



Developing the Innovation Ecosystem in Somerset West & Taunton

Framework for Action

# **Final Report: Confidential**



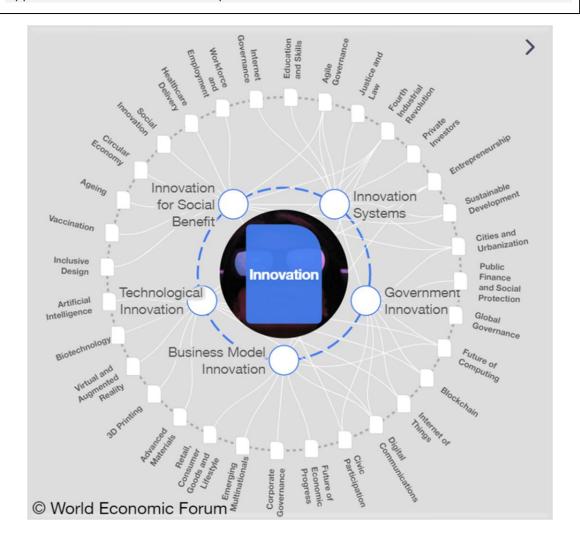
### **Defining Innovation**

Innovation concerns a wide range of players, processes and impacts (see diagram below), but essentially is about people and organisations investing in R&D and implementing new or significantly improved products and services, processes, marketing methods, or organizational methods for customer, community and natural environment benefit.

### Why is it important?

Innovation is at the heart of a successful economic growth and job creation strategy. It can transform productivity and efficiency. It can also address many of the world's longstanding and emerging challenges, such as climate change, improved healthcare outcomes, enhancing education and social inclusiveness.

Innovative people and organisations are high skilled and knowledge intensive, have high levels of productivity and higher levels of pay. Areas where these type of people and organisations are located tend to be more economically resilient and secure higher levels of job multiplier effects than other parts of the economy. This is especially the case when there is strong clustering and network interactions, as these tend to re-enforce the additional innovation opportunities and economic development.



# **Acknowledgements**

In undertaking this study the EiBC wish to thank the many contributors who helped inform this report – Somerset West and Taunton Council who commissioned the report and the many businesses and business organisations, the Heart of the South West (HotSW) Local Enterprise Partnership (LEP), NHS partners, Sedgemoor District Council, Somerset County Council, Bridgwater and Taunton College, the University of Exeter, voluntary sector and government organisations that gave their time and shared their thinking with us.

Whilst all the consultees have assisted with this study, any views and conclusions expressed in this report are entirely those of EiBC.

Many thanks

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Oxford and Edinburgh

# Developing the West Somerset and Taunton Innovation Ecosystem; Framework for Action

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### **Executive Summary**

### **Purpose and Critical Time for Innovation Led Action**

This report has been commissioned by Somerset West and Taunton District Council (SWT) so that it can better support innovation and knowledge based organisations and deliver economic development for its community and meet the objective of making the District Carbon Neutral by 2030.

The report provides the Council with a *Framework for Action* with 22 recommendations for how it and its partners can *enhance and transform the SWT innovation ecosystem* and enable the Council to be more proactive around innovation and economic development, better shape its post Covid Recovery Plan, set resource priorities and pursue a range of opportunities to secure co-investment from the private sector and government and deliver on these actions.

### The Innovation Challenge and a Framework for Action

Innovation is widely acknowledged to be a key driver of improved productivity and economic growth.<sup>1</sup> It secures high quality, sustainable jobs and the benefits of this have been secured most successfully in 'the golden triangle'. With central government committing record levels of investment in R&D (£22bn by 2023) and to pursuing 'levelling up' actions this represents a crucial time for the Council to better position itself for innovation led investments and developments and adopt the recommendations proposed. Crucially, the opportunity also helps shape wider public sector actions and investments and co-investment by the private sector.

In this report EiBC has provided a *Framework for Action* to address these opportunities and informed by conditions found in other successful innovation ecosystems. Specifically, we provide an independent assessment of the area's innovation assets (ie knowledge based organisations), the current business innovation support systems and the research and skills assets, the physical infrastructure (ie innovation centres and suitable business space) and leadership arrangements to support innovation.

We have also reviewed those weaknesses already known to SWT. For example, the general low levels of R&D expenditure in companies relative to turnover, a relatively low level of Higher Education (HE) participation, a large county area without a university, a comparatively older population, a lower proportion of knowledge-based workers and a lower GDP/per capita, with some areas with high multiple deprivation. Also the low levels of inward investment and the recognition that there needs to be improved perceptions about SWT as an excellent place for innovation and knowledge based organisations to be attracted to and grow in the area. Many of these weaknesses have been recognised in SWT's own Economic Development Strategy and by HotSW's Local Industrial and Productivity Strategies.

### **Approach to the Assignment**

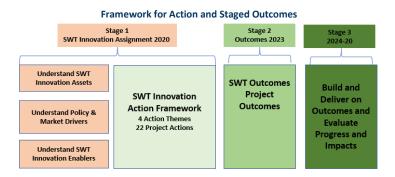
EiBC's work programme involved the following:

- Background research: building a clear understanding of SWT's innovation assets through background research;
- Consultations: conducting consultations with SWT Council members and senior officers, partner local authorities, the HotSW and holding in excess of 30 consultations with CEOs/directors in knowledge based organisations in the area, in addition to Bridgwater and Taunton College (BTC), the University of Exeter and with developers

<sup>&</sup>lt;sup>1</sup> For example, UK Industrial Strategy (2019), UK Innovation Road Map (2020), HotSW Local Industrial and Productivity Strategies (2019)

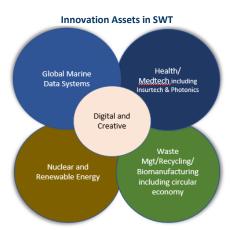
- Benchmarking: Drawing on UK/international research and experience in innovation systems,
   science parks and innovation centres
- Action Focussed Report: Bring together our evidence, analysis and conclusions and framing our recommendations around 4 Action Themes and 22 specific recommended actions.

In setting out our *Framework for Action* EiBC emphasise that this must be seen as a *stage one* of a journey. This stage enables the Council to fully understand the area's innovation assets, the policy and market drivers impacting on these and the enabling and support systems for innovation. Should the Council adopt this *Framework for Action* then this can deliver a number of early stage outcomes that can be achieved by 2023/4 (stage two). With these achieved (and evaluated) further work would then build on these achievements over the next 5-10 years. A simple illustration of these stages is presented below with further detail on the recommended actions set out later.



### **Innovation Assets**

The key business based innovation assets in the SWT area are in four distinct clusters (global marine data systems; healthcare, medtech, including insurtech and photonics; nuclear/renewable energy; waste management/recycling and biomanufacturing including the circular economy). Additionally we define a cross cutting theme consistently emphasised by central government, HoTSW and the private sector — the digital and creative theme.



A high level summary of the clusters is presented below:

• Global Marine Data Systems: the HQ of the UK Hydrographic Office, with its 800 research intensive staff provides data to 90% of all global shipping, data inputs for autonomous shipping and undertakes a wide range of marine environmental projects across the world. Government has recognised it to be one of the key organisations that can exploit the forecast £3.2 trillion 'blue economy' by 2030. At present, however, this major asset is the most undeveloped in terms of it creating a local cluster of partner businesses. A pilot accelerator programme has been launched this year and is designed to stimulate new business ventures and the UK Government's Geospatial Commission should also provide further new

- opportunities for SWT. In EiBC's view, very strong local action at SWT and HotSW levels will be required to unlock a small part of the huge potential associated with the UKHO's presence and the 'blue economy' and our *Framework for Action* identifies recommendations to address this challenge around sustaining and upscaling accelerator and business partnership programmes, developing international partnerships for inward investment and exploring how university research and industry partnerships can be co-located in Taunton.
- Healthcare, medtech, health insurance and photonics represent major innovation assets within the SWT area and where there are significant opportunities for growth. The cluster has a workforce in excess of 10,000 with more than half of this total located in Taunton. The cluster comprises the recently merged Somerset NHS Foundation Trust, employing nurses, doctors, researchers, scientists, therapists and its support staff and having around 350 active research projects running at any one time. The latter has 'export type services' in that the Trust supports other UK trusts, notably in cancer and diagnostics. The Trust is also investing £450m to a major building programme (Musgrove 2030). The Musgrove Hospital site is highly constrained and there are opportunities to relocate some non-acute services off-site as a part of the Musgrove 2030 investment programme. This in turn could create opportunities to redesign services and co-locate with other knowledge based organisations. One such colocation with the private sector has already been committed - this also delivering a new square foot Health Innovation Centre at Blackwater in the Zenith Building. Importantly, the cluster also includes several medium sized private companies operating in health, medtech, ehealth, health insurance, health care photonics - with these businesses employing in excess of 1,000 jobs, this excluding the SW regional HQ of NHS England (with St Austell). Significantly, most of the private companies are the UK/European HQs of international businesses and all are located in Taunton. In the round and given the size of this cluster, together with its forecast growth, stability and impact on community wellbeing and ageing – and because government's R&D Road Map 2020 commits it to 'unlock improvements in health, wellbeing and prosperity' and to level up<sup>2</sup>, it is EiBC's view is that this cluster needs to be given a much higher priority and a target for growth. Part of achieving this higher priority is to establish a Taunton Innovation District (see later), which is part of a proposed HotSW Regional Technopole<sup>3</sup>.
- The construction and decommissioning of nuclear power stations at Hinkley are well understood drivers of economic development and there are already a wide range of actions and groups operating in this domain. Actions are organised at the regional and national level (eg, EDF, CGN, the NDA with many companies involved in designing, contracting an decommissioning nuclear power), as well as enabling groups such as Nuclear South West, the South West Energy Hub, the HotSW and the Energy Working Group. BTC also hosts the National College for Nuclear. Bridgwater also hosts the Somerset Energy Innovation Centre with its Phases 1,2 & 3, SWMAS and the Hinkley Supply Chain Team. However, whilst all of these have positive economic impacts, most of the knowledge based employment associated with nuclear design, testing, design construction and commissioning is focussed elsewhere. In large part, this is also the case with the development of renewable technologies in the South West. Moreover, a significant part of the current economic benefits will begin to tail off with the completion of the construction and commissioning work associated with Hinkley C and the Decommissioning of Hinkley B. EiBC is therefore of the view that more emphasis needs

<sup>&</sup>lt;sup>2</sup> UK Government R&D Road Map 2020

<sup>&</sup>lt;sup>3</sup> HotSW agreed at its November 2020 Innovation Board to progress plans and investments around a Regional Technopole

- to be given to defining a *distinct innovation legacy* from nuclear and in this regard we have identified some potential projects that require detailed consideration (see below).
- A small but nationally significant group of organisations is located in SWT around the business domains of waste management, recycling, biomanufacturing and the circular economy. Three organisations in particular provide a platform to develop and grow this cluster in a way that is highly distinctive at regional and UK levels (Viridor, Biohm and SWP). Viridor, the largest recycling and energy recovery company in the UK, is headquartered in Taunton, has a long history associated with the South West and has an active programme of R&D associated with recycling and the circular economy<sup>4</sup>. Biohm is a biotech and biomanufacturing company based in London with innovative technologies in bringing new green construction materials and systems to market using local excess resources. A recent inward investment to Watchet, Biohm is establishing its first production plant in the UK and the ambition is to diversify into more bio-based construction products (eg biomanufactured construction boards, mycelium insulation boards, plant-based concrete and a biotechnology that consumes plastic). It also intends to develop a number of other related projects associated with the circular economy such as affordable housing using low carbon materials, renewable energy and research and skills initiatives underpinned by an innovative community partnership business model with the Onion Collective.
- Somerset Waste Partnership, a partnership business operated through a joint board drawn from Somerset's county council and its 4 district councils has responsibilities are for waste collection, waste disposal and recycling and is independently ranked as a leading operator in England for carbon saving, emphasis on waste reduction, energy from waste solutions, recycling, education and changing behaviours. It has a strong desire to support research, innovation and impact, in partnership with others, by using its operational knowledge, scale and influence. EiBC consider this cluster opportunity to be nationally distinctive, fully aligned with the Carbon Neutral ambitions of the SWT. Further detailed feasibility and planning work will be required and could attract funding and support from the private and third sectors, BEIS, Innovate UK, universities, BTC and HotSW.
- The SWT **Digital and Creative** cluster is largely a cross-cutting innovation asset embedded in many organisations, but also evident in the large number of micros of less than 10 employees. For example, Digital Taunton (DT) is a 750 plus membership organisation with many micros supporting an active cluster for the digital community, through collaborations, networking and by hosting quarterly workshop events. As a dynamic community led organisation it is a regional 'stand out' and together with CICCIC, a creative innovation and community interest company, both have been drivers supporting the £9.6m plus Taunton Digital Innovation Centre to be delivered by Q3 2021. Key to exploiting the local digital and creative assets is to *link* SWT micros and the growing BTC digital talent pool<sup>5</sup> to the four clusters through partnership programmes and placements.

<sup>&</sup>lt;sup>4</sup> For example, it is investing £65m in the UK's biggest multi-plastic recycling and reprocessing plant at Avonmouth - this ground-breaking UK circular economy collaboration, integrates with Viridor's polymers investments to deliver a more complete plastics recycling solution.

<sup>&</sup>lt;sup>5</sup> Through its SWInstitute of Technology Partnership, BTC has recently launched 28 'hop on hop off' Digital programmes

### **Enabling Innovation Assets**

The innovation assets within the SWT area are supported by five enablers and some of these are areas where the Council has some influence and control. These enablers are: 1) policies that align with and support innovation assets; 2) business space and physical infrastructure that is suitable, functioning and attractive for knowledge based businesses; 3) good access to high level skills, talent and university research; 4) easy access to practical knowledge exchange and business innovation support services and funding; and 5) leadership/governance. EiBC's assessment of these enablers are summarised below:

- Policy Alignment and SWT Innovation Assets: there is a high degree of alignment between the Government's Industrial Strategy, the UK R&D Road Map, HotSW LIS and Productivity Strategies and SWT, SCC, SNHSFT and BTC strategies and plans relevant to innovation in the SWT area and also a good alignment between HotSW priorities in Clean Growth, Energy Futures, Digital Futures and Inclusive Growth. However, the Health/Medtech strength in SWT is not currently highlighted by HotSW as a priority and EiBC believe there is a strong case for this cluster to be better recognised and supported. Also assets and opportunities around waste, recycling, biomanufacturing and the circular economy should also have stronger policy priorities. HotSW's innovation policy emphasis was set out by its Innovation Board in November 2020 with this informed by the MIT REAP programme<sup>6</sup>. This seeks to build a network approach to innovation around a multiple locations using the Technopole concept and to invest in support for knowledge exchange and business support services<sup>7</sup>. This approach strongly accords with the conclusions reached by EiBC.
- Skills, Talent and Universities: BTC and its University Centre employs in excess of 1,000 staff and recruits some 23, 000 full time and part time students. Approximately 700 students are pursuing programmes at Higher Education (HE) level and significantly, BTC has a national role in co-hosting the UK's Nuclear College. It is currently expanding its T level<sup>8</sup> and Digital programmes and its degree level Nursing programmes the latter likely to stimulate demand for additional student accommodation. Although universities in Bristol, Exeter, Bath and Plymouth surround the SWT area and there are a many links between these and knowledge based organisations in the area, there is, in EiBC's opinion, a case to secure some selected strategic commitments from the university sector within SWT around some of its key innovation assets and also opportunities to strengthen BTC's UK and international role in specialist high level vocational training (see recommendations).
- Physical infrastructure: infrastructure (innovation centres, science and innovation and mixed use developments that specifically targeting knowledge based occupiers) are one element required for a successful innovation ecosystem. Currently there is only 34,000 square feet specifically catering for knowledge based business in Somerset County area, but in the next two years this will increase fourfold to 124,00 square feet when construction and fit out at the TDIC (Firepool, Taunton), Zenith (Blackbrook Business Park, Taunton), Phase 2 and 3 SEIC (Bridgwater) and iAERO (Yeovil) innovation centres are complete. In addition to this with a second phase of the TDIC at Firepool, the Gravity and Nexus sites fully developed there will be a huge level of additional floorspace available over the next 2-10 years and specifically targeting knowledge-based businesses. In the light of this EiBC has concluded there is no case to promote a SWT science park at the present time. We comment further on this below.
- Knowledge Exchange, Innovation Business Support: A range of general business support services operate in SWT and are provided by the District Council, SCC and the HotSW Growth Hub. Since 2019 SCC and the four Somerset District Councils have also piloted a business

 $^{7}$  HotSW Innovation Board Paper November 2020

<sup>6</sup> https://reap.mit.edu/

<sup>&</sup>lt;sup>8</sup> T Level programmes are equivalent to 3 'A' levels and are applied to some 24 industry specific areas

mentor programme (Somerset Catalyst) to support fast growth knowledge based start-ups. However, EiBC's conclusion is whilst all of these are beneficial, much more is required to provide knowledge based businesses with a more focussed and comprehensive innovation service for businesses — and that are regularly found in many successful science and innovation centres and innovation districts. This is important as start-ups, SMEs and even larger knowledge based organisations rarely have the time and resources to 'pick through' and bring together all the key services and support to drive and deliver innovation, or the external stimulus that such services bring to the process of securing innovation. EiBC has identified recommendations to pursue this type of service (involving the HotSW) and a specific business planning piece of work is required to take this forward.

• Leadership and Governance: Leadership is also widely accepted as one of the key elements of a successful ecosystem. EiBC's UK experience and our assessment of the particular challenges in SWT supports this view. Specifically, EiBC believes that a SWT Innovation Board supported by Cluster Groups can help secure innovation and economic development. From our initial consultations these concepts have support from a number of senior level employers and they can provide ideas, independent assessments of progress and be a powerful and influence voice for the funding of new initiatives. A Board and Cluster Groups would come as a near zero cost intervention with its inputs largely dependent on senior employer and stakeholders time and would complement the HotSW Innovation Board.

A summary of EiBCs assessment is presented below with the areas of strength and opportunity highlighted in green – and weak/missing areas in orange.

	Innovation Assets						Mailea Compositor Action
Innovation Clusters	Major	Significant	Niche	Missing/Weak		Digital/ Creative	Major Opportunity Action Areas
Health/Medtech/Health Insurance/Photonics/Health Applications					Health Care	Š	Growth/Start Up/Network and Inward Investment Opps and Taunton Innovation District
					Medtech/eHealth (with a number of HQ's in Taunton)		
					UK Health Insurance (HQ in Taunton)		
					Photonics / Health Applications (UK HQ in Taunton)		
Clean Tech					Nuclear Construction/Decommissioning (EDF, CGN, )		Legacy, Growth, International UK/regional leadership Opps
					Renewables		
					Waste Management (Viridor HE and SWT)		
					Biomanufacturing/Sustainable Construction Materials (Biohm)		
					Agritech		
					Natural Assets		
Marine Data Systems					Global business and UK HQ UKHO		Growing Blue Economy &
				Missing	Missing UKHO business/research partners in SWT		leveraging from UKHO
Skills/Research					BTC/National Nuclear College/University Centre		Grow UK/International Nuclea
				Missing	in-County University Presence		Skills Centre & secure niche on-si R&D and University presence
Infrastructure					Existing Innovation Centres		
					Committed Innovation Centres		
					Grow-on-Space for Knowledge Busineses		
				Weak	Digital Speeds/Connectivity patchy		
				Missing	Network innovation and innovation district concept		Develop Innovation network at district concept
Networks/Governance					Digital Taunton		
					Public sector general innovation business support service		
				Missing	KE/Commercialisation Service		Establish Innovation Board an
				Missing	WST Business led Innovation Governance		Cluster Groups with KE/Commercialisation & Innovat Support Service
Community Assets					Number of Very High Performing Schools		
					Outstanding Natural Heritage Assets		
					High level accessibility to cities/rail/M5/M4		
					Housing quality/range/pricing		
Innovation Image/Perception				Weak	Marketing message needs development		Develop Innovation & Enterprise marketing messages

<sup>&</sup>lt;sup>9</sup> Many established science and innovation parks and innovation districts have small innovation leadership boards, for example, Manchester Science Park and its Oxford Road Innovation District, Edinburgh BioQuarter, Newcastle Helix, Northern Ireland's Catalyst.

