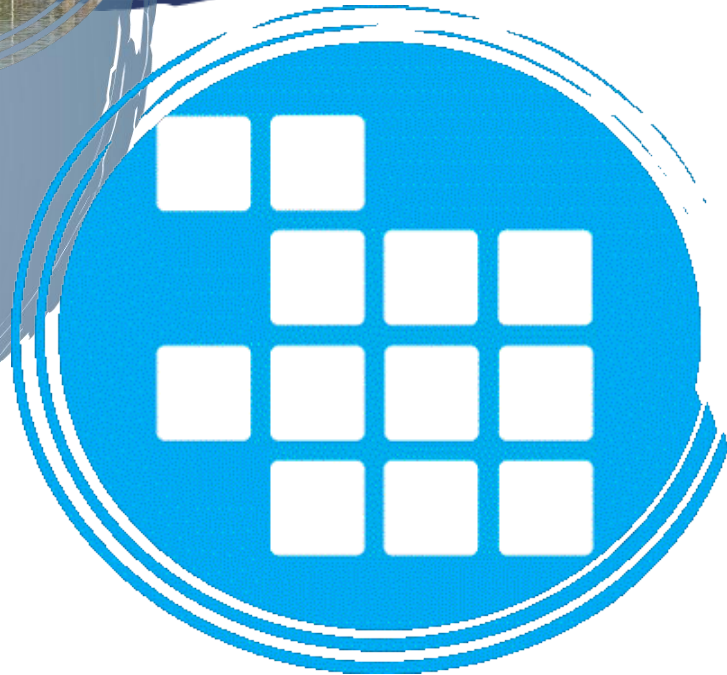


# North Wales Growth Deal: Portfolio Business Case



**HATCH**



# Contents Page

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<b>Contents Page</b>	<b>2</b>
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<b>Executive Overview</b>	<b>i</b>
The Strategic Case	i
The Economic Case	iv
The Commercial Case	vii
The Financial Case	vii
The Management Case	ix

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<b>1. Introduction</b>	<b>1</b>
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<b>2. The Strategic Case</b>	<b>2</b>
Strategic Context	2
City and Growth Deals	2
Organisational Overview	2
Business Strategy and Aims	4
Alignment to Existing initiatives	8
The Case for Change	9
Strategic Portfolio Spending Objectives	9
Existing arrangements	10
Business Needs	18
Potential Scope: North Wales Growth Deal	20
Growth Deal Programmes	20
Main Benefits	23
Main Risks	25
Constraints	26
Dependencies	26

---

<b>3. The Economic Case</b>	<b>27</b>
Critical Success Factors	27
Options assessment	27
Strategic Options	28
Proposition Development	29
Economic Appraisal	36
Economic Appraisal Summary	36
Key appraisal parameters	38
Costs	38
Benefits measured	39
Gross benefits	42

Net additional benefits	42
Benefit-cost ratio	43
Risk and Sensitivity Analysis	44
Risk	44
Sensitivity Assessment	45
Wider Benefits	46
<hr/>	
<b>4. The Commercial Case</b>	<b>47</b>
Commercial Strategy	47
Procurement Strategy	47
Procurement Principles	50
Social Value and Community Benefits	51
Procurement Resourcing	52
Contractual Relationships	52
Key Partnerships	52
Stakeholder Relationships	52
Service Requirements, Outputs and Risk Allocation	52
Charging Mechanism	53
Asset Ownership, Management and Accountancy Treatment	53
Ownership	53
Management	53
Accountancy Treatment	53
State Aid	53
Personnel Implications	54
<hr/>	
<b>5. The Financial Case</b>	<b>55</b>
Capital & Revenue Requirements	55
Capital Requirements	55
Revenue Requirements	57
Income and Expenditure Summary	57
Project Maturity	59
Private Sector Funding	59
Monitoring and Evaluation	61
Financial Risk Management and Audit Arrangements	62
<hr/>	
<b>6. The Management Case</b>	<b>65</b>
Management, Governance and Co-ordination	65
North Wales Growth Deal Delivery Structure	65

Project Business Cases	68
Delivery Experience	69
Risk Management	70
Change Management	71
Partnership and Stakeholder Engagement	72
Timeline and Milestones	72
Project Maturity	72
Marketing	74
Monitoring, Evaluation and Feedback	74
Benefits Realisation	74
Assurance	75

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**Appendix A - Future Generations Impact Assessment**

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**Appendix B - Key Meetings in developing the Growth Deal**

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**Appendix C - Growth Deal Projects**

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**Appendix D - Programme level spending objectives**

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**Appendix E - Economic Appraisal: Key Principles & Assumptions and Benefits by Project**

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**Appendix F - Growth Deal Delivery Timescale**

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**Appendix G - Detailed Programme Level Sensitivity Analysis**

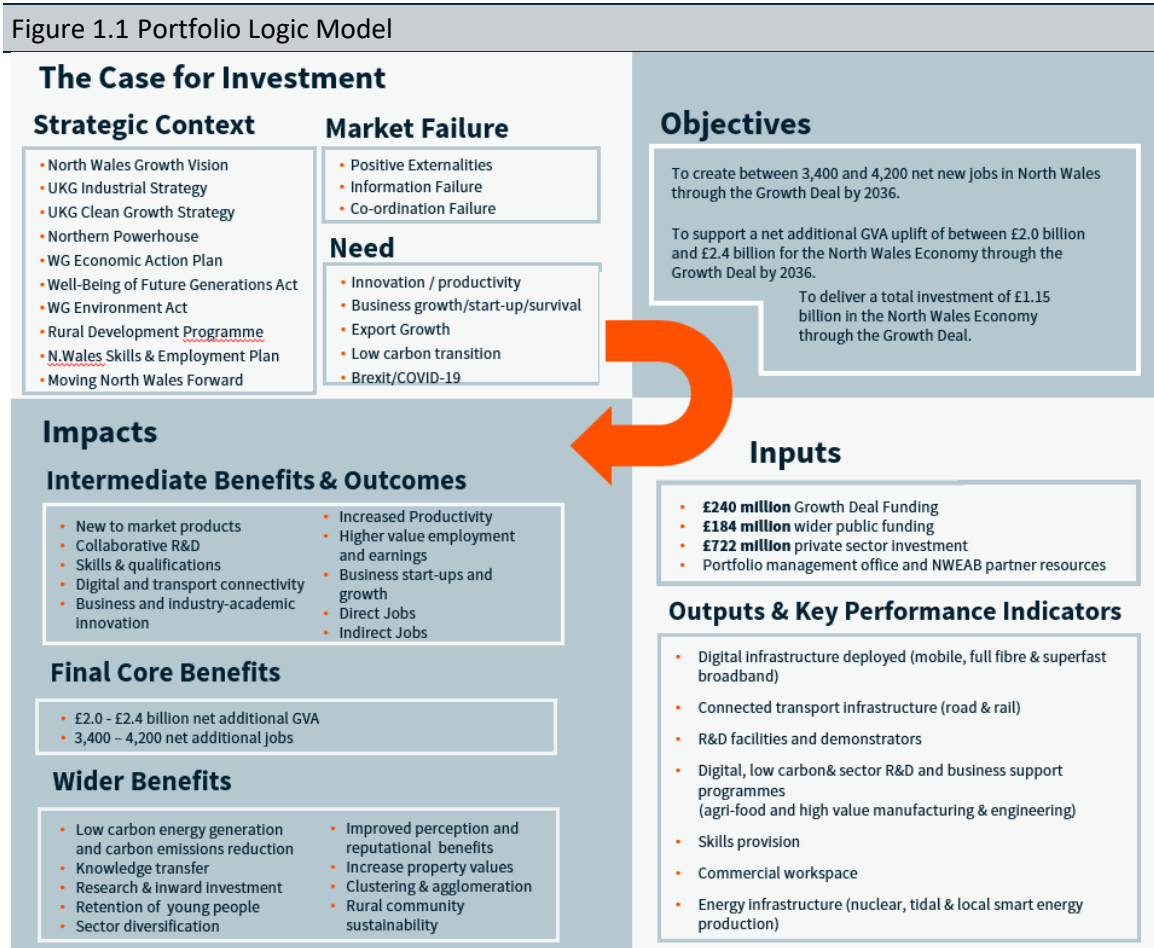
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# Executive Overview

- i. The purpose of this strategic portfolio business case is to demonstrate the optimal choice of programmes and projects for the delivery of the North Wales Growth Deal. The North Wales Growth Deal is seeking to deliver a total investment of up to £1.1 billion in the North Wales economy (£240m from the Growth Deal), to create 3,400 – 4,200 net additional jobs and generate £2.0- £2.4 billion in net additional GVA.
- ii. The aim of the Growth Deal is to build a more vibrant, sustainable and resilient economy in North Wales, building on our strengths to boost productivity while tackling long-term challenges and economic barriers to deliver inclusive growth. Our approach is to promote growth in a scalable, inclusive and sustainable way in line with the Wellbeing of Future Generations (Wales) Act 2015.
- iii. The business case is intended to inform the Final Deal Agreement, which follows the Heads of Terms agreement with the Welsh and UK Governments in 2019.

## The Strategic Case

A summary of the logic model for the Growth Deal is set out below.



Source: Hatch; NWEAB. A Note on Market Failure: **Positive externalities**: third party economic/social/environmental benefits to the wider economy/ society. These cannot be captured in entirety by commercial organisations and so public investment is required. **Information failure**: businesses do not have full information on technologies/developments that could secure growth. Public investment is required to bridge these information gaps. **Co-ordination failure**: no one organisation may have the incentive to invest in a venture that secures benefits for wider partners. Public investment is required to initiate a partnership investment.

## Strategic Context

iv. The NWEAB was established in 2012 and covers the six Local Authority administrative areas of the region of North Wales and University of Bangor, Glyndwr University, Coleg Cambria and Grŵp Llandrillo Menai. The private sector has also shaped the deal through the North Wales Mersey Dee Business Council and the Business Delivery Group.

v. The Growth Deal builds on the Growth Vision for North Wales, adopted in 2016:

*“a confident, cohesive region with sustainable economic growth, capitalising on the success of high value economic sectors and our connection to the economies of the Northern Powerhouse & Ireland.”*

vi. The Growth Deal aligns closely with the priorities of the UK and Welsh Governments in relation to economic development. There is particularly strong alignment with the UK Government’s **Industrial Strategy**, the Welsh Government’s **Economic Action Plan, the Well-being of Future Generations (Wales) Act 2015, and its cross-cutting themes**. Sustainability is at the core of the Growth Deal, and the investments will contribute towards Wales carbon emissions reduction targets.

## The Case for Change

vii. The strategic portfolio spending objectives are as follows.

- To create between 3,400 and 4,200 net new jobs in North Wales through the Growth Deal by 2036
- To support a net additional GVA uplift of between £2.0 billion and £2.4 billion for the North Wales Economy through the Growth Deal by 2036.
- To deliver a total investment of up to £1.1 billion in the North Wales Economy through the Growth Deal by 2036.

viii. North Wales contributes £14.2 billion to the UK economy each year.<sup>1</sup> Recent economic performance has been resilient but there remains a persistent and growing productivity gap, and wide variations in productivity within North Wales. The economy is diverse with key sectors being manufacturing, energy and tourism as well as public sector jobs. Some of the productivity gap is accounted for by our sectoral structure, but there are areas of strength and opportunity, particularly in advanced manufacturing, low carbon energy, agri-food, tourism and digital sectors.

ix. Supporting high value sectors and addressing long-term barriers to growth is at the heart of the North Wales Growth Deal. Key business needs have been identified across these high value sectors, as follows:

- Improving productivity
- Supporting innovation and R&D
- Supporting the low carbon agenda and driving low carbon growth
- Supply chain integration
- Meeting skills needs

<sup>1</sup> Measured by Gross Value Added (GVA). Source: ONS, 2018 data.



- The need for modern employment floorspace and serviced residential land
  - Addressing the digital divide
  - Expanding digital research capacity.
- x. The Growth Deal is designed to address long term challenges but the COVID-19 pandemic has had a profound impact on the North Wales economy and will influence the backdrop for the Growth Deal and the context for its delivery. Partners have commissioned analyses to provide up-to-date intelligence on the implications of COVID and to plan for recovery.

### Potential Scope: North Wales Growth Deal

- xi. The focus of the Growth Deal is to build a more vibrant, sustainable and resilient economy in North Wales, building on our strengths to boost productivity while tackling long-term challenges and economic barriers to deliver inclusive growth.. We have identified “enabling sectors” to tackle key economic barriers and address structural issues that have impacted on productivity and jobs.<sup>2</sup> These are as follows:

High Growth Sectors	Enabling sectors
- Low carbon energy	- Land and property
- Innovation in high value manufacturing	- Digital
- Agri-food and tourism	

### Main Benefits

- xii. The Growth Deal will lead to a number of direct and indirect benefits for the North Wales economy. The strategic outcomes that will be delivered will include the following:
- Growth in regional prosperity – through improved productivity, inward investment and the creation of new jobs.
  - Creation of better-quality jobs for the local labour market – through targeted interventions in high value sectors to create new jobs.
  - A more skilled workforce within the region – through supporting skills and training initiatives and targeted interventions in high value sectors to create opportunities.
  - Improvements in standards of living across the region- inclusive growth that provides opportunities, reduces poverty, inequality and deprivation.

### Main Risks

- xiii. The key risks to the successful delivery of the portfolio include resources; delivery; cost COVID-19; Brexit; Climate and Biodiversity; Private and public sector investment; End user company involvement and political change. The approach to managing these risks is considered in the Management Case.

### Constraints and Dependencies

- xiv. Notable constraints on the delivery of the Growth Deal include the total funding package of £240m, the 15-year term of the Growth Deal, the requirement for solely capital funding and State Aid

<sup>2</sup> The other two enabling sectors (skills and employment, and strategic transport) sit outside the Growth Deal.

considerations. The Growth Deal is dependent on securing the final deal, and on the engagement and collaboration with the private and public sectors.

## The Economic Case

### Critical Success Factors and Options Assessment

- xv. The Growth Deal programmes and projects have been arrived at by considering a longlist of options for achieving the spending objectives, along with a set of Critical Success Factors (CSFs) including equity, value added, strategic fit and private sector investment. A strategic options appraisal concluded that the preferred option was:

*“To focus on scalable and dispersed growth opportunities across the region to achieve sustainable, balanced and inclusive economic growth.”*

A longlist of 24 projects across 9 programmes was developed by the Board, working collaboratively with Welsh Government, UK Government and representatives of the private sector. This was reduced to a short list of 14 projects across 6 programmes at the Heads of Terms stage, and subsequently consolidated into 5 programmes, summarised below.

Programme	Key objective	Projects
Low carbon energy	To unlock the economic benefits of transformational low carbon energy projects and position North Wales as a leading UK location for low carbon energy generation, innovation and supply chain investment	<ul style="list-style-type: none"> <li>• Trawsfynydd Power Station</li> <li>• Morlais Project</li> <li>• Smart Local Energy</li> <li>• Low Carbon Centre of Excellence</li> <li>• Regional Transport Decarbonisation</li> </ul>
Innovation in high value manufacturing programme	To capitalise on the strong network of anchor companies with an international profile, as well as world leading expertise to boost innovation and new technology to develop a powerful advanced manufacturing cluster. It will deliver world-class resources in sector-leading facilities, building on expertise in the region to maximise economic impact from research and technology	<ul style="list-style-type: none"> <li>• Enterprise Engineering and Optics Centre</li> <li>• Centre for Environmental Biotechnology</li> </ul>
Agri-food and tourism programme	To build on the well-established agricultural, food and drink sector in North Wales, as well as supporting further investment in high quality tourism to extend the tourism season.	<ul style="list-style-type: none"> <li>• Glynllifon Rural Economy Hub</li> <li>• Llysfasi Carbon Neutral Centre</li> <li>• Tourism TALENT network</li> </ul>
Land and property programme	A package of Projects to unlock growth opportunities across the region, directly addressing the shortage of suitable land and properties for business growth. It will also bring forward sites for housing development.	<ul style="list-style-type: none"> <li>• Regional Land and Property Joint Venture</li> <li>• Holyhead Gateway</li> </ul>
Digital Programme	The programme will focus on improving the digital infrastructure and innovation in the region. It will deliver quality access to effective and affordable digital connectivity for businesses and households, and will boost innovation in digital signalling.	<ul style="list-style-type: none"> <li>• North Wales Digital Connectivity</li> <li>• Digital Signal Processing Centre</li> </ul>

Source: NWAEB



- xvi. Each of the Programme level business cases also contains its own options assessment. Individual projects will also be required to produce their own business cases for investment in due course, with an accompanying expectation to present an options assessment as part of their value for money case.
- xvii. The full set of projects is described in Appendix C.

### Economic Appraisal

- xviii. The projects and programmes have been appraised for this strategic portfolio case but it should be noted that the projects themselves will be expected to conduct their own economic appraisals when they develop their own business cases. Rather than pre-empt these here, we instead establish reasonable order of magnitudes for benefits and value for money, expressed as ranges.
- xix. The Growth Deal is expected to deliver between **3,400 and 4,200 net additional FTE jobs** for North Wales, with a NPSV of £930m-£1.1 billion. Based on all public sector funding for the Growth Deal, it will deliver a **benefit-cost ratio (BCR) of 2.8-3.5 (or 5.0-6.1 based on Growth Deal investment only)**.<sup>3</sup>
- xx. In interpreting these figures it is important to note that there are a range of benefits that cannot be quantified or monetised in a robust fashion, but are still a significant consideration in the value for money case for the programmes. These include:
  - Attracting inward investment into high value sectors
  - Key sector development and competitiveness
  - Enhanced research and innovation capacity
  - Retention of young people
  - Rural sustainability.
- xxi. There are a number of risks to generating the scale of economic benefits estimated, and the value for money assessment has been subjected to sensitivity testing at the programme level. The BCRs remain robust in the face of these tests.
- xxii. A summary of the key findings from the economic appraisal of the Growth Deal is provided below.

<sup>3</sup> Note this includes an assessment of optimism bias in capital costs.

		North Wales Growth Deal	Low carbon energy	Innovation in HVM	Agri-food and tourism	Land and property	Digital
<b>A</b>	Net Present Social Value (£m) (including Optimism Bias)	<b>£930 – £1,140</b> <b>(£1,122 – £1,371 on GD costs)</b>	£59 – £72 (£206 – £252)	£16 – £19 (£40 – £49)	£127 – £155 (£140 – £171)	£641 – £783 (£643 – £786)	£90 – £110 (£93 – £114)
<b>B</b>	Public sector cost (£m, undiscounted, excluding optimism bias)	<b>£424</b> <b>(£240 from GD)</b>	£227 (£86)	£39 (£13)	£37 (£25)	£81 (£79)	£40 (£37)
<b>C</b>	Appropriate Benefits Cost Ratio	<b>2.8 – 3.5</b> <b>(5.0 - 6.1 GD investment)</b>	1.1 – 1.4 (3.0 – 3.6)	1.3 – 1.6 (4.0 – 4.8)	3.8 – 4.7 (5.7 – 7.0)	7.8 – 9.6 (8.0 – 9.8)	2.9 – 3.6 (3.2 – 3.9)
<b>D and E</b>	Significant unmonetizable costs/benefits and unquantifiable factors	<ul style="list-style-type: none"> <li>• Reduced CO2</li> <li>• Inward invest.</li> <li>• Clustering and spin-outs</li> <li>• Social/wellbeing benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced CO2</li> <li>• Inward invest.</li> <li>• Spin-outs</li> <li>• Social/wellbeing benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Spin-outs</li> <li>• Know. transfer</li> <li>• IP/Licensing</li> <li>• Clustering</li> <li>• Retaining young people</li> </ul>	<ul style="list-style-type: none"> <li>• Know. transfer</li> <li>• Agric/tourism diversification</li> <li>• Low carbon cluster dev. in agri/tourism/food</li> <li>• Retaining young people</li> </ul>	<ul style="list-style-type: none"> <li>• Land value uplift</li> <li>• Reduced CO2</li> <li>• Transport benefits</li> <li>• Social/wellbeing benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Choice/affordability</li> <li>• Private/Inward investment</li> <li>• Technology commercialisation</li> <li>• Social/wellbeing benefits</li> <li>• Rural sustainability</li> </ul>
<b>F</b>	Risk costs by type & residual optimism bias	Through their own business cases, each project will be expected to consider and demonstrate how they have mitigated potential optimism bias in their costings and proposed timetables. At this stage, to be conservative, we have applied the upper bound optimism bias benchmark factor for standard buildings from HM Treasury guidance to the capital costs for all programmes at <b>24%</b> .					
<b>G</b>	Switching values (for the preferred option only)	70% -89% deterioration in core assumptions and benefits	70% deterioration in our core impact modelling assumptions	77% reduction in job creation	84% reduction in job creation and economic value associated with tourism skills	89% reduction in job creation	75% reduction in take-up of fixed/ mobile broadband business start-up benefits & benefits generated through the DSP.
<b>H</b>	Time horizon and reason	15 year appraisal period used All infrastructure assets will have a residual value at this point					

Source: Hatch

## The Commercial Case

### Commercial Strategy

xxiii. The NWEAB is committed to maximising the economic impact and value for money of the North Wales Growth Deal. The Board also recognises the potential to generate a commercial return on investment that could be reinvested in the region. Each project business case will be expected to explore commercial investment opportunities.

### Procurement Strategy

xxiv. Our procurement strategy responds to Welsh policy and procedures. All Growth Deal procurement activity will be underpinned by a guiding set of principles, which are summarised below.

xxv. Procurement activity will be the responsibility of the Project Sponsor for each project. For regional projects, this responsibility will sit with the PMO.

Table 3 Procurement policy and principles

Policy drivers	<ul style="list-style-type: none"> <li>• North Wales Growth Vision</li> <li>• Wellbeing of Future Generations (Wales) Act 2015</li> <li>• Public Contract Regulations 2015</li> <li>• Welsh Public Procurement Policy Statement</li> <li>• Welsh Government Code of Practice Ethical Employment in supply chains</li> <li>• Government Commercial Operating Standards</li> </ul>
Procurement Principles	<ul style="list-style-type: none"> <li>• Regional leadership</li> <li>• Skills, jobs and growth</li> <li>• Contribution to education and supporting young people</li> <li>• Community resilience and wellbeing</li> <li>• Environmental sustainability and green recovery</li> <li>• Innovation and new practices</li> </ul>

Source: NWEAB

## The Financial Case

### Capital & Revenue Requirements

xxvi. The Growth Deal has an anticipated total capital expenditure of up to £1.1 billion, of which £240 million is derived from the Growth Deal with the remainder provided by public and private sector partners. The capital expenditure requirements are provided in the financial case, based on the latest available project business cases and aggregated up to provide the programme estimates.

xxvii. No revenue funding is provided through the Growth Deal for the delivery of the projects or the operational running costs of the project once completed. Revenue funding to support the Portfolio Management Office is provided through NWEAB partner contributions (including supplementary Local Authority contributions) and additional ESF funding has also been secured for the first three years of operation (from May 2020). An amount equivalent to the 'top slice' of the annual government grant at 1.5% can also be used to fund this, subject to Welsh Government flexibility to manage funding. Operational revenue requirements for the projects once the capital expenditure is completed is the responsibility of the Project Sponsor for every project. For further detail on operational costs, see Programme Business Cases.

Table 4 Project Level Funding Breakdown

Project		Project Sponsor	Growth Deal (£m)	Other Public (£m)	Private (£m)	Total (£m)
<b>Digital Programme</b>						
Digital Signal Processing Centre Project		Bangor University	3.0	3.1	1.1	<b>7.3</b>
Digital Connectivity Project	Full Fibre at key sites	NWEAB	6.8	-	0.411	<b>7.2</b>
	Connected Corridor	NWEAB	2.2	-	-	<b>2.2</b>
	Advanced Connectivity ('Connected Campus')	NWEAB	21.0	-	-	<b>21.0</b>
	Last few %	NWEAB	4.0	-	-	<b>4.0</b>
<b>Low Carbon Energy Programme</b>						
Morlais		Menter Môn	9.0	27.0	-	<b>36.0</b>
Low Carbon Energy Centre of Excellence		Bangor University	21.0	75.7	1.0	<b>97.7</b>
Trawsfynydd Power Station		Cwmni Eginio	20.0	20.0	360.0	<b>400.0</b>
Transport Decarbonisation		NWEAB	11.4	11.5	5.7	<b>28.6</b>
Smart Local Energy		NWEAB	25.0	6.2	75.0	<b>106.2</b>
<b>Land and Property Programme</b>						
Holyhead Gateway		Stena Line	35.0	-	45.0	<b>80.0</b>
Land and Property Project	Warren Hall	NWEAB/WG	15.0	-	55.0	<b>70.0</b>
	Former North Wales Hospital, Denbigh	NWEAB/Jones Bros Ltd, DCC	4.0	-	70.0	<b>74.0</b>
	KSS, Bodelwyddan	NWEAB	10.0	-	72.0	<b>82.0</b>
	Parc Bryn Cegin	NWEAB/WG	6.0	-	-	<b>6.0</b>
	Western Gateway, Wrexham	NWEAB/Wrexham Council	9.1	1.9	32.4	<b>43.4</b>
<b>Innovation in High Value Manufacturing</b>						
Centre of Environmental BIOTECHnology		Bangor University	3.0	6.6	-	<b>9.6</b>
Enterprise Engineering & Optics Centre		Glyndwr University	10.0	19.9	-	<b>29.8</b>
<b>Agrifood and Tourism Programme</b>						
Glynllifon Rural Economy Hub Project		Grŵp Llandrillo Menai	10.0	3.0	-	<b>13.0</b>
The Llysfasi Carbon Neutral Farm		Coleg Cambira	10.0	2.7	2.7	<b>15.4</b>
Tourism TALENT Network		Grŵp Llandrillo Menai	4.5	6.7	1.7	<b>13.0</b>
<b>GROWTH DEAL TOTAL</b>			<b>240.0</b>	<b>184.3</b>	<b>722.1</b>	<b>1,146.4</b>

Source: NWEAB

xxviii. Projects within the Growth Deal are currently at different levels of maturity as shown by the table below.

Table 5 Project Maturity		
Project	Business Case Stage	Summary
Digital Signal Processing Centre Project	<b>OBC</b>	Project is currently developing an OBC for presentation to NWEAB for approval.
Digital Connectivity Project	<b>SOC</b>	The four projects are ready to progress to the development of an OBC.
Morlais	<b>OBC</b>	The project is currently progressing to OBC stage.
Low Carbon Energy Centre of Excellence	<b>OBC</b>	The project is progressing to OBC stage.
Trawsfynydd Power Station	<b>SOC</b>	The project is at an early stage of development.
Transport Decarbonisation	<b>SOC</b>	The project is currently at concept stage.
Smart Local Energy	<b>SOC</b>	The project is currently at concept stage.
Holyhead Gateway	<b>Project Review</b>	The project scope is to be reviewed to assess the economic and societal impact of the Port of Holyhead on the regional. Welsh, UK and RoI in light of the proposed investment into the port given the indicative increase in costs.
Land and Property Project	<b>SOC</b>	All four sites in the first phase are at different stages of development with the most mature ready to proceed to OBC stage.
Centre of Environmental BIOTECHnology	<b>SOC</b>	Project is ready to progress to the development of an OBC.
Enterprise Engineering & Optics Centre	<b>SOC</b>	Further work is required to demonstrate the complementarity to existing initiatives in North Wales before proceeding to OBC.
Glynllifon Rural Economy Hub	<b>OBC</b>	Project has a well-developed OBC in place with minor revisions required before presentation to NWEAB for approval.
Llysfasi Carbon Neutral Farm	<b>SOC</b>	Project is ready to progress to the development of an OBC.
Tourism Talent Network	<b>Project Review</b>	An OBC was in place for the project pre-covid, however the project scope is to be reviewed to assess the impact of COVID-19.

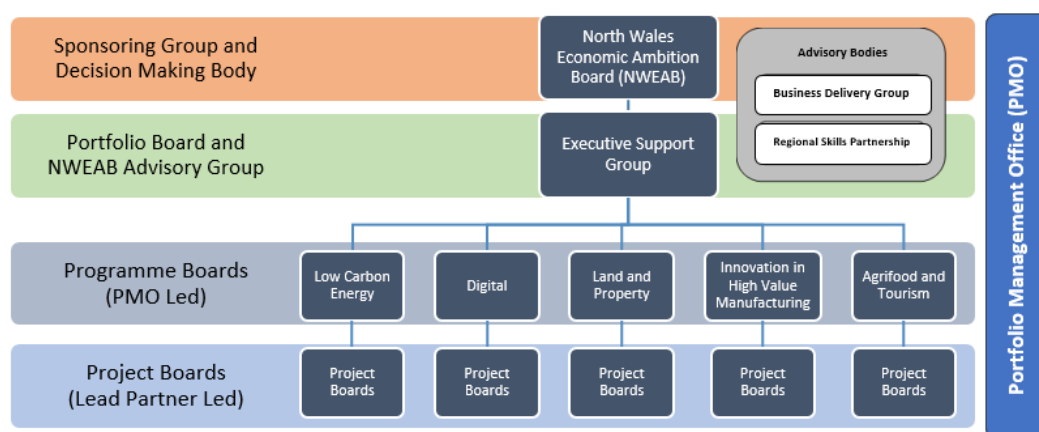
Source: NWEAB

## The Management Case

### North Wales Growth Deal Delivery Structure

xxix. The diagram below sets the delivery structure for the Growth Deal building on the existing structures put in place by the EAB's Governance Agreement. Details on these roles are set out in the management case.

