Welsh Government (Visit Wales) operate two revenue fund programmes - the Regional Tourism Engagement Fund which delivers projects aligned to destination management; and the Tourism Product Innovation Fund which is aimed at private sector partners to deliver and support our themed years marketing campaigns: Year of Adventure 2016, Year of Legends 2017 and Year of Sea 2018.
- The Rural Development Programme 2014-2020 will provide £302m of EU funding over 7 years which when combined with Welsh Government co-financing at 57% and a 15% transfer from CAP direct payments will provide £957m over the period.
- The three business plans Visit Wales submitted to the Rural Development have now been approved and will deliver an additional £12.7m for marketing and development activities up until 2021. When co-financed by Visit Wales this will result in a total cost of £24m.
- In 2016 Wales welcomed 59 cruise ships. In 2017 we will see 88 calls, an increase year on year of 48%. The investment from TISS in a floating pontoon in Fishguard has resulted in their calls for 2017 increasing to 31 ships. A direct result from the funding received gives year on year growth of 38%.
- 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.

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- 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.
- [UNESCO World Heritage Sites](#):
  - 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 [St Fagans](#) to create an integrated indoor and outdoor experience and to redevelop Wales's most popular visitor attraction into a National History Museum for Wales.
- 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
- Critical interpretations of inclusion, social justice and poverty alleviation in tourism
- Socio-cultural perspective on hospitality and events management
- Interpretative and critical modes of tourism inquiry.

### (C) WHAT MIGHT HAPPEN IN THE FUTURE?

#### ***Investments already announced for future investment:***

- Plans are already underway for Visit Wales' campaign surrounding Year of the Sea 2018, which will present Wales as a 21<sup>st</sup> century seaside destination. The end of 2017 will also mark the consumer facing launch of The Wales Way, a new world class family of tourism routes. This ambitious new initiative will celebrate various modes of transport, will leverage some of Wales' key existing routes (including the Wales Coast Path), and will ultimately focus on encouraging more international visitors and driving new high yield and shoulder-season visits from the UK and Ireland. The core routes will be centred around the A55, A470 and A487 road networks providing a range of opportunities to focus on the new product outlined.

#### ***Possible future investments to monitor:***

- Holyhead Masterplan that may include a new multi purpose berth (including cruise)
- Proposed Marina development at Fishguard
- Further marine based developments along the Cardigan Bay coast.

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- Afan Valley Adventure resort
- UWTSD is undertaking research in combining technologies used in manufacturing with archaeology to offer up new avenues for interpretation, preservation and public display of historical artefacts.