



# Pembroke Dock Marine Business Case Addendum



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## 1. Purpose

This addendum to the Pembroke Dock Marine (PDM) Business Case has been prepared by the PDM partners and overseen by the PDM programme Senior Responsible Owner (SRO) with guidance from the Swansea Bay City Deal Portfolio Management Office (PoMO).

The PDM partners have utilised the SBCD Business Case Update guidance in the preparation of this addendum.

The purpose of this addendum is to:

- update the approved OBC with any significant changes to the project eg: scope, benefits, financing, governance
- continue to demonstrate the strategic alignment, the validity for the intervention, value for money, commercial viability, affordability and deliverability of each of the project elements
- reflect progress on the programme particularly in terms of procurements undertaken
- provide an update to the status of the programme in readiness for the forthcoming Gateway Review in September 2023

This addendum has been approved by the programme SRO and signed off by the PDM Board. The addendum will be presented for information through Swansea Bay City Deal (SBCD) regional governance process.

## 2. Overview and Progress Summary

Pembroke Dock Marine is a collaboration between four complementary partners, Port of Milford Haven (PoMH), Offshore Renewable Energy Catapult (ORE), Marine Energy Wales (MEW) and Celtic Sea Power (CSP). Each partner is progressing through delivery of their respective elements following approval of the Outline Business Case and Business Plan in July 2020 and in the most part, the content of the approved business case is still valid. Where changes from what was approved have occurred, they have been stated in this document.

In the Outline Business Case, Executive Summary, we said that we would “build on an existing energy cluster that has grown around the Pembroke Dock area, in order to develop a world class centre for blue economic development”, and “act as a catalyst for what is a powerful suite of global markets, by offering unrivalled location, knowledge and expertise, supply chain and connectivity benefits. It will help to nurture developing technologies, most immediately acknowledging the real and immediate opportunity presented by the nascent marine energy sector”.

An overview of the PDM programme is shown below.





Element:	Marine Energy Engineering Centre of Excellence	Pembroke Dock Infrastructure	Marine Energy Test Area	Pembrokeshire Demonstration Zone	Combined outputs
Delivered by:		 Port of Milford Haven		 CELTICSEAPOWER #PHERY#MORCELTALIDD #MERTHWONKELTEK	Pembroke Dock Marine Consortium
Headline Deliverable:	Establish the Marine Energy Engineering Centre of Excellence for research and innovation.	Reshape the physical infrastructure of Pembroke Port, Gate 4, to ensure maximum operational efficiencies for UK industry.	Create pre-consented and licensed zones within the Milford Haven Waterway for component and scaled device testing.	Deliver Phase 2: the consents and Securing of Grid for the 180MW Pembrokeshire Demonstration Zone targeting both wave and floating wind technologies.	Globally marketable proposition covering cradle to grave solutions for 21st century marine engineering and marine renewable needs
Total SBCD	£3.34m	£21.66m	£0.54m	£1.67m	<b>£27.21m</b>
Full Cost	£8.45m	£48.11m	£0.62m	£5.82m	<b>£62.99m</b>
% Capital Spend	100%	100%	15.7%	0%	<b>89.92%</b>

Table 2.1 PDM Programme Overview

In under two years of full delivery, this activity has already established the credibility of the South Wales supply chain, including Ports, in terms of delivering floating wind in the Celtic Sea. This is evidenced by the change in approach taken by The Crown Estate (TCE). In 2020, TCE was only offering ad hoc sea bed leases for projects up to 100MW of Floating Wind. In 2021, this then progressed to TCE considering ad hoc approaches of up to 300MW. Through work done by the Cornwall Flow Accelerator, supported by both Celtic Sea Power and ORE Catapult, and significant lobbying by both partners, TCE’s ambition has grown rapidly, with a formal leasing round of 4GW announced in 2022.

Pembroke Dock is now home to five Celtic Sea project developers, RWE, Hiraeth Energy, Floventis, Blue Gem Wind and DP Energy. Marine Energy Wales’s 2023 state of the sector report highlights over 280 FTEs employed in the Marine Energy Sector in Pembrokeshire across 6 principal areas covering design, construction and technical disciplines as well as support services. The state of the sector report also ranks those organisations who are the most active collaborators in the sector, with ORE Catapult and PoMH in the top three of this list closely followed by Celtic Sea Power.

### Port of Milford Haven

PoMH has leveraged the work done through PDI to develop and launch a Haven Energy Cluster, with a decade-by-decade energy vision ([milford-haven-waterway-future-energy-cluster.pdf \(mhp.co.uk\)](https://mhp.co.uk/milford-haven-waterway-future-energy-cluster.pdf)) and participate in a successful bid for Freeport status, which was focused on both Floating Wind and green hydrogen and has been able to make a credible bid into the FLOWMIS fund. ([Freeports Programme in Wales selection decision-making note - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/freeports-programme-in-wales-selection-decision-making-note))

## **Celtic Sea Power**

Celtic Sea Power have led and delivered the £6m Cornwall FLOW Accelerator, a collaborative project involving OREC, Universities of Plymouth and Exeter. The project ran a coordinated series of data campaigns to provide a pilot for an integrated development process to accelerate project timelines and reduce the carbon cost of surveying. This data included; wind resource, metocean, digital aerial bird & mammal, airborne lidar derived bird flight height. The spatial extent of the survey areas included Welsh, Cornish and Isles of Scilly Celtic Sea waters.

The project also aimed to kick start a sustainable regional industry by collaborating with regional ports and regional companies to expand capacity, skills and workforce so that they can form a key part of the supply process. This included start-ups, SME's and large enterprises. The business support provided was underpinned by research and development carried out by the partners in low carbon technologies and methodologies for the installation and maintenance of floating offshore wind turbines. This included the development of simulator and modelling tools developed to answer some of the key strategic and operating questions surrounding the holistic, and sustainable, industrialisation of Celtic Sea FLOWnd Worked collaboratively with Marine Energy Wales and OREC to drive the establishment of the Celtic Sea Cluster.

## **ORE Catapult**

ORE Catapult has delivered the £4.2m Milford Haven Energy Kingdom project from the MEECE office in Pembroke Dock, establishing the region's credibility in the hydrogen space. ([Milford Haven: Energy Kingdom \(pembrokeshire.gov.uk\)](https://www.pembrokeshire.gov.uk)) The standing of this cluster has been reflected in RWE's decision to base their own Net Zero Centre here.

## **Marine Energy Wales**

Marine Energy Wales hosted their 2023 national conference in the Swansea Bay City Deal funded Swansea Arena to over 500 industry professionals showcasing the region to the world. The intention is to hold the 2024 conference at the same venue.

The MEW Marine Energy Test Area (META) project has obtained licences and consents to operate five test areas within and adjacent to the Milford Haven Waterway. These provide developers and researchers the opportunity to conduct test and development of marine renewable energy systems and components in a timely and cost-effective manner. The Scope, Benefits, financing and governance of the project (in its delivery phase) have not materially changed since approval of the original business case in July 2021. Where no significant changes have occurred, the relevant sections in this document have been left blank.

The strategic alignment with net zero has strengthened and market developments around floating offshore wind and green hydrogen in parallel have significantly increased the likelihood that Pembrokeshire and the Swansea Bay City Region will be able to capture and exceed the original outcome related targets.

Since the original business case was submitted the size of the market opportunity has grown.

Whilst SBCD funding focused activity is on track to deliver, SBCD funding was also meant to be used as a catalyst to draw in and create future collaborations that aligned with the original vision of the project. Since approval, the partners have been integral in establishing and enhancing collaborations benefitting Pembrokeshire, the Swansea Bay City Region and wider region. Of most note, these collaborations include:

Celtic Freeport Status Secured: Collaboration between Pembrokeshire Council, Neath Port Talbot Council, Port of Milford Haven and ABP.

<https://www.celticfreeport.wales/EN/pages>

With development sites throughout Neath Port Talbot and Pembrokeshire, the Celtic Freeport will:

**Support 16,000  
new green jobs**

**Generate £5.5bn  
of new investment**

**Accelerate the  
roll-out of floating  
offshore wind**

Marine Energy Wales, supported by CSP and OREC have established the Celtic Sea Developers Alliance (CSDA).

The CSDA has over 25 private sector members which include oil and gas majors such as BP, RWE, Orsted to name a few. The CSDA promotes the opportunity that exists in the Celtic Sea for floating offshore wind to support the UK and Ireland's drive towards net zero and energy security. The CSDA facilitates collaboration and engagement between Floating Offshore Wind (FLOW) developers to advance the sector and support the delivery of floating wind energy in the Celtic Sea region.

<https://www.marineenergywales.co.uk/support/celtic-sea-developer-alliance/>

The Celtic Sea Cluster. A Collaboration Between CSP, MEW and OREC, Welsh Government and Cornwall and Isle of Scilly LEP. The CSC has been established to help drive market creation for floating wind, accelerate supply chain readiness and develop a strategy for enhancing regional infrastructure.

<https://celticseacluster.com/wp-content/uploads/2022/11/CELTIC-SEA-REGIONAL-STRATEGY-24-11-2022-LQ.pdf>

In addition, OREC is a partner in PCC's bid for funding into the I-UK LaunchPad programme, led by NET Zero Industry Wales.

An update on the main areas of progress on the Pembroke Dock Marine programme over the last 2 years is attached at Appendix A.

### 3. Vision

The vision of the PDM project is still as per the original business case and is to collaboratively address barriers for the marine energy industry through the provision of early and commercial stage testing facilities, greater capacity in port infrastructure and increased collaboration with academic and innovation stakeholders.

### 4. Programme Scope and Status

While the PDM programme retains its original scope and purpose, there have been changes to the context and emphasis relating to the specific project elements.

Both the Pembroke Dock Marine Business Case and the PDZ Business Case update from 2020 (shared with The Crown Estate, WEFO and Welsh and UK Government, through the Swansea Bay City Deal) specifically referenced FLOW as an area where the PDZ should expand into, recommending that the PDZ should accommodate more technology options especially offshore wind on floating foundations (floating wind).

Since then, increased clarity around the pathway for FLOW Commercialisation, how those projects will connect to the UK energy system and the regulatory reforms required to achieve this have developed. In addition, there is increased interest around co-location of different technologies and increased interest in the use of green hydrogen as an energy vector supporting the decarbonisation of the heat, power and transport network.

Future proofing the PDZ site to support the applicability of a broader range of marine technologies as society pushes to Net Zero in a way that draws inward investment in, provides opportunity for innovation and levelised cost of energy reduction is key and should be seen as a priority for Wales and the UK.

The general philosophy behind the establishment of META as a series of pre-consented sites in which developers and researchers can conduct trial in real world conditions still stands.

There have been significant changes in the general landscape of business and industry due to well appreciated factors such as BREXIT fully impacting at all levels of administration and commerce, COVID and the attendant changes in working practices, and cost and supply chain effects from world events such as war in the Ukraine. All work in energy related activities – and especially so in the case of projects which are to a greater or lesser extent dependant on government support – are impacted by the changes and volatility in energy prices, and the competing demands on government funds from for example the cost of living crisis.