### **Summary of Recommendations**

### An Alternative to a Traditional Science Park

EiBC has concluded that there is no case for SWT to promote or invest in a traditional new science park, but rather pursue a different approach. The reasons why we do not recommend a science park have been touched on already, but as this was one of the central questions raised as a part of this assignment, we summarise the key points below:

- there is no evidence that a university, an anchor knowledge intensive business/organisation will provide the stimulus for a single site traditional science park.
- As we have already indicated over the next 3 years a network of new innovation centres will be delivered in Taunton (2), Bridgwater (3), Yeovil (1). Additionally 3 sites in SWT (Firepool TDIC, Nexus and Blackbrook) offer further opportunities for grow-on space for knowledge based businesses with a capacity in excess of 600,000 square feet in Taunton. This is in addition to a further 300,000 square feet of general business and light manufacturing space at the Crown Estate 10 and over 300,000 square feet at the Gravity site. Firepool has a capability to accommodate a Phase 2 innovation centre and Blackbrook, already the home for several health based knowledge based businesses, has a key undeveloped site adjacent to Zenith innovation Centre, whilst the 40 acre Nexus site can accommodate around 377,000 square feet of knowledge based business. Outside Taunton, Watchet can also accommodate at least 54,000 square feet of business space at the former papermill site. All of these sites are committed and most are 'shovel ready'. Excluding the Crown Estate and Gravity sites and the other innovation centres coming on stream elsewhere in Somerset, the remaining SWT sites deliver in excess of half a million square feet of space with a potential to accommodate up to 4,600 direct knowledge based jobs in addition to jobs that are indirect and induced economic impacts.
- Our recommended Taunton Innovation District proposal <sup>11</sup> and also the opportunities at Watchet offer the SWT area to develop an innovation ecosystem at scale, that is credible, distinctive and viable and secures far greater investment leverage from the private sector.
- There is little appetite from HotSW to support new science parks. Current thinking is based
  on developing a networked Technopole this using the key innovation assets of the region
  and supporting growth through a network of existing sites/innovation centres, parks and
  innovation zones/districts and by developing a knowledge exchange and business innovation
  support service.

Our alternative approach is to recommend that SWT pursues multiple actions that that builds on the particular and distinctive innovation assets in the area and can transformed into an innovation ecosystem by pursuing four action themes:

- Establishing a Thriving Innovation District in Taunton;
- Securing an Innovation Legacy from Hinkley;
- Creating a Biomanufacturing/Biomimicry and the Circular Economy Demonstrator in Watchet;
   and
- Establishing the Underpinning Support for Innovation across the District

<sup>&</sup>lt;sup>10</sup> Already the home of two major advanced engineering/health and photonics businesses, Amphenol Thermometrics and Novanta

<sup>&</sup>lt;sup>11</sup> Innovation Districts are being developed in many UK and international locations. They 'constitute the ultimate mash-up of entrepreneurs and educational institutions, start-ups and schools, mixed-use development and medical innovations, bike-sharing and bankable investments - all connected by transit, powered by clean energy, wired for digital technology, and fuelled by caffeine' (Katz & Wager, Brookings Institution 2017)

Through these actions SWT would become known for its strengths in Global Marine Data Systems, Health/Medtech, Energy and Biomanufacturing and the Circular Economy and use the Taunton Innovation District, the Taunton Digital Innovation Centre, the Zenith Innovation Centre and a new innovation focused centre in Watchet as engines for the wider growth of knowledge based businesses. Integrated with a wider HotSW service, a new SWT Knowledge Exchange Business Innovation Support Service would support start-ups, high growth companies by providing research, market, financial, technology, skills, partnering and accelerator/mentor services. SWT would establish the Taunton Innovation District as a key part of the HotSW Technopole – this helping to change perceptions, develop place marketing initiatives and secure inward investment. Promotion, events, signage and an Innovation Cycleroute could also connect key hubs and link to other initiatives being developed though the Garden Town vision.

SWT should encourage BTC to grow its HE and Degree Apprenticeships so that it supports innovation and together with HotSW and its partner councils. The Council should also invite all the universities surrounding the county to commit to specific place based partnership projects in key domains, eg in to place based partnership working in global marine systems, health/medtech and in biomimicry.

SWT should support the establishment of a SWT Innovation Board and domain specific Cluster Groups. These can support innovation initiatives, support inward investment and help leverage central government resources. The Council's role should be to support and enable these to be established, not to lead them.

### **Detailed Recommendations and Next Steps**

Overall, we recommend that the Council adopts this *Framework for Action* – as a working document and considers four Action Themes and 22 specific recommendations:

### **Action Theme A: Taunton Innovation District (TID)**

- 1. Adopt and promote a Taunton Innovation District this will define some of the core SWT innovation and knowledge based assets and clusters, the network of innovation centres and knowledge focussed grow-on sites and an Innovation Cycleroute/civic art installations connecting all key locations all within the Garden Town. The TID will highlight the easy access to knowledge based skills, research and knowledge exchange and innovation business services all supported by its Innovation Board and Cluster Groups. This would represent a distinctive, powerful and credible proposition and be a major focus within the regional Technopole (Recommend 'intent to adopt' in Q1 2021 and formal launch in Q1 2022)
- 2. Work up the Taunton Digital Innovation Centre (TDIT) Furniture Fittings & Equipment (FFE) specification and budget. FFE including specialist equipment will be crucial to make this very important SWT innovation showcase building both useful for knowledge based businesses and attractive. At present neither has been confirmed and costs could be in excess of £0.5m and require an additional funding from public and private sources (Recommend immediate action)
- 3. Work up a preferred plan for **securing a TDIT operator**, this to include knowledge exchange and business innovation support services. Options should include links and/or integration with the private sector/NHS led Zenith Innovation Centre and a wider District service (First phase of this service to be operational by Q4 2021 and the full service by Q3 2022)
- 4. Explore and develop **Firepool 'meanwhile innovation and creative uses'** in the TDIC Phase 2 area and the adjacent sites (Recommend this forms part of the delivery plan for the Firepool JV. Progress in 2021 for implementation by 2023)

- 5. Liaise with UKHO on the **Pilot Marine Data Systems Accelerator** and explore with UKHO and HotSW how this can become a permanent jointly promoted programme and also strengthened to encourage businesses to co-locate in the TID. (Q1/2 2021).
- 6. **Promote local economic development and government 'levelling up' relocations** associated with UKHO and the Blue Economy (2021-3)
- 7. Discuss with UKHO/HotSW/Government the setting up an **Expert International Panel for Blue Economy Commercialisation** to drive opportunities to capture some of the huge opportunities locally (2021)
- 8. Explore with Government (BEIS/MoD), HotSW and the UKHO a **Blue Economy co-location** research partnership based in and using TDIC space. A 3 year programme could involve the UKHO, the University of Exeter and other UK and international universities and could draw on the successful University/Met Office partnership located on the Exeter Science Park. Acton would require a working group to define potential areas of research and potential funding support (2021/22)
- 9. **Establish a Cluster Group** around healthcare, eHealth insurtech, medtech, digital and photonics represented strongly by private sector and NHS employers. This would link with and be complementary to the South West Academic Health Sciences Network. It should be be a 'light touch' networking group to enable initiatives to be explored and specific projects actioned through joint or bilateral work (Q1 2021)
- 10. Work with Rutherford and SNHS Trust to **establish an innovation operator for the Zenith Innovation Centre** focused primarily on supporting new/growing medtech, ehealth/digital health businesses (see 3 above) (Q2/3 2021)

### **Action Theme 2: Nuclear/Renewables**

- 1. Continue to **support the Hinkley Point Supply Chain** to ensure local WST businesses have access to the high value knowledge based Hinkley contracting opportunities (On-going)
- Explore with EDF, HotSW, central government and SWT's local authority partners work a
  business innovation legacy from Hinkley. Three potential projects could be around a) the
  creation of an International Training Centre for Nuclear Skills operating as a major UK and
  export training service; b) a nuclear and/or renewable energy research and testing facility;
  and c) a sustainable energy demonstrator project linked to the circular economy. (2021/23)

### **Action Theme 3: Biomimicry and Circular Economy Demonstrator**

- Support the development of the biomanufacturing businesses (for example by encouraging
  the use of these materials in SWT housing developments) and a wider cluster of cluster of
  biomimicry R&D and businesses developments in SWT. This could involve the support of
  feasibility work, community town planning consultations and planning consents (joint working
  over the period 2021-3)
- Support the emerging opportunity for a Biomimicry and Circular Economy Demonstrator
  Village at the former Watchet Paper Mill. This could take many forms from supporting
  feasibility work, funding support etc to explore the development of affordable and market
  housing using low carbon materials,

(Joint working over the period 2021/3)

### **Action Theme 4: Underpinning Support**

1. **Set up a SWT Innovation Board** – this to link to the HotSW Innovation Board and other Somerset initiatives (Q3 2021)

- 2. **Encourage and Support the creation of Cluster Groups** Health/MedTech, including Insurtech and photonics (2021); BioManufacture/Circular Economy (2021); Global Marine Data Systems (2021); and continue to support existing Energy Groups
- 3. In collaboration with HotSW and other SWT partners set up a Knowledge Exchange and Business Innovation Support Service in SWT. Initially this should have a focus on TDIC and Zenith and the four clusters. Later it could operate across the wider SWT area and other domains (eg agritech, natural assets) and also provide services in the 4 SWT Enterprise Centres. The services offer needs to be defined, resources and staffing agreed and a plan for making the service fully operational. Services that can be offered could include funding/grant support, business to businesses networking and partnerships, angel/funding links, networking events, innovation research and skills initiatives, placements/KTPs, mentoring, digital skills partnering, business innovation accelerator programmes). One option would be to set up a SWT pilot service with some services supported by some resources/funding and secondments. (Deliver pilot service in Q3 2021 and full service in 2022)
- 4. Support BTC work up new programmes for **existing and emerging skills gaps for knowledge based businesses** (2021-3)
- 5. Explore the setting up a CPD/Post Graduate Study Centre at TDIC and the Zenith Innovation Centre in collaboration with the BTC and partner universities (2021-23)
- 6. Work to secure some **specific university commitments in SWT.** Set out a high level evidence base and a proposition (ie a Somerset Universities Partnership Prospectus) and engage in a high level dialogue with a number of universities at the highest level that seeks to secure a long term strategic commitment and presence in SWT and elsewhere in Somerset(2021/2)
- 7. Work up an **Innovation and Enterprise Communications** action plan aimed at changing perceptions for individuals, businesses, inward investment businesses and house buyers who operate in the knowledge-based sector (2021)
- 8. Consider **budgetary implications** of the *Action Framework* for the next 3 years (2021) notably:
  - a) Capital and revenue funding associated with the launch and delivery of the TDIC (TBC over the period 2021)
  - b) Capital funding for TDIC fit out and equipment funding (this might require ca £0.5m or more)
  - Revenue funding/secondments/office space in TDIC to support the establishment of a SWT knowledge exchange and innovation support service (further work is required to define this over the period 2021)

### 1 Introduction

### **Background to the Assignment**

EiBC was commissioned by Somerset West and Taunton Council (SWT) to provide an independent assessment of SWT's innovation assets and enable it to focus on and support businesses and other knowledge based organisations in *cleantech* (including nuclear, renewable energy, the circular economy), *digital* (including opportunities associated with the UK Hydrographic Office) and *healthcare/medtech*.

SWT wanted independent evidence on the validity of focusing on these domains and advice on what potential business support and physical concept interventions it might pursue that would support and accelerate economic development and other wider SWT policies including those associated with meeting its target of the District being Carbon Neutral by 2030<sup>12</sup>. A particular question was also to explore the strategic rationale for developing a SWT Science Park. The full Terms of Reference (ToR) for the work are set out in Appendix A.

### Why Support Innovation in SWT?

There is a wealth of evidence that knowledge based organisations are drivers of high-quality jobs, higher skills, growing jobs and those with more resilience. For example, the UK Government's *Industrial Strategy* places ideas and innovation as not only one of the UK's great historic strengths, but central to increased productivity. It sets out the case for more investment in research and development (R&D) and in turning ideas into strong commercial products and services, and to do this in every part of the UK.<sup>13</sup> The UK Innovation Road Map commits record levels of investment in R&D (£22bn by 2023) and to 'levelling up' actions to support the distribution of R&D investment outside the 'golden triangle'<sup>14</sup>. A host of other organisations<sup>15</sup> promote insight, research, techniques and interventions to support innovation with all of these underlining the fundamental role of local government acting in collaboration with knowledge based businesses, universities/colleges and civic society to address the challenge of increasing productivity and jobs, but also other goals such as those associated with climate change, enhanced quality of life and improved health and well-being.

From many research reports and sources we also know that there is extensive evidence that in SWT there are a set of challenging KPIs for the area to address around innovation, for example:

- A low level of R&D expenditure in companies relative to turnover and only one significant R&D asset, this being the HQ of the UK Hydrographic Office (see Chart 1)
- A relatively low level of Higher Education participation, ie a HE 'cold spot' (Chart 2)
- A comparatively older population (ie 24% of the population are over 65 in Somerset compared to 18% in the rest of England & Wales<sup>16</sup>)
- In terms of its workforce, a lower proportion of knowledge-based workers and a lower GDP/per capita<sup>17</sup>
- A number of areas in Somerset with high multiple deprivation especially in West Somerset and Sedgemoor<sup>18</sup>
- Low levels of inward investment

<sup>12</sup> https://www.somersetwestandtaunton.gov.uk/media/2320/swt-economic-development-strategy-2020-2024.pdf

<sup>&</sup>lt;sup>13</sup> https://www.gov.uk/government/publications/industrial-strategy-the-foundations/industrial-strategy-the-5-foundations

<sup>&</sup>lt;sup>14</sup> UK Innovation Road Map (2020)

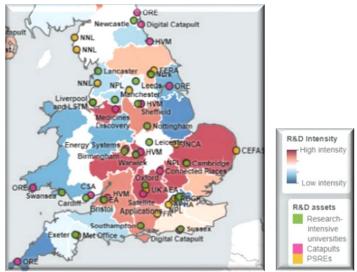
 $<sup>^{15}</sup>$  For example, NEST, UKSPA, OECD see for example www.oecd.org/innovation/research/1842070.pdf  $\cdot$  PDF file

<sup>&</sup>lt;sup>16</sup> ONS 2019 (see HJA 2019)

 $<sup>^{17}\</sup> https://gw4.ac.uk/wp-content/uploads/2017/11/SWW-SIA-MainReport-Final.pdf$ 

<sup>&</sup>lt;sup>18</sup> The number of 'highly deprived' neighbourhoods in Somerset (categorised as being within the 20% most deprived in England) increased to 29 in IMD 2019, up from 25 at the time of IMD 2015. Around 47,000 Somerset residents now live in a neighbourhood (LSOA) identified as one of the 20% most deprived in England. <a href="http://www.somersetintelligence.org.uk/indices-of-deprivation-2019-somerset-summary.pdf">http://www.somersetintelligence.org.uk/indices-of-deprivation-2019-somerset-summary.pdf</a>

Chart 1: Selected R&D Assets & R&D Intensity



Source: R&D Road Map 2020

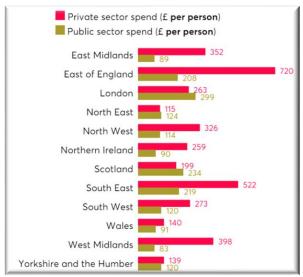
Note: Regional R&D intensity is calculated as GDP expenditure on R&D divided by GDP

**Chart 2: HE Participation** 



Source: HESA/POLAR 2018

Chart 3: UK Private and public sector spend on R&D



Source: https://www.nesta.org.uk/innovation-policy/

The Heart of the South West LEP (HotSW) has recognised these challenges and its strategy concentrates on supporting the 'dynamic heart' of the economy, (clean energy, engineering and digital) where there are significant opportunities to drive up productivity, transform the economy and deliver against national grand challenges. Harnessing these opportunities and the interplays between them will drive 'clean, inclusive and productive growth across the area'<sup>19</sup>.

The SWT Council has stated there has been an historic lack of clarity about the public policy innovation message and a perception that there is: 'inadequate support for enterprise and innovation' and a 'fragmented approach that has not been spread evenly across its geography. ....the Council has not been very proactive' (SWT Economic Development Strategy 2020-24)

From our early work on this assignment EiBC also recognised that whilst there was a wealth of research studies assessing the *general issues of economic development performance* – less has been focused on *practical actions*. In this report, whilst we have rooted our thinking in evidence, we have focused less on presenting extensive background data and more on our recommendations for how opportunities can be explored further and practical action taken forward<sup>20</sup>.

In part this reflects our own predilection for action-focused research and advice, but also because since the commissioning of our work, capital funding of £9.3m has been secured from HotSW, SCC, ERDF and SWT (the latter as landowner)<sup>21</sup> to develop a new 3,000 square metre Taunton Digital Innovation Centre at the Firepool site. A condition of this funding package approval is that it needs to be delivered by Spring 2022 and on this basis the delivery partners have committed to start construction work in January 2021.



Chart 4 Development Concept for the Taunton Digital Innovation Centre (TDIC).

This new investment and the level of engagement secured from businesses to use and take space in the TDIC<sup>22</sup> has the *capacity* to be part of a *transformation* towards a more vibrant knowledge based economy in SWT and a trigger for wider successes. But as we set out in our report, much more is required to fulfill the ambitions of the Council and secure a lasting change.

### **Innovation Work Programme**

Our work programme has in summary involved three principal areas of work:

- Building a clear understanding of SWT's Innovation Assets through
  - o background research on the local and regional business and economic development and planning context, including reviews of many previously commissioned reports
  - holding consultations and workshops with

<sup>&</sup>lt;sup>19</sup> Underpinning this, will be action on each of the five foundations identified in the National Industrial Strategy: Ideas, People, Infrastructure, Business Environment and Place. See HoTSW Industrial Strategy

<sup>&</sup>lt;sup>20</sup> EiBC is also aware that a 2 year MIT REAP Programme has been on-going since February 2020 among 10 leading figures at the HotSW level. Our approach to understanding innovation ecosystems assets, engage with stakeholders, designing strategy and actions is similar to the MIT programme, albeit that we have been able to be more granular by focusing on SWT. We hope that the output of this report will feed into the thinking and outputs from the MIT programme

<sup>&</sup>lt;sup>21</sup> This is subject to final business case approval from ERDF, SCC, SWT and HotSW/Get Building Fund

<sup>&</sup>lt;sup>22</sup> Over 90 businesses and organisations have confirmed their interest in supporting, using and/or taking space in the TDIC as a part of the Full Business Case

- the SWT Council members and officers and with partner local authorities and with the HotSW LEP on matters associated with policy, ambition, direction of travel and funding
- knowledge intensive based businesses and organisations including the NHS around their business activities and in particular their challenges, plans and ambitions in regard to R&D, innovation and business growth
- university and college organisations around research, knowledge exchange and commercialisation and skills issues and partnerships
- developers and land owners
- **Drawing on our own UK and international experience** of best practice in innovation and holding some selected consultations with UK based organisations
- Bring together our analysis and conclusions and discussing these with SWT senior officers and members

### **Consultations**

In building a clear understanding of SWT innovation assets, the consultations we have held with senior executives have proved to be critical to our work. These were gratefully facilitated through the excellent connections that the Council has built up in the recent past with these organisations. Significantly, the consultations held were at CEO/MD/Director level and were not only informative and positive, but crucial in influencing our recommendations about building the power of a local innovation network capacity and the possibilities of developing the 'soft power' of an innovation board and cluster groups (see Chapter 6 and 7) and, in due course, deploying an approach to Integrated Project Management for delivery. The grouping of the consultees by sector and domain is reflected in Chart 5 below.

