

Swansea Bay City Region – City Deal – Business Case

<i>Project title:</i>	<i>Skills and Talent Intervention</i>
<i>Project Sponsors (Lead partner)</i>	<ul style="list-style-type: none">- <i>Regional Learning and Skills Partnership (Lead)</i>- <i>(A mature, regional partnership comprising of Higher Education, Further Education, Local Authority and Industry Partners)</i>

Summary:

The Skills and Talent Intervention will provide an integrated regional approach to delivering skills focusing on specific sector skills required in order to meet the demand of the Swansea Bay City Region City Deal – “The Internet Coast” and the four themes of ‘Digital, Health and Wellbeing, Energy and Smart Manufacturing all fused together to bring about Economic Acceleration in the region

The delivery of the City Deal is highly dependent upon the attraction, creation and importantly the retention of skilled and talented future generations.

The intervention will involve;

- Advanced skills: Leading innovation across the Four Internet themes of the Internet Coast proposal. The advanced skills offer will support the new and emerging technologies contained within the constituent proposal bids.
- Under/Postgraduate Expansion: providing increased productivity through greater graduate skills application across the Four themes
- Further/Higher Education: delivering skills for new roles within the theme sectors, through Foundation Degree, programmes, Apprenticeships and Higher Apprenticeships. Delivering innovation will include new blended learning approaches.
- Continuing Professional Development: ensuring the region’s skills across the themes remains at the forefront of professional practice.
- Apprenticeships: support the integration of apprenticeship opportunities throughout the Skills and Talented Future Generations project.
- Skills facilities development: creation of sector-specific facilities to support the development of new emerging skills/roles and the creation of a step-change in capacity across the region.
- Schools engagement to influence curriculum development and delivery to ensure the adequate supply of young people with the right skill set.
- Careers engagement to enthuse young people and influence career decisions.

The intervention will channel these efforts through a unique regional construct, managed and led by the Regional Learning and Skills Partnership (RLSP), which provides an ‘Open Education to mirror an Open Innovation’ Economic Framework. This will ensure appropriate and timely response to industry and emerging project demands, remaining relevant and effective while avoiding duplication or missed opportunities. The intervention enables a collaborative, responsive infrastructure to provide relevant skills solutions to emerging projects comprising the City Deal proposals. As projects are identified established partnership protocols, including private sector engagement via sector specific cluster groups, Strategic Employer Reference Group and existing consultation mechanisms which will identify the skills required and the providers to deliver the skills solutions.

The skills developed through the Skills and Talent intervention will not only help fill the new roles directly created through the Internet Themes interventions, but also support a broader uplift in productivity (GVA) across the sectors and wider economy of the region.

The Skills and Talent Intervention is a cross cutting project providing the skills solutions for each of the four themes of the City Deal Internet Coast proposal.

Individual Project Skills needs Identified and quantified
Existing Regional Skills Identified
Skills Gap Analysis undertaken
Skills Requirement solutions developed
Skills Solutions delivered
Future Workforce influenced, informed and integrated
City Deal Request - £10m
Match Funding - £20m

<i>Programme strand:</i>	Internet of Economic Acceleration (Infrastructure) / Internet of Energy (Efficiency) / Internet of Health & Wellbeing (Productivity) . The Intervention will support the skills across all the themes.							
<i>Financial summary* (Please write in full e.g. 135,000)</i>	<i>2017/18</i>	<i>2018/19</i>	<i>2019/20</i>	<i>2020/21</i>	<i>2021/22</i>	<i>2022/23</i>	<i>2023/24</i>	<i>TOTAL</i>
<i>Total costs (£)</i>	<i>£7,500,000</i>	<i>£7,500,000</i>	<i>£7,500,000</i>	<i>£7,500,000</i>				£30,000,000
<i>City Deal input (£)</i>	<i>£2,500,000</i>	<i>£2,500,000</i>	<i>£2,500,000</i>	<i>£2,500,000</i>				£10,000,000
<i>Private Sector (£)</i>	<i>£1,000,000</i>	<i>£1,000,000</i>	<i>£1,000,000</i>	<i>£1,000,000</i>				£4,000,000
<i>Other public (£)</i>	<i>£4,000,000</i>	<i>£4,000,000</i>	<i>£4,000,000</i>	<i>£4,000,000</i>				£16,000,000
<i>Prepared by:</i>	<i>Name [Main Contact]: Barry Liles, Chair RLSP</i> <i>Tel: 01554 748001</i> <i>Email: barry.liles@colegsirgar.ac.uk</i>							

**Note assume CITY DEAL funding is for five years (max) only*

SBCR City Deal Business Case Template

1) Project title:

Skills and Talent Intervention

2) Executive summary:

The Regional Learning and Skills Partnership has a long standing reputation of regional collaborative working with key partners in the region and working with Welsh Government to influence policy on the delivery of skills training in the region. The development of the Skills and Talent Intervention meets the four themes of 'Digital, Health and Wellbeing, Energy and Smart Manufacturing all fused together to bring about Economic Acceleration in the region.

All these themes are each dependent upon the attraction, creation, and retention of skilled and talented future generations and this Intervention will aim to meet and deliver on the overarching skills requirements of the City Deal – Internet Coast vision.

The Skills and Talent intervention has been developed to provide an integrated regional approach to delivering the skills supply, with sector-specific efforts targeting each Internet theme. The intervention will involve;

- Advanced skills: Leading innovation across the Four Internet themes of the Internet Coast proposal. The advanced skills offer will support the new and emerging technologies contained within the constituent proposal bids.
- Under/Postgraduate Expansion: providing increased productivity through greater graduate skills application across the Four themes
- Further/Higher Education: delivering skills for new roles within the theme sectors, through Foundation Degree, programmes, Apprenticeships and Higher Apprenticeships. Delivering innovation will include new blended learning approaches.
- Continuing Professional Development: ensuring the region's skills across the themes remains at the forefront of professional practice.
- Apprenticeships: support the integration of apprenticeship opportunities throughout the Skills and Talented Future Generations project.
- Skills facilities development: creation of sector-specific facilities to support the development of new emerging skills/roles and the creation of a step-change in capacity across the region.
- Schools engagement to influence curriculum development and delivery to ensure the adequate supply of young people with the right skill set.
- Careers engagement to enthuse young people and influence career decisions.

The Regional Learning and Skills Partnership will lead the intervention and work with delivery partners – Higher Education, Further Education, private and Third Sector providers. The purpose is to ensure that there is a clear channel to develop the required skills in the region across all levels to meet the needs of the emerging projects. This will ensure that academic and vocational qualifications and delivery respond to industry demand, remaining relevant and effective while avoiding duplication or missed opportunities.

The skills developed through the Skills and Talent intervention will not only help fill the new roles directly created through the Internet themes projects, but also support a broader uplift in productivity (GVA) across the sectors and wider economy.

City Deal Request - £10m

Match Funding - £20m

3) Project description.

