



Swansea Bay City Region Joint Committee - 16 November 2023

Supporting Innovation & Low Carbon Growth Programme – Change Request to Incorporate the National Net Zero Skills Centre of Excellence

Purpose:	To seek approval from Joint Committee for a change request to the Supporting Innovation and Low Carbon Growth (SILCG) Programme to incorporate the National Net Zero Skills Centre of Excellence (NNZSCoE) into the approved Advance Manufacturing Production Facility (AMPF) project.
Policy Framework:	Swansea Bay City Deal Region Joint Committee Agreement
Recommendation(s):	It is recommended that: 1) Joint Committee approves the Change Request at Appendix A for the incorporation of the National Net Zero Skills Centre of Excellence into the SILCG programme as detailed in the Outline Business Case in Appendix B.
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Legal Officer:	Debbie Smith (SBCR Monitoring Officer)

1. Purpose

- 1.1 The purpose of this report is to present a Change Request to Joint Committee for approval of the inclusion of the National Net Zero Skills Centre of Excellence into the Supporting Innovation and Low Carbon Growth programme.
- 1.2 The Change Request is attached at Appendix A and was developed in accordance with the SBCD Change Control process. The request involves the utilisation of the unallocated £5.3m City Deal funding to incorporate the NNZSCoE into the approved Advanced Manufacturing Production Facility project. The change resolution and its impact are detailed on the attached Change Request.



1.3 The Change Request is supported by the submission of an Outline Business Base (OBC) for the project proposal which has been developed in accordance with Government's Better Business Case 5 Case Model and provides detail on the Strategic, Economic, Commercial, Financial and Management dimensions of the project. The OBC is attached at Appendix B.

2. Programme Overview

2.1 The Supporting Innovation & Low Carbon Growth (SILCG) programme is made up of seven interlinked projects:

- **Bay Technology Centre** – developed in response to well-evidenced demand for high quality, flexible business premises. A hybrid building providing a range of high quality, flexible, speculative office and laboratory space to support start-up businesses and indigenous business growth. The design of the building has established it as Wales' first commercial 'building as a power station' (energy positive) with a link to the Hydrogen Centre providing a proof of concept to use renewables to create hydrogen and fuel vehicles demonstrating the potential to decarbonise vehicle refuelling.
- **SWITCH (South Wales industrial Transition from Carbon Hub) Harbourside** – SWITCH will provide a specialist facility on Harbourside, Port Talbot to carry out research to support the steels and metals industry and supply chain to improve competitiveness by increasing product capability and reduce carbon emissions to meet legislative requirements. This will be achieved by strengthening collaboration between industry and academia and increasing the level of applied research to accelerate the adoption of improved products and processes. The City Deal funding will be used to construct a purpose built facility and purchase specialist equipment.
- **Advanced Manufacturing Production facility (AMPF)** – This project has been developed in response to the well evidenced need for business sites and premises, including industrial premises. The project is to develop a hybrid building providing a range of production units incorporating a pilot line with office space to support start-up companies and indigenous business growth in the innovation and manufacturing sectors.
- **Hydrogen stimulus programme** - This project has been developed to demonstrate the viability and commercial opportunities to the creation of hydrogen from renewable sources. The project will establish an electrical link between the Swansea Bay Technology Centre and the Hydrogen Centre on Baglan Energy Park, including necessary upgrades to the equipment including electrolyser to create smart energy systems and to use excess electricity to convert to hydrogen to fuel vehicles for council use which will also be purchased with City Deal funding. There is potential to replicate this activity on a commercial scale which will be explored during the delivery of this initial project.
- **Air quality monitoring programme** – this project has been developed in response to air quality issues and the need to understand levels of pollution to make informed decisions on mitigation and intervention measures. The project will incorporate a monitoring and analysis system to provide verified sources of air quality data. The data analytics generated by the project will help to identify correlation with factors such as pollution sources, both internal and external to the area. The funding will be used to purchase air quality monitors and the data analytics side of the project. There is potential to replicate this activity across the region, Wales, the UK and worldwide.