Figure 1.2 Growth Deal Delivery Structure



Source: NWEAB

### Project Business Cases

xxx. The North Wales Growth Deal is to be signed on the basis of a portfolio business case and five programme business cases. Once the final deal has been agreed, full 5 Case Model project business cases can be brought forward for the NWEAB to consider.

### Risk Management

xxxi. The NWEAB has an adopted Risk Framework for the delivery of the North Wales Growth Deal. The approach to risk management is outlined in the Growth Deal Risk and Issues Management Strategy and User Guide. The key principles and concepts outlined in this strategy are drawn from OGC Management of Risk literature.

### Timeline and Milestones

xxxii. The NWEAB is seeking approval of the North Wales Growth Deal in December 2020 with the signing of the Final Deal. Following Final Deal, project business cases will be brought forward for the NWEAB to consider from January 2021 onwards.

### Monitoring, Evaluation and Feedback

xxxiii. Programme and project performance will be monitored on a monthly basis through the relevant programme and project boards with formal quarterly reports submitted to the Portfolio Board and the North Wales Economic Ambition Board. A Monitoring and Evaluation Plan has been developed for the North Wales Growth Deal and will be agreed with UK and Welsh Government as part of the Final Deal.

### Assurance

xxxiv. The PMO worked with the Welsh Government Assurance Hub to develop an Integrated Assurance and Approval Plan (IAAP) that sets out the assurance activities that will be undertaken at portfolio, programme and project level for the North Wales Growth Deal.



xxxv. As part of the IAAP, assurance activities will take place across all levels of the Growth Deal – portfolio, programme and project. The North Wales Growth Deal will utilise the pre-defined Gateway 0-5 and flexible Project Assessment Reviews (PAR) as appropriate and proportionate. The IAAP will be agreed with UK and Welsh Government as part of the Final Deal.

# 1. Introduction

- 1.1 The purpose of this strategic portfolio business case is to demonstrate the optimal choice of programmes and projects for the delivery of the North Wales Growth Deal. The North Wales Growth Deal is seeking to deliver a total investment of £1.1bn in the North Wales economy (£240m from the Growth Deal), to create 3,400 – 4,200 net additional jobs and generate £2.0- £2.4 billion in net additional GVA.
- 1.2 In 2016 the North Wales Economic Ambition Board (hereafter referred to as NWEAB or the Board) adopted *A Growth Vision for the Economy of North Wales*. Based on the Growth Vision Strategy, a Growth Deal was prepared and agreed by all the NWEAB partners working with both the UK and Welsh Government and the private sector in October 2018. This was followed in 2019 by agreement between the Board and the Welsh and UK Governments of the Heads of Terms for Final Deal Agreement to be completed in 2020.
- 1.3 This strategic portfolio business case provides an overview of the North Wales Growth Deal and its constituent programmes, in order to inform the agreement of a Final Deal with the Welsh and UK Governments. It is accompanied by a set of programme level business cases, which provide details on the five individual programmes.
- 1.4 The portfolio and programme business cases once approved as part of the Final Deal will be live documents used to manage the delivery of the Growth Deal on an ongoing basis and updated regularly as the programmes and projects develop.
- 1.5 The document follows the structure of the Five Case Model and HM Treasury Green Book principles. The business case has been developed by the NWEAB Portfolio Management Office supported by Hatch Regeneris, a leading, independent economics consultancy. Throughout the development of the business case we have consulted with UK and Welsh Government officials.
- 1.6 The remainder of the document is structured as follows:
  - The Strategic Case: the rationale for the Growth Deal investments, their objectives and fit with wider policy
  - The Economic Case: the value for money provided by the Growth Deal
  - The Commercial Case: the contractual and procurement approach to be taken
  - The Financial Case: the costs and funding profile for the Growth Deal
  - The Management Case: the approach to managing the Growth Deal.

## 2. The Strategic Case

- 2.1 The purpose of the Strategic Case is to demonstrate alignment with national, regional and local strategies and policies, other current or planned programmes, and to make a compelling case for change for the programmes and projects within the portfolio.
- 2.2 It is in two parts as follows:
- **Strategic Context.** Explains the background to Growth Deals, setting out the North Wales Economic Ambition Board and its members, and a review of the relevant strategies and policies to demonstrate strategic fit.
  - **Case for change.** Demonstrates the rationale for the North Wales Growth Deal and its constituent programmes. This includes details on the relevant socio-economic issues and market failures, the consequent spending objectives for the Growth Deal and the main benefits, risks, constraints and dependencies.

### Strategic Context

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#### City and Growth Deals

- 2.3 The purpose of City and Growth Deals is to support cities and regions to deliver responsive and flexible local strategies. They are now commonplace in both the UK and devolved governments, with over 36 deals in place to promote decentralisation across the country. These deals give more power and flexibility to regions and cities in terms of employment and skills, infrastructure, business engagement and support, housing, transport and investments. Regions and cities have used these powers to achieve a number of investment objectives, such as providing support to the unemployed, providing training relevant to local needs and supporting a low carbon economy.

#### Organisational Overview

##### Public Sector Partners

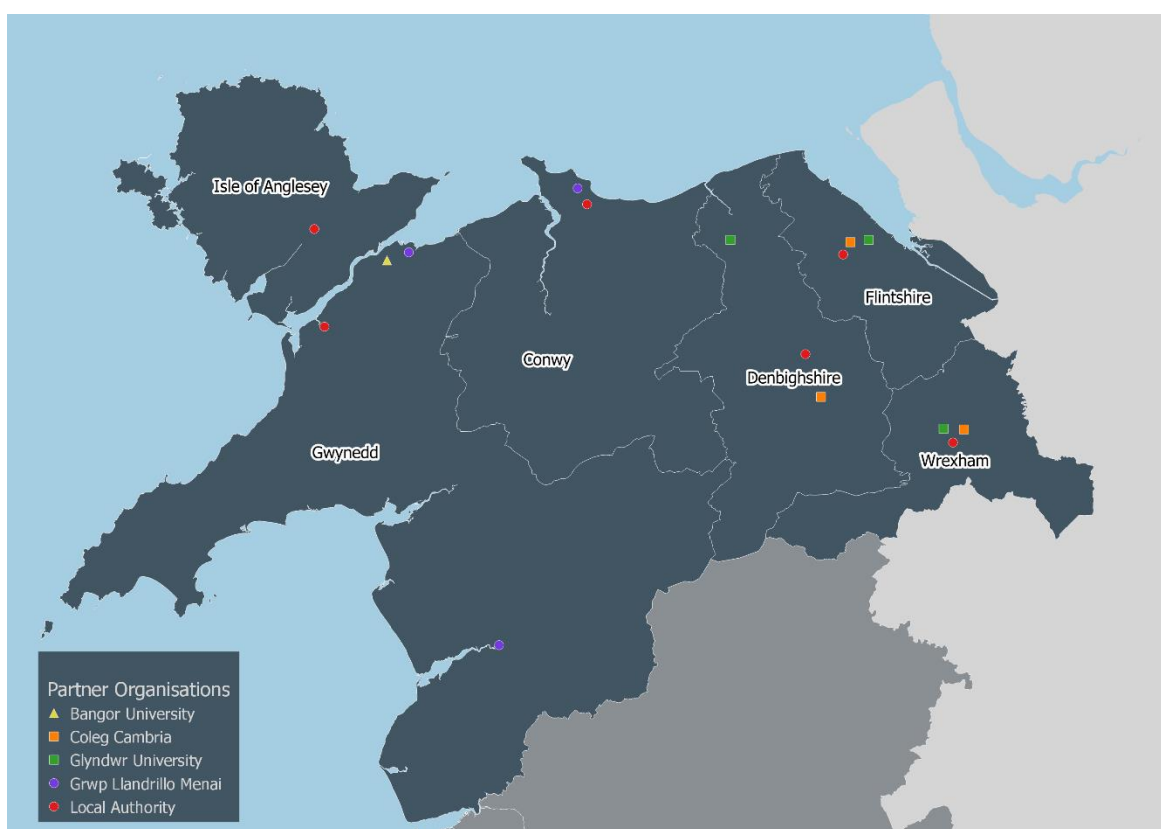
- 2.4 The NWEAB partnership was established in 2012 and covers the six Local Authority administrative areas of the region of North Wales comprising the Councils of Gwynedd, Anglesey, Conwy, Denbighshire, Wrexham and Flintshire. The Board also includes the University of Bangor, Glyndwr University, Coleg Cambria and Grŵp Llandrillo Menai.

### The NWEAB Partner Organisations

- **Six local authorities:** The six Local Authority administrative areas of the region of North Wales comprising the Councils of Gwynedd, Anglesey, Conwy, Denbighshire, Wrexham and Flintshire
- **Bangor University:** Higher education University located in North-West Wales.
- **Glyndwr University:** Higher education University with campuses at Wrexham, Northop and St Asaph in north-east Wales.
- **Coleg Cambria:** Further education college with six sites in North East Wales.
- **Grŵp Llandrillo Menai:** Further education college established in 2012 as a result of mergers between Coleg Llandrillo, Coleg Menai and Coleg Meirion-Dwyfor.

2.5 The locations of the partners are set out in Figure 2.1 below.

Figure 2.1 Map of North Wales and NWEAB Partners



Source: Hatch

### Private Sector Partners

- 2.6 The North Wales Growth Deal is a partnership between the public and private sectors. The private sector has been strongly represented by The North Wales Mersey Dee Business Council, who, as a founding member of the NWEAB, have worked in close collaboration with partners and regional stakeholders to shape and influence the Growth Deal proposition.
- 2.7 Representing various member organisations including the CBI and FSB, their active involvement in shaping the deal has been invaluable. As of August 3rd, 2020, due to challenges caused by COVID-

19, the Business Council withdrew membership. The Business Council remain a key stakeholder and will be an integral, albeit more distant, partner moving forward.

- 2.8 The private sector remains strongly represented in the North Wales Growth Deal through the **Business Delivery Group** who act as an independent advisory body to the North Wales Economic Ambition Board.
- 2.9 The projects within the North Wales Growth Deal are to be delivered by a Project Sponsor. Details are provided later in the Strategic Case under section on Projects.

## Business Strategy and Aims

### Background to the North Wales Growth Deal

- 2.10 The Board was established in 2012 by the partners to develop a regional approach to economic growth and to addressing the challenges and barriers facing the North Wales economy. In 2016 the Board adopted *A Growth Vision for the Economy of North Wales* (the Growth Vision).
- 2.11 The adopted Vision is to develop “a confident, cohesive region with sustainable economic growth, capitalising on the success of high value economic sectors and our connection to the economies of the Northern Powerhouse & Ireland.”
- 2.12 The Growth Vision was founded on three key principles:

- **Smart North Wales** – with a focus on innovation and high value economic sectors to advance economic performance.
- **Resilient North Wales** – with a focus on retaining young people, increasing employment levels and skills to achieve inclusive growth.
- **Connected North Wales** – with a focus on improving transport and digital infrastructure to enhance strategic connectivity to and within the region.

- 2.13 During 2017-2019, the Board, working collaboratively with Welsh Government, UK Government and representatives of the private sector developed the North Wales Growth Deal based on a set of transformational projects, securing Heads of Terms with both governments in November 2019.
- 2.14 The Heads of Terms committed all parties to complete a Final Deal Agreement (FDA) within 12-15 months. This portfolio business case is part of the agreed process to achieve FDA.

### Alignment with National Strategies

- 2.15 The North Wales Growth Deal aligns closely with the priorities of the UK and Welsh Governments in relation to economic development, and has been designed to dovetail with other nearby agendas such as the Northern Powerhouse. In particular, the UK Government’s **Industrial Strategy** and the Welsh Government’s **Economic Action Plan** were key considerations in developing the approach in the region and the proposals for the North Wales Growth Deal. The Economic Action Plan highlights the key role of regional partnership in delivering on shared goals. There is a clear commitment by the Welsh Government to a regionally focused model of economic development, with the aim of developing the distinctive strengths of each region “in pursuit of growth”.
- 2.16 It is important to note that the Growth Deal will not address all the issues in the North Wales economy, but will play a key role in the delivery of the wider vision. The Growth Deal represents one strand of the NWEAB’s ambition for North Wales and the Board will continue to work with UK and Welsh Government to explore other funding opportunities for the region.

- 2.17 In developing the Growth Deal, close attention has been paid to our duties under the **Well-Being of Future Generations (Wales) Act 2015**. The principles of the Act have been embedded in our approach and strategic thinking, and they have informed and influenced the Vision, Aims and the Strategic Programmes. The well-being goals, objectives and ways of working will be a key thread through our work. The NWEAB is committed to following the five ways of working and sustainability principles set out in the Well-being of Future Generations (Wales) Act 2015.
- 2.18 The aspirations of the Growth Vision for North Wales and the Growth Deal are aligned to the Act, with a clear focus on long-term planning to improve the economic, environmental and cultural well-being of North Wales and supporting Wales’ global responsibilities.
- 2.19 The Growth Deal will deliver:
- Growth in regional prosperity
  - Creation of better quality jobs for the local labour market
  - A more skilled workforce within the region
  - Improvements in standards of living across the region.
- 2.20 The NWEAB is committed to undertaking a Future Generations impact assessment for each project business case prior to any decisions being taken. Appendix A provides an overview of the Growth Deal against the Wellbeing of Future Generations (Wales) Act 2015 and the Welsh Government cross-cutting themes.
- 2.21 Moreover, the Growth Deal is consistent with Welsh Government policy on local government reform and modernisation through strategic regional collaboration and integrated service models. North Wales has a strong “regional offer” that builds on our strengths and unique assets, and our approach will make a significant contribution to the delivery of national policies at a regional level.
- 2.22 The key areas of policy alignment are set out in Table 2.1 below. This is set out in more detail at the programme level within each of the programme business cases.

Table 2.1 Summary of North Wales Growth Deal National Policy Alignment		
Strategy	Core Principles	How the Growth Deal aligns
<b>UK policy</b>		
UKG Industrial Strategy	<ul style="list-style-type: none"> <li>• Ideas: The world’s most innovative economy</li> <li>• People: good jobs and greater earning power for all</li> <li>• Infrastructure: a major upgrade to the UK’s infrastructure</li> <li>• Business environment: the best place to start a business</li> <li>• Places: prosperous communities across the UK</li> </ul>	<ul style="list-style-type: none"> <li>• Ideas: delivering future proof digital infrastructure and technology, low carbon technology and energy, innovation in agri-food, tourism, engineering and bio-engineering and the space for new and relocating businesses to innovate and grow</li> <li>• People: targeted next generation digital infrastructure delivering balance growth and opportunity for all</li> <li>• Infrastructure: delivering a major upgrade to N.Wales’ digital, energy, business and R&amp;D infrastructure</li> <li>• Business environment: providing support for businesses to innovate in priority sectors, digital connectivity and the space to grow</li> <li>• Places: boosting the vital tourism sector by enhancing skills and innovation, delivering cleaner growth and air through investment in clean energy and low carbon technology.</li> </ul>



Strategy	Core Principles	How the Growth Deal aligns
UKG Clean Growth Strategy	<ul style="list-style-type: none"> <li>• Improve business and industry efficiency: supporting businesses to improve energy productivity by 20% by 2030</li> <li>• Accelerate the shift to low carbon transport</li> <li>• Deliver clean, smart, flexible power</li> <li>• Enhancing the benefits and value of our natural resources</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance business energy efficiency through next generation fixed and mobile broadband, innovation in engineering and bioengineering</li> <li>• Deliver smart/connected roads to reduce vehicle emissions and developing hydrogen fuel for local transport networks</li> <li>• Deliver smart, clean and flexible energy through investment in hydroelectricity power generation and local smart grids</li> <li>• Enhancing the benefits of natural resources, by supporting innovation and efficiency and sustainability in agriculture and food production</li> </ul>
Northern Powerhouse	<ul style="list-style-type: none"> <li>• Connectivity: improving connections within and between towns &amp; cities</li> <li>• Skills: A highly skilled and educated workforce</li> <li>• Enterprise &amp; innovation: ensuring the North is an excellent location to complete ground-breaking research, develop ideas, and start and grow a business</li> </ul>	<ul style="list-style-type: none"> <li>• NWEAB Vision: develop “[...] our connection to the economies of the Northern Powerhouse”.</li> <li>• Delivering new skills and innovation in tourism and by supporting HEI-industry collaboration on low carbon, digital, agri-food, engineering &amp; manufacturing</li> <li>• Delivering next generation digital infrastructure and space for businesses to innovate and grow</li> </ul>
<b>Welsh Government policy</b>		
Prosperity for All: Economic Action Plan	<ul style="list-style-type: none"> <li>• Decarbonisation: enabling more business to become carbon light or free.</li> <li>• Innovation: support businesses to innovate</li> <li>• High quality employment &amp; skills: improve our skills base</li> <li>• R&amp;D, automation &amp; digitalisation: help our businesses to develop new products, automate &amp; digitise</li> </ul>	<p>Delivering:</p> <ul style="list-style-type: none"> <li>• New low carbon energy</li> <li>• Productivity enhancing digital infrastructure</li> <li>• Supporting R&amp;D the development and adoption of innovative technology and processes for agri-food, engineering and manufacturing</li> <li>• Supporting tourism sector skills and wider business skills development in agri-food, engineering and manufacturing</li> </ul>
Wellbeing of Future Generations (Wales) Act 2015	<p>Themes from Wellbeing Goals:</p> <ul style="list-style-type: none"> <li>• Prosperity: innovation, productivity, low carbon, skills and economic opportunity</li> <li>• Resilience: social, economic &amp; ecological resilience</li> <li>• Health: physical &amp; mental well-being</li> <li>• Equality: enabling people to fulfil potential regardless of background/circumstance</li> <li>• Cohesive communities: attractive, viable, safe and well-connected communities.</li> <li>• Vibrant culture: culture, heritage, arts, sports, recreation</li> </ul>	<ul style="list-style-type: none"> <li>• Prosperity: delivering across each of these areas through investment in digital, low carbon and the development of productivity enhancing technologies/approaches</li> <li>• Resilience: delivering balanced and clean economic growth through enhanced connectivity, low carbon energy and business efficiency</li> <li>• Health: supporting the growth of the low carbon economy in N.Wales and access to low carbon / efficient transport networks</li> <li>• Equality: delivering widespread job opportunities for N.Wales residents</li> <li>• Cohesive communities: ensuring sustainable economic development and enhanced connectivity</li> </ul>

Strategy	Core Principles	How the Growth Deal aligns
	<ul style="list-style-type: none"> <li>Globally responsible: economic, social, environmental well-being</li> </ul>	<ul style="list-style-type: none"> <li>Vibrant culture: promoting though culture and tourism through a clear investment in tourism talent</li> <li>Globally responsible: delivering balanced and clean growth, enhancing prosperity and well-being for N.Wales residents</li> </ul>
The Environment (Wales) Act 2016	<ul style="list-style-type: none"> <li>Reduce emissions by 95% by 2050</li> <li>Sustainable management of natural resources</li> </ul>	<ul style="list-style-type: none"> <li>Delivery of low carbon energy generation and decarbonisation projects will make a direct contribution to emissions reduction targets to a future with sustainable low carbon energy in N.Wales and further afield.</li> </ul>

Source: Hatch

### Alignment to Regional Strategies

- 2.23 The North Wales Growth Deal has been developed to build on existing local and regional strategies, in particular the agreed Growth Vision for North Wales. The key areas of alignment are set out in Table 2.2 below.

Table 2.2 Summary of North Wales Growth Deal Regional Policy Alignment		
Strategy	Core Principles	How the Growth Deal aligns
<b>Regional Policy</b>		
NWEAB: Growth Vision for North Wales	<ul style="list-style-type: none"> <li>• Smart North Wales</li> <li>• Resilient North Wales</li> <li>• Connected North Wales</li> </ul>	<ul style="list-style-type: none"> <li>• The Growth Deal has been designed to deliver against the Growth Vision with all five programmes delivering against the vision.</li> </ul>
NWEAB: Digital Connectivity Strategy	<ul style="list-style-type: none"> <li>• The Board has developed a strategy for North Wales, accounting for the industries and locations of greatest importance to the economy of the region.</li> </ul>	<ul style="list-style-type: none"> <li>• The Digital Programme has been designed to deliver against the strategy.</li> </ul>
North Wales RSP: North Wales Skills and Employment Plan 2019-22	<ul style="list-style-type: none"> <li>• Building our future workforce and attracting talent</li> <li>• Skills Development for an inclusive North Wales</li> <li>• Promote career perception, pathways and apprenticeship opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• While the skills programme sits outside the Growth Deal, skills and employment is a key theme across all Growth Deal programmes.</li> </ul>
<b>Local policy</b>		
Various Local Authority economic development plans and planning frameworks	<ul style="list-style-type: none"> <li>• Economic development plans in place at each Local Authority.</li> <li>• Local Development Plans (LDP) in place within each Local Authority.</li> </ul>	<ul style="list-style-type: none"> <li>• The Growth Deal delivers key transformational projects across the region to boost growth, complimenting existing local authority economic development plans.</li> <li>• Growth Deal projects will comply with the relevant LDP in each local authority.</li> </ul>

Source: Hatch

## Alignment to Existing initiatives

2.24 The Board recognises that the Growth Deal builds on an existing landscape of public sector initiatives in North Wales and nearby, and that the Growth Deal programmes will need to complement these, and in some cases actively work with them to ensure added value and additionality. Examples of these initiatives include:

- The recently established **Nuclear Futures Institute** in Bangor University funded through ERDF Sêr Cymru, together with the Thermal Hydraulic Facility (THF) at M-SParc, which provides high quality academic capacity in nuclear engineering.
- The **Anglesey Energy Island Programme** - set up to secure high skilled jobs from major energy investments and establish the Isle of Anglesey as a centre of excellence in low carbon energy generation.
- **AMRC Cymru** – The University of Sheffield Advanced Manufacturing Research Centre (AMRC) Cymru, is a £20m state-of-the-art research and development facility in North Wales AMRC Cymru located close to the Airbus wing-manufacturing plant in Broughton. AMRC Cymru provides new research and development opportunities and allows industry to access advanced technologies which helping drive improvements in productivity, performance and quality.
- **Farming Connect** – a Welsh Government business support programme focussed on supporting businesses within the agriculture and forestry sectors with advice, business

planning, innovation and diversification, skills and training, mentoring and other forms of business support.

- **Transforming Towns** - a £90million programme launched in 2020 by the Welsh Government, which is focused around measures to increase footfall by making sure the public sector locates services in town centre locations, tackle empty buildings and land to help bring them back into use, and green town centres.
- **North Wales Local Full Fibre Network project** – via a successful DCMS bid and assuming successful procurement, this will invest up to £7m from Wave 3 of the UK Government’s Local Full Fibre Networks (LFFN) programme, which will see Gigabit capable fibre and “ultrafast broadband” services being used to connect up to 400 further public sector sites across North Wales.
- **Superfast Cymru** – a national broadband project, that has been extending superfast connectivity across Wales for a number of years, with BT. This has been topped up with additional funding via change control and is in the process of reaching further premises, now focusing on gigabit capability.
- **UK F20 Programme** – a flagship programme that has been announced by Westminster, tying into a £5bn commitment to deliver gigabit connectivity across the UK. This is intended to be a nationally led procurement (instead of local) with a gap funded element complemented by a demand-led voucher scheme.

## The Case for Change

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### Strategic Portfolio Spending Objectives

- 2.25 The strategic portfolio spending objectives describe the targeted objective for the portfolio over the next 15 years.
- 2.26 The Heads of Terms agreement set out that the Government investment would be used to create up to 4,000 new jobs, support 5% GVA uplift and secure £500million in private sector investment over the 15-year period.
- 2.27 In the development of a portfolio and five programme business cases to secure the Final Deal agreement with Welsh and UK Government these have been refined into the following spending objectives for the North Wales Growth Deal: The NWEAB has agreed the following strategic portfolio spending objectives, those for the programmes are set out in the programme business cases. All the programmes and projects within the Growth Deal contribute to these overall objectives. The objectives for the constituent programmes are summarised in Appendix D.

Strategic Portfolio Spending Objective 1 Jobs	To create between 3,400 and 4,200 net new jobs in North Wales through the Growth Deal by 2036.
Strategic Portfolio Spending Objective 2 GVA	To support a net additional GVA uplift of between £2.0 billion and £2.4 billion for the North Wales Economy through the Growth Deal by 2036.
Strategic Portfolio Spending Objective 3 Investment	To deliver a total investment of £1.1 billion in the North Wales Economy through the Growth Deal by 2036.

Source: NWEAB

## Existing arrangements

- 2.28 The existing arrangements describe what is currently in place within the North Wales economy and society.
- 2.29 In forming the Growth Deal proposition, partners undertook a comprehensive analysis of the North Wales economy, identifying its long-term key drivers, challenges and opportunities.<sup>4</sup> This evidence base has been refreshed in the production of the programme business cases and updated to take account of the challenges posed by the COVID-19 pandemic.

### The Society of North Wales<sup>5</sup>

- 2.30 In 2018, North Wales had a total estimated population of 698,400 people. The population is fairly evenly distributed across the region with over 100,000 residents in four of the six authorities. Flintshire was the most populous, with an estimated 155,600 inhabitants, while the Isle of Anglesey, with its 70,000 residents was the least populated.
- 2.31 North Wales has an ageing population. Between 1998 and 2018, the proportion of the population aged 65 and over has increased from 18.5 per cent to 23 per cent, while the proportion of the population aged 15 and under has fallen from 19.8 per cent to 17.8 per cent.
- 2.32 In North Wales, the population is projected to increase by 2.1 per cent in the 2018-2028 period, and 3.1 per cent in the 2018-2038 period. Wrexham's population is projected to grow the most by 2028. Meanwhile, the Isle of Anglesey's population is projected to contract by 0.5 per cent by 2028 and by 2.4 per cent by 2038 relative to the 2018 population projection<sup>6</sup>.
- 2.33 Data from the Annual Population Survey shows that in the year ending September 2019, Gwynedd was the authority with the highest proportion of Welsh speakers both in North Wales and in Wales as a whole, with 75.6 per cent of residents aged three and over saying they could speak Welsh. Flintshire had the lowest rate of Welsh-speaking in North Wales at approximately 22.5 per cent. On a regional level, North Wales had the highest proportion of Welsh speakers in Wales, at an estimated 41.9 per cent in the year ending June 2018.

<sup>4</sup> See North Wales Economic Ambition Board (2016) *A Growth Vision for the Economy of North Wales*

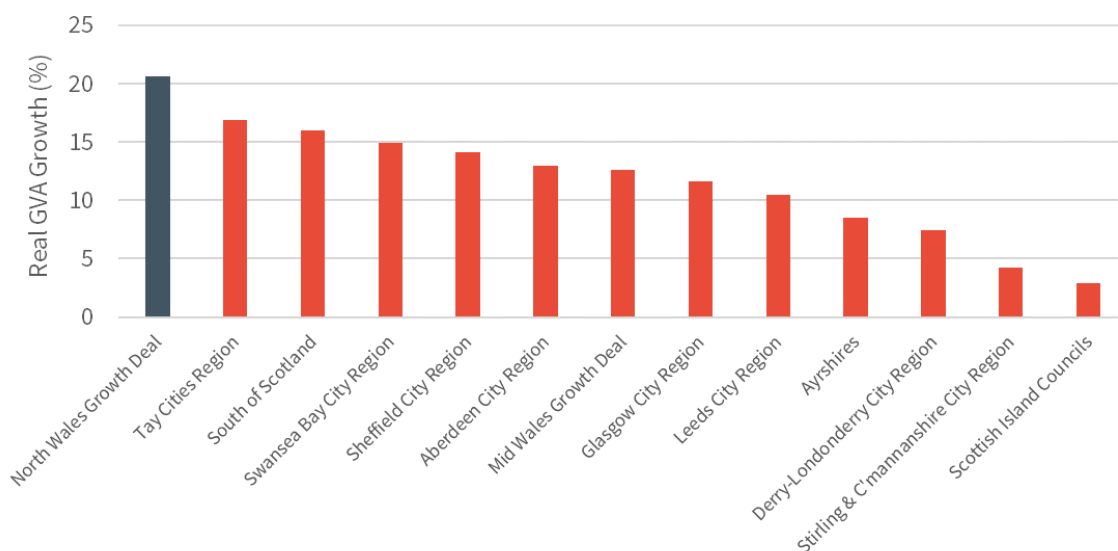
<sup>5</sup> Welsh Government – Summary Statistics for Welsh economic regions: North Wales, May 2020

<sup>6</sup> Welsh Government – Summary Statistics for Welsh economic regions: North Wales, May 2019

## The North Wales Economy

- 2.34 North Wales contributes £14.2 billion to the UK economy each year,<sup>7</sup> representing 22% of the Welsh economy.<sup>8</sup> Economic performance has been resilient following the financial crisis and during the period of austerity, with real<sup>9</sup> GVA increasing by 20% since 2009 compared to 14.9% in the Swansea Bay City Region and 12.6% in the Mid-Wales Growth Deal area.

Figure 2.2 Real GVA Growth since 2009 in selected Locations in the UK



Source: Regional GVA, ONS, 2018; Hatch

- 2.35 Nonetheless, there remains a **persistent and widening productivity gap** on the UK. GVA per capita is around 28% below the UK average, at £20,400 per annum (once London and the South East are removed, this gap is reduced but remains at 16%).