The Regional Learning and Skills Partnership (RLSP) for South West and Mid Wales is a transformational partnership bringing education and regeneration partners together to help provide a better future for learners and potential learners across the region. The partnership is made up of key representatives from Higher Education, Further Education, Local Government, the Third Sector and private sector, across Carmarthenshire, Ceredigion, Neath Port Talbot, Pembrokeshire, Powys and Swansea.

Recognised by Welsh Government for its transformational work with employers and partners in driving investment in skills based upon local and regional need. The RLSP has been formally recognised as one of three Regional Skills Partnerships in Wales.

This role is recognised by the Welsh Government through the commissioning of a Regional Employment and Skills Plan and the regional Demand and Supply Assessments, which have been instrumental in developing a strategic approach to skills.

Central to the activity of the Regional Learning and Skills Partnership is the analysis of local labour market intelligence to identify and inform skills and curriculum provision. Supporting this work is the Regional Learning and Skills Observatory, an online data portal providing labour market intelligence from a range of sources. This is complimented by further research into key regional themes and sectors. Analyses to date include sector studies into the Life Science and Energy and Environment sectors with current research including a study on the skills requirements of the Swansea Bay Tidal Lagoon.

The region has a strong history of providing apprenticeship and work based learning opportunities for young people with a range of opportunities from foundation to higher level, apprenticeships. The RLSP has completed two studies to support investment in Apprenticeships in line with labour market requirements to support sustainable learning progression and employment.

The work of the partnership includes promoting and championing a strategic overview of skills provision to ensure that it maximises economic opportunities. The RLSP also forms the skills pillar of the Swansea Bay City Region drawing on its extensive experience in supporting regional needs and collaborative practice.

The Regional Learning and Skills Partnership has a strong history of stakeholder engagement across the region to inform Employment and Skills Plans and other key sector plans. This intervention will require contact with similar organisations and other more sector specific organisations to ensure that a comprehensive bank of skilled individuals is

developed within the region. The region has extensive experience in delivering successful high value skills and employability interventions including utilising European funding, examples include the COASTAL and Workways employability projects with a value of £39m and the Skills for Industry and LEAD projects with a combined value of £9.6m.

The Skills and Talent intervention will develop a sustainable pipeline of individuals to support growth of the four Internet themes and support the future competitiveness of the region. It will nurture indigenous talent through initial education and on-going career stages, while also attracting globally competitive skills to the region.

The intervention will seek to utilise and maximise the potential of city region partner organisations through the existing RLSP structure and will look to develop and support strategic skills interventions around the key themes of ICT infrastructure and digital skills, Health and Energy.

The intervention strands will involve;

- Advanced skills: Identify opportunities within sector-specific technical skills for R&D and innovation, along with leadership and management. The high-level (NQF 7-8) relates to HE provision, with awards such as Engineering Doctorates (EngD) and a potential new SciD.
- Under/Postgraduate Expansion: providing increased productivity through greater graduate skills application across the themes.
- Further Education/Schools: delivering skills for new roles within the theme sectors, including blended learning approaches (inc. through Foundation Degree/Apprenticeships recognising the need for installation and maintenance of new technologies; coding and programming).
- Continuing Professional Development: ensuring the region's skills across the themes remains at the forefront of practice. This strand in particular will build upon strong links with relevant Sector Skills Councils and Professional Bodies (e.g.CITB; IET).
- Apprenticeships: ensuring that projects developed under the City Deal include opportunities for new apprenticeships to be developed particularly in the innovative sectors of Internet Technology.
- Skills facilities development: creation of sector-specific facilities to support the development of new emerging skills/roles and the creation of a step-change in capacity across the region. These environments will reflect the technologies and practices within each of the Internet themes, and be developed to reflect real-world application.
- Schools engagement to influence curriculum development and delivery to ensure the adequate supply of young people with the right skill set. Influence the introduction of coding and data management to young people.

- Careers engagement to enthuse young people and influence career decision and new pathways for learning.

Each Internet Theme will have a sector-specific context to the activities described above and will require specific skills to meet the demand, the following section highlights how some of the issues around specific skills may be addressed. The fusion of all four themes brings together the Economic Acceleration of the region that will establish Swansea Bay region as a globally significant area where open innovation driven by digital technologies and unique assets will bring about a sustainable and diverse economy.

Internet of Digital: Disruptive technologies and concepts such as Internet of Things (IoT) and Augmented Reality (AR) are opening a swathe of new opportunities. However, such technologies require new skills to resolve associated challenges in areas such as cyber security, technology adoption. The provision of relevant and industry required skills in this theme to ensure that skills remain at the forefront of all projects.

Internet of Health & Wellbeing: Ensuring sufficient young people progress into an otherwise greying workforce is critical for the sector. The sector is broad ranging in both the level and nature of skills contained therein. The ARCH project will highlight the skills requirements within the Health and Social Care sector, developing new skills to adapt to the use of new technology and innovative ways of delivering services in the future.

Internet of Energy: Installation and maintenance of new energy technologies at scale is an important challenge in realising a new UK-wide sector based upon Buildings as Power Stations (SPECIFIC+).

Internet of Smart Manufacturing: The Industry 4.0 paradigm shift in manufacturing moves from individual technical workstation operations to a dynamic cyber-physical production approach. This will require a whole new range of skills in design and management of manufacturing solutions.

The work of this skills intervention has been developed around the existing expertise of the RLSP and focusing on specific areas of the four Internet themes which have been developed in partnership with stakeholders including Welsh Government.

4) Project Aim and SMART objectives.

The project aims and objectives can be summarised as follows:

Aims

- Creation of a skills system that will support the future competitiveness of the region.
- Expansion of regional collaboration to reflect the City Deal -Internet Coast Themes
- Establish a sustainable pipeline of skills and talent to support the growth of each Internet theme.

- Developing skills for Business growth in the region.
- Realising the potential of young people in the region to meet the aspirations of the City Deal- Internet Coast.

Objectives

- Develop provision through FE, HE and CPD channels aligned with industry demand across the four Internet Themes
- Development of greater ownership of skills by employers by increasing engagement with new apprenticeships and address skills priorities identified by the Regional Learning and Skills Partnership in the annual Employment and Skills Plan.
- Developing an understanding of the Labour Market and Skills priorities and work with providers to address and deliver the training.

5) Applying organisation including contact details and details of partners involved.