**Chart 5: List of Consultee Organisations** 



Note: For a full list of consultees names see Appendix B

### **Key Questions for the Assignment**

EiBC also wanted to underpin our work by asking a series of key questions at the outset:

• Sectors, Domains and Innovation Assets: Can EiBC validate and give further insight into the Council's ambitions to focus on Clean Tech, MedTech and Digital? What are SWT's actual business-based innovation assets and what and where are the opportunity areas? Where might SWT focus its efforts and possible areas of support?

- Locations and Sites for Innovation: Over and above the Taunton Digital Innovation Centre (TDIC) is there a need and a market for another innovation centre or science park? If yes, where are the options in Taunton or outside the town? If not, are there other physical interventions and support that are needed? Should any physical interventions be based on a single location and site or involve an innovation network approach involving multiple sites?
- Supporting Knowledge-based businesses: Having an effective knowledge exchange and innovation support service is in EiBC's experience critical to grow knowledge-based business clusters and sustain vibrant innovation centres and science parks. What might SWT consider to establish this type of service?
- **Skills/Talent for Innovation**: Attracting, growing and retaining talent and skills is also a crucial success factor for any innovation cluster. Based on this, what might be needed to strengthen local skills for innovation?
- Policy, Governance & Funding for Innovation: What is the alignment between central
  government, HotSW and SCC policies and SWT's current policies and the District Council's
  innovation assets and opportunities. Also how can good governance help achieve SWT's
  innovation ambitions, are there any innovation related implications for the current options
  associated with local government re-organisation and what are the implications for funding?
- **Branding/Promotion for Enterprise and Innovation**: Finally, what messages might SWT consider to promote inward investment for innovation?

Of course, a further consideration running through all of these questions is the impact of Covid 19.

### **Report Structure**

The rest of this report is structured as follows:

- The next section provides a summary of the innovation assets within SWT, making reference to its wider catchment. We define these assets as the businesses and other organisations that are knowledge intensive and actively involved in *investing in R&D* and *implementing new or significantly improved products and services, processes, marketing methods, or organizational methods for customers, the community and secure natural environment benefits.* In this section we also comment on the alignment of these assets with policies and ambitions at the UK and regional level.
- In Sections 4-7 we then set out action areas around three organising themes: establishing a Thriving Innovation District in Taunton; Securing an Innovation Legacy from Hinkley; Creating a Biomanufacturing and the Circular Economy Demonstrator; and Establishing the Underpinning Support for Innovation
- In Section 8 we summarise our key recommendations.

### 2 Innovation Assets

### **Innovation Assets in SWT**

In undertaking this work we have undertaken a high level scanning exercise to identify knowledge and innovation based organisations. We have done this by drawing on a range of secondary research sources, including a number of reports commissioned by SWT, SCC, HotSW and the UK government, the Innovate UK data base of grants given to businesses, as well as from intelligence drawn from the consultations we have undertaken. As it is a scanning exercise we have therefore not mapped every organisation involved in innovation, but have built a sufficiently clear picture of SWT's main business based innovation assets to inform our analysis and *Framework for Action*.

Our high level summary of the Innovation Assets in SWT is illustrated in Chart 5 (highlighted in blue) and these operate in the six broad domains:

- marine geosystems, represented almost exclusively by the government research organisation the UK Hydrographic Office (UKHO);
- clean tech/ energy sector, including the nuclear energy businesses associated with Hinkley
  and including energy construction, operation and decommissioning (and including EDF, CGN
  and SWMAS its associated supply chain, in addition to the onshore and off shore renewables
  businesses);
- **clean tech/circular economy**: a smaller but distinctive group of businesses operating in the waste, recycling and biomanufacturing sectors and the circular economy;
- health/medtech cluster: a significant cluster of healthcare delivery, medtech, eHealth, advanced original equipment manufacturers (OEMs) operating in the healthcare markets;
- **insurance/insurtech:** a small but again distinctive group of companies in property insurance and health insurance; and
- digital and creative: a significant cluster of micros operating in the digital and creative sectors.
   We positioned the latter in the Chart as cross-cutting as these sectors tend to interact with many of the others around for example, industrial design, ICT, digital design, software publishing and solutions, telecommunications, computer programming, communications, etc.

# Marine Geosystems UKHO Marine Sor GPS (13 PCN) Rutherford Singer Pearalls Novanta Esmoor Peoralls Novanta Esmoor Peoralls Novanta Esmoor Peoralls Novanta Esmoor Digital & Creative Digital Taunton, CICCIC and long tail of Micros Talent and Breadth of Skills: High Quality Schools, Bridgwater & Taunton College/University Centre Innovation Infrastructure: 5 Enterprise centres, 1 existing (SEIC) and 3 committed innovation centres (TDIC, Zenith, iAero) plus Nexus and a large innovation park

**Chart 6 Innovation Assets Summary** 

The chart also refers to skills and the institutions that are crucial in supporting innovation skills and research and to innovation infrastructure, ie the enterprise, innovation and science parks. We comment on these later in this Section.

### **UKHO and Marine Geospatial Data Systems**

The UKHO is the largest hydrographic office in the world and its headquarters, with a workforce of 850, is located in central Taunton. UKHO provides marine geospatial services to ship owners, governments, and logistics businesses and 90% of all global marine trade and some 50,000 vessels use UKHO services. UKHO also undertakes research on coastlines, for example, on data and change in mangroves, kelp and seagrass.

Its business focus is on data collection, aggregation, analysis and the core part of its £168m business derives income from map sales and licenses. UKHO is sponsored by the MoD, receives no public sector annual grant and generates a significant annual surplus for the Treasury.

Its staff include some 450 geo-spatial specialists (geographers, cartographers, climatologists, oceanography, acoustics, marine data, water profiling, marine biologists etc), some 150 software engineers, data scientists and astrophysicists) and around 250 other managerial and support staff. It has a number of commercial and university partnerships around the globe.

A key challenge for UKHO is responding to the digitalisation of marine data and the competition that will ensue from a more open market in global marine data services.

The UKHO and the UK government through the setting up of the Geospatial Commission<sup>23</sup> recognize the scale of this challenge and also the new opportunities associated with the 'blue economy' - this estimated to be worth



£3.2 trillion by 2030. Marine geospatial data is expected to play an essential role in supporting this growth, for example, by enabling the identification of new areas for tidal and wind generation, supporting safe navigation for larger autonomous ships and playing a vital role in mitigating the effects of climate change.

In September 2020 the UKHO launched a Pilot Accelerator Programme<sup>24</sup> to attract research and commercialisation partnerships, with this a very significant new step in exploring new markets and commercial opportunities. The programme comprised 4 mini-competitions based around: autonomous marine navigation systems; marine risks and insurance; offshore renewables; and carbon sequestration/sea level rises plus an internal UKHO project. The competition has already attracted over 35 submissions from the UK and overseas commercial partners and the UKHO has already selected a small number of good potential projects to progress and award – not only a prize of £175k but access to further UKHO partnership working in 2021 and beyond.

Th pilot programme is already been viewed as a success and there is a very good case for it to be further developed, expanded and supported further. It will be important for SWT and HotSW to support this further and also seek to secure local innovation and economic development benefits from

<sup>23</sup> https://www.gov.uk/government/organisations/geospatial-commission

<sup>&</sup>lt;sup>24</sup> https://www.gov.uk/government/news/ukho-launches-new-innovation-programme-to-support-development-of-the-blue-economy

the programme. SWT might could offer to provide business space in the TDIC offer to successful UKHO partnerships and together with HotSW support the continuation and expansion of the programme.

Like all knowledge based organisations talent recruitment, training and retention is also a key issue for UKHO. Efforts to strengthen SWT as an attractive location for knowledge based workers is therefore important, as are perceptions and practical arrangements for networking, continuing professional development and apprenticeships.

### **UKHO** opportunities that are discussed later are:

- How the UKHO might sustain its Pilot Accelerator Programme?
- How UKHO/university research partnerships can be strengthened as well as those with the HotSW Marine Sector strategy
- How the UKHO might link with the Met Office/University of Exeter Environmental Accelerator?
- How the UKHO might use the Taunton Digital Innovation Centre?
- What more might be explored to promote UK and international inward investment around marine data systems?
- What talent and skills initiatives might be progressed that support UKHO requirements and the growth of businesses in this domain?

### **South West Nuclear Sector and Local Innovation Assets**

A major hub within the South West nuclear sector is located around Hinkley Point A, B and C. (see Chart 7) with much of the local business and economic activity clustered in the West Somerset and Bridgwater area.



Chart 7 Major Nuclear Sites in the South West<sup>25</sup>

Hinkley A: is one of the 17 earliest nuclear power stations which have now ceased operation and are being decommissioned by the Nuclear Decommissioning Authority (NDA) / Magnox. Hinkley A closed in 2000 and decommissioning work is in progress. Hinkley B: is one of the second generation of nuclear

<sup>&</sup>lt;sup>25</sup> Nuclear Sector Capability of the South West of England, 2018, Frazer Nash Consultancy

power stations, the advanced gas cooled reactor (AGR) fleet operated by EDF. The first EDF station to start decommissioning is likely to be Hunterston B in 2023, followed by Hinkley B in 2024<sup>26</sup>.

Hinkley C: is a new build nuclear power station being developed by EDF at an estimated cost of £20 billion. Construction work started in 2018 and it is due to be completed by 2023.

Many of the nuclear related businesses are located close to the M4, M5 and A30, with Bristol home to the largest number of companies (34% of all entities and including EDF's south west HQ). According to the Science and Innovation Audit,<sup>27</sup> there are also notable clusters around Bridgwater, as well as Gloucester and Cheltenham, but not the SWT area.

Key business, innovation and skills support assets include the following:

- Nuclear South West (NSW) was established in 2015 and is an industry-led cluster supported by government, academic and education stakeholders which coordinates dialogue between the partners and provides the region with one unified voice for developing and managing new projects and investments
- Hinkley Supply Chain Team is a collaboration of Somerset Chamber of Commerce, South West
  Manufacturing Advisory Service (SWMAS) and Business West with EDF Energy at Hinkley Point
  C. The consortium uses their local knowledge and expertise to support businesses in Somerset
  and the South West to compete for Hinkley Point C contracts
- Somerset Energy Innovation Centre (SEIC) is close to Junction 23 on the M25 and a hub for businesses seeking to collaborate and exploit opportunities in the low carbon and nuclear energy sectors, particularly in relation to the new build development at Hinkley C. SEIC 1 opened in February 2016, is ca 30,000 ft<sup>2</sup> and home to ca 40 businesses. SEIC 2 opened in 2018 and is ca 20,000 ft<sup>2</sup> of mostly office space but includes 3,500 ft2 of technology workshop space as well. It is operated by the (SWMAS). A third SEIC building of 1,000 square feet is planned for delivery by Q3 2021.





National College for Nuclear (NCN) is part of Bridgwater and Taunton College (BTC) and is located on the College's Cannington Campus near Bridgwater. It provides tailored training programmes for the nuclear sector and specifically it works with EDF to provide the skilled workforce it needs for the construction of Hinkley Point C. It will also provide a potential a legacy for future training needs of employers and learners for other regional and national needs. Extensive work with EDF energy and its supply chain has highlighted specific training needs including steel fixing and form working, plant operations, and engineering as well as wider skills to support the major infrastructure impact of this project.

<sup>&</sup>lt;sup>26</sup> A Review of Nuclear Capabilities in the South West, 2020, SWMAS

<sup>&</sup>lt;sup>27</sup> Based on Nuclear Industry Association members list of individual business units

- Construction Skills and Innovation Centre (CSIC) is also part of Bridgwater and Taunton College (BTC) and is also located on the College's Cannington Campus. The CSIC was built in partnership between the College, HotSW LEP and EDF Energy. It replicates a real-life construction site, with industry-standard plant, machinery and equipment, and provides critical skills training and apprenticeships for infrastructure construction, including nuclear new build at Hinkley Point C
- Advanced Centre for Engineering (ACE) is also part of BTC on the College's Bridgwater Campus. It provides skills training and support for advanced electrical engineering industries, and is a key partner in this respect for Hinkley Point C
- Centre of Excellence for Welding BTC has recently secured funding for this new facility which will also be based at its Bridgwater campus. The College has worked collaboratively with Weldability Sif, South West Institute of Technology (SWIOT), EDF and HotSW LEP to bring forward the project. It aims to develop, support and standardise the supply of high quality welders within the region, not only to support Hinkley Point C but to ensure a legacy of a highly skilled workforce which will be attractive to inward investors in the future.
- South West Nuclear Hub is based at the University of Bristol and incorporates the Nuclear Research Centre (NRC), which is a collaboration between Bristol and Oxford universities. It aims to reduce the cost of nuclear and grow research and teaching activities, driven by industry demand
- Hinkley Point C Supply Chain Innovation Lab is based at the University of Bath. It is a
  partnership between Hinkley Point C and the University of Bath School of Management based
  on a donation by EDF for a five-year period. The aim of the Lab is to deliver insightful and
  impactful research focusing on complex supply networks and connecting business leaders,
  policymakers and academics.

Beyond nuclear there are a range of other energy assets with emerging innovation related opportunities in the South West and some of these are represented in the SWT area. However, our scoping work suggests that a number of these assets or opportunities are yet to be fully assessed and represent a specific innovation related opportunity at this time, for example:

- Renewable Energy technologies and applications will have a range of positive business implications for SWT, but our study has not revealed any significant innovation based businesses in the area. Renewable energy is a major strength in the South West, especially marine renewables, with easy accessibility from ports and with clusters of specialist industrial and academic activity spread across the region, mostly in Devon and Cornwall. These areas also have a number of significant research assets. <sup>28</sup> The proposed Atlantic Array project <sup>29</sup> in the Bristol Channel may have significant implications for SWT but at the present time this project has been shelved, amid environmental concerns
- Distributed / smart energy systems whilst recognised to be a major UK opportunity and the SW region has limited capacity in the grid network<sup>30</sup> a pilot Active Management System is in Bridgwater

<sup>&</sup>lt;sup>28</sup> For example, the Offshore Renewable Energy Catapult, research centres and testing facilities relating to marine renewables (Plymouth is the largest marine institute in Europe and the home of Plymouth Marine Laboratories - PML), Exeter's Marine Energy Group, the WaveHub facility and the Marine Enterprise Zone, Plymouth

<sup>&</sup>lt;sup>29</sup> An array of 220m high turbines would produce electricity to power around 900,000 homes

<sup>30</sup> Ibid

- Carbon Offsetting Seizing more carbon offsetting markets, in relation natural assets such as the SWT coastal margins, as well as from energy crops and building projects<sup>31</sup> may represent a range of innovation related opportunities. However, we have not been able to identify these as sufficiently distinctive or developed in the SWT area
- Retrofit Retrofitting older housing stock is acknowledged as a key challenge in reducing carbon, with this housing accounting for 17% of energy related CO2 emissions. This is dominated by space heating<sup>32</sup> and recent Government funding support measures will accelerate the retrofit of social and market housing and support to decarbonise public buildings, including schools and hospitals. Like many other areas SWT will have a need to consider how several thousand dwellings can be retrofitted and this may stimulate new innovation in testing, materials, marketing, skills and monitoring.

### **Key Energy Opportunities**

- The focus to date in energy has been on nuclear construction, supply chains, skills for construction and on providing some support for impacted communities
- First mover opportunities associated with building on and replicating services for other nuclear construction sites, especially Sizewell, but also potentially other sites around the world offer significant potential opportunities
- There appears to be a lack of focus on funded innovation legacy assets beyond the completion of the Hinkley C or related to the decommissioning of Hinkley A and B in the form of research centres and businesses that are located in SWT (or Sedgemoor)
- Links to other clean energy initiatives within SWT might offer opportunities eg renewable energy associated with waste/circular economy initiatives

### **Health, MedTech and Photonics**

A significant cluster of knowledge-based organisations and businesses operate in the health care delivery, health care research, ehealth service delivery and in photonics manufacturing – largely in the Taunton area. NHS organisations dominate employment, but there is also a strong private sector business base.

The largest of organisations in this cluster is the **Somerset NHS Foundation Trust**.<sup>33</sup> It provides community and mental health services across the whole of Somerset and acute hospital services in the north, west and centre of the county and beyond. Its workforce comprises over 9,000 employees, ranging from therapists to nurses, doctors, researchers, scientists and its support staff. Musgrove Hospital in Taunton accounts for approximately half of the workforce and has nearly 600 beds, 30 wards, 15 operating theatres, a fully equipped diagnostic imaging department and a purpose built cancer treatment centre. It also has around 350 active research projects running at any one time and contributes to training the next generation of nurses, doctors and therapists and conducts research that helps advance clinical practice and treatments. Work is underway at Musgrove Park Hospital that will benefit from a major hospital building programme (Musgrove 2030) involving ca £450m of investment, with this including a new maternity and children's building and the further development

<sup>&</sup>lt;sup>31</sup> A proposal is that carbon offsetting from new building projects is secured at a planning application stage https://www.bristol.gov.uk/documents/20182/3368102/Carbon+Offsetting+in+the+West+of+England.pdf/894f7c11-33e4-a8b4-ec89-383878553184

<sup>32</sup> https://www.eti.co.uk/insights/housing-retrofits-a-new-start

<sup>&</sup>lt;sup>33</sup> Formed in April 2020 from Somerset Partnership NHS Foundation Trust and Taunton and Somerset NHS Foundation Trust

of its cancer and emergency services. This is in addition to a new surgical centre, acute assessment hub, therapies department and maternity refurbishments at the hospital, which are already underway. The Musgrove Hospital site is very constrained and it is understood that there maybe some opportunities to relocate some non-acute services off-site as a part of this programme. This in turn may create opportunities to redesign services and co-locate other knowledge based businesses with these ventures.

The Trust is active in developing new approaches and partnerships in digital health applications and

an exemplar in this regard is in its Cancer Register Service that has been developed by the Trust and rolled out to over 100 organisations in the UK and overseas. The register allows clinicians to track a patient through their whole cancer journey, from GP referral through to treatments and follow-up, with real-time data capture. The Trust is developing two similar products for patients who have suffered strokes or have diabetes.



An approach that secures partnership working with the private sector has also been developed with Rutherford Diagnostics (see below) and the ambition is to explore other potential areas where mutual benefits can be secured, for example, in proton therapy, pathology, audiology. The Trust is also keen to support the local expansion of Nursing with the College (see later).

Below we highlight other organisations that make up this significant cluster of health, medtech and photonics companies almost exclusively located in Taunton. This sector comprises at least 1,000 employees, with this excluding employees in NHS England, the Clinical Commissioning Groups and SCC's social care responsibilities, the 65 GPs and 13 Primary Care Networks, the SW Academic Health Sciences Network and education and training organisations operating in health and care.

