



Implementation Plan

The Swansea Bay City Deal Implementation Plan has been developed to set out the high level activities that will support the delivery of the Swansea Bay City Deal (SBCD).

The Plan outlines the work of the Joint Committee and supporting structures including programme governance, stakeholder engagement and programme implementation, monitoring and evaluation, as well as indicative milestones for the SBCD Programme and its eleven SBCD projects.

The Joint Committee will review the Implementation Plan annually, with the first review to take place no later than one year after the approval of the Implementation Plan. Reviews in later years will take place no later than one year after the previous review.

Date Approved: August 2018



Swansea Bay City Deal

1.0 Summary of Programme

The Swansea Bay City Region covers the four local authority areas of Carmarthenshire, Neath Port Talbot, Pembrokeshire and Swansea.

Based on the Swansea Bay City Region Economic Regeneration Strategy 2013-2030, the Swansea Bay City Deal sets out an integrated, transformational approach to delivering the scale and nature of investment needed to support plans for growth in the Region.

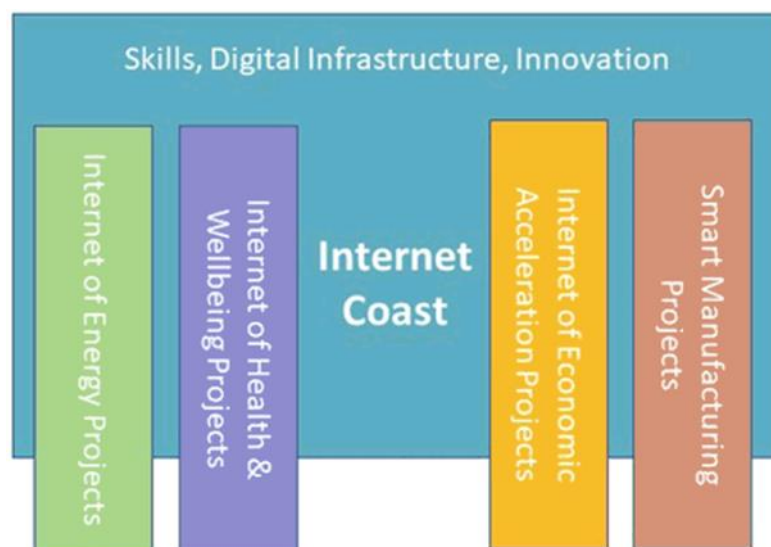
As outlined in the *Internet Coast*, the Strategic Vision for the Swansea Bay City Region is to create a super smart innovation region which will inform and advance solutions to some of the most pressing challenges of modern times in the areas of economic acceleration, smart manufacturing, energy, and life science and well-being.

The Swansea Bay City Deal is a total investment of £1.3 billion over a period of 15 years. This consists of £241m from UK and Welsh Governments, £396m from other public sector funding and £637m from the private sector.

The City Deal provides a once in a generation opportunity to further consolidate the Region's role in technological innovation through creating a region of interconnected testbeds and living laboratories, designed not only for proof of concept but also for proof of business.

Using the transformational powers of next generation digital technologies, and supported by a programme of tailored skills development, the City Deal will accelerate the Region's innovation, technological and commercialisation capabilities to support the establishment and growth of local innovation businesses and inward investors.

The strands of innovation, skills, and digital infrastructure create synergies across the four themes and eleven projects of the SBCR City Deal as outlined in the diagram below. Together, these will establish the Region as a lead innovator in developing and commercialising solutions to some of the most pressing challenges through digital innovations and a programme of skills which are tailored to business needs.



The Swansea Bay City Deal is an excellent example of working in partnership with other councils, universities and education providers, health boards, UK and Welsh Governments, and the business community. It demonstrates what collaboration and joined-up thinking can achieve for our citizens.

The Well-being of Future Generations (Wales) Act 2015 - the City Deal is a good example of the 5 Ways of Working promoted by the Act and will make a significant contribution to the 7 well-being goals.

Being a 15-year programme, the Swansea Bay City Deal provides an excellent opportunity to address persistent challenges such as climate change, poverty, inequality, jobs and skills and rurality in a transformational and preventative way.

It is also an opportunity for the four authorities and City Deal to demonstrate how they are using the 5 Ways of Working to maximize their contribution to the well-being goals required under the Act, through a major public and private sector investment programme.

The Regional Office has already been in early discussions with the Office of the Future Generations Commissioner in Cardiff to explore at the outset how the SBCD projects can use the Act as a framework at the early design stage, the idea being to strengthen the contribution of each SBCD project towards the 7 Goals and improve the 5 Ways of Working as the project is developed as part of the 5 case business model.

The 5 Ways of Working principles will be used as a starting point for helping projects to consider how they can involve people in the development, who they should be collaborating with (unusual as well as usual stakeholders to bring a different perspective), and what the long-term trends are that need to be considered, or can be addressed, through the projects.

The Office of the Future Generations Commissioner in Cardiff has developed a specific framework based on the Five Ways of Working and the Seven Well-being Goals. This Framework will allow SBCD Project Leads to use the Act to shape the development and assessment of SBCD projects and to drive their design and implementation. It has been shared with each of the Project Leads to assist in identifying improvements that need to be made to ensure the project adheres to the WFG Act and maximises the future benefits of the project and the Swansea Bay City Deal Programme.

2.0 Outcomes and benefits

The aims of the Swansea Bay City Deal is to create an outward-looking Region with the innovation capacity and infrastructure to inform and advance solutions to grand challenges that are both real locally and also exist in almost every region of the world.

By 2035 we will:

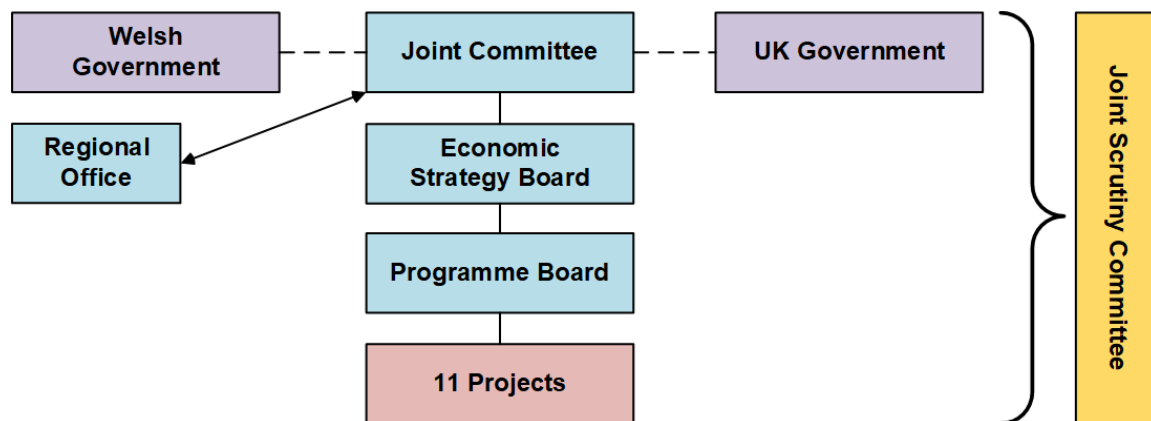
- Transform the regional economy
- Establish and maintain an effective and aligned skills base
- Create, prove and commercialise new technologies and ideas
- Be a recognised regional centre of excellence in:
 - Application of digital technologies
 - Life Science and Well-being
 - Energy
 - Advanced manufacturing

It is estimated that, at the end of the programme period, the Swansea Bay City Deal will lead to:

- Funding of £1.3 billion generated for interventions to support economic growth across the Region of which over £600 million will be private sector investment
- 11 projects
- An overall increase to the Region's economy of over 9,465 high skilled jobs
- A contribution to Regional GVA of £1.8 billion
- Investment spread across the whole of the Region to ensure all localities and citizens can benefit

In addition to the above outcomes, the City Deal will also have wider social and economic benefits at both a programme wide and project sector specific level. The full detail of all outcomes and benefits of the City Deal will be agreed with the UK Government and Welsh Government and will be set out in the SBCD Monitoring and Evaluation Plan that will provide details of how these will be captured, monitored and evaluated over the programme period

3.0 Programme Governance



3.1 Joint Committee

The Joint Committee comprises the four local authority Leaders of Carmarthenshire, Neath Port Talbot, Pembrokeshire and Swansea councils.

The Joint Committee will be chaired by a local authority Leader, and it has been agreed by the four councils that the Leader of Swansea Council will take this on this responsibility. The Chair of the Joint Committee will be elected for a two year term in the first instance, reviewed annually thereafter.

The Joint Committee has ultimate responsibility and accountability for decisions taken in relation to the Swansea Bay City Deal, in line with the visions and interests of all participating parties and the Swansea Bay City Deal document signed on 20th March, 2017.

Since the signing of the Heads of Terms document, in order to maintain momentum, the Joint Committee has been operating in shadow form. It is anticipated that the first formal meeting of this committee will take place late Summer 2018 when each of the four local authorities have signed the Joint Committee Agreement, the legal document which sets out how the councils will work together.

The head of paid service, monitoring officer and section 151 officer of each of the Councils shall be entitled to attend meetings of the Joint Committee as an adviser and shall not have a vote.

The Leaders shall be entitled to co-opt to the Joint Committee the Chair of the Economic Strategy Board (once the ESB membership has been agreed at the first formal meeting of the Joint Committee), and one representative each from the University of Wales Trinity Saint David, Swansea University, Hywel Dda University Health Board and Abertawe Bro Morgannwg University Health Board. Voting rights will be reserved for the four local authority Leaders.

The Joint Committee will meet on a monthly basis and, as set out in the Joint Committee Agreement, its functions include:

- Identifying and implementing appropriate governance structures for the implementation of any projects within the Swansea Bay City Deal programme. This shall include the formation of bodies corporate and any other structures which the Councils can lawfully establish or participate in;
- Agreeing and planning the overall strategy for and delivery of the programme for the Swansea Bay City Deal;
- Performance management of the Swansea Bay City Deal programme;
- Strategic communications;
- Monitoring of the impact of the Swansea Bay City Deal programme and reporting on this to the Councils;
- Authorising the Accountable Body to commission external support and to oversee the delivery and management of project expenditure;
- Progressing a regional approach for the Swansea Bay City Region for the discharge of strategic functions. These functions may include land use planning, transport planning and economic development;
- Approval and adoption of the Implementation Plan;
- Approval of any extension agreed by the Councils to the deadline for approval of the Implementation Plan;
- Agreeing the terms and conditions of Government Funding;
- Overseeing the proportion of each Council's responsibility for borrowing to provide funding for regional projects;
- Reviewing performance of the Chair of the Economic Strategy Board on an annual basis;
- Agreeing the Annual Costs Budget;
- Following the process as set out in the Joint Committee Agreement, the Joint Committee shall consider the project business case and the recommendations of the Programme Board and the Economic Strategy Board, and shall decide whether or not to approve the project for submission to the UK Government and Welsh Government for approval by the UK Government and Welsh Government for the release of government funding for the project.

3.2 Economic Strategy Board

Reporting to the Joint Committee, the Economic Strategy Board will represent the wider community, including the private sector.

The Economic Strategy Board will act as the voice of business and will provide strategic direction for the Swansea Bay City Deal, through advice to the Joint Committee on matters relating to the Swansea Bay City Region. It will have a role in advising the Joint Committee on opportunities to strengthen the City Deal's impact.

The Chair will be accountable to the Joint Committee. The Economic Strategy Board will not have any formal decision-making powers and it will reach agreement by consensus.

The Economic Strategy Board will meet with the following frequency or as and when required:

- Quarterly in advance of any Joint Committee meeting; and
- When necessary to deal with business as agreed by the Chair of the Economic Strategy Board.