These have impacted on the availability of funding for research and development activities. Nevertheless, the Welsh Government commitment to renewable energy, and to a significant presence in that sector of local marine renewable energy, and of local companies and people, stands. This aligns well with the ethos of META, in allowing testing of scale and components of a range of marine renewable energy (MRE) devices.

It is fair to say that the “crystal ball glazing” prior to the inception of META has not matched exactly with what has happened. But this is not at all a surprise in such a rapidly evolving industry, where goals and approaches can change very quickly. META has seen more components of MRE devices, or early stage devices, tested rather than fully developed devices. This is by no means a bad thing –



such components have the ability to be used in many ways in various technologies, and therefore provide a great degree of versatility. The META berths have been used at an occupancy factor in line with predictions, and the timeline as at 2.6 “Pembroke Dock Marine Combined High Level Delivery Schedule” is on track.

META is working closely and well with all PDM partners, and especially closely with MEECE, as anticipated in the PDM initial business case document. It is indeed the case that “the whole is greater than the sum of its parts”.

All of the objectives identified in “2.9 Element 3: Marine Energy Testing Area (META)” have been and/or are being met on an ongoing basis, and those elements in “2.11 Investment Objectives” allocated to META are achieved.

The MEECE project has completed the WEFO-funded part of its delivery successfully. The project was always heavily dependent on delivery resources that the university partners would provide, and the universities were only able to join the MEECE consortium once City Deal funding was confirmed. The significant delay to City Deal confirmation effectively reduced what had been planned as a 45 month project to less than 18 months of full delivery. Nevertheless, and notwithstanding the issues caused by Covid, MEECE was able to reach most of its output targets:

	MEECE Target	Total Claimed
New to Firm	30	49
New to Market	30	41
No of Employees	50	19
Collaborative Partners	60	113
Non-Financial Support	70	42
Patents	10	8
Private Investment	£1,700,000	£2,447,203

*Table 4.1 MEECE Output Targets*

As seen from the Table above, the only target that was significantly undershot was that for “new employees”. This number is an underestimate because of the shorter duration of delivery than planned, interventions such as MEECE was able to deliver take time to feed through to jobs growth.

Pre-Brexit, the intention was to apply for WEFO ERDF funding for a follow-on MEECE2 project. In the absence of ERDF funding, and no like-for-like replacement from UK Gov, this has not been possible. The scope and emphasis for the MEECE legacy operation is unchanged, however. MEECE will still be focused on supporting innovative Welsh companies and aiming to operate on the “thirds model” of funding that the wider Catapult organisation attempts. The MEECE team will be exploring all available funding routes to achieve this. We have bid into PCC’s Shared Prosperity Fund, are partners PCC’s Launchpad funding bid, are engaging with Welsh Gov on it’s SMART FIS funding activity, and are actively benefitting from industry funding, supported through EDGE Innovation vouchers.

Wavehub Development Services Limited Have been re-branded to Celtic Sea Power (same Company Number/registered address).

Celtic Sea Power Limited's (CSP) purpose is to maximise the once-in-a-lifetime economic opportunity that the Celtic Sea Floating Offshore Wind (FLOW) initiative represents, with a potential GVA benefit as high as £1.96bn.

Recognizing that neither Cornwall, the Great Southwest, Wales, or Ireland can build the Celtic Sea FLOW sector alone, and that no region or organisations holds all the necessary levers of power needed to "get it done", we are fully involved in the coalition strategy that has become the Celtic Sea Cluster and owns Celtic Sea Regional FLOW Strategy. CSP has this strategy at the heart of our business plan, and it shapes all our activities.

1. Lead Region – influence of key stakeholders, in particular BEIS, TCE, and National Grid, is crucial here.
2. Refine Market – the acceleration of offshore development and introduction of market/regulatory regimes to encourage front-loaded regional industry investment is essential if our regional businesses are to maximise early leader advantage from delivering Celtic Sea FLOW.
3. Accelerate Industrialisation – we can't accelerate Industrialisation if we don't address the bottlenecks head on. Port infrastructure and grid connectivity are key, however coordination of effort (be it in use of ports/ operating strategies or through shared offshore grid) is going to be essential if we want deliverable, streamlined industry. The PDZ Sits within this functional area.
4. Develop Cluster – this has always included an ambition to develop scale within our supply chain, however there is also the consideration of how the impact of FLOW can unlock barriers to decarbonizing existing industries (ports and steel) and the development of essential low carbon industries (lithium extraction, hydrogen production, geo-resources)
5. Align Cluster Support – there is a plethora of research needs, funding, and protagonists. We are developing a forward view of what critical research, testing and validation is going to be needed and believe that regional coherence is essential if we are to be efficient. Collaboration continues to be essential.

## 5. Strategic Case

The PDM programme continues to be delivered through an established working partnership of public and private sector organisations. Pembrokeshire County Council are the lead authority for the programme, having a legal funding agreement with the Accountable Body for the SBCD. A summary of each of the partners' roles is included in the table below:

Organisation	Role
Pembrokeshire County Council	Lead Authority Planning Authority
Offshore Renewable Energy Catapult	Leading Marine Energy Engineering Centre of Excellence
Pembrokeshire Coastal Forum (PCF)	Provision of at sea test and development facilities for MRE technologies, through META.
Port of Milford Haven	Pembroke Dock Infrastructure delivery
Celtic Sea Power	Funding Recipient for the PDZ Element

*Table 5.1 PDM Partnership Organisations*

### 5.1 Strategic Alignment

The strategic alignment of the programme has been reviewed. It remains aligned with, and will help to deliver, local, regional and national policies and strategies. Since the approval of the original business case, several key policies and strategies have been introduced to which the PDM programme will directly contribute. In particular, there has been an increase in emphasis on renewable energies, achieving net carbon zero targets and moving towards a green economy.

Therefore, in addition to those detailed in the original business case, the programme is also aligned with the following recent key policies and strategies:

#### **UK Level**

Levelling Up White Paper  
 UK Growth Plan  
 UK Government Net Zero Strategy  
 Freeports Programme  
 British energy security strategy  
 Powering Up Britain

#### **Wales Level**

Wales Innovates Strategy  
 SWW Regional Economic Framework  
 Renewable energy deep dive: recommendations  
 Net Zero Wales Carbon Budget 2 (2021-25)  
 Review of Wales' Renewable Energy Targets

## Regional Level

SWW Economic Delivery Plan  
SWW Draft CJC Corporate Plan  
SWW Regional Energy Strategy  
Pembrokeshire's Local Area Energy Plan

Each of the PDM project elements also make a direct contribution to specific sector policies and strategies.

**MEECE:** While there have been many new and revised strategic policies announced and adopted by UK and Welsh Governments, none of these are at odds with the originally stated strategic alignment of the PDM business plan, and indeed many have strengthened that alignment, including the British Energy Security Strategy and the UK Hydrogen Strategy, and the Crown Estate's intention to auction seabed in the Celtic Sea to deliver at least 4GW of floating wind by 2030..

**PDZ:** An update on policy contribution and alignment can be found here [PDZ Strategic Context Update.docx](#)

## 5.2 Investment Objectives

The original investment objectives for the programme have been reviewed and a status update included in the table below:

Investment Objective	Status
PDM IO 1: Successfully create the assets and direct deliverables as a result of the City Deal Finance within the given 5 year window commencing July 2019	No change
PDM IO 2: Successfully attracts £60m of additional inward investment from technology developers within the SBCR area within the by 2024 years.	Evidence of regional inward investment is highlighted in the MEW State of the Sector Report 2023.  <a href="https://www.marineenergywales.co.uk/wp-content/uploads/2023/06/MEW-2023-State-Of-The-Sector-Report.pdf">https://www.marineenergywales.co.uk/wp-content/uploads/2023/06/MEW-2023-State-Of-The-Sector-Report.pdf</a>
PDM IO 3: Direct job creation of 35-40 FTEs with PDM partners from year 1-5	No Change. All PDM Partner employees on permanent employment contracts.
PDM IO 4: MEECE / META successfully attain legacy through further project collaboration and Funding applications (targeting at least 2 per year in year 2, 3,4 and 5 (total 8)	No change. Target of 8 funding bids by the end of year 5 is considered easily achievable. Recent bid submitted to PCC's Shared Prosperity fund for £230k to deliver a South Wales cohort of our FIT4 Offshore Renewables programme, with commitment from a commercial Project Developer to match that funding with Private funding.
PDM IO 5: Promote PDM as part of the Welsh and UK offer to global energy industry through dedicated social media updates a year and at least 5 national / and international events targeting energy sector.	No change. <i>OREC, MEW and CSP are founder Members of the Celtic Sea Cluster, which represents and promotes the Wales and South West floating</i>

	<i>wind supply chain. MEW Chairs and provides the Secretariat for the Celtic Sea Developers Alliance, which brings together around 25 organisations with interest in developing projects in the Celtic Sea. This Investment Objective is embedded in the day to day operations of the partners.</i>
PDM IO 6: Ensure resilience through diversity, contract use of space in the newly created areas from at least 3 different industries covering, marine energy, precision engineering for other sectors (e.g. Oil and Gas), decommissioning, aquaculture, ship building & nuclear within 3 years of development completion.	No change.
PDM IO 7: Use PDM inward investment and economic output data to support UK Government on marine energy industry revenue support strategy.	No change
PDM IO 8: Subject to successful sector deal for Marine Energy / Floating Wind, successfully attract £300m of additional private investment into the region from technology developers targeting deployment in the UK between 2021 and 2031.	<i>No change. no sector deal for Marine Energy although FLOW is covered in Offshore Wind SD – Update. Magallanes have secured a CfD from AR5, for their deployment in Morlais, and 5 other tidal developers have bid into ARD, including QED Naval, who announced, in Jan 21, a base of operations at Mainstay Engineering Ltd. In Pembroke Dock. Three floating win developers have opened offices in Pembroke Dock. Their teams’ salaries alone are likely to exceed the target of £300k of private investment by 2031.</i>
PDM IO 9: Subject to successful sector deal for Marine Energy / Floating Wind, successfully attract £110m of additional investment to build Phase 3 of the Pembrokeshire Demonstration Zone by the end of year 7	<i>No change. Change to CSP. Timing end of year 7. (Looks to align with the Project Change Request agreement to extend target to 2026.</i>
PDM IO 10: Increase supply chain awareness and utilisation of PDM as an asset and engage with the end users to enable reporting on supply chain employment retention and creation of staff.	<i>No change. This IO has largely been delivered through setting up the CSDA and CSC . ORE Catapult, and CSP, through inter-alia CFA, have been delivering workshop events at which developers meet with supply chain companies.</i>
PDM IO 11: Increase the level of local employment / skill development opportunities in the blue economy in collaboration with the Skills and Talent Lead.	No change.