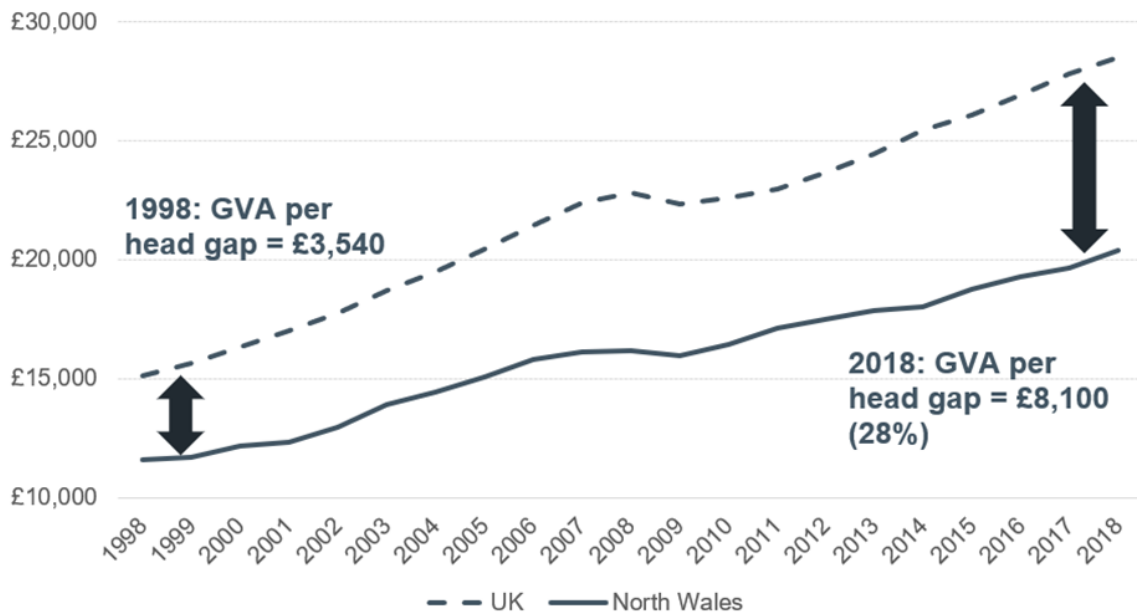
<sup>7</sup> Measured by Gross Value Added (GVA). Source: ONS, 2018 data.

<sup>8</sup> <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Regional-Accounts/Gross-Value-Added-GDP/gva-by-measure-welsheconomicregion-year>

<sup>9</sup> i.e. inflation-adjusted.



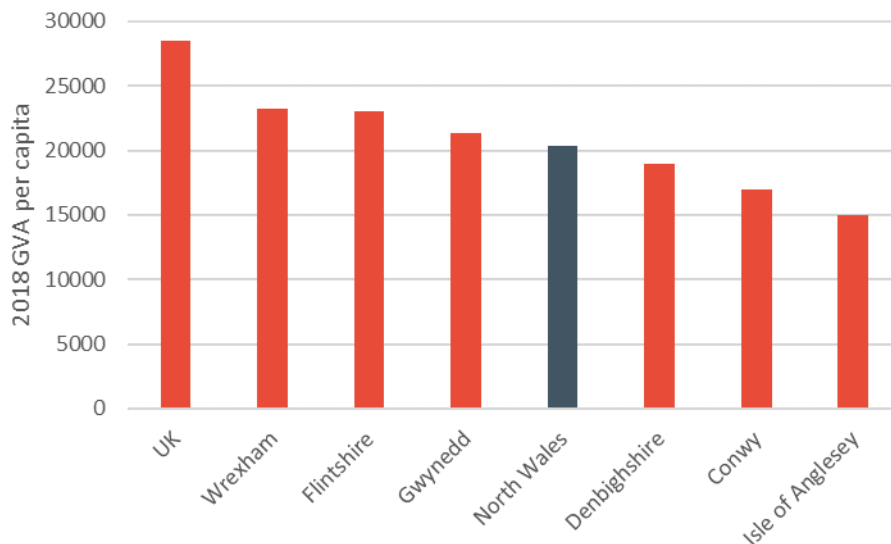
Figure 2.3 GVA per Head (£) 1998-2018



Source: Regional GVA, ONS, 2018; Hatch

2.36 Within North Wales there are **wide variations in GVA per capita**, with particularly weak productivity in the Isle of Anglesey (53% of the UK average) but stronger performance in Flintshire and Wrexham (both of which are 81% of the UK average). This is also reflected in average earnings, which lag behind the UK average. Indeed, some local authorities in the West have the lowest earnings in Wales and the UK.

Figure 2.4 GVA per Head (£), 2018



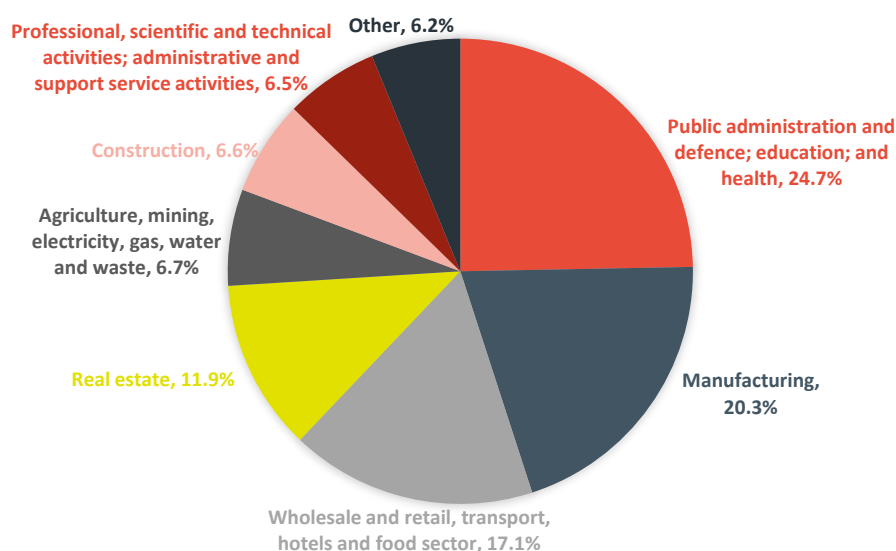
Source: Regional GVA, ONS, 2017; Hatch

2.37 As a consequence of the low productivity in the four North West Wales counties, these areas have previously qualified for the highest level of EU structural funding intervention.

## Key sectors in North Wales

- 2.38 There are 317,000 people in employment across North Wales. The economy of the region is diverse with key sectors being manufacturing, energy and tourism as well as public sector jobs. The public sector accounts for nearly a quarter of GVA. A fifth of the economy is accounted for by manufacturing, which is significantly more important in North Wales than in Wales as a whole (where it accounts for 17% of GVA). Wholesale and retail, transport, hotels and food sector accounts for 17% of the economy of North Wales. The chart below shows the breakdown of industry contribution to 2018 GVA in North Wales.

Figure 2.5 North Wales Sector GVA Contribution



Source: [stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Regional-Accounts/Gross-Value-Added-GDP/gvaperhead-by-area-year](https://stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Regional-Accounts/Gross-Value-Added-GDP/gvaperhead-by-area-year); Hatch

- 2.39 A portion of the productivity gap is accounted for by our sectoral structure, with some areas particularly reliant on relatively low paid sectors including tourism and retail. At the same time, there are areas of strength, with 64,000 people employed in high value sectors, defined as manufacturing; information and communication; and professional, scientific and technical activities.
- 2.40 In particular, partners recognise the significant potential offered by:
- **High value manufacturing:** 36,000 people work in advanced manufacturing in North Wales, with particular strengths in aerospace, automotive, chemicals and pharmaceuticals, engineering, opo-electronics, food and drink, and metal and steel.<sup>10</sup> This includes anchor employers such as Airbus and Toyota, and areas of research and innovation excellence within the region's universities. The AMRC Cymru, a £20m state-of-the-art R&D facility, recently opened in Broughton and has been described by Welsh Government ministers as a "game changer" for the region.
  - **Low carbon energy:** An estimated 16,750 people worked in specialist energy and environmental companies in North Wales in 2016. Wales has committed to a 95% reduction in carbon emissions by 2050. North Wales is already a hub for low carbon energy

<sup>10</sup> Source: North Wales Regional Skills Partnership

generation, with the equivalent of 82% of its electricity consumption already coming from local renewable sources. The region hosts over a third of Wales' renewable energy capacity and also has two nuclear licensed sites, Wylfa and Trawsfynydd. The region's geography, natural resources and heritage of energy production allow unique opportunities to deploy a broad range of low carbon energy technologies, with resources to scale up offshore and on shore wind generation, tidal stream energy, tidal range energy, hydro-power, solar and new nuclear generation. This is supported by significant research and innovation capabilities including the Nuclear Futures Institute at Bangor University.

- **Agri-food:** Agri-food is a pillar for the North Wales economy, employing an estimated 20,900 people and contributing £370m in GVA.<sup>11</sup> A fifth of all businesses in Gwynedd and Môn are in agriculture. The Welsh Government planned to grow sales in the Food and Drink industry by 30% to £7 billion by 2020<sup>12</sup>. The revised Action Plan is currently going through a consultation process however, the new Action Plan sets ambitious targets for the Food and Drink sector including ensuring the turnover of the Food and Drink Sector will grow annually to match the change in the Consumer Price Index (CPI), plus an additional 2%.
- **Tourism:** Tourism is another well-established and vital sector for the North Wales economy, with around 37,200 people working in tourism and hospitality in the region, representing 12% of the workforce. The sector has seen increases in visits and expenditure in recent years, with a 4% increase in trips and a 10% increase in expenditure between 2013-2015 and 2014-2016.<sup>13</sup> There has been a welcome growth in adventure tourism, capitalising on the post-industrial landscape and the area's natural assets. According to the latest available STEAM<sup>14</sup> summary data for North Wales the total economic impact of tourism to the North Wales economy is now £3.69billion.
- **Digital:** the deepening effect of digitalisation means that technology is increasingly disruptive and valuable to the North Wales economy, being a driver of both productivity and competitiveness. Whilst the digital sector has established itself as an important generator of employment and economic output, in reality, a much broader base of sectors have been shaped by digital technologies and processes. This is reflected in policy – the sector has the backing of the UK and Welsh governments, within respective Digital Strategies, aligning with the opportunity to exploit digital growth as set out in the Industrial Strategy. Ensuring that businesses, households and communities have access to best-in-class digital connectivity is seen as key to unlocking North Wales' and growth potential.

- 2.41 Supporting these high value sectors and addressing long-term barriers to growth is at the heart of the North Wales Growth Deal. As we note below, we are working with partners to ensure that there is up-to-date and targeted intelligence on the economic effects of COVID-19 for the region, and that the Growth Deal projects address key issues where appropriate.
- 2.42 While the Growth Deal does not specifically focus on the public sector, the NWEAB recognises the considerable role this sector plays within the foundation economy of North Wales and the public sector through the local authority, HE and FE partners on the NWEAB will play a key role in the successful delivery of the Growth Deal.

<sup>11</sup> Source: North Wales Regional Skills Partnership; Labour Market Insights, June 2020

<sup>12</sup> Source: Welsh Government Action Plan for Food and Drink

<sup>13</sup> Source: Welsh Government August 2018 'Tourism Profile- North Wales (2014-2016)'

<sup>14</sup> Source: STEAM Summary Data for North Wales 2019'

### Population and labour market

- 2.43 There is an ageing population in the region and a net outward migration of talent. Whilst the population of North Wales is expected to increase to 722,317 by 2039, the share of the population aged 65 or above is expected to increase from 23.6% to 29.8%. This means a smaller share of working age people, which may place pressures on the supply of skills.
- 2.44 The employment rate amongst working age residents in North Wales stood at 75.9% at March 2020, which was the same as the UK. Over 5 years, between March 2015 and March 2020, 18,300 jobs were added to the economy, a growth of 6.2 percent for the region. We explore later the specific impacts of COVID-19 on employment in North Wales, drawing on survey evidence.

### Sites and premises

- 2.45 Recent research has identified a lack of modern industrial and employment space across the region. Whilst there are business parks located along the A55 (St Asaph, Parc Menai, Llandudno Junction) with land available for development, planning use class restrictions and plot sizes together with the lack of development funding and property values that are lower than build costs, has meant these have seen limited new development since 2008. A recent review by JLL found that there was relatively weak and fragmented network of readily developable strategic sites, capable of supporting both indigenous business growth and inward investment.<sup>15</sup>
- 2.46 The lack of sites capable of reacting to demand is a legacy of the decisions made in the mid-2000s when the public sector took a more detached view to property investment and encouraged the private sector to come forward with new development.<sup>16</sup> This has not occurred since the 2008 Crash with any regularity and where it does occur is generally assisted by some public sector support.

### Holyhead Port

- 2.47 Holyhead Port is of strategic and economic significance both for North Wales and is as an international gateway to Wales. The Port is the second busiest Roll on – Roll off ferry port in the UK: in 2018 the Port handled 75% of passengers, 71% of passenger vehicles and 81% of freight vehicles passing through Welsh ports to Ireland<sup>17</sup>. In 2018 Holyhead Port had the second highest number of short sea ferry crossings by total number of passengers in the UK, after Dover<sup>18</sup>.
- 2.48 The Port is owned and operated by Stena Line Ports Limited who are also the statutory Port Authority. Holyhead-Dublin is the principal ferry link to the Republic of Ireland from the UK and serves the North Wales and Central and Northern England markets. Two ferry companies operate the service, Stena Lines and Irish Ferries.
- 2.49 Holyhead Port's usage has been increasing over the past decade, particularly through the number of cruise ships visiting the port. This increased from 18 in 2013 to 51 in 2018<sup>19</sup>. In the same period passenger visits have increased from 15,000 to 50,000<sup>20</sup>.

<sup>15</sup> Source : JLL (2017) Priority Property Interventions for Economic Development Report.

<sup>16</sup> Source : JLL (2017)

<sup>17</sup> DfT Port Freight Stats 2019

<sup>18</sup> DfT Port Freight Stats 2019

<sup>19</sup> Stena Line Ports, 2018

<sup>20</sup> Stena Line Ports, 2018

- 2.50 Holyhead Gateway requires a series of targeted investments to address life expired assets essential to the operation of the port.

### Digital Connectivity

- 2.51 Demand for high-speed broadband and mobile connectivity in North Wales has kept pace with supply. However, the infrastructure in the region has historically lagged behind the rest of the UK in terms of coverage and capacity.
- 2.52 With the emergence of commercially available fibre optic technology towards the end of the 20th century, the widening of the 'digital divide' now has the potential to increase exponentially where the difference in affordable bandwidth can now be typically 100s of Megabits per second compared to other regions (e.g. 4.9% premises in Denbighshire with availability of ultrafast at >100Mbps compared to 49% in North West England). All four counties in the West rank in bottom 25% of UK areas for Superfast (>30Mbps) broadband coverage.

### Challenges and Opportunities presented by Climate Change

- 2.53 The Welsh Government declared a climate emergency in 2019 and set a target to reduce 95% of greenhouse gas emissions by 2050 relative to 1990. This target, which is lower than the equivalent UK 2050 net zero decarbonisation target, recognises that Wales faces several additional challenges including higher greenhouse gas emissions from its agriculture and parts of its heavy industry.
- 2.54 The UK Committee on Climate Change (UKCCC) has published a national assessment of 56 risks and opportunities impacting on Wales from now until the end of this century, with risk to infrastructure, public water supply, land management, ecosystems and agriculture recorded as the highest priority issues.
- 2.55 The Growth Deal with a portfolio of projects to be delivered over the next 15 years presents an opportunity for the NWEAB to position North Wales for longer-term prosperity through consideration of the impact of climate change and biodiversity loss on the built and natural environment.

### The Economic Impact of COVID-19

- 2.56 Clearly, COVID-19 has had an immense economic impact on North Wales as in other parts of the UK and globally. Partners in North Wales have set up a survey of regional firms<sup>21</sup> to monitor the economic impact on their operations. The latest complete survey received responses from 1,771 businesses across the breadth of sectors and with a good representation across the local authority areas of North Wales. In addition, the North Wales Regional Skills Partnership has provided a labour market insights report.<sup>22</sup> Of course, the picture is changing rapidly, but at the time of writing our research has found the following:

<sup>21</sup> North Wales Economic Ambition Board COVID-19 Regional Survey Update 16/07/2020

<sup>22</sup> North Wales Regional Skills Partnership COVID-19 *Labour Market Insights North Wales*, 4<sup>th</sup> September 2020

### Impacts of COVID-19 Crisis to Date (as at October 2020)

- Although no sector has been left untouched by the pandemic, the impact has been far from uniform. Some sectors have been hit harder than others and the situation remains fluid as lockdown restrictions have eased. Businesses in the region remain in ‘survival mode’ in many sectors. However, businesses in **Construction, Energy & Environment, Financial & Professional and Health and Social Care** are showing signs of stabilising/ slow recovery whilst they move towards a ‘new normal’. **Tourism & Hospitality, Creative and Aerospace** (as sub-sector of Manufacturing) have seen the biggest impact –with a post furlough picture looking bleaker, and slower stability/ recovery predicted.
- The most recent regional survey of businesses in North Wales<sup>23</sup> shows that **lost income, cash flow problems and staff & personal welfare** were the top three concerns for businesses over the next few months. Skills and training still remain lower down on the list of priorities, with most businesses asking for financial support, further guidance and new equipment – with only **7% requesting help with training**.
- The **impact of staffing levels and recruitment has varied between sectors**: Details on occupational roles affected by redundancies is not currently available. The Regional Employer Response Group is working with Airbus in particular to understand the workforce / occupational roles affected by redundancies in the Aerospace sector. Data from DWP show redundancies in Aerospace, Accommodation & Food Services and Arts, Entertainment and Recreation sectors in the region.
- There is a total of **98,400** people on furlough in North Wales (figures as of 31<sup>st</sup> July, 2020). This is a **28.9% increase** from the figure for June 2020. Gwynedd & Conwy, two of our most rural areas in the region have the **highest % of eligible workforce furloughed, with Gwynedd the highest in Wales**. This will have implications for our region as furlough winds down. However, Emsi job postings data shows us that job vacancies are on a more positive trajectory in comparison to June data. Although the number of posts in health, care and domestic roles remain as the dominant number of job postings, there is also a re-emergence of different occupations, in line with the relaxation of lockdown and re-opening of more sectors and businesses.
- There has been **rising unemployment and increases in Universal Credit Claimant claims** and Claimant Count, with young people under 24 years old most impacted. Gwynedd and Ynys Mon have seen the biggest rise in claimants, with a rise of +113% (Gwynedd) and +98.6% (Ynys Mon). Again, this will have future implications for the region, and figures are likely to rise by the end of October.
- Development of **Digital skills** is highlighted by employers as their main cross-sector future skills need. Digital marketing, use of social media, cyber security, development of Apps and websites to sell products have all been identified by as key future skills needs for the workforce by employers. **Leadership and Management Skills**, along **transferable skills (creativity, critical thinking, inter-personal communication skills)** still remain a key future focus for businesses across the region. There is a need for **re-training and upskilling** and proactively helping individuals who are at risk of redundancy.

<sup>23</sup> North Wales Economic Ambition Board COVID-19 Regional Survey Update 16/07/2020



- 2.57 The Growth Deal is designed to address structural, long-term barriers to economic growth. However, the Board is fully aware that in the short-term a range of actions will be needed to facilitate recovery and alignment between those short-term measures and the Growth Deal is key.
- 2.58 The Growth Deal on its own cannot address all the challenges facing the North Wales economy, particularly in light of COVID-19. However, such a significant injection of capital investment into the Welsh economy through the Growth Deal will be a significant boost to the construction and related sectors at a time when there is likely to be spare capacity in the economy.

## Business Needs

- 2.59 This section sets out the challenges and opportunities across the key sectors in the North Wales economy set out above.
- 2.60 Through its analysis and stakeholder consultations at the programme level, the NWEAB has identified a set of specific economic needs that the Growth Deal will need to address. These were further developed through a series of workshops with key stakeholders in the private and public sectors – see appendix B. In addition, the strategic cases for each of the programmes have been developed iteratively: the Board has received feedback on the strategic cases from both Welsh Government and UK Government officials, and has incorporated this into the final documents.
- 2.61 These have been organised into a set of themes below.

### High value manufacturing

- **Supporting innovation and R&D:** there is a need for facilities and technical support with individual businesses unable to access the skills and expertise to innovate and improve productivity via efficiency savings.
- **Supporting the low carbon agenda:** there is a strong need to decarbonise industry in order to meet national targets for clean growth, as well as to capitalise on market opportunities, with the number of green-collar jobs expected to grow to 2 million and the value of UK exports from the low carbon economy to grow to £170 billion a year by 2030.
- **Supply chain integration:** A progressive depletion or ‘hollowing out’ of the Welsh and UK-based supply chain over recent decades represents a long-term threat to production and manufacturing capability and its future prosperity. There is a need to re-build and sustain SMEs within supply chains to drive competitiveness.
- **Improving productivity:** North Wales’ advanced manufacturing sectors are relatively high productivity sectors in the economy, but there is great potential to increase productivity via targeted investments in R&D and skills.

### Agri-food and tourism

- **Under-investment in R&D and Innovation:** Engineering & Physical Science Research Council (EPSRC) data suggests that only 2% (c. £95 million) of all grants being offered directed to the Food & Drink sector. R&D spend across these three sectors equated to 1.3% of all R&D spend across all sectors in the UK in 2018 despite the sectors making up 10% of total employment/
- **Supporting the low carbon agenda across Wales and the UK:** From an environmental perspective, reducing carbon emissions is crucial to the future sustainability of Wales and this was recognised in the Wellbeing of Future Generations (Wales) Act 2015, which sets a target to reduce emissions by at least 80% against the 1990 baseline. Introducing



sustainable low carbon land management practices, as well as driving innovation and new low carbon technologies in the agriculture sector could contribute to the long-term carbon reduction agenda.

- **Improving productivity:** In 2017, gross output per hectare of agricultural land was £858 in Wales, significantly lower than UK's most productive region, which was the South East of England (£3,190 per ha). The tourism sector also suffers from lower productivity levels than those seen in England, with GVA per employee in the tourism sector equating to £19,600, 14% lower than the equivalent metric in England.
- **Meeting skills needs:** The latest Employer Skills Survey indicated that 25% of restaurants and hotels in Wales reported skills shortages and 45% businesses within primary industry (which includes agriculture). Both sectors also reported skills gap increases from the previous survey, with hotel and restaurants reporting a +3% increase whilst primary industry reported a +28% increase.
- **Diversification and resiliency:** agriculture, food and tourism sectors form the backbone of many local economies in North Wales. With the imminent exit from the European Union and the loss of related funding, it is important rural businesses have the support and knowledge to help them diversify.
- **Lack of appropriate premises:** Research carried out by Arad for the Glynllifon Rural Economy Hub indicates that the lack of food-grade premises, local product development facilities and technical support is holding back the potential of the sector, with individual businesses unable to access the skills and expertise to innovate and improve productivity via efficiency savings.

#### Low carbon energy

- **Addressing climate change:** Responding to the climate emergency declared by Welsh Government and the aim of achieving Net Zero by 2050. There is a need to decarbonise North Wales' energy system, including power (e.g. increasing low carbon energy generation), housing (including challenges associated with large numbers of homes being off the gas grid) and transport.
- **Supporting economic growth in low carbon energy sectors:** exploiting local strengths and competitive advantages (e.g. existing energy infrastructure, research strengths and skilled workforce) to drive growth in the low carbon energy sector where there are substantial growth opportunities nationally (sector forecast to grow 11% per year to 2030). An estimated £10.9bn of additional investment is needed by 2035 to put the region on track to achieve Net Zero. This level of investment has the potential to create up to 24,400 new jobs.

#### Land and property

- **A need for modern employment floorspace.** The network of readily developable strategic sites, capable of supporting both indigenous business growth and inward investment is relatively weak and fragmented
- **Low land values and infrastructure constraints** have resulted in insufficient developer interest, leading to a lack of supply of housing and commercial premises. To date the market has failed to address these challenges and therefore there is a specific need for Growth Deal funding to enable the delivery of employment space, serviced residential land and improvements to Holyhead Gateway.

## Digital connectivity

- **Addressing the digital divide:** in order for the North Wales economy to prosper and for key sectors to grow to their fullest potential, significant connectivity gaps must be addressed. There is a need to rapidly increase gigabit connectivity at key growth sites, ensure rural ‘not spots’ are tackled in full, deliver seamless mobile connectivity across economic corridors and assets and provide the foundations for greater social equity and inclusion.
- **Responding to clear demand for better connectivity:** a wide body of evidence showcases the prescient need for next generation fixed and mobile broadband and the opportunity cost of poor provision, relative to other parts of the UK. There is an exceptional appetite to deploy more sophisticated technologies and innovative use cases, which will secure productivity, efficiency and competitiveness across the region.
- **Creating competitive market conditions:** North Wales’ digital connectivity has been constrained by a lack of market competition at the wholesale level, and within the degree of choice offered by broadband providers at the retail level. There is an opportunity to respond to this by creating conditions that improve market attractiveness, reduce consumer costs, enhance end user take-up and provide the basis for longer-term commercial investment.
- **Establishing a world-class digital corridor:** the A55 is the primary economic axis for North Wales, connecting key sites, hubs for growth and the region’s most prominent assets. There is an opportunity to ensure that 5G and full fibre broadband creates a seamless high-speed corridor, as the basis for large-scale smart technology deployment, pilots and trials and as a lever for inward investment.
- **Expanding digital research capacity:** North Wales has an emerging profile as a base for innovative and technology-led research, led by higher education institutions and the private sector. There is an opportunity to scale this further, drawing on other sources of funding and business intent, creating a critical mass of technology, expertise and ambition to ensure that North Wales is at the cutting edge of the discovery and deployment of cutting-edge technologies.

## Potential Scope: North Wales Growth Deal

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### Growth Deal Programmes

- 2.62 This section outlines the potential scope for the North Wales Growth Deal over the next 15 years.
- 2.63 All the sectors covered in the business needs section of this business case form part of the potential scope of the North Wales Growth Deal and will be addressed over time with the exception of the care and health services which are out of the scope of the Growth Deal.
- 2.64 The aim of the Growth Deal is to build a more vibrant, sustainable and resilient economy in North Wales, building on our strengths to boost productivity while tackling long term challenges and economic barriers to deliver inclusive growth. Our approach is to promote growth in a scalable, inclusive and sustainable way in line with the Wellbeing of Future Generations (Wales) Act 2015. On that basis it has been agreed to consider the following sectors:

#### High growth sectors to drive productivity in the region

- 2.65 The projects aimed at increasing the value and impact of high growth sectors will be focused on three key sectors:

- Low carbon energy
- Innovation in high value manufacturing
- Agri-food and tourism

**Addressing key barriers to enable and achieve economic growth**

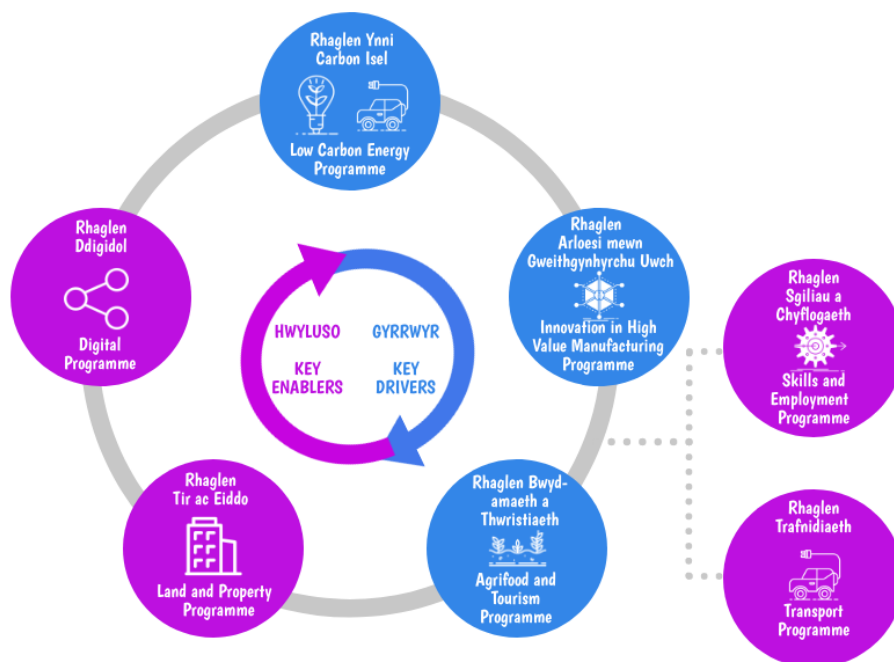
2.66 We have identified enabling sectors through the Growth Deal to tackle key economic barriers and address structural issues that have impacted on productivity and jobs. Delivery in these sectors will create the appropriate conditions for businesses to invest in the region and for the labour market to take advantage of new employment opportunities. A strategic approach will be taken with our investments, ensuring that they are well-targeted in order to enable economic and employment growth across the region. This will be done in partnership with key partners, especially the UK and Welsh Governments.

2.67 The projects to address key barriers to growth will be focused on two key sectors have been presented in 2 key Growth Deal Programmes, with the other two enabling sectors sitting outside the Growth Deal.