The Regional Office will arrange for minutes of the proceedings of each meeting to be taken, approved and recorded. Key activities of the Economic Strategy Board include:

- Submit strategic objectives for the Swansea Bay City Region;
- Assess the individual Project Business Cases against the strategic aims and objectives of the Swansea Bay City Deal and make a recommendation to the Joint Committee on whether or not the Project Business Case should proceed;
- Consider implications of a proposed withdrawal or change of Project Authority Lead and any proposal for a new project and provide recommendations to the Joint Committee on whether the new project proposed should replace the project to be withdrawn and if not the process for selecting new projects or reallocation of funding;
- Monitor progress with regard to the delivery of the Swansea Bay City Deal.

A preferred candidate to become Chair of the Economic Strategy Board has been selected following an open competition exercise. The Chair shall be appointed through a vote at the first formal meeting of the Joint Committee. The process of appointing other members of the Economic Strategy Board has taken place through an open recruitment and nomination process, membership being drawn from across the wider private and public sectors. It is anticipated that the Economic Strategy Board membership will be agreed through a vote at the first formal meeting of the Joint Committee.

3.3 Programme Board

The Programme Board is accountable to the Joint Committee and will consist of the head of paid service of each of the four Councils, or another officer nominated by the head of paid service. The Programme Board Chair shall be reviewed annually.

The Programme Board may co-opt additional representatives to the Board. Co-opted members may include representatives of Swansea University, University of Wales Trinity St David, Hywel Dda University Health Board and Abertawe Bro Morgannwg Health Board.

It has been unanimously agreed by the councils that the Chief Executive of Carmarthenshire County Council will chair the Programme Board meetings.

Since the signing of the Heads of Terms document, in order to maintain momentum, the Programme Board has been operating in shadow form. At first formal meeting of the Joint Committee, scheduled to take place late summer 2018, the governance structure for the SBCD will be formally approved by the four councils, and the Programme Board will move into its formal status.

The Programme Board will have four distinct roles:

- Preparing recommendations on the Swansea Bay City Deal programme:
 - Ensuring that all schemes are developed in accordance with the agreed package, analysing the financial viability, deliverability and risk of each City Deal project proposal;

- Overseeing production of business case.
- Advising on the strategic direction of the Economic Strategy Board;
- Overseeing performance and delivery of the delivery of projects, reviewing progress against agreed milestones, focusing on delivery and financial risks and identifying any necessary remedial action;
- Working on a regional basis to improve public services especially in the areas of economic development, transport, planning and strategic land use, housing and regeneration.

Meetings of the Programme Board will take place on a monthly basis before the Joint Committee meeting and before all quarterly meetings of the Economic Strategy Board.

3.4 Accountable Body

The Councils have agreed that Carmarthenshire County Council will act as the Accountable Body responsible for discharging the Councils' Obligations in relation to the Swansea Bay City Deal in accordance with the Joint Committee Agreement.

The role of the Accountable Body is to:

- Act as the primary interface with Welsh Government, UK Government and any other funding bodies necessary to discharge the Councils' Obligations;
- Hold and release any Government Funding in relation to the Swansea Bay City Deal and only to use and release such funds as agreed in accordance with the terms of such funding and the Joint Committee Agreement;
- Comply with the Funding Conditions as set out in the JCA;
- Undertake the accounting and auditing responsibilities set out in this Agreement;
- Employ the Regional Office staff.

The Joint Committee will designate the Chief Executive of the Accountable Body as Lead Chief Executive to act as its principal adviser and as Accountable Officer to manage and oversee the work of the Accountable Body and the Regional Office team.

3.5 Regional Office

Reporting directly to the Accountable Officer and the Joint Committee, the Regional Office plays a pivotal co-ordinating and supporting role and it is responsible for the day to day management of matters relating to the Joint Committee and the Swansea Bay City Deal.

Key activities of the Regional Office include:

- Strategic liaison with UK Government and Welsh Governments and policy advisors;
- Governance support for all aspects of the City Deal governance structure, the SBCD Joint Committee, Programme Board and Economic Strategy Board;
- Programme implementation co-ordination, monitoring and evaluation;
- Undertake research, analysis and report on findings as requested by groups within the governance structure;
- Strategic project co-ordination include advising on and coordinating the development and submission of 5 case business models for City Deal projects;
- Liaison and engagement with government funding bodies and programmes, and with the Universities and Health Boards;
- Responsibility for managing the identification, assessment, approval, monitoring and evaluation processes for Regional interventions and projects;
- Communications and engagement management for the Swansea Bay City Deal;
- Private sector involvement, business development and inward investment;

- Utilising the SBCD's governance model to lead in the consideration and development of opportunities for additional capital and revenue external funding bids for additional funding sources to assist in the delivery of the regional activities which are complimentary to the SBCD.

4.0 Joint Committee Work Programme

A detailed work programme has been developed in Gantt format. This will be continually monitored and updated to ensure progress is being made.

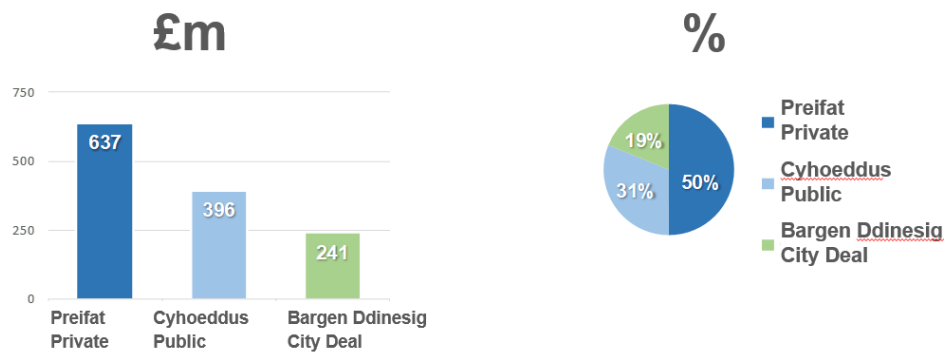
Summarised key actions for the Shadow/Formal Joint Committee include:

Category	Action	Timeframe (Using Calendar Year)	Responsibility
Governance	JCA & SBCD governance approved at Full Council meeting in each of the 4 LAs	Qtr3 2018	4 LAs
	Formal agreement of JCA & SBCD governance	Qtr3 2018	Joint Committee
	Formal establishment of Economic Strategy Board	Qtr3 2018	Joint Committee /UKG & WG
	Establish Joint Scrutiny Arrangements	Qtr4 2018	Accountable Body / Joint Committee
	Formal approval of Implementation Plan	Qtr3 2018	Joint Committee
Finance	Identify and agree LA borrowing requirements	Ongoing	LAs Section 151 Officers and Legal Officers / Accountable Body / JC
	Identify funding for revenue requirements and agree position on NDR & Capitalisation	Qtr4 2018	Accountable Body / LAs Section 151 Officers / Joint Committee
	Formal agreement of process principles for flow of finances for Regional and Local Authority City Deal projects as set out in the Joint Committee Agreement	Qtr4 2018	4 LAs / Joint Committee
SBCD Project development /approval	Agree submission process and timescales for projects to Governments	Qtr4 2018	Regional Office / / UKG & WG / JC
	Agree project approval process	Ongoing	Accountable Body / 4 LAs / JC / UK & WG
Legal and Procurement	Draft SBCD JCA developed	Qtr3 2018	Accountable Body/ LAs Section 151 Officers and Legal Officers
	Develop Economic Strategy Board TOR for approval	Qtr2 2018	Accountable Body/ LAs Section 151 Officers and Legal Officers
	Develop City Deal Regional Procurement Strategy	Qtr4 2018	Accountable Body/Regional Office
	Contracts Register to be established to identify and report on community benefits	Qtr4 2018	Regional Office /Accountable Body
	Develop Template Funding Agreement between the Lead Project Authority and the Project Lead to allow the transfer of City Deal Funding to the Recipient Project Lead	Qtr4 018	Accountable Body/ LAs Section 151 Officers and Legal Officers/ Joint Committee
Monitoring and Evaluation	Programme Risk Register Developed	Qtr4 2018	Regional Office/Accountable Body
	Final Version Monitoring and Evaluation Plan agreed	Qtr1 2019	Regional Office / UKG & WG

Stakeholder Engagement	Development and agreement of Business & Stakeholder Engagement Plan	Qtr4 2018 & Ongoing	Regional Office / Joint Committee
Strategic Regional Functions	Explore key strategic functions at a regional level that will support both the implementation of this Deal and wider development activity	Ongoing	Programme Board / Joint Committee / UK & WG

5.0 Programme Financing

The Swansea Bay City Deal is a total investment of £1.3 billion over a period of 15 years. This consists of £241m from UK and Welsh Governments, £396m from other public sector funding and £637m from the private sector.



The Joint Committee Agreement sets out details of the allocation of Government funding and private and public funding contributions for each project. The proportion of Government funding shall be in accordance with the details set out in the JCA Schedule 7 (table shown below) unless the Councils agree to vary this.

PROJECT NAME	Private	Public	City Deal	Total Project Costs
	(£ m)	(£ m)	(£ m)	(£ m)
Internet of Economic Acceleration				
Digital Infrastructure	30.0	0.0	25.0	55.0
Swansea City & Waterfront Digital District	23.9	94.3	50.0	168.2
Creative Digital Cluster - Yr Egin	3.0	16.3	5.0	24.3
Centre of Excellence in Next Generation Services (CENGS)	27.0	5.5	23.0	55.5
Skills & Talent Initiative	4.0	16.0	10.0	30.0
Internet of Life Science & Well-being				
Life Science & Well-being Campuses	10.0	20.0	15.0	45.0
Life Science & Well-being Village	127.5	32.0	40.0	199.5
Internet of Energy				
Homes as Power Stations	382.9	119.2	15.0	517.1
Pembroke Dock Marine	25.9	22.4	28.0	76.3
Smart Manufacturing				
Factory of the Future	3.2	10.3	10.0	23.5
Steel Science Centre	0.0	60.0	20.0	80.0
TOTALS	637.4	395.9	241.0	1,274.3

The Joint Committee has ultimate responsibility and accountability for decisions taken in relation to the Swansea Bay City Deal. It is the role of Programme Board to ensure that all schemes are developed in accordance with the agreed package, analysing the financial viability, deliverability and risk of each City Deal project proposal and to report to the ESB and Joint Committee.

Private Sector investment is fundamental to the overall success of the Deal. There is a requirement for each City Deal project to have in place from the outset a credible and robust financial profile. All letters confirming both private and public sector match funding are to be in place for the project prior to City Deal funding approved, confirming amount and timing as set out in the project's approved financial profile. The Project Authority Lead and Project Delivery Lead are to put in place effective project monitoring processes. Funding agreements will be signed at the outset between Project Authority Leads and Project Delivery Leads setting out funding conditions.

For all projects, in addition to the 5 case model assessment process, the Accountable Body will undertake an assessment of the Project's Financial Profile to check that private and public sector contribution/s are in line with that set out in the initial project business case from the Project Lead. All variances and changes, including implications of these, will be reported to the PB, ESB and JC for consideration and decision of course of action as deemed necessary before City Deal funding is approved for the project.

It is the aim of the Swansea Bay City Deal that all projects will be delivered in five years in order to maximise the full benefits realisation of the operational schemes during the lifetime of City Deal funding which is to be released to the Region from the governments over a fifteen-year period.

As set out in the JCA, making decisions on borrowing and on finding other sources of funding other than Government Funding for projects is a matter reserved to the Councils. Each Council shall be responsible for borrowing or providing other funding for projects located in its area. If a project is located in the areas of more than one Council, each of the Councils in whose area the project is located may agree that borrowing or providing other funding should be shared between all of the Councils in whose areas the project is located equally or in proportions agreed by all of the Councils in whose areas the project is located.

The Programme Board will ensure that all schemes are developed in accordance with the agreed package and prepare recommendations to Joint Committee on all schemes.