- **Electric vehicle charging infrastructure route map project** – this project has been developed in response to the need to decarbonise transport, and address the new challenges posed by the increasing number of electric vehicles. The project consists of three phases:
 - Phase 1 – to consult with leading academics, industry partners and the public sector to produce an effective, impactful and future-proof electric vehicle charging strategy.
 - Phase 2 - will focus on the physical implementation of smart charging stations and the grid infrastructure required to support modern charging technologies.
 - Phase 3 – To use information gathered from the implemented smart charging stations to build a detailed dataset of electric vehicle charging behaviours within the area. This will be used to fuel research into topics including vehicle-to-grid transfer for flexible energy systems, virtual power plants, and future economic/business models for electric vehicle charging stations.
- **Property Development Fund** - this project has been developed to support the viability of private sector schemes to develop bespoke and speculative buildings in the Port Talbot Waterfront Enterprise Zone. The fund will be administered by Neath Port Talbot CBC as a £10m fund (£5m gap funding non-repayable finance / £5m Private Sector investment). The PDF will target 3 schemes of 2,000 m2 each

3. Background to Unallocated £5.3M and development of the NNZSCoE OBC

- 3.1 SBCD Programme Board and Joint Committee agreed for Neath Port Talbot Council to develop an OBC for approval by Programme and Joint Committee to secure the unallocated funding


4.0 Need / demand

- 4.1 There is a lack of skills provision in SW Wales to meet future needs of Industry and support activities around SBCD portfolio:
- a. e.g. **FLOW** 7,407FTE/GW 4.5GW available = 33,331 jobs - pessimistic calcs (+10K)[BVG Associates]
 - b. **Celtic Freeport** – 16,000 new green jobs (possibly includes some figures above) with £5.5bn of investment forecast
 - c. Tata £1.2bn Electric arc furnace investment and possible knock on consequences
 - d. Lanzatech £500m sustainable aviation fuels site in Port Talbot
- 4.2 **RLSP Skills survey from 2022** created the **skills barometer** highlighted significant gaps for various sectors around skills provision regionally as shown in the graphics below. The list on the right indicates existing Job roles with no training provision within the region:

Manufacturing

Next 5-10 Years Skill Requirements Skills Survey 2022


- Specialist Engineering
- Smart Manufacturing
- Renewables
- Digital coding / web



Construction

Next 5-10 Years Skill Requirements Skills Survey 2022

- Renewables
- Retrofit
- Specialist Engineering




Energy

Next 5-10 Years Skill requirements Skills Survey 2022

- Renewables
- Specialist / Smart Engineering
- Digital, Coding Web
- Construction

36% of surveyed employers have apprentices
42% experience barriers to training

- No Framework for Net Zero
- No capacity to train
- Recruiting difficulty



HAPS/Construction

- ASBESTOS ANALYST & SUPERVISOR
- Building Service engineering technologies
- BUILDING CONTROL SURVEYOR (integrated degree)
- CHARTERED TOWN PLANNER
- Junior Energy Manager
- Interior systems installer
- Quality and Governance
- Structural Steelwork fabricator
- Construction Design and Build Technician
- Construction Site Engineering Technician

Low Carbon

- Chartered surveyor
- Building services engineering ductwork installer
- Construction Assembly and installation operative
- Building control surveyor (integrated degree)
- Commercial thermal insulation operative
- Biochemistry