- Rutherford Diagnostics provides advanced cancer care in the UK and internationally, building a network of oncology centres known as the Rutherford Cancer Centres. They provide CT, MR, Ultrasound, Endoscopy, PET/CT and Genomics services, provide staff, buildings and undertake research and education placements. They have a strategic equipment and research partnerships with Philipps, Elecktra and IBA and their infrastructure investment with Equitix. The outcome of a new partnership with NHS Somerset Foundation Trust is that the Zenith Building at Blackbrook, Taunton will be refurbished and operational by the Q3 2021, this providing diagnostic services that will include Computed Tomography, Magnetic Resonance Imaging, Ultrasound, X-Ray and other relevant diagnostic services. In part this will be facilitated by Rutherford's health technology partner, Philips and would be accommodated on the ground floor of the Zenith Building. The building is also planned to host some Trust research and innovation activities (on one of its other two floors) and another floor will be designed to host and support other MedTech, eHealth businesses. Plans for this are innovation venture are at an early stage of development
- Novanta (trading as Cambridge Technology) designs, develops, and manufactures innovative laser beam steering solutions with its key markets in advanced industrial and electronics processes, health care laser-based medical procedures, and scientific applications. Medtech is seen as a significant and growing sector and the company is embarked



on a growth strategy. Novanta has recently announced that it is moving from its older premises in central Taunton to new premises on the Crown Estate, expanding its services and employment

- and further developing its R&D and innovation services. Novanta currently employs around 50 staff and Taunton is a major UK business centre within a global Novanta network of businesses.
- Singer Instruments is located in West Somerset and is a technology provider operating in a variety of technology areas and medical fields, for example, cathers and transducers, electronic pills, surgical tools and implants, robotic systems. It has global research partnerships and markets and is planning on major expansion over the next 3-5 years. This will require new premises and a new location. Singer employs around 40 staff
- Surgical Specialties Taunton, trades as Pearsalls. Pearsalls has transitioned to the manufacture of
  medical devices from its original set of core competencies of twisting, braiding, dyeing and
  coating. The site covers 65,000 square feet with 30,000 square feet of manufacturing area and it
  employs around 200 staff. The company HQ is in Taunton and it trades globally. It discovers,
  develops, and markets innovative technologies and medical products primarily for local diseases
  or for complications associated with medical devices
- Amphenol Thermometrics. Amphenol Thermometrics is part of a global US Amphenol Group businesses with Amphenol Thermometrics UK headquartered in Taunton (the Crown Estate). Its business provides advanced sensing technologies and embedded measurement solutions, for example, temperature, pressure, humidity sensors for: medical devices and medical instrumentation; and a range of sensor applications for the industrial pharmaceutical and transport sectors. Amphenol UK had a turnover of £27m in 2019 and employs around 130 staff
- Exmoor, located in central Taunton designs, develops, manufactures and markets sterile surgical
  devices for use in otorhinolaryngology (ie Ear, Nose and Throat treatments). Exmoor develops and
  manufactures for ENT/ORL, anaesthetics and pathology / histology / cytology and is a leading
  company in the field. In September 2020 Exmoor Plastics Limited was acquired by Robinson
  Healthcare Limited which is active in single use medical instruments.
- **Telemedic Systems** is a small business located in central Taunton with global markets and partnerships in integrated healthcare solutions, telemedicine and portable medical devices that can be used anywhere to transfer health data. The company moved from the USA to Taunton and retains strong links to a number of US health care partners.
- DEOS is a Taunton-based business that has developed a mobile service for radiography that can
  cut costs and speed up medical screening for breast cancer and other diseases. It has been
  supported by Innovate UK. Mobile medical screening involves the collection of digital images and
  their physical transportation to a centre where they can be processed and viewed. DEOS was
  initially based at the European Space Agency's Business Incubation Centre in Harwell, Oxfordshire,
  but moved to Taunton.
- WPA specialises in health care insurance and is located in Blackbrook Park Taunton. WPA moved from Bristol to a specially designed building and has made some significant innovations in the health insurance market. It was described by the World Health Organization as leading in the development of coinsurance, or "shared responsibility", policies, in which the patient pays a portion of the liability. Its turnover is in excess of £100m and has in excess of 250 employees. WPA is a 'not for profit' organisation and has significant CSR activities.
- NHS England/Health Improvement is one of the South West's NHS England's headquarter offices and is located in Blackbrook, Taunton, with a number of the leading directors and management staff based at this centre<sup>34</sup>.

<sup>&</sup>lt;sup>34</sup> Somerset CCG is based in Yeovil although a number of its staff are Taunton based.

- Somerset CCG is headquartered in Yeovil, but a number of its staff are located in the SWT area.
   Post Covid office working arrangements are likely to create some opportunities for flexible working not only from home but in appropriate co-working spaces such as the TDIC.
- **Somerset County Council** is the lead organization for adult and children care and for public health. It operates across the county and has its HQ in Taunton.

As a part of our work EiBC hosted a workshop involving senior staff from some of the above organisations. This revealed that this was the first time this domain specific group of businesses had come together. Moreover, although it was early days, there was an appetite to consider setting up a network group of likeminded businesses to exchange ideas, network and consider potential research, innovation and skills issues.

### **Key Health/Medtech/Photonics Opportunities:**

- Taunton has a major cluster of health/medtech/eHealth organisations in the public and private sectors and there is clear evidence of growth and investment, the cluster is robust and operating in a growing local and international market and there are opportunities to grow this cluster further, focusing on local solutions for health care delivery and rest of UK and international export services
- There is a strong case that this cluster needs to be better reflected in economic policies
- There are opportunities for product design, university/NHS/ business research partnerships, spin-outs/spin-inns and space and knowledge exchange services to be provided at the Zenith Building and links to Taunton Digital Innovation Centre. The application of digital technologies and businesses applications will be key to many opportunities
- There is an appetite to consider a health, medtech cluster group
- The above has implications for inward investment in these domains and potentially there
  are a number of site specific opportunities that might emerge from further business growth,
  collaborations and clustering

### Biomanufacturing, Waste and the Circular Economy

A nationally significant group of organisations are located in SWT, with their business interests in biomanufacturing, recycling and waste management. R&D and innovation is an important part of each of their organisations. We provide a brief introduction to these below:

• Viridor: Viridor is the largest recycling and energy recovery company in the UK, is headquartered in Taunton. In July 2020, Kohlberg Kravis Roberts, a global investment firm, bought Viridor in a £4.2bn deal. Viridor have a long history associated with the South West and has an active programme of R&D and innovation associated with recycling and the circular economy and the Director of Innovation is Taunton based. Earlier in 2020 Viridor led a collaboration designed to allow the South West and South Wales take responsibility for all the plastic consumed to give it a recycling solution. <sup>35</sup> It is now investing £65m in the UK's biggest multi-plastic recycling and reprocessing plant at Avonmouth with this expected to be finalised by the end of 2023. The project would represent a ground-breaking UK circular economy collaboration, integrating with Viridor's polymers investments to deliver a more complete plastics recycling solution. The project involves a German specialist partner, Plastic Energy.

<sup>&</sup>lt;sup>35</sup> Viridor has brought together 150 representatives of local authorities, trade bodies, recyclers and reprocessors, packaging manufacturers, consumer brands, the retail sector and NGOs involved in beach cleans and litter picks to consider a new regional initiative.

The new plastics recycling plant will be powered by energy created from non-recyclable waste as its fuel

- Biohm: Biohm is a biotech and biomanufacturing company based in London with innovative technologies in bringing new green construction materials and systems to market using local excess resources. A recent inward investment to Watchet, Biohm is establishing its first production plant in the UK and the ambition is to diversify into more bio-based construction products (eg biomanufactured construction boards, mycelium insulation boards, plant-based concrete and a biotechnology that consumes plastic). It also intends to develop a number of other related projects associated with the circular economy such as affordable housing using low carbon materials, renewable energy and research and skills initiatives underpinned by an innovative community partnership business model with the Onion Collective.
- Onion Collective: The Onion Collective is a social enterprise formed in 2013, with a focus on West Somerset / Watchet community regeneration. It is a place-based Community Interest Company (CIC) that operates with a systems change lens. Its focus has been on developing plans, securing funding and managing the delivery of projects associated with the regeneration of the town, but doing so in collaboration with the local community demonstrating a socially just transformation of a local economy. This includes work on the site at Wansbrough Paper Mill, which closed in 2015 with loss of 175 local jobs. It currently employs 12 people and is now in the process of formalising a JV with Biohm regarding a community biomanufacturing facility at this former industrial site. Onion Collective has also devised and managed the delivery of a £7million cultural development on the town's quayside, as well as a visitor centre/boat museum, a community garden and pavilion. Its Directors were previously involved in the establishment of the Minehead EYE project, a £3.2m youth centre initiative.
- Singer Instruments: previously referred to in health and medtech has a R&D collaboration in
  in automation and robotic instruments for synthetic biology with the BioFoundry Singapore.
  This involves the development of a new advanced and automated high-throughput colony
  picker to design and build biological parts and cutting edge devices to help fuel bio-based
  economies
- Somerset Waste Partnership: SWP is a partnership business operated through a joint board drawn from Somerset's county council and its 4 district councils. It responsibilities are for waste collection, waste disposal and recycling and it has an annual budget of ca £45 million. It has contracts with Viridor (for disposal) and SUEZ (for collections) and is independently ranked as a leading operator in England for carbon saving, emphasis on waste reduction, energy from waste solutions, recycling, education and changing behaviours. Whilst recognising its limited ability to do so independently, it has a strong desire to support research, innovation and impact, in partnership with others, by using its operational knowledge, scale and influence. It also believes there is an opportunity for other parties to develop new knowledge based business opportunities associated with waste, for example, the provision of specialist advisory services to businesses for their waste, recycling, packaging and addressing climate change impacts.

 $<sup>^{36}</sup> http://modgov.southsomerset.gov.uk/documents/s29358/6\%20 updated \%20 Somerset \%20 Waste \%20 report \%20 on \%20 business \%20 plan \%2020 20 \%20 + 62 \%2$ 

### Key Biomanufacturing, Waste and the Circular Economy Opportunities:

- SWT has significant business and local authority assets operating in waste, recycling, biomanufacturing for construction materials and the circular economy. These are of regional, UK and possibly international significance
- In November 2019 government committed UKRI funds of £22.5m in 5 research centres to tackle waste, boost recycling with UCL's and Exeter University's research centres both relevant to the SWT opportunities<sup>37</sup>
- Research, innovation, talent and skills will be crucial to support innovation in these
  domains. There are opportunities to open up partnerships with universities, research
  institutes, such as the Manufacturing Technology Centre and BRE and with BTC
- The large Watchet site is of particular relevance to this development

### **Digital and Creative**

The digital and creative sectors encompass a diverse range of activities; from telecoms to advertising, computer programming and computer software, product design, media and broadcasting, architecture, art, crafts, fashion, film, photography/video, music, performing arts, publishing. Creative businesses are based on work in which *ideas and innovation* are fundamental and many businesses incorporate digital technologies to engage and communicate whilst creativity and design disciplines are increasingly important to not only digital projects, but a wide range of other products and services.<sup>38</sup>

Government considers digital skills to be a top priority for investment, is seen as offering people greater employability and job resiliency<sup>39</sup> especially since the Covid 19 pandemic. Some of the skills and specialisms that it can apply to a wide range of business domains are illustrated in Chart 8

# Specialisms of Digital Tech businesses 2. Sector specialisms of digital tech businesses (% breakdown) 10.7% App & software development 11.7% Data management & analytics 11.3% Hardware, devices & open source hardware 8.6% Enterprise software & cloud computing 8.3% Telecommunications & networking 8.2% Digital advertising & marketing 7.7% E-commerce & marketplace 6.3% Digital media & entertainment 5.1% Cyber security 5.0% Fintech 1.6% Caming 1.3% Social networks 0.9% IoT & connected devices 0.5% Edtech 0.4% Healthtech

**Chart 8 Specialisms of Digital Tech Businesses** 

<sup>&</sup>lt;sup>37</sup> £22.5 million funding to turn industry waste into environmental wins - GOV.UK (www.gov.uk)

 $<sup>^{\</sup>rm 38}$  See for example DCMS 2015

<sup>&</sup>lt;sup>39</sup>https://www.nesta.org.uk/innovation-policy/

Digital<sup>40</sup> and creative<sup>41</sup> sectors are recognised as major industries in the UK context (£184 billion and £111 billion respectively) and have experienced rapid growth and widespread economic impacts. They are also dominated, especially the creative sectors, by a very large number of micro and self-employed businesses. They are also highly interconnected businesses and in the South West have partnership with, for example, Tech Nation, Tech South West, Enterprise Nation, Cosmic & the HotSW Digital Skills Partnership, the latter playing a role in supporting and delivering digital transformation programmes and digital upskilling.

Two membership organisations in SWT exemplify the significance of both sectors in the SWT area (Digital Taunton and CICCI), whilst the Taunton Digital Innovation Centre represents a new and significant opportunity to grow the sector.

**Digital Taunton**: Digital Taunton (DT) is a 750 plus membership organisation established in 2018 with the aim of creating an active cluster for the digital community in the Taunton area. Digital Taunton engages with members 'to collaborate, innovate, network and share knowledge and companies and individuals'<sup>42</sup> and the organisation hosts quarterly workshop events around digital topics (eg Al, Livestreaming, Digital marketing, Covid 19 impacts, etc). These regularly involve 50-80 attendees.

The organisation has been significant supporter of the Taunton Digital Innovation Centre and used its membership base to test the appetite to use and take space in the centre as a part of the funding business case. In a survey conducted by DT some 90 organisations indicated a positive in interest in either using the centre, using services associated with the centre or taking space. The founders of DT see the organisation as an enabler and network support organisation to many other 'sectors' and areas of business — to the creative sector, environmental, energy and clean tech sectors, health and care, insurance/fintech/insurtech, education, advanced engineering and a distinctive feature of DT is its linkages and deep roots into the community of small companies and self-employed businesses that are often not well understood, recognised in economic development.

CICCIC/SABCA: CICCIC is a creative innovation and community interest company and social enterprise based in Taunton with a focus on supporting and enterprise, community and cultural activities. It provides enterprise business support services, product development, access to funding, networking and training and has an active programme of events and programmes. It also supports community arts space exhibitions, lectures, showcases and performance and has a mission to promote diversity. Somerset Arts Business Cultural Alliance (SABCA) is another Somerset-wide group of individuals and organisations working within communities and businesses that provide arts and culture services and support and grow the sector.

**Taunton Digital Innovation Centre:** As set out in the introduction to this report, the construction of the Taunton Digital Innovation Centre offers to be the beginning of a transformation around the actual and the perceived status of SWT as a location for knowledge based businesses.

The building is located in a high profile location at the Firepool site, close to the station, three storeys in height and will be able to host a range of activities associated with the knowledge businesses – all in an 'open innovation' based environment. This will enable many organisations to meet, network, host events, use as a demonstration space for products and services, collaborate on projects and joint

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<sup>&</sup>lt;sup>40</sup> Tech Nation estimate the digital tech sector to be worth nearly £184 billion to UK economy, up from £170 billion in 2016.

<sup>&</sup>lt;sup>41</sup> Before the pandemic, the creative industries were one of the fastest growing sectors, contributing £111 billion to the UK economy in 2018 . <u>12.22 Supporting the creative sector 05.pdf</u>

<sup>42</sup> https://www.meetup.com/digitaltaunton/

ventures, test new products and services, provide a space for public and schools engagement around innovation and occupy space in the building on flexible terms.

The 32,000 square feet phase 1 building (Gross External Area) is in the process of securing all of the capital funding of £9.636 million and construction is planned to start in early 2021 and be complete by Q3 2022. The project is on land owned at the SWT and a lease (at a peppercorn rent) has been agreed with SCC who have in turn helped secure additional funding from ERDF and central government (MHCLG).

**Chart 9 DTIC Capital Funding** 

Chart's Dire Capital Landing			
Funding Sources	£ Million		
BRR funding	0.25 m		
Somerset County Council Initial Capital	£1.6 m		
Additional SCC	£0.708 m		
ERDF	£1.688 m		
MHCLG Getting Building Fund	£5.39 m		
Total	£9.636 million		

Note: Excludes land ownership and infrastructure related costs being borne by SWT

Like most innovation centres the design of the building is not being progressed to respond to any one particular user, although efforts are being made to ensure this takes account of the consultative work facilitated through SWT and Digital Taunton.

One issue that will require further consideration by SWT and SCC relates to the cost and funding of innovation equipment, furniture and fittings including the café and kitchen. Also the critical issue of who will run the centre and what innovation, business support services and facility management services this will include. We understand these matters are under consideration but also that no decisions or funding commitments have been made at this point. It is for this reason we highlight three points with these taken up in the following Chapters:

- Elsewhere EiBC has witnessed 'innovation centres' being brought to market with an
  inadequate level of thought around the importance of supporting equipment crucial to
  especially SMEs, micro businesses and self-employed, eg high quality/speed internet, printers,
  VC screens and rooms, design workshop equipment, 3D printers and some 'dirty space'. This
  needs to be considered in the design stage and funded by the partners, or secured from
  additional fund raising, albeit that some costs might be charged through a service charge or
  rent.
- The quality of the interior of the building, especially the entrance, ground floor reception, café, informal meeting space, exhibition panels/digital screens will be crucial in setting the tone of the building and conveying the 'energy' and digital sector connections sought of by the partners. This needs to be carefully thought through at this stage and adequately funded to be successful. Elsewhere we have seen great ambitions for lively, creative and interesting innovation centres disappoint because inadequate thought and resources was not forthcoming with fit out, equipment and interior design.
- Most innovation centres invest in innovation and commercialisation services to support start ups, scale ups and fast growing knowledge based businesses for local economic development.<sup>43</sup> They do so in recognition that many companies are too slow to bring new

<sup>&</sup>lt;sup>43</sup> Investors such as universities, LEPs, local authorities, central government, the EU, private/voluntary sector funders and science park/innovation occupiers

products and services to market, while some others simply are unclear how they can do this, or simply do not have the time or resource to piece together the elements that enable innovation and business growth to take place. Innovation and commercialisation services provide a fresh source of ideas, bring technical, funding, finance, IP, marketing skills together and accelerate the speed of innovation. Importantly they can also help de-risk investments and attract talent, enhance skills and employee engagement and generally build a culture of innovation. These are also some of the reasons why many businesses, individuals, universities and students use innovation centres and accelerators programmes to spearhead new product and service development. It is for these reasons that we set out later our thinking on what we call a knowledge exchange and innovation support service — or an innovation operating platform for SWT

### **Key Issues**

- Digital/creative businesses and organisations are already significant in SWT but a key challenge is how they can be sustained and grow post Covid in their own markets and also how they might better connect and support those businesses we have highlighted in the earlier Chapter, eg in global marine systems, energy, health and care, insurtech, photonics, waste, recycling and bio manufacture and the circular economy.
- There is a need to explore in detail the specifications and funding opportunities associated with the non-build elements of furniture, fittings, equipment and operations and including knowledge exchange and business support services
- Digital skills will be fundamental to securing the above outcomes and BTC has a major role in promoting and supporting innovation

## 3 Supporting and Enabling the SWT Innovation Assets

### Introduction

As we have emphasised, at its heart, innovation and economic development is about people and organisations investing in R&D and implementing new or significantly improved products and services, processes, marketing methods, or organizational methods for customer, community and natural environment benefit. In this process, the public sector has a key support and enabling role - in setting policies that support innovation, providing gap/support funding, investing in skills and talent and providing knowledge exchange and business support services. It also has an important role in helping to create the right physical infrastructure for innovation and economic development and a supporting leadership role to encourage innovation culture, investment and services.

In this section, we briefly review and comment on these matters, namely:

- 1. Policy Support and the alignment of policies with SWT's Innovation Assets
- 2. Talent, skills and university research
- 3. Physical infrastructure in the form of specific innovation centres, enterprise centres and science parks. Also the pattern of physical clustering of innovation assets and the physical infrastructure
- 4. The knowledge exchange and business support services in SWT
- 5. Leadership and governance issues

### **Policy Alignment**

In the *SWT Economic Development Strategy 2020-24* the Council has set out its support for innovation with this also underpinned by its commitment to make the area carbon neutral by 2030<sup>44</sup>. It also seeks to secure clean economic growth, inward investment, enabling research and innovation and providing employment land to meet different business needs and protect the built and natural environment and promote the Taunton Garden Town vision. The plan also highlighted the importance of supporting town centres, the arts and cultural provision and the development of the commercial elements of the Firepool site.