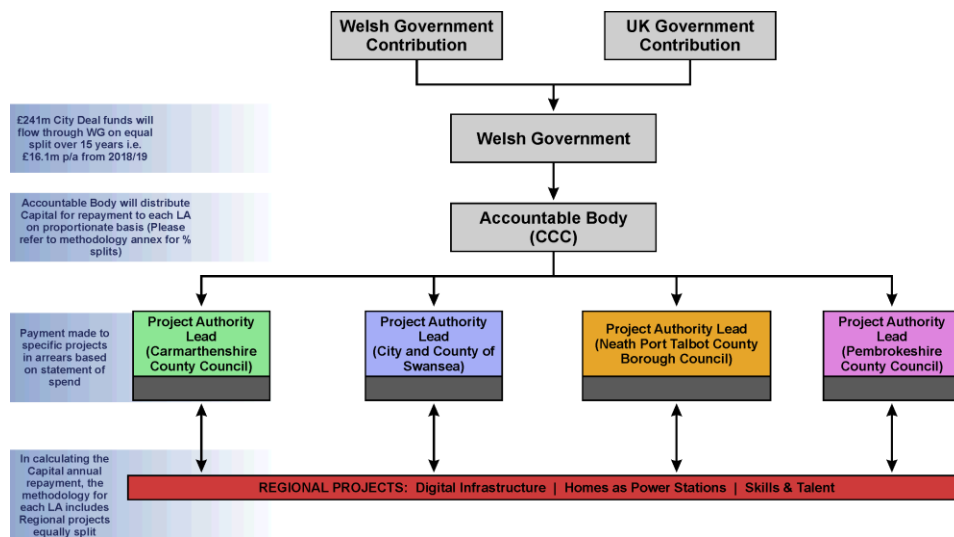
The Joint Committee is responsible for overseeing the proportion of each Council's responsibility for borrowing to provide funding for regional projects. The capital borrowing (in respect of the Government funded element) for the SBCD projects will be re-paid by identified Government funds (UK & Welsh Government) over the 15 year period.

The exact level of borrowing and the structure and terms of the borrowing is yet to be confirmed at this point in time, however it will be calculated based on the amount required per relevant local authority, and will be in line with the individual local authority internal requirements. This is being determined by the four Section 151 Officers of the four local authorities. All borrowing will be agreed based on the principles of the Prudential Code and Treasury Management Policy and Strategy for each Authority. When further details of the investments required for each project are known, a full business case appraisal for each individual project will be completed and submitted to the relevant local authority for approval before submission to the Joint Committee. These full business cases will include the detailed funding proposals and requirements of the local authority.

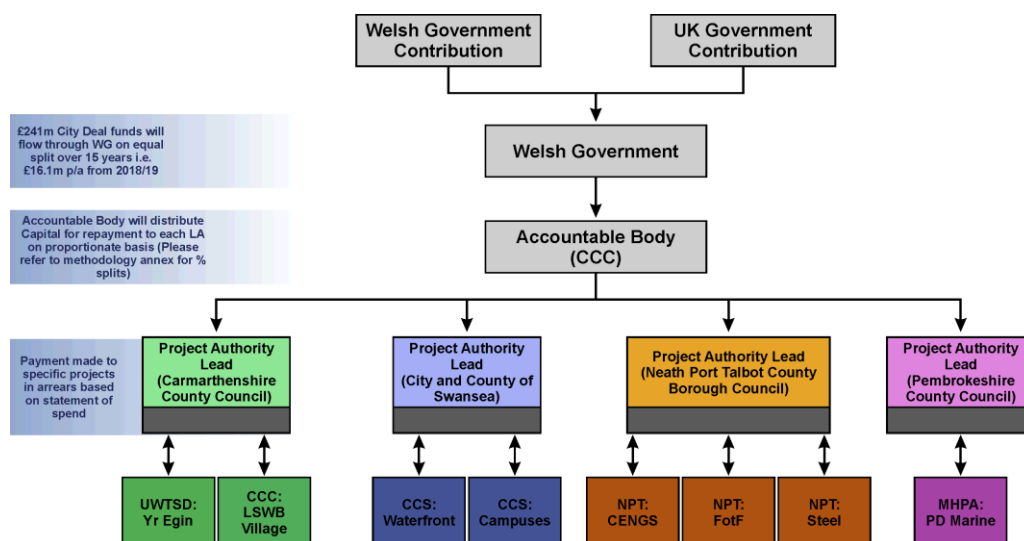
The Welsh Government has agreed (in principle) that the authorities in the SBCD region will be allowed to retain 50% of the additional net yield in the non-domestic rates generated by the 11 projects which are to be delivered by the Deal. The basis of the allocation of the rates generated within the SBCD is yet to be agreed at this point in time. This is being negotiated by the four Section 151 Officers of the four local authorities. Within the Joint Agreement appendices there is additional information that provides authorities with the support to utilise funding flexibilities.

Once UK Government and Welsh Government have approved release of City Deal funding for individual CD projects, this funding will be released to the Region via the Accountable Body who, in accordance with the Joint Committee Agreement, will distribute the funds to the regional local authorities as demonstrated in the following flow charts:

CITY DEAL FLOW OF FINANCES (Regional Projects)



CITY DEAL FLOW OF FINANCES (Local Authority Projects)



6.0 Strategic Programme Risks

Each Swansea Bay City Deal project will carry its associated risks which will be mitigated throughout the application and delivery process. A detailed risk analysis will be undertaken for all projects by the Project Delivery Lead as part of the development of the 5 case business model process, with a project specific Risk Register established to assist in the ongoing management and mitigation of all risks.

A detailed Programme Risk Register has been developed for the Swansea Bay City Deal Programme and will be managed, revised and updated by the Regional Office and will be reviewed by the Programme Board and Joint Committee. A summary of the most significant programme risks are outlined in the table below. It should be noted that these risks are shown at this point in time of writing and that the status of each risk will alter along the length of the Programme.

Category	Risk	Probability Scale Low 1:5 High	Impact Scale Low 1:5 High	Mitigation
Development	Delay in approval of Joint Committee Agreement	1	1	JCA already formally approved by each of the four LAs at meetings of the Full Council. JCA on agenda for sign-off at first formal JC meeting anticipated end of Summer 18.
	Delay in approval of Implementation Plan	1	1	IP drafted by RO. Review of draft versions IP by both Govs and speedy iterative process have enabled final version. IP on agenda for sign-off at first formal JC meeting anticipated end of Summer 18.
	Delay in establishment of Economic Strategy Board	1	1	Preferred candidate for ESB Chair has been selected and the full ESB membership will be confirmed at the first formal meeting of the JC.
Implementation	Delay in development of Business Cases by Project Leads	2	3	Regional Team in place to co-ordinate submission of business cases by the Project Leads. Gantt Chart developed to assist in mapping out project development, submission and approval process timelines. Programme Board and ESB in place to oversee the development of business cases. Joint Committee Agreement in place which sets out agreed processes for deciding on any actions required.
	Delay in approval of City Deal Business Cases	2	3	JCA and governance structure to be formalised in August 18. Regional Project Authority Leads / Project Authority Leads will have early sight of relevant draft version business cases for comment/feedback. Iterative process with governments for review of draft business cases in place which aids speedier decision. Agreement of submission process and timescales for review of final business plans with both governments.
	Business case is not approved / project falls	3	4	Iterative business case review process. Open and regular dialogue between Accountable Body, RO, Project Delivery Lead and Project Lead. . Early identification of potential trigger points and any potential mitigating/rectifying actions. If irreconcilable, Joint Committee Agreement in place which sets out agreed processes for identifying new project(s) to achieve the outcomes of the City Deal.
	Slippage in Programme delivery	2	3	Establish robust monitoring and evaluation framework to ensure programme and project delivery remains within agreed timescales and to ensure that all targeted

Category	Risk	Probability Scale Low 1:5 High	Impact Scale Low 1:5 High	Mitigation
				project outputs and outcomes will be achieved. Regional Team in place to undertake monitoring role. Accountable Body/Section 151 officers will undertake programme level financial profiling to ensure borrowing and distribution of City Deal funding is reflective of programme delivery.
Operational	Withdrawal of Local Authority	1	2	JCA signed by each LA which clearly sets out agreed provisions for such a scenario.
	Failure to engage relevant stakeholders including private sector to enable wider development of the programme	2	1	Economic Strategy Board in place from the outset providing private sector involvement. Key stakeholders already engaged. SBCD Business Engagement Officer and Communications Officer employed in the RO to ensure early and ongoing involvement through SBCD Business Engagement & Communication Plan.
	Failure to achieve agreed outcomes / outputs in agreed timeframe	3	4	Develop robust baseline. Establish monitoring and evaluation framework including key milestones and timescales for review. Set up quarterly meetings with Project Delivery Leads and Project Authority Leads to discuss progress. Regular performance reporting to Programme Board, ESB and Joint Committee to enable decision on any mitigating actions deemed necessary to keep the programme on track.
Financial	Failure to identify / secure City Deal revenue funding	2	2	Ongoing dialogue with governments underway to identify potential solutions.
	Private Sector funding contribution/s not in line with initial business case projections	3	4	For all projects, in addition to the 5 case model assessment, the Accountable Body will undertake an assessment of the Project's Financial profile to check that the private sector contribution is in line with the initial business case financial projections. Any implications resulting from variance to be reported to PB, ESB and JC for action.
	EU match funding contributions contribution/s not in line with initial business case projections	3	4	For all projects, in addition to the 5 case model assessment, the Accountable Body will undertake an assessment of the Project's Financial profile to check that the private sector contribution is in line with the initial business case financial projections. Any implications resulting from variance to be reported to PB, ESB and JC for action. RO in dialogue with WEFO.
	Failure of projects to secure committed full funding package (cap & rev)	2	5	Credible and robust financial profiles need to be in place for each City Deal Project from the outset. All Letters Confirmation Match Funding to be in place for the project before City Deal funding is approved, confirming amount and timing as set out in the project's financial profile. Timely monitoring and review following approval of five case business plan. Robust and timely procurement activity must be planned, executed and monitored. All Project Authority Leads to put in place effective monitoring and evaluation processes. .Funding agreements signed between Project Authority Lead and Project Lead.

7.0 Business Case Assessment Process

The need to get the best possible value from spending public money will always remain a constant for those entrusted with spending decisions. To this end, all City Deal business cases must be developed using the HM Treasury and Welsh Government's Five Case Model, an approach which is both scalable and proportionate. It is recognised as best practice and is the Treasury's standard methodology.

The business case, both as a product and a process, provides decision makers, stakeholders and the public with a management tool for evidence based and transparent decision making and a framework for the delivery, management and performance monitoring of the resultant scheme.

Each business case in support of SBCD project must evidence:

- **Strategic Case** - the intervention is supported by a compelling case for change that provides holistic fit with other parts of the organisation and public sector
- **Economic Case** - the intervention represent best public value (to the UK as a whole)
- **Commercial Case** - the proposed Deal is attractive to the market place, can be procured and is commercially viable
- **Financial Case** - the proposed spend is affordable
- **Management Case** - that what is required from all parties is achievable

As set out in the Joint Committee Agreement, the Project Business Case shall include a Resolution of the Project Authority Lead and all Councils in whose area the project shall take place that they approve the submission of the Project Business case.

The Regional Office shall have day to day responsibility for managing the assessment process for projects.

To assist a speedier assessment process, the UK Government and Welsh Government have agreed an informal iterative review process for assessing draft versions of business cases in order to assist Project Leads in the production of complete full business cases which are appropriate for 5 case formal review process.

On completion of the final draft business case, and following approval from the respective Regional/Project Authority Lead(s), full business cases for each of the 11 projects will undergo assessment by the Regional Office and Accountable Body before being considered by the respective City Deal governance structures. After approval by the Joint Committee the project business case will be forwarded to the UK Government and Welsh Government for approval to release City Deal government project funding to the Accountable Body.