- Land and property
- Digital

2.68 By focusing our delivery on these sectors collectively, we will achieve a greater impact in terms of our ambition and use of resources rather than delivering them in isolation. Five of these sectors are to be targeted through the Growth Deal, while two sectors – Skills and Employment, and Strategic Transport now sit outside the Growth Deal to be targeted through alternative funding sources.

Figure 2.6 The Growth Deal Sectors



Source: NWEAB

- 2.69 All programmes and projects within the Growth Deal will contribute to the achievement of the Growth Vision and the delivery of benefits for North Wales. The benefits from the Growth Deal will support sustainable and inclusive growth across the region – in accordance with the Growth Vision as well as the priorities of the Well-Being of Future Generations (Wales) Act 2015.

### Summary of the sectors

- 2.70 The strategic aims to address in each sector, and the types of intervention they are intended to facilitate, are summarised below.

#### Low carbon energy

**Strategic aims:** To unlock the economic benefits of transformational low carbon energy projects and position North Wales as a leading UK location for low carbon energy generation, innovation and supply chain investment.

**Types of intervention:** Enabling works for new low carbon energy generation, enhancing research and innovation facilities for low carbon energy sectors, transport decarbonisation and support for local energy projects.

#### Innovation in high value manufacturing

**Strategic aims:** To consolidate North Wales’ position as a powerful and innovative high value manufacturing cluster, building on existing specialisms and leading expertise to create a higher value, more diverse economic base that supports the transition to a low carbon economy

**Types of intervention:** Industry and research collaborations along with the establishment of centres of excellence to help overcome barriers and market failures in the research commercialisation process.

#### Agri-food and tourism

**Strategic aims:** To build a more sustainable, vibrant and resilient foundation economy within the region, optimising opportunities for employment and prosperity through our environment and landscape.

**Types of intervention:** Introducing new technologies & innovation, skills and practices to these sectors, via business support and upskilling.

#### Land and property

**Strategic aims:** To address the shortage of suitable land and properties for business growth and to bring forward sites for housing development. To deliver improvements that stimulate investment in sites and premises in the Port of Holyhead and the wider region. Plays an enabling role for other programmes by ensuring the right land and property infrastructure is available.

**Types of intervention:** Remediation and enabling infrastructure to bring forward employment and housing sites, delivery of industrial floorspace, future proofing the port of Holyhead by providing new deep-water heavy loading and cruise facilities and improved vehicular access.

#### Digital

**Strategic aims:** To deliver the step change in digital connectivity needed to ensure North Wales is able to satisfy user demand, maintain pace with the rest of UK, unlock the growth potential of priority sectors and sites and underpin a flourishing innovation ecosystem. Plays an enabling role for other programmes to deliver maximum benefit.

**Types of intervention:** The programme has identified a need to which balance investment in infrastructure and technology, through enhanced fixed broadband footprint at key sites in rural areas, unlocking applications through 5G access, and furthering digital innovation.

## Main Benefits

- 2.71 The key benefits that will be delivered as a result of the North Wales Growth Deal contribution to North Wales are set out in this section.
- 2.72 The Growth Deal will lead to a number of direct and indirect benefits for the North Wales economy. The outcomes that will be delivered will include the following:
- Growth in regional prosperity – through improved productivity, inward investment and the creation of new jobs: linked to all Spending Objectives i.e. Spending Objective 1 (the creation of 3,400-4,200 net new jobs); Spending Objective 2 (£2.0 to £2.4 billion in net additional GVA); and Spending Objective 3 (£1.1 billion in total investment)
  - Creation of better-quality jobs for the local labour market – through targeted interventions in high value sectors to create new jobs: *linked to Spending Objectives 1 and 2 especially.*
  - A more skilled workforce within the region – through supporting skills and training initiatives and targeted interventions in high value sectors to create opportunities: *linked to Spending Objectives 1 and 2 especially.*
  - Improvements in standards of living across the region- inclusive growth that provides opportunities, reduces poverty, inequality and deprivation: *linked to Spending Objectives 1 and 2 especially.*
- 2.73 The table below sets out a baseline of indicators under these headers, illustrating the recent trend and the anticipated future direction under the Growth Deal.

Table 2.4 Strategic Outcomes and Indicators							
	2013	2014	2015	2016	2017	2018	Future Direction
<b>Growth in Regional Prosperity</b>							
GVA growth (GVA £m)	12,344	12,519	13,033	13,439	13,673	14,239	?
North Wales GVA per head as % of UK (-London +SE)	86%	83%	85%	85%	83%	84%	?
Dispersed GVA growth across the 6 Counties of North Wales	8.5%	5.9%	8.5%	11.1%	10.1%	5.0%	?
GVA growth in high value economic sectors (manufacturing, information and communications and technical activities)	-0.4%	0.0%	5.4%	6.3%	-7.7%	6.5%	?
<b>Creation of Better Quality Jobs</b>							
Employment Growth	0.4%	1.9%	2.3%	-2.1%	1.2%	3.0%	?
Dispersal of Employment Growth across the 6 Counties of North Wales	14.1%	10.0%	17.6%	13.8%	14.4%	9.8%	?
Employment Growth in high value economic sectors	7.1%	7.0%	0.0%	-8.8%	14.4%	-0.2%	?
<b>A more Skilled Workforce within the Region</b>							

Increase in proportion of the population with qualifications (NQF 4)	33.5%	35.2%	36.2%	34.9%	36.3%	36.3%	?
Increase in higher level apprenticeships as a proportion of total employment	610	735	1,045	710	800	610	?
Increase in apprenticeships 16-24 as a proportion of total employment	6,225	4,255	5,075	5,050	6,250	5,150	?
<b>Improvements in Standards of Living across the Region</b>							
Reduce the proportion of workless households	17.8%	19.2%	17.3%	16.6%	15.1%	16.0%	?
Improve affordability (median house prices / median income)	6.7	6.8	6.7	6.8	7.4	7.4	?
Increase in median household income (£)	1.8%	1.3%	5.1%	0.5%	-3.2%	1.0%	?

Source: Various ONS Data Sources; Hatch

## Main Risks

2.74 The key risks to the successful delivery of the portfolio are set out in Table 2.5.

Table 2.5 Growth Deal Portfolio Risks	
Resources	Resources are required at portfolio, programme and project level to ensure the successful delivery of the Growth Deal portfolio. Insufficient resourcing could have a significant impact on the successful delivery of the deal.
Delivery	Delays in the delivery of any of the projects could have an impact on the overall Growth Deal portfolio.
Cost	There is a risk that the projects contained within the North Wales Growth Deal proposal will increase in cost prior to the completion of the deal. As the Welsh/UK Government funding is fixed at £240million any increase in costs would need to be met by the public/private sector
COVID-19	The COVID-19 pandemic still poses a risk to the delivery of the programme. The economic impact of lockdown restrictions has still yet to be fully realised which could impact local businesses, local authorities and education providers alike. Future lockdown restrictions could also delay the Growth Deal.
Brexit	At present, there remains uncertainty on the outcome of the Brexit negotiations. The Welsh economy could be hit in the short term in the event of a no-deal, which would impact on some of our sectors through tariffs and supply chain disruption.
Climate and biodiversity	There is a risk the projects contained within the North Wales Growth Deal will be impacted by factors related to climate change and biodiversity loss, with infrastructure, public water supply, land management, ecosystems and agriculture identified at greatest risk.
Private Sector Investment	Significant private sector investment is required to deliver the programme. There is a risk, particularly following the impact of COVID-19 on the regional economy that the level of private sector investment required will not be attained.
Public Sector Investment	There is a risk, particularly following the impact of COVID-19 and changing priorities on the regional economy that the level investment required will not be attained.
Limited end user company involvement	Lack of demand from end users would hinder the programme and one of its key aims to drive diversification and innovation through collaboration between industry and education providers.
Political Change	Changes in Government policy will happen over the course of the 15-year Growth Deal period. These policy changes could impact significantly on the scope of the Growth Deal, the programmes and the projects.
Statutory Consents and Planning	As a capital investment programme there is a risk that if Growth Deal projects do not receive the necessary statutory consents and planning approval the projects will not be delivered and the benefits not realised.

Source: NWEAB; Hatch

2.75 Risk Registers will be developed at the portfolio, programme and project level. Risks associated with the delivery of the programmes and projects will be captured within the relevant risk register.



Further details on the approach to managing risk across the portfolio are set out in the Management Case.

## Constraints

- 2.76 This section sets out the parameters agreed for the delivery of the strategic portfolio over the next 15 years.
- 2.77 There are a number of constraints placed on the delivery of the Growth Deal, notably:
- **Total Funding Package** – The total amount of funding is set at £120million from the Welsh Government and £120million from the UK Government. The combined £240million must be supplemented by private and public sector funding to ensure the delivery of the Growth Deal and the programme.
  - **Term of the Growth Deal** – The programme cannot exceed the term of the Growth Deal set at 15 years.
  - **Capital Funding** – The Growth Deal funding package is capital funding with no revenue funding provided for projects. Revenue funding must be provided by the partners.
  - **State Aid** – Growth Deal projects must comply with relevant State Aid rules.

## Dependencies

- 2.78 This section highlights the dependencies for the successful delivery of the Growth Deal.
- 2.79 The following dependencies need to be in place for the delivery of the Growth Deal:
- **Securing the Final Deal** – A current dependency is signing the Final Deal which secures the £240m of government funding for the Growth Deal and agreeing Governance Agreement 2 within the partnership.
  - **Private Sector Engagement** – The Growth Deal cannot be successfully delivered without the engagement of and collaboration with the private sector.
  - **Public Sector Engagement** – The Growth Deal required the NWEAB to continue in order to deliver the deal.
  - **Statutory Consents and Planning Approval** – A number of the Growth Deal projects will require statutory consents and planning approval.
- 2.80 Individually projects within the North Wales Growth Deal can be viewed as being independent from each other with limited inter project dependencies (i.e. one project is not directly dependant on the completion of another). However, collectively The Growth Deal Programmes and Projects are transformational, interrelated and co-dependent with a number of synergies across the Portfolio. Dependencies for programmes and projects will be set out within the relevant business case.

## 3. The Economic Case

- 3.1 The Economic Case describes how we appraised the options for the potential scope of the North Wales Growth Deal as set out in the strategic case.

### Critical Success Factors

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- 3.2 This section describes the Critical Success Factors (CSFs) and evaluation criteria that were agreed for the appraisal of potential programmes and project in the North Wales Growth Deal. Partners agreed that the following CSFs would be used:

- **Equity** – that the approach ensures that benefits have a positive impact on as many communities as possible in the region.
- **Value added** – that the approach is focused on high value returns.
- **Strategic fit** – that the approach is in keeping with both Wales and UK wide industrial and economic strategies of relevance.
- **Private Sector Investment** that the approach would need widespread appeal for the private sector – both in terms of support and potential leveraged investment.

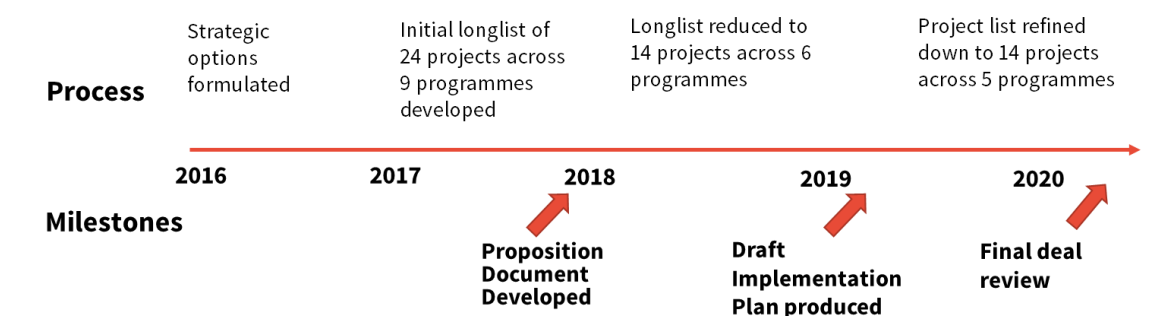
### Options assessment

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- 3.3 To understand the shape of the Growth Deal and its composition in terms of its programmes and projects, it is helpful to review the process that partners have been through since the Board was formed and as partners progressed through stages in the Growth Deal development. The partners have followed an iterative, robust process to translate the overall Growth Vision into a set of interventions that will address the identified spending objectives in the most effective and efficient manner. In summary, there have been four phases:

- **2016: Strategic optioneering.** To set the overall parameters at a strategic level for the Growth Deal investments using a set of Critical Success Factors (CSFs).
- **2018: Proposition development.** To develop this into a longlist of project interventions designed to address the spending objectives and CSFs
- **2019: Draft Implementation Plan.** The longlist was refined in response to UK Government feedback on the need for a smaller set of larger projects.
- **2019: Final Deal review.** The final set of Growth Deal interventions has been arrived at via a further review by NWEAB and partners, taking into account market conditions and policy fit.

Figure 3.1 Project Options Development Process



Source: Hatch

## Strategic Options

- 3.4 Drawing on the analysis of need and market failure, the Board identified Strategic Programmes within the North Wales Vision to address the challenges facing the regional economy, as well as exploiting the opportunities. These programmes are a group of inter-related and co-dependant projects to be managed in a co-ordinated way, and have been defined in the context of the Growth Vision for North Wales.
- 3.5 A number of realistic and achievable strategic options were considered and appraised in order inform how the Growth Deal could best address the economic challenges of the region. This took in considerations around the sectoral and spatial targeting of Growth Deal investments. These are listed below:
- **Option 1: Minimum Change.** This would involve a continuation of current decentralised approaches in North Wales, with a continuation of different priorities and agendas and a lack of overarching, shared goals across organisations. It was felt that this would stifle opportunities and have limited innovation and ambition, with the result that productivity levels would continue to lag behind the rest of the UK.
  - **Option 2: To focus purely on key economic sectors.** The strategic case has identified a specific set of needs and opportunities for our key sectors, and we are confident that we could improve productivity by solely addressing these. However, this would risk excluding a majority of the labour market. Development in decarbonisation and automation are also transforming industries and increasingly driving new collaborations across sectors.
  - **Option 3: To focus on the foundation economy, in particular care, tourism and retail sectors.** An alternative sectoral focus such as this one would support the backbone of the local economy in the region, and would help small and often fragile enterprises embedded in local communities increase their productivity. However, this is a risk that such an approach would not generate the levels of growth required in the economy – and there would also be concerns about the quality of employment opportunities across the region.
  - **Option 4: To focus on areas of opportunity where the private sector is already strong –** such as the Cross-Border areas. This option would certainly deliver economic growth and improve productivity – but risks the over-concentration in one particular area to the detriment of other areas within the region.
  - **Option 5: To focus on scalable and dispersed growth across the region to achieve sustainable, balanced and inclusive economic growth.** This would also focus on capitalising on the success of high value economic sectors, such as advanced manufacturing and

energy, and our connection to the economies of the Northern Powerhouse and Ireland. This approach would develop a more balanced economy, and achieve inclusive growth so that irregularities are addressed. It would lead to a fairer distribution of the benefits of economic growth – both at an individual level and between different parts of the region. It will also create the climate to boost productivity across the region and maximise opportunities for the labour market.

3.6 The assessment of these strategic options against the CSFs is set out below.

Action	Equity	Value Added	Strategic Fit	Private sector interest
Do nothing / Minimum	x	x	x	x
To focus purely on key economic sectors	x	✓	✓	✓
To focus more on the foundation economy, in particular care, tourism and retail sectors	✓	x	✓	x
To focus more on areas of opportunity where the private sector is already strong – such as the Cross-Border areas	x	✓	✓	✓
To focus on scalable and dispersed growth opportunities across the region to achieve sustainable ‘balanced’ economic growth	✓	✓	✓	✓

Source: Hatch

3.7 The strategic options appraisal was definitive in terms of establishing that the preferred approach was:

*“To focus on scalable and dispersed growth opportunities across the region to achieve sustainable, balanced and inclusive economic growth”.*

## Proposition Development

### Stage 1 – 2018 Proposition Document (the longlist)

3.8 The longlist describes how a wide range of programmes and projects were identified by the NWEAB for the delivery of the North Wales Growth Deal.

3.9 During 2017 and 2018, the Board - working collaboratively with Welsh Government, UK Government and representatives of the private sector - developed the Proposition Document for the North Wales Growth Deal.

3.10 Based on the Growth Vision Strategy, the Proposition Document was agreed by partners within the Board in October 2018. This set out a proposed package of **24 transformational projects across 9 Strategic Programmes**, seeking £334.5m in capital funding and £8m in revenue funding from the Growth Deal. The Programmes were defined as a group of related projects managed in a co-ordinated way to obtain benefits and to deliver the overall Vision and Aims.

3.11 The approach was based on creating the appropriate conditions for high value economic clusters such as energy, advanced manufacturing and digital sector to flourish and boost their contribution to the Welsh and UK economies. The 24 projects at this stage were considered a longlist and the list was considered a living document that would evolve as new opportunities arose. The projects were:

- identified through partnership working and co-production amongst the public, higher education, further education and particularly the private sector in the region.
- designed to be strategic and transformational
- tested using the CSFs of strategic fit, complementarity with existing initiatives, value for money, commercial sustainability, deliverability and partnership support and commitment.

3.12 An additional set of CSFs was also considered in arriving at this list, including that the projects were:

- spatially targeted
- applied to the whole region
- enablers
- supporting growth and attracting private sector investment
- promoting innovation

3.13 The longlist of programmes and projects are listed below:

Table 3.2 Growth Deal Proposition Document (longlist)		
Action	Key objective	Projects
Land and property	To address the shortage of suitable land and properties for business growth and to bring forward sites for housing development.	<ul style="list-style-type: none"> <li>Regional Land and Property Joint Venture Project</li> </ul>
Smart access to energy	To deliver the infrastructure improvements required to position North Wales as one of the leading UK locations for energy generation and production, building in particular on the Wylfa Newydd Nuclear Power Project.	<ul style="list-style-type: none"> <li>Holyhead Gateway Project</li> <li>Trawsfynydd Power Station Project</li> <li>Morlais Project</li> <li>Smart Local Energy Network Project</li> </ul>
Adventure tourism	To enable further investment in adventure tourism attractions in the region, increasing their value to the regional economy.	<ul style="list-style-type: none"> <li>North Wales Adventure Tourism Capital Investment</li> </ul>
Smart technology and innovation hubs programme	To deliver world-class resources in sector leading facilities such as low carbon energy and advanced manufacturing, building on expertise in the region, accelerating economic impact from research and technology.	<ul style="list-style-type: none"> <li>Nuclear Energy Centre of Excellence Project;</li> <li>Enterprise Engineering and Optics Centre Project</li> <li>3D Factory UK Project;</li> <li>Glynllifon Rural Economy Hub Project;</li> <li>Llysfasi Carbon Neutral Centre Project;</li> <li>Centre of Environmental Biotechnology and Accreditation Project</li> </ul>
Regional Growth Business Fund and hubs programme	To provide financial, technical and coherent advice and support for businesses across the region	<ul style="list-style-type: none"> <li>North Wales Regional Business Growth Fund Project</li> </ul>
Pathways to skills and employment programme	To tackle economic inactivity and to deliver a co-ordinated skills and employment advice and support service, particularly to skill people up for future employment.	<ul style="list-style-type: none"> <li>Information and Advice Gateway Project</li> <li>Employability Pathway</li> </ul>
Skills centre of excellence	To create the conditions to increase the supply of skills in key growth sectors, focusing on improving the skills infrastructure in the region.	<ul style="list-style-type: none"> <li>North Wales Tourism and Hospitality Centre of Excellence Project</li> <li>North Wales Rail Engineering Centre of Excellence Project</li> <li>Regional STEM – Achieving Excellence in Skills Development Project</li> <li>North Wales Health and Social Care with Higher Education – Achieving Excellence Project;</li> <li>North Wales Digital Automation – Achieving Excellence Project.</li> </ul>
Digital connectivity	To deliver quality access to effective and affordable digital connectivity for businesses and households across the region, to boost innovation in digital signalling and to improve digital skills.	<ul style="list-style-type: none"> <li>North Wales Digital Connectivity Project</li> <li>Digital Signal Processing Centre Project</li> <li>Digital Skills for North Wales Project</li> </ul>
Strategic transport	To improve local transport infrastructure to support accessibility and connectivity.	<ul style="list-style-type: none"> <li>Strategic Transport Project.</li> </ul>

Source: Hatch

## Phase 2 – Draft Implementation Plan and Heads of Terms (the shortlist)

- 3.14 The shortlist describes how the initial longlist of 24 potential projects was refined to produce a shortlist of 14 projects consisting of 6 programmes.
- 3.15 In the Autumn Budget 2018, the then Chancellor of the Exchequer, Rt Hon Phillip Hammond MP, announced £120 million in funding for the North Wales Growth Deal. The Welsh Government confirmed that it would match the UK Government’s financial contribution to the North Wales Growth Deal.
- 3.16 UK Government fed back a desire to support fewer, larger projects with transformative impact. Consequently, the Draft Implementation Plan was developed, setting out a streamlined package of **14 transformational projects across 6 programmes**. These are set out below. Projects were sifted out of the longlist based on their scoring against the original CSFs and any revenue projects (e.g. the Information and Advice Gateway) were also removed.

Action	Key objective	Projects
Low carbon energy	The Programme will position North Wales as one of the leading UK locations for energy generation and energy related supply chain investment, with expertise in low carbon technologies, renewable energy and energy storage.	<ul style="list-style-type: none"> <li>• Trawsfynydd Power Station Project</li> <li>• Morlais Project</li> <li>• Smart Local Energy Project</li> <li>• Low Carbon Energy Centre of Excellence Project</li> </ul>
Advanced manufacturing programme	The Programme will capitalise on the strong network of anchor companies with an international profile, as well as world leading expertise to boost innovation and new technology to develop a powerful advanced manufacturing cluster – one which will be highly competitive on the global stage. The Growth Deal will deliver world-class resources in sector-leading facilities, building on expertise in the region to maximise economic impact from research and technology.	<ul style="list-style-type: none"> <li>• Enterprise Engineering and Optics Centre;</li> <li>• Centre for Environmental Biotechnology</li> </ul>
Land-based industries and tourism programme	The programme will build on the well-established agricultural, food and drink sector in North Wales, as well as supporting further investment in high quality tourism to extend the tourism season.	<ul style="list-style-type: none"> <li>• Glynllifon Rural Economy Hub</li> <li>• Llysfasi Carbon Neutral Centre</li> <li>• North Wales Tourism and Hospitality Centre of Excellence</li> </ul>
Land and property programme	The programme includes a package of Projects to unlock growth opportunities across the region and will directly address the shortage of suitable land and properties for business growth. The Programme will also bring forward sites for housing development.	<ul style="list-style-type: none"> <li>• Regional Land and Property Joint Venture</li> <li>• Holyhead Gateway Project</li> </ul>
Digital Programme	The programme will focus on improving the digital infrastructure and innovation in the region. It will deliver quality access to effective and affordable digital connectivity for businesses and households, and will boost innovation in digital signalling	<ul style="list-style-type: none"> <li>• North Wales Digital Connectivity Project</li> <li>• Digital Signal Processing Centre</li> </ul>
Strategic transport	The programme will improve accessibility and connectivity, to and within the region.	<ul style="list-style-type: none"> <li>• Strategic Transport Decarbonisation Project.</li> </ul>

Source: Draft Implementation Plan, 2019



- 3.17 The Skills and Employment Programme, while still key to the delivery of the Growth Vision for North Wales, was no longer included within the Growth Deal proposal at this point. It became clear during the negotiation phase that the Growth Deal funding would be capital funding with no revenue provision. With the majority of skills-based activities requiring revenue funding, the Board decided to remove the programme from the Growth Deal and to pursue separate funding streams through side deals with the Welsh Government to enable the delivery of the programme.

### **Phase 3 – Final Deal Review (the revised shortlist)**

- 3.18 As part of the journey to final deal and the development of the Programme Business Cases the Growth Deal Portfolio was reviewed once more through a review carried out by the Portfolio Management Office. The final portfolio of programmes and projects is presented below and the notable change has been to move the Regional Transport Decarbonisation project to the Low Carbon Energy Programme following a review by the Portfolio Management Office in February 2020 and formal approval by the NWEAB in June 2020. The rationale for this is that the project is focused on the renewable energy sources (e.g. hydrogen) to enable transport decarbonisation as well as their deployment. This change simplifies the Growth Deal governance structure and allows the Strategic Transport Programme to be refocused on influencing and shaping regional transport priorities and projects that sit outside the Growth Deal.

Table 3.4 Final list of Growth Deal Projects		
Action	Key objective	Projects
Low carbon energy	Unlocking the economic benefits of transformational low carbon energy projects and positioning North Wales as a leading UK location for low carbon energy generation, innovation and supply chain investment	<ul style="list-style-type: none"> <li>• Trawsfynydd Power Station Project</li> <li>• Morlais Project</li> <li>• Smart Local Energy Project</li> <li>• Low Carbon Energy Centre of Excellence Project</li> <li>• Regional Transport Decarbonisation Project</li> </ul>
Innovation in high value manufacturing programme	The Programme will capitalise on the strong network of anchor companies with an international profile, as well as world leading expertise to boost innovation and new technology to develop a powerful advanced manufacturing cluster – one which will be highly competitive on the global stage. The Growth Deal will deliver world-class resources in sector-leading facilities, building on expertise in the region to maximise economic impact from research and technology	<ul style="list-style-type: none"> <li>• Enterprise Engineering and Optics Centre</li> <li>• Centre for Environmental Biotechnology</li> </ul>
Agri-food and tourism programme	The programme will build on the well-established agricultural, food and drink sector in North Wales, as well as supporting further investment in high quality tourism to extend the tourism season.	<ul style="list-style-type: none"> <li>• Glynllifon Rural Economy Hub</li> <li>• Llysfasi Carbon Neutral Centre</li> <li>• Tourism talent network</li> </ul>
Land and property programme	The programme includes a package of Projects to unlock growth opportunities across the region and will directly address the shortage of suitable land and properties for business growth. The Programme will also bring forward sites for housing development.	<ul style="list-style-type: none"> <li>• Regional Land and Property Joint Venture</li> <li>• Holyhead Gateway Project</li> </ul>
Digital Programme	The programme will focus on improving the digital infrastructure and innovation in the region. It will deliver quality access to effective and affordable digital connectivity for businesses and households, and will boost innovation in digital signalling.	<ul style="list-style-type: none"> <li>• North Wales Digital Connectivity Project</li> <li>• Digital Signal Processing Centre</li> </ul>

Source: NWEAB

3.19 Two further programmes key to delivering the Growth Vision for North Wales sit outside the Growth Deal – Skills and Employment and Strategic Transport:

- **Skills and employment programme:** This Programme will tackle economic inactivity and deliver a co-ordinated and integrated skills and employment approach in the region. It will enable people to access support more easily and effectively, and help them gain employment and upskill, ensuring a more robust and resilient workforce to meet future employment needs. It will also increase the supply of skills in key growth sectors, and will equip people for jobs shaped by the next generation technology, driving up digital skills in North Wales.
- **Strategic transport programme:** The purpose of this programme is to enable improved accessibility and connectivity, to and within the region. A portfolio of schemes will be delivered to improve local transport infrastructure, enhancing in particular access to

employment. Congestion nodes will be tackled, transport will be better integrated and alternatives to road-based access will be developed through this Programme. A key focus will be to develop integrated transport hubs and deliver low carbon transport solutions, in urban and rural areas. The Programme will enable businesses in the region to have improved access to markets, goods, services and labour.

- 3.20 In addition to the strategic options assessment presented above, each of the Programme level business cases contains its own options assessment. Individual projects will also be required to produce their own business cases for investment in due course, with an accompanying expectation to present an options assessment as part of their value for money case.
- 3.21 The full set of projects is described in Appendix C.

## Economic Appraisal

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- 3.22 This section summarises the economic appraisals for the constituent programmes. A summary of project information is shown in appendices C and E.

### Economic Appraisal Summary

- 3.23 A summary of the key findings from the economic appraisal of the Growth Deal is provided below.