- 4.3 October '23 Skills and Talent project have concluded a comprehensive piece of work mapping the skills needs and jobs created within each city deal project.
- 4.4 Skills & Talent project to establish 3 Centres of Excellence in SBCD region.
- 4.5 There is also a need for an **industry led skills facility** to add value / enhance existing FE and HE provision – unique in Wales.
- 4.6 Industry Wales indicates that Wales lags behind England by some way in its level 3+ provision around manufacturing related skills – needs to be addressed.
- 4.7 Key point is around **avoiding duplication** NNZSCoE is about 'plugging the gaps' and bringing industry and skills providers together for more joined up approach and being complementary to existing activity.
- 4.8 In support of this initiative we have undertaken a process to identify similar facilities across the UK and has included:

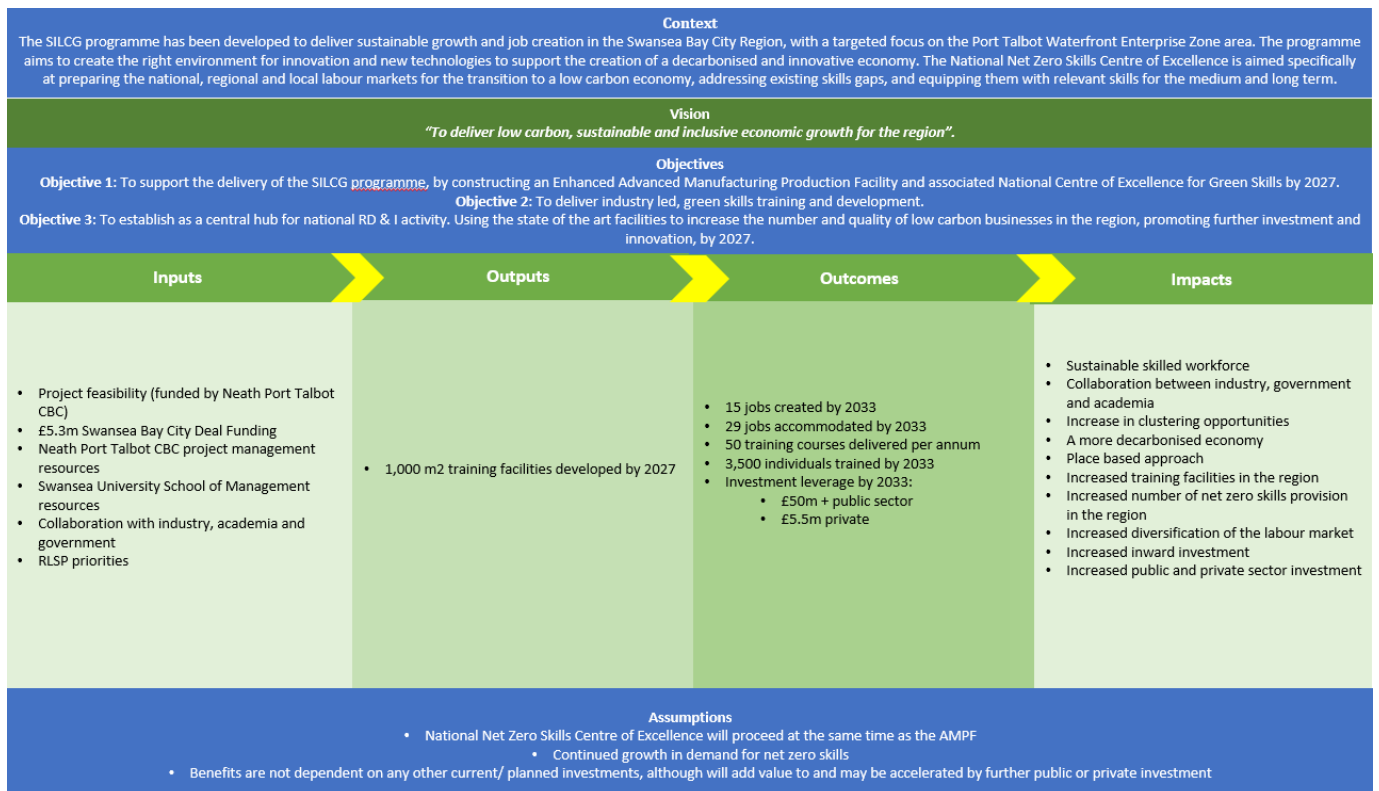
Title	Location	Launched	Size (m2)	Cost
Manufacturing Technology Centre (MTC)	Coventry	2011 (100 staff now 740)	12,000	£40M
- Lloyds Bank Advanced Manufacturing Training Centre (AMTC)	Ansty Business Park, Coventry	2015		£15M sponsorship to 2030
The Hive	Ebbw Vale	Build start 09/23	1.96 acre site	£9M
AMRC Cymru	Broughton, Flintshire	2019	2,000	£20M
National Manufacturing Institute Scotland (NMIS)	Strathclyde, Glasgow	2020	3.5 ha/1.5 football pitches	£42M
- Manufacturing Skills Academy	As above	2023		
CATCH	Humber	2017	Multiple buildings on site	
- Catch National Net Zero Training Centre	As Above	Announced Oct 23		£60M
Advanced Manufacturing Training Centre of Excellence (AMTCE)	Dundalk, Ireland	2020	5,100	Euros 5.4m (£4.66m) 9/22 Euros 8M 11/22 Euros 11M