Regional Office Project Assessment Criteria

1. Fit with the WG Future Well-being Act

- Clear evidence of the 5 Ways of Working;
- Clear evidence of contributing to Well-being goals;
- Clear evidence of alignment with local well-being plans.

2. Strategic Fit

- Alignment with the strategic aims and objectives of the Swansea Bay City Deal and wider regeneration regional strategy and demonstrate the Region's ambitions;
- Synergies with other Swansea Bay City Deal projects demonstrated.

3. Financial

- Credible and robust financial profile with cost breakdown is in place for each City Deal project before funding approval;
- Private Sector contribution/s are as set out in the Initial Business Case financial projections for the project and in the Heads of Terms document;
- All letters confirming Project Match Funding from all sources must be in place before City Deal funding is approved - confirming amount/s and timing as set out in the project's Financial Profile - for public and private sectors (and any dependencies);
- Evidence of ongoing project sustainability for a period of at least the 15-year SBCD Programme Period to include a credible operational/commercial case that sets out full details on proposed income flows and sources (and any dependencies).

4. Deliverability

- Robust Governance & Partnership approach;
- Project Management - Team and Experience;
- Clear project plan.

5. Outputs and Outcomes

- SMART (specific, measurable, achievable, results-based, time-bound) project outcomes with associated baseline data is in place in line with overall City Deal Plan;
- Projects should clearly establish intended outputs with a clear definition of what success would look like.

6. Risk Management

- Project Risk Register and risk management process in place - identification, management and mitigation of all risks.

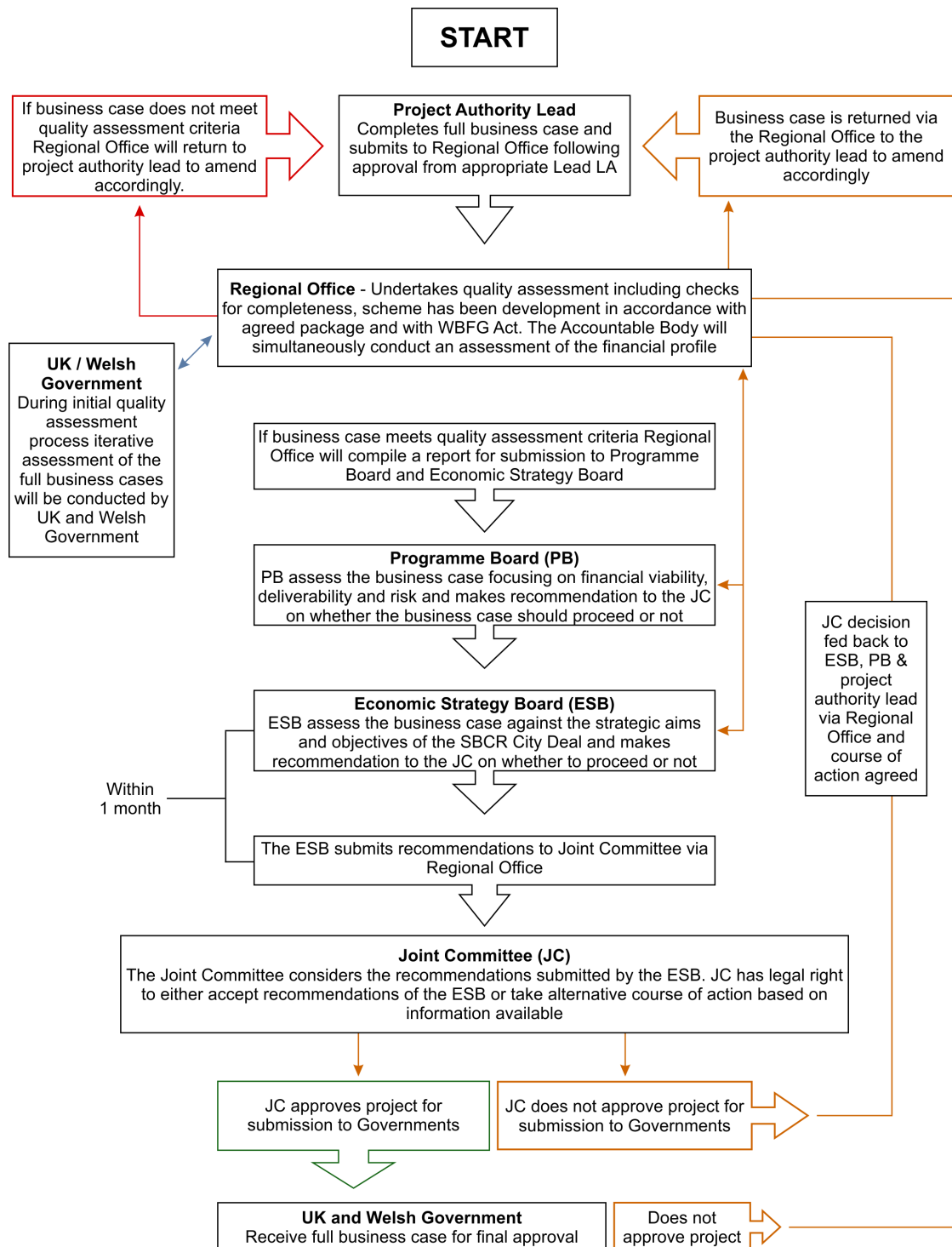
7. Procurement

- Projects must set out how they will procure all project activity in line with the Swansea Bay City Deal Procurement Strategy;
- Wider Community Benefits demonstrated in the business case e.g. Local Supply Chain supported, apprenticeships etc.

8. Project Monitoring & Evaluation

- All Project Leads to have set out clear and effective Monitoring and Evaluation Plan with process identified;
- Key delivery steps and associated milestones demonstrated;
- Detailed proposal for how and when all outputs and outcomes will be measured and reported to the Project Lead Authority and the Regional Office;
- Evaluation proposal;
- Exit Strategy in place.

The four local authorities have agreed the following process for the formal assessment of final SBCD business cases:



8.0 SBCD Programme Monitoring and Reporting

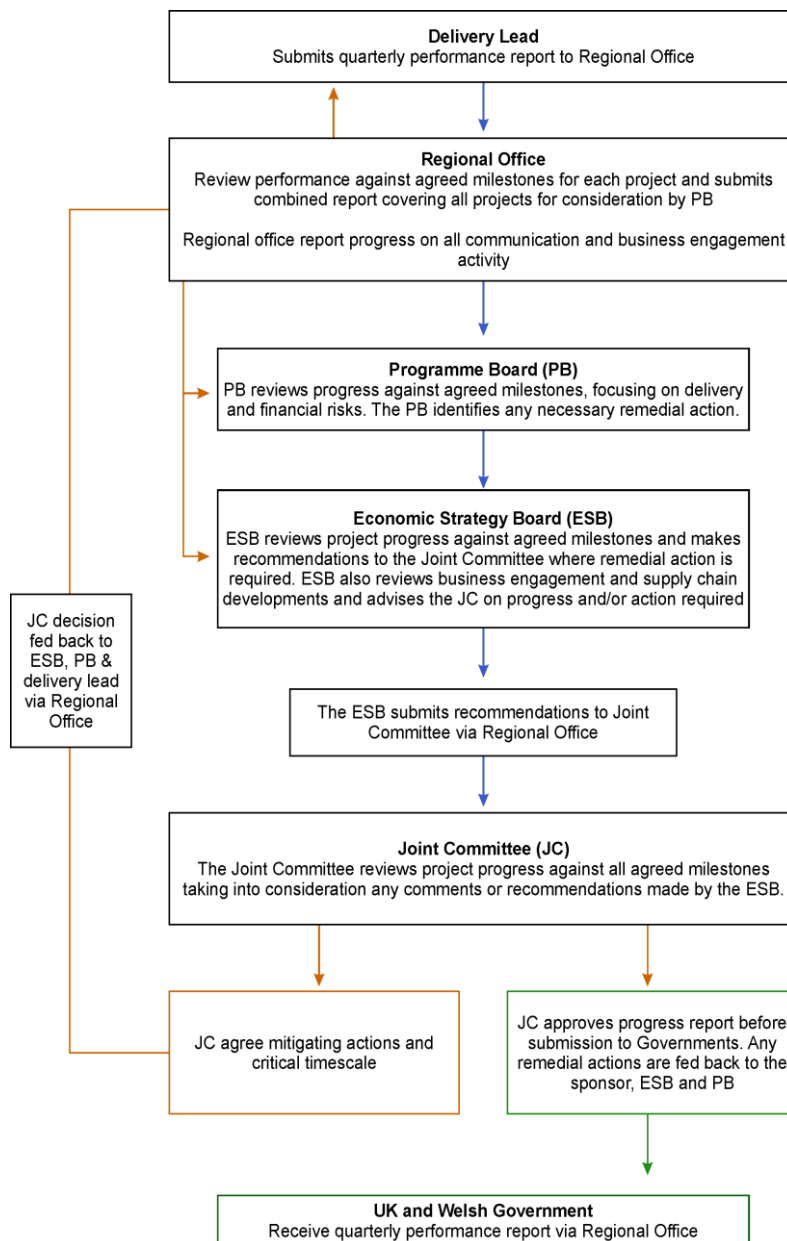
The Regional Office will have day to day responsibility for managing the monitoring and evaluation processes for projects. A robust, monitoring and evaluation plan will be developed in conjunction with the UK and Welsh Governments, and agreed by the Joint Committee, which sets out the proposed approach to evaluating the impact of delivery of Swansea Bay

City Deal at programme level. This will include detail on the how, what, and when reporting by the Project Delivery Leads and Project Authority Lead will take place.

Key actions include:

- Developing a robust baseline;
- Establishing monitoring and evaluation framework including key milestone and timescales for review;
- Set up quarterly meetings with Project Delivery Leads and Regional/Project Authority Leads to discuss progress;
- Regular performance reporting to Programme Board, Economic Strategy Board and Joint Committee.

All programme level reporting in relation to the City Deal and its associated projects will follow a process that has been agreed by the four local authorities. This is set out in the following chart:



SBCD Joint Scrutiny Committee

As set out in the Joint Committee Agreement, the Joint Scrutiny Committee will provide a scrutiny function to ensure greater public accountability over decisions made by the Joint Committee and any of its sub-committees and related entities. It has been agreed by the four Councils that Neath Port Talbot County Borough Council will be the lead authority to take responsibility for the scrutiny function responsibility and its administration.

The membership of the Joint Scrutiny Committee will consist of 12 members. Each of the Councils shall nominate three members for appointment to the Joint Scrutiny Committee. The member nominated by each Council shall be an elected member of that Council but shall not be a member of that Council's executive and shall not be a member of the Joint Committee. The Chair of the Joint Scrutiny Committee shall not be a member of the Council which is providing the Chair of the Joint Committee.

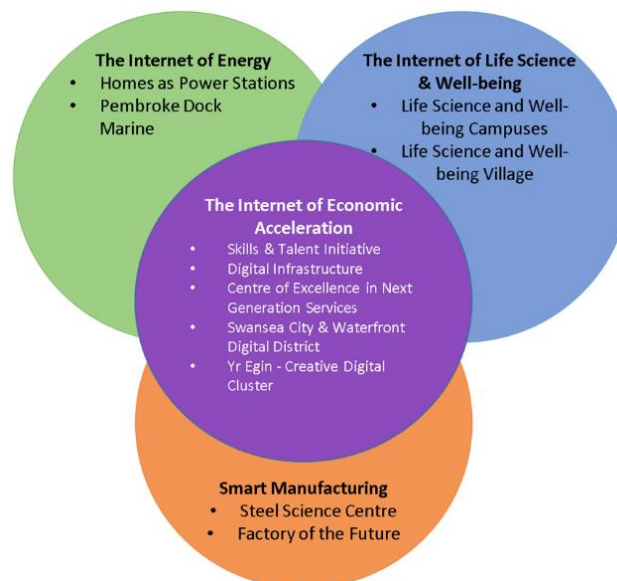
The role of the Joint Scrutiny Committee is to provide advice, challenge and support to the Joint Committee. The full terms and reference for the Joint Scrutiny Committee are set out in the Joint Committee Agreement.

