Welsh European Funding Office

2014-2020

ERDF West Wales and the Valleys
OPERATIONAL PROGRAMME

CCI (2014UK16RFOP005)

December 2014
Foreword by Jane Hutt, Minister for Finance and Government Business, Welsh Government

This Operational Programme is an essential component of the 2014-2020 Structural Funds suite of programmes as it represents the Welsh Government’s agreement with the European Commission on what we will deliver. It is the result of extensive partnership working across Wales and reflects the outcomes of a rigorous evidence-based analysis and negotiation process over the past few years.

This version of the Operational Programme has been produced to present the same information in a more accessible format than that prescribed in the formal version, which requires the use of a set template. This version uses exactly the same text as approved by the European Commission, providing all the detail necessary for the development of operations and programmes, but presents it in a more easily digestible format. The full, formal Operational Programme, along with all supporting annexes, is also published on WEFO’s web pages; but I hope you will find this version of the primary document helpful to use in developing your funding proposals.

There are a number of exciting opportunities identified in the new Wales programmes and our aim is to take full advantage of these. The programmes identify the key challenges facing the Welsh economy and labour market. Some of these are structural issues and may take decades of sustained investment (by both the private and public sectors) to address. Structural Funds have a key role to play in this transformation, but we will need to target this funding alongside all other sources of investment to maximise impact.

In designing the new Structural Funds programmes we have incorporated three core design principles to ensure we are well placed to take advantage of opportunities, address challenges and complement other investments:

- **Concentration**: To focus on fewer things in fewer places for greater impact;
- **Integration**: To ensure EU investments work with each other and with wider investment programmes across the public and private sectors; and
- **Simplification**: To make it easier to access and administrate the funding.

The principle of concentration has been widely welcomed in our consultation with partners and by the European Commission. Over the years, Structural Funds have supported a large number of investments, aimed at improving the lives of individuals, supporting businesses and strengthening infrastructure across the whole of Wales. I would encourage you to look at some of the inspirational case studies available on the WEFO web pages as evidence of the successes achieved. The stronger strategic focus of the 2007-2013 programmes brought greater coherence to our Structural Funds investments; we must now build on this in our 2014-2020 programmes.
To provide this focus – and to ensure that issues of technical eligibility do not become the dominant feature of discussions about funding priorities – the 2014-2020 Structural Funds have a clear emphasis on outcomes. The programmes do not look to specifically limit eligibility (what activities we will fund) but instead focus on results (what the programme should aim to deliver). WEFO will demand this same shift in emphasis in discussions with partners about potential funding proposals. First and foremost, WEFO needs to understand what results each proposal will deliver (and how this contributes to the overall results set out in the programmes). The exact activities are therefore a means to an end, rather than the end in themselves. Within this document, particular attention should be placed on the sections under each Priority Axis which set out the results we want to deliver; as WEFO will be looking to fund proposals which can demonstrate a contribution to those results.

We have placed a high priority on identifying opportunities for integration since we first began developing our new programmes. All Welsh European Structural and Investments (ESI) Funds (the collective name for the EU Structural, Rural and Fisheries Funds) have been designed to complement each other. For example, for the first time the Structural Funds can be used to support farming and fisheries where that support meets Structural Funds objectives. There are a number of areas in which we hope to see joint working across these funds, including in energy, business support, skills and RD&I.

But the ESI Funds do not operate in isolation; wider links to other investments are also essential to deliver more for Wales. There are significant opportunities to access other funding streams across the UK, Europe and beyond; this Operational Programme identifies those of most relevance for each Priority Axis. Perhaps most importantly for the success of the Structural Funds programmes is that they dovetail with – and add value to – key investments across the Welsh economy that have already been made, are currently underway, or which are now being planned. Only by adding value to those investments can we hope to achieve genuine transformational change and tackle the structural challenges highlighted in our Operational Programmes. To help identify these links and plan investments in an ever-evolving investment context, we have implemented the findings of an independent review by Dr Grahame Guilford and developed an Economic Prioritisation Framework (EPF). This document complements the Operational Programmes by providing a snapshot of what else is happening in the Welsh economy. WEFO will be looking for evidence from operations that they can both deliver against programme objectives and results, and also that they fit into, and add value to, the wider investment context set out in the EPF.