Regional Learning and Skills Partnership (Lead)

- *Barry Liles, Chair RLSP*
- *Tel: 01554 748001*
- *Email: barry.liles@colegsirgar.ac.uk*

Partners-

Higher Education-

Swansea University
University of Wales Trinity Saint David

Further Education-

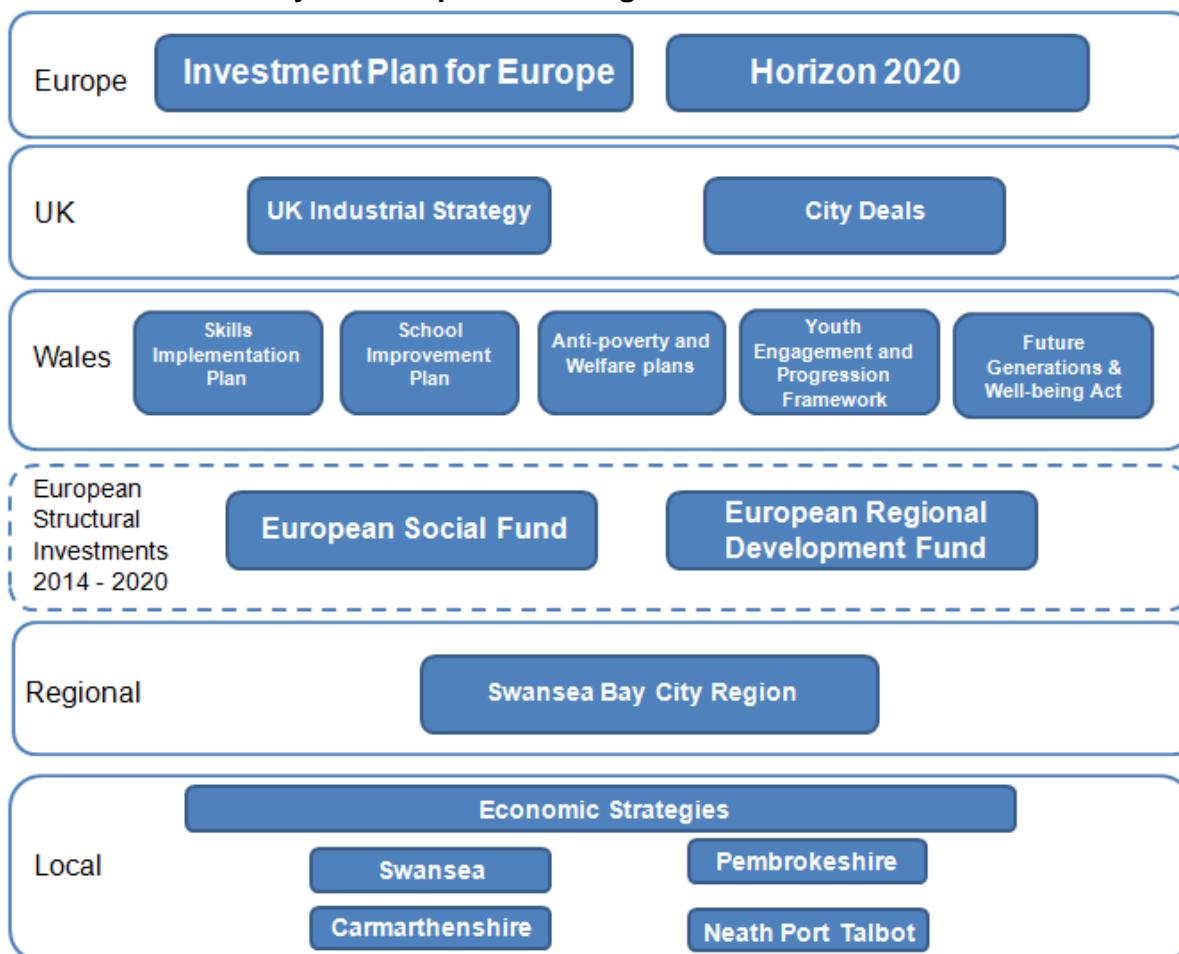
Gower College Swansea
Coleg Sir Gar
Pembrokeshire College
Neath Port Talbot Group
Coleg Ceredigion.

6) Strategic Fit.

The Skills and Talent intervention will develop a sustainable pipeline of individuals to support growth of the four Internet themes and support the future competitiveness of the region. It will nurture indigenous talent through initial education and on-going career stages, while also attracting globally competitive skills to the region. The intervention will seek to utilise and maximise the potential of city region partner organisations through the existing RLSP structure and will look to develop and support strategic skills interventions around the key themes of Economic Acceleration, Health and Wellbeing, Energy and Smart Manufacturing.

The Skills and Talent intervention fully fits the overarching opportunities within the Wellbeing and Future Generations Act and complies with the seven goals and five ways of working.

Overview of the Policy Landscape Influencing the SBCR



How the project aligns to the key strands of the Internet Coast i.e. Internet of Economic Acceleration, Energy, Health and Well-being and Smart Manufacturing.

a) ICT infrastructure and digital skills

The continuing pace of digital change and the development of new 'disruptive' technologies within the global economy present a number of opportunities for the City Region. The ICT sector has been a strong driver of growth across the region and the Welsh economy, with the sector in Wales growing by 3.4% in GVA terms between 2006 and 2014, amounting to a total value of over £1.7bn. Significant growth has been seen across the sub sectors of software and services, which grew by 45.9% and 71.1% respectively over the same time period^[3]. Increasingly, evidence is suggesting that there is a need for a greater number of advanced ICT and digitally skilled individuals to tackle challenges such as cyber security and 'big data'.

^[3] Government Priority Sector Statistics (2015). Accessed online via <http://gov.wales/statistics-and-research/priority-sector-statistics/?lang=en>

Changes within the digital sector are likely to have significant implications on the roles of workers within the economy, how workers undertake activity will increase the need for digital skills across the whole economy. Increasingly, businesses and individuals are becoming aware of the potential provided by the digital economy with developments such as cloud based computing empowering change. As a result there is likely to be greater need for people who have been educated and trained to use advanced digital devices and equipment, as well as people who are motivated and skilled to work with others or overseeing people who provide these services.

The region has a significant range of skills activity to support the development of the ICT sector and digital skills ranging from advanced academic research focused activity, including the planned development of the computational foundry and research undertaken at both Swansea University and University of Wales Trinity Saint David. There is also a range of activity at a further education level to provide a pathway into the digital skills arena.

b) Health

The health sector is a strong component of the Welsh economy employing 129,000 individuals, accounting for 8% of the total workforce. It also encompasses the life science sector which is an advanced driver of the regional economy providing high value employment and growth. The Life Science sector has shown significant growth in Wales with GVA increasing by £106m between 2006 and 2014, a growth of 24.1%. Growth was particularly strong within the Medical Technology and Medical Biotechnology sectors which grew by 36.4% and 37.4% respectively^[2].