*Table 5.2 PDM Investment Objectives Update*

### 5.3 Existing Arrangements

The Existing Arrangements are described in detail in the original business case and therefore this section is unchanged.

## 5.4 Business Need

The Business Need justification is provided in detail in the original business case and has been reviewed by PDM partners.

There is no material change for the PDZ / CSP. Through their commission of Apollo Engineering, Aquaterra and Marine Energy Wales, stakeholder engagement exercise was undertaken to review and update the business need for the PDZ confirming the requirements in the original business case.

This involved a total of 20 individuals being interviewed across 18 different organisations. A broad range of organisations, primarily from the wind and wave sectors, were involved including developers, service companies, academic institutions and industry bodies.

A range of opinions were offered in relation to areas of R&D need, R&D facilities, R&D spend and the PDZ itself.

Some of the most common and noteworthy findings were as follows:

- An ideal test site would have:
  - Pre-consented status
  - Wide design envelope
  - Grid connected
  - Adequate capacity and space for multiple devices
  - Specialist support teams
  - Standard and certification services
  - Good geographical accessibility
  - Proximity to ports, vessels, larger pipeline projects and offtakers (hydrogen specific)
- The PDZ could fit in well with the 'R&D pathway' in the region, following on from tank testing facilities and small-scale real sea testing facilities. These facilities (universities, META) and others highlighted the need for partnerships and clear communication of the pathway.
- The importance of an anchor project, an initial piece of largescale testing that shines a light on the facilities and draws in users
- The potential for shared assets such as open-access platform that could be used for testing technologies and components
- Clear timescales are required to allow potential users to plan for the use of PDZ
- Wave energy remains relatively underdeveloped and a lack of a clear route to market does not currently incentivise large scale demonstration
- Technology developers noted a greater need for floating platform testing
- Project developers are not yet thinking about platform testing but many acknowledge that they will in the future

Access to funding was identified as the most significant challenge, with the lack of access to EU funding a concern particularly for universities, government funded bodies and the wave sector.

No significant changes to business need has been identified relevant to META / MEW, but experience in the utilisation of META sites and resource to date reinforces the statements in the original business case section 3.7. Since the production of the initial business case, the plans for

FLOW, and the amount of planned capacity, have expanded. This has not been to the detriment of the other MRE sectors – it is not the case that FLOW is expanded at the expense of other MRE sectors yet. This increase in FLOW aspirations may offer wider possibilities for META testing of components and supporting services for the full range of MRE activities.

In relation to MEECE a major change to the business need case came in November 2019, when Boris Johnson extended the UK's target for installed offshore wind from 30 GW by 2030 to 40 GW by 2030. In April 2022 this target was again extended, to 50 GW by 2030, and an expectation that at least 5GW of this would come from floating offshore wind. Subsequently, The Crown Estate has published its intention to lease sea bed in the Celtic Sea to enable 4GW of floating wind to be delivered by 2035. As the UK's leading technology innovation and research centre for offshore renewable energy, the need for an ORE Catapult Operation in Pembrokeshire, to support UK supply chain companies capture value from the developments in the Celtic Sea has never been so evident, and the decision by PCC to approve the PDM business case has been fully justified.

The Freeport Programme is an initiative being delivered as a partnership by the UK Government and Welsh Government. Aimed at encouraging economic activity, freeports are zones designated by the UK Government as areas with little or no tax. The Freeport Programme has the potential to help Wales compete for global investment and trade, creating thousands of new jobs and putting coastal communities on the path to long-term growth and prosperity. A Celtic Freeport bid led by Neath Port Talbot Council and Pembrokeshire Council in partnership with the ports of Milford Haven and Port Talbot was submitted to governments. In March 2023 the UK Government and Welsh Government announced that two Welsh freeports are to be created with the Celtic Freeport bid for Milford Haven and Port Talbot successful, alongside the Anglesey Freeport. The Freeports were chosen to exploit renewable energy opportunities and are expected to contribute to UK net-zero ambitions. The business need for the Pembroke Dock Marine programme has been further enhanced with the awarding of the successful Freeport Status bid to Welsh Government with the aim of establishing a globally significant world class renewable energy cluster for FLOW, hydrogen, CCUS and related manufacturing.

## 5.5 Programme Scope

The scope of the PDM programme as detailed in the original business case has been reviewed.

The scope of the PDZ project element has been updated as follows:

### Core

- Pre-consented status
- Appropriately Wide design envelope
- Adequate capacity and space for multiple devices
- Specialist support teams
- Anchor Project to draw in users, ideally grid connected.

### Desirable

- Grid connected
- Adequate capacity and space for multiple devices
- Specialist support teams
- Standard and certification services
- Good geographical accessibility
- Proximity to ports, vessels, larger pipeline projects and offtakers (hydrogen specific)

## 5.6 Main Benefits

The main benefits listed in the original business case are all still relevant and achievable.

The PDM programme has defined outputs, outcomes and impacts and undertakes monitoring and reporting on benefits on a frequent basis, updating its benefits register and reporting to the PDM Programme Board and SBCD Governance boards.

The following outputs, outcome and impacts are detailed in the funding agreement between Pembrokeshire Council as lead authority for the PDM programme and Carmarthenshire Council as the SBCD Accountable Body (Appendix B).

Project AGREED OUTPUTS						
Benefit No:	Benefit Description	Benefit Target	Targeted End Achievement Date	Year Time Value		
				Syrs	10 yrs	15yrs
IP 1	Land based infrastructure and premises (PDI)	60,629 sq m	2024	100%	na	na
IP4	Submission of PDZ EIA and Planning application	Progress towards Marine Licence / EIA / Terrestrial Planning application /DCO	end 2023	100%	NA	NA
IP5a	META Phase 3a	Progressing and transitioning from pre-operational to an operational test centre, including commercial undertakings, resource data collation and site characterisation to enable developer and supply chain testing and support academic	Q2 2022	100%	NA	NA
IP5b	META Phase 3b	Adhering, and adapting to, regulatory requirements i.e consent conditions and new variations, including marine licensing and TCPA applications etc, to meet the needs of the evolving industry and wider blue economy	Q4 2025	100%	NA	NA
IP6a	Creation of 35-40 FTE direct employment during delivery phase	3 to 4	Q4 2024	100%	NA	NA
IP6b		upto 25				
IP6c		up to 4.5				
IP6d		2.5 to 3				
IP7	MEECE/META legacy funding secured	2 applications per year to 2024	Q4 2024	100%	NA	NA

Table 5.3 PDM Outputs



Project OUTCOMES						
Benefit No:	Benefit Description	Benefit Target	Targeted End Achievement	Year Time Value		
				5yrs	10 yrs	15yrs
IP2	Private sector funding leveraged for the SBCD project	£ 13.446m	2024	100%	na	na
IP3	Private sector funding leveraged as a result of additional economic activity	£60m	end 2024	100%	na	na
OP1	Gross jobs indirectly created by the SBCD project	1881	31st July 2034	300	1200	1881
OP2	Gross Value Added (GVA) - net additional	£74m pa (£343.4m cumulative)	31st July 2034	Calculated from OP2 using Green Book Formulae		
OP3	Land value uplift	£0.177m	31st July 2034	0.177	NA	NA

OP4	Wage premium	£78.8m (£6000 per job against welsh average)	31st July 2034	Calculated from OP2 using i Green Book Formulae		
OP5	Environmental benefit (CO2 saving)	£8.2m	31.July.2034	0.5	3	8.2
OP6	Contribute to UK and Welsh decarbonisation targets	1000MW	31.July 2044	2	200	1000
OP7	Fabrication buildings	16,800m3	0	2500	7400	16800
OP8	inward investment between yrs 5-15	£300m	31.July.2034	0	100	300
OP9	PDZ Phase 3	£110m	2026	0	110	110
OP10	Multi-sector application	3 different sectors contracted to use space/facilities	end 2027	1	2	3
OP16	Promote PDM as part of the Welsh and UK offer to global energy industry.	5 national / and international events	Q4 2024	100%	NA	NA

Table 5.4 PDM Outcomes

Project IMPACTS						
Benefit No:	Benefit Description	Benefit Target	Targeted End Achievement Date	Year Time Value		
				5yrs	10 yrs	15yrs
OP11	Increased supply chain awareness of industry opportunities		31-Jul-34			
OP12	Supply chain employment retention and creation of staff		31-Jul-34			
OP13	Increased local employment		31-Jul-34			
OP14	Increased skills development		31-Jul-34			
OP15	Use PDM inward investment and economic output data to support UK Government on marine energy industry revenue support strategy.		31-Jul-34			

Table 5.5 PDM Impacts

In addition to the main benefits, the partners regularly report wider community benefits through the Community Benefits Register which is also reported to PDM and SBCD Boards. PDM project is making a significant contribution to the delivery of these.

## 5.7 Main Risks

The major risks in the original business case are still relevant, but with a greater understanding now of the likely timescales (which had been identified as a main risk).

PDM risks are actively managed and reported to the PDM Programme Board and SBCD PoMO and governance groups through the mandated risk register.

The main risk associated with MEECE was the possibility that it might not have been able to agree working relationships with the universities. This risk can be retired, as a consortium agreement was formalised with the 4 universities, and the WEFO-funded part of MEECE has now been delivered.

Specific to META, the possibilities identified in Section 3.14 remain valid, and some of these (e.g. “Developing/demonstrating autonomous/remote controlled vessels, surface and underwater” & “Demonstrating/verifying novel techniques for anchoring/mooring solutions”) have been undertaken at META sites. There have also been additional possibilities undertaken (e.g. Testing of novel, low embedded carbon content, concrete, and Testing of scour protection systems designed at the outset to enhance biodiversity) which had not necessarily been considered with the original business case.

Access to requisite skills is considered a risk – PCF are participating in the “Destination Renewables” project intended to provide learners with knowledge of the pathways into the MRE industry. This will support the development of a high skilled workforce who can take up the well rewarded, and rewarding, posts.

The difficulties associated with Consenting is identified as a risk, and contact with developers and METAs own direct experience since production of the original business case would support this identification. In order to address this risk, MEW provides the secretariat for the Consenting Strategic Advisory Group, CSAG. This group brings together MRE developers, regulators such as Welsh Government and NRW, and relevant NGOs, and provides them with a forum for open, productive discussion intended to resolve any identified consenting challenges associated with the deployment of marine energy projects, and to work together to support Welsh Ministers aspirations related to MRE.

All of the META related content in original business case Table 3.5: “Main business and service risks” is actively being addressed.

For the PDZ, the main risk, which is also an opportunity is that the most viable use of the zone (in the short term at least) is for technologies that do not fall within the definition of what the current lease defines the zone can be used for. It currently can be used for test and demonstration of wave and tidal energy, and includes within the rights of the leaseholder the ability to build and maintain enabling infrastructure such as substations, which is what CSP’s focus has been over the last 18 months.