Simplification remains a key objective, as we strive to simplify complex EU regulations and compliance requirements as far as we possibly can. There will always be things we cannot change, but we have sought to harmonise the requirements across each of the different ESI funds as far as possible, establishing common Welsh rules and terminology. WEFO is also introducing simplified costs, shorter document retention periods and reduced audit burdens for the 2014-2020 programmes. A key feature for 2014-2020 has been the decision to avoid wholesale changes from the 2007-2013 programmes. Where changes have been made they either reflect new regulatory requirements or are genuine simplifications. Our
partners have requested continuity and consistency. Independent reviews from Dr Guilford and the Wales Audit Office point to generally effective implementation systems that only need fine-tuning rather than fundamental reconstruction. Extensive guidance documents on WEFO’s web pages explain the key changes.

Over successive funding periods we have made important strides in improving monitoring and evaluation of our investments. We are keen to continue to improve the way we report on and **measure success**. For 2014-2020 we want to be able to communicate the achievements of projects and programmes in new ways that make sense of the immediate and potential longer term impact that our investments are having. This will also be a key consideration of the Wales Programme Monitoring Committee, papers for which are all published on WEFO’s web pages. Our Monitoring and Evaluation Plan is also published on the web pages and sets out in detail how we aim to monitor and evaluate progress across the programmes during the funding period.

I also want to take this opportunity to thank the many partner organisations and individuals across Wales that have contributed to the development of the 2014-2020 Structural Funds programmes since work on these began in 2012. This extensive and extremely productive partnership working has served to strengthen the programmes throughout the drafting and consultation processes and we are very grateful for that support. Our **commitment to partnership** does not end there - WEFO has a number of partnership groups meeting regularly to discuss various aspects of the programmes’ delivery, not least the Programme Monitoring Committee. WEFO will also be strengthening engagement with regional partnerships to support delivery and to help ensure investments take account of regional economic development priorities.

Finally, I would encourage organisations to get in touch with WEFO at an early stage in the development of project ideas (0845 010 3355 or [http://wefo.wales.gov.uk/applyingforfunding/?lang=en](http://wefo.wales.gov.uk/applyingforfunding/?lang=en)). WEFO can help you to navigate the various opportunities offered by the programmes and provide help and advice along the way. The aim is to work with those organisations which offer the best ideas to develop fully fledged proposals, supporting the preparation of business plans stage-by-stage. I would encourage all potential applicants to take full advantage of the full range of support WEFO can offer from the earliest stage.

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Jane Hutt
Minister for Finance and Government Business
Contents

1. Strategy ............................................................................................................................ 7

2. Summaries of finance, results, outputs and performance framework ........................................... 9

3. Cross-Cutting Themes ...................................................................................................... 19

4. Priority Axis 1: Research and Innovation ............................................................................. 29

   Specific Objective 1.1: Increase competitive and private research funding .................................. 35
   Specific Objective 1.2: Translate research and innovation into new and improved commercial products, processes and services .......................................................... 41
   Links across funds .................................................................................................................. 48

5. Priority Axis 2: SME Competitiveness ................................................................................. 51

   Specific Objective 2.1: Increase availability of finance to SMEs ............................................. 59
   Specific Objective 2.2: Increase the number of SME start-ups ................................................. 63
   Specific Objective 2.3: Increase the take-up and exploitation of NGA networks and ICT infrastructure by SMEs ................................................................. 66
   Specific Objective 2.4: Increase growth of SMEs with potential ............................................. 71
   Specific Objective 2.5: Increase availability of finance for RD&I, in particular risk capital, for Welsh SMEs ................................................................. 77
   Links across funds .................................................................................................................. 81


   Specific Objective 3.1: Increase the number of wave and tidal energy devices being tested in Welsh waters ................................................................. 89
   Specific Objective 3.2: Increase the number of small scale renewable energy schemes established ................................................................. 93
   Specific Objective 3.3: Increase the energy efficiency of the existing Welsh housing stock, particularly in areas of fuel poverty ................................................................. 97
7. Priority Axis 4: Connectivity and Urban Development 102