An increasingly important area is the digital health sector which includes bioinformatics and connected health technologies, allowing for improved care for individuals. In response to these challenges A Regional Collaboration for Health (ARCH)¹ has been formed which brings together two regional health boards, Abertawe Bro Morgannwg (ABMU) and Hywel Dda with Swansea University and the six local authorities of South West and Mid Wales to combine and focus their efforts on improving the health, wealth and wellbeing of the people of the region

Working alongside these community based services the Singleton Health Campus will become a centre of excellence for rapid access diagnostics, same day care, and rehabilitation. Meanwhile, the Morriston Health Campus will become the regional centre for specialist treatments in South West Wales supported by a number of additional investments including a healthcare technology centre, a joint clinical research facility and a medi-park network. The development of an innovative specialised 'Wellness Centre' in Carmarthenshire that will incorporate a range of different treatment and facilities will introduce new opportunities for delivering

^[2] Government Priority Sector Statistics (2015). Accessed online via <http://gov.wales/statistics-and-research/priority-sector-statistics/?lang=en>

¹ ARCH (2015). A Regional Collaboration for Health (ARCH) Accessed online via <http://www.swansea.ac.uk/medicine/enterpriseandinnovation/aregionalcollaborationforhealtharch/documents/ARCH%20Summary%20Document.pdf>

services using technology and community facilities. These changes will be supported by investments in specialist equipment, research and innovation projects and associated education and skills development for new and existing staff.

Integral to these developments will be the increasing role of digital technology within the delivery of healthcare services including greater use of health informatics including the utilisation of 'big data'. The greater use of wearable health and fitness monitors to improve personal wellbeing as well as the development of remote consultation in rural areas provide significant opportunities for the Swansea Bay City Region.

c) Energy

The Energy sector is fast becoming one of prominence in Wales. It provides the foundation for sustainable development and is constantly changing in line with developing technologies, policies and markets. The sector has exhibited exponential growth over recent years both in terms of employment and its monetary contribution to the local and national economy. At a regional level recent statistics show that there has been a 4.8% increase in employment figures between 2006 and 2015, coupled with a 11% increase in GVA at a Wales level between 2009 and 2014^[1].

This growth is set to continue as the demand for renewable and innovative forms of energy generation increase in line with policy and targets. Revolutionary changes in the way energy needs are met are inevitable, which brings with it a wealth of opportunity for the region.

Historically, the region has played a significant role in the UK energy industry over many decades. Oil and gas terminals as well as refineries and storage facilities in Pembrokeshire remain a significant component of the regional economy. Growing interest in green and sustainable sources of energy has led to the construction of a number of energy developments, including a number of onshore wind farms across the region² as well as increasing the number of new tidal and wave energy prototypes along the Pembrokeshire coast.

Most recently, it has acted as a spur to the development of plans for a tidal lagoon in the Swansea Bay. The planned facility is intended to be the world's first, man-made, energy-generating lagoon and could potentially contribute approximately £76 million per year to the Welsh economy on completion³.

Other potential areas of renewable energy production, storage and conservation being developed in the region include work on the development of buildings as power stations by researchers at Swansea University's Sustainable Product Engineering Centre for Innovative Functional Industrial Coatings (SPECIFIC). The project focuses on the development of commercially exploitable technologies for the generation of heat and electricity from solar powered photovoltaic cells. Using low cost printing and

^[1] Government Priority Sector Statistics (2015). Accessed online via <http://gov.wales/statistics-and-research/priority-sector-statistics/?lang=en>

² Map of Wind Farms in Wales. Accessed online via : <http://www.renewables-map.co.uk/windfarm.asp>

³ Swansea Bay Tidal Lagoon. Accessed online via: <http://www.tidallagoonswanseabay.com/the-project/proposal-overview-and-vision/51/>

production methods the aim of the project is to design houses which can be built cheaply and which not only generate sufficient energy for their own use, but also store unused energy and provide surplus energy to the national grid.

Further substantiating the growing importance of ICT and digital technologies, building management systems are now utilising ICT and digital technologies, including the development of the 'internet of things' to manage and reduce household and commercial energy usage.

An analysis by the Regional Learning & Skills Partnership of Welsh Government data indicates that the sectors current workforce is ageing, due in part to the fact that staff turnover in the sector is relatively low in comparison to others. Whilst this inevitably creates new opportunities for new entrants to the sector there is a need to ensure that educational provision is demand-led. A desk-based review concluded that where skills gaps are present, most are generic skills needs and can be addressed by the curricula currently offered within the region e.g. construction, engineering etc. What has become apparent is the demand for many specialist and job role specific skills gaps in certain sub-sectors.

The education and skills needed to develop, produce and install these new technologies are considerable and to be adopted on a large scale will require the development of new education and training courses and associated qualifications at all levels from trained technicians and installers at level 3 to maintenance and development engineers at levels 6, 7 and 8. It will also require investment in the construction and operation of sizeable offsite modular building construction facilities.

d) Smart Manufacturing

Wales has a long tradition in the manufacturing industry and in recent years the sector has become a key component in the drive to deliver a balanced economy. Adding value to products and services has become a focus for the advanced materials and manufacturing sector with innovation and processes becoming key enablers in the delivery of cost effective and valued products.

The economic output of the sector (GVA) increased by 36.1% between 2006 and 2014 where total GVA amounted to £5,885 million in 2014. This substantiates its importance as a key economic driver not only for the region but for Wales as a whole.

At a Wales level 85,700 individuals are employed within the Advanced Materials and Manufacturing sector, of this total 21,700 (25.3%) are employed in companies based in the region of South West and Mid Wales. As of 2015, local unit data indicates that there were 2,940 units operating within the sector in Wales with 815 (27.7%) of these located in the South West and Mid Wales region.

Employment demography patterns indicate that the sector suffers from an ageing workforce with 33% of the workforce at a Wales level being over the age of 50. This could pose significant challenges in the near future if suitably qualified new entrants to the sector are not readily available in the economy to meet the replacement demand caused by retiring employees.

The manufacturing sector is experiencing significant changes at a global scale termed in much literature as the 'Fourth Industrial Revolution' or 'Industry 4.0'. In a broad sense this change will result in a marked increase in the use of advanced IT systems within manufacturing processes. This will create a significant skills challenge to which the region will need to be able to respond to ensure a sustainable manufacturing sector and to maximise the opportunities.

7) Evidence of need / demand for the project

To support and achieve the ambitions of the internet coast having the 'right people with the right skills at the right time' is essential to the success of the region. The project will look to build upon the existing established structures of the Regional Learning and Skills Partnership to focus the development of skills across all levels to drive change across the educational landscape of the City Region.

The region has failed to maximise the opportunities that economic change has previously presented with the region suffering from areas of high unemployment, low skills and high rates of economic inactivity. There is a risk that unless intervention is immediate and co-ordinated the region risks being 'left behind' and to miss the opportunities that are presented.

There is also the challenge of lead times in the development of new and changes to the skills offers across the region. In this respect the RLSP is well placed to support through its role as a one of Welsh Government's Regional Skills Partnerships and its annual submission of a regional employment and skills plan which is utilised to directly affect the allocation of funding to further education and apprenticeships provision.

The Swansea Bay City Region continues to perform poorly in productivity and continues to lag behind the UK average in GVA terms (SBCR £15,049 per head UK £24,626 per head) and as a result is still eligible for the highest level of European structural funding. Although there has been a positive uplift in relation to economic activity and employment within the city region there is little to suggest that this new employment is having any significant effect on the productivity and overall competitiveness of the region with a risk of trapping individuals into a cycle of low skill, low pay employment.