The Joint Scrutiny Committee shall be required to:

- Review and scrutinise the Joint Committee's financial affairs;
- Review and assess the Joint Committee's risk management, internal control and corporate governance arrangements;
- Review and assess the economy, efficiency and effectiveness with which resources have been used;
- Make reports and recommendations to the Joint Committee in relation to the points in 1 and 3 above.

9.0 Swansea Bay City Deal Project Portfolio

The Swansea Bay City Deal comprises eleven projects across the four inter-related themes. Each thematic project has been developed to integrate with existing cluster strengths and infrastructure, supporting development of next generation services and products. In parallel, rollout of cutting-edge digital infrastructure will be accelerated to support exploitation of new technologies and capabilities. This will be underpinned by the Swansea Bay City Deal Skills & Talent Initiative that will be constantly attuned to emerging and evolving sectors' needs.



9.1 SBCD Theme - Internet of Economic Acceleration

Skills and Talent			
Regional Project Authority Lead	Carmarthenshire County Council		
Project Delivery Lead	Carmarthenshire County Council		
Total Cost	£30,000,000	City Deal:	£10,000,000
Description	The Skills and Talent initiative, being led by the South West Wales Regional & Skills Partnership, will be a key component in ensuring that local people and businesses have the appropriate skills to benefit from each of the City Deal projects.		
Key Milestones	Activity	Date (using calendar year)	
	Business Case Development		
	Initial draft Business Plan for consideration by RLSP Board	Qtr3 2017	
	Initial draft Skills and Talent Business Plan shared with UKG/WG	Qtr4 2017	
	Final review of draft business case by UKG / WG	Qtr2 2019	
	Business Plan submitted to the 4 Councils	Qtr2 2019	
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr2 2019	
	UKG/WG approval of the release of Government Funding to the project	Qtr3 2019	
Risks	Description	Mitigation	
	Operational		
	Risk of partners disengaging from the project could pose a risk to the achievement of some of the delivery outputs	The structure and constitution of the City Deal and the robust Partnership within the RLSP. All partners are fully committed to the project and the size and number of partners from all sectors significantly reduces this risk. Only if a whole sector were to withdraw would this risk be classed as high.	
	Lead times in the development of a new skills offer in the region/ identifying the key skills and ensuring that Welsh Government agree to include the courses within future provision within FE and apprenticeship	As one of the WG's three Regional Skills Partnerships, the RLSP is well placed to support this development, with its annual submission of a regional employment and skills plan which is utilised to directly affect the allocation of funding to FE and apprenticeship provision.	
	Project activity overlapping or duplicating existing provision within the region	The RLSP provides a platform to work across the public; private and education system. This partnership will ensure that there is an appropriate and timely response to industry and emerging project demands, remaining relevant and effective while avoiding duplication or missed opportunities.	

	Implementation						
	Project management, leadership and control of the project to deliver the stated activities and results	Management, leadership and control of the project will benefit from the experience and expertise which exists across the partnership. The partnership will establish clear lines of management responsibility, reporting and accountability from the outset.					
	Project does not meet the needs of the other SBCD projects	Early engagement with each of the 10 SBCD Project Leads has taken place to map out skills need, and will continue alongside the design and delivery stages of each.					
	Slippage to the project timescales	It is intended that management of all work detailed in the action plan will be subject to a regular, on-going process of performance review by the RLSP Board in order to maintain progress in relation to the projected outputs and timelines. Where required this will be reported through the SBCD Programme Governance Structure.					
	Financial						
	Significant changes to the match funding package	The level of match funding levered will be monitored on a quarterly basis by the Project Delivery Lead and Project Local Authority Lead to ensure that it is line with the agreed financial profile.					
	Organisational and financial risks	This level of experience within the organisations involved in the Partnership is such that relatively high levels of knowledge, skills and experience in financial management and probity can be clearly demonstrated. Coupled with regular performance review will serve to minimise the financial risks associated with the project.					
Financial Profile		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
Note - these figures are subject to change during development and approval of the 5 case business model.	Public	1,000,000	3,000,000	4,000,000	4,000,000	4,000,000	16,000,000
	Private	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000
	City Deal	1,000,000	1,500,000	2,500,000	2,500,000	2,500,000	10,000,000
	TOTAL (£)	2,500,000	5,000,000	7,500,000	7,500,000	7,500,000	30,000,000
Constraints	State Aid rules as they apply						
Dependencies	Continued Core Funding from Welsh Government for the RLSP Revenue support for the project from the local authorities						

Digital Infrastructure	
Regional Project Authority Lead	Carmarthenshire County Council
Project Delivery Lead	Carmarthenshire County Council
Total Cost	£55,000,000
City Deal	£25,000,000

Description	<p>A regional state of the art digital infrastructure will be implemented to support each of the City Deal strategic themes and projects. The project will consist of three elements namely: Transport Corridor, Rural and Connected City. Together these components will:</p> <ul style="list-style-type: none"> • Create digital infrastructure including gigabit fibre and the establishment of 5G testbeds that will enable innovation and entrepreneurship within the region • Expand the provision of 4G and Wi-Fi capabilities to benefit both urban and rural areas of the region • Develop digital infrastructure for key sectors including energy, manufacturing and life sciences 	
Key Milestones	Activity	Date (using calendar year)
	Business Case Development	
	Project Scope Set	Qtr1 2018
	Tender for consultant to develop full 5 case business plan based on agreed scope / outline proposal	Qtr3 2018
	Consultant appointed to develop full 5 case business plan based on agreed scope / outline proposal	Qtr3 2018
	Initial draft version 5 case business plan shared with UKG / WG	Qtr4 2018
	Final review of draft version business case by UKG / WG	Qtr1 2019
	Business case submitted to 4 Councils	Qtr2 2019
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr2 2019
	UKG/WG approval of the release of Government Funding to the project	Qtr3 2019
Risks Tbc - awaiting draft 5 case model	Description	Mitigation
	Unsuccessful project delivery /Slippage in Project delivery	Experienced project management and project delivery team in place from the outset. Project Implementation Plan to be agreed by all partners. Established robust monitoring and evaluation framework at project development stage to ensure programme and project delivery remains within agreed timescales and to ensure that all targeted project outputs and outcomes will be achieved.
	Lack of Commercial Confidence	Robust governance structure will need to in place from the outset to carefully manage both governance and commercial risks.
	Project not sustainable	Project will develop a sustainable business model. Ongoing dialogue with key government, public sector officers and private sector organisations key. Sustainability is an integral part of this project and early engagement with operators/providers is embedded within the proposals.
	Failure to secure full funding package	The digital plan will be implemented through partner(s) through a competitive tendering process.
	Non-compliance with State Aid Regulation and Public Procurement Rules	Use is made of existing compliant procurement frameworks to enable speedier delivery. Different aspects of the project might entail different approaches.
	Engagement/partnership with industry is unsuccessful.	Early engagement already taken place with private sector and wider stakeholders as part of City Deal projects. Dialogue will be on-going via the projects. Dedicated Project Manager in place.

Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
	Public						
	Private	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	30,000,000
	City Deal	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
	TOTAL (£)	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	55,000,000
Dependencies	<p>The majority of this project is based around requirements of the other City Deal projects. Roll-out of UK and Wales wide ICT policies and programmes. Alignment with Superfast Cymru is an important requirement. Engagement with service providers to gain an understanding of future plans and potential opportunities for the SBCD and Digital Infrastructure proposals is vital. The expectation is that the digital plan will be implemented through partner(s) through a competitive tendering process.</p>						

Swansea City & Waterfront Digital District			
Project Authority Lead	Swansea Council		
Project Delivery Lead	Swansea Council		
Total Cost	£174,673,000	City Deal	£50,000,000
Description	<p>The Swansea City and Waterfront Digital District will capitalise on the next generation connectivity available within the region, developing a vibrant and prosperous City Centre that facilitates the growth of high value ICT and digitally enabled sectors. The project will include incubation space and co-working areas for start-ups and small businesses alongside global enterprise; a new City Centre Business District and a Digital Square and Arena, providing conference facilities and major event space for tech industries.</p>		
Key Milestones	Activity	Date (using calendar year)	
	Business Case Development		
	Initial draft business case shared with UK/WG	Qtr4 2017	
	Final review of draft version business case by UKG / WG	Qtr1 2019	
	Business case submitted to 4 Councils	Qtr2 2019	
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr2 2019	
	UKG/WG approval of the release of Government Funding for the project	Qtr3 2019	
	Project Development		
	Milestone Activity - Box Village		
	Planning Submission	Qtr2 2018	
	Detailed Design	Qtr3 2018	
	Tender and Contractor Procurement	Qtr3 2018	
	Construction	Qtr1 2019	
	Fit Out	Qtr4 2019	
	Completion and Occupation	Qtr4 2019	
	Milestone Activity - Innovation Precinct		
	Planning Submission	Qtr4 2019	
	Detailed Design	Qtr4 2019	

	Tender and Contractor Procurement	Qtr1 2020
	Construction	Qtr4 2021
	Fit Out	Qtr1 2022
	Completion and Occupation	Qtr1 2022
	Milestone Activity - Digital Village	
	Planning Submission	Qtr3 2018
	Detailed Design	Qtr2 2018
	Tender and Contractor Procurement	Qtr4 2018
	Construction	Qtr3 2020
	Fit Out	Qtr4 2020
	Completion and Occupation	Qtr4 2020
	Milestone Activity - Digital Square & Arena	
	Outline planning consent granted	Qtr2 2017
	End of Design Stage 2	Qtr4 2017
	Arena Operator Contract Signed	Qtr1 2018
	Contractor Procurement	Qtr3 2018
	Construction	Qtr4 2020
	Arena Opening	Qtr4 2020
Risks	Description	Mitigation
	Development	
	Failure to obtain relevant approvals	All approval processes for the project will be identified will be applied for with sufficient time to prevent project timeline impacts. Dedicated team and organisation structure will further mitigate this risk. In addition, expert advice will be sought to ensure that all required approvals are captured.
	Failure to agree project specification	Project will continue to work extensively with all key stakeholders to ensure that agreement on specification is achieved as a priority before progressing the project further.
	Commercial floor space and other facilities do not meet the needs of start-ups and tech based businesses	Project consulted with members of the targeted industries to establish needs. The project to continue to liaise with members of the industry to ensure that the evolving project delivers on key requirements at every stage, and to continuously monitor and proactively engage with the industry to ensure that needs are appropriately met in the operational phase on an ongoing basis.
	Financial	
	Failure to secure funding package	Swansea Council and University of Wales Trinity St David funding is committed. Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage
	Rise in construction costs	Ensure detailed costs are in place for the entire project at the outset. Allow for a suitable contingency. Detailed tender bids. Ensure experienced project manager is in place.
	Implementation	
	Delays in construction programme/ Project slippage	Ensure project team in place using recognised project management tools to enable the developments to be delivered on time. The project to proactively monitor construction progress and to work extensively with the

		principal contractor to minimise any disruption to the programme					
	Temporary traffic management failing	Project will ensure TM contractor aware of sensitivity of route and applies appropriate resources. Advance communications to 1st Responders to take into account the impact on emergency services and providing advance notice of restrictions Involve Traffic Team in a timely manner. Regular review of programme and timely information to Client.					
Operational							
	The commercial floor space and other facilities do not meet the needs of start-ups and tech based businesses	Project continues to consult with members of the targeted industries to establish needs and to ensure that the evolving project delivers on key requirements at every stage. Project to continuously monitor and proactively engage with the industry to ensure that needs are appropriately met in the operational phase on an ongoing basis					
	Lower than expected demand	The project is working extensively with potential tenants and occupiers to ensure that initial demand is sufficient. In addition, project will be focused on supporting growth and successfully managing the success of the operational phase. Project to allocate sufficient resource to ensure that any period of lower than expected demand is successfully bridged					
	Failure to provide knowledge transfer and commercial opportunities	The University to adequately resource teams to ensure that knowledge transfer and the development of commercial opportunities are given adequate priority in terms of delivery					
	Focus on physical property aspects and the wider economic needs to support business creation and growth are not achieved	The projects are being developed in consultation with a wide range of the public and private sector partners to understand demand in the market. The schemes are also designed to meet the current and future needs of an innovative business community.					
Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
	Public	18,851,311	18,851,311	18,851,312	18,851,312	18,851,312	94,256,558
	Private	4,780,000	4,780,000	4,780,000	4,780,000	4,780,000.	23,900,000
	City Deal	3,609,010	3,163,912	10,917,362	20,077,641	12,232,075	50,000,000
	TOTAL (£)	27,240,321	26,795,223	34,548,674	43,708,953	35,863,387	168,156,558
Dependencies	Planning consents This project forms part of the overall Swansea Central regeneration plan.						