Specific Objective 4.1: Address issues of peripherality through improvements to the Trans-European Transport Network .......... 114
Specific Objective 4.2: Increase urban and labour mobility to and from key urban and employment centres ............................................. 118
Specific Objective 4.3: Contribute to EU targets for 100% access to broadband (30Mbps and above) and 50% access to 100Mbps. ........................................................................................................ 123
Specific Objective 4.4: Increase employment through investments in prioritised infrastructure supporting regional / urban strategy. 126

Links across funds ........................................................................................................ 131

8. Priority Axis 5: Technical Assistance .........................133

Specific Objective 5.1: Ensure the efficient and effective management of the 2014-2020 programmes. ................................. 134
Specific Objective 5.2: Provide high quality advice to key partners involved in the design and delivery of operations. ............... 134
Specific Objective 5.3: Enhance the integration of investments with other ESI funds and wider programmes................................. 135
Result indicators ........................................................................................................... 135
Actions .......................................................................................................................... 135
Output indicators ......................................................................................................... 139

9. Integrated approach to territorial development ...........141

10. Role of Relevant Partners ..............................................146

11. Reduction of the Administrative Burden ................153

12. Glossary of Common Acronyms ...............................155
1. Strategy

1.1 This document sets out the justification for the content of the Priority Axes and the specific objectives, actions and anticipated results described in Chapter 2. It builds on the analysis of disparities, needs and growth potentials and the rationale for the selection of Thematic Objectives included in the UK Partnership Agreement; in particular the Wales-specific analysis and rationale set out in the Welsh Chapter.

1.2 The Partnership Agreement has already considered links to the UK Country Specific Recommendations and the Commission Position Paper on the UK in coming to a justification for the selection of the main Thematic Objectives.

1.3 Each Priority and Specific Objective within this programme will contribute in some way to smart, sustainable and inclusive growth, and to economic, social and territorial cohesion. The programme aims to help to address long-standing weaknesses in the economy of the region, whilst building on territorial strengths. Economic, social and territorial cohesion (done in a smart, sustainable and inclusive way) are not mutually exclusive and should be supported by all Priorities, Specific Objectives and supported operations. For example:

- Economic cohesion: target disparities in productivity and innovation, building research capacity in areas of territorial strength, and improving the competitiveness and attractiveness of territories through improved connectivity, thus retaining growth businesses and skilled labour.

- Social cohesion: improving connections between local labour markets with low mobility to employment and urban centres, linking targeted business support to skills investments, and improving the attractiveness of areas for inward investment supporting local employment (e.g. RD&I, Low Carbon).

- Territorial cohesion: targeting areas of strength or emerging capability, including through improving the accessibility of more peripheral areas and developing genuine potential in those areas (e.g. marine energy). Ensuring local employment and mobility considered in all operations.

1.4 The ERDF programme will be driven by an unequivocal focus on investments that can contribute to the creation of sustainable jobs and economic growth, with a concentration of resources in those areas where the greatest impact can be made. A focus on sustainable jobs and growth does not mean economic growth to the detriment of the environment or of the poorest and most vulnerable; it is economic growth that properly considers and incorporates social and environmental opportunities, fully reflecting the Welsh Government’s central organising principle of Sustainable Development¹.

¹ To see: One Wales: One Planet, the Sustainable Development Scheme for Wales (http://wales.gov.uk/topics/sustainabledevelopment/publications/onewalesoneplanet/); and White
1. STRATEGY

1.5 Our investment approach aims to take account of the wider investment context, setting out the specific role that the programme can play in unlocking opportunities for economic growth alongside the (potentially much larger) investments of the private, public and third sectors. This programme therefore does not aim to solve the problems identified in isolation, but seeks to improve the conditions for that wider investment to take place by other actors, in particular the private sector. It aims to do this through addressing some of the bottlenecks and barriers to growth and helping de-risk investment opportunities.

1.6 The programme is designed to deliver growth and support jobs in West Wales and the Valleys while supporting the key objectives of EU Cohesion policy by adding value and not detrimentally affecting other regional economies. More specifically, where the Fund legislation enables large enterprises to receive a contribution from the Funds, this flexibility will not be used to support investments that result in relocating a substantial number of jobs to West Wales and the Valleys from existing locations in the Union.