Floating Wind, Power to X (Hydrogen) and forms of co-location (i.e. two technologies sharing the zone) and hybrid (i.e. two technologies on the same device or platform) did not exist when the Wave and Tidal test and demonstration lease was first issued in 2014. Their inclusion was specifically highlighted as an area of need in a technical and commercial feasibility study that was commissioned in 2017 and was used to inform the business case and been re-enforced by a number of industry reports, consultations and CSP’s own work to review the potential for RD&I in the Pembs Demo Zone.

Since July 2021, floating wind test and demonstration generation projects have come forward and CSP’s studies have shown there is a significant saving to the developers (and ultimately the UK tax payer by accommodating the power needs through an offshore substation potentially in the PDZ.

By having an offshore grid connection, the ability to then use that asset to bring in wave energy developers and realise the original leases potential can be maximised. However, only allowing a single technology to use the area does present the risk of anything being consented being a stranded asset.

CSP are in close dialogue with The Crown Estate about varying the use of the zone to include other forms of Test and Demonstration Activity to ensure the compliance with outdated and no longer fit for purpose lease is maintained and the PDZ area can secure the longer term outcomes as set out in the approved business case.

## 5.8 Main Constraints

The main constraints in the approved business case have been reviewed and the following update provided:

- Environmental Consenting and Licensing for PDZ, META and PDI; **No longer relevant for PDI and META (phase 3). Current for PDZ & may be requirement for future consenting as part of META.**
- PDI Land acquisition (preferably by negotiated settlement but potentially via Compulsory Purchase Order (CPO)); **Current.**
- Wider legislation, such as the Wellbeing of Future Generations Act; **Current**
- Compliance with WEFO funding rules; **No longer relevant.**
- Provision of satisfactory terms and conditions associated with the SBCD funding; **Current**
- Management of potential City Deal borrowing and associated interest costs whilst annual payments from UK Government are transferred over the 15 year period. **No Longer Relevant**
- Securing relevant Board approvals for relevant match funding from element leads, **No longer relevant.**
- And; For wave, tidal stream and floating wind – lack of ongoing financial support from UK government to lower the cost of energy will hamper industry growth beyond prototyping in the UK. **Current**

In addition to these constraints,

- MEECE and PDZ now have to operate within new Subsidy Regime, which replaces WEFO's State Aid rules.
- PDZ – TCE lease is currently restrictive (test and demonstration of wave and tidal stream) and needs to be broadened to include FLOW and other opportunities. CSP have made that expectation clear to TCE and are in the process of securing agreement on this.

## 5.9 Main Dependencies

The dependencies in the original business case have been reviewed and are a good representation of the programme dependencies. What they do not fully present is the full benefit of the networking and ease of collaborative working that has developed within the two years of the project to date, to the benefit of the project in general and the SBCD region as a whole.

Additional project specific dependencies:

- PDZ -TCE lease revision
- PDZ MOS – Environment needs to be created where the T&D developers can progress their optioneering to include the PDZ MOS as a serious consideration. Offshore Co-ordination is evolving in its regulatory thinking and the opportunity exists should the developers 'opt' to progress. However, hereditary commercial thinking is limiting the appetite within the developer

community and CSP do not have the influence to force co-ordinated thinking. This is a role for The Crown Estate, Welsh Government and Local Government as well as OFGEM and DEZNZ and CSP are working to provide the evidence to those stakeholders to identify the key changes required.

## 6. Economic Case

### 6.1 Critical Success Factors

The Critical Success Factors have been reviewed and are presented below:

- Strategic fit and business needs; Alignment demonstrated with key UK, Wales and regional policy and indicated in the Strategic Case. Meets Investment Objectives and responds directly to identified business need
- Value for money; Maximises benefits to the region. Costs have risen due to inflation, but the potential benefits have risen by a far greater amount, due to the developments in the Celtic Sea. The value to society of the initiatives delivered through PDM are considerable and strengthened. VFM is considered to be greater than when the original business case was approved.
- Achievability; Programme remains feasible and deliverable and has progressed significantly since approval. This is clearly demonstrated for MEECE and PDZ, and META as all elements have completed delivery of the WEFO-funded part of the Programme, with the PDI element's ERDF phase on track to deliver by the end of 2023.
- Supply-side capacity and capability; established and reputable construction companies procured through competitive processes
- Affordability; demonstration of funding secured to deliver PDM and all partners are committed to ensure delivery through appropriate funding

### 6.2 Changes to Original PDM Programme Scope

There are no material changes recorded for the scope of the programme. Change notifications have been submitted as follows and are attached at Appendix C.

*PDM submitted a change notification to move the target and achievement dates for IP 1 from 2024 to 2025 and IP 6 from Q 4 2024 to Q4 2025. This change was approved by PDM Board in September 2022.*

*PDZ submitted a change notification request that was approved by PDM Board in May 2023. This Notification requested an update to the timing of IP 4 to 2026 and OP8 to 2028. [PDM Change Notification 2 PDZ \(1\).pdf](#)*

#### Part 1. Revisit the OBC options:

### 6.2 Options Appraisal

The options within the original business case have been reviewed. As there are no significant changes to the scope, service solution, service delivery, implementation or funding of the programme then the outcomes of the options appraisal remain unchanged and the preferred option has been taken forward for delivery.

### 6.3 Economic Appraisal

The PDM partners have reviewed the economic appraisal undertaken for the original business case and concluded that there are no substantive changes to the costs, benefits, risks and VfM of PDM. As the main program level costs, impacts, benefits and risks are not materially different from what

was included in the approved business case, a further economic appraisal has therefore not been undertaken at this stage. The projects are also still working through delivery phase of the project. On this basis, it is not considered that updating the economic appraisal in line with the HMT guidance at this stage would be beneficial.

However, partners regularly collaborate with each other and industry to maintain clarity around the economic impacts year on year as highlighted by Marine Energy Wales' State of the Sector Reports for 2022 and 2023 linked below.

<https://www.marineenergywales.co.uk/industry-news/2023-state-of-the-sector-report/>

<https://www.marineenergywales.co.uk/industry-news/read-our-2022-state-of-the-sector-report/>

Reports like the SOTS reports were commitments PDM partners made to continually monitor the effectiveness of the City Deal funding in the original business case.

## **Part 2. Detail the procurement process and evaluation of the Best and Final Offer**

### **6.4 Procurement Process**

The PDM programme has undertaken a significant number of procurements since the approval of the original business case. In total, for contracts with a value of over £25k, some **£41.8m** of services and supplies have been undertaken across **38** procurements.

Each of the PDM partners undertake procurement in adherence to their procurement rules and the criteria for the funding of the project elements.

The programme Procurement Register is regularly updated as part of the quarterly requirements of the SBCD.

#### **PDI**

##### **Procurement Undertaken by MHPA**

PoMH is a Utility, and therefore, procurement which falls under definitions as set out within the Utilities Contract Regulations 2016, within certain geographical boundaries and over specific financial thresholds must be publicly tendered in accordance with UCR 2016 regulations. Procurement undertaken by MHPA adheres to the Port's Procurement Policy, Tender process guidelines, Procurement procedure and where applicable the Utilities Contract Regulations 2016.

To date, PoMH has procured approximately £39.42M of services in relation to PDI as shown in the table below.



Procurement	Organisation	Route	Published	Awarded	Contractor	Contract Award Value	Status
Detailed Design for Infilling of the Timber Pond, Graving Dock and Associated Works – Pembroke Dock Marine	PoMH	<a href="#">Sell2Wales</a> <a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	07/04/2020	07/07/2021 <a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	Ramboll UK Limited	£480,155	Works ongoing to support Lot2a
Slipway Ground Investigation - Pembroke Dock	PoMH	<a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	13/12/2019	15/06/2020	Causeway Geotech Ltd	£437,304	Works complete
PQQ principal contractor access infrastructure and timber pond infill, pembroke dock marine	PoMH	<a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	07/09/2020	03/06/2021 <a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	BAM Nuttall	£22,834,572 ECC ECI £577,447	Works ongoing
Specialist marine consultancy team - access infrastructure PQQ	PoMH	<a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	13/09/2019	02/10/2020 <a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	Royal HaskoningDHV	£405,706	Works ongoing to support Lot 1
<a href="#">Pembroke dock ecological &amp; landscape management works</a>	PoMH	<a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	15/12/2020	14/04/2021 <a href="#">Buyer Notice Status - Sell2Wales (gov.wales)</a>	Wye Valley Demolition Ltd	£34,060	Works complete
Pqq principal contractor land remediation and site improvement works Pembroke dock marine	PoMH	<a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	19/10/2020	10/11/2022 <a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	Walters UK Limited	£8,271,363.28 ECC £32,842 ECI	Works ongoing
Environmental Consent work – Pembroke Dock Marine	PoMH	In accordance with MHPA's tender process guidelines	26/05/2017	12/2017	RPS Consulting Services	£209,065 (non-EIA)	
Provision of PM / QS / Cost Management Services	PoMH	<a href="#">View Published Notice - Sell2Wales (gov.wales)</a>	30/09/2019	12/06/2020	Chandler KBS	£634,043.60	Works ongoing
MHPA Hangar Annex Restorations Principal Contractor	PoMH	<a href="#">View Published Notice -</a>	31/03/2021	27/05/2022	R&M Williams	£5,815,960	Main works complete, final

		<a href="http://sell2wales.gov.wales">Sell2Wales (gov.wales)</a>					snagging underway
MHPA Hangar Annex Restorations – Multidisciplinary Consultancy Team	PoMH	In accordance with MHPA’s tender process guidelines	14/08/2019	15/10/2019	Purcell	£271,332	Project close out underway
MHPA Hangar Annex Restorations – Outline Design Architecture award	PoMH	In accordance with MHPA’s tender process guidelines	29/11/2017	27/10/2017	Acanthus Holden	£29,405	Completed

Table 6.1 PDI Procurements

### **PDZ, MEECE**

Being public sector organisations, CSP and OREC have robust procedures in place to handle all procurements with banding for the appropriate route to follow:

- <£3k one written quote,
- >£3k-<25k three written quotes with an RFQ
- >£25,000 – OJEU Limit Invitation to Tender via Sell2Wales and
- >OJEU Limit – OJEU Process via Sell2Wales.

Each ITT sets out the procurement requirements, promoting the Swansea Bay City Deal and Co-Funders throughout. Before Issue, they are checked for compliance from a legal perspective. As part of the ITT process, CSP require each bidder to confirm their approach to ethical procurement and where appropriate, request information relating to local content (recognising that this can’t form part of any evaluation process).

Each response is documented and reviewed by multiple parties with a formal documented evaluation scoring each response in line with the criteria as set out in each procurement. Reviewer come together to present their scoring and rationale, which is again recorded formally. The overall winner is selected on the highest price / quality score. Winners and Unsuccessful bidders are notified and awards published on the appropriate platform.

Summary detail below for all PDZ / MEECE procurements greater than £25,000 can be seen below in Table 6.2 with hyperlinks directing to the appropriate location on Sell2Wales.