The HotSW LEP also has a range of policies that support innovation and like many other LEPs has established an Innovation Board led by the private sector to focus on its strategy and interventions. The Innovation Board will have an important role in shaping the implementation of the *Local Industrial Strategy* <sup>45</sup> and crucially focus on ensuring that the HotSW builds a strong innovation ecosystems based on its strengths and resources around clean and inclusive growth, energy, engineering and digital futures (see Chart 13).

CLEAN GROWTH

CLEAN GROWTH

CLEAN GROWTH

IDEAS

PEOPLE

ENERGY ENGINEERING DIGITAL FUTURES

FUTURES

ENVIRONMENT

INCLUSIVE GROWTH

Chis will help us

transform and grow an economy ready for the future

The south west in the first include the south west included in the south west included.

Chart 13: HotSW Growth Strategy

44 https://www.somerset.gov.uk/business-and-economy/somerset-growth-plan/

<sup>&</sup>lt;sup>45</sup> https://heartofswlep.co.uk/growing-our-economy/local-industrial-strategy/

In reviewing all relevant policy documents it is clear that there is a high level of alignment and synergy between policies and strategies, for example, between the Government's *UK Industrial Strategy, the UK R&D Road Map, HotSW LIS and Productivity Strategies* and a range of SWT, SCC, SNHSFT and BTC strategies and plans relevant to innovation in the SWT area. There is also alignment between HotSW priorities in Clean Growth, Energy Futures, Digital Futures and Inclusive Growth and policies and innovation assets at the SWT level.

### Policy Context and Alignment: Selected Documents

- Government's Industrial Strategy
- UK R&D Road Map
- Government Green 10 Point Plan
- BEIS/InnovateUk/UKRI Strategies & Funding Initiatives
- Office for Students Annual Review
- HotSW Local Industrial Strategy
- HotSW Productivity Strategy
- HotSW Coastal Productivity Plan

- SWT Economic Development Strategy 2020-24
- Somerset Economic Recovery & Growth Plan
- Somerset Climate Change Strategies
- SWT Local Plan
- Nuclear decommissioning agency strategies and legacy
- EDF Hinkley DCO and s106 legacy funds
- BTC Strategic Plan
- SNHS Foundation Trust Strategic Plan / Musgrove 2030
- SCC and CCG Health and Social Care Strategies

However, the Health/Medtech strengths in SWT *do not* currently feature as economic strengths or priorities by HotSW and that based on our more granular understanding of SWT innovation assets EiBC believe there is a strong case for this cluster to be better recognised and supported in economic development and innovation strategies.

EiBC also believe that the assets and opportunities around waste, recycling , biomanufacturing and the circular economy should also have stronger policy priorities – this also reflecting the high priority given by SWT to being Carbon Neutral by 2030.

HotSW's general innovation policy emphasis was set out by its Innovation Board in November 2020 with this informed by the MIT REAP programme<sup>46</sup>. This seeks to build a network approach to innovation around a multiple locations using a *regional technopole* concept and to invest in support for *knowledge exchange and business support services*<sup>47</sup>. This approach strongly accords with the conclusions reached by EiBC.

### **Key Issues**

- There is general strong alignment of policies that support clean growth, engineering futures and digital futures with the innovation assets and opportunities in SWT.
- However, there are also some additional areas of focus where it would be helpful to have a better alignment between HoTSW policy ambitions and notable strengths in SWT, ie in
  - o health and medtech and
  - o bio-manufacturing, waste management and the circular economy.
- The emerging HotSW strategy that would focus on developing a regional network technopole approach supported by knowledge exchange and innovation business support services accords with EiBC conclusions based on circumstances in SWT. Taking into account the above points with regard health/medtech and biomanufacturing/waste/recycling – the emerging HotSW policy development around a regional technopole should be actively supported.

<sup>46</sup> https://reap.mit.edu/

<sup>&</sup>lt;sup>47</sup> HotSW Innovation Board Paper November 2020

### **Talent, Skills & University Research**

Talent, skills and university research represent a crucial components of successful innovation systems. Universities in Bristol, Exeter, Bath and Plymouth surround the SWT area and a host of links exist between these and knowledge based businesses and organisations in the area, as well as with Bridgwater and Taunton College (BTC).

Talent and Skills: Bridgwater and Taunton College (BTC)<sup>48</sup> with its Taunton based 'University Centre' has been strengthened through its collaboration in the South West Institute of Technology (SWIoT).<sup>49</sup> The SWIoT has been designed to deliver a range of higher level programmes across the digital, engineering, construction and manufacturing sectors throughout the South West and has obtained £25million for this venture.

Significantly BTC is also the 'Southern Hub' for the UK's National College for Nuclear (NCfN), located at Cannington in Sedgemoor. Finally the College operates a Multi-Academy Schools Trust with 5 schools at primary and secondary level – so it has a significant involvement at many levels and with a number of organisations.

Its College turnover is some £53m and the Schools Trust turnover around £19m. It has been successful in securing a range of capital grants, especially through its NCfN<sup>50</sup>, T Level Skills and IoT work and is now progressing capital developments to host a rapid expansion of degree level nursing programmes. Overall, the College recruits some 23,000 full time and part time students (2019) with nearly 700 at Higher Education (HE) level. The College employs some 1,000 staff.



A key issue for both BTC and knowledge based businesses is about what additional investment and new courses the College can make for *future skills* – especially those relevant to the innovation assets we have outlined earlier. Further work would be required to assess and quantify this, but our preliminary assessment is that key targets for growth would likely be at Levels 4/5 and 6, especially in Health and Social Care, including Nursing, but also in the Allied Health Professions, <sup>51</sup> Digital, Electronics and Advanced Engineering for Medtech and eHealth businesses and programmes around Environmental Waste Management, Biomimicry and the Circular Economy. A wide range of Digital skills need to be embedded in in many of the above programmes and all programmes would benefit by being linked to placements and employer and community based projects. Digital programmes, for example, could be linked in particular to marine data applications, insurtech, ehealth, health diagnostics, public health, waste management and the circular economy, construction etc.

Working with the University of Plymouth BTC has already made major strides in devising new digital programmes and Chart 11 indicates new programmes that have been agreed in November 2020 to provide 'hop-on & hop-off' options, full and part-time options and flexibility.

<sup>&</sup>lt;sup>48</sup> Bridgwater & Taunton College is an amalgamation of Bridgwater College, Cannington College and Somerset College

<sup>&</sup>lt;sup>49</sup> The SWIoT was established in 2019 following a successful bid to government and involved Exeter College, Truro College, PETROC College and the University of Exeter

<sup>&</sup>lt;sup>50</sup> £15m was secured for the NCfN training centre

<sup>&</sup>lt;sup>51</sup> https://www.england.nhs.uk/ahp/role/. For example, Art Therapists, Drama therapists, Music therapists, Chiropodists/podiatrists, Dietitians, Occupational therapists, Operating Department Practitioners, Orthoptists, Osteopaths, Paramedics, Physiotherapists, Prosthetists and Orthotists, Radiographers and Speech and language therapists

#### **Chart 11 New BTC Digital Programmes**

- 4 HNC Computing and Digital Technologies (P/T and F/T)
- L5 HND Computing and Digital Technologies (P/T and F/T)
- L6 BSc (Hons) Computing and Digital Technologies (P/T and F/T)
- L6 BSc (Hons) Top-up Computing and Digital Technologies
- L4 Software Engineer Short Course (20 credits)
- L5 Software Engineer Short Course (40 credits)
- L6 Software Engineer Professional (60 credits)
- L4 Cyber Security Short Course (20 credits)
- L5 Cyber Security Short Course (40 credits)
- L6 Cyber Security Professional (60 credits)
- L4 Network Engineer Short Course (20 credits)
- L5 Networking Engineer Short Course (40 credits)
- L6 Networking Engineer Professional (60 credits)
- L4 Web Development and Cloud Services Short Course (20 credits)
- L5 Web Development and Cloud Services Short Course (40 credits)
- L6 Web Development and Cloud Services Professional (60 credits)

- L4 Data Science Short Course (20 credits)
- L5 Data Science Short Course (40 credits)
- L6 Data Science Professional (60 credits)
- L6 BSc (Hons) Digital & Technology Solutions Professional Degree Apprenticeship (Software Engineer)
- L6 BSc (Hons) Digital & Technology Solutions Professional Degree Apprenticeship (Network Engineer)
- L6 BSc (Hons) Digital & Technology Solutions Professional Degree Apprenticeship (Data Analyst)
- L6 BSc (Hons) Digital & Technology Solutions
   Professional Degree Apprenticeship (Cyber Security Specialist)

The package can also be infilled with the following Apprenticeship programme pathways:

- L4 Higher Apprenticeship Cyber Security Technologist
- L4 Higher Apprenticeship Data Analyst
- L4 Higher Apprenticeship Software Developer
- L4 Higher Apprenticeship Network Engineer

University Research: There are no specific university research centres or research activities *based in SWT* and of course no 'University of Somerset' and BTC's University Centre is not a research centre. The consultations held with knowledge based businesses in SWT have nonetheless demonstrated that there are many research links and partnerships with SW regional univerities and others in the rest of the UK and overseas. There are also links and funding support arrangments with government research funding organisations, such as Innovate UK and UKRI and NIHR.

In EiBC's view it is significant that none of the above have any profile or location presence in SWT, or indeed in the rest of Somerset and we do not think this is inevitable. Indeed, we think there is a case to explore how *some selected university research activities* might be linked to and co-locted SWT's innovation asset base, especially where theses are distinctive and scaleable and have possibilities of R&D co-investment with knowledge based businesses. Potential target areas could include nuclear and renewables research, global marine data systems; health/medtech; and waste/recycling and biomimicry.

Knowledge Exchange and Innovation Business Support Services: Knowledge based organisations in SWT can secure a range of knowledge exchange and innovation support services from SWT, SCC, HotSW<sup>52</sup> as well as from university led programmes for innovation, business recovery, scale up, export services, carbon reduction etc. Other UK government innovation support programmes offered through, for example, Innovate UK<sup>53</sup>, the OfS, NIHR and BEIS also provide a range of other opportunities for support and funding. As the HotSW Innovation Board has noted there is a case to

<sup>52</sup> For example, the MIT REAP programme

<sup>&</sup>lt;sup>53</sup> For example the Innovate UK / Magnox Decommissioning Competition 2020

explore how theses many services might be better faciliated to knowledge based busineses in the area. This is the conclusion also reached by EiBC and this is explored further in the following Chapters.

University of Somerset: Within the scope of this report, EiBC is not able to explore the wider issues associated with the feasibility of developing a 'University of Somerset', or indeed the alternative viable options. Nor in this study is it able to consider the issues around HE demand, the curriculum portfolio, the academic business model, viability, investment, governance and delivery etc<sup>54</sup>. That said we pose two key questions relevant to this innovation study:

- First, in the absence of a university in SWT/Somerset, how should SWT and SCC best secure specific and significant university research activities and knowledge exchange services that could benefit the SWT ecosystem? With this study demonstrating that there are significant innovation businesses, BTC and infrastructure innovation assets, there is now, in EiBC's opinion a more substantive basis to seek a strategic commitment from one or more universities to establish some niche university research and higher skills activities in SWT
- Second, to provide knowledge based businesses with improved access to university research resources and expertise there is a case to consider a 'go to' service. This could link, join, monitor and support existing and additional university/research centre links and opportunities, especially for SMEs and micros.

We pick up these issues in the following Chapters.

#### **Key Issues**

- Talent and skills for innovation and to sustain, attract and retain knowledge based busineses is fundamental. SWT and BTC is making major strides to address this challenge but deciding on which areas are supported with investment will always be a challenge and will need detailed follow up consultations and research.
- An important issue will also be to devop some distinctive areas of the curriculum that have wider UK and international student market potential. These areas may in turn drive research links and wider economic development opportunities and also student residential development.
- SWT and SCC need to consider how best it can secure university research investment located within the SWT/SCC areas in selected research domains and potentially promote some niche post graduate study programmes.
- SWT working with other Somerset councils and HotSW needs to establish a more coherent knowledge exchange and innovation business support service.

#### **Innovation Infrastructure**

We define the innovation infrastructure as buildings that provide for existing knowledge based businesses premises (ie buildings accommodating the knowledge based businesses referred to earlier in this chapter) and innovation centres, science parks and mixed use developments specifically targeting knowledge based occupiers. Here we focus on the latter category, highlighting the

<sup>&</sup>lt;sup>54</sup> EiBC has considerable experience in this arena, having been the lead adviser in developing three entirely new universities and many other university centres and new university campuses

floorspace and domain focus of centres and their status in terms of those under construction, committed, or planned.

In summary, based on the wider SWT catchment include the following:

- Taunton Digital Innovation Phase 1 in the Firepool development Taunton
- Zenith in Blackbrook, Taunton
- Nexus, at Junction 25 in Taunton
- Somerset Energy Innovation Centre (SEIC), Phase 1 and the further phases 2 and 3 in Bridgwater and focused on nuclear/renewables
- Gravity at Junction 23 in Bridgwater
- the four Enterprise Centres located in SWT (ie those in Minehead, Wheddon Cross, Barle/Dulverton, Wiviliscombe)
- iAero Innovation Centre located adjacent to the Leonardo aerospace plant in Yeovil

As Chart 10 shows in 2020 there is only some 34,000 square feet specifically catering for knowledge based business (ie the SEIC and 10% of space at the Enterprise Centres<sup>55</sup>.). However, this will increase to 124,000 square feet by 2022 when Zenith, TDIC and iAero are complete (nearly a fourfold increase) and in excess of 800,000 square feet (more than 20x increase) when the second phase of Firepool is developed and Gravity and Nexus are developed and available for knowledge based occupiers. This would be over and above any other locations that might be developed in the future. As such it is clear that there is a huge level of additional floorspace committed and coming on stream over the next 2-10 years, specifically targeting knowledge-based businesses.

Chart 10: Innovation Floorspace in SWT and the surrounding catchment

Development	Locations(s)	Focus	Status	Floorspace (NIA)
Somerset Energy Innovation Centre	Bridgwater	Renewable and Nuclear Energy	Existing	30,000 ft2
Somerset Energy Innovation Phases 2 & 3	Bridgwater	Renewable and Nuclear Energy	Under construction	20,000 ft2 and 10,000 ft2
Enterprise Centres	Minehead, Wheddon Cross, Dulverton, Wiviliscombe, Highbridge	General offices and units with some occupiers knowledge-based businesses	Existing	40,000 ft total with say 10% knowledge based
iAero	Yeovil	Aerospace/Advanced Engineering	To be complete 2020	26,000 ft2
Taunton Digital Innovation Centre Ph 1	Firepool, Taunton	Digital	Planned for 2022	30,000ft2
Taunton Digital Innovation Centre, Ph 2	Firepool, Taunton	TBC	Phase 2	30,000ft2 plus offices in Plot 3
Zenith Diagnostics and Innovation Centre	Blackbrook	Health/eHealth & MedTech	Planned for 2021	30,000 ft2
Gravity (J3)	Bridgwater	Offices, R&D, Light Industrial & Manufacturing	Committed with Infrastructure	Up to 296,700 ft2 <sup>56</sup>
Nexus (J5)	Taunton	Mixed use/R&D offices	Planning Brief	Ca 377,000ft <sup>57</sup>
Crown Estate	Taunton	Mixed site with light industry, knowledge based businesses, retail and storage	Existing with expansion space	Expansion space for excess of 300,000 square feet

 $<sup>^{55}</sup>$  Based on advice from TDA we have assumed approximately 10% of space and occupiers are knowledge based

<sup>&</sup>lt;sup>56</sup> We assumed one third of the total energy generation and manufacturing space is a 'knowledge intensive' business and 50% of the offices, R&D, light industrial and leisure is 'knowledge intensive'. The total floorspace for Gravity is ca 1.9 million square feet

<sup>&</sup>lt;sup>57</sup> 150 acre site with a total Gross External Area (GEA) of 920,000 sq feet. EiBC estimate knowledge based businesses could occupy ca 377,000 sq ft based on a 80% GIA and 50% occupation from 5 plot areas shown as accommodating offices and R&D. Source from NEXUS 25 LDO DESIGN GUIDE Amendment Application - Revision A March 2019

This evidence shows that the private sector has responded to a perceived shortfall of business and innovation type space. In Bridgwater Salamanca, the developers of Gravity have brought forward 1.9million square feet of space, of which EiBC estimates some 300,000 square feet could be associated with knowledge based businesses.

In Taunton, Henry Boot, the developers of Nexus, are committed to creating the space and physical conditions for a mixed use development over a 150 acre site accommodating up to 920,000 square feet (GEA), of which EiBC estimates that some 377,000 square feet of space could be made available for knowledge based businesses. Gravity and Nexus developments have secured town planning consents/Local Development Orders and have also been supported through the funding of enabling infrastructure works.

These private sector led developments investments have not been replicated in West Somerset. However, the former 42 acre employment site at Watchet is currently the focus of a planning application by the Tameer Group<sup>58</sup>. The planning application is for a development of ca 350 homes, a hotel, care home development and some 54,000 square feet of employment land.

These employment and potential innovation land development opportunities do not include other existing business park sites, such as the Crown Estate in Taunton.

#### **Key Issues**

- the SWT and the Bridgwater area is in the process of witnessing a major additional level of space for knowledge based businesses in the next 2 years through the delivery of four new innovation centres, plus the iAero centre in Yeovil (116,000 square feet additional)
- the Gravity and Nexus developments will also provide for major scale knowledge developments and grown on space centre for some (677,000 square feet additional)
- Together with other sites such as Firepool Innovation Phases 2, Blackbrook and the Crown Estate, the above sites will be more than adequate for the foreseeable future. As such the real issues are more about creating the business conditions to grow, co-locating projects, the marketing proposition and attracting the right kind of knowledge based businesses
- For the Nexus development, place making and creating the right conditions for knowledge based businesses will remain very important given its location and greenfield character

#### **Innovation Clustering**

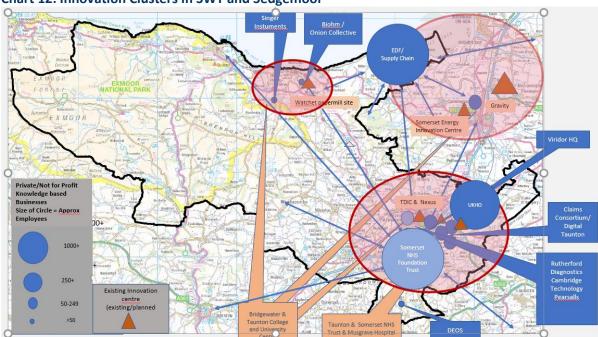
Based on our analysis of significant knowledge based businesses and organisations and of the infrastructure assets we have reviewed there is a clear picture of innovation clustering.

- In the north there is a major cluster of businesses concerned with the nuclear and renewable energy businesses (nuclear power station construction, nuclear power decommissioning), the BTC national nuclear power industry training centres, a specialist supply chain associated with these domains, including an innovation centre and support service (SEIC), two BTC college campuses including one focussed on rural/agriculture skills, and a large 'science park' (Gravity) with the developers seeking to secure major new energy, manufacturing and R&D businesses.
- In Taunton, a cluster of businesses and organisations focussed on global marine data, health
  care delivery and ehealth/medtech, photonics, digital and creative, with 2 major innovation
  centres coming on stream in the next 2 years and a major mixed use development at Nexus.
   Within this cluster, Musgrove Hospital will also see major investment in new hospital facilities

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<sup>58</sup> https://www.tameergroup.co.uk/?page\_id=3340

- and Bridgwater and Taunton College also plans to expand its main campus for nursing and health care training with new facilities, the latter also requiring new student accommodation.
- In West Somerset, a smaller emerging, but potentially significant cluster of business interests relate to bio-manufacturing, waste management (also in Taunton) and potentially education and training related to this opportunity. The clusters are illustrated in Chart 12 below.