Table 3.5 Appraisal Summary Table							
		North Wales Growth Deal	Low carbon energy	Innovation in HVM	Agri-food and tourism	Land and property	Digital
<b>A</b>	Net Present Social Value (£m) (including Optimism Bias)	<b>£930 – £1,140</b> <b>(£1,122 – £1,371 on GD costs)</b>	£59 – £72 (£206 – £252)	£16 – £19 (£40 – £49)	£127 – £155 (£140 – £171)	£641 – £783 (£643 – £786)	£90 – £110 (£93 – £114)
<b>B</b>	Public sector cost (£m, undiscounted, excl. optimism bias)	<b>£424</b> <b>(£240 from GD)</b>	£227 (£86)	£39 (£13)	£37 (£25)	£81 (£79)	£40 (£37)
<b>C</b>	Appropriate Benefits Cost Ratio	<b>2.8 – 3.5</b> <b>(5.0 – 6.1 GD investment)</b>	1.1 – 1.4 (3.0 – 3.6)	1.3 – 1.6 (4.0 – 4.8)	3.8 – 4.7 (5.7 – 7.0)	7.8 – 9.6 (8.0 – 9.8)	2.9 – 3.6 (3.2 – 3.9)
<b>D and E</b>	Significant unmonetizable costs/benefits and unquantifiable factors	<ul style="list-style-type: none"> <li>• Reduced CO2</li> <li>• Inward invest.</li> <li>• Social/wellbeing benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced CO2</li> <li>• Inward invest.</li> <li>• Spin-outs</li> <li>• Social/wellbeing benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Spin-outs</li> <li>• Know. transfer</li> <li>• IP/Licensing</li> <li>• Clustering</li> <li>• Retaining young people</li> </ul>	<ul style="list-style-type: none"> <li>• Know. transfer</li> <li>• Agriculture/tourism diversification</li> <li>• Low carbon cluster dev. in agri/ tourism/food</li> <li>• Retaining young people</li> </ul>	<ul style="list-style-type: none"> <li>• Land value uplift</li> <li>• Reduced CO2</li> <li>• Transport benefits</li> <li>• Social/wellbeing benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Choice/affordability</li> <li>• Private/Inward investment</li> <li>• Technology commercialisation</li> <li>• Social/wellbeing benefits</li> <li>• Rural sustainability</li> </ul>
<b>F</b>	Risk costs by type & residual optimism bias	Through their own business cases, each project will be expected to consider and demonstrate how they have mitigated potential optimism bias in their costings and proposed timetables. At this stage, to be conservative, we have applied the upper bound optimism bias benchmark factor for standard buildings from HM Treasury guidance to the capital costs for all programmes at <b>24%</b> .					
<b>G</b>	Switching values (for the preferred option only)	70% -89% deterioration in core assumptions and benefits	70% deterioration in our core impact modelling assumptions	77% reduction in job creation	84% reduction in job creation and economic value associated with tourism skills	89% reduction in job creation	75% reduction in take-up of fixed/ mobile broadband, start-up benefits & benefits generated through the DSP.
<b>H</b>	Time horizon and reason	15 year appraisal period used All infrastructure assets will have a residual value at this point					

Source: Hatch

## Key appraisal parameters

### Time period

- 3.24 The benefits and costs are measured over a 15-year period to 2036 and future values are discounted at 3.5% per annum in line with HM Treasury guidance. All values are expressed in constant 2020/21 prices.

### Additionality

- 3.25 The assessment captures both gross and net additional benefits. The additionality assessment includes the following:
- Deadweight: benefits that would have taken place anyway in the absence of the investment (e.g. business growth not attributable to the Growth Deal investments)
  - Displacement: benefits that are displaced from elsewhere in North Wales (e.g. through a relocation of an existing business in Wales into new employment floorspace provided or growth in a supported business at the expense of market share for another business in North Wales)
  - Leakage: benefits that accrue to residents or businesses outside North Wales (e.g. if new jobs are taken by residents of an adjacent region in England)
  - Multipliers: further knock-on benefits generated within supply chains (indirect effects) and from the expenditure of employees (induced effects).
- 3.26 Full details on how these factors have been applied to the programmes are set out in the technical Appendix E.

## Costs

### Public sector costs

- 3.27 The total project cost across all of the programmes is **£1.1 billion** (2020/21 prices). Of this total, **£240 million** is requested from the Growth Deal, **£184.3 million** is expected to come from other public sector sources and **£722 million** is committed by the private sector. A breakdown of the costs is provided below by Programme and project.
- 3.28 We have discounted the total public sector costs at 3.5% to provide a Net Present Value (NPV), in line with HM Treasury Green Book Guidance.

Table 3.6 Growth Deal Projects (£m, 2020/21 prices, undiscounted; Net Present Cost discounted at 3.5% p.a. No Optimism Bias)

Programme	Project	Total investment	Growth Deal investment	Other public sector investment	All public sector NPC
Low carbon energy	Morlais	36.0	9.0	27.0	34.2
	Low Carbon Economy Centre of Excellence	97.7	21.0	75.7	91.9
	Trawsfynydd Power Station	400.0	20.0	20.0	36.0
	Transport Decarbonisation	28.6	11.4	11.5	21.7
	Smart Local Energy Network	106.2	25.0	6.2	31.2
High value manufacturing and innovation	Centre for Environmental BIOTECHnology	9.6	3.0	6.6	9.1
	Enterprise Engineering & Optics Centre	29.8	9.9	19.8	28.3
Agri-food and tourism	Glynllifon Rural Economy Hub Project	13.0	10.0	3.0	12.3
	Llysfasi Carbon Neutral Centre	15.4	10.0	2.7	12.1
	Tourism TALENT Network	12.9	4.5	6.7	10.7
Land and property	Holyhead Gateway	80.0	35.0	0.0	32.7
	Regional Land and Property Joint Venture	275.4	44.1	1.9	42.0
Digital	Full fibre	7.2	6.8	0.0	6.0
	Connecting the final %	4.0	4.0	0.0	3.5
	Connected Campus	21.0	21.0	0.0	18.5
	Connected Corridor	2.2	2.2	0.0	1.9
	Digital Signal Processing Centre Project	7.3	3.0	3.1	5.8
<b>Total, North Wales Growth Deal</b>		<b>1,146.4</b>	<b>240.0</b>	<b>184.3</b>	<b>398.0</b>

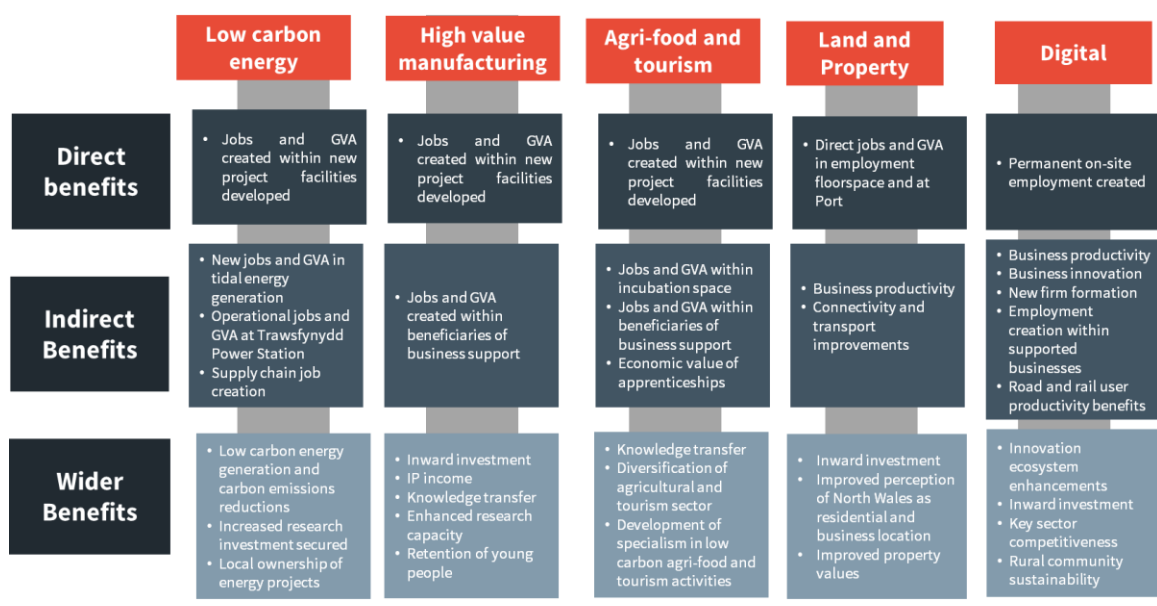
Source: NWEAB

## Benefits measured

- 3.29 In developing each of the five programmes for the Final Deal, a high-level assessment of the relevant economic benefits has been produced. Each of the programmes will generate a set of benefits that have been classed as direct, indirect and wider benefits. The precise nature of these vary between the programmes. The key types are summarised below, by programme.
- 3.30 The core measures across all programmes and projects are jobs and Gross Value Added (GVA) created, reflecting the core spending objectives of the Growth Deal. Growth in GVA is a function of both sectoral growth (with accompanying growth in jobs) and productivity enhancements (e.g. generated by investments in digital infrastructure).



Figure 3.2 Benefits Framework



Source: Hatch

3.31 The benefit-cost assessment focusses on those direct and indirect economic benefits that have been possible to quantify and monetise at this stage. These are set out by programme below.

Table 3.7 Benefits monetised within Benefit-Cost Assessment		
	Direct impacts	Indirect impacts
Low carbon energy	Direct jobs and GVA within facilities developed	Operational jobs associated with investment in new energy infrastructure Supply chain effects associated with gross direct jobs
Innovation in high value manufacturing	Direct jobs and GVA within facilities developed	Jobs and GVA created within beneficiary businesses
Agri-food and tourism	Direct jobs and GVA within facilities developed	Jobs and GVA created within beneficiary businesses Economic value of apprenticeship completions
Land and property	Direct on-site jobs and GVA in new employment floorspace and at Holyhead Port	Supply chain effects associated with gross direct jobs
Digital	On-site jobs and GVA generated	GVA and employment gains generated through enhanced business productivity and innovation and business creation

Source: Hatch

- 3.32 The assessment also captures temporary construction effects associated with the capital investments. Whilst not included in the benefit-cost ratio, given the scale of investment these will support significant numbers of jobs in construction and other related sectors. This will help support the economy at a time when there is likely to be spare capacity as a result of the COVID-19 crisis.
- 3.33 The assessment of economic benefits then draws on the programme level assessments. This cost-benefit assessment at the programme level uses an economic impact model and is in turn, based on the latest business planning assumptions for the constituent projects within each programme.
- 3.34 It should be noted that the economic cases for individual projects within the Growth Deal are still currently being developed and will evolve. Rather than pre-empt these project-level assessments, the purpose of the programme- and portfolio-level assessment is to set out the expected order of magnitude of impacts and the underlying drivers of these, in order to demonstrate value for money. Therefore, the figures presented at this portfolio level are expressed as a reasonable range.
- 3.35 The economic appraisals by project are set out in Appendix E.

## Gross benefits

- 3.36 In total the North Wales Growth Deal programmes are expected to create in the order of **£3.3 to £4.0 billion** in gross GVA up to 2036, and **6,200 to 7,550 FTE jobs** per annum at steady state.
- 3.37 The Land and property programme can be expected to be the largest contributor to gross benefits, accounting for around 60% of the programme total in terms of GVA and 54% in terms of employment creation.

Table 3.8 Gross Economic Benefits (GVA is cumulative to 2036 and expressed in 2020/21 prices, undiscounted; jobs are annual at steady state)

	GVA (£m)	Jobs Created (FTEs)
Low carbon energy	440 – 540	780 – 950
Innovation in high value manufacturing	90 – 110	300 – 360
Agri-food and tourism	470 – 580	640 – 780
Land and property	1,940 – 2,380	3,370 – 4,110
Digital	310 – 380	1,090 – 1,340
<b>Total, North Wales Growth Deal</b>	<b>3,260 – 3,990</b>	<b>6,170 – 7,550</b>

Source: Hatch calculations based on project level data. Rounded to the nearest £10m/10 FTEs. Ranges apply a ± 10% margin of error.

- 3.38 We also estimate that the Growth Deal investments will support 11,500 gross direct FTE person years of employment in the construction sector over the period of the construction of the relevant assets.

## Net additional benefits

- 3.39 After taking account of likely levels of additionality within the projects and programmes, the Growth Deal programmes are expected to generate a total of **£1.97 to £2.41 billion** in net additional GVA, and **3,400 to 4,200 net additional FTE jobs** per annum at steady state.
- 3.40 A breakdown across all of the projects is provided in Appendix E.

Table 3.9 Net Additional Economic Benefits (GVA is cumulative to 2036 and expressed in 2020/21 prices, undiscounted; jobs are annual at steady state)

	GVA (£m)	Jobs Created (FTEs)
Low carbon energy	430 - 530	800 – 980
Innovation in high value manufacturing	90 – 110	150 – 180
Agri-food and tourism	230 – 280	310 – 380
Land and property	1,060 – 1,290	1,870 – 2,280
Digital	150 – 190	310 – 380
<b>Total, North Wales Growth Deal</b>	<b>1,970 – 2,410</b>	<b>3,440 – 4,210</b>

Source: Hatch calculations based on project level data. Rounded to the nearest £10m/10 FTEs. Ranges apply a ± 10% margin of error.

### Discounting and Optimism Bias

- 3.41 Prior to calculating the final Benefit Cost Ratio (BCR), we have discounted all costs and benefits at 3.5%, in line with HM Treasury Green Book Guidance.
- 3.42 We have also applied Optimism Bias to these figures. Through their own business cases, the projects will be expected to consider and demonstrate how they have mitigated potential optimism bias in both their costings and their proposed timetables, as well as project risks. At this stage, in order to be conservative, we have applied the Upper Bound Optimism Bias factor to the capital costs for all programmes of 24% (for standard buildings).
- 3.43 This brings the total public sector cost after optimism bias to £484 million (discounted, 2020/21 prices), of which £273 million is accounted for by the Growth Deal investment.
- 3.44 It is important to note that the Project Sponsor for each programme will be liable for any cost overruns. The Growth Deal contribution will be capped at the £240 million requested.

**Table 3.10 Total Public Sector Cost Before and After Applying Optimism Bias and Discounting (£m, 2020/21 prices)**

	Growth Deal	Other public sector	<b>Total Public sector cost</b>
Total, before OB & discounting	240.0	184.3	<b>424.3</b>
Total, after OB & discounting	273.1*	211.0	<b>484.1</b>

Source: Hatch calculations based on project level data. \*This is not the value of requested Growth Deal funding, any costs above the £240m request would be covered through wider funds.

### Benefit-cost ratio

- 3.45 Drawing the analysis together, the Growth Deal Programme has an estimated benefit-cost ratio of between **2.8:1 and 3.5:1**, i.e. for every £1 in public sector investment (after Optimism Bias) the Growth Deal is expected to return net additional economic benefits of between £2.80 and £3.50. This rises to between £5.00 and £6.10 for every £1 of Growth Deal investment only. The breakdown by programme is provided in the Appraisal Summary Table at the end of this section.
- 3.46 This places the overall Growth Deal into the category of “high” value for money, as defined by Central Government.<sup>24</sup>

**Table 3.11 Benefit-Cost Ratio (£m, 2020/21 prices)**

	Based on Total Public Sector Cost	Based on Growth Deal cost only
Discounted net additional benefits	£1,370m - £1,670m	
Discounted costs, after optimism bias	£488m	£273m
Net Present Social Value	<b>£930 – £1,140</b>	<b>£1,120 - £1,370</b>
BCR	<b>2.8:1 - 3.5:1</b>	<b>5.0:1 - 6.1:1</b>

Source: Hatch calculations based on project level data

<sup>24</sup> See, for example,

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/918481/value-for-money-supplementary-guidance-on-categories.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918481/value-for-money-supplementary-guidance-on-categories.pdf)

## Risk and Sensitivity Analysis

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### Risk

- 3.47 There are a number of risks to generating the scale of impacts that have been estimated above. We set out below the common risks that exist across the Growth Deal programmes alongside a brief explanation of their implications for benefit creation and mitigating actions.

Risk	Likelihood	Impact	Implications	Mitigating Actions
Take-up & Demand	Medium	High	Reducing the potential to generate user benefits	To intervene where we know that demand and need is strong and in infrastructure that facilitates growth, productivity and innovation to support economic resilience and recovery.
External operating environment	High	Medium	Uncertain economic conditions (e.g. resulting from COVID-19/Brexit) could reduce the ability among businesses / individuals to grow and benefits from GD interventions.	To develop programme-level marketing strategies, to engage with users and stakeholders. To deliver programme that will flex to the needs of users, including as they change in response to COVID-19/Brexit.
Additionality	Low	Medium	Reducing the net additional benefits that result from GD investment	To intervene where there is clear market failure, underinvestment and in response to local need.
Benefit creation	Medium	Medium	(i.e. the value of job creation, potential for market capture, business growth & increased productivity)	To invest in productivity enhancing technologies, connectivity and infrastructure and in higher value employment/cluster with potential for growth in North Wales.

Source: Hatch

## Sensitivity Assessment

- 3.48 A sensitivity analysis has been conducted across all of the programmes individually, by stress testing the value for money of each programme in response to changes in a number of key assumptions. These key assumptions/variables reflect the risks outlined above and include demand and adoption, additionality, average benefits (GVA and jobs created) and programme costs.
- 3.49 A summary of these sensitivity analyses is provided in the table below, picking out the worst-case scenario from each programme and commenting on the factors that have been tested. The overall message is that the programmes perform robustly in terms of value for money in the face of a number of stress tests. We provide the detailed sensitivity analysis undertaken for each programme in Appendix G.

		NPV Net Additional GVA	BCR
	Central Case	£329m	3.3 : 1
	Worst Case	£166m	1.6 : 1
High value manufacturing and innovation	Central Case	£57m	4.4 : 1
	Worst Case	£43m	3.3 : 1
Agri-food and tourism	Central Case	£182m	6.4 : 1
	Worst Case	£138m	4.8 : 1
Land and property	Central Case	£804m	8.9:1
	Worst Case	£535m	5.9:1
Digital	Central Case	£144m	3.5:1
	Worst Case	£116m	2.9:1

Source: Hatch calculations based on project level data

## Wider Benefits

3.50 As set out above, it is also important to recognise that there is a set of wider economic benefits delivered by the Growth Deal. These have not been monetised as it has not been possible to do this in a robust fashion. They are nonetheless a significant consideration in the value for money case for the programmes. These include the following:

- Inward investment
- Key sector development and competitiveness
- Enhanced research and innovation capacity
- Retention of young people
- Rural sustainability.

## 4. The Commercial Case

- 4.1 The Commercial case sets out the commercial and procurement strategies, key contractual arrangements as well as other commercial aspects materially relevant to the programme.

### Commercial Strategy

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- 4.2 The NWEAB is committed to maximising the impact of the North Wales Growth Deal.
- 4.3 The primary driver for all projects within the Growth Deal is to deliver economic and social benefits to North Wales in line with the strategic outcomes set out in the portfolio business case. The Growth Deal aims to maximise private sector direct investment and leverage across the portfolio.
- 4.4 The NWEAB recognise that there is significant potential across the portfolio to generate a commercial return on investment that could be reinvested in the region. Each project business case will be expected to explore commercial investment opportunities. These opportunities may include provision of Growth Deal funding as a loan, investment or profit share arrangement (subject to relevant project state aid advice).
- 4.5 The NWEAB expects to generate a return on investment across the overall portfolio, with a particular focus on opportunities within the Land and Property and Low Carbon Energy programmes that would subject to UK and Welsh Government agreement be reinvested in the region.
- 4.6 Procurement represents a significant commercial opportunity for the North Wales Growth Deal. Collaborative procurement opportunities will be explored where appropriate across the Growth Deal in line with the procurement strategy outlined below.

### Procurement Strategy

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- 4.7 The Board is committed to securing value for money and maximising benefits to the region through the North Wales Growth Deal. Procurement will play a key role in the delivery of the Growth Deal projects but also in the realisation of benefits to the region. This section sets out the approach that the Board will take to procurement, with a particular focus on maximising social and community benefits to be delivered through procurement activity.

#### Policy Drivers

- 4.8 The following represents some of the key policy drivers that set the framework against which the NWEAB Procurement Strategy will deliver:
- **North Wales Growth Vision** – The North Wales Growth Deal is a key component of delivering the Growth Vision for North Wales. The adopted Vision is to develop “a confident, cohesive region with sustainable economic growth, capitalising on the success of high value economic sectors and our connection to the economies of the Northern Powerhouse & Ireland.”. The Growth Vision was founded on three key principles:
    - **Smart North Wales** – with a focus on innovation and high value economic sectors to advance economic performance.
    - **Resilient North Wales** – with a focus on retaining young people, increasing employment levels and skills to achieve inclusive growth.



- **Connected North Wales** – with a focus on improving transport and digital infrastructure to enhance strategic connectivity to and within the region.
- **The Wellbeing of Future Generations (Wales) Act** – The Act is focused on the principles of sustainable development and places a duty on Public Bodies to work in new ways to improve the economic, social, environmental and cultural wellbeing across Wales. The Act will provide an overarching framework for the procurement approach and we will use the lens of the act to align with this principles below as a framework.

The Act promotes five ways of working – Long Term, Prevention, Integration, Collaboration and Involvement towards seven wellbeing goals. The ways of working and seven wellbeing goals will be incorporated within all Growth Deal project and procurement activities and project delivery will contribute to the 46 national indicators for well being in Wales <https://gov.wales/well-being-wales-national-indicators>

As set out in the Future Generations report 2020, Sustainable procurement practices using the Act as a framework can:

- Reduce our greenhouse gas emissions and contribution to climate change (A Prosperous Wales and A Globally Responsible Wales)
- Improve our natural environment and protect biodiversity (A Resilient Wales)
- Build more cohesive communities with thriving social enterprises and Small and medium sized enterprises (A Wales of Cohesive Communities)
- Support better physical and mental health (A Healthier Wales)
- Deliver decent work with fair and equal pay conditions (A More Equal Wales)
- Reflect the diversity and culture of all our communities (A Wales of Thriving Culture and Vibrant Welsh Language)
- Encourage greater ethical and global citizenship (A Globally Responsible Wales)

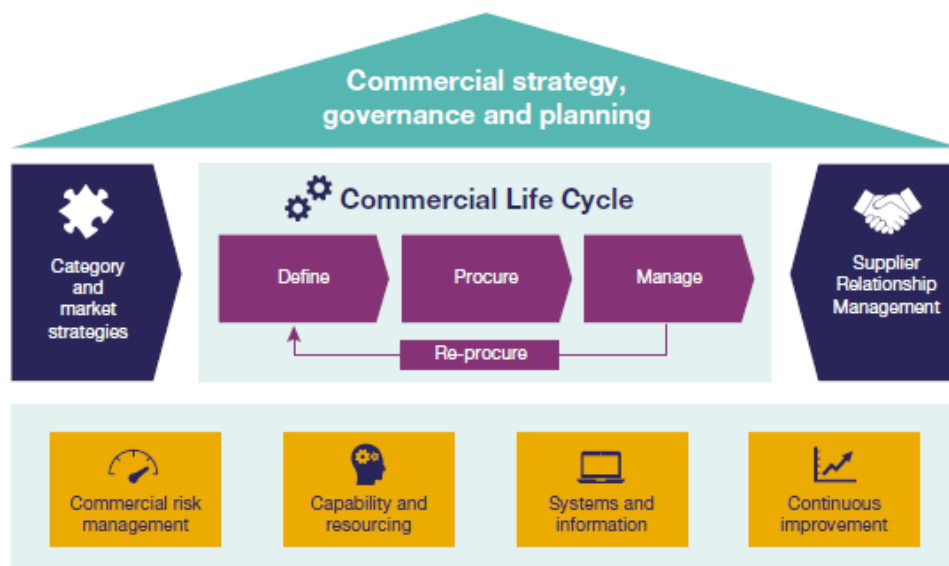
Figure 4.1. Sustainable Procurement Practices Applying the **Wellbeing of Future Generations (Wales) Act**



Source: Future Generations report 2020

- **Public Contract Regulations 2015** - The overarching procurement legal framework, with which the Council and all other public bodies must comply. They are a key part of the Welsh Public Procurement Policy and compliance is required under the Accountable Body's Contract Procedure Rules.
- **Welsh Public Procurement Policy Statement** – A set of 10 principles by which the Welsh Government expects public sector procurement to be delivered in Wales.
- **Welsh Government Code of Practice Ethical Employment in Supply Chains** – to ensure lawful and ethical practices are evident throughout all commissioning, procurement and contract management activities and also the supply chain.
- **Socio Economic Duty ( implementation in March 2021)** - The overall aim of the duty is to deliver better outcomes for those who experience socio-economic disadvantage. This is supported through a duty on specified public sector organisations ensuring that those taking strategic decisions take account of evidence and impact, engage and consult, understanding the needs of those who suffer socio economic disadvantage, being open to challenge and change the approach to decision making.
- **Prosperity for all: A low carbon Wales** - Aligning with the Paris Agreement focused on moving towards decarbonisation. The plan sets out the foundations for Wales to transition to a low carbon nation. Cutting emissions and moving towards a low carbon economy ensuring a fair and health society. The Environment (Wales) Act 2016 requires Welsh Government to reduce emissions of greenhouse gases in Wales by at least 80% for the year 2050.
- **Government Commercial Operating Standards** – the purpose of this standard is to set expectations and drive consistency in the planning, management and execution of commercial activities, ensuring contracts and relationships with suppliers realise value for money and result in delivery of high-quality public services.

Figure 4.1 Commercial, Strategy & Governance Planning



Source: NWAEB

## Procurement Principles

4.9 The following procurement principles will upon adoption underpin all Growth Deal procurement activity:

- Regional Leadership
  - The NWEAB will have a clear strategy and principles for achieving innovative and sustainable procurement practices with clients, contractors and communities working together
  - The NWEAB will engage with contractors and supply chain in an open and transparent manner with a two way exchange
  - The NWEAB will promote and champion collaborative procurement opportunities, supporting innovation and growth
  - The NWEAB will work with the PSB's and directly support the local wellbeing plans and evolving community resilience plans for the region to recover and build back fairer and better
  - The NWEAB will promote and champion the delivery of social value and community benefits through procurement activity align with and test key policies such as the socio economic duty and the social partnerships bill.
  - The NWEAB will embed 'The Wellbeing of Future Generations (Wales) Act 2015' lens into all procurement activity contributing where relevant to the 46 national wellbeing indicators for Wales.
- Engagement and supply chain support, and the Foundational economy
  - Engage in two way exchange with partners, contractors and communities and ensure local and regional needs and priorities are part of the social value clauses
  - Support and improve access for SMEs and support collaboration between SMEs within the region.
  - Open and fairness support local supply chains to engage with larger contracts through supply chain briefings and joint bidding opportunities and pipeline of projects.
- Skills, Jobs & Growth
  - Focus on innovative targeted recruitment and training working with our partners to ensure we support people to retrain, develop new skills through volunteering or contribute to education/apprenticeships.
  - Target opportunities and engage with existing mechanisms to support this and target specific groups such as young people or those in areas of deprivation to engage in education and learning/development.
- Contribution to education and supporting young people
  - Work with evolving projects such as the Children's University to support contractors engage and deliver learning and skills development for young people.
  - Support engagement and connections with schools to offer opportunities to all support the new Curriculum 2022 in Wales, with a focus on digital inclusion.

- Community resilience and wellbeing
  - Work directly with the PSB to include community resilience and wealth building developing assets in our communities to include supporting positive mental health in workforces, supply chain and in communities
  - Engage with new partnership such as museums, theatres and arts to support developing our cultural and Welsh language considerations in contract opportunities.
  - Work with procurement partners and third sector organisations to maximise community wealth building opportunities.
  - Support and engage with the third sector in a valued based approach that support resilience in the third sector to work with and support contractors and the supply chain.
- Environmental Sustainability and Green Recovery
  - Ensure we have environmental considerations in contract opportunities, minimising our impact on the environment and supporting new technologies, approaches and innovation with contractors and the supply chain, with a focus on the circular economy
  - Seek to minimise the carbon footprint of projects and support low carbon economy, focused on the commitment by Welsh Government to achieve a carbon neutral public sector by 2030, reducing greenhouse gases, improving our natural environment and protecting our biodiversity.
- Innovation and new practices
  - Test and explore new ways of working with all partners to seek to maximise value from regional collaboration
  - Establish effective arrangements for monitoring impact, exploring the most appropriate tool to do this
  - Work collaboratively across the partnership to effectively resource procurement activity and focus on developing and delivering new forums to support capacity and capability to use procurement as an effective tool such as community of practices etc.

## Social Value and Community Benefits

- 4.10 A key focus of this procurement strategy is to ensure we support the regional economic, social, cultural and environmental wellbeing working across sectors and with contractors and communities to ensure we do this in the best way. The social value tool we have as part of the procurement process is vital to support the recovery post COVID 19, aligning with the lens of the Wellbeing of Future Generations (Wales) Act 2015 and key policies such as the new procurement landscape in Wales and the coronavirus reconstruction we are committed to maximise the value from the North Wales Growth Deal.
- 4.11 We will work directly with the 3 Joint Public Service Boards (across North Wales) and ensure the local community resilience plans and projects are supported with social clauses set in the contracts focused on tackling poverty and inequality, supporting children and young people, protecting the environment and supporting positive mental health and wellbeing. In the principles set we will

ensure that we engage with partners, contractors and communities, being open, fair and innovation in our approaches.

## **Procurement Resourcing**

- 4.12 The Project Sponsor will be responsible for resourcing all procurement activities in line with the NWEAB Procurement Strategy and their own procurement policies where appropriate. For regional projects, the Programme Office will be responsible for all procurement activities.
- 4.13 The NWEAB Procurement Strategy will be key in supporting the region to deliver and achieve the desired benefits from the Growth Deal. The Programme Office will have oversight of all procurement activity across the partnership to ensure the principles and approach set out in this strategy are supported consistently across each project and that the benefits to be derived from procurement activity are mapped, monitored and maximised.

## **Contractual Relationships**

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### **Key Partnerships**

- 4.14 The Board acts as funders for the projects within the five Growth Deal programmes.
- 4.15 As a result, contractual relationships required will be between Gwynedd County Council as the Accountable Body for the NWEAB and the relevant Project Sponsors delivering the projects. The Project Sponsors will then require appropriate contractual relationships with any contractors or suppliers procured to deliver the projects.
- 4.16 The nature of these contractual relationships will be set out in the commercial case of each project business case.
- 4.17 Each project will report back to the Programme Board and NWEAB in line with the approach set out in the Management Case.

### **Stakeholder Relationships**

- 4.18 For each Growth Deal programme, the Programme Manager and Programme Board will be responsible for managing stakeholder relationships at the programme level. At project level this will be the responsibility of the Project Sponsor with the approach set out in the Project Business Case.