Procurement	Organisation	Route & Contract Type	Published	Award Notified	Contractor	Approx Value	Status
<a href="#">Specialist Project Support</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	02.08.2021	01.09.2021	BG Renewables	£30k	Completed
<a href="#">PDZ Legal Services</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	26.01.2022	16.03.2022	Burges Salmon	£130k	Completed
<a href="#">Invitation to Tender - Pembrokeshire Demonstration Zone Multi-connection Offshore Substation (MOS) Concept Design Study</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	01.04.2022	20.05.2022	Apollo Engineering	£	Completed
<a href="#">PDZ Environmental and Scoping Review</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	05.04.2022	27.05.2022	Black and Veatch	£90k	Completed
<a href="#">Invitation to Tender - Pembrokeshire Demonstration Zone Land Agent Support Services</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	13.07.2022	14.09.2022	Bruton Knowles	£130k	Completed
<a href="#">Invitation to Tender - Pembrokeshire Demonstration Zone - Animation</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	14.07.2022	14.09.2022	Picmo	£50k	Completed
<a href="#">Invitation to Tender Research and Development in the Pembrokeshire Demonstration Zone</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	01.11.2022	04.01.2023	Apollo	£80k	Completed

<a href="#">Pembroke Demonstration Zone Preliminary Geophysical and Environmental Survey Campaign</a>	CSP	OJEU Via Sell 2 Wales / CSP Consultancy Agreement	15.12.2022	Non-Award	NA	NA	NA
<a href="#">ITT PROCUREMENT OF PEMBROKESHIRE DEMONSTRATION ZONE MULTI-CONNECTION OFFSHORE SUBSTATION PRE-FEED</a>	CSP	OJEU Via Sell 2 Wales / CSP Consultancy Agreement	16.12.2023	22.02.2023	Apollo	£636k	Completed
<a href="#">ITT PDZ Project Evaluation and Summative Assessment</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	20.01.2023	15.03.2023	Carreg Las	£30k	Completed
<a href="#">Pembroke Demonstration Zone Preliminary Geophysical and Environmental Survey Campaign</a>	CSP	OJEU Via Sell 2 Wales / CSP Service Agreement	20.02.2022	NA	NA	NA	NA
<a href="#">Invitation to Tender: Pembrokeshire Demonstration Zone - MOS Onshore Surveys Procurement - Technical Specialist</a>	CSP	ITT Via Sell 2 Wales / CSP Service Agreement	16.05.2023	02.06.2023	ERM	£14,500	Completed
X-Band Radar system	OREC	Open tender Sell2Wales & ContractsFinder	20/7/22	4/11/22	Norbit Aptomar AS	85,020	Completed

Blade profile models for wind tunnel testing	OREC	ITT invitation only	June '22	21/6/22	Dynamique	25,812	Completed
Flow visualisation measurements	OREC	ITT invitation only	Aug '22	16/8/22	Deutsche WindGuard	76,206	Completed
Hydrophone system	OREC	Open tender Sell2Wales & ContractsFinder	15/11/22	2/2/23	Swale Technologies Ltd	77,205	Completed
Subsea noise measurements	OREC	ITT invitation only	Nov '22	21/12/22	Seiche	59,805	Completed
Vortex Generators	OREC	ITT invitation only	Mar '23	20/4/23	Dynamique	49,507	Completed
Levenmouth Turbine support services	OREC	SSJ	Sept '22	3/10/22	WOOD Group	50,000	Completed
Berthing Fees framework	OREC	SSJ	Feb '22	15/3/22	Pembrokeshire Coastal Forum	Call off as required	Completed
Biaxial test rig	Swansea University	Open Tender Sell2Wales	16/5/22	6/9/21	Admet	134,270	Completed
Uniaxial Tension-compression Fatigue Machine	Swansea University	Open Tender Sell2Wales	13/9/22	5/12/22	DWE Scientific	122,189	Completed

5 Beam Acoustic Doppler Profiler	Swansea University	Open Tender Sell2Wales	16/5/22	20/9/22	Nortek	148,875	Completed
Acoustic Doppler Velocimeter	Swansea University	Open Tender Sell2Wales	16/5/22	20/9/22	Nortek	24,100	Completed
Surface towed acoustic Doppler Current Profiler	Swansea University	Open Tender Sell2Wales	16/5/22	20/9/22	HR Wallingford	60,950	Completed
Current Flume Wave Paddle	Swansea University	Open Tender Sell2Wales	16/5/22	20/9/22	Armfield	56,125	Completed
High Speed Camera	Swansea University	Open Tender Sell2Wales	16/5/22	20/9/22	Dantec Dynamics	43,902	Completed

In addition, CSP have used the Sell2Wales portal to advertise its Future Opportunity, an exercise to inform the market of the technical, commercial and environmental information procured through SBCD funds with a view to using time and cost saving information to align with private sector inward investment. The Future Opportunity Memorandum of Understanding, which is the output of the exercise has a specific clause that requires any signatory to acknowledge the SBCD funded activity and its support in helping to unlock private sector funding into marine renewables.

ORE Catapult is classed as a Contracting Authority, and follows the necessary procurement processes that that entails. In addition, the MEECE project was received ERDF funding, and as a result followed WEFO's procurement rules and was audited on those processes.


### **META**

META operates under the PCF Procurement Policy, the purpose of which is to ensure value for money by instilling a culture of ethical, well managed procurement. META has had no procurement over <£25k to report. The META project can supply a full list of smaller claim items on request.

Through the individual procurement action, the PDM partners can demonstrate the best value procurement of suppliers and services to fulfil the service requirements of the programme to date.

An example of how the investment is benefitting the locality and region through its procurement activity is demonstrated below.

*Construction  
impact on local  
supply chains*



The logo features a stylized red and blue circular graphic on the left, followed by the text 'HWB MOROL' in large blue letters, 'DOC PENFRO' in smaller blue letters, 'PEMBROKE DOCK' in smaller blue letters, and 'MARINE' in large blue letters.

The Pembroke Dock Marine contribution:

- Appointing BAM Nuttall as a main contractor for the slipway element of PDI. Over £3.8m spend with locally based contractors on materials, plant, labour and sub-contractors
- Walters Group have spent a further £3.1m on the land remediation element of the contract with locally based sub-contractors
- R&M Williams, as lead contractor refurbishing the historic Hangar Annexes complex, have spent circa £1.7–£2m with local suppliers

## 7. Commercial Case

### 7.1 SBCD Procurement Principles

Since the approval of the original business case, the Swansea Bay City Deal Procurement Principles have been put in place for project teams that are developing and delivering projects as part of the Swansea Bay City Deal. The Principles set out how the SBCD expects project teams to take a fresh look at the way works, goods and services are specified and procured so that the maximum economic, social and environmental benefit to the region can be achieved from the process. The Principles look beyond the initial construction phase and also apply to the operational service of the assets when built. The programme has and will align with these principles in the procurement of each of the project elements.

Each partners strives to support the procurement principles of the SBCD balancing commercial requirements and other funders requirements where appropriate to do so.

1. **Be Innovative;**
2. **Have an open, fair and legally compliant procurement process;**
3. **Maximise Community Benefits from each contract;**
4. **Use Ethical Employment Practices;**
5. **Promote the City Deal;**

### 7.2 Procurement Strategy

There are no material changes for the procurement of the various projects that form the PDM programme. The routes to procurement and the agreement for the various deals have been detailed in the Economic Case.

The recent pressures on the construction industry are widespread because of an accumulation of several well documented macro level factors – Brexit/COVID/ War in Ukraine/inflation and the potential for recession. The main results of which are market instability, increased and unpredictable costs/supply, and reduced capacity/difficulty to recruit key roles. The PDM project is monitoring and mitigating against these increases and contribute information to collated and reported at a Portfolio level through the updating of a Construction Impact Assessment (Appendix D)

PDM also participates in the Construction and Community Benefits Sub-group which has been established to share best practice and lessons learned during the procurement and construction phases of programme and project delivery, including any skills related information. This group meets quarterly and industry experts are invited from time to time to share insight to the latest issues in the sector.

### 7.2 Service Requirements and Outputs

There are no changes to the Service Requirements and Outputs detailed in the original business case.



### 7.3 Programme Timescales

The programme set out in the approved business plan was based on the project being approved in 2020 however for a number of reasons outside the funding partner’s direct control, the funding agreement was not completed until 2021.

The programme Gantt below seeks to update this taking into account the delay in funding award with arrows and bolder colours dictating shifts in time and the current view on when the main elements will be delivered.

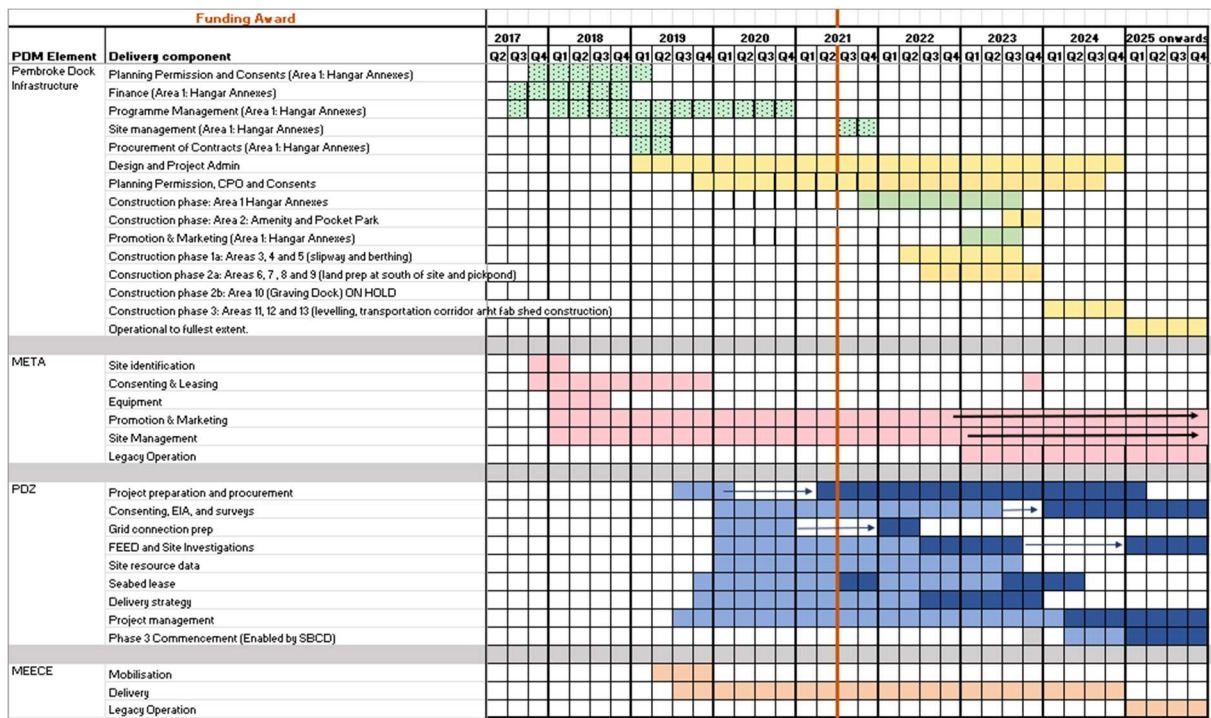


Figure 7.1 PDM Programme Gantt

**MEECE:** All the milestones in Table 7.4 of the original business case have been met. MEECE is now delivering the “Legacy Operation”. No further major procurement is planned.