Yr Egin - Creative Digital Cluster		
Project Authority Lead	Carmarthenshire County Council	
Project Delivery Lead	University of Wales: Trinity Saint David	
Total Cost	£24,294,000	City Deal £5,000,000
Description	Yr Egin will create a digital and creative industry cluster in Carmarthen, joined by S4C as the key anchor tenant alongside other digital and creative media SMEs as tenants. The centre will create a clustering effect which will create major and positive change to the creative and digital economy of Wales. This development will include business accelerator facilities, incubation, as well as shared spaces for interaction between each of the tenants, driving entrepreneurial development.	
Key Milestones	Activity	Date (using calendar year)
	Business Case Development	
	Initial draft version 5 case business plan shared with UKG / WG	Qtr4 2017
	Final review of draft version business case by UKG/WG	Qtr4 2018
	Business case submitted to the Council	Qtr1 2019
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr1 2019
	UKG/WG approval of the release of Government Funding for the project	Qtr1 2019
	Project Development	
	Phase 1 Practical Completion of Construction	Qtr3 2018
	Phase 2 Procurement of Multi-Dis Design Team to take design to RIBA Stage 3	Qtr4 2018
	Phase 2 Stage 1 ECI contractor appointment	Qtr4 2018
	Phase 2 RIBA Stage 3 Sign off	Qtr2 2019
	Phase 2 RIBA Stage 4 Detailed Design and Pre-Planning Application Discussions	Qtr2 2019
	Phase 2 Planning Submission	Qtr3 2019
	Phase 2 Stage 2 Contractor Appointment	Qtr3 2019
	Phase 2 Commencement of Construction	Qtr4 2019
	Phase 2 Fit Out	Qtr1 2021
	Phase 2 Practical Completion and Occupation	Qtr1 2021
Risks	Description	Mitigation
	Development	
	Failure to agree project specification	The University will work extensively with all key stakeholders, including potential occupiers to ensure that agreement on specification is achieved as a priority before progressing the project further.
	Failure to deliver the wider benefits identified in the business case	The project's Monitoring and Evaluation Plan to set out clear proposals of how and when the Project Lead is going to monitor the impact of the wider benefits as set out in the 5 case business model for Yr Egin. Project M & E Plans to be in place before funding is released to the project. Quarterly reporting to the Regional Office by the Project Lead and Local Authority Leads to

case business model	(£)						
Dependencies	Planning consents						

Centre of Excellence in Next Generation Services (CENGs)		
Project Authority Lead	Neath Port Talbot County Borough Council	
Project Delivery Lead	Neath Port Talbot County Borough Council	
Total Cost	£55,500,000 City Deal £23,000,000	
Description	CENGs will provide a data analytics capability to turn world class data sourced innovation into commercial systems and solutions, establishing a leadership position for Wales and the UK. The Centre will operate from a purpose built facility which will offer incubation, laboratory and 2 nd stage space and will bridge the gap between research and innovation and the ability to launch, develop and grow commercial opportunities.	
Key Milestones Tbc - awaiting draft 5 case model	Activity	Date (using calendar year)
	Business Case Development	
	Initial draft business case shared with UKG / WG	Qtr4 2018
	Final review of draft version business case by UKG / WG	Qtr2 2019
	Business case submitted to the Council	Qtr2 2019
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr3 2019
	UKG/WG approval of the release of Government Funding to the project	Qtr3 2019
	Project Development	
	WEFO match funding confirmation received	Qtr1 2018
	Finalise project Tender Brief & Tender documentation	Qtr1 2018
	Two stage procurement exercise to commence	Qtr4 2018
	Construction (contractor start - end)	Qtr2 2019 – Qtr2 2020
	Construction Completion and building occupation	Qtr1 2020
Risks Tbc - awaiting draft 5 case model	Description	Mitigation
	Development	
	The proposed facilities do not meet the needs of start-ups and RD&I businesses	Early engagement with industry to ensure designs are appropriate to end users, with flexibility of design.
	Operational	
	Unable to secure tenants to occupy the facility	Existing and pipeline demand already identified and evidenced. On-going engagement with industry to advertise the proposed facility and cluster.
	Financial	
Failure to secure funding package	Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage	

	Revenue implications post completion	Operational business plan in development. Anticipated self-sustaining after 5 years.					
	Implementation						
	Delays in procuring or delivering contract	Timely engagement of contractor and realistic programme developed.					
	Project outputs / outcomes not achieved	Benefits realisation plan in development.					
	Resource implications of delivery	Experienced project team in place with additional project manager to be appointed.					
Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model	Capital & Revenue						
		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL(£)
	Public	0	3,000,000	0	2,500,000	0	5,500,000
	Private	2,000,000	3,500,000	5,750,000	6,750,000	9,000,000	27,000,000
	City Deal	2,500,000	6,500,000	4,750,000	5,250,000	4,000,000	23,000,000
	Total (£)	4,500,000	13,000,000	10,500,000	14,500,000	13,000,000	55,500,000
Dependencies	Planning consents						

9.2 SBCD Theme - Internet of Life Science and Well-being

Life Science and Well-being Campuses			
Project Authority Lead	City and County of Swansea		
Project Delivery Lead	Swansea University		
Total Cost	£45,000,000	City Deal	£15,000,000
Description	The Life Science and Wellbeing Campus project will build upon the successful Institute of Life Science initiative, providing a world-class integrated research & business incubator/park secondary/tertiary clinical, research and trials environment, and skills development centres with a life science innovation hub being created in a hospital setting. 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.		
Key Milestones Tbc - awaiting draft 5 case model	Activity	Date (using calendar year)	
	Business Case Development		
	Review of Outline Business Case	Qtr1 2018	
	Completed options appraisal	Qtr1 2018	
	Draft Full Business Case	Qtr2 2018	
	Partner Review of FBC	Qtr2 2018	
	Initial draft version 5 case business plan shared with UKG / WG	Qtr3 2018	
	Final review of draft version business case by UKG / WG	Qtr1 2019	
	Business case submitted to the Council	Qtr2 2019	
Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr2 2019		

	UKG/WG approval of the release of Government Funding to the project		Qtr3 2019				
	Project Development & Delivery						
	Phase 1 – Singleton Campus						
	Initial pre-development assessment undertaken					Qtr2 2017	
	Modelling of growth of activity – need and demand assessment					Qtr1 2018	
	Predevelopment study complete					Qtr3 2018	
	Prior information notice issued					Qtr3 2018	
	Establish initial skills zone within existing estate in partnership					Qtr3 2018	
	Establish initial technology development space within existing estate					Qtr3 2018	
Risks Tbc - awaiting draft 5 case model	Description			Mitigation			
	Development						
	Failure to ensure stakeholder buy-in to project concept			Project to have regular engagement with key stakeholders including ABMU, Swansea University, private sector and SBCD Programme Board and Joint Committee.			
	Delay in Swansea University decision making and internal governance procedures			Reviewed at SU project development board regularly.			
	Implementation						
	Procurement delays			Make use of existing procurement frameworks.			
	Appropriateness of partnering arrangements			Make use of existing procurement frameworks.			
	Operational						
	Project fails to meet City Deal outputs			Project M&E Plan in place at project start. Regular review and monitoring - loHWB leadership.			
	Operation of new facilities - laboratory environments			Integrate with existing operations.			
	Failure to secure commercial tenants			End User discussions taking place.			
	Financial						
	Failure to secure funding package			Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage			
Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model		2018/19	2019/20	2020/21	2021/22	2022/23	Total (£)
	Public	5,000,000	10,000,000	5,000,000	0	0	20,000,000
	Private	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
	City Deal	2,500,000	2,500,000	5,000,000	5,000,000	0	15,000,000
	TOTAL (£)	9,500,000	14,500,000	12,000,000	7,000,000	2,000,000	45,000,000
Dependencies	Planning Consent						

Life Science and Well-being Village				
Project Authority Lead	Carmarthenshire County Council			
Project Delivery Lead	Carmarthenshire County Council			
Total Cost	£199,500,000	City Deal	£40,000,000	
Description	<p>The Llanelli Life Science and Wellbeing Village aims to deliver transformational social and economic benefits through delivering the full scope of integration between business development, education, wellness initiatives, research and development and healthcare initiatives. The project will create a physical hub in Llanelli comprised of an institute of life science, a wellness hub, a variety of high quality flats and houses, a care home, a life science and well-being centre a leisure centre and a high end wellness hotel. The village will provide space for research and development of new medical devices and healthcare technologies alongside opportunities for training, service provision and recreation. The requirements for this are being developed in conjunction with partners such as health boards and universities.</p>			
Milestones	Activity	Date (using calendar year)		
	Business Case Development			
	Initial draft business case shared with UKG / WG	Qtr4 2017		
	Final review of draft version business case by UKG / WG	Qtr4 2018		
	Business case submitted to the Council	Qtr1 2019		
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project to be submitted to the UKG/WG	Qtr1 2019		
	UKG/WG approval of the release of Government Funding to the project	Qtr1 2019		
	Project Development			
	Phase 1			
	Undertake preparatory works on-site	Qtr2 2017		
	Competitive Dialogue procurement exercise complete	Qtr1 2018		
	Collaboration Agreement signed	Qtr3 2018		
	Phase 2			
	Launch public exhibition	Qtr3 2017		
	Pre-Application Consultation (Outline Planning)	Qtr1 2018		
	Submission of outline planning	Qtr1 2018		
Partner consultations on service change proposals	From Qtr1 2018			
Phase 3				
Establish JV governance structure	From Qtr2 2018			
Appoint a Development Partner	Qtr3 2018			
Finalise business/service plans	From Qtr3 2018			
Commence building works	Qtr1 2019			
Phase 4				
Services / businesses setting up on site (Phase 1)	Qtr1 2021			
'Soft launch' (Phase 1)	Qtr1 2021			
Post Implementation Review	Qtr3 2021			
Risks	Description	Mitigation		
	Site Planning – environmental, ecological, land and other infrastructure planning issues could, potentially delay the project	External consultants have been engaged to undertake a range of environmental studies required to evidence a planning application and to detail any remedial action required.		