## **Service Requirements, Outputs and Risk Allocation**

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- 4.19 Service requirements, outputs and risk allocation strategies will be set out within each project business case and will be a matter for the Project Sponsor to manage according to their own structure and procedures in line with the overall procurement and commercial strategies set out by the NWEAB. Specific detail on how the Project Sponsors will manage their risks will also be set out in the project business cases.
- 4.20 Projects will also be required to provide regular updates on procurement activities to the PMO and relevant Programme Board.

## Charging Mechanism

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- 4.21 Projects will be required to set out the appropriate charging mechanisms as part of the project business cases. This exercise should include an assessment of the appropriate charge mechanisms for pre-delivery, design and build phases and whether to apply a fixed price/cost mechanism or to use payment on delivery of agreed outputs/targets. To protect the supply chain and ensure fair and prompt payment, projects will be required to put in place Project Bank Accounts (PBAs) for all significant procurements. This requirement is in line with Welsh Government policy.

## Asset Ownership, Management and Accountancy Treatment

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### Ownership

- 4.22 The assets delivered through the programmes will be primarily owned by the Project Sponsors. Regional assets are covered in the 'Accountancy Treatment' section below.

### Management

- 4.23 The Project Sponsor will be responsible for the management, resourcing, service delivery and maintenance of the assets delivered through the programme.

### Accountancy Treatment

- 4.24 Assets that have physical substance and are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes and that are expected to be used during more than one financial year are classified as Property, Plant and Equipment. Assets constructed or held as part of a project delivered within the portfolio will be disclosed and held on the Balance Sheet within the Project Lead Authority responsible for the delivery of such project.
- 4.25 Assets constructed or held as part of a regional project within the portfolio will be proportioned accordingly or reside within the balance sheet of the Accountable Body or a special purpose vehicle established by the NWEAB. The NWEAB itself will not hold physical assets and provision will be made in the Governance Agreement 2 for the holding and ultimate disposal of such assets.

## State Aid

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- 4.26 The Growth Deal and specifically the projects to be funded will need to comply with the relevant State Aid regulations in place. At present these are the EU State Aid regulations, however with the United Kingdom leaving the European Union in January 2021 it is noted these regulations may change.
- 4.27 As a complex portfolio of 14 transformational projects delivered across five programmes, it is recognised that there will be different state aid considerations for different projects.
- 4.28 The State Aid implications of specific projects will be considered in detail during the development of the project business cases with specific legal advice sought where necessary.
- 4.29 The State Aid advice received as part of the development of project business cases will inform what funding models the NWEAB may consider for each project.

## Personnel Implications

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- 4.30 **Portfolio and Programme Level** – The NWEAB has created and resourced a Portfolio Management Office (PMO) to oversee the delivery of the Growth Deal. These resources will be responsible for the delivery of the overall portfolio and for programme management arrangements.
- 4.31 **Project Level** – Each Project Sponsor will be responsible for ensuring the right resources are in place for the delivery of the projects. For regional projects where the NWEAB is the Project Sponsor, these resources will be provided from the PMO.

## 5. The Financial Case

### Capital & Revenue Requirements

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#### Capital Requirements

- 5.1 The North Wales Growth Deal is based on the delivery of fourteen projects across five programmes with an anticipated total capital expenditure of up to £1.1 billion, of which £240million is derived from the Growth Deal with the remainder provided by public and private sector partners.
- 5.2 The capital expenditure requirements are based on the latest available project business cases and aggregated up to provide the programme estimates.
- 5.3 A breakdown of capital expenditure is provided below.
- 5.4 The Project Sponsor for each programme will be liable for any cost overruns. The Growth Deal contribution will be capped at the £240 million requested.

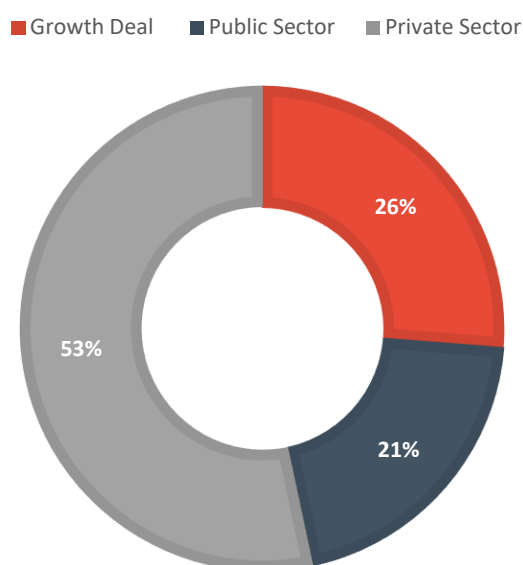


Figure 5.1 Capital Expenditure Breakdown

Project		Lead Partner	Growth Deal Investment (£m)	Other Public Sector Investment (£)	Private Sector Investment (£)	Total Capital Investment (£)
<b>Digital Programme</b>						
Digital Signal Processing Centre Project		Bangor University	3.0	3.1	1.1	7.3
Digital Connectivity Project	Full Fibre at key sites	NWEAB	6.8	-	411.0	7.2
	Connected Corridor	NWEAB	2.2	-	-	2.2
	Advanced Connectivity ('Connected Campus')	NWEAB	21.0	-	-	21.0
	Last few %	NWEAB	4.0	-	-	4.0
<b>Low Carbon Energy Programme</b>						
Morlais		Menter Môn	9.0	27.0	-	36.0
Low Carbon Energy Centre of Excellence		Bangor University	21.0	75.7	1.0	97.7
Trawsfynydd Power Station		TBC – Welsh Government	20.0	20.0	360.0	400.0
Transport Decarbonisation		NWEAB	11.4	11.5	5.7	28.6
Smart Local Energy		NWEAB	25.0	6.2	75.0	106.2
<b>Land and Property Programme</b>						
Holyhead Gateway		Stena Line	35.0	-	£45.0	80.0
Land and Property Project	Warren Hall	NWEAB/WG	15.0	-	£55.0	70.0
	Former North Wales Hospital, Denbigh	NWEAB/Jones Bros Ltd, DCC	4.0	-	£70.0	74.0
	KSS, Bodelwyddan	NWEAB	10.0	-	£72.0	82.0
	Parc Bryn Cegin	NWEAB/WG	6.0	-	-	6.0
	Western Gateway, Wrexham	NWEAB/Wrexham Council	9.1	£1.9	£32.4	43.4
<b>Innovation in High Value Manufacturing</b>						
Centre of Environmental BIOTECHnology		Bangor University	3.0	6.6	-	9.6
Enterprise Engineering & Optics Centre		Glyndwr University	10.0	19.9	-	29.8
<b>Agrifood and Tourism Programme</b>						
Glynllifon Rural Economy Hub Project		Grŵp Llandrillo Menai	10.0	3.0	-	13.0
The Llysfasi Carbon Neutral Farm		Coleg Cambira	10.0	2.7	2.7	15.4
Tourism TALENT Network		Grŵp Llandrillo Menai	4.5	6.7	1.7	13.0
<b>GROWTH DEAL TOTAL</b>			<b>240.0</b>	<b>184.3</b>	<b>722.1</b>	<b>1,146.4</b>

Source: NWAEB

Figure 5.2 North Wales Growth Deal Funding Apportionment



Source: NWEAB: Hatch

## Revenue Requirements

- 5.5 No revenue funding is provided through the Growth Deal for the delivery of the projects or the operational running costs of the project once completed.
- 5.6 Revenue funding to support the Portfolio Management Office is provided through NWEAB partner contributions (including supplementary Local Authority contributions) and additional ESF funding has also been secured for the first three years of operation (from May 2020). An amount equivalent to the 'top slice' of the annual government grant at 1.5% can also be used to fund this, subject to Welsh Government flexibility to manage funding. Any additional Portfolio Management Office costs directly attributable to the delivery of the projects will be accounted for within project business cases.
- 5.7 Operational revenue requirements for the projects once the capital expenditure is completed is the responsibility of the Project Sponsor for every project. For further detail on operational costs, see Programme Business Cases.

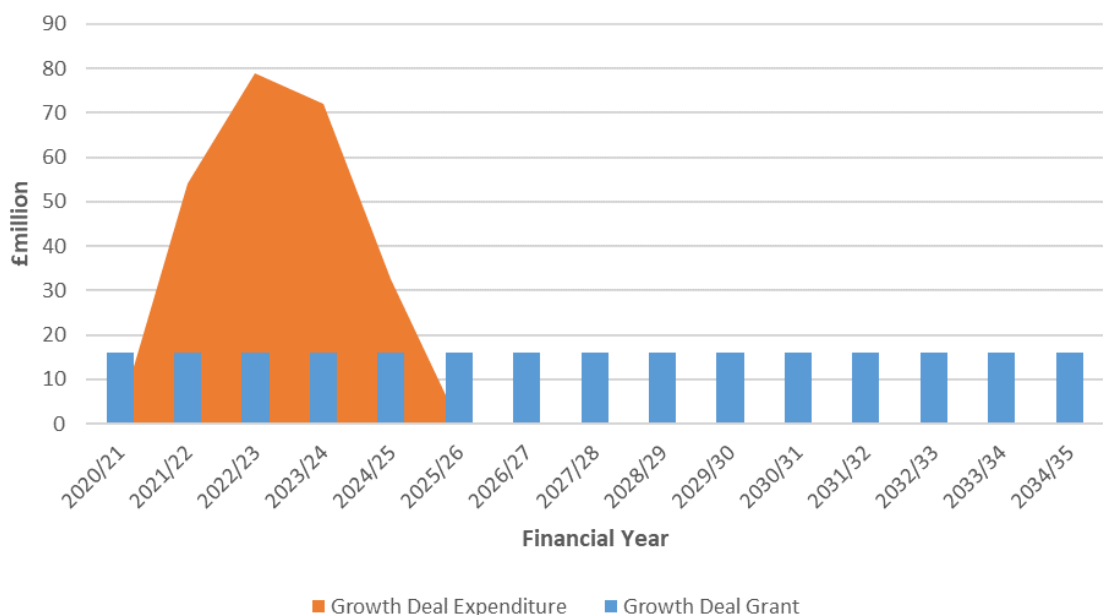
## Income and Expenditure Summary

- 5.8 A total of £240m grant contribution to the North Wales Growth Deal is provided by the UK and Welsh Government over a 15 year period.
- 5.9 Funding for projects will only be released by the Accountable Body upon the successful approval of project business cases by the NWEAB. The arrangements for the drawdown of funding from the NWEAB to Project Sponsors will be set out in the project business cases.
- 5.10 Due to the nature of the annual Growth Deal grant payments from government, there is a medium-term temporary funding gap between the expected expenditure profile of the Growth Deal and

the funding received. The NWEAB through the Accountable Body will be responsible for managing this negative cashflow.

- 5.11 The Portfolio Income and Expenditure forecast is shown in figure 5.2 below. This covers the flow of Growth Deal funding from the NWEAB to Project Sponsors and the grant received from UK and Welsh Government. It does not show total project expenditure.

**Figure 5.3 Growth Deal Funding – Income and Expenditure Profile**



Source: NWEAB: Hatch

- 5.12 The NWEAB and the Accountable Body have worked with Arlingclose to model the cost of borrowing notionally required to facilitate the negative cash flow for the Growth Deal and the corresponding annual partner contributions required to meet this cost. In modelling this work, the NWEAB have adopted the principle that borrowing would only take place when needed (i.e. to fund the projects) in order to achieve best value for public funds. With a range of assumptions to consider the NWEAB have modelled a best and worst case scenario, to reflect the timing of finalising the Growth Deal and consequential timing of government grant funding. The NWEAB will utilise its retained NNDR grant from Welsh Government to offset against the negative cashflow with the net total cost (£12.46-£17.73m) met by the local authorities (proportional to population) for regional NWEAB projects and with Project Sponsors responsible for the cost in relation to their project.

## Project Maturity

5.13 Projects within the Growth Deal are currently at different levels of maturity as shown by the table below.

Project	Business Case Stage	Summary
Digital Signal Processing Centre Project	<b>OBC</b>	Project is currently developing an OBC for presentation to NWEAB for approval.
Digital Connectivity Project	<b>SOC</b>	The four projects are ready to progress to the development of an OBC.
Morlais	<b>OBC</b>	The project is currently progressing to OBC stage.
Low Carbon Energy Centre of Excellence	<b>OBC</b>	The project is progressing to OBC stage.
Trawsfynydd Power Station	<b>SOC</b>	The project is at an early stage of development.
Transport Decarbonisation	<b>SOC</b>	The project is currently at concept stage.
Smart Local Energy	<b>SOC</b>	The project is currently at concept stage.
Holyhead Gateway	<b>Project Review</b>	The project scope is to be reviewed to assess the economic and societal impact of the Port of Holyhead on the regional, Welsh, UK and RoI in light of the proposed investment into the port given the indicative increase in costs.
Land and Property Project	<b>SOC</b>	All four sites in the first phase are at different stages of development with the most mature ready to proceed to OBC stage.
Centre of Environmental BIOTECHnology	<b>SOC</b>	Project is ready to progress to the development of an OBC.
Enterprise Engineering & Optics Centre	<b>SOC</b>	Further work is required to demonstrate the complementarity to existing initiatives in North Wales before proceeding to OBC.
Glynllifon Rural Economy Hub	<b>OBC</b>	Project has a well-developed OBC in place with minor revisions required before presentation to NWEAB for approval.
Llysfasi Carbon Neutral Farm	<b>SOC</b>	Project is ready to progress to the development of an OBC.
Tourism Talent Network	<b>Project Review</b>	An OBC was in place for the project pre-covid, however the project scope is to be reviewed to assess the impact of COVID-19.

Source: NWEAB

## Private Sector Funding

5.14 The table below provides an overview of the nature and scale of planned private sector investment in each project.

Table 5.2 Project Level Private Investment Summary

Project	Direct Private Sector Funding (£)	Summary
Digital Signal Processing Centre Project	£1.15m	Investment from technology partners seeking to benefit from the R&D outputs
Digital Connectivity Project	£0.41m	Costs attributable to local SME users connecting to new networks in Full Fibre (key sites project). All other project options assume 100% NWEAB investment to deliver. Scope to lever private investment will be explored through project business cases.
Morlais	-	No direct private sector investment. Private sector investment will be indirectly leveraged once the grid connection infrastructure is in place, with developers investing circa £2.5-4m per MW installed.
Low Carbon Energy Centre of Excellence	£1m	This contribution will come from a range of existing industrial partners, predominantly in the form of in-kind contributions, including capital equipment and expertise.
Trawsfynydd Power Station	£360m	Growth Deal funding will be invested in line with the site plans developed by Cwmni Eginio as they emerge. At this stage, Welsh Government's assumption is that Growth Deal funding will be utilised during the site development process required to reach a Final Investment Decision. This will be funded by circa £360m private sector investment, pump primed by £20m from Welsh Government and £20m from the Growth Deal.
Transport Decarbonisation	£5.7m	The Growth Deal funding will be required to develop the hydrogen production plant and associated storage facilities. The public sector investment will create demand for green hydrogen through procurement of hydrogen-fuelled vehicles and fuelling stations.  We estimate that there is potential to leverage an additional £5-6m of private sector investment through procurement of private sector passenger transport vehicles and / or HGV fleets.
Smart Local Energy	£75m	It is assumed that the project has significant potential to help unlock substantial private sector investment through gap-funding projects. For every £1 Growth Deal investment, the project aims to leverage at least £3 from the private sector (3:1). However, through engagement with regional stakeholders and project developers, we estimate that there is project potential to unlock up to £200m of private sector led projects. As the project is developed, the full extent of private sector funding opportunities will be confirmed.
Holyhead Gateway	£45m	Financial contribution to project from Stena Line.

Project	Direct Private Sector Funding (£)	Summary
Land and Property Project	£229.4m	Financial contribution to projects from property developers.
Centre of Environmental BIOTECHnology	-	While there is no direct investment, there is significant private sector support for the project from a range of industrial partners who are already engaged with the CEB programme.
Enterprise Engineering & Optics Centre	-	While there is no direct private sector investment at this stage, there is significant private sector support for the project from across a wide range of industry partners who already collaborate with WGU or are very keen to engage specifically with the EEOC. This includes companies such as Toyota, Solvay, DRB, Qioptic, and Neva Aerospace to name a few.
Glynllifon Rural Economy Hub	-	A Stakeholder and Industry Panel will be established to provide a strategic platform to support the operational design and delivery of the Rural Economy Hub and ensure coordination of an implementation plan to support the sector. Private sector involvement will be essential to ensure focused industry input to the development and delivery programme.
Llysfasi Carbon Neutral Farm	£2.7m	Contribution of latest emerging technology and equipment from private sector partner companies.
Tourism Talent Network	£1.7m	Private sector investment in the proposed gateway centres – project currently under review.

Source: NWEAB

## Monitoring and Evaluation

- 5.15 The total Growth Deal package is estimated up to value of £1.1billion. The North Wales Growth Deal finances will be monitored by the Finance Department of Gwynedd Council as the Accountable Body for the Growth Deal with input from the Portfolio Management Office, Portfolio Board and the NWEAB. Regularly financial reports will be provided to the NWEAB, Welsh Government and UK Government.
- 5.16 The financial monitoring processes will be agreed with UK and Welsh Government and be in line with best practice.
- 5.17 Project Sponsors will be required to submit claims for project funding in line with the arrangements set out in each project business case. The Portfolio Management Office will check and certify all claims before passing these onto the Accountable Body. All funding claims will be accompanied by a progress report including an assessment of risk and progress against agreed targets.
- 5.18 The Accountable Body may impose additional monitoring requirements on Project Sponsors where it deems them appropriate. Project Sponsors will be obliged to comply with any additional reporting requirements requested by UK and Welsh Government.
- 5.19 The Portfolio Management Office with input from the Accountable Body's Finance Department will produce quarterly financial updates on project expenditure including actual and forecast spend to support with the cashflow management of the portfolio.

## Financial Risk Management and Audit Arrangements

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### Financial Risks

- 5.20 Financial risks are covered by the Risk Management Framework and will be managed accordingly at portfolio, programme and project level in line with best practice. See 'Management Case' for further information.
- 5.21 The NWEAB maintain a portfolio risk register which will include any relevant financial risks. Project and programme financial risks will be escalated to the portfolio risk register according to the framework as required. Financial risks will be managed by the Section 151 Officer and the Accountable Body working closely with the Programme Office.
- 5.22 At programme and project level the risks will be managed through the use of RAID (Risk, Assumptions, Issues, Dependency) logs.
- 5.23 The Accountably Body and Section 151 Officer will review any identified financial risks and issues on a regular basis to identify any actions necessary to be taken and make recommendations to the NWEAB and/or Programme Director for actions to be taken.
- 5.24 Regular updates on financial risks, issues, dependencies and interdependencies will be provided to the Programme Office, portfolio board and NWEAB via the Accountable Body.

### Internal and External Audit Arrangements

- 5.25 Gwynedd County Council as Accountable Body shall be responsible for providing internal audit services to the NWEAB and audit reports in relation to the NWEAB shall be considered in accordance with its usual rules and practices. Internal Audit will undertake their work in accordance as far as is practicable with the Public Sector Internal Audit Standards and the Local Government Application Note for the United Kingdom Public Sector Internal Audit Standards. For the avoidance of doubt an annual internal audit report shall be submitted by the Accountable Body Audit Manager to the Joint Committee.
- 5.26 External Audit services are provided through the Wales Audit Office who will review and comment the financial aspects of Corporate Governance which include the legality of financial transactions, financial standing, systems of Internal Financial Control and standards of financial conduct and fraud and corruption.

Table 5.3 Summary of Growth Deal Capital Costs							
Capital Costs	2020/21 (£)	2021/22 (£m)	2022/23 (£m)	2023/24 (£m)	2024/25 (£m)	2025/26 (£m)	2026/27 (£m)
<b>Low Carbon Energy Programme</b>							
<b>Morlais</b>							
Growth Deal Funding	0	3.5	4.0	1.5	0	0	0
Public Sector Funding (WEFO)	0	9.34	12.99	4.67m	0	0	0
Private Sector Funding	0	0	0	0	0	0	0
<b>Low Carbon Energy Centre of Excellence</b>							
Growth Deal Funding	0	3.9	5.78	8.07	3.24	0	0
Public Sector Funding (UK Gov, WG, Bangor University, Grant Capture)	0	14.09	20.84	20.11	11.7	0	0
Private Sector Funding	0	0.19	0.28	0.38	0.12	0	0
<b>Trawsfynydd Power Station</b>							
Growth Deal Funding	0	0	5.0	10.0	5.0	0	0
Public Sector Funding (Welsh Government)	0	0	4.0	4.0	4.0	4.0	4.0
Private Sector Funding	0	0	72.0	72.0	72.0	72.0	72.0
<b>Transport Decarbonisation</b>							
Growth Deal Funding	0	2.0	4.0	4.0	1.4	0	0
Public Sector Funding (TBC)	0	0	0	5.73	5.73	0	0
Private Sector Funding	0	0	0	2.83	2.83	0	0
<b>Smart Local Energy</b>							
Growth Deal Funding	0	4.0	8.0	8.0	5.0	0	0
Public Sector Funding (TBC)	0	2.0	2.2	2.0	0	0	0
Private Sector Funding	0	0	25.0	25.0	25.0	0	0
<b>Total Programme Capital</b>	<b>0</b>	<b>39.02</b>	<b>164.09</b>	<b>177.3</b>	<b>136.1</b>	<b>76.0</b>	<b>76.0</b>
<b>Digital Programme</b>							
<b>Digital Signal Processing Centre Project</b>							
Growth Deal Funding	0	1.75	1.0	0.25	0	0	0
Public Sector Funding (Bangor)	0	1.86	1.23	0.2	0.2	0	0
Private Sector Funding	0	0.69	0.46	0	0	0	0
<b>Digital Connectivity Project</b>							
Growth Deal Funding	1.95	10.06	11.15	5.92	4.93	0	0
Public Sector Funding (breakdown source)	0	0	0	0	0	0	0
Private Sector Funding	0.02	0.18	0.2	0	0	0	0
<b>Total Programme Capital</b>	<b>1.98</b>	<b>14.53</b>	<b>14.05</b>	<b>6.19</b>	<b>4.95</b>	<b>0</b>	<b>0</b>
<b>Land and Property Programme</b>							
<b>Holyhead Gateway</b>							
Growth Deal Funding	0	11.5	14.0	9.5	0	0	0



Capital Costs	2020/21 (£)	2021/22 (£m)	2022/23 (£m)	2023/24 (£m)	2024/25 (£m)	2025/26 (£m)	2026/27 (£m)
Public Sector Funding (N/A)	0	0	0	0	0	0	0
Private Sector Funding	0	15.0	18.0	12.0	0	0	0
<b>Land and Property Project</b>							
Growth Deal Funding	0	6.35	10.75	15.5	11.5	0	0
Public Sector Funding (breakdown source)	0	0	1.9	0	0	0	0
Private Sector Funding	0	6.5	19.0	19.0	27.0	22.0	26.7
<b>Total Programme Capital*</b>	<b>0</b>	<b>39.35</b>	<b>63.65</b>	<b>56.0</b>	<b>38.5</b>	<b>22.0</b>	<b>26.7</b>
<i>* See Programme Business Case for continued private sector investment beyond 2026/27</i>							
<b>Innovation in High Value Manufacturing Programme</b>							
<b>Centre of Environmental Botechnology</b>							
Growth Deal Funding	0	0	0.9	2.1	0	0	0
Public Sector Funding (Bangor/ERDF)	4.74	0.44	0.77	0.7	0	0	0
Private Sector Funding	0	0	0	0	0	0	0
<b>Enterprise Engineering &amp; Optics Centre</b>							
Growth Deal Funding	0	4.52	4.71	0.77	0	0	0
Public Sector Funding (Glyndwr University)	0	4.63	4.56	3.89	3.99	2.67	0
Private Sector Funding	0	0	0	0	0	0	0
<b>Total Programme Capital</b>	<b>4.74</b>	<b>9.59</b>	<b>10.9</b>	<b>6.76</b>	<b>3.99</b>	<b>2.67</b>	<b>0</b>
<b>Agri-food and Tourism Programme</b>							
<b>Glynllifon Rural Economy Hub</b>							
Growth Deal Funding	0.5	6.5	3.0	0	0	0	0
Public Sector Funding (GLLM)	1.2	1.0	0.8	0	0	0	0
Private Sector Funding	0	0	0	0	0	0	0
<b>Llysfasi Carbon Neutral Centre</b>							
Growth Deal Funding	0	0	5.0	5.0	0	0	0
Public Sector Funding (Coleg Cambria)	0	0	1.0	1.7	0	0	0
Private Sector Funding	0	0	0	0.5	0.5	0.5	0.5
<b>Tourism Talent Network</b>							
Growth Deal Funding	0	0	1.5	1.5	1.5	0	0
Public Sector Funding (21 Century Schools)	0	6.7	0	0	0	0	0
Private Sector Funding	0	0	0.57	0.57	0.57	0	0
<b>Total Programme Capital</b>	<b>1.7</b>	<b>14.2</b>	<b>11.87</b>	<b>9.27</b>	<b>2.57</b>	<b>0.5</b>	<b>0.5</b>

Source: NWEAB

## 6. The Management Case

6.1 The Management Case sets out how the North Wales Economic Ambition Board, through the Portfolio Management Office, will manage and deliver the North Wales Growth Deal programmes and projects in line with best practice. The North Wales Growth Deal will be treated as a portfolio of programmes and projects, ensuring alignment between the programmes and projects to enable the delivery of the deal and the achievement of its objectives.

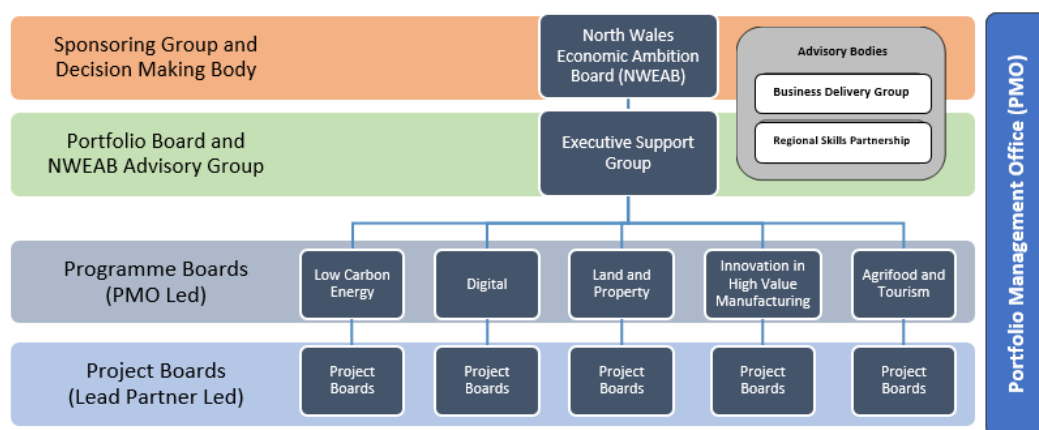
### Management, Governance and Co-ordination

6.2 The Board has adopted a delivery model based on a best practice approach to portfolio, programme and project management as set out in 'Government Functional Standard GovS 002: Project Delivery'. Portfolio, programme and project management is an integrated way of meeting an organisation's ambitions, driving better decisions and increasing the likelihood of successful outcomes.

### North Wales Growth Deal Delivery Structure

6.3 The diagram below sets the delivery structure for the Growth Deal building on the existing structures put in place by the NWEAB's Governance Agreement.

Figure 6.1 Growth Deal Delivery Structure



Source: NWAEB

### Strategic and Portfolio Level

6.4 **North Wales Economic Ambition Board (Sponsoring Group)** - The NWEAB acts as the Sponsoring Group (Organisation) and the Decision-Making Body. All authority below this level is delegated to relevant parties as required through a formal NWEAB decision. A member of the NWEAB will take on a Lead Member role for each of the programmes and sit on the relevant Programme Board. The NWEAB will be responsible for the consideration and approval of project business cases within the portfolio and with responsibility for delivery delegated to the relevant programme and project boards.

**Executive Support Group (Portfolio Board)** - This group is the advisory body to the NWEAB but also acts as the Portfolio Board for the Growth Deal to support and challenge the Growth Deal

Programme Director to ensure delivery. The group is made up of senior officers from each of the NWEAB partners. A member of the Executive Support Group will act as a Senior Responsible Owner (SRO) for each of the programmes and lead the relevant Programme Board.

**Portfolio Director** - The Portfolio Director is accountable to the NWEAB for the delivery of the Growth Deal portfolio.