**META / MEW:** All the relevant Milestone Activities in Table 7.1, “Project Plan” (within section 7.4 of the original business case document) have been met. The META sites are now operating.

**CSP:** Procurements have been ongoing since funding award and will continue as the project develops. CSP successfully agreed the lease revision with the Crown Estate early in the program timeline but this revision only focused on the revision of the area and not the use of the zone for broader R&D support. Getting agreement for this is programmed for Q2 2023 and is a dependency of the consenting surveys and EIA and resource data collection. Grid connection agreements have been fully prepared and are ready for submission to the Electricity System Operator, the timing of which will be determined following the outcome of second lease revision as this will dictate the capacity that is being requested from ESO.

Project Management and execution of the delivery strategy will continue for the long term as the project develops.

#### **7.4 Risk Allocation**

PDM Partners have reviewed the Risk Allocation of the approved business case and confirm no change from what was originally presented.

#### **7.5 Payment Arrangements**

Each of the PDM partners have specific payment arrangements in place for the individual contracts. These differ for each requirement based on the scope for each contract and commission but align and satisfy the requirements for public funding. For example, payment arrangements are set out in each ITT published on Sell 2 Wales.

These payment arrangements are documented for by each PDM partner and the details are available for inspection if required.

#### **7.6 Contractual Arrangements**

The PDM partners utilise a variety of contracts with suppliers to secure the delivery of the service requirements. These contracts are specific and vary in terms of scope, timescales, risk allocation etc. and details can be provided if required. For example, CSP use standard terms and conditions on each publicly procured service. These are appended to each ITT published on Sell2Wales and are accessible through the information provided in table 4.5 of the Economic Case

A legal funding agreement is also in place between PCC and the four partners within PDM setting out the roles and responsibilities of each of the organisations, arrangements for the payment of grant and the requirements in relation to the delivery of outputs, outcomes and impacts.

#### **7.7 Social Benefit Clauses**

Each of the PDM partners use social benefit clauses to maximise the impact of procured spend within the locality and region. For example,

- OREC in their tendering documents contain scored criteria around social benefit clause.
- CSP included Social Value scoring criterial in its Offshore Survey Campaign.
- PCF (the parent body of META) is a Community Interest Company (CIC) and therefore has social benefit embedded in its core ethos.

A case study on how PDM is contributing additional social benefits is attached at Appendix E.

Partners also contribute to the community benefits register (Appendix F), which is reported quarterly through the City Deal reporting requirements.

## 8. Financial Case

### 8.1 Investment Summary

The financial information shown includes the procured construction costs and associated project costs and fees in the development and delivery of each project element. The current investment breakdown presented in Table 8.1. below is based on forecasted investment as of 30 June 2023:

	Year 0 2017-18	Year 1 2018-19	Year 2 2019-20	Year 3 2020-21	Year 4 2021-22	Year 5 2022-23	Year 6 2023-24	Year 7 2024-25	Year 8 2025-26	Year 9 2026-27	Year 10 2027-28	Year 11 2028-29	Year 12 2029-30	Year 13 2030-31	Year 14 2031-32	Year 15 2032-33	Total
	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
<b>Expenditure</b>																	
Capital	0.18	0.23	0.28	1.17	1.82	25.36	17.91	5.12	2.10	1.97	0.00	0.00	0.00	0.00	0.00	0.00	56.12
Revenue	0.28	0.08	0.04	0.70	0.83	1.60	3.00	0.28	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.87
<b>Total</b>	<b>0.44</b>	<b>0.32</b>	<b>0.32</b>	<b>1.87</b>	<b>2.65</b>	<b>26.96</b>	<b>20.91</b>	<b>5.40</b>	<b>2.16</b>	<b>1.97</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>62.99</b>
<b>Funding</b>																	
Swansea Bay City Deal Grant	0.00	0.00	0.08	0.07	2.25	12.01	6.09	5.08	1.09	0.53	0.00	0.00	0.00	0.00	0.00	0.00	27.21
Public Sector	0.17	0.08	0.04	0.56	1.15	4.89	11.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.65
Private Sector	0.28	0.24	0.20	1.24	-0.75	10.06	3.06	0.32	1.07	1.43	0.00	0.00	0.00	0.00	0.00	0.00	17.13
<b>Total</b>	<b>0.44</b>	<b>0.32</b>	<b>0.32</b>	<b>1.87</b>	<b>2.65</b>	<b>26.96</b>	<b>20.91</b>	<b>5.40</b>	<b>2.16</b>	<b>1.97</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>62.99</b>

Table 8.1 PDM Investment Summary Q1 2023/24

The figures in Table 8.1 are the current financial investment forecast which the Pembroke Dock Marine Programme is currently projecting over the timeline for the SBCD portfolio and are set within the original SBCD Heads of Terms. Funding elements are subject to change as the programme evolves.

It is the aim of the SBCD that all projects will be delivered in a seven-year period in order to maximise the full benefits realisation of the operational schemes during the lifetime of SBCD funding, which is to be released from both the UK and Welsh Governments.

The overall investment composition comprises of three following investment components:

- The **City Deal investment** component consists of the government grants awarded by UK and Welsh government totalling £28m. City Deal Grant is awarded to projects of the fifteen-year term up to a maximum of the allocated value.
- **Public sector** investment consists of investment from local authorities and other public funded and public service organisations. Public sector investment will also consist of specific Welsh Government and UK government grant funding. Local Authorities may agree that borrowing for a Regional Project should be made by all the Authorities equally or in proportions agreed or that borrowing should be carried out by one Authority on behalf of others if they so agree. The decisions as to whether borrowing on behalf of the programme shall be carried out by one Authority on behalf of the others and the proportions shall be determined by the Authorities as a matter reserved to the Authorities.
- **Private sector** investment includes regional investment from local and national private sector partners. The current PDM private sector contribution report is attached at Appendix G. To date £13.9m has been secured by the PDM programme.

The investment breakdown from the approved business case is shown below. The breakdown demonstrates that the current capital costs are projected to exceed the original budget for the programme.

	Year 0 2017-18	Year 1 2018-19	Year 2 2019-20	Year 3 2020-21	Year 4 2021-22	Year 5 2022-23	Year 6 2023-24	Year 7 2024-25	Year 8 2025-26	Year 9 2026-27	Year 10 2027-28	Year 11 2028-29	Year 12 2029-30	Year 13 2030-31	Year 14 2031-32	Year 15 2032-33	Total
	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
<b>Expenditure</b>																	
Capital	0.14	0.43	1.72	5.72	8.27	25.61	5.48	0.57	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.23
Revenue	0.51	0.74	0.55	0.71	2.69	2.92	2.68	1.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.24
<b>Total</b>	<b>0.65</b>	<b>1.17</b>	<b>2.27</b>	<b>6.43</b>	<b>10.96</b>	<b>28.53</b>	<b>8.12</b>	<b>1.58</b>	<b>0.77</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>60.47</b>
<b>Funding</b>																	
Swansea Bay City Deal Grant	0.06	0.18	0.32	1.23	2.44	17.04	5.00	0.97	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.00
Public Sector	0.42	0.62	1.03	3.10	4.85	4.71	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.35
Private Sector	0.18	0.37	0.92	2.10	3.67	6.78	1.49	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.12
<b>Total</b>	<b>0.65</b>	<b>1.17</b>	<b>2.27</b>	<b>6.43</b>	<b>10.96</b>	<b>28.53</b>	<b>8.12</b>	<b>1.58</b>	<b>0.77</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>60.47</b>

Table 8.2 PDM Investment Summary – original business case

The Tables below show the project level funding breakdown and is compared with the approved business case funding breakdown (shown in blue).

Project	Swansea Bay City Deal Grant (£m)	Public Sector (£m)	Private Sector (£m)	Total (£m)
Pembroke Dock Infrastructure	21.66	12.95	13.50	48.11
Marine Energy Test Area	0.54	0.03	0.05	0.62
Marine Energy Engineering Centre of Excellence	3.34	4.15	0.96	8.45
Pembrokeshire Demonstration Zone	1.67	1.52	2.63	5.82
<b>Total</b>	<b>27.21</b>	<b>18.65</b>	<b>17.13</b>	<b>62.99</b>

Table 8.3 PDM Project Level Investment Summary Q1 2023/24

Project	Swansea Bay City Deal Grant (£m)	Public Sector (£m)	Private Sector (£m)	Total (£m)
Pembroke Dock Infrastructure	21.55	7.00	13.05	41.59
Marine Energy Test Area	0.78	1.19	0.70	2.67
Marine Energy Engineering Centre of Excellence	4.00	5.00	2.18	11.18
Pembrokeshire Demonstration Zone	1.67	3.16	0.19	5.02
<b>Total</b>	<b>28.00</b>	<b>16.35</b>	<b>16.12</b>	<b>60.47</b>

Table 8.4 PDM Investment Summary – original business case

**Pembroke Dock Infrastructure**

Funding	£	£
City Deal	21,655,228	21,550,000
WEFO	12,950,000	6,997,493
PoMH	13,500,000	13,046,118
<b>Total</b>	<b>48,105,228</b>	<b>41,593,611</b>

**Marine Energy Test Area**

Funding	£	£
City Deal	544,817	782,897
Berth Fees	78,588	700,000
<b>Total</b>	<b>623,405</b>	<b>1,482,897</b>

**Marine Energy Engineering Centre of Excellence**

Funding	£	£
City Deal	3,343,983	4,000,000
WEFO	4,147,025	5,000,000
Private Sector	270,000	400,000
ORE Catapult	440,911	1,042,944
Other	117,333	737,798
<b>Total</b>	<b>8,319,252</b>	<b>11,180,742</b>

**Pembrokeshire Demonstration Zone**

Funding	£	£
City Deal	1,667,104	1,667,103
WEFO	1,520,409	3,161,852
Wave Hub	1,076,779	132,593
Other	1,550,926	60,000
<b>Total</b>	<b>5,815,218</b>	<b>5,021,548</b>

Table 8.5 PDM Project Level Funding Summary Q1 2023/24 (Original business case)

Each partner provides expenditure and funding profile to the Region on a quarterly basis, which are used to provide clarity at the overarching PDM Programme and Swansea Bay City Deal portfolio level.