**Chart 12: Innovation Clusters in SWT and Sedgemoor** 

#### **Key Issues**

- Clustering conveys a significant aggregation of knowledge based businesses almost certainly not perceived by knowledge workers, businesses and inward investors and this needs to be used to promote, support and strengthen the innovation ecosystem
- Clustering also conveys some potential connections that are not always explicit for different
  parts of the ecosystem eg for knowledge workers, businesses, educational institutions,
  students, public transport, cycling and potentially some implications for public realm
  infrastructure planning
- Clustering can offer some practical opportunities around the commonalities of challenge
  and opportunity and actions, eg around innovation oversight, the provision of knowledge
  based support services and knowledge based marketing actions and generally building a
  local culture of innovation

#### 4 Action Area A: Establishing a Thriving Innovation District in Taunton

#### Introduction

In the following chapters we define 4 broad 'Action Areas'. These are focussed on the following:

- 1. Establishing a Thriving Innovation District in Taunton
- 2. Securing an Innovation Legacy from Hinkley C
- 3. Development of Watchet as a Bio-manufacturing Centre and Circular Economy Demonstrator
- 4. Providing the Underpinning Innovation Infrastructure

We have deliberately limited these to four action areas so as to give focus for SWT and its partners. That said in each of these Action Areas there are a range of more specific actions and recommendations and also a number that interconnect and map across to other Action Areas. To assist review the list of actions and inter-linkages we provide a summary check list in Chapter 7.

#### **Taunton Innovation District**

Focussed on Taunton, there are a number of interconnected actions that can help the town and its hinterland become a thriving innovation district. These will help drive SWT innovation ambitions to secure more knowledge based businesses, high-quality jobs, higher skills, jobs growth and those with more resilience. It also gives a physical and investment focus to our recommendations and areas of public policy support.

As we have commented on earlier, Taunton might have been perceived as not having the basic ingredients to grow and develop a vibrant knowledge based ecosystem. But as we have set out there are a number of businesses, organisations and innovation skills and infrastructure assets in Taunton that are significant, especially viewed in combination and as a part of an innovation ecosystem that derives benefit from being better networked and derive mutual leverage, funding and advantage from working more effectively together. Beyond perceptions it can also provide the basis for some practical solutions and changes about doing knowledge based business in Taunton and of attracting and retaining high skilled knowledge workers and in growing and attracting new businesses.

Chart 14 defines the domains that represent organisations and assets that are knowledge intensive and located in Taunton (global marine data systems; health; medtech; advanced engineering/ photonics; and digital and creative). We estimate these organisations have a total knowledge based workforce to be in excess of 4,000 employees, in addition to a wider total workforce of some 10,000 employees, this excludes BTC, schools and local authority workers and supply chain and supporting jobs.

At least 8 of the companies and organisations are headquarters of UK and global businesses, with a strong export service role. The district also has a major

Health MedTech

Digital

Advanced

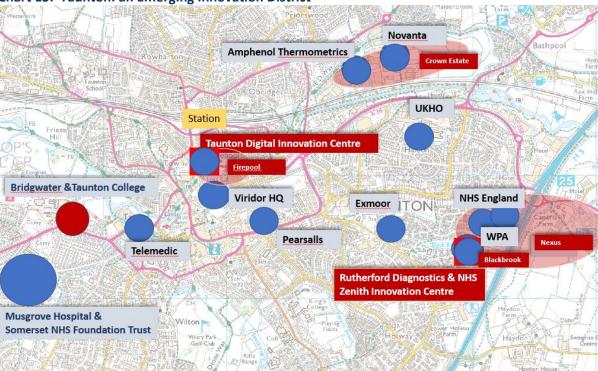
Eng/Photonics

Chart 14 Innovation Domains in Taunton

research institution (the UKHO), 2 committed innovation centres soon to be completed and in excess of 600,000 square feet of space for knowledge based business growth. This cluster can help convey how this perceived weakness, where knowledge and innovation is largely unseen and perhaps seen as isolated and disparate – to one that is a place that has a rich and distinct innovation ecosystem and

also connected to other major innovation ecosystems in the South West and in Bristol/Cardiff city regions. We suggest this area is called the *Taunton Innovation District*<sup>59</sup>.

**Chart 15: Taunton: an Emerging Innovation District** 



As we have highlighted some of these organisations operate in different domains but this should not be a reason to underestimate the importance that each will have similar challenges, eg around tackling new innovation opportunities, retaining competitiveness, access and growing talent and skills or securing funding to support any of these challenges. Time, talent, access to researchers, specialists and partnerships, promotion of new products, services and processes, as well as funding and markets are all common innovation challenges, as are those associated with cost reductions and operational and site rationalisations.

#### **Grow-on Space**

Chart 16 also highlights 4 development sites that offer opportunities for knowledge based businesses to grow:

- Firepool, largely for housing, commercial and leisure with its flagship Taunton Digital Innovation Centre and with a capability to accommodate a second phase innovation centre and potentially some other uses that would directly support innovation, such as some College/University Centre teaching space and student accommodation
- Blackbrook already the home for several health based knowledge based businesses and with a key undeveloped site adjacent to Zenith innovation Centre
- Nexus with the promoters identifying health care as one of the sectors it wishes to pursue
- Crown Estate already the home of two major advanced engineering/photonics businesses

<sup>&</sup>lt;sup>59</sup> We are aware that there is some interest in defining 'innovation zones' in the HotSW geography, but have used the term 'Innovation District' given the recognised standing of this term among UK and international researchers, practitioners and policy makers. The terminology is however a minor issue.

In combination and with clear set of choices these four sites represent major cluster of sites in one innovation district for digital, health, medtech and insurtech expansion that has a number of either 'shovel ready' and 'planned' sites, at scale and of regional and national significance, in total with in excess of 600,000 square feet of space for knowledge based businesses in Taunton. This is in addition to a further 300,000 square feet of general business and light manufacturing space at the Crown Estate and over 300,000 square feet at the Gravity site.

It follows from this that EiBC is of the view that there is *no current rationale for a new or additional science park for Taunton for the present time.* The Taunton Innovation District and its Grow-on-Sites provide a powerful focus for strengthening and growing an innovation ecosystem at scale and an opportunity to support a package of actions around networking, service provision, marketing and economic development. The following summarises our recommendations

#### **Recommended Actions**

a) Taunton Innovation District: There is a strong case to define a Taunton Innovation District (TID) and to capture these innovation assets into a short TID Prospectus. This could raise the profile of the TID with its principal knowledge based organisations and domains, the scale of existing and future potential employment and the physical innovation assets including the innovation centres and grow on sites. <sup>60</sup> The TID Prospectus could also be a simple device to demonstrate the value of innovation networking, business support for innovation and help with inward investment marketing for knowledge based businesses. For the Grow on Sites it also offers a platform and focus for further engagement with land owners, developers and their advisers that could better inform masterplanning and occupier marketing strategies.

#### Strategies for Successful Innovation Centres

Drawing on our own experience and from other international research<sup>61</sup> EiBC has identified four strategies that innovation districts can use to make a successful innovation district.

- 1. Successful innovation districts define a clear competitive advantage, an economic or technological niche that aligns with that of the broader region. They also build from a critical mass of businesses, researchers, knowledge workers and entrepreneurs in close proximity to each other, enabling networking, meeting, shared amenities, social and knowledge sharing events that set innovation districts apart from out of town science parks and campuses.
- 2. Innovation districts whilst having some kind of economic specialization are often most successful when they have connected or adjacent knowledge based domains and sectors, and explicitly foster multi-disciplinary and interdisciplinary convergence. This collaboration is increasingly important for developing emerging innovation challenges like tackling complex public health challenges, distributed and sustainable energy and materials manufacture and climate change.
- 3. Innovation districts also comprise spaces and services that support start-ups, grow-ons and colocations and business support that promotes networking, incubations, acceleration with access to a range of services.
- 4. Successful districts should also developing a strong quality of place, people and trust. This can have explicit physical implications and be about a strong community of people and partners. Crucially it also needs 'buzz', with an active programme of events, connections and demonstrators of action and successes. Successful innovation districts need to invest in this and this is often overlooked

<sup>&</sup>lt;sup>60</sup> We recommend that this is captured in a TID Prospectus with this including some further detailed business engagement/account managements work and an accompanied innovation monitor dashboard

<sup>&</sup>lt;sup>61</sup> For example https://www.giid.org/the-evolution-of-innovation-districts/

- b) Taunton Digital Innovation Centre: As we have already commented the TDIC can become a physical flagship, gateway and focal point for a number of the ambitions and activities around innovation in SWT. SWT and SCC have already put in place plans to bring this venture to the market by Q3 2022 and our recommendations are that the following issues will need further work over the next 12-18 months;
  - o TDIT Fit out: having briefly reviewed the committed build cost budgets for the delivery of the building these currently do not include for furniture and fittings equipment. In taking into account our own experience of advising on the delivery of innovation centres and consulted with some potential users of the centre we would suggest that further consideration is given to the crucial importance of specifying and funding key elements for furniture and fittings and innovation support equipment. The vision is that this building is a showcase, and is lively, creative, inviting, supporting businesses, engaging to the community. This will require it to have, for example, a well fitted out café and kitchen, IT, display and video communication facilities to be available, workshop space/benches/basic tools and 'dirty space', printers and 3D printers, as well as art work and demonstration space and visuals that illustrates innovation in SWT. We have not explored this, but know the costs associated with these are significant. And if public funding for this is constrained then a development funding campaign around a set of deliverables should be considered early on in the process.
  - Innovation Operator: to be a focal point for businesses to drive start-ups, collaborations, growth and new occupiers the TDIC will require a focussed knowledge exchange and business innovation service operator, beyond conventional 'hard' and 'soft' FM provider. It will also require the TDIC and its operator to secure benefits from interacting with organisations outside SWT, for example those operating at the HotSW, SCC and Western Gateway level (see WG Powerhouse Applied Digital Accelerator proposal)<sup>62</sup> We say more about this later.
  - o Promoting Innovation Meanwhile Uses: On the assumption that Phase 2 of the TDIC is not likely to not be delivered within the next 3-5 years and that not all of the car parking might be developed and that some other sites on the Firepool development may not come forward as quickly as hoped, we believe consideration should be given to actively exploring 'meanwhile innovation uses' on the TDIC site. For example, there maybe an interest in outside innovation, creative and public events, activities and displays or simply a case for temporary art works, landscaping or even innovative food production.
- c) Business Innovation Network for Health, MedTech, InsurTech, Digital & Advanced Engineering/Photonics: There is a case for SWT to help facilitate and support a network of health, medtech, insurtech, digital and photonics organisations to share ideas, initiatives address common innovation challenges and opportunities. Through our work EiBC, a workshop was held to explore the value of such a venture<sup>63</sup> and several ideas associated with a collaborative 'cluster group' emerged. Whilst it is early to determine the precise focus for this cluster group or indeed its membership, there was an enthusiastic support for it. Our recommendation would be for SWT to provide support for this cluster group over at least the

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<sup>&</sup>lt;sup>62</sup> Launched by ministers in November 2019 the plans to boost local economies through increasing co-operation on both sides of the Severn between eight cities, including Newport, Swansea, Cardiff, Bristol, and Bath – with digital defined as having a catalytic impact on a range of sectors covering aerospace, health, advanced materials, creative, to add

 $<sup>^{63}</sup>$  The workshop was attended by senior management from NHS, the SWAHSN, companies and WST staff

next year or so to explore its potential and to it achieve some specific added benefits that relate to innovation. Examples of the kind of activities and benefits it could pursue could include:

- a focus on businesses securing specialist skills and talent through BTC/university business degree/technical apprenticeships, placement and joint project working projects. Also inputting into the curriculum of new programmes;
- o supporting existing and new research and innovation programmes, including networks such as the South West Academic Health Science Network (SWAHSN);
- o co-investing in new innovation projects and programmes and securing funding support for these ventures
- graduate/technical placements for innovation through Knowledge Transfer Partnerships (KTPs)
- o supporting new businesses/growth and inward investments
- o supporting joint schools and community events encouraging STEAM and innovation.
- d) Global Marine Systems: the opportunities to secure wider knowledge based economic development opportunities from the UKHO are considerable, but until very recently has been as yet largely unexploited. The scale and market impact of UKHO though its collection and analysis of marine data is unrivalled, yet the UK and local impacts of exploiting the £3.2 trillion Blue Economy opportunities (by the year 2030) are in danger of being missed. The very recent UKHO accelerator programme announced in September 2020 represents a major change in this regard. But as we have reported in Section 3 this is only a pilot. Sustaining, building and developing this type of programme should be a major priority for SWT, as well as for the SCC and HotSW. This may require finding additional ways to support the programme and to scale it up. Of course, not all opportunities will mean new business growth in Taunton or the South West, but with the combined business and research assets of the SW, its strong policy priorities in marine and local co-funding this should be given high priority and should secure local economic development outcomes.

A number of other initiatives might also be explored in parallel with the accelerator programme

- Exploring an on-site university research programme and partnership along the lines
  of the recent University of Exeter/Met Office. This draws together climate science
  research with teams of scientists at both the Met Office the University in a Joint
  Centre for Excellence in Environmental Intelligence
- Supporting specialist international training and finding ways to expand UKHO's international training business, possibly in partnership with a commercial partner.
- Establishing a UKHO international business advisory panel drawing on senior and experienced experts to scan international business opportunities and explore local delivery solutions for new business operations. Opportunities might flow from a range of parallel knowledge based businesses in, for example, other industries, eg space, sensors, electronics, insurance, mining, fisheries, intergovernmental research organisations etc or from new joint business and research work associated with new Trade Deals, eg with Japan, South Korea and Singapore.
- e) Setting up a Knowledge Exchange and Innovation Business Support Service: there is a strong case to set up an Knowledge Exchange and Innovation Business Support Service for the TDIT

and Zenith innovation centres beyond any basic reception/FM services<sup>64</sup>. This service could also to a wider network of organisations in SWT and beyond. These services can be key in helping new and existing businesses meet the challenges of improving productivity, quality, building new products and services addressing questions associated with reducing costs. They can also make it easier and quicker to find solutions, access talent, expertise and secure finance through for example through direct access to a range of services and potentially to accelerator programmes.

Setting up these types of services requires a *very small team* of dedicated professionals and advisors and some revenue/in-kind support to make this happen. Elsewhere such services are paid for in part by rent, service changes, grants or by partner direct contributions via secondments, cash or other resource commitments. With the Zenith Innovation Centre and the Taunton Digital Innovation Centre being completed in 2021 and 2022 respectively, some 4,000 square feet of purpose designed space will becoming available for new ventures, both ventures will want to focus and target on new ventures and innovations from collaborations, inward investment and growth. Further work to explore and bring this proposal to a conclusion could include the following:

- Defining the possible scope and coverage of services to be provided, the centres to be covered and the players in the market
- Defining business models, learning from other similar examples and undertaking some soft market testing on options
- Costing
- Revenue and resource funding options
- Timescales, procurement and implementation

Such a venture would likely take 12-24 months to explore, agree, set up and operationalise and care would need to be taken to ensure that it is additional and complementary to any other supported services and in alignment with other hard/soft FM services (building maintenance, basic reception/security/cleaning, occupier marketing and property services<sup>65</sup>

f) Skills for Innovation: Skills to support businesses and grow new companies also needs to be aligned with the network of businesses in the Taunton Digital innovation District and we say more about both these issues in Action Area 4.

<sup>&</sup>lt;sup>64</sup> For example, reception, café, security, building maintenance

<sup>&</sup>lt;sup>65</sup> EiBC has UK-wide experience of services provided and different approaches taken to funding such ventures

#### 5 Action Theme B: Securing an Innovation Legacy from Hinkley C

#### **Existing Energy Activities**

As we have indicated, there are already a wide range of actions, initiatives and groups operating in the energy domain where knowledge and innovation is fundamental to the construction, commissioning and decommissioning of nuclear and renewable energy. These organisations operate at the regional and national level and involve a large number of organisations, for example, EDF, CGN, the Nuclear Decommissioning Agency (NDA) and many companies involved in designing, contracting and decommissioning nuclear power and a range of renewable energy and low carbon projects. Additionally, Nuclear South West, the South West Energy Hub, the HotSW and the Energy Working Group,<sup>66</sup> the National College for Nuclear, the Construction and Innovation College, the Somerset Energy Innovation Centre, SWMAS and the Hinkley Supply Chain Team all have a role in promoting, supporting and coordinating projects, economic development and carbon reduction.

Although Hinkley C is located in SWT and there is undoubted positive economic impacts on the area, most of the business and research based employment associated with nuclear design, testing, design construction and commissioning is focussed elsewhere. In large part, this is also the case with the development of renewable technologies.

Nonetheless overall construction supply chain benefits are significant with many companies active in

the SWT area (see Chart 16). For SWT it will therefore be important to continue to engage with the Hinkley Point C Supply Chain to ensure local SWT businesses have access to the Hinkley Point C contracting opportunities<sup>67</sup> Chart 15 shows the number and location of contractors in the SWT area who have engaged in the construction of Hinkley Point C to date. According to EDF, £37m has been spent in the area since January 2016 with 122 suppliers. This may be modest in the scale of the overall spend on Hinkley Point C but it is still substantial.



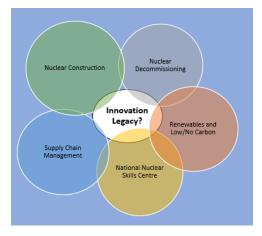
Chart 16 SWT contractors engaged in Hinkley Point C Supply Chain

#### **Innovation and Skills Legacy Benefits**

Based on our high level assessment of these energy domains and the importance of securing a knowledge based legacy beyond the construction of the Hinkley C and the Decommissioning of Hinkley B that going forward there needs to be more emphasis on securing a knowledge based legacy for SWT. An important backdrop to our thinking in this regard is that much of the EDF's and government's focus has been inevitably focussed on delivering and making operational the energy projects and in funding road, skills, supply chain infrastucture projects and local community ventures, but arguably less on exploring broader knowledge based business opportunities that serving the UK and international market. The question we pose regarding the innovation legacy is illustrated in Chart 17

<sup>&</sup>lt;sup>66</sup> Includes SCC, DCC, WST, Sedgemoor, Regen SW

a) Nuclear Construction and Decommissioning Skills: There is a need to ensure that BTC and SWT residents capitalise fully on the excellent advanced skills infrastructure that has been established. There are already significant assets, specifically those relating to advanced skills development, which can significantly benefit SWT residents in the future. BTC is already a UK leader in nuclear construction skills and Hinckley B will be one of the first EDF reactors to be decommissioned so there is potential 'first mover' advantage it can take advantage of the new ideas and innovative approaches this will



entail. Whilst the key R&D knowledge assets for nuclear are clustered in Bristol and Bath (and elsewhere in the UK), and it is likely to be as difficult to prise them away for SWT.

The picture has been very different for innovative skills development and this is an opportunity for the SWT area in the future working in collaboration with BTC. Whilst new skills partnerships and initiatives will no doubt develop following government's recent decision to deliver a further nuclear power station at Sizewell (also awarded to EDF). With EDF owning and managing 7 operating sites and having significant research, innovation and skills investments and activities<sup>68</sup> there is an opportunity to build on the skills dimensions of nuclear and renewable energy for not only local projects but for UK and international opportunities, ie create an *International Training Centre for Nuclear Skills*. For example, in Aberdeen, Robert Gordon University has over many years developed its industry focussed education and training business from its oil and gas role in the North Sea to one addressing offshore renewables and a significant part of its business is now international -this being linked to the strong cluster and supply chain that the University has linked with. The energy workforce of the future will also have skills and roles that do not currently exist, like automation and data science. In collaboration with one or more university partner, BTC supported by SWT and its partners should explore these market opportunities beyond Hinkley.

b) Testing Facilities: Hinkley B may also present opportunities for new *testing facilities* which could be based locally. For example North Wales secured investment in a new nuclear National Thermal Hydraulic Test Facility because of its geographical proximity to the Wylfa project which would have been the first advanced boiling water reactor nuclear power plant in the country (currently suspended following the withdrawal of Hitachi).<sup>69</sup> First mover advantage from Hinkley B may confer similar opportunities. Specialist expertise would be required to explore this type of opportunity, but part of the Hinkley R&D legacy could involve some testing research facilities and this should be discussed with EDF, the UK government and the nuclear industry.