6.5 The key roles within the governance structure are covered in the table below:

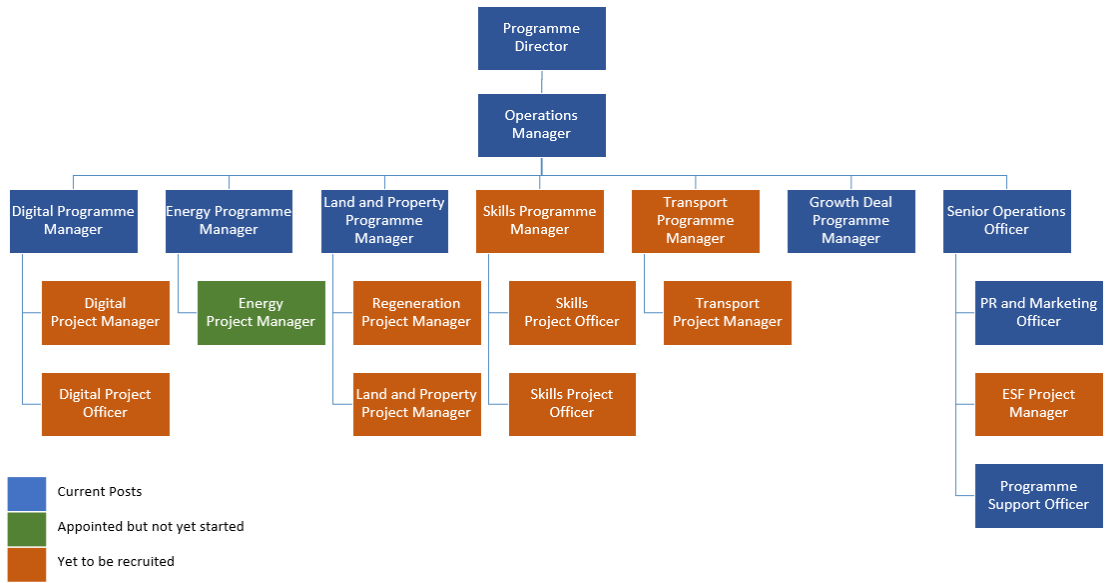
Table 6.1 Key Roles	
<b>North Wales Economic Ambition Board</b>	<p>Formal Members:</p> <p>Councillor Dyfrig Siencyn – Chairman and Leader of Gwynedd Council</p> <p>Councillor Mark Pritchard – Vice Chairman and Leader of Wrexham County Borough Council</p> <p>Councillor Llinos Medi – Leader of Isle of Anglesey County Council</p> <p>Councillor Ian Roberts – Leader of Flintshire County Council</p> <p>Councillor Sam Rowlands – Leader of Conwy County Borough Council</p> <p>Councillor Hugh Evans – Leader of Denbighshire County Council</p> <p>Advisors:</p> <p>Dafydd Evans – Grwp Llandrillo Menai</p> <p>Maria Hinfelaar – Glyndwr University</p> <p>Yana Williams – Coleg Cambria</p> <p>Professor Iwan Evans – Bangor University</p> <p>Askar Sheibani – Business Delivery Group</p>
<b>Portfolio Director</b>	Alwen Williams
<b>Programme SROs</b>	<p>Steve Bayley – Digital Programme SRO</p> <p>Dylan Williams – Low Carbon Energy Programme SRO</p> <p>Andrew Farrow – Land and Property Programme SRO</p> <p>Jane Richardson – Agri-food and Tourism Programme SRO</p> <p>Paul Bevan – Innovation in High Value Manufacturing Programme SRO</p>
<b>Programme Managers</b>	<p>Stuart Whitfield – Programme Manager (Digital)</p> <p>Henry Aron – Programme Manager (Low Carbon Energy)</p> <p>David Mathews – Programme Manager (Land and Property)</p> <p>Robyn Lovelock – Programme Manager (Agri-food and Tourism / Innovation in High Value Manufacturing)</p>

Source: NWEAB

### Programme and Project Level

6.6 **Portfolio Management Office (PMO)** – The PMO supports and co-ordinates activity across the programmes acting as an information hub and ensuring a consistent approach to reporting, control of risk and issues. It also acts as a valuable assurance function, providing advice and challenge to programmes and projects. Each programme is assigned a Programme Manager from within the PMO.

Figure 6.2 Portfolio Management Office Structure



Source: NWAEB

6.7 **Programme Boards** - Each programme will have a formal Programme Board and an appointed Senior Responsible Owner (SRO). These boards will be focused on the development (initially) and delivery of the agreed Programme Business Case, with a specific focus on the benefits and outcomes to be achieved. Programme Boards escalate to the Portfolio Board via the Programme Director.

Table 6.2 Programme Boards	
Programme Board – Core Membership	
Programme SRO	Appointed from Executive Support Group (Portfolio Board)
Deputy Programme SRO	Appointed from Executive Support Group (Portfolio Board)
Programme Manager	Programme Manager within PMO
Lead Member	One of the six Local Authority Leaders who sit on the NWEAB will act as a Lead Member for each programme.
Partner Representatives (max 9)	Representatives for the NWEAB partners.
Non-Core Members (may occasionally attend Programme Board)	
Portfolio Management Office	Alwen Williams – Programme Director Hedd Vaughan-Evans – Operations Manager
Project Representatives (Non-Partner Organisations)	Invited at the discretion of the SRO for specific agenda items.
Regional Skills Partnership	Invited at the discretion of the SRO for specific agenda items.
Business Delivery Group	Invited at the discretion of the SRO for specific agenda items.
Agenda Specific Attendees	Invited at the discretion of the SRO to present specific agenda items.
Corporate Services	Representatives from Corporate Services as required e.g. Finance, Legal, Procurement.

Source: NWEAB

- 6.8 **Project Boards** - All projects within the Growth Deal will be managed via a Project Board with appointed SROs and project managers in place to ensure delivery. These boards will be focused on the development and delivery of the agreed business case, with a focus on the delivery of specified outputs. Projects and Project Boards will be the responsibility of the Project Sponsor and clear arrangements for the delivery of projects in line with best practice will be set out in each project business case. Projects will report through to the relevant Programme Board. Terms of Reference for Project Boards will be agreed between the Project Sponsor and the Portfolio Management Office to ensure the appropriate links and reporting arrangements between the project and the Programme Board are understood by both parties.
- 6.9 The Programme Board will meet monthly and receive monthly highlight reports on progress against each project. Formal reports will be presented quarterly which will be submitted to the Portfolio Board and then the NWEAB.
- 6.10 Project delivery arrangements, including Project Board details will be confirmed in the project business cases.

## Project Business Cases

- 6.11 The North Wales Growth Deal is to be signed on the basis of a portfolio business case and five programme business cases. Once the final deal has been agreed, project business cases can be brought forward for the NWEAB to consider.

- 6.12 Full (5 Case Model) business cases will be developed for each project within the North Wales Growth Deal in line with the 'Better Business Case' guidance developed by Welsh Government and HM Treasury.
- 6.13 Preparing a Project Business Case using the five Case model provides decision makers and stakeholders with a proven framework for structured 'thinking' and assurance that the project provides and strategic fit, maximise public value, is commercially viable, is affordable and is fundable over time.
- 6.14 Project business cases will be required to demonstrate how they deliver against the objectives and aspirations of the North Wales Growth Deal and specifically the relevant programme business case.
- 6.15 It is recognised that through the development and agreement of portfolio and programme business cases between the NWEAB and UK/Welsh Government that the strategic case for projects will have been established.
- 6.16 In line with the guidance, the PMP will determine which approach to project business cases is the most suitable for each project:
- 6.17 The iterative production of the Business Case (Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC) should be considered for larger, complex schemes requiring a competitive procurement.
- 6.18 Consideration may be given to combining the SOC and OBC where the case for change has already been made and agreed as part of a Programme Business Case (PBC).
- 6.19 Consideration may be given to combining the OBC and FBC where the intended procurement route has been pre-competed and firm prices are available in support of the spending proposal.
- 6.20 A Business Justification Case (BJC) may be considered for smaller items of spend, which are NOT novel or contentious; within the organisational limit agreed for the use of single business cases (BJC); and can be procured from an existing pre-competed arrangement.
- 6.21 Each project business case will be subject to gateway reviews as set out in the Integrated Assurance and Approvals Plan (IAAP).
- 6.22 Project business cases will first be considered by the relevant Programme Board. Business cases will only be presented to the NWEAB following endorsement by the Portfolio Board and the Programme Board and the completion of required gateway reviews. The PMO retains the right to commission external reviews of project business cases where required.
- 6.23 All project business cases will be required to complete a Welsh Language impact assessment and a Wellbeing of Future Generations impact assessment before consideration by the NWEAB.

## Delivery Experience

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- 6.24 The NWEAB Portfolio Management Office was established in January 2020 to oversee the delivery of the North Wales Growth Deal, its programmes and certain projects for which the NWEAB is the Project Sponsor. Whilst newly established, officers within the PMO have a breadth of experience in delivering major capital projects both within the public sector and private sector and includes programme and project management practitioners.
- 6.25 Six members of the PMO have completed the Better Business Cases Foundation training including the Programme Director, Operations Manager and three Programme Managers. The remaining programme managers and project managers will be put through the training once in post.

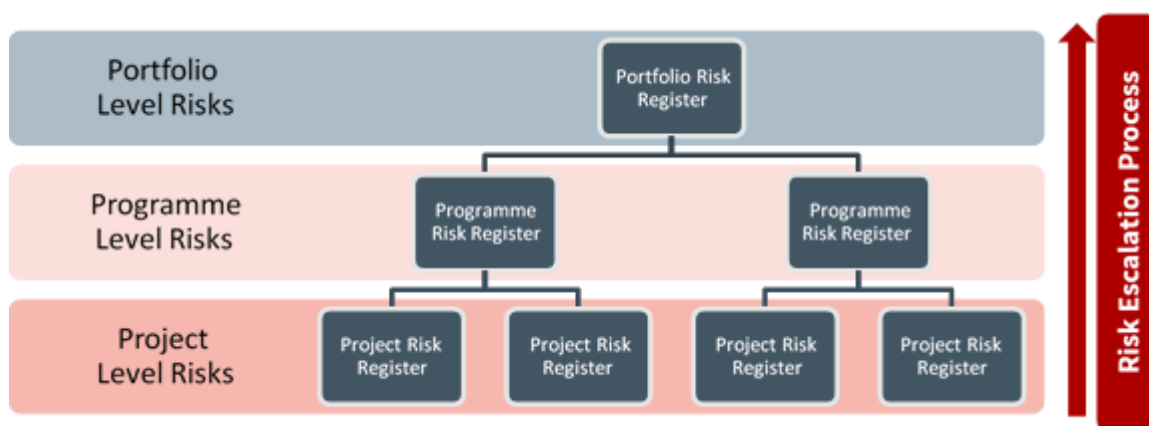
- 6.26 The PMO is also able to draw on the experience and expertise of the wider partnership, particularly the six local authorities who have significant experience and track record in delivering major capital projects.

## Risk Management

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- 6.27 The NWEAB has an adopted Risk Framework for the delivery of the North Wales Growth Deal. The Framework sets out how risks and issues will be managed at the appropriate level across the portfolio with clear escalation processes in place.
- 6.28 The Programme's approach to risk management is outlined in the Growth Deal Risk and Issues Management Strategy and User Guide. This document defines and articulates the risk management principles, concepts, structures, processes, tools and associated roles and responsibilities implemented to ensure that risks to Programme objectives are effectively managed.
- 6.29 The key principles and concepts outlined in this strategy are drawn from OGC Management of Risk literature. These principles and concepts have been appropriately tailored to the requirements of the North Wales Growth Deal.
- 6.30 The Risk and Issues Management Strategy is owned by the Portfolio Management Office (PMO) and stored in their document management system.
- 6.31 The Strategy sets out the three levels of risk associated with the delivery of the Growth Deal:
- **Portfolio Level Risks** – A portfolio risk is an uncertain event or condition that, if it occurs has an effect on one or more of the strategic goals of the Growth Deal portfolio. There will be one portfolio risk register. This risk register will be owned by the NWEAB and managed by the Portfolio Management Office on its behalf. The NWEAB will have additional strategic risks that sit outside this framework relating to the overall Growth Vision for North Wales.
  - **Programme Level Risk** – A programme risk is an uncertain event or condition that, if it occurs, has an effect on at least one programme benefit. Each programme will have its own risk register. These risk registers will be owned by the Portfolio Management Office and managed by the respective Programme Managers.
  - **Project Level Risks** – A project risk is an uncertain event or condition that, if it occurs, has an effect on at least one project objective. Each project will have its own risk register. These risk registers will be owned by the Lead Delivery Partner for that project and managed by their respective Project Managers. Programme Managers will have access to and oversight of all project risk registers within their programme with a remit to challenge and provide a quality assurance function.

Figure 6.3 Risk Escalation Process



Source: NWAEB

6.32 In line with the strategy, a clear risk escalation process will be established:

- **Project > Programme Risks:** Project risks of significant concern will be escalated for consideration as part of the Programme Risk Register if they are considered to pose a threat to the wider programme and its expected benefits.
- **Programme > Portfolio Risks:** Programme risks of significant concern will be escalated for consideration as part of the Portfolio Risk Register if they are considered to pose a threat to the wider portfolio and/or the strategic goals of the NWEAB.

6.33 Issues occur at differing levels within the Programme and are managed according to their impact. The approach to management of issues is set out in the Risk and Issue Management Strategy and mirrors the approach to risk management. The Strategy describes the processes for proactive identification, assessment and control of issues, both known and unexpected. It sets out the criteria for categorising issues by priority and severity to ensure that issues are managed at the appropriate level (Portfolio / Programme / Project). It also sets out the approach to tracking and monitoring issues through to resolution.

6.34 Issues are captured in the Programme RAID Log which is held by the PMO. The issue management process is a responsibility of the Programme Board. The Programme Manager and PMO provide support and advice for the process.

## Change Management

6.35 A Change Management Plan will be developed for the North Wales Growth Deal.

6.36 The plan will adopt a similar principle to the Risk and Issues Management Framework, where changes are dealt with at the appropriate level within agreed tolerances. These tolerances will be agreed for each project business case, with a clear escalation process in place.

6.37 Changes will be assessed in terms of their financial impact but also their impact on the benefits to be delivered through the programme and projects.

6.38 Change management for the programme will be primarily managed via the Programme Board and relevant Project Board within tolerances delegated by the NWEAB upon consideration of the project business case.



- 6.39 Significant changes outside these tolerances would need to be escalated to the Portfolio Board or the NWEAB and may require the business case to be updated or additional assurance activities to take place.
- 6.40 Any new or replacement projects to be brought forward for consideration must demonstrate delivery against the relevant programme business case and the objectives of the portfolio business case. Where those projects are within the existing agreed financial envelope for the partnership, those projects would be a matter for the NWEAB to decide upon.
- 6.41 Projects that fall outside the remit of an agreed programme business case or those that would exceed the agreed financial envelope would be considered a 'reserved matter' for the NWEAB partners.

## Partnership and Stakeholder Engagement

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- 6.42 The NWEAB partnership covers a wide range of internal and external stakeholders who are key to the successful delivery of the North Wales Growth Deal. These include the NWEAB partners themselves, Welsh Government and UK Government, other regional public sector bodies such as the Health Board, local communities, businesses, contractors, sub-contractors, service providers and external advisors.
- 6.43 Each project will be required to put in place a Stakeholder Engagement and Communications Plan.

## Timeline and Milestones

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- 6.44 The NWEAB is seeking approval of the North Wales Growth Deal in December 2020 with the signing of the Final Deal. Following Final Deal, project business cases will be brought forward for the NWEAB to consider from January 2021 onwards.
- 6.45 The current timetable for the delivery of the Growth Deal is included as Appendix F. The timetable is based on the latest available project information and will be updated on a regular basis as project timetable are confirmed through the business case development process.

## Project Maturity

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- 6.46 Projects within the Growth Deal are currently at different levels of maturity as shown by the table below.

Table 6.3 Project Maturity		
Project	Business Case Stage	Summary
Digital Signal Processing Centre Project	<b>OBC</b>	Project is currently developing an OBC for presentation to NWEAB for approval.
Digital Connectivity Project	<b>SOC</b>	The four projects are ready to progress to the development of an OBC.
Morlais	<b>OBC</b>	The project is currently progressing to OBC stage.
Low Carbon Energy Centre of Excellence	<b>OBC</b>	The project is progressing to OBC stage.
Trawsfynydd Power Station	<b>SOC</b>	The project is at an early stage of development.
Transport Decarbonisation	<b>SOC</b>	The project is currently at concept stage.
Smart Local Energy	<b>SOC</b>	The project is currently at concept stage.
Holyhead Gateway	<b>Project Review</b>	The project scope is to be reviewed to assess the economic and societal impact of the Port of Holyhead on the regional, Welsh, UK and ROI in light of the proposed investment into the port given the indicative increase in costs.
Land and Property Project	<b>SOC</b>	All four sites in the first phase are at different stages of development with the most mature ready to proceed to OBC stage.
Centre of Environmental BIOTECHnology	<b>SOC</b>	Project is ready to progress to the development of an OBC.
Enterprise Engineering & Optics Centre	<b>SOC</b>	Further work is required to demonstrate the complementarity to existing initiatives in North Wales before proceeding to OBC.
Glynllifon Rural Economy Hub	<b>OBC</b>	Project has a well-developed OBC in place with minor revisions required before presentation to NWEAB for approval.
Llysfasi Carbon Neutral Centre	<b>SOC</b>	Project is ready to progress to the development of an OBC.
Tourism Talent Network	<b>Project Review</b>	An OBC was in place for the project pre-covid, however the project scope is to be reviewed to assess the impact of COVID-19.

Source: NWEAB

## Marketing

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- 6.47 The PMO is responsible for communications and marketing relating to the overall Growth Deal portfolio and the programmes and have recently appointed a Communications and Engagement Officer to lead on this work.
- 6.48 At the project level, each Project Sponsor will be responsible for engaging with stakeholders and community groups to highlight and market the offer. The specific approach for each project will be set out in the project business cases.

## Monitoring, Evaluation and Feedback

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- 6.49 Programme and project performance will be monitored on a monthly basis through the relevant programme and project boards with formal quarterly reports submitted to the Portfolio Board and the North Wales Economic Ambition Board.
- 6.50 A Monitoring and Evaluation Plan has been developed for the North Wales Growth Deal. The key components of the Monitoring and Evaluation Plan are set out below:
- Monthly Highlight Reports for all programmes and projects;
  - Formal Quarterly Reports to the NWEAB, UK Government and Welsh Government;
  - Formal Annual Report to NWEAB, UK Government and Welsh Government;
  - Independent economic impact evaluation to be undertaken every 3-5 years against suite of indicators agreed with UK Government and Welsh Government.
  - Wider benefits to be achieved through procurement, particularly social and community value will be monitored and evaluated to ensure maximum benefit is derived to the region from such activity.
  - The NWEAB will work with the Welsh Government to ensure that evaluation against the Wellbeing of Future Generations (Wales) Act 2015 is a key component of all monitoring and evaluation activities.
  - The NWEAB is committed to developing an appropriate feedback mechanism for the North Wales Growth Deal with both governments to ensure lessons learned during the delivery of the Growth Deal are captured and shared.

## Benefits Realisation

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- 6.51 A key role for the PMO will be ensuring that the benefits of the North Wales Growth Deal are realised.
- 6.52 The benefits of the North Wales Growth Deal have been mapped out in the portfolio and programme business cases and assessed against the delivery of the Growth Vision.
- 6.53 Benefits management and benefits realisation is a key component in ensuring the successful delivery of the North Wales Growth Deal. The NWEAB will seek to maximise local and regional benefits from the delivery of its projects and through the associated procurement processes.
- 6.54 Each programme and project will be responsible for benefits management through a Benefits Realisation Plan. A benefits realisation plan acts as an overview of the main milestones detailed in each benefit profile. It serves as a management tool to monitor, track and manage the collective set of benefits associated with a programme or project.

## Assurance

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- 6.55 The PMO worked with the Welsh Government Assurance Hub to develop an Integrated Assurance and Approval Plan (IAAP) that sets out the assurance activities that will be undertaken at portfolio, programme and project level for the North Wales Growth Deal.
- 6.56 As part of the IAAP, assurance activities will take place across all levels of the Growth Deal – portfolio, programme and project. The North Wales Growth Deal will utilise the pre-defined Gateway 0-5 and flexible Project Assessment Reviews (PAR) as appropriate and proportionate.
- 6.57 Following the approval of the Portfolio IAAP, detailed IAAPs will be developed for each programme and project within the Growth Deal. The exact timing of assurance reviews will be a matter for the PMO to agree with Welsh Government and the relevant Programme and Project Boards.
- 6.58 While the exact timing of reviews is to be agreed, the following principles are to be applied:
- Major portfolio assurance reviews will take place periodically at 3-5 year intervals unless requested sooner by the NWEAB, UK or Welsh Government;
  - Programme assurance reviews will take place periodically at 2-year intervals unless requested sooner by the NWEAB, UK or Welsh Government;
  - Project assurance reviews will take place throughout the life of the project at pre-agreed stages. The level of assurance may vary per project, but would include a minimum of two external Gateway reviews per project, including a pre-delivery review and a benefits realisation review. The rationale for the proposed approach is set out below:
    - Project Gateway 1 (SOC) – Only required for new projects or those currently at concept stage due to the approved Programme Business Case. All other projects to produce combined SOC/OBC for Gateway 2.
    - Project Gateway 2 (OBC) – Required for all projects within the Growth Deal.
    - Project Gateway 3 (FBC) – PMO decision on whether Gateway 3 is required on a project by project basis.
    - Project Gateway 4 (Implementation) - PMO decision on whether Gateway 3 is required on a project by project basis.
    - Project Gateway 5 (Benefits Realisation) – Required for all projects within Growth Deal.
  - Project Assessment Review (PAR) – may be used in place of Gateway 1-5 where the PMO in consultation with the WG Assurance Hub consider it a more appropriate review mechanism.

## Appendix A - Future Generations Impact Assessment

HOW DOES THE PROPOSAL ALIGN WITH THE WELL-BEING GOALS?		
Well Being Goal	How does the proposal align to the well-being goals? (Please specify any negative or positive impact)	What actions have/will be taken to mitigate any negative impact or to improve positive impact?
<p><b>A prosperous Wales</b> An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.</p>	<p>+ The portfolio will create several thousand new jobs for North Wales</p> <p>+ It will also train businesses and individuals and expand space for training, incubation, research and development</p> <p>+ The portfolio strengthens North Wales leadership in low carbon technologies across high value manufacturing (biotechnology, hydrogen cell technology), agri-food (carbon neutral agriculture), transport and energy production</p> <p>- Site development will create carbon emissions; these will be mitigated and managed through relevant national and local authority policies and processes.</p>	<ul style="list-style-type: none"> <li>• Project case approval process will consider likely carbon emissions and savings from each project</li> <li>• The Future Generations Act will be embedded into all procurement activity assessing contribution to relevant national wellbeing indicators for Wales</li> <li>• Environmental considerations will be embedded into contract opportunities, minimising impact on the environment and supporting new technologies, approaches and innovation with contractors and the supply chain, with a focus on the circular economy.</li> </ul>
<p><b>A resilient Wales</b> A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).</p>	<p>+ The portfolio will build skills of businesses and individuals supporting the ability of those businesses and individuals to adapt to change and preparing them for future-focused opportunities</p>	<ul style="list-style-type: none"> <li>• Project case approval process will consider biodiversity enhancements and impact of each project</li> <li>• The Future Generations Act will be embedded into all procurement activity</li> </ul>

	<ul style="list-style-type: none"> <li>+ The Agri-Food &amp; Tourism Programme will build skills in carbon neutral land management and renewable energy technologies through education of young people and SMEs</li> <li>+ The regional transport decarbonisation project and the digital programmes will help improve air quality through a shift from travel in petrol/diesel vehicles to remote working and low or zero carbon travel options</li> <li>- Site development may impact some ecologically sensitive sites, releasing carbon and replacing natural ecosystems; impact will be mitigated and managed through relevant national and local authority policies and processes</li> </ul>	<p>assessing contribution to relevant national wellbeing indicators for Wales</p> <ul style="list-style-type: none"> <li>• Environmental considerations will be embedded into contract opportunities, minimising impact on the environment, with a focus on redevelopment of brownfield sites over greenfield development, incorporation of the circular economy and integration of green infrastructure</li> <li>• Seek to minimise the carbon footprint of projects and support low carbon economy, focused on the commitment by Welsh Government to achieve a carbon neutral public sector by 2030, reducing greenhouse gases, improving our natural environment and protecting our biodiversity.</li> <li>• Support and engage with the third sector in a valued based approach that support resilience in the third sector to work with and support contractors and the supply chain.</li> </ul>
<p><b>A healthier Wales</b> A society in which people’s physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.</p>	<ul style="list-style-type: none"> <li>+ The Growth Deal will help improve mental well-being by (1) creating better-quality jobs for the local labour market through targeted interventions in high value sectors and (2) building a more skilled workforce within the region through supporting skills and training initiatives</li> <li>+ These opportunities will support improvements in standards of living across the region reducing poverty, inequality and deprivation</li> <li>+ Through its partnership with the Regional Skills Partnership, the NWEAB has engaged</li> </ul>	<ul style="list-style-type: none"> <li>• The Future Generations Act will be embedded into all procurement activity assessing contribution to relevant national wellbeing indicators for Wales</li> <li>• The NWEAB will work directly with the Public Service Boards (PSBs) to include community resilience and wealth building developing assets in our communities to include supporting positive mental health in workforces, supply chain and in communities</li> <li>• The NWEAB will work with national and local planning processes to promote and champion well-being outcomes through</li> </ul>

	<p>with the Public Sector Boards considering ways the programmes/projects can equitably benefit the region's residents through skills development and employment</p> <p>+ The regional transport decarbonisation project will improve air quality across North Wales supporting improvements to cardiovascular and respiratory diseases and overall life expectancy</p>	<p>procurement activity and test key policies in areas such as <i>building designs that promote health; access to project sites by walking/cycling, including for those with disabilities; and consideration of opportunities to incorporate green infrastructure.</i></p>
<p><b>A more equal Wales</b> A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).</p>	<p>+ Regional Skills Partnership has been a key partner in portfolio development considering how the programmes/projects can equitably benefit the region's residents through skills development and employment</p> <p>+ Growth Deal programmes have been distributed across the North Wales region with leadership and engagement from all County Councils with the intention of distributing benefits equitably</p> <p>+ Procurement systems will support local supply chains to engage with larger contracts through supply chain briefings and joint bidding opportunities and pipeline of projects</p> <p>+ Leakage of economic benefits through jobs created being filled by residents from outside the North Wales boundary has been factored into each programme/project</p> <p>+ Jobs created across the portfolio will be disaggregated by gender, age, diversity and job satisfaction</p>	<ul style="list-style-type: none"> <li>• The NWEAB will promote and champion the delivery of social value and community benefits through procurement activity and test key policies such as the socio economic duty and the social partnerships bill.</li> <li>• Work with our partners to ensure we support people from all backgrounds and circumstances to retrain, develop new skills through volunteering or contribute to education/apprenticeships through innovative recruitment and engagement strategies</li> <li>• Target opportunities and engage with existing mechanisms to support specific groups such as young people or those in areas of deprivation to engage in education and learning/development.</li> <li>• Support engagement and connections with schools and engage with the new curriculum 2022 in Wales, with a focus on digital inclusion.</li> </ul>



	<ul style="list-style-type: none"> <li>- North Wales’ residents with poor inter-generational educational experiences may not be able to access quality training and employment opportunities created by the Growth Deal, perpetuating the region’s long-standing poverty gap</li> </ul>	
<p><b>A Wales of cohesive communities</b> Attractive, viable, safe and well-connected communities.</p>	<ul style="list-style-type: none"> <li>+ The Growth Deal focuses on scalable and dispersed growth across the region to achieve sustainable, balanced and inclusive economic growth with the benefits shared across the region.</li> <li>+ The digital programme will enable better communication across North Wales, connecting communities virtually</li> <li>+ Jobs created across the portfolio will be disaggregated (annually?) by gender, age, and diversity</li> <li>+ Programmes and projects are being co-produced through partnerships involving the public and private sector, research bodies and the regional skills partnership, including a focus on engagement of those and those disadvantaged by gender, disability, ethnicity or age.</li> </ul>	<ul style="list-style-type: none"> <li>• The Future Generations Act will be embedded into all procurement activity assessing contribution to relevant national wellbeing indicators for Wales</li> <li>• Work with procurement partners and third sector organisations to maximise community wealth building opportunities.</li> <li>• On-going work to build understanding and ownership of the Growth Deal at the community level across the region, ensuring an inclusive approach that engages hard-to-reach groups and communities and those disadvantaged by gender, disability, ethnicity or age</li> <li>• All project business cases will be required to include a plan setting out steps the project will take to ensure equitable and inclusive access to opportunities arising from the Growth Deal investment as part of their development and approval process</li> </ul>
<p><b>A Wales of vibrant culture and thriving Welsh language</b> A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.</p>	<ul style="list-style-type: none"> <li>• The Growth Deal will create jobs and training opportunities for young people to stay and work in North Wales and continue to use Welsh in their personal and professional lives</li> <li>• The Growth Deal includes projects within growth industries of low carbon energy and high value manufacturing which will provide</li> </ul>	<ul style="list-style-type: none"> <li>• The Future Generations Act will be embedded into all procurement activity assessing contribution to relevant national wellbeing indicators for Wales</li> <li>• Engage with new partnership such as museums, theatres and arts to support developing our cultural and Welsh language considerations in contract opportunities</li> </ul>