At a PDM programme level, the total of Private, Public and Partner contributions are maintaining the overarching PDM level of investment. However some changes to the funding and timescales have occurred, most notably:

- Additional £1m of ERDF funding secured for the PDI element (to cover construction cost increases for the Hangar Annex project)
- Celtic Sea Powers 2023 – 2027 business plan approval has included £700k commitment (now classified as Public Other) to retain staff in Pembroke Dock to continue the development of the PDZ.
- Reduction of £1.4m of ERDF funding in the PDZ element due to ERDF programme level challenges associated with their program management is being mitigated by CSP’s core funds, other public funds which are being targeted through other funding streams and private sector interest the work CSP have delivered to date and the process by which CSP is aligning private sector investment through the PDZ Future Opportunity.
- Additional funding secured from WEFO for the PDI, increasing the overall project budget from £41.6m to £48m. Additional funding mitigated against construction cost increases.

The current programme investment demonstrates that the PDM programme and each of its constituent project remain affordable.

## 8.2 Income and Expenditure Summary

The programme level income and expenditure summary is shown below in Table 8..

Income and Expenditure Forecast									
	Year 0 2017-18	Year 1 2018-19	Year 2 2019-20	Year 3 2020-21	Year 4 2021-22	Year 5 2022-23	Year 6 2023-24	Year 7 2024-25	Year 8 2025-26
	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
<b>Expenditure</b>									
Capital	0.18	0.23	0.28	1.17	1.82	25.36	17.91	5.12	2.10
Revenue	0.26	0.08	0.04	0.70	0.83	1.60	3.00	0.28	0.07
<b>Total</b>	<b>0.44</b>	<b>0.32</b>	<b>0.32</b>	<b>1.87</b>	<b>2.65</b>	<b>26.96</b>	<b>20.91</b>	<b>5.40</b>	<b>2.16</b>
<b>Funding</b>									
Swansea Bay City Deal Grant	0.00	0.00	0.08	0.07	2.25	12.01	6.09	5.08	1.09
Public Sector	0.17	0.08	0.04	0.56	1.15	4.89	11.76	0.00	0.00
Private Sector	0.26	0.24	0.20	1.24	-0.75	10.06	3.06	0.32	1.07
<b>Total</b>	<b>0.44</b>	<b>0.32</b>	<b>0.32</b>	<b>1.87</b>	<b>2.65</b>	<b>26.96</b>	<b>20.91</b>	<b>5.40</b>	<b>2.16</b>
	Year 9 2026-27	Year 10 2027-28	Year 11 2028-29	Year 12 2029-30	Year 13 2030-31	Year 14 2031-32	Year 15 2032-33	Total	
	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)	
<b>Expenditure</b>									
Capital	1.97	0.00	0.00	0.00	0.00	0.00	0.00	56.12	
Revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.87	
<b>Total</b>	<b>1.97</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>62.99</b>	
<b>Funding</b>									
Swansea Bay City Deal Grant	0.53	0.00	0.00	0.00	0.00	0.00	0.00	27.21	
Public Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.65	
Private Sector	1.43	0.00	0.00	0.00	0.00	0.00	0.00	17.13	
<b>Total</b>	<b>1.97</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>62.99</b>	

Table 8.6 PDM Income and Expenditure Summary Q1 2023/24

## 8.3 Flow of Funding

The release of funds from the Accountable Body to the City and County of Swansea as lead Authority will follow funding route illustrated in Figure 7.1. below:

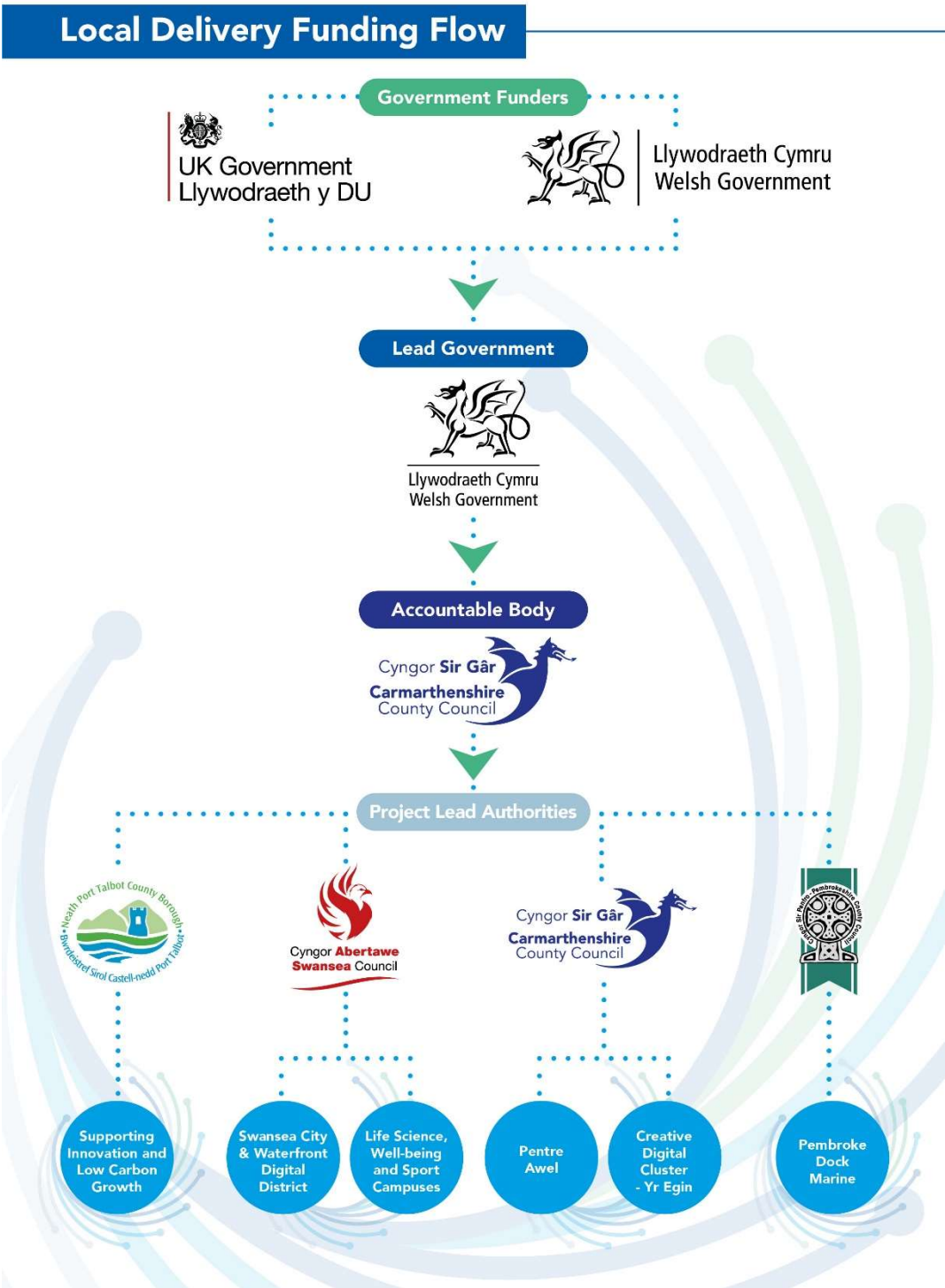


Figure 7.1. City Deal Funding Flow

To date, £5.67m of City Deal funding has been dispersed to the PDM programme.

## **Borrowing**

The Joint Committee is responsible for overseeing the proportion of each Council's responsibility for borrowing to provide funding for regional Projects. The capital borrowing (in respect of the Government funded element) for the City Deal Projects will be re-paid by identified Government funds (UK & Welsh Government) over the 15-year period with the UK Government element now being paid over a 10-year timeframe.

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

**Government Grant 'Top Slice'** - Annually, up to 1.5% of the Portfolio Investment Fund, specifically the government grants awarded, will be earmarked to support the Joint Committee and central administration functions required to support the delivery of the Portfolio. This is referred to as 'Top Slice' of Government Grants.

**Interest on Investments** - It is recognised that throughout the lifecycle of the City Deal portfolio, cash balances will arise through cashflow movements as and when Projects become live and actual expenditure is incurred. Cash balances held by the Joint Committee will be invested through Carmarthenshire County Council as the Accountable Body. Income generated from cash investments will be ring-fenced and redistributed direct to Projects based on the allocation outlined within the original Heads of Terms.

## **8.4 Monitoring and Evaluation**

The City Deal portfolio finances will be monitored through the SBCD Programme Board and Joint Committee, with the Economic Strategy Board also making recommendations on possible additional funding opportunities or alternative portfolio expenditure. Regular reports will also be presented by the Accountable Body to the regional Local Authority Directors of Finance and Regional Section 151 Officer working group. This working group will, in collaboration with the Welsh Government and the SBCD Portfolio Management Office, agree the financial monitoring process which will be:

- In line with overall reporting processes for the City Deal
- Based on best practice principles and guidance on project monitoring contained within the Green Book

Regular financial monitoring reports are submitted by PDM partners through the SBCD governance process and the PDM Programme will also be undertaken through the specific programme level governance arrangements.

The monitoring process will allow for the control of project cost variations and visibility of variations at a portfolio level.

The monitoring requirements of the Portfolio will require the Project Authority Lead to submit a claim for project funding to the Accountable Body at a frequency to be determined by the Accountable Body. The claim shall include a progress report on the project. The progress report shall include an assessment of risks associated with the project and details of progress against the agreed outputs. After the parties have agreed in accordance with clause 6.7 of the funding agreement that the project has achieved practical completion, the project authority lead shall not be required to submit claims for project funding. Thereafter, the project authority lead shall complete annual monitoring returns in a form to be specified by the Accountable Body prior to the Accountable Body releasing any project funding to which the project authority lead is entitled. The annual monitoring forms will include an obligation to report on the progress in achieving the agreed outputs. The Accountable Body reserves the right to impose additional monitoring requirements at a frequency and for such period as it considers reasonable in all the circumstances.

In addition to the above monitoring requirement the Accountable Body will require quarterly financial updates on project spend to support the cashflow management of the portfolio. These will detail the actual spend to the period, with forecast outturn over the 15-year duration of the portfolio.

Project lead authorities are also obligated to support the Accountable Body with any progress update reporting as required by the Welsh and UK Governments.

ERDF M&E Audit Statutory Audit at company level

Quarterly financial reporting through SBCD.

PDM details progress against outcomes and outputs in monthly and quarterly reports to SBCD, as required.

## **8.5 Accountancy Treatment**

### **Accounting for Income and Expenditure**

All income and expenditure is accounted for within the financial statements of the Project Lead Authority.

### **Revenue Requirement**

The Welsh Government has acknowledged that revenue funding will be required to support the delivery of projects within the City Deal portfolio. The revenue requirements by projects of the City Deal are to be managed locally by the Project Lead Authorities. The Welsh Government recognises that the four local authorities will need to manage their capital funding to enable revenue expenditure to be supported. To achieve this through the use of the Local Authorities' capital receipts, Local Authorities will reference to the latest direction from Welsh Government Ministers on the use of capital receipts. This was issued under section 15(1) (a) of the Local Government Act 2003, along with accompanying guidance. Specific revenue funding will be detailed within project business cases and funded through partner investment.