<sup>&</sup>lt;sup>68</sup> EDF R&D UK is undertaking research in the fields of Low Carbon Generation (supporting existing nuclear, nuclear new build and renewables), Modelling and Simulation, Environment and Natural Hazards, Energy System Design, Smart Cities, Local Energy Systems, Energy Storage & Efficiency and Smart Digital Technology.

<sup>&</sup>lt;sup>69</sup> https://www.powerengineeringint.com/nuclear/atkins-appointed-to-work-on-the-uks-national-thermal-hydraulic-facility/

# 6 Action Theme C: Creating a Bio-manufacturing & Circular Economy Demonstrator

As we have set out earlier, the technology and inward investment opportunities associated with the Biohm/Onion Collective JV and its potential investment partners are at an early stage of development and subject to a confidentiality agreement and commercial sensitivities. Nonetheless there is an opportunity for this venture to be innovative, radical and highly distinctive. Its products and processes potentially have UK and international market application and the potential implications for a cluster based development at Watchet could also be of local, regional and potentially national and international significance.

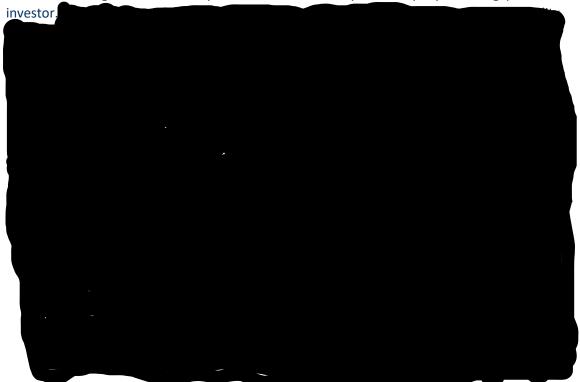
At its core the opportunity is to develop the site as a carbon neutral, community based, not for profit project, based on the principles of the circular economy. The site could be used for a range of uses including housing types using Biohm products and ensuring that a major part of any housebuilding is affordable and to showcase bio manufactured products in all construction projects. The site could also incorporate passive energy and renewable energy technologies and seek to attract and work with a range of other biomimicry and carbon neutral/positive businesses. A biomimicry innovation and skills centre could also be developed and a range of other complementary ventures including an education centre, visitor facilities, appropriate retail, community, aquaculture, aquaponics and woodland projects - all based on circular economy principles.



Any suggested actions set out here must, for the reasons associated with the commercial sensitivity of the project, be necessarily brief and general. However, EiBC's conclusions are that this opportunity is very significant and should be strongly supported by SWT, the Somerset Waste Partnership and the

HotSW. There may also be a role for Viridor – given its HQ function, its investment in innovation and its strong association with the South West. Areas for action include:

- a) Exploring ways in which SWT can support the delivery of the Biohm biomanufacturing business so that this plant becomes fully operational, successful and part of a bigger opportunity. SWT might also use Biohm's materials in housing and other construction projects, eg in the Firepool and TDIC projects
- b) Explore the opportunity of investigating a national bio-manufacturing and circular economy demonstration village based on the Watchet site. This will require feasibility work study and business/funding cases and likely be commissioned in partnership by a willing potential



#### 7 Action Theme D: Establishing the Underpinning Support for Innovation

In this penultimate chapter we set out elements of broader support that will be needed to strengthen and develop a successful innovation ecosystem for SWT, namely:

- Supportive public policy and governance for innovation
- Knowledge exchange (KE) and business innovation support
- Skills for innovation
- Sites, town planning and digital infrastructure
- Inward investment & marketing
- Innovation support funding

#### **Supporting Innovation Ecosystem Development through Governance**

**SWT** Innovation Board: To give further support and oversight for innovation in SWT we recommend that consideration is given to forming a *'local innovation board'* of senior stakeholders to help build a diverse business-led cross-domain innovation group. This informal governance group can:

- help secure innovation, business and economic development benefits from networking and interaction;
- provide ideas and direction for new initiatives;
- help secure short and longer term wins;
- provide an independent assessment of achievements and progress; and
- influence outcomes and be a driver of a successful innovation ecosystem.

Remit and Scale: Its precise remit, focus and membership needs further consideration but it should be light touch, have some oversight role on the development of the local innovation ecosystem, its assets and its knowledge exchange and innovation support services including new initiatives and projects, funding bids and the direction of travel.

This intervention would come as a near zero cost intervention with its inputs largely dependent on senior stakeholders time. A SWT Innovation Board would complement the HotSW Innovation Board, giving it local granularity and an ability to progress practical innovation insights and actions at the local level. As such it would not take on a too large and complex geography and would ensure that board members are locally connected. It would network with the proposed Cluster Groups (see below), other possible local innovation boards and the HotSW Innovation Board. Above all it would be guided by practical opportunities, likely impact, people and connections, and less so on any administrative neatness - as this could weigh down its cost and effectiveness. <sup>70</sup>

We have not explored the options for scaling up a SWT Innovation Board to replicate a combined unitary boundary or a Somerset County wide boundary but would recommend that there is a case for undertaking some optioneering and consultations around this issue. There may be benefits from having a larger geographic/domain scope, but also risks that if it was too big it might simply replicate the work of the HoTSW Innovation Board and lose the essential personal connections between individual organisations and business and innovation domains, given that any board membership should be limited to a small number of highly motivated and experienced individuals.

<sup>&</sup>lt;sup>70</sup>See for example https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/making-innovation-structures-work-mckinsey-global-survey-results#

Membership of SWT Innovation Board: We would recommend that a SWT innovation board comprises senior individuals (probably no more than 12) principally drawn from the knowledge based organisations we have identified in this report and including businesses, the UKHO, NHS, the College, a member from the HoTSW, and independent senior experts with deep connection to SWT and UK/international insight and influence, with the Board facilitated and supported by SWT. We recommend that SWT should support and facilitate the board, but leave the leadership and chairperson role of this group to its knowledge based organisations. Members term of appointment might be for 3 years.

SWT Cluster Groups: A crucial part of developing a vibrant innovation ecosystem would be to establish a small number of Cluster Groups. These would be based around connected but not the same domains and have shared challenges and opportunities. They would be informal, purposeful and light touch networks to connect people and organisations — mostly through simple email updates, early morning/after work meet ups and to stimulate ideas and possible bi-lateral, joint initiatives. and to energise and inform an Innovation Board. Useful advice on how they might operate is provided by NESTA<sup>71</sup>. We suggest Cluster Groups could be formed around the following:

- Bio-manufacturing, Waste and Circular Economy with Digital
- Sustainable Energy (several groups are already established in this domain and therefore this may not be required)<sup>72</sup>
- Health Medtech, Photonics and Health insurance with Digital
- Marine Systems with wider International Blue Economy, Environment and Digital links
- Skills and Public Engagement Group

The cluster groups could have a loose geographic focus and membership that might include others operating at County, HotSW, SW or Western Gateway catchments, but always maintaining a strong SWT involvement.

**Towards an Organisational Structure**: A simple illustration of the Innovation Board and Cluster Group arrangements is presented in Chart 18 and although further consideration needs to be given to this, our work has suggested that there is appetite among business leaders to launch such an initiative.

SWT Innovation Board

Bio, Waste and Circular Existing Health/MedTech and Digital Cluster Group

Sustainable Energy Cluster Group/SWMAS

Cross cutting Skills, Education and Public Engagement Group

**Chart 18: Illustrative Innovation Governance Model for SWT** 

Note: The Board could of course link to other SWT Economic Development & Recovery Groups or Boards

<sup>&</sup>lt;sup>71</sup> https://www.nesta.org.uk/toolkit/collective-intelligence-design-playbook/

<sup>&</sup>lt;sup>72</sup> One cluster group is already operating in the Energy domain.

#### **Knowledge Exchange and Innovation Business Support Service**

We also recommend that SWT and its key stakeholders set up a knowledge exchange (KE) and innovation business support service. This would have a specific role in supporting the two innovation centres (Zenith and TDIC) that would be operational in 2021 and 2022, but would also operate on a wider basis throughout the SWT area.

A short piece of work could set out the scope and potential operations for this service, undertake some soft market testing and define the services that could be provided. Likely costs and potential revenues for the service should also be assessed, together with potential staffing/governance arrangements, start-up costs and scoping possible partners/service providers, funding and procurement and implementation arrangements. This work would inform a full business case for this service and any procurement and partnership arrangements.

We are aware that SCC is also considering the provision of KE and innovation business support services for the Somerset Energy Centre (the existing and additional buildings) and the iAero building, together with TDIC. These all come on stream within a 2 year period and a decision on how any services are to be provided will need to be considered urgently.

As in the case of the innovation board issues referred to above, we would recommend that a short piece of scoping and optioneering work is undertaken to frame the service and options, before proceeding with investment, commercial, service and procurement decisions.

As an illustration potential KE and innovation services that could be provided include the following:

- Services could include networking/facilitation of events and a focal point for Innovation Support
- Focal point for the provision of business accelerator services
- Advice on for example, proof of concept, clinical trials, rapid prototyping specialist contracts support, Intellectual Property advice, specialist R&D funding applications
- Advice and networking for innovation finance and venture capital inputs
- Networking with universities, other businesses, UKRI/Innovate UK and government
- Oversight/management of accelerator programmes
- The provision of specialist equipment

In terms of the scale of the service its remit could be any one or combinations of the following:

- SWT wide service covering all of following and including Innovation- home working and inward investment
- Taunton Digital Innovation Centre service
- Zenith Innovation service
- Watchet Innovation service
- Additional service to SWT's Enterprise Centres
- SCC wide
- HotSW LEP wide

Consideration would be needed to define the level of funding support required to support this services, especially in the start-up and early operation phase<sup>73</sup>.

**Universities and Research**: As we have recorded in Chapter 2 the absence of a university, post graduate studies and research in SWT limits the development of a vibrant innovation ecosystem. We also highlighted that in the scope of this report EiBC is not able to explore the complexity of issues associated with the feasibility of developing a 'University of Somerset', nor alternative HE options that go beyond the BTC SWIoT University Centre and fundamental issues around HE demand, the curriculum portfolio, the academic business model, viability, investment, governance and delivery etc<sup>74</sup>. We posed two key questions around how SWT and SCC might best secure specific and significant university research activities and knowledge exchange services that would benefit the SWT ecosystem and the case for a 'go to' point or 'network service' for linking and support university/research centre opportunities, especially for SMEs and micros.

Regarding the former we would recommend that working with its business partners SWT, SCC and BTC formulate a short *University Partner Prospectus* setting out areas of strategic interest against the backdrop of the SWT/SCC innovation assets. This will need to be accompanied by high level meetings at CEO/Leader and Vice Chancellor levels. Inevitably, resource commitments to make these partnerships attractive will need to be considered and this should form part of the preliminary work of working up the University Partner Prospectus. There are many recent precedents for this type of approach (eg in Hereford, Peterborough, Milton Keynes) and EiBC can provide further insight and experience in these matters.

#### **Skills for Innovation**

This study has only been able to 'scratch the surface' of the issues relating to skills for innovation, ie knowledge based organisations that have existing and forecast skill shortages, skills gaps, recruitment and retention challenges. It has nonetheless been clear that based on our consultations these issues rank very high on all knowledge based organisations agendas, as ultimately they impact on competitiveness, productivity and innovation.

Employer and BTC consultations identified many different high skills areas that are required in the future, for example, technicians and management specialists in nuclear and renewable energy construction, operations, management and support, specialists in digital and eHealth, digital and marine, digital and insurtech, digital and education, nursing, primary health care and care support, radiographers and a range of other higher level skills for medtech, instrumentation, photonics, construction and bio-manufacturing industries and many more.

It is also evident from our work elsewhere that there is a desire to link traditional class based learning to work placed and project based learning – this demanding collaborative, problem solving, communication and project management skills with employers.

BTC is fully aware of this, but more work is needs to understand the specific skills needed for innovation and how new and often speculative new programmes can be co-designed and co-funded with BTC and employer practitioner inputs. From our own experience it is also evident that there is a wealth of experience from leading business practitioners to provide their expertise for skills and

<sup>&</sup>lt;sup>73</sup> EiBC's UK experience suggests that services operating outside university run services and those operating in the high value life sciences sectors would need additional public sector support

<sup>&</sup>lt;sup>74</sup> EiBC has considerable experience in this arena, having been the lead adviser in developing three entirely new universities and many others establishing new campuses

education programmes - often free or at minimal cost - and with this type of expertise it can add real credibility, quality and a high level of student experience.

It will also be important to consider *which programmes* can be positioned and marketed *beyond the local catchment* to the UK/overseas market and here it will be important to link BTC, partner universities and key employers together and to explore potential legacy support from industry.

Our consultations have highlighted that BTC is keen to know what new skills are required, who might demand them and how sustainable and viable any new programmes might be. In emerging skills market areas and especially in markets where many employers are micros and SMEs this task becomes even more challenging. There may also be a perception from some schools and parents that BTC is not a favoured alternative route into a high skilled job in the knowledge sector and this is an issue faced by many colleges. Collaborative action to overcome the practical challenges and market perceptions will be required.

Attracting and retaining higher level knowledge workers to Somerset will also remain a challenge because of a perception that there is an absence of a higher level research community, a university presence or easy access to Continuing Professional Development (CPD) and Post Graduate studies. To address this one idea would be to create the right support and physical setting for a CPD/post graduate study centre) (often found in university campuses) where some support, networking and flexible multi-university/CPD seminars, programmes can be hosted. The idea of a *CPD/Post Graduate Study Centre* could be explored within the TDIC.

#### Carbon Capture/Credits/AgriTech, Natural Capital

There are inevitably a host of other potential areas of innovation that might be explored and supported by SWT. However, given the limits of this report we have not been able to cover some of these that are at an early stage of understanding and opportunity. The most notable among these is drawing on SWT's natural assets for carbon capture and carbon credits associated with its coastland, the Somerset Levels and from more organic farming and increased agroforestry. More detailed work would be required to explore these opportunities and the UKHO carbon capture accelerator programme (see earlier) maybe be one way to raise profile and engage with businesses in this space.

#### Sites, town planning and digital infrastructure

In Action Theme A we have already set out evidence that in Taunton there is not an issue in the foreseeable future about creating new physical capacity beyond the developments already committed. Instead, it will be more about setting out the combined proposition to knowledge based businesses and inward invest agencies. Our recommendation is therefore that SWT use this report and findings to promote the *Taunton Innovation District* proposition as a part of its planning and economic development policies. This device can also be used to inform new project opportunities and property and masterplanning work, for example: how the Blackbrook site adjoining Zenith might be developed for other complementary non-acute health care and ehealth uses; how the Firepool site might accommodate the longer term expansion of the BTC University Centre and to provide for student accommodation; and how the Nexus site might be promoted around complementary research and industrial linkages to international marine data systems, the expansion of the insurtech, health/medtech and digital sectors.

#### **Inward investment & marketing proposition**

This report provides much of the background to support an engaging and distinct narrative around innovation and knowledge based businesses in SWT. We would recommend that a small comms

project<sup>75</sup> focusses on outputs that change perceptions - for individuals, businesses, inward investment businesses and house buyers who operate in the enterprise and knowledge-based sectors. It would highlight the strength and diversity of the knowledge based assets and opportunities, the natural environmental assets, the quality of the schools, the further and higher education assets, the easy transport links to key cities and airports and the cash premium that would accompany many moving to Somerset.<sup>76</sup>

#### **Innovation support funding**

Inevitably resources and funding to support any of the initiatives set out in the report will be required – from the SWT Council, HotSW, ERDF and its successor funding, BEIS, Innovate UK, DoE/OfS, etc and from the private and voluntary sectors. From our work we identify four areas:

- Capital funding for TDIC fit out and equipment funding based on some detailed specification work, the costs of fit out, furniture and equipment will need to be defined, along with options for securing funding. Public and private funding sources should be actively considered as well as from philanthropic organisations. SWT and SCC, with inputs from organisations like Digital Taunton and CICCIC should work up this budget
- Knowledge exchange and innovation support service Revenue funding to support the establishment of a SWT (or wider) knowledge exchange and innovation support service will need to come from public and private sources and from in-kind resource commitments (public and private sector employer secondments, voluntary inputs etc). The amounts required need to be defined and informed by a short business planning piece of work
- Bio/Waste Circular Economy and Watchet related costs and funding: revenue and capital
  funding will be required to advance the feasibility/business/funding cases and potentially the
  project components. This maybe funded entirely from the private sector or by a combination
  of private and public sector feasibility funding work.
- Revenue Funding: public sector funding to support innovation will continue to be important to de-risk private sector business investment at the early stage of development, support innovation skills, support business support services and to make some selected capital investment projects. Capital funding is often easier to secure, but this report would want to highlight a need for modest levels of revenue funding for
  - o the knowledge exchange/innovation business support services,
  - accelerator programmes
  - new innovation based course development programmes in emerging untried markets,
  - o further feasibility/business planning and implementation support work associated with new ventures and
  - o innovation promotion and comms schools events

<sup>&</sup>lt;sup>75</sup>For example, in addition to building the narrative a comms project might consider actions and impacts around speaker events (locally and nationally), social media initiatives, the development of a prospectus and part of the WST web site, selected media coverage and advertising

<sup>&</sup>lt;sup>76</sup> For example, moving from London to an equivalent house in Somerset could release £200k in equity

#### **8 Summary of Recommendations**

Overall: Endorse the *Innovation Framework* as a 'work in progress' road map for action (Q1 2021)

#### **Action Theme A: Taunton**

- 1. Promote a **Taunton Innovation District** –(Q1 2021) this will be a powerful device for conveying some of the core SWT knowledge assets and promoting the new innovation centres, the grow on places and the wider support of a knowledge exchange and business promotions services and the recommended establishment of SWT Innovation Board (see Action Theme D)
- 2. Work up a **Firepool TDIT FFE/Equipment specification and budget**. Explore funding options from public and private sources (Q1/2 2021)
- 3. Work up the **options** for securing a **Firepool TDIT operator** (Q1/2 2021), this to include supporting services for innovation, start-ups, business change, reliance, new ventures for established businesses. Options should include links/integration with Zenith Innovation Centre (Soon)
- 4. Explore and develop **Firepool 'meanwhile innovation and creative uses'** in the Phase 2 area and adjacent sites (2021)
- 5. Continue to liaise with UKHO on its commercialisation pilot and explore options for how this Marine Data Systems Accelerator can become a permanent jointly promoted programme with SWT and HoTSW LEP (Q1-3 2021)
- 6. Explore a **co-location research partnership using TDIC between UKHO and the University of Exeter** drawing on the University/Met Office partnership (Q1-4 2021)
- 7. Discuss with UKHO the formation of an International Expert Advisory Panel for Commercialisation (2021)
- 8. **Establish a Cluster Group** around healthcare, eHealth insurtech, medtech, digital and photonics represented strongly by private sector and NHS employers. This would link with and be complementary to the South West Academic Health Sciences Network. This would be a light touch networking group to enable initiatives to be explored and specific projects actioned through joint or bilateral work (Q1 2021)
- 9. Work with Rutherford and SNHS Trust to explore and establish an operator for the Zenith Innovation Centre (see 3 above) (Q1-Q2 2021)
- 10. SWT to actively promote the **combined start-up and grow-on space opportunities** for knowledge based businesses through the Taunton Innovation District at Firepool Phase 1 and 2, Blackbrook, Nexus, Crown Estate (Q2-4 2021)

#### **Action Theme B: Nuclear/Renewables**

- 1. Continue to **support the Hinkley Point C Supply Chain** to ensure local SWT businesses have access to the Hinkley Point C contracting opportunities (ongoing)
- Explore with SWT partners work that could secure a major innovation legacy from Hinkley

   especially around the creation of an International Training Centre for Nuclear Skills,
   operating as a UK and export service and also possible Nuclear/Sustainable Energy research testing facilities and new sustainable demonstrator energy projects. (Q1-Q4 2021)

#### **Action Theme C: Biovillage and Circular Economy Demonstrator**

- Find ways in which SWT can support the growth of the Biohm/OC bio-manufacturing business. This might include helping source waste inputs, using the finished materials in SWT projects and helping promote the use of bio-manufactured products (2021 and ongoing)
- 4. Support the emerging vision for a Bio-manufacturing and Circular Economy

  Demonstrator Vilage at Watchet.