- 4.9 It is important to note that in Wales there is currently only the AMRC Cymru (run by Sheffield University) which is a pure research centre, and the recently announced 'The Hive' in Ebbw Vales part of Coleg Gwent. There is no combined manufacturing and skills centre located within Wales.
- 4.10 Also to note from the table above is the level of investment secured which in the majority of cases is an order of magnitude greater than the £5.3M under discussion. Therefore, we view this as a Phase 1 activity of a much larger activity to be undertaken over the next 3 years.
- 4.11 Letters of Support as shown in Appendix 2 of the OBC include Net Zero Industry Wales, South Wales Industrial Cluster, Local FE and HE institutions, Regional Learning and Skills Partnership, Celtic FREEPORT, GCRE, etc.
- 4.12 NPT have also consulted with Industry Wales and Welsh Government in interactions with similar facilities AMRC Cymru and NMIS (national Manufacturing

Institute Scotland) with the assistance of Professor Keith Ridgeway Chair of Industry Wales and involved in the setting up of AMRC Cymru and NMIS.

5. Programme Outcomes

- 5.1 The NNZSCoE will deliver significant beneficial outcomes.
- 5.2 The combined effect of the AMPF and the NNZSCoE will improve the offer for innovative, manufacturing businesses and create an environment where these businesses can thrive and support staff with upskilling and/or reskilling.
- 5.3 The logic table below shows the inputs, outputs, outcomes and impacts expected from the NNZSCoE activity.



6. Project Investment Objectives

- 6.1 The table below shows the NNZSCoE three investment objectives.
- 6.2 Measures for the NNZSCoE are shown in column 2 with combined measures of the AMPF + NNZSCoE creating the Enhanced Advanced Manufacturing Facility shown in the final column.

	Investment Objective	Measures NNZSCoE	Total Measures EAMPF
1	To support the delivery of the SILCG programme, by constructing an Enhanced Advanced Manufacturing Production Facility incorporating the National Net Zero Skills Centre of Excellence by 2027.	<ul style="list-style-type: none"> • 1,000 sqm training facilities developed by 2027. • 15 Jobs Created by 2033. • 29 Jobs accommodated by 2033. 	<ul style="list-style-type: none"> • 5,000 sqm of hybrid production & training facility developed by 2027. • 113 Jobs created by 2033. • 140 Jobs accommodated by 2033.
2	To deliver industry led, green skills training and development. Upskilling the local/regional/national labour markets with appropriate green skills to enable transition to a net zero economy, whilst supporting the development of local and regional low carbon projects by 2027.	<ul style="list-style-type: none"> • 50 Training courses per annum delivered by 2033. • 3,500 individuals trained by 2033. 	<ul style="list-style-type: none"> • 50 training courses per annum delivered by 2033 • 3,500 individuals trained by 2033.
3	To establish as a central hub for national RD & I activity. Using the state of the art facilities to increase the number and quality of low carbon businesses in the region, promoting further investment and innovation, by 2027.	<ul style="list-style-type: none"> • Investment attracted £50m + public / £5.5m Private by 2033. 	<ul style="list-style-type: none"> • Investment attracted £50m + public /£9m Private by 2033. • 15 SMEs accommodated