Human capital much like financial capital flows to areas where returns are greatest and currently the region suffers from a loss of some of its higher skilled individuals to other locations both within Wales, across the UK and internationally. This can be evidenced by reports undertaken by WISERD and the lower numbers of higher skilled (NVQ level 4+) residents compared to key economic areas across the UK.

This continued failure to improve the relative economic performance is a strong indicator that the current structure of the city region economy is no longer fit for purpose and in need of intervention. The need to address the skills potential early within the talent pipeline and to support employers to attract the '*right people with the right skills at the right time*' is important to minimise the potential risk of displacement and ensure sustainability and employment for citizens of the city region.

8) Added Value

The intervention has been developed to enhance the work already undertaken by the Regional Learning and Skills Partnership by focusing particularly on the skills requirements of the four themes of the Internet Coast.

The intervention has been developed for a high-growth sector built upon the unique strengths and assets of the region. A focus on new enterprise and inward-investment contributes to high additionality with low deadweight and avoiding displacement. A focus of the partnership will be to support safeguarding of employment across a range of sectors.

9) Wider economic impact of the intervention

A major component of the Internet Coast proposal is the development of skills across the region. The Skills and Talent intervention has been developed to assist in the skills supply for employment growth within the four internet themes, along with improving productivity within the sectors. The supply of skills and talent is critical for the employment growth and GVA contribution targeted by the proposed projects within each theme. Therefore, to avoid duplication of benefits and subsequent impact with that being delivered by the projects, the impact appraisal of the skills and talent intervention focuses solely on the benefits to the existing sector. These include:

- The creation, retention and attraction of skilled and talented future generations.
- Advanced skills: Leading innovation across the Internet Themes, underpinned by existing and new provision (including EngD/SciD level)
- Under/Postgraduate Expansion: providing increased productivity through greater graduate skills application across the Themes
- Further/Higher Education: delivering skills for new roles within the Theme sectors, including blended learning approaches (including through Foundation Degree/Apprenticeships)
- Continuing Professional Development: ensuring the region's skills across the Themes remains at the forefront of practice.
- Apprenticeship: support the integration of apprenticeship opportunities throughout the Skills and Talented Future Generations project.
- Skills Facilities (e.g. Talent Bank): Creation of sector-specific facilities to support the development of new skills/roles and step-change in capacity required across the region.

The intervention will channel these efforts through a unique regional construct, managed and led by the RLSP, which provides an 'Open Education' mirror to the 'Open Innovation' Economic Framework activities. This will ensure that efforts respond to industry demand, remaining relevant and effective while avoiding duplication or missed opportunities.

Analysis by SQW undertaken for the SBCR Board highlighted the skills gaps which limit potential growth within the region and the subsequent economic impact. This reflects the findings of numerous sector studies undertaken by the Regional Learning and Skills Partnership.

10) Details of the activities/ outputs / results in the short, medium and long term

Intervention Process	Required Actions	Responsibility
Individual project skills needs identified and quantified	<ul style="list-style-type: none"> • Communication required between successful applications and the RLSP to identify project requirements. 	RLSP/Successful Projects/ SBCR Board
Existing regional skills identified and skills gap analysis undertaken	<ul style="list-style-type: none"> • Utilise existing labour market research, including the Regional Delivery Plan for Employment and Skills to develop a profile of the region. • Engage employers, including the private sector, around the key themes of the final City Deal to identify current workforce skills deficiencies in detail. 	RLSP/ Employers
Skills requirement solutions developed	<ul style="list-style-type: none"> • Identify and develop appropriate interventions e.g. higher level apprenticeships or postgraduate provision to support the delivery of City Deal projects and overall ambitions. • Ensure facilities are appropriately set up to allow for the delivery of related activity. Including relevant hardware/software and suitable staffing. 	RLSP/Skills Providers/ Employers
Skills solutions delivered	<ul style="list-style-type: none"> • Recruit to and deliver a range of skills interventions to support the delivery of the City Deal projects and the development of the digital economy. • Review regularly to ensure relevance of delivery and to provide flexibility to adapt to a changing skills environment. • Promote the development of activity to employers to further enhance the employer led delivery. 	RLSP/Skills Providers/ Employers
Future workforce influenced, informed and integrated	<ul style="list-style-type: none"> • Sustainably embed the activity into the mainstream regional delivery to improve the retention of talent and to service the ongoing labour requirement of the digital economy. 	RLSP/Skills Providers/ Employers

The Skills and Talent intervention will develop the skills matrix to underpin the portfolio of projects across all Internet themes highlighting the productivity and economic benefits across all categories.

A number of projects have been developed as part of the City Deal and there will be a number of skills requirements to ensure that the projects improve the opportunities for new jobs in the region and increase the economic prosperity. To achieve the ambitions of the City Deal and to provide sustainable outcomes for citizens there is a need for the region to understand the potential impact of the opportunities, to plan and prepare its skills offering accordingly.

The Skills and Talent intervention differs from previous skills interventions as it seeks to establish a pre-emptive and proactive response mechanism that directly aligns to the outputs

of the Internet Coast. This will allow for greater additionality across all of the internet themes and related activity and will ensure a greater value for money through reducing both deadweight (through ensuring relevance to economic needs) and displacement (through ensuring local availability of skills). Through building a skills 'pipeline' simultaneously with the development of new and emerging disruptive technologies there is an opportunity to embed the sustainable skills required for sustainable employment.

The intervention will initially seek to understand the core and specialist skills requirements for the City Deal interventions, including an understanding of the timescales required with a view to having *'the right people, at the right time, with the right skills'*. These skills may be new to the region and will require the development of new courses within the training facilities; others will be developing more key skills to ensure that there are enough people to meet the demands. Building upon the initial understanding of the skills required for the city deal tailored skills based activity will be developed to support the growth of the sector with a view to mainstreaming activity. This will include actions across the entire skills infrastructure from entry level to level 8 and will include engagement with Schools, Further Education and Higher Education.