  (2021/22)

#### **Action Theme D: Underpinning Support**

- 9. Assess in detail the setting up of a SWT Innovation Board this to also consider the wider views of SCC, partner districts and HotSW (Q1-Q2 2021)
- Encourage and Support the creation of Cluster Groups Health/MedTech (Q1 2021); Bio-Manufacture/Circular Economy (Q2 2021); Marine Data (Q2 2021); and continue to support existing Energy Groups (ongoing)
- 11. Progress work that would establish a **KE and Innovation Support Service**, initially with a focus on TDIC and Zenith, but with a clear ambition to operate across the wider area including links into the all knowledge based businesses, Enterprise Centres, and home workers (Q1 2021 Q3 2022)
- 12. Support BTC in working up new employer relevant programmes for existing and emerging skills gaps for knowledge based businesses and help change perceptions around routes to higher technical education (ongoing)
- 13. Explore the establishment of a CPD/PG Study Centre at TDIC and the Zenith Innovation Centre in collaboration with the BTC and partner universities (Q2 2021-2022)
- 14. Work up a University Partnerships Prospectus and engage in a high level dialogue with universities at the highest level that seeks to secure a long term strategic commitment and presence in SWT (Q1/4 2021)
- 15. Work up **Innovation and Enterprise Communications** action plan aimed at changing perceptions for individuals, businesses, inward investment businesses and house buyers who operate in the knowledge-based sector (Q1-4 2021)
- 16. Consider budgetary implications of the above for the next 3 years (Q1-Q4 2021) notably:
  - e) Capital funding for TDIC fit out and equipment funding
  - f) Revenue funding to support the establishment of a SWT knowledge exchange and innovation support service
  - h) General revenue funding for new projects not covered above



#### Appendix A: Terms of Reference: The Specification

#### 1. Overview

Somerset and West has just launched its economic development strategy, part of which is to help it transition to a high skills knowledge economy with greater levels of productivity and GVA. It is now looking to commission expert advice into the type of knowledge economy and technology businesses (including 'niche' subsectors and emerging opportunities) which the Council might look to proactively target as future prospects for supporting sustainable economic growth, the creation of knowledge economy jobs, improved levels of productivity, innovation and research and development and potential future beacons for inward investment to the District. Furthermore, in the context of the Coronavirus crisis, this work will inform our approach to new opportunities for the District economy on the path to recovery presenting new transformational economic opportunities around enterprise and innovation, development of emerging sectors and market opportunities aligned to the Opportunity areas of the Local Industrial Strategy and seen through the prism of Clean Growth, building from the asset, research and business base we may have. At the same time, the Council is refreshing its Local Plan and there is an opportunity to consider the allocation of land under the new Local Plan to support the delivery of a sustainable innovation park potentially in a phased approach and possibly linked to Exeter University and other research institutes, with whom our members have previously engaged.

#### 2. Background

In March 2010, a previous economic development strategy for Taunton Deane Borough Council entitled "Grow and Green - a new economic development strategy for Taunton Deane" was produced.

The Strategy was guided by a vision of sustainable economic growth:

By 2026 Taunton will be one of Europe's most successful and sustainable towns with a dynamic knowledge economy and a high quality of life

It set out three areas for consideration which are still broadly relevant today, but our context is now broadened to include West Somerset, having merged as a newly formed Council formally in April 2019.

- 'Grow and Green' communities: to develop community-based, driven and owned approaches to the green knowledge economy, linking green initiatives (renewable energy, resource conservation and management and sustainable development) with business and employment growth initiatives
- Innovation and Enterprise: to accelerate business growth and innovation and new enterprise development, giving particular attention to high growth firms and high skill knowledge-intensive sectors of Taunton's economy.
- **Promoting Taunton:** to promote Taunton both *internally* to local businesses, residents, students and policymakers in order to encourage more local spending and investment and retain companies and talent; and *externally* to establish Taunton as an important destination for inward investment and tourism, at the regional, national and international levels.

#### A convenient "Summary of Actions" was given in the last chapter of the report.

It was agreed that the Council would develop coherent programmes for 'growing and greening' Taunton's economy, reaching across all sectors. This second thrust was around making accelerating green innovation a top priority, through identifying opportunities for demonstrating and piloting new schemes, developing a Taunton innovation system with businesses, the HE/FE sector and other players including the LEP and networking into other Government funded innovation related programmes.

#### 3. New opportunities and a fresh approach

Many of the proposed activities are still relevant today and indeed some of them have now been superseded by the announcement of the Somerset wide climate change strategies and emerging workplans, including that of Somerset West and Taunton.. Somerset West and Taunton's own economic development strategy has been produced and adopted by the Council in February 2020, within which there is a focus on a stated strategic priority as follows: University in Taunton / Research and Innovation Park

Explore the potential and scope for a University in Taunton, with a business led curriculum that will help deliver the skills businesses want, attract more inward investment and create opportunities for higher value jobs for residents. There is an opportunity to build on the UK Hydrographic Office (UKHO) open innovation activity and links with other South West Universities, (such as Exeter), but also embrace other opportunities arising from the South West Institute of Technology with a focus on advanced engineering and digital, working with Bridgwater and Taunton college and the University Centre.

There is a clearly stated intent to explore and scope the future potential for a knowledge based Innovation and Technology Park, with links to specialist centres of excellence and research Institutes linked to Higher Education and relevant Universities and Research Institutes and/or Catapults.

This includes opportunities to explore and validate emerging opportunities in knowledge economy sectors and clustering such as:

- AI/Big Data and digital technologies already underway with links to the South West Institute of Technology
- Remote healthcare delivery (telehealth/telemedicine) linked to the care of an increasing elderly population
- Low carbon renewable energy and environmental technologies (including plastic waste recycling and the circular economy).

The latter could include innovations around the circular economy and innovation in manufacturing and processing, linked to the Climate change emergency and the associated industry and business workstreams and sustainable smart city type of 'Garden Town living' for the 21st century, as well as building on exciting initiatives such as the Biohm investment in biosciences linked to plastic waste recycling and other commercial applications exploiting our Natural Capital. https://www.onioncollective.co.uk/industry-for-watchet

#### Somerset's Climate Change Strategy

## https://wwwmedia.somerset.gov.uk/wp-content/uploads/2020/01/Somerset-Climate-Emergency-Framework-Final.pdf

Following the publication of Somerset's Climate change strategy and the development of the various workstreams, including industry and business and waste in particular, there is an opportunity to harness this activity and focus on those aspects of the Climate change strategy where a future innovation park and campus could contribute, working in partnership with Exeter University and other stakeholders.

Garden Town Prospectus https://www.somersetwestandtaunton.gov.uk/media/1450/taunton-garden-town-vision.pdf "Taunton, the County Town of Somerset will be flourishing, distinctive, and healthy – and the country's benchmark Garden Town. We will be proud to live and work in a place where the outstanding natural environment, diverse and thriving economy and inspiring cultural offer, contribute to an exceptional quality of life and well-being".

<u>National and Local Industrial Strategy</u> -Clean growth opportunities need to be considered in terms of the Heart of the South West Local Industrial Strategy and in the context of some of the themes of the national strategy around: **Ideas** - the world's most innovative economy and a world leader in global science and innovation collaboration. The Government is looking to increase R&D tax credits and investment in R&D. This is intended to encourage the private sector to invest more in R&D, to turn exciting ideas into commercial products and services and to build research and innovation excellence across the UK, linked to the Science and Innovation Audit.

**Grand Challenges** - developments in technology that are set to transform industries and societies in which the UK has an opportunity to play a leading role. Essentially this is commonly referred to as the 4<sup>th</sup> Industrial Revolution, with the convergence and fusion of technologies blurring the boundaries between physical, digital and biological worlds which will introduce new business paradigms and enhance GVA and productivity.

**Clean Growth** - to maximise the advantages for UK industry from the global shift to clean growth through leading the world in the development, manufacture and use of low carbon technologies, systems and services that cost less than high carbon alternatives. Economic opportunities from this area could grow at four times the rate of GDP, following the Paris Agreement of 2015, which commits to revolutionising power, transport, heating and cooling, industrial processes and agriculture.

#### d) SWT's Great Plastic debate and associated papers

There has been significant discussions previously with Exeter University and some of the local networks around the circular economy including recycling of plastic waste for instance, building on Exeter University's research credentials as well as discussion with the South West Academic Health network and opportunities for innovation in remote delivery of healthcare including telehealth and telemedicine in the context of an ageing population in more peripheral rural areas across the district. There are potentially a wide range of stakeholders who could leverage investment funding, provided the business case is robust and then deliver aspects of this innovation/science park forming an Integrated Programme Delivery partnership. These papers will be shared with the winning consultant at the inception meeting,

#### 4. Scope of tender opportunity and Key Outputs

Further to the strategy in 2011, internal discussions and a forum on the Plastics debate in 2018, compounded now by the declaration of a Climate Change emergency and faced with the LIS and a clean growth focus as well as the need to provide and support new Opportunities to re-position the economy during the recovery phase from Covid 19 and beyond and be transformational addressing societal challenges, it would now seem opportune to re-consider the opportunities of emerging sectors and also collaboration with the knowledge base in our neighbouring surroundings. In parallel to this assignment, work has been underway to develop a Digital Innovation Centre in Taunton building on a Digital Taunton cluster to help businesses transform their business

models in a digital economy, which has resulted in a thorough demand and need study and proposals for a Digital Innovation Centre and associated innovation services, culminating in a build to the Government through an ERDF funded capital programme in March 2020 for a proposed future build by early 2022.

The time has never been better to look to work strategically and collaboratively sub-regionally with a range of stakeholders to develop the future business support and eco-innovation network, and physical infrastructure in this strategic growth corridor along the M5 between Bristol and Exeter. This will in future necessitate greater collaboration and alignment with Further Education and Higher Education Institutes, sub-regional sectors and business membership bodies and enterprise agencies, pan-LEP sector networks, and sub-regional partnerships within the Heart of the South West and potentially Greater South West and the West of England Combined Authority, along with other national and sub-regional stakeholders including Catapults etc. Department for International Trade (DIT) and other Government departments.

#### **4A Key Deliverables**

The key deliverables arising from the scope of this initial feasibility work should comprise of a comprehensive report, routemap and action plan, with supporting annexes of research and discussion with local stakeholders, which addresses the following:

- A report which assesses and validates and/or develops and refines an initial concept or proposes an
  alternative concept for the development of an innovation/technology park and /or science park in our
  District and benchmarks the strengths, weaknesses, gaps and opportunities measured against the normal
  criteria and the Critical Success Factors normally associated with a successfully operating science and
  innovation/technology park. This should include a healthcheck and barometer of our current starting
  position as well as the building blocks on which we should build.
- 2. It should recommend an initial starting point and subsequent routemap for how we might go about developing the business case, setting out the recommended approach we should take from a series of alternative options with supporting rationale (e.g. a virtual hub and spoke model vs one consolidated park development and other alternatives you consider there might be). This should be based on your objective, realistic assessment of the vision, aims and objectives as well as your view on the initial starting point and focus for such a venture, resulting from the desk and field work you propose to undertake and having an eye to attracting Government public and private sector R&D funding and likelihood of attracting future institutional and commercial seedcorn and medium to longer term investment.
- 3. Following on from the recommendation of the preferred starting model, the report should set out the proposed Governance approach that should be adopted, as well as the roles of the stakeholders, the workstreams that needed to be developed and the routemap for moving to implementation of the first phase of development and what the future phases and activity might look like. This should include a clear action plan of key activity, milestones and key performance indicators, phasing and timelines to move from concept to initial realisation on the ground for each of the phases of implementation.
- 4. Assuming that this is taken forward, it would be good for you to provide an assessment of the likely economic impact in terms of GVA, Innovation and Productivity and start up rates etc. and associated multiplier effect on the local economy and existing value and supply chains locally and sub-regionally and what we will need to do to develop the attractiveness of the business environment and innovation ecosystem further. Consideration given to an assessment of the current strengths and weakness of the local sub-regional social, human, financial and technological capital to support such a concept and proposition and steps to strengthening and deepening those areas where here are deficiencies.
- 5. Aa a final part of this commission, we would like an some early consideration to be given to the short, medium and longer term property and land allocations and the critical success factors would be in the initial design and masterplanning and physical location of the park to ensuring such a park would be successful by assessing the location and other essential infrastructure and connectivity requirements might be to ensure its viability. This is obviously at a high level as more of that work would be taken forward in the next phase and scope of work.

### 4B Considerations related to the initiation and development of an innovation/technology and/or science park which may inform the methodology and approach you take

- This will necessitate desk based research and updating of the relevant Government policies and strategies linked to Clean Growth and associated sector opportunities and require renewed engagement with the departmental heads at Exeter University.
- It will also require active discussion and engagement with members of the Council and other actors such as the County Council who have been previously engaged in such discussions to seek their input and what they can contribute in terms of know how, institutional support and assessment of the market opportunity but also their thoughts as to how to take any ideas they might have with supporting rationale.

- It will also require a realistic assessment of the opportunity to develop an innovation campus, after undertaking a review of the business opportunities, assets, and potential early commitments of Universities and research and innovation bodies and organisations.
- SWT will need to focus down on a core concept from which to start, where there are likely to be the greatest opportunities for success and where we have tangible assets, businesses and research capabilities which are relatively strong and possibly where there is a unique capability.
- Furthermore, although we are able to allocate land for an innovate park, we need to understand and
  validate the opportunity for an innovation park first and understand the type of model we should look to
  operate namely, might it be a hub and spoke model lining different centres of excellence together and
  premises for start up and move on or other approaches

#### a. Validating future knowledge economy market opportunities & emerging businesses to target

SWT needs to identify the focus for the R and D area of research and development which presents the best immediate opportunity for development of the innovation/technology and/or science park concept and in parallel identify the types of businesses and start-ups in emerging sector/technology areas that might be looking for new environments to test, prototype and collaborate and innovate. This will in future require us to target the early movers and shakers in these areas who hopefully will subsequently attract others in, once they are well established here. Such movers and shakers may an existing set of businesses, or be a new style of business incubator or accelerator that is established, a large anchor corporate relocating to the area, a leading research institute or offshoot of a University, or a UK or Foreign Investor looking for a suitable location. It will hopefully lead to the opportunity for an applied research and development intensive cluster around sustainable clean growth and environmental/energy related businesses and stakeholders.

#### b. Better partnering and collaboration

SWT needs a vision for the future which will develop better links between local and sub-regional partners, businesses and stakeholders, along the M5 corridor and its hinterland in the form of triple helix open innovation type of collaborations and potentially complementary clusters each with their unique points of differentiation but where the sum is greater than the parts in a national and international context, seen through the lens of Clean and sustainable growth and opportunities. The example of one of the key challenges challenges to address is that of Climate Change and Clean Growth. It should look to seize upon synergies and complementary research and development activities and clustering, potentially involving collaborative interest and are shared institutes, assets and resources which could be made to be bigger than the sum of the parts. This would build on previous interactions with Exeter University amongst other local business networks in the South West.

#### c. Proactive preparation for strategic funding opportunities

SWT and its businesses, asset and stakeholders need to be outward looking and proactive in responding to wider Governmental funding opportunities and associated calls from Government bodies such as UKRI and emanating from the National Industrial and Prosperity strategies such as from Innovate UK for instance. Once a proposition and focus for the innovation park is confirmed, we can collectively anticipate and intelligently horizon scanning all opportunities, seeking where possible to strive to be a pilot and a collaborative testbed for Government funding calls addressing societal issues in related areas including low carbon & sustainable energy challenges, digital upskilling etc. responding to calls for Institutes of Technology etc., enterprise zones etc.

### Attracting and growing businesses involving local recruitment, inclusion and upskilling of the indigenous workforce

A wider consideration related to the development of an innovation park is that future is that there are opportunities for sustainable growth of the economy in the future which will provide new and emerging career and employment pathways for the resident population and it is important that there is a broad range of employment opportunities which can lead to higher skilled and paid jobs within the District for its residents over time. This would be an opportunity to develop zero carbon environmental and renewable technologies skills and training for instance as a legacy of Hinkley C construction and transferability and application of manufacturing and engineering skills to these new and emerging work and sector opportunities.

#### a. **District wide focus**

It is envisioned that this scope of work will propose a direction of travel in terms of the type of future knowledge economy prospects and targets should aspire to which ultimately will help transform the economy over the short, medium and long term, starting with some early quick wins within the next 3-5 years.

### **Appendix B: List of Consultees**

Somerset and West Taunton District Council	James Hassett		
Somerset and West Taunton District Council	Nick Bryant		
Somerset and West Taunton District Council	Mark Wathen		
Somerset and West Taunton District Council	Dan Webb		
Somerset and West Taunton District Council	Gordon Dwyer		
Somerset and West Taunton District Council	Councillor Marcus Kravis		
Somerset and West Taunton District Council	Councillor Habib Farhabi		
Somerset and West Taunton District Council	Councillor Mike Rigby		
Somerset County Council	Paul Hickson		
Somerset County Council	Sam Seddon		
Somerset County Council	Steve Lawrence		
Somerset County Council	Julie Wooler		
South Somerset District Council/MIT/HotSW lead			
Sedgemoor District Council	Alex Parmley		
HotSW	Doug Bamsey Eifion Jones		
HotSW	Corinne Matthews		
HotSW Innovation Board	Stuart Brocklehurst		
HotSW/Maritime UK SW			
UKHO	Sheldon Ryan		
	David Tomaney		
UKHO	Mark Casey		
SWMAS COURT From Indian Trans	Nick Golding		
SNHS Foundation Trust	David Shannon		
SNHS Foundation Trust	Karen Prosser		
SNHS Foundation Trust	Gregory Cobb		
Somerset CCG	Allison Nation		
SW Academic Health Science Network	Stuart Monck		
WPA	Charlie MacEwan		
Rutherford Diagnostics	Steven Powell		
DEOS	Viv Barrett		
Novanta/Cambridge Technology	Adrian Willoughby		
UXC Group	Craig Newman		
Singer Instruments	Harry Singer		
Viridor	Tim Rotheray		
Biohm	Ehab Sayeb		
Biohm	Harry Darkly		
Onion Collective	Naomi Griffith/Jessica Prendergast/Sally Lowndes		
Somerset Waste Partnership	Mickey Green		
Digital Taunton	Shane Griffiths		
Digital Taunton	Jeremy Hyams		
CICCIC	Andrew Knutt		
CICCIC	Richard Holt		
Claims Consortium	Jeremy Hyams		
Bridgwater & Taunton College	Andy Berry		
Bridgwater & Taunton College	Matt Tudor		
Bridgwater & Taunton College	Sam Reilly		
University of Exeter	Chris Evans		
University of Exeter	Alan Brown		
University of Exeter	Robert Kathro		
Taunton Based Ex MoD	Paul Casson		
Taunton Based Ex Imperial West Science Park	Eulian Roberts		
Cushman & Wakefield	Andy Heath		
GHA (European Funding)	Richard Hancock		