7. Outline Business Case (OBC) Development

- 7.1 The original Outline Business Case (OBC) for the National Net Zero Skills Centre of Excellence is before SBCD PB today in relation to the unallocated £5.3M of City deal funding assigned to NPT.
- 7.2 The OBC has been prepared using the agreed standards and format for business cases, as set out in the Green Book Supplementary Guidance 5 Case Model and Better Business Case guidance.
- 7.3 The OBC has been undertaken in discussion and consultation with the SBCD PoMO and in accordance with the approved SBCD guidance for business case development.
- 7.4 The SILCG Programme Board have approved the OBC
- 7.5 The SBCD Programme (Portfolio) Board have approved the OBC on 31st October 2023.

7.6 The SBCD ESB have undertaken a 'test and challenge' activity on the OBC which took place on Friday 13th October 2023

7.7 The updated business case is attached for information with the executive summary indicating key elements around the 5 business case sections.

- The **strategic case** section. This sets out the case for change, together with the supporting investment objectives for the CoE. The SILCG programme has been developed to deliver sustainable growth and job creation in the Swansea Bay City Region, with a targeted focus on the Port Talbot Waterfront Enterprise Zone area. The programme aims to create the right environment for innovation and new technologies to support the creation of a decarbonised and innovative economy.
- The **economic case** section. The Economic Case section provides an updated perspective for the EAMPF project incorporating scope for the associated NNZS. (I.e. from AMPF in PBC to EAMPF). It is set in the context of the Supporting Innovation and Low Carbon Growth PBC, and in response to the Case for Change and broader Strategic Case. The ambitions to deliver against the SILCG programme have been built into the overarching PBC and project-level SOC, appraising (including revisiting) options against the Investment Objectives (developed as SMART in section 1.3.1). The Economic Case considers the EAMPF in its entirety, rather than appraising the NNZS as a stand-alone operation. The rationale for combining this assessment is that the AMPF and the NNZS are intrinsically linked, both in terms of activity and their co-location, and thus the combined EAMPF project will generate economic output 'more than the sum of its individual parts'. In other words, the two activities (AMPF and NNZS) will complement each other, leading to increase the economic impact of both activities by the fact they are working together/co-located. This demonstrates that the organisation has selected the most economically advantageous offer, which best meets the existing and future needs of the service and optimises value for money (VFM) demonstrating the VFM for the chosen option and confirming the updated costs, benefits and risks, demonstrating that the option offering best public value has been chosen.
- The **commercial case** section. The Commercial Case sets out the proposed procurement arrangements for delivery of the preferred option, including:
 - The proposed procurement strategy and route
 - The proposed service requirements and required outputs
 - The proposed approach to risk allocation
 - The proposed charging mechanisms
 - The proposed key contractual arrangements
- The **financial case** section, The Financial Case sets out the funding requirements for the preferred option and demonstrates overall project affordability.

- The **management case** section The purpose of the Management Case is to put in place the arrangements for the successful delivery of the project. It provides evidence that the capability and capacity is in place to govern and deliver the project, and arrangements are in place to manage project risks.