The table below highlights the potential key skills requirements by each of the projects:

City Deal Project	Key Skills Requirements	Potential Skills Interventions	Cost
Digital Infrastructure and Test Bed intervention	Research and Development, Higher Level ICT including Analytics and Networking	Development and delivery of higher level (Levels 4-8) skills activity. Extensive Research and Development	New course development at ~£100k per course ⁴ . (yr1/2) Delivery of activity - potential high costs due to specialisation/ requirement for tailored support. (yr 2-4)
Swansea City Waterfront Digital District	Broad Digital/ICT – Including Creative and Analytical, Entrepreneurship	Development and delivery of new activity including apprenticeships and foundation degrees.	New course development at ~£100k per course. Delivery of apprenticeships at ~£5-10k per learner ⁵ .
Creative Digital Cluster – Yr Egin	Creative Industries, ICT, Financial and Professional Services, Construction.	Development and delivery of new activity including apprenticeships and foundation degrees.	New course development at ~£100k per course. Delivery of apprenticeships at ~£5-10k per learner.
Centre for Excellence in	Higher Level IT – Coding, Analytics, Networking	Development and delivery of higher	New course development at

⁴ Estimated cost based on previous regional activity, subject to variation depending on activity and development requirements

⁵ Estimated cost based on current apprenticeship costs

Next Generation Digital Services	Commercial/Entrepreneurial Skills	level (Levels 4-8) skills activity. Extensive Research and Development	~£100k per course. Delivery of activity - potential high costs due to specialisation/ requirement for tailored support.
Health and Wellbeing Campus and Village Network	Clinical, ICT including Data Science and analytics, high level Research and Development skills, Advanced Manufacturing	Development and delivery of new activity including apprenticeships and higher apprenticeships. Development and delivery of higher level (Levels 4-8) skills activity.	New course development at ~£100k per course. Delivery of apprenticeships at ~£10-15k per learner due to duration of apprenticeships (2 years) and high delivery cost (equipment)
Homes as Power Stations	Construction (Specialist project related– New/Retrofit), Electrical, Research and Development, Data Analytics, Advanced Manufacturing, Commercial	Development and delivery of new activity including apprenticeships and higher apprenticeships.	New course development at ~£100k per course. Delivery of apprenticeships at ~£10-15k per learner due to duration of apprenticeships (2 years) and high delivery cost (equipment)
Pembroke Dock Marine	Energy and Environment, Advanced Materials and manufacturing, Construction	Development and delivery of new activity including apprenticeships and higher apprenticeships.	New course development at ~£100k per course. Delivery of apprenticeships at ~£10-15k per learner due to duration of apprenticeships (2 years) and high delivery cost (equipment)
Factory of the Future	Engineering, ICT, Economics, Management, Advanced Materials and Manufacturing	Development and delivery of new activity including apprenticeships.	New course development at ~£100k per course. Delivery of apprenticeships at ~£10-15k per learner due to duration of apprenticeships (2 years) and high delivery cost (equipment)
Steel Science Centre	Advanced Materials and Manufacturing	Development of new higher level courses (levels 4-8)	New course development at ~£100k per course. Delivery of activity -

			potential high costs due to specialisation/ requirement for tailored support.
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Links with Welsh Government Skills and Employability programmes

The Skills and Talent intervention is designed to complement existing skill and employability programmes to work alongside both emerging and established activities such as the employability and apprenticeship programme. The intervention will be well placed to address gaps in delivery and to aid in the development of new activities, for example where there may not be other suitable programmes or qualifications or where the development of new activity may be considered as economically unviable due to its specialist nature. It will also be well placed through its position within the RLSP to influence future Welsh Government provision through the Regional Employment and Skills Plan and embedding sustainably.

Activity and outputs table for the Skills and Talent interventions

Activity	Potential Output	Impact time period
Advanced Skills	Development of innovative new provision across the internet coast themes e.g. new qualifications	Long
Under/Postgraduate Expansion	Increasing the number of graduates and postgraduates across the internet coast themes	Medium
Further/Higher Education	Delivery of skills for new roles within the internet coast themes	Medium
Continuing Professional Development	To promote up-skilling within all organisations related to the internet coast	Long
Apprenticeships	To support the integration of apprenticeships related to the themes of the internet coast into companies	Long
<i>Careers intervention</i>	<i>To develop the future supply chain of young people to enter the further and higher education sectors appropriately informed and with the appropriate skills</i>	<i>Long</i>

Impacts table outlining the likely impacts of Skills and Talent intervention

Benefit/Impact	Wales – Lo/med/hi	Description	UK – Lo/med/hi	Description
<i>New High-Added Value Jobs</i>	<i>High</i>	<i>Direct jobs in new and growing companies</i>	<i>Med</i>	<i>Direct jobs in new and growing companies</i>
<i>Safeguarded High-Added Value Jobs</i>	<i>High</i>	<i>Protected jobs in new and established companies</i>	<i>High</i>	<i>Protected jobs in new and established companies</i>
<i>Higher Skilled</i>	<i>High</i>	<i>Up-skilling of</i>	<i>Med</i>	<i>Up-skilling of</i>

<i>Labour Force</i>		<i>local labour supply with relevant skills through the targeted interventions</i>		<i>local labour supply with relevant skills through the targeted interventions</i>
<i>Multiplier Effects</i>	<i>High</i>	<i>Strong multiplier effects for targeted sector</i>	<i>High</i>	<i>Strong multiplier effects for targeted sector</i>
<i>Inward Investment</i>	<i>High</i>	<i>Deal flow for current and attractor for new investor community.</i>	<i>High</i>	<i>Deal flow for current and attractor for new investor community.</i>
<i>Enterprises Created</i>	<i>High</i>	<i>New ventures with high-growth potential</i>	<i>High</i>	<i>New ventures with high-growth potential</i>

Displacement and evidence of it not happening

Due to the specialised and targeted nature of the intervention relating specifically to the activities of the Internet Coast the risk of displacement is considered low. The global opportunities presented by the Internet Coast proposal and the continued growth of the sector reduce the local risks related to displacement. In relation to displacement within the labour market evidence suggests that currently skilled and talented individuals are not being retained within the region, therefore, the intervention seeks to lower the displacement effect of other Internet Coast activities, which will require the recruitment of skilled individuals to achieve sustainable economic change.

11) Cross Cutting Themes

There are some enlightened parts of the world that recognise that the combination of various technology revolutions particularly those around health, digital, energy and manufacturing are moving towards what the Japanese call a Super Smart Society. Such a society is underpinned by a user-centric Open Innovation approach which draws upon multi-sector and interdisciplinary collaborative working. Clearly this approach presents considerable innovation challenges but in return offers enormous economic and citizen well-being benefits.