9.3 SBCD Theme - Internet of Energy

Homes as Power Stations			
Regional Project Authority Lead	Neath Port Talbot County Borough Council		
Project Delivery Lead	Neath Port Talbot County Borough Council		
Total Cost	£517,050,000	City Deal:	£15,000,000
Description:	The project 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. The project will undertake a new house building programme and retrofit programmes which will utilise such technologies whilst developing new supply chains in this sector. The project will also address fuel poverty, which remains a persistent challenge for many communities across the region. The project will also focus on broadband Internet connections and smart metering, with support from the Digital Infrastructure project.		
Milestones Tbc - awaiting draft 5 case model	Activity	Date (using calendar year)	
	Business Case Development		
	Initial draft Strategic Case shared with RO	Qtr3 2018	
	Initial draft business case shared with UKG/WG	Qtr3 2018	
	Final review of draft version business case by UKG / WG	Qtr3 2019	
	Business case submitted to the 4 Councils	Qtr3 2019	
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG	Qtr3 2019	
	UKG/WG approval of the release of Government Funding to the project	Qtr1 2020	
	Project Development		
	Regional Stakeholder Workshops	Qtr1 2018	
	Regional Local Authority Steering and Working established to coordinate the regional activity at scale	Qtr2 2018	
	Regional Social Landlord engagement	Qtr4 2017	
	Initiated pathfinder/proof of concept development at Neath (Hafod Site)	Qtr4 2017	
	Planning approved for Hafod Site - due to commence on site	Qtr3 2018	
	Consultants engaged to assist in development of the 5 case business model	Qtr2 2018	
Risks Tbc - awaiting draft 5 case model	Description	Mitigation	
	Development		
	Land costs and availability	Project to ensure that local authorities provide a land bank.	
	Supply chain development	Robust supply chain strategy and on-going industry engagement plan in place.	

	Approved design specification	Development and implementation of a holistic, flexible, industry approved design standards.					
	Operational						
	Supply chain capacity and capability	Robust supply chain strategy and on-going industry engagement plan to be in place.					
	Appropriate land availability	Ensure that local authorities provide a sizeable land bank.					
	Not achieving new build targets	Ensure effective programme planning.					
	Insufficient capacity to deliver the programme	Ensure that the right levels of skills and experience are in place -experienced regional project team and manager, robust stakeholder management/ coordination.					
	Financial						
	Failure to secure funding package	Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage					
	Significant changes in the funding package, including public and private sector match funding.	Ensure commitment of match funding partners through signed partner funding letters in place at project approval stage. The delivery profile and associated match funding components to be monitored on a regular basis to ensure that it is in line with the agreed financial profile.					
	Implementation						
	Deliverability of HAPs within the City Deal programme timeframe.	Detailed time bound project delivery proposals for HAPs to be set out in the 5 case business model					
	Slippage including delays in procurement / delivering contracts	All work detailed in the programme plan will be subject to a regular, on-going process of performance review. The benefits realisation plan will also be monitored and reviewed on a regular basis.					
	Project management to deliver the agreed activities and results.	Dedicated project management and delivery team to be appointed at the outset of the project to ensure effective implementation of the programme.					
	Complex nature of retrofit	Robust and detailed implementation and delivery plan will be formulated to ensure that an approved and tested retrofit approach is set in place.					
Financial Profile		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
Note - these figures are subject to change during development and approval of the 5 case business model	Public	6,425,000	14,075,000	22,950,000	31,900,000	43,800,000	119,150,000
	Private	23,075,000	47,675,000	73,050,000	102,600,000	136,500,000	382,900,000
	City Deal	2,900,000	4,400,000	4,400,000	3,000,000	300,000	15,000,000
	TOTAL (£)	32,400,000	66,150,000	100,400,000	137,500,000	180,600,000	517,050,000
Dependencies	Availability of sizeable local authority land banks across the region Planning Consents						

Pembroke Dock Marine			
Project Authority Lead	Pembrokeshire County Council		
Project Delivery Lead	Milford Haven Port Authority		
Total Cost	£76,320,001	City Deal	£28,000,000
Description	The project will involve the development of a marine energy test area utilising the deep port of Milford Haven, an energy engineering centre of excellence, and a wave 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 test sites on a regional, Welsh and UK scale.		
Milestones Tbc - awaiting revised business case	Activity		Date (using calendar year)
	Business Case Development		
	Initial draft business case shared with UKG / WG		Qtr4 2017
	Revised business case shared with UKG / WG		Qtr3 2018
	Final review of draft version business case by UKG / WG		Qtr1 2019
	Business case submitted to the Council		Qtr1 2019
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG		Qtr2 2019
	UKG/WG approval of the release of Government Funding to the project		Qtr3 2019
	Project Development		
	Amion Consultants engaged to develop 5 case business model		Qtr1 2018
Risks Tbc - awaiting revised business case	Description	Mitigation	
	Development & Delivery		
	One or more of the 4 PDM project partners withdraws from the project	Memorandum of Understanding/SLA to be signed by each of the 4 project partners and to be in place at the outset of the PDM project - this document to be approved by the Project Authority Lead. Funding Approval letter in place between Project Lead and Project Authority Lead.	
	Development		
	Environmental/ecological/archaeological constraints	Project to appoint specialist planning consultant to work with relevant planning/consenting agencies and ensure any findings and necessary mitigating measures are incorporated into outline planning application report	
	Implementation		
	Deliverability of PDM within the City Deal programme timeframe.	Detailed time bound project delivery proposals for 4 elements of PDM to be set out in the 5 case business model.	
	Delay/failure to secure required consents	Early engagement with consenting authorities and key stakeholders Project to appoint specialist consultants where appropriate. Ensure key consent milestones and interdependencies are included in project schedule and monitored closely. Project to	

		carry out comprehensive surveys, where appropriate, and include findings and necessary mitigating measures in consent applications					
	Failure to ensure stakeholder buy-in to project concept	Project engaging with local community through public exhibitions, liaison groups etc., to ensure that stakeholders are fully informed of impacts and there is opportunity for concerns to be addressed where possible.					
Operational							
	Failure to attract developers/end users	Project partners to undertake market research to assess need and identify end user requirements.					
Financial							
	Failure to secure funding package	Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage					
	Increase in design and construction costs	Ensure detailed costs in place for the all 4 elements of this project. Prepare Tender in line with agreed budgets. Ensure project manager is in place from outset. Allow for a suitable contingency in the financial profile.					
Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
	Public	,480,000	4,480,000	4,480,000	4,480,000	4,480,000	22,400,000
	Private	5,184,000	5,184,000	5,184,000	5,184,000	5,184,001	25,900,001
	City Deal	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	28,000,000
	TOTAL (£)	152,640,000	152,640,000	152,640,000	152,640,000	152,640,001	76,320,001
Constraints	State Aid Rules						
Dependencies	There are 4 elements to this project, each led by a different organisation. ERDF funding for PDI, MEECE, & PDZ. Planning Consents						

9.4 SBCD Theme - Smart Manufacturing

Factory of the Future			
Project Authority Lead	Neath Port Talbot County Borough Council		
Project Delivery Lead	Swansea University		
Total Cost	£23,521,686	City Deal	£10,000,000
Description	This initiative will support inward investment in leading edge technologies and harness the 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 regional integrated manufacturing ecosystem making use of the hub-spoke model and digital infrastructure improvements to connect spokes to a main hub based in Swansea University.						
Key Milestones	Activity						Date (using calendar year)
	Business Case Development						
	Initial draft business case shared with UKG / WG						Qtr1 2018
	Final review of draft version business case by UKG / WG						Qtr4 2019
	Business case submitted to the Council						Qtr1 2020
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG						Qtr2 2020
	UKG/WG approval of the release of Government Funding to the project						Qtr2 2020
	Project Development						
	Finalise location						Qtr3 2018
	Formalise project designs						Qtr3 2018
	Procurement process commences build						Qtr3 2018
	Contractor appointed						Qtr3 2018
	Commence building work						Qtr2 2019
New Centre Opens						Qtr3 2020	
Risks Tbc - awaiting revised business case	Description			Mitigation			
	Development						
	Delay in planning conditions/ consent.			Early engagement with stakeholders and consent authorities to raise any issues early on.			
	Delay in procurement of contractor			Utilise existing procurement frameworks. Early engagement with contractors to identify issues which may cause delay and require specialist input. Monitor and review progress of contractor through his procurement process.			
	Operational						
	Centre does not suit end-user needs			Regular design meetings involving end-users at initial design and fit-out stage. Early identification of supply chain.			
	Financial						
Failure to secure funding package			Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage.				
Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
	Public	694,577	2,019,078	2,753,095	2,408,787	2,428,086	10,303,623
	Private	0	450,000	900,000	922,500	945,563	3,218,063
	City Deal	5,217,011	2,314,980	645,710	661,852	1,160,447	10,000,000
	TOTAL (£)	5,911,588	4,784,058	4,298,805	3,993,139	4,534,096	23,521,686
Dependencies	Planning Consent						

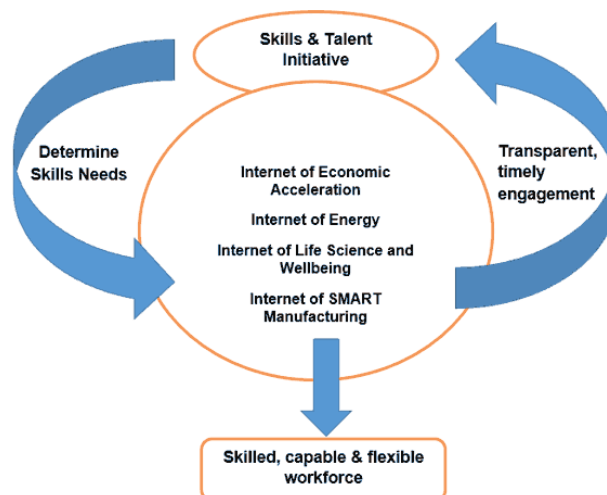
Steel Science			
Project Authority Lead	Neath Port Talbot		
Project Delivery Lead	Swansea University		
Total Cost	£80,000,000	City Deal	£20,000,000
Description	This project will lead to the creation of The National Steel Innovation Centre (NSIC), in the Neath Port Talbot Unitary Authority. This project will provide access to world-class facilities for the development of innovative steel products and processes and opportunities for collaboration between co-located industrial and academic partners which, when combined, will create a sustainable Steel Industry fit for the 21st Century. Additionally, it will place the opportunity for innovation and research within the reach of SMEs who would otherwise struggle to resource intensive PhD-level academic researchers, and allow them to bring this research to the market place.		
Key Milestones Tbc - awaiting 5 case model	Activity		Date (using calendar year)
	Business Case Development		
	Initial draft version 5 case business plan shared with UKG / WG		Qtr4 2018
	Final review of draft version business case by UKG / WG		Qtr4 2019
	Business case submitted to the Council		Qtr1 2020
	Business case submitted to Economic Strategy Board, Programme Board and Joint Committee for Approval of the project submission to the UKG/WG		Qtr2 2020
	UKG/WG approval of the release of Government Funding to the project		Qtr2 2020
	Project Development		
	Finalise location		Qtr3 2018
	Formalise project designs		Qtr3 2018
	Procurement process commences build		Qtr3 2018
	Contractor appointed		Qtr3 2018
	Commence building work		Qtr2 2019
New Centre Opens		Qtr3 2020	
Risks Tbc - awaiting 5 case model	Description	Mitigation	
	Developmental		
	Plans not approved	Engage with the local authority to understand any potential issues early on in the process. Engage planning specialists to make sure plans are in accordance with planning laws.	
	Unable to acquire suitable land	Ensure alternative solutions are developed using existing options.	
	No suitable procurement bids	Ensure in-depth planning and specification, and consult with market prior to commencement of tender process.	
	Operational Risks		
Revenue falls below plan	Develop engagement plan with key industry stakeholders to share success and encourage industry memberships. Seek funding opportunities through collaboration.		