7.8 The key milestones for the delivery of the NNZSCoE programme are shown below:

Activity	Calendar Year
Enhanced Advanced Manufacturing Production Facility building stakeholder workshops / Design Brief	Q1 2024
Operator Procurement	Q2 2024
2 stage Design & Build Procurement	Q1 2024
Design Phase	Q3 2024 – Q3 2025
Construction Phase	Q3 2025 – Q4 2026
Facility Opens	Q4 2026

8 Financial Implication

- 8.1 Financial implications for the Supporting Innovation & Low Carbon Growth Programme are specifically included within the SILCG Business Case. Financial implications for the NNZSCoE are included within the NNZSCoE outline Business Case. Financial Risks will be managed through monitoring and evaluation at both Project and Programme level and reported, via the Swansea Bay City Deal's Programme Management Office, to the Joint Committee, where appropriate.
- 8.2 The NNZSCoE project is funded through the utilization of the unallocated £5.3m City Deal Funding assigned to NPTCBC as part of a first Phase of activity. It is expected that £50m+ public sector funding and £5m+ private sector funding will be secured to support the centre of excellence. City Deal funding will be released on the successful approval of the programme business case by UK and Welsh Government. Public sector investment consists of investment/contributions from public funded and public service organisations. Private sector investment includes regional investment from local and national private sector partners.

9 Legal Implications

- 9.1 There are no legal implications associated with this for Information report.

10 Alignment to the Well-being of Future Generations (Wales) Act 2015

- 10.1 The SBCD Portfolio and its constituent programmes / projects are closely aligned to the Well-being of Future Generations (Wales) Act 2015 and the seven well-being goals for Wales. These alignments are outlined in a Portfolio Business Case for the SBCD. The SILCG programme and the NNZSCoE are aligned to the Act as shown below:

Goals	NNZSCoE Alignment with goal
A prosperous Wales	<ul style="list-style-type: none"> • Generating highly skilled, sustainable and well paid employment opportunities for Swansea bay residents • Growing higher added value manufacturing based activities in the region, to raise productivity levels and drive economic growth. • Supporting the growth of low carbon technology based business sectors • Low carbon strategies at heart of the new developments to reduce energy use and promote resource efficiency, with an aspiration for BREEAM Excellent rated buildings.
A resilient Wales	<ul style="list-style-type: none"> • Minimising the impact of the developments on ecological systems: extensive environmental and ecological assessments are being undertaken to inform the design and build of the developments.
A healthier Wales	<ul style="list-style-type: none"> • New green spaces and high quality public realm will contribute to a healthy urban environment that supports health, recreation and wellbeing. • Creating secure and sustainable employment opportunities, including training and employment opportunities for workless individuals and those in need of reskilling and upskilling
A more equal Wales	<ul style="list-style-type: none"> • Reducing regional differences by contributing to an improvement in economic performance and employment opportunities in the Swansea Bay City region, which lags behind Southeast Wales (and also the UK) • Utilising social benefit clauses to create employment and training opportunities for workless individuals
A Wales of cohesive communities	<ul style="list-style-type: none"> • Supports the growth of a collaborative and cohesive technology based manufacturing community in NPT, that will provide employment opportunities for local people • Revitalisation of the Baglan Energy Park with a gateway building focussed on advanced manufacturing and skills activities for benefit across the SW Wales region.
A globally responsible Wales	<ul style="list-style-type: none"> • The project will be delivered in a globally responsible way through, for example, responsible and (where possible) local sourcing of key materials, and a focus on reduced energy consumption and resource efficiency.

Background Papers: None

Appendices:

Appendix A Change Request – National Net Zero Skills Centre of Excellence

Appendix B SBCD SILCG NNZSCofE OBC DRAFT For circulation v1.1

Appendix 1 - Stakeholder Engagement Activities undertaken in respect of AMPF & NNZSCoE

Appendix 2 - Letters of Support

Appendix 3 EAMPF Benefits Register

Appendix 4 EAMPF Risk Register

Appendix 5 - SBCD SILCG PBC MASTER May 2021 v 4

Appendix 6 EAMPF design and build Gantt chart

Appendix 7 Integrated Assurance and Approval Plan SILCG