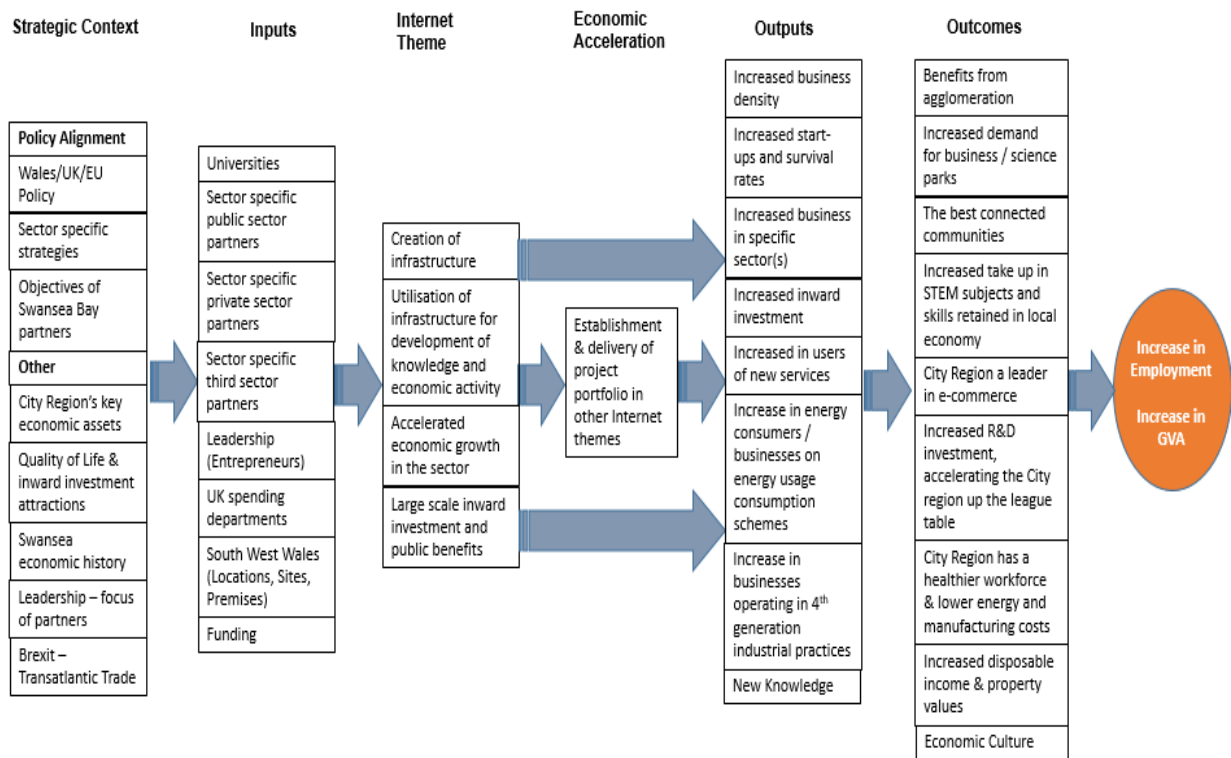
This intervention has been developed to build upon the momentum established in defined sectors but recognising that combining disparate threads into one coherent strategy addresses the challenges of an age that often requires collaborative and multidisciplinary solutions.

To realise this vision this City Deal proposal has four interconnected strands referred to as internets that all combine to deliver Economic Acceleration;

- An Internet of Economic Acceleration
- An Internet of Health & Wellbeing

- An Internet of Energy
- An Internet of Smart Manufacturing

The Internet Coast that will establish the Swansea Bay City Region as a globally significant area where Innovation accelerates a vibrant sustainable and diverse economy delivering jobs and investment through the enhancement of skills and ultimately benefitting its' population and addressing the determinants of inequality for current and future generations.



12) Stakeholder Engagement

The Regional Learning and Skills Partnership (RLSP) for South West and Mid Wales is a transformational partnership bringing education and regeneration partners together to help provide a better future for learners and potential learners across the region. The partnership is made up of key representatives from Local Government, Higher Education, Further Education, the Third Sector and private sector, across Carmarthenshire, Ceredigion, Neath Port Talbot, Pembrokeshire, Powys and Swansea.

The work of the partnership includes promoting and championing a strategic overview of skills provision to ensure that it maximises economic opportunities by developing stakeholder engagement across the region to inform Employment and Skills Plans and other key sector plans.

The intervention therefore builds upon that momentum bringing proven working collaboration. A summary of example partners actively involved includes:

- Further Education providers – Coleg Sir Gar; Gower College; Pembrokeshire College; Neath and Port Talbot College; Colegau Cymru and Coleg Ceredigion.
- Higher Education - Swansea University; University of Wales Trinity St David; Aberystwyth University and Open University.
- Local Authorities - All four relevant local authorities: Swansea City Council, Neath Port Talbot County Borough, Carmarthenshire County Council and Pembrokeshire County Council. There is also engagement with Ceredigion and Powys County Councils who have an interest in Skills Development in the region.
- Welsh Government - The Departments of: Economy and Infrastructure; Health, Wellbeing and Sport; and Finance and Local Government, together with the First Minister's Cabinet Office.
- NHS - Both Abertawe Bro Morgannwg and Hywel Dda University Health Boards covering the entire region from an NHS perspective
- Private Sector – Welsh Government designated Anchor and Regionally Important Companies; Large Companies; Small and Medium Size Enterprises in the region. Cluster groups will be developed to support specific sectors within the Internet themes
- Third Sector organisations

As the governance and management structure of the City Deal becomes defined and active, it will then prioritise the effective and efficient engagement with all stakeholders in order to maintain coherence and momentum, consistent with the City Deal vision.

Private Sector Engagement

The RLSP currently has an established Strategic Employer Reference Group (SERG) to assist in providing oversight and 'on the ground' leadership in relation to the skills requirements and demands of industry. The SERG group has provided valuable insight and has supported the development of the regional employment and skills plan to support Welsh Government through influencing provision. It also provided valuable support for the UKCES funded Understand, Co-produce, Influence and Learning Project (UCIL) which sought to identify barriers to leadership and entrepreneurship training. The RLSP has also engaged with a large number of business with 66% of businesses being in city deal related sectors and over 60% being identified as 'small' with less than 50 employees.

To further strengthen the voice of employers and substantiate the current employer engagement taking place, the RLSP is seeking to transition its current governance structure to increase private sector representation with a particular focus on strategically important companies. These strategic changes will further enhance the ability of the partnership to be responsive and reactive to economic change both via the City Deal and other established mechanisms. The primary method for achieving this change will be through the development of industry cluster groups. The City Deal will be key to developing and enhancing the engagement providing valuable support for the operational activity of the group as well providing a direct route for influencing change and developing new, employer-led activities.

These cluster groups will provide much needed insight and further enhance the employer voice these RLSP supported groups will provide a unique opportunity to inform the future of skills provision within the region, helping to drive a balanced and thriving economy. These relationships will provide a valuable basis for the supporting the internet themes and

identifying the skills challenges faced by industry.

Industry groups will be created for the following key sectors, which show clear alignment to the four themes of the City Deal proposal;

Health and Social Care,

Life Sciences,

Construction, Advanced Materials and Manufacturing and Energy,

Creative Industries and Digital/Information and Communication Technology,

Financial and Professional Services.