	Industry consolidation	Continue to monitor the sector and understand developments and adjust centre operations and research focus to best suit industry requirements.					
	Financial Risks						
	Failure to secure funding package	Ensure credible and robust detailed business plan and financial profile is in place at outset. Written letters confirming all sources of funding to be in place at approval stage.					
	Project overspend	Develop detailed project plans, ensure costed items are agreed by all key stakeholders. Hold regular budget review meetings to ensure visibility of spend at all times and early intervention if budget is in danger of being exceeded.					
Financial Profile Note - these figures are subject to change during development and approval of the 5 case business model		2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL (£)
	Public	12,000,000	12,000,000	16,000,000	20,000,000	0	60,000,000
	Private	0	0	0	0	0	0
	City Deal	7,000,000	7,000,000	6,000,000	0	0	20,000,000
	TOTAL (£)	19,000,000	19,000,000	22,000,000	20,000,000	0	80,000,000
Dependencies	Planning Consent						

10.0 Interdependencies & Project Synergies

10.1 Interdependencies

Interdependence 1 - The SBCD Skills and Talent Initiative Project & *The Internet Coast*



The aim of the City Deal proposal is to create an uplift in GVA closing the ever-increasing gap between regional and national averages. In order to achieve this, the development of a workforce that is capable, responsive and skilled is key. The 11 projects share this commonality in objective and each will create opportunities for the regions current and future workforce.

The Skills and Talent Initiative will be instrumental in determining the skills needs of the 10 remaining projects and, in turn, will support regional education providers to deliver the skills solutions required. It is anticipated that skills will broadly be required in, but not limited to, the areas of ICT and digital, health and manufacturing and engineering, aligning closely to the four themes of the SBCD programme. There will be opportunities for the transferability of skills between projects and therefore across the region, creating a thriving talent base.

Undeniably, underpinning each of the projects, therefore, is skills and talent, a theme that runs strongly throughout and which will determine the overall success of the City Deal Programme. The right people with the right skills, available in the region at the right time is the most important consideration and challenge for the City Deal. Without a strong, capable and flexible workforce the SBCD projects would struggle to deliver the programme outcomes and therefore not have the transformational effect it aims to achieve.

A further key determinant of success is the preparedness and capability of future generations to capitalise on the opportunities presented by the proposal. The Skills & Talent Initiative recognises that it is essential that younger generations are well-informed, creating a sustainable pipeline of talent which is ready and able to support and further develop the future economy of the Swansea Bay City Region.

It is therefore the intention of the Skills & Talent Initiative to foster the themes of entrepreneurship and digital innovation given their strategic importance to the Swansea Bay City Deal Programme, and to work with key stakeholders to align provision to these key themes. As such, these two areas will be focussed on in schools and, increasingly so, in further and higher education institutions.

In addition, there is opportunity for synergy in terms of skills between the four themes at a more specific level: namely, Energy, Life Science & Wellbeing and Smart Manufacturing are of critical strategic importance in their own right, but through the City Deal they are interconnected and mutually supportive.

The 21st Century is a multidisciplinary age transcending sectors and the majority of innovative solutions to the most pressing challenges reside in the collision of disciplines. The further and higher education institutions operating within the region already have an exemplary offer of provision within these areas. Aligning their offer more closely to the specific needs of the City Deal and identifying where there are opportunities for multi-disciplinary teaching will create skilled individuals with the transferable skills needed to work across the region.

Interdependence 2 - The Internet of Economic Acceleration and its Constituent Projects

The proposal and its constituent projects are built on a solid foundation characterised by an advanced digital infrastructure. A lack of an effective and reliable next generation digital infrastructure will hinder the development and exploitation of new technologies and capabilities which could negatively impact and hinder the success of key projects. The level of interdependency varies across the projects with some relying on digital elements more than others.

Primarily, the successful implementation of the Digital Infrastructure project will allow for the establishment of 5G testbeds that will enable innovation and entrepreneurship, themes which are especially crucial for the Centre of Excellence in Next Generation Services, Yr Egin and the Swansea City and Waterfront Digital District. A lack of these testbeds would create significant barriers to the attraction and retention of the talent, businesses, key industry leaders and inward investment to the area which are crucial to the success of those projects.

Interdependence 3 - The Internet of Economic Acceleration and the Internet of Energy

An innovative digital infrastructure is particularly pertinent for the Homes as Power Stations project. Imperative to the proposal is the utilisation of the internet to create innovative and sustainable energy generation combined with storage and efficiency, this will be supported by the use of smart metering. The effective use of smart metering is integral to the proposal as it will allow users to manage their own usage and assist in the measurement of the efficiencies achieved within the region both at a personal and national level.

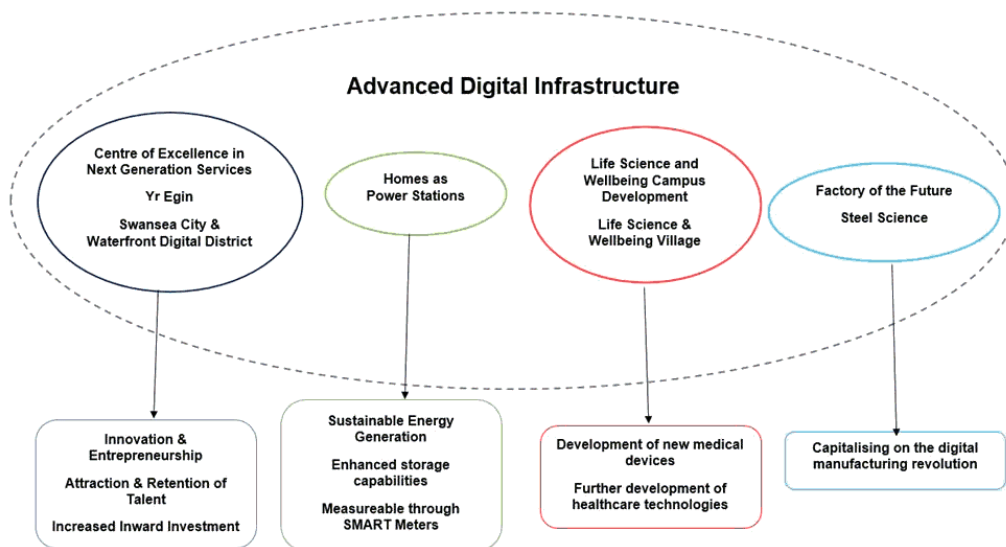
Interdependence 4 - The Internet of Economic Acceleration and the Internet of Life Science and Wellbeing

The developments proposed by both the Life Science and Wellbeing Campus and Village projects are heavily reliant on an innovative digital infrastructure. A lack of this infrastructure would hinder the projects desires of utilising advanced technologies to develop new medical devices and further develop healthcare technologies.

Interdependence 5 - The Internet of Economic Acceleration and Smart Manufacturing

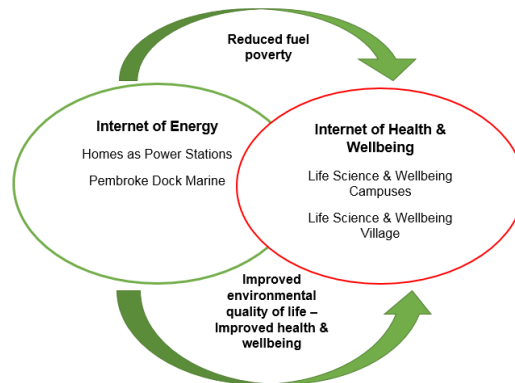
Both the Factory of the Future and the Steel Science projects are reliant on the use of next generation technologies. The Factory of the Future project is closely aligned to the principles of Industry 4.0 which is based on the themes of automation and data exchange in manufacturing technologies.

Further dimensions include cyber-physical systems, the Internet of things, cloud computing and cognitive computing. These are all elements which require a strong digital infrastructure, without it the project could fail to capitalise on the digital manufacturing revolution



10.2 Synergies

Synergy 1 - Energy and Life Science & Wellbeing

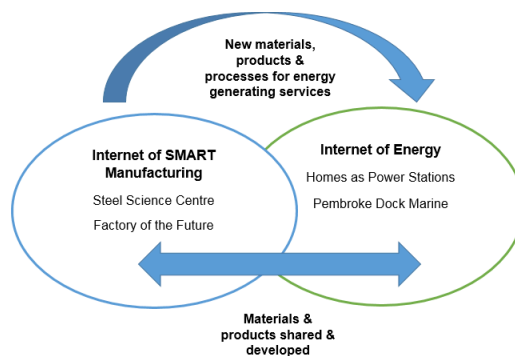


The economic profile of Wales has historically been shifting from a manufacturing dominated base resulting in more of an emphasis on fostering economic growth, development and social inclusion whilst ensuring that natural assets continue to provide the resources on which our wellbeing relies. This places what is termed as the green economy in a key position within the City Deal proposal as the four themes align closely to wellbeing, the environment, manufacturing and economic growth.

The Environmental and resource productivity of the economy aligns closely to the Homes as Power Stations and Pembroke Dock Marine projects with both aiming to produce sustainable energy. The production of green energy has a positive impact on the environmental climate as green energy production generates little if any of the water and air pollution associated with traditional fossil fuel energy sources which a Harvard University study suggests costs public health services an estimated \$74.6billion a year. Therefore production of green energy can directly affect the health and wellbeing of individuals living and working in the region by reducing the risk of cardiovascular and respiratory diseases associated with traditional energy production. This direct link creates synergy with the Life Science and Wellbeing Campus and Village projects.

In addition, fuel poverty is a key determinant for life science and wellbeing, the Homes as Power Stations programme will specifically undertake research which will deliver impact and create an evidence base in support of disruptive innovation where the region has a global reputation as a centre of excellence.

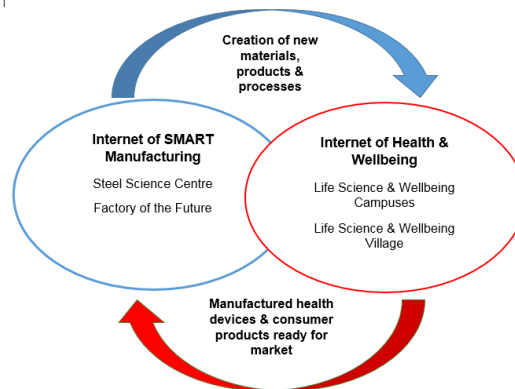
Synergy 2 - Energy and Smart Manufacturing



The Steel Science project will also be in a prime position to have a significant impact on the Green Growth agenda. As well as developing and implementing ultra-low carbon steel making technologies, the new materials, products and processes created at the Centre will provide the opportunity to radically rethink the built environment for energy generating services. This will improve the regional natural asset base promoting the implementation of good environmental management in primary industries. This substantiates its synergy to Homes as Power Stations and Pembroke Dock Marine where materials and products may be shared and developed.

Furthermore, the Pembroke Dock Marine programme builds on momentum already underway regionally, in developing innovative marine energy solutions. This technology will require a local manufacturing base which builds upon the heavy engineering and steel generating capability of the region. Additionally, Homes as Power Stations provides the opportunity to expand existing pilot activities across the UK steel sector to realise in excess of a £1 billion industry, transforming the built environment. This extends from smart coatings on steel substrates through to innovative storage and control.

Synergy 3 - SMART Manufacturing and Life Science & Well-Being



The connections between manufacturing and life science and well-being are long established but the introduction of smart life science and smart manufacturing have placed more importance on this relationship in recent years. The projects of the Life Science and Wellbeing Village and Campuses and the Factory of the Future and Steel Science projects are the opportune prospect to align the two areas.

The region already has examples of Life Science and Wellbeing innovation created locally, manufactured locally and exported from the region to global markets. Examples include therapeutic devices, diagnostic devices and consumer products. The Factory of the Future is being specifically designed to build upon this experience and interconnect value and supply chains within a manufacturing cloud retaining optimum economic value for the region and UK. The Steel Science Centre will create new materials, products and processes, many of which will have applications in Life Science & Wellbeing. This will provide the opportunity to shape the development of intelligent sterile environments, supporting disruptive technologies for telehealth such as smart wearables and intelligent dressings.

The demand for next generation health care and smarter ways of manufacturing highlights the parallels between the two, they are both areas which are in transformation and where new opportunities in IT to meet demands are creating more opportunities for closer working.