	<p>high value job opportunities cross North Wales, particularly in Gwynedd and Anglesey which have a greater percentage of Welsh speakers across the region</p> <ul style="list-style-type: none"> <li>• There are also projects focused on more traditional foundation sectors – agri-food and tourism. This is particularly relevant for the agriculture sector where a greater percentage of workers speak Welsh compared to the general population.</li> <li>• The Agri-Food and Tourism programme will enhance opportunities for residents and visitors to engage positively with our cultural and environmental heritage by providing enhanced customer service opportunities and more opportunities for developing Welsh food products</li> <li>• The NWEAB operates as a bilingual entity in all its operations; all public material is produced bilingually</li> </ul>	<ul style="list-style-type: none"> <li>• All project business cases will be required to complete a Welsh Language impact assessment as part of their development and approval process, and consider opportunities to incorporate celebration of and engagement with Welsh culture and language into the commissioning of each infrastructure project</li> </ul>
<p><b>A globally responsible Wales</b> A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.</p>	<ul style="list-style-type: none"> <li>• The portfolio will support the transition to a low carbon economy through energy generation, carbon savings and pioneering low carbon technologies within industry and at a business/farm level. Projects will contribute towards Wales’ action on climate change and towards global decarbonisation efforts.</li> </ul>	<ul style="list-style-type: none"> <li>• The Future Generations Act will be embedded into all procurement activity assessing contribution to relevant national wellbeing indicators for Wales</li> <li>• Consider global off-setting for any carbon emissions</li> <li>• Look for opportunities to engage refugees and asylum seekers with valuable skills relevant to the programmes / projects</li> <li>• Ensure that supply chains for projects do not support modern slavery, environmental and human rights abuses</li> </ul>

## Appendix B - Key Meetings in developing the Growth Deal



## Appendix C - Growth Deal Projects

Table C.1 Growth Deal Projects					
Programme	Project	Project Sponsor	Total investment	Growth Deal Ask	Summary
High value manufacturing and innovation	Centre for Environmental Biotechnology	Bangor University	£9.6m	£3.0m	The CEB will be a world-leading centre in the discovery of novel enzymes of industrial relevance. The CEB will provide a strong foundation for attracting world-leading researchers, significant public and commercial research funding, and inward investment to Wales. The CEB also aims to draw companies in the biocatalysis sector to North Wales to take advantage of clustering and agglomeration benefits the regions offers due to its well-established specialism in bioengineering.
	Enterprise Engineering & Optics Centre	Glyndwr University	£29.8m	£10.0m	The Enterprise Engineering & Optics Centre will provide facilities (in Wrexham and St. Asaph) targeted to boost high level skills development for the region and enable SME's and large businesses to work in partnership with Wrexham Glyndwr University on commercially driven research and development.
Agri-food and tourism	Tourism TALENT Network	Coleg Llandrillo and Conwy Borough Council	£12.9m	£4.5m	The Tourism Talent Network sets out ambitious plans to future-proof skills provision and increase commercial benefits from one of the most established and fastest growing sectors in the region. The North Wales Tourism TALENT Network aims to stimulate public-private collaboration to coordinate action on skills and product development to transform and accelerate the growth of the tourism and hospitality sector in the region.
	Glynllifon Rural Economy Hub Project	Grŵp Llandrillo Menai	£13.0m	£10.0m	The vision is to create a distinctive, world-class Rural Economy Hub at Glynllifon, offering a range of facilities and services to strengthen and enhance the regional economy, specifically through growing the food and drink sector.
	Llysfasi Carbon Neutral Centre	Coleg Cambria	£15.4m	£10.0m	Llysfasi Carbon Neutral Centre aims to lead North Wales to a resilient future where carbon neutral land management is at the centre of a developing renewable energy sector supporting a sustainable, thriving and healthy community covering the rural/urban mix of the region.
Land and property	Holyhead Gateway	Stena Line	£80.0m	£35.0m	Future proof the port of Holyhead by providing new deep-water heavy loading and cruise facilities, improved vehicular access, guaranteeing the future of the breakwater and providing for the demands of regional energy projects.
	Regional Land and Property	NWEAB	£275.4m	£44.1m	Comprised of five property sites: <b>Denbigh Hospital Site</b> -A planning application has been submitted to bring forward a mixed use commercial and residential development. The Growth

Programme	Project	Project Sponsor	Total investment	Growth Deal Ask	Summary
					<p>Deal funding will assist in the delivery of a cleared and remediated site with primary services.</p> <p><b>Bodelwyddan Strategic Site</b>-A mixed use commercial and residential development site of 137 hectares. The Growth Deal funding will provide the primary services to enable the site to be bought to the market for development.</p> <p><b>Parc Bryn Cegin Strategic Site</b>-Provide industrial floor space to meet known demand for units.</p> <p><b>Wrexham Gateway</b>- Growth Deal funding will provide the necessary statutory consents and deliver primary services to enable the site to be bought to the market for sale and development.</p> <p><b>Warren Hall Strategic Site</b>- Growth Deal funding will provide the necessary statutory consents and deliver primary services to enable the 65-hectare mixed use site to be bought to the market for sale and then development by the private sector.</p>
Digital	Full fibre	NWEAB	£7.2m	£6.8m	This project seeks to deliver full fibre connectivity (gigabit capable) to 28 key business sites across NWEAB. The focus of the project is to provide access to full fibre services that are more affordable, scalable and able to service the needs of SMEs, in lieu of and complementing more expensive leased line circuits. Some 4,100 business premises and 450 residential premises able to access gigabit capable full fibre broadband once complete.
	Connecting the final %	NWEAB	£4.0m	£4.0m	This project aims to accelerate the development of Connected Campuses at 19 key regional economic sites. It will target key sites which present uses cases for 5G and low power Wi-Fi networks in the context of heavy industry, light industry, research sites, commercial sites and across a much larger rural campus (encompassing thousands of farms and agricultural clusters). It is estimated some 2,600 business premises will have access to high bandwidth 5G and low power Wi-Fi services once complete.
	Connected Campus	NWEAB	£21.0m	£21.0m	This project aims seeks to respond to industry demand and technology drivers by supporting the more efficient operation of supply chains, and major transport operations (such as ports). In total, 156km of road and rail corridor will be connected to 5G/Low Power Wireless Access Networks , along the A55 corridor and adjacent mainline rail route. It is estimated that up to 1.57 million rail journeys and 1.3 million road journeys will benefit from enhanced 5G connectivity once complete.

Programme	Project	Project Sponsor	Total investment	Growth Deal Ask	Summary
	Connected Corridor	NWEAB	£2.2m	£2.2m	This project targets ubiquitous superfast coverage across North Wales, which have yet to be served by other means and cannot obtain speeds of at least 30Mbps (download). A lack of reliable or in some cases, basic, broadband is a key issue facing rural businesses, hampering deprivation and contributing to the demographic crunch – this will help to alleviate and reverse these trends. Up to 10,100 residential and 4,300 business premises will have access to superfast broadband once complete.
	Digital Signal Processing Centre Project	Bangor University	£7.3m	£3.0m	The project will bring together Bangor University researchers to work alongside high-profile international companies and Welsh SMEs enabling them to work together to explore disruptive solutions for 5G. The project will allow the DSP Centre to expand its presence and remit, integrating fully with the National Strategy Project (NSP) and enable the scaling of key assets including a 5G testbed, research capacity and state-of-the-art equipment. The project is expected to create 160 jobs in total.
Low carbon energy	Morlais	Menter Môn	£36.0m	£9.0m	Constructing the infrastructure that connects the Morlais Zone with the electricity grid system, readying the site for private sector developers investing to lease parts of the zone for deploying tidal energy technologies. This would position the zone as the first consented, expandable and technology-agnostic site in the world with up to 180 MW of potential
	Trawsfynydd Power Station	Cwmni Egino	£400.0m	£20.0m	The Trawsfynydd site is uniquely placed for a 'First of A Kind' deployment of a Small Modular Reactor (SMR) or Advanced Modular Reactor (AMR) due to its status as a publicly owned asset, its highly skilled workforce, and the supportive community. In combination with the public and private sector, the Growth Deal will contribute funding towards enabling infrastructure for this development, helping to secure jobs as well as position North Wales at the cutting edge of innovation and R&D in a technology that has significant potential for deployment across the UK.
	Low Carbon Centre of Excellence	Bangor University	£97.7m	£21.0m	Developing infrastructure at Bangor University and Menai Science Park, enhancing the North Wales and UK capabilities for innovation in low carbon energy and related areas, helping to create the conditions for new inward investment and business growth in the low carbon energy supply chain in North Wales
	Smart Local Energy	NWEAB	£106.2m	£25.0m	To help achieve renewable energy, decarbonisation and local ownership targets, the project will support innovative enabling projects and

<b>Programme</b>	<b>Project</b>	<b>Project Sponsor</b>	<b>Total investment</b>	<b>Growth Deal Ask</b>	<b>Summary</b>
					demonstrators that overcome market failures and unlock private and community sector investments in smart local energy solutions.
	Transport Decarbonisation	NWEAB	£28.6m	£11.4m	Support delivery of a demonstrator project involving the production of green hydrogen from low carbon energy sources to decarbonise transport networks

Source: NWEAB

## Appendix D - Programme level spending objectives

Table D.1 Programme Level Spending Objectives	
Low carbon energy	<ul style="list-style-type: none"> <li>Jobs - To create between 800-980 new jobs in North Wales through the programme by 2036</li> <li>GVA - To create net additional GVA of £433-530m through the programme by 2036</li> <li>Investment - To deliver a total investment of £602-£735m through the programme by 2036</li> <li>Low carbon energy generation - To enable the deployment of at least 314MW of new, installed low carbon generation capacity through the programme by 2036</li> <li>Carbon Savings - To enable carbon savings of at least 2,723 tonnes through the programme by 2036.</li> </ul>
Innovation in high value manufacturing	<ul style="list-style-type: none"> <li>Jobs - To create between 145 -180 new jobs in North Wales through the programme by 2036</li> <li>GVA - To create net additional GVA of £94m - £114m through the programme by 2036</li> <li>To deliver a total investment of £36m - 43m between through the programme by 2036 Research and Innovation - Work in collaboration with 55 UK and international industry partners or SMEs to help develop low carbon technologies or waste reduction (TRL 1-5)</li> <li>Economic Integration - To support and facilitate three collaborative R&amp;D projects per annum to develop and new technologies (TRL 1-5)</li> <li>Skills and knowledge transfer - Provide training and upskilling to 100 people/businesses in the targeted technologies (biotechnology, optics, composites, hydrogen fuel cells) over the first 5 years</li> <li>Commercialisation - Number of enterprises supported to take new products using targeted technologies from the laboratory to the market/firm (TRL 6-9). Targets to be agreed during Project Business Case development.</li> </ul>
Agri-food and tourism	<ul style="list-style-type: none"> <li>Jobs - To create between 310 - 380 new jobs in North Wales through the programme by 2036.</li> <li>GVA - To create net additional GVA of £230m - £281m through the programme by 2036</li> <li>Investment - To deliver a total investment of between £37m and £45m through the programme by 2036</li> <li>Innovation and Productivity - To provide up to 4,000 – 6,000 m2 of new incubator, R&amp;D and training floorspace to help encourage innovation and diversification, promote upskilling and support business growth within the agri-food and tourism sectors.</li> <li>Decarbonisation and sustainable business models - 300-400 businesses diversifying from traditional core operation or adopting new technology / practices within the first five years of the programme.</li> <li>Skills and Knowledge Transfer - Provide additional skills training, knowledge transfer and collaboration opportunities for business, education providers and research institutions. Additional training provided to 2,500 individuals/businesses operating in the agrifood and tourism sectors over 5 years.</li> <li>Supply Chain Opportunities - Increase the % of supply contracts delivered through the programme with businesses located in North Wales – baseline to be agreed.</li> </ul>
Land and property	<ul style="list-style-type: none"> <li>Jobs - To create between 1,870 and 2,280 new jobs in North Wales through the programme by 2036</li> </ul>

	<ul style="list-style-type: none"> <li>• GVA - To create net additional GVA of £1.06bn and £1.29bn through the programme by 2036</li> <li>• Investment - To deliver a total investment of between £320m and £390m through the programme by 2036</li> <li>• Employment Sites and Premises - To deliver 30 ha of serviced employment land and 20,000 sq m of between 2021 and 2026</li> <li>• Residential Sites - To deliver 1,000 plus residential development plots between 2021 and 2026.</li> <li>• Holyhead Gateway - Land reclamation, safe guarding and life extension works to the breakwater, access improvements and port capacity enhancements</li> </ul>
Digital	<ul style="list-style-type: none"> <li>• Jobs - To create between 315-380 new jobs in North Wales through the programme by 2036.</li> <li>• GVA - To create net additional GVA of £130m - £158m through the programme by 2036</li> <li>• Investment - To deliver a total investment of between £37m and £46m through the programme by 2036</li> <li>• Connectivity at key sites - To introduce robust and competitive connectivity market at 28 strategic key sites in step with or in advance of UK Government 2025 target for gigabit capability coverage</li> <li>• Mobile Coverage on transport networks - To introduce high bandwidth mobile coverage on transport networks with deployment in step with or in advance of UK Government 2027 target for 5G coverage. Delivery of coverage across A55, A483 and A5.</li> <li>• Superfast everywhere - To ensure all inhabited premises in the region have Superfast broadband connectivity in the short term (by 2023) with gigabit upgrade capability built in as far as possible.</li> <li>• Digital Infrastructure Innovation - To ensure that the region is empowered to participate in innovation and commercialisation of new digital infrastructure technology to achieve and consolidate a long term role in a strategically important industry</li> </ul>

Source: NWEAB



## Appendix E - Economic Appraisal: Key Principles & Assumptions and Benefits by Project

Table E.1 Summary of Key Principles and Assumptions

Programme	Estimating and valuing gross benefits	Estimating additionality	Sensitivities tested
Low carbon economy	<ul style="list-style-type: none"> <li>Operational job estimates drawn from the Morlais Environmental Statement (08/19) &amp; Trawsfynydd Economic Impact Assessment (Arup, 08/20)</li> <li>Low carbon centre of excellence jobs based on Bangor University estimate</li> <li>Smart Local Energy &amp; Transport Decarbonisation jobs based on requirement for a 3.0 BCR (to be developed further at programme FBC stage)</li> <li>Average GVA per FTE for N. Wales (£53,000)</li> </ul>	<p><b>Deadweight</b></p> <ul style="list-style-type: none"> <li>Low Carbon Centre of Excellence: 10.3% (sub-regional Additionality Guide Capital Project Benchmark)</li> <li>Zero deadweight for the other projects. Assumed unlikely to go ahead at all without public funding.</li> </ul> <p><b>Displacement</b></p> <ul style="list-style-type: none"> <li>Trawsfynydd: 25% based on Arup EIA</li> <li>Other projects based on sub-regional Additionality Guide benchmarks</li> </ul> <p><b>Leakage and multipliers:</b> as above. Multiplier for Moralised is included in original ES jobs estimate.</p>	<ul style="list-style-type: none"> <li>Reduced impacts from Morlais and Trawsfynydd – assuming 40MW capacity at Morlais &amp; lower impact scenario for Trawsfynydd</li> <li>Jobs creation reduced by 25%</li> <li>Deadweight increased to 50%</li> <li>Total costs increased by 20%, (with Optimism Bias still incorporated).</li> </ul>
Digital	<ul style="list-style-type: none"> <li>Assumptions on coverage and take-up of mobile/fixed broadband and evidence on business productivity/innovation, start-ups and house price increases</li> <li>Connected Campus and Connected Corridor based on North Wales apportionment of UK level evidence on 5G benefits, including relating 5G to rail/road connectivity</li> <li>Digital Signalling Processing jobs from University of Bangor estimate, plus average GVA per FTE for N. Wales (£53,000)</li> </ul>	<ul style="list-style-type: none"> <li>Deadweight based on likely commercial deployment of fixed/mobile broadband</li> <li>Displacement: zero – universal fixed/mobile broadband will ultimately be available to all. The GD investment addresses a digital equity gap.</li> <li>Leakage: zero – impacts assumed to occur at business sites.</li> <li>Multipliers: based on sub-regional Additionality Guide benchmarks</li> </ul>	<ul style="list-style-type: none"> <li>Take-up of fixed infrastructure reduced by 10%</li> <li>Take-up of mobile infrastructure reduced by 20% (Inc. Connected Campus/Corridor )</li> <li>Deadweight applied to Full Fibre project increased to 100%</li> <li>DSP indirect jobs reduced by 33%.</li> </ul>

<p>Land and property</p>	<p>Job estimates for Holyhead Port development based on latest business planning Job estimates for remaining sites investment based on estimated floorspace benchmarks from the HCA Employment Densities Guide Average GVA per FTE for N. Wales (£53,000)</p>	<p>Applied mean average rates for all additionality factors for all observations at sub-regional level, taken from HCA Additionality Guide (2014)</p>	<ul style="list-style-type: none"> <li>• The number of direct jobs created through the programme is reduced by 25%.</li> <li>• Indirect job creation has been removed from the appraisal.</li> <li>• Deadweight has been increased to 50% across all projects.</li> </ul>
<p>Agri-food &amp; tourism</p>	<ul style="list-style-type: none"> <li>• Direct jobs taken from latest business planning assumptions</li> <li>• Indirect jobs within facilities and amongst beneficiaries</li> <li>• Jobs valued at average GVA per FTE for N. Wales (£53,000)</li> <li>• Apprentice numbers provided by project and valued at £3,456 per annum per completion (source: New Economy Unit Cost Database)</li> </ul>	<ul style="list-style-type: none"> <li>• Applied mean average rates for all additionality factors for sector/cluster support at sub-regional level, taken from HCA Additionality Guide (2014)</li> </ul>	<ul style="list-style-type: none"> <li>• Job creation and skills impacts 20% lower than expected</li> <li>• Additionality factors 20% higher</li> </ul>
<p>High value manufacturing</p>	<ul style="list-style-type: none"> <li>• Direct jobs taken from latest business planning assumptions</li> <li>• Indirect jobs amongst beneficiary businesses estimated by applying benchmark unit costs per gross job created for R&amp;D focussed projects from the English national ERDF evaluation 2007-13 (£52k, uprated to current prices)</li> <li>• Jobs valued at average GVA per FTE for N. Wales (£53,000)</li> </ul>	<ul style="list-style-type: none"> <li>• Applied mean average rates for all additionality factors for sector/cluster support at sub-regional level, taken from HCA Additionality Guide (2014)</li> </ul>	<ul style="list-style-type: none"> <li>• Job creation 20% lower than expected</li> <li>• Additionality factors 20% higher</li> </ul>

Source: Hatch

Table E.2 Gross Economic Benefits: Central Estimate (GVA is cumulative to 2036 and expressed in 2020/21 prices, undiscounted; jobs are annual at steady state)

	GVA (£m)	Jobs Created (FTEs)
	<b>Digital</b>	
Full fibre	50	520
Connecting the final %	65	540
Connected Campus	80	0
Connected Corridor	55	0
DSP	105	160
<b>Digital Total</b>	<b>345</b>	<b>1,210</b>
	<b>Low Carbon</b>	
Morlais	70	140
Trawsfynydd Power Station	170	380
Low Carbon Energy Centre of Excellence	30	30
Smart Local Energy	145	210
Transport Decarbonisation	75	110
<b>Low Carbon Total</b>	<b>485</b>	<b>870</b>
	<b>Land &amp; Property</b>	
Development Around Holyhead Port	1,175	2,000
Denbigh Hospital Site	35	70
Bodelwyddan	200	380
Wrexham Technology Park	350	550
Warren Hill Strategic Site	360	670
Bryn Cygan	42	70
<b>Land &amp; Property Total</b>	<b>2,160</b>	<b>3,740</b>
	<b>Agri-Food &amp; Tourism</b>	
Llysfasi Carbon Neutral Centre	435	630
Glynlliflon - Rural Economy Hub	50	80
North Wales Tourism Talent - Skills and Business Support	40	10
<b>Agri-Food &amp; Tourism Total</b>	<b>525</b>	<b>710</b>
	<b>Innovation &amp; HV Manufacturing</b>	
Centre for Environmental BIOTECHnology	10	190
Enterprise Engineering & Optics Centre	95	150
<b>Innovation &amp; HV Manufacturing Total</b>	<b>105</b>	<b>330</b>
	<b>GD Portfolio Total</b>	
<b>GD Portfolio Total</b>	<b>3,625</b>	<b>6,860</b>

Source: Hatch. GVA rounded to the nearest £5 million. Jobs rounded to the nearest 10.

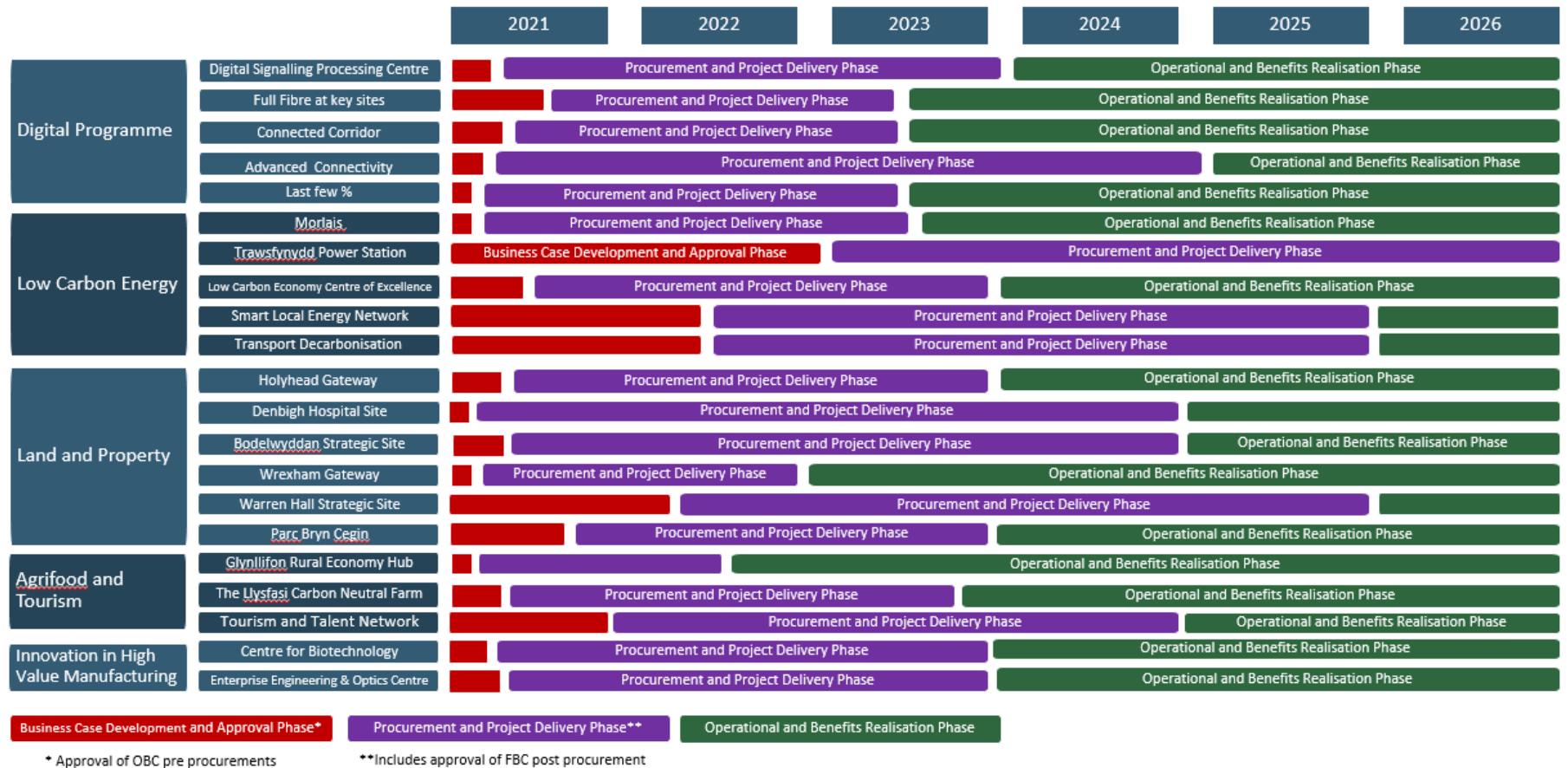
Table E.3 Net Additional Economic Benefits: Central Estimate (GVA is cumulative to 2036 and expressed in 2020/21 prices, undiscounted; jobs are annual at steady state)

	GVA (£m)	Jobs Created (FTEs)
<b>Digital</b>		
Full fibre	20	120
Connecting the final %	35	150
Connected Campus	35	0
Connected Corridor	25	0
DSP	50	80
<b>Digital Total</b>	<b>170</b>	<b>350</b>
<b>Low Carbon</b>		
Morlais	50	100
Trawsfynydd Power Station	230	510
Low Carbon Energy Centre of Excellence	20	20
Smart Local Energy	120	180
Transport Decarbonisation	60	90
<b>Low Carbon Total</b>	<b>480</b>	<b>890</b>
<b>Land &amp; Property</b>		
Holyhead Port	545	930
Denbigh Hospital Site	20	50
Bodelwyddan	125	250
Wrexham Technology Park	220	360
Warren Hill Strategic Site	235	440
Bryn Cegin	30	50
<b>Land &amp; Property Total</b>	<b>1,175</b>	<b>2,080</b>
<b>Agri-Food &amp; Tourism</b>		
Llysfasi - Carbon Neutral Centre	215	310
Glynllifon - Rural Economy Hub	25	40
Tourism and Talent Network	20	0
<b>Agri-Food &amp; Tourism Total</b>	<b>260</b>	<b>350</b>
<b>Innovation &amp; HV Manufacturing</b>		
Centre for Environmental BIOTECHnology	60	90
Enterprise Engineering & Optics Centre	45	70
<b>Innovation &amp; HV Manufacturing Total</b>	<b>105</b>	<b>160</b>
<b>GD Portfolio Total</b>		
<b>GD Portfolio Total</b>	<b>2,185</b>	<b>3,830</b>

Source: Hatch. Jobs rounded to the nearest 10.

# Appendix F - Growth Deal Delivery Timescale

Figure F.1 Growth Deal Delivery Timescale



Source: NWEAB

Explanatory Note on Private Delivery in the Land and Property Programme

Due to the scale of the proposed development, the following projects will have delivery timescales extending beyond 2026 - Western Gateway, Warren Hall, Bodelwyddan, Former North Wales Hospital. The timetable above refers to the Growth Deal funded elements of these projects. The full indicative delivery timeline for these projects is shown in Table 5.4 of the Financial Case of the Land and Property Programme Business Case

## Appendix G - Detailed Programme Level Sensitivity Analysis

Table G.1 Sensitivity Analysis: Low Carbon Economy Programme		
Sensitivity Test	Net Discounted GVA to 2036	Core BCR
<b>Preferred Option</b>	<b>£329m</b>	<b>3.3 : 1</b>
Sensitivity Test 1: Reduced impacts from Morlais and Trawsfynydd	£288m	2.8 : 1
Sensitivity Test 2: Reduction in FTE jobs created by 25%	£262m	2.6 : 1
Sensitivity Test 3: Deadweight is increased to 50%	£166m	1.6 : 1
Sensitivity Test 4: Costs increase 20%	£329m	2.7 : 1
Switching Values (returning a 1: 1 BCR)	A c. 70% deterioration in our core impact modelling assumptions	

Source: Hatch

Table G.2 Sensitivity Analysis: Innovation in High Value Manufacturing Programme		
Sensitivity Test	Net Discounted GVA to 2036	Core BCR
<b>Preferred Option</b>	<b>£57m</b>	<b>4.4 : 1</b>
Job creation 20% lower than expected	£46m	3.5 : 1
Additionality factors 20% higher	£53m	4.2 : 1
Worst Case (combined)	£43m	3.3 : 1
Switching Values (returning a 1: 1 BCR)	A 77% reduction in job creation	

Source: Hatch

Table G.3 Sensitivity Analysis: Agri-Food & Tourism Programme		
Sensitivity Test	Net Discounted GVA to 2036	Core BCR
<b>Preferred Option</b>	<b>£184m</b>	<b>6.4 : 1</b>
Job creation and skills impacts 20% lower than expected	£146m	5.1 : 1
Additionality factors 20% higher	£172m	6.0 : 1
Worst Case (combined)	£138m	4.8 : 1
Switching Value (returning a 1: 1 BCR)	A 84% reduction in job creation and economic value associated with tourism skills	

Source: Hatch

Table G.4 Sensitivity Analysis: Land & Property Programme		
Sensitivity Test	Discounted Net Additional GVA	Core BCR

<b>Preferred Option</b>	<b>£804 million</b>	<b>8.9:1</b>
Sensitivity Test 1: Reduction in direct jobs by 25%	£605 million	6.7:1
Sensitivity Test 2: Indirect job creation removed	£665 million	7.3:1
Sensitivity Test 3: Deadweight 50%	£535 million	5.9:1
Sensitivity Test 4: Costs increase 20%	£804 million	7.4:1
Switching Values (returning a 1: 1 BCR)	89% reduction in job creation	

Source: Hatch

Table G.5 Sensitivity Analysis: Digital Programme

Sensitivity Test Variable	Total GVA Impact (NPV)	Core BCR
Preferred Option Impact and VfM	£144.0m	3.6:1
Test 1: Adjustment to Fixed Fibre Take-Up	£139.5m	3.4:1
Test 2: Adjustment to 4G/5G Mobile Take-Up	£134.0m	3.3:1
Test 3: Adjustment to Deadweight	£140.1m	3.5:1
Test 4: Optimism Bias Cost Adjustment	£144.0m	3.6:1
Test 5: Adjusted Indirect DSP Employment	£133.1m	3.3:1
<b>All Tests Combined (Worst Case Scenario)</b>	<b>£116.3m</b>	<b>2.9:1</b>

**Switching Values**  
(returning a 1: 1 BCR)

A c. 75% reduction in:

- take-up of fixed and mobile broadband
- benefits from fixed broadband in terms of business start-ups
- benefits generated through the DSP.

Source: Hatch