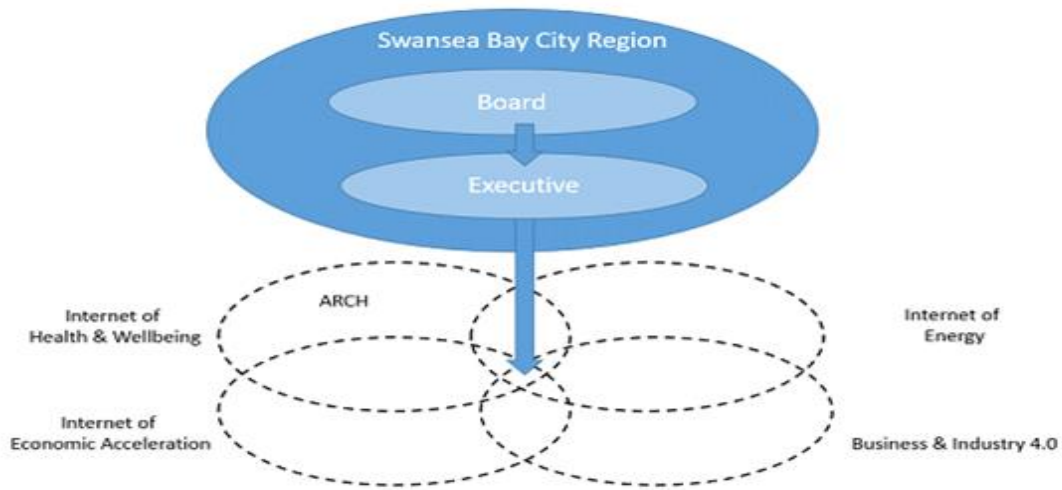
The RLSP has also completed a number research projects to support a variety of sectors and provision types with a view to improving the skills required for industry within the region. This has included an in depth study for the Life Science sector as well the Energy and Environment sector, which led to a range of new activities being developed both regionally and nationally. These reviews required significant engagement with private sector companies and provided valuable insight for policy makers. Currently, work is being undertaken with Tidal Lagoon Power Ltd and the potential supply chain to identify the skills challenges related to component manufacturing for the potential first of a kind project with a view to developing targeted activity pending the outcome of the Hendry review. A copy is appended at Annex A. Working with other City Deal interventions there will be the potential to identify leading edge disruptive technologies that can present opportunities for the region, which may not be otherwise identified and responded to.

On completion, the model for the work conducted with Tidal Lagoon Power Ltd will now be applied to the Port Talbot Enterprise Zone, where the RLSP will work closely with Business Wales to survey businesses present in the zone. This work will primarily aim to identify the needs of these businesses in terms of skills and training allowing appropriate interventions and support to be provided in line with demand. Support from the City Deal would allow for this work to be expanded across all of the internet themes and geographies to provide a valuable insight into the skills challenges faced by business.

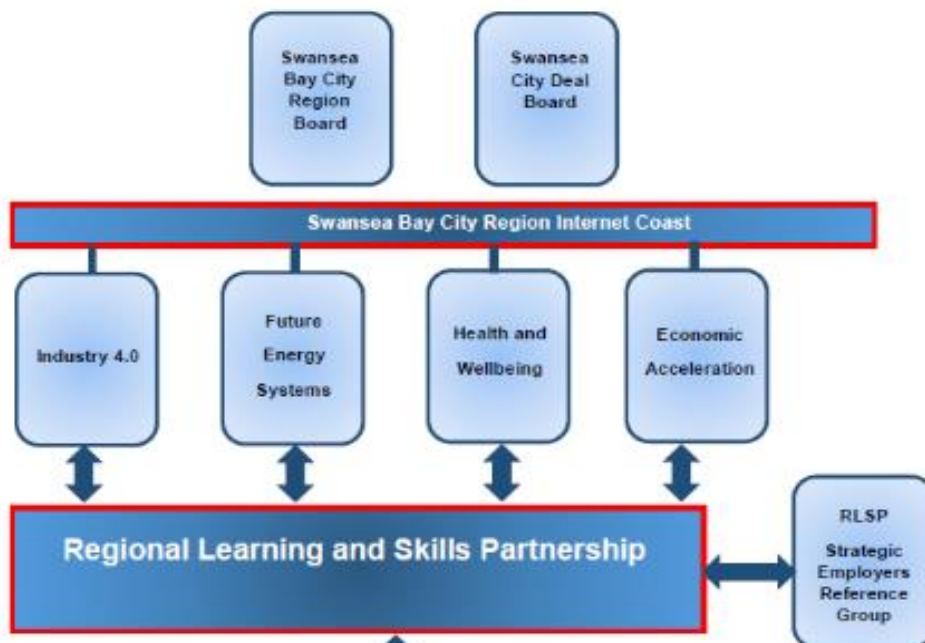
Furthermore, as part of the consultation process for the most recent iteration of the regional Employment and Skills Plan (Please refer to Annex B) the RLSP conducted employer engagement through a primary research study. This insight formed much of the employer voice element of the evidence base provided to Welsh Government. This work was complimented by a survey of large companies commissioned and subsequently analysed by the RLSP. In addition, following the success of the aforementioned large company survey the RLSP are now commissioning a similar piece of work with a focus on small and medium enterprises, which are key to the economic sustainability of the region.

13) Delivery

The Governance and Financial vehicle for the Internet Coast is yet to be agreed, the following diagram shows how the Internet Themes will report to an overarching structure.



The diagram outlines how the Intervention would work with partnerships across the region



14) Financials

<i>Financial summary* (Please write in full e.g. 135,000)</i>	<i>2017/18 Development Phase</i>	<i>2018/19 Development / Pilot Phase</i>	<i>2019/20 Pilot Phase</i>	<i>2020/21 Pilot / Delivery Phase</i>	<i>2021/22</i>	<i>2022/23</i>	<i>2023/24</i>	TOTAL
<i>City Deal (£)</i>	<i>£2,500,000,</i>	<i>£2,500,000,</i>	<i>£2,500,000,</i>	<i>£2,500,000,</i>				£10,000,000
<i>Private sector</i>	<i>£1,000,000</i>	<i>£1,000,000</i>	<i>£1,000,000</i>	<i>£1,000,000</i>				£4,000,000

<i>Other Public Sector</i>	£4,000,000	£4,000,000	£4,000,000	£4,000,000				£16,000,000
<i>Other</i>								
Total costs (£)	<i>£7,500,000</i>	<i>£7,500,000</i>	<i>£7,500,000</i>	<i>£7,500,000</i>				£30,000,000

Private Sector Match Funding

Engagement with the private sector is critical to developing a proactive and responsive skills based intervention therefore match funding will be sought from the private sector in a variety of ways. The RLSP and its partners have extensive experience in utilising employer co-investment to deliver upon the skills needs for region, as evidenced through the Regional Delivery Plan for Employment and Skills

The initial identification of skills requirements will require a significant investment in terms of in-kind time from private sector partners including the wide base of SMEs within the region to which initial cash match funding may not be sustainable. This would be essential to provide momentum and the leadership required to drive the ambitions of the skills interventions as well as the technical knowledge to ensure they are employer led.

Following the successful identification of skills requirements and the development of new innovative activities and to ensure the sustainability of activity a co-investment approach will be utilised in line with Welsh Government framework for co-investment in skills⁶. The level of co-investment will be vary depending on the activity developed and the targeted beneficiaries.

It is envisioned that there will be significant requirement to utilise next generation and emerging hardware and software for training purposes to ensure that individuals are employment ready. As a result the intervention would seek match funding via the providers of next generation ICT services to embed them within the institutions and activities.

⁶ <http://gov.wales/topics/educationandskills/skillsandtraining/framework-for-co-investment-in-skills/?lang=en>