### **Balance Sheet Accounting**

Assets generated through the life of the programme will be accounted for and held on the balance sheet of the Local authority in which constituent area the asset is completed or the partner in which the asset is generated. Local authorities will account for assets inline with the relevant legislation and accounting standards. Partners will account for the assets inline with their own industry standard or accounting policies adopted.



## **Value Added Tax**

Value Added Tax (VAT) is included where appropriate within the forecasts and estimates demonstrated. For objectives delivered by local authorities, VAT is excluded from forecasts and estimates under the application of Section 33 of the VAT act 1994. This Act refunds to (mainly) local government bodies the VAT attributable to their non-business activities and exempt business activities, providing it is considered an insignificant proportion of the total tax they have incurred. Projects or components of projects that are delivered by parties, other than that of local authorities, are subjected to VAT in the manner as regulated by the industry or sector in which they operate, except where regulatory standards dictate a specific treatment or application. Project business cases will identify and detail the application of VAT and include within forecasts and estimates as appropriate.

## 9. Management Case

### 9.1 Introduction

The management arrangements for the delivery of the PDM programme have continued to develop since the approval of the original business case in parallel with the delivery of the project elements and the maturing of the SBCD reporting processes. The

The detail of these arrangements are provided in the sections below.

### 9.2 Governance and Delivery Structure

The Reporting and Governance structure outlined in the original business case (shown below) has now been established and is operational.

There is PDM partner representation throughout the hierarchy of governance groups within the SBCD governance structure. Regular highlight and monitoring reports are submitted to the PDM Programme Board, SBCD Programme Board and SBCD Joint Committee.

The PDM programme board is well established and occurs monthly, chaired by the SRO. The Terms of Reference for the PDM Programme Board are attached for information at Appendix H.

Key roles and responsibilities in relation to the management of the PDM Programme and individual project elements are shown in the table below:

<b>Role/ Responsibility</b>	<b>Name</b>
Senior Responsible Owner	Rachel Moxey - PCC
Project Lead - MEECE	Paul Ellsmore - OREC
Project Lead - META	Stephen Thompson - PCF
Project Lead – PDI	Steven Edwards
Project Lead - PDZ	Tim James - CSP

*Table 9.1 PDM Programme Management Team*

### 9.3 Programme Plan

The Programme Plan has been reviewed and the current timescales are shown in the Gantt chart below:

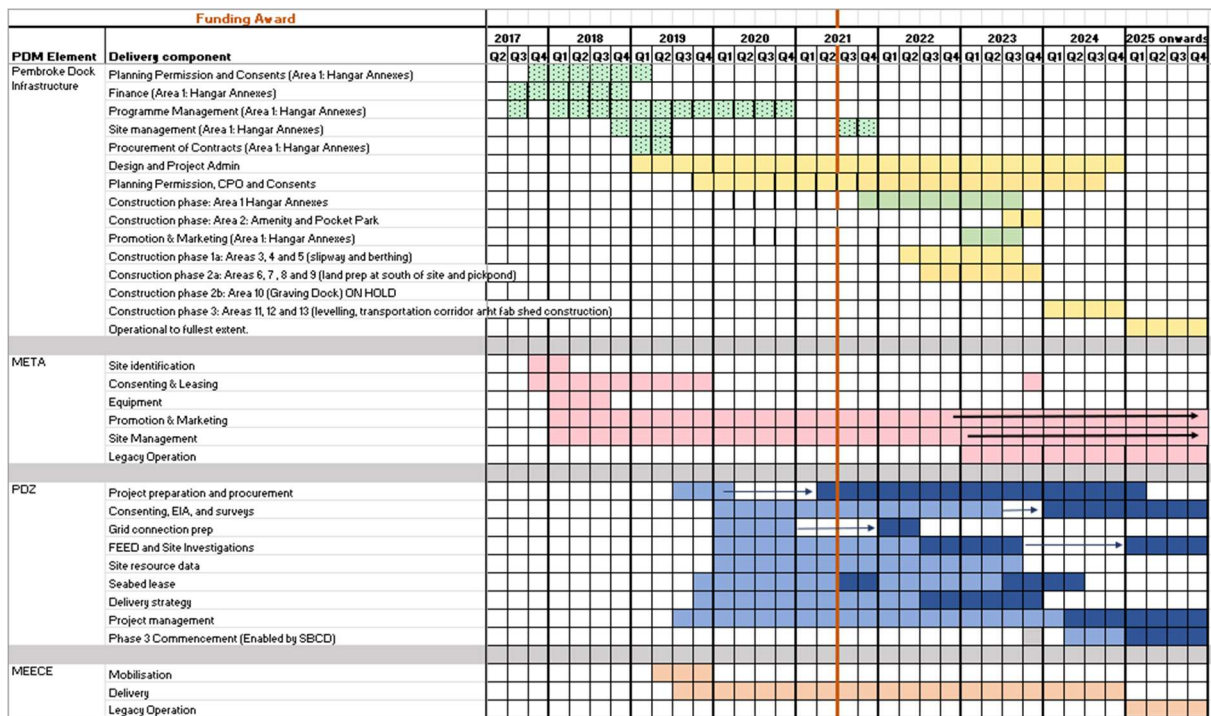


Figure 9.1 PDM Programme Gantt

The Q1 Monitoring report for PDM provides an update of progress to date and is attached at Appendix I Key forthcoming activities planned across the programme include:

**PDI**

Heritage mitigation works to existing Paddock walls will commence in July after agreement with the PCC Historic Conservation Officer and CADW.

**PDZ**

- Ongoing engagement with key stakeholders around T&D Co-ordination MOS
- Updating the SCBD and The Crown Estate Business Plan
- Preparation for Final ERDF Claim (due 21st July)
- Progressing development of collaborative bid with ERM Dolphyn to OFGEM’s Strategic Innovation Fund for £500k funding to develop feasibility for a 100MW
- Floating Wind/Green Hydrogen project connecting into Hyline Cymru.

**MEECE**

- Now focusing on Legacy funding for activities, and how we can embed Innovation support into the Celtic Freeport business plan.

**META**

- International Waters workshop October 2023, Orkney. Planned META attendance.
- Deployment of scour protection engineered to enhance biodiversity, East Pickard Bay site.
- Deployment of barge mounted hydrogen production trial, Criterion Jetty.
- Experience use of ROV event with local schools

**9.4 Use of Specialist Advisors**

There are no material changes to the Specialist Advisors as set out in the approved business case.

## 9.5 Monitoring and Evaluation

The programme monitoring and evaluation processes align with those set out in the SBCD Monitoring and Evaluation Plan. For this programme, the SRO will ensure that the programme team makes appropriate arrangements to collate, monitor and communicate project milestones, deliverables and benefits realisation. The PDM programme is utilising the following reporting tools to monitor and evaluate activity:

- Monthly highlight report
- Quarterly monitoring report
- Benefits register – continually updated and reported quarterly
- Risk register
- Integrated Assurance and Approval Plan (IAAP)
- Construction Costs Impact Assessment
- Financial Monitoring
- Milestone evaluations

Monitoring reports are submitted to the PDM Programme Board and SBCD Governance groups on a regular basis.

Each partner has also undertaken monitoring and evaluation as part of their ERDF funding requirements and the reports are available.

There are no changes to the proposed Post Implementation Review and Project Evaluation Review described in the original business case.

## 9.6 Benefits Realisation

Benefit realisation are reviewed and updated to the City Region in accordance with their requirements. There are no material changes to note to the benefits to be achieved through the PDM Programme.

The programme governance protocols being applied have incorporated core work streams which enable the programme team to clearly identify and track programme benefits regularly in line with the investment objectives detailed in the programme business case. A “whole team” approach will be adopted to ensure that benefit management is monitored through the life of the programme and across all the PDM project elements. In applying this approach benefits will be discussed on a regular basis at delivery team level and barriers in performance that impact on benefits realisation will be raised to the PDM Programme Board for decision.

The benefits management process will assess and review all outcomes resulting in change that were achieved as part of the activities undertaken by the programme. Benefit progress will be reported at least quarterly to the PDM Programme Board and Portfolio Management Office.

A copy of the programme benefits register is attached at Appendix J. This sets out who is responsible for the delivery of specific benefits and how and when they will be delivered. The benefits register will be monitored by the PDM Programme Board.

## 9.7 Risk Management

Each partner regularly reviews the risk register for each project. ERDF and SBCD claim and monitoring requirements include the need for an updated risk register to be provided.

The process of managing risks will take place throughout the entire life cycle of the project and potentially after closure if there are outstanding risks requiring ownership outside the project. During the construction phase, regular meetings will take place with contractors to identify any emerging risks to cost and timescales and mitigation actions taken as appropriate.

The risk register will be used to record all identified risks and is therefore a vital tool in the conception, procurement and delivery of the programme. It will record any uncertainty that could jeopardise the programme and strategies for minimising their impact.

The Programme Risk Register is included in Appendix K.

The risk register will be monitored at all PDM Programme Board meetings so that any risks affecting programme outcomes can be identified and addressed. Escalating Risks or Risks in the red category are highlighted at PDM Programme Board and updated via Celoxis as part of the Quarterly Reporting to the SBCD.

## 9.8 Change Management

Any changes during the development and delivery of the programme will be referred through the PDM programme management structure and integrated with the SBCD Change Control procedure.

The approach will consider several aspects of change that impact on programme scope, delivery and benefits as set out in this business cases, and specifically where a change is likely to affect at least one of the following categories:

- the total cost / financials
- the completion of delivery of output(s) / key milestones
- the quality outlined
- the benefits outlined
- the GVA, jobs created or inward investment

Any variance - positive or negative – will be subject to the agreed change control process to ensure that any change does not have a detrimental impact to the successful delivery of the programme. Details of relevant change notifications are presented below:

*PDM submitted a change notification to move the target and achievement dates for IP 1 from 2024 to 2025 and IP 6 from Q 4 2024 to Q4 2025. This change was approved by PDM Board in September 2022.*

*PDZ submitted a change notification request that was approved by PDM Board in May 2023. This Notification requested an update to the timing of IP 4 to 2026 and OP8 to 2028. [PDM Change Notification 2\\_PDZ \(1\).pdf](#)*

## **9.9 Programme Assurance Arrangements**

The programme's assurance processes will integrate with the SBCD Portfolio assurance framework to ensure that the planning, coordination and provision of assurance activities and approval points are understood and are proportionate to levels of cost and risk.

The programme has developed an Integrated Assurance and Approval Plan (IAAP), which is regularly reviewed and reported on through the governance arrangements. This plan includes a schedule of Gateway reviews at key milestones or decision points.

A Project Assessment Review will be undertaken for the PDM Programme in September 2023.

The current programme IAAP is attached at Appendix L.

## **7.10 Communications**

There are no material changes to the communications plan / arrangements for PDM from what was presented in the approved business case. Communications forms part of the Agenda in the monthly partner meetings for information sharing and coordination purposes.