1.7 When spending ESI funds by means of public contracts / concessions, the Managing Authority – and any Intermediate Body, where applicable – will require beneficiaries to fully respect EU public procurement rules and in particular: (i) Directives 2004/18/EC and 2004/17/EC; (ii) Directives 2014/23/EU, 2014/24/EU and 2014/25/EU once transposed into United Kingdom legislation; (iii) Directives 89/665/EEC and 92/13/EEC; and (iv) the general public procurement principles derived from the Treaty on the Functioning of the EU. Applicants and beneficiaries will be informed of this fundamental requirement via grant award agreements and national eligibility rules and guidance documents, supplemented by training and support where needed.

Paper setting out proposals for a Sustainable Development bill (http://wales.gov.uk/consultations/sustainabledevelopment/sdwhitepaper/)
## 2. Summaries of finance, results, outputs and performance framework

### 2a. Summary of financial allocations by Priority Axis

<table>
<thead>
<tr>
<th>Priority Axis</th>
<th>Union Support</th>
<th>Match Funding Total</th>
<th>Public Match Funding</th>
<th>Private Match Funding</th>
<th>Total investment</th>
<th>Intervention Rate (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>299,317,581</td>
<td>152,892,090</td>
<td>116,553,442</td>
<td>36,338,648</td>
<td>452,209,671</td>
<td>66.19%</td>
</tr>
<tr>
<td>2</td>
<td>207,993,404</td>
<td>125,275,951</td>
<td>58,517,425</td>
<td>66,758,526</td>
<td>333,269,355</td>
<td>62.41%</td>
</tr>
<tr>
<td>3</td>
<td>170,823,488</td>
<td>75,213,511</td>
<td>56,055,766</td>
<td>19,157,745</td>
<td>246,036,999</td>
<td>69.43%</td>
</tr>
<tr>
<td>4</td>
<td>501,305,767</td>
<td>262,181,542</td>
<td>198,696,431</td>
<td>63,485,111</td>
<td>763,487,309</td>
<td>65.66%</td>
</tr>
<tr>
<td>5</td>
<td>24,070,209</td>
<td>8,186,839</td>
<td>8,186,839</td>
<td>0</td>
<td>32,257,048</td>
<td>74.62%</td>
</tr>
<tr>
<td>Total</td>
<td>1,203,510,449</td>
<td>623,749,933</td>
<td>438,009,903</td>
<td>185,740,030</td>
<td>1,827,260,382</td>
<td>65.86%</td>
</tr>
</tbody>
</table>

### 2b. Indicative amount of support to be used for climate change objectives

<table>
<thead>
<tr>
<th>Priority Axis</th>
<th>Indicative amount of support to be used for climate change objectives (EUR)</th>
<th>Share of total allocation to the operational programme (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research and Innovation</td>
<td>67,863,516</td>
<td>5.64%</td>
</tr>
<tr>
<td>2. SME Comp</td>
<td>5,742,731</td>
<td>0.48%</td>
</tr>
<tr>
<td>4. Connectivity and Urban Development</td>
<td>74,325,687</td>
<td>6.18%</td>
</tr>
<tr>
<td>5. Technical Assistance</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total</td>
<td>316,835,422</td>
<td>26.33%</td>
</tr>
</tbody>
</table>
2c Chart of financial allocations by Priority Axis

- Priority 1: Research and Innovation - €299,317,581
- Priority 2: SME Competitiveness - €207,993,404
- Priority 3: Renewable Energy and Energy Efficiency - €170,823,488
- Priority 4: Connectivity and Urban Development - €24,070,209
- Priority 5: Technical Assistance - €24,070,209
### 2d. Summary of Results and Outputs by Specific Objective

#### (1) Research and Innovation

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Result indicators/ Targets</th>
<th>Outputs [*Commission Core indicators]</th>
</tr>
</thead>
</table>
| SO(1.1) To increase the success of Welsh research institutions in attracting competitive and private research funding | • Research Income of Higher Education Institutions in WW&V (HESA)  
Target: 10-15% increase | Amount of research funding secured  
165,000,000 |
| | | Number of enterprises cooperating with supported research institutions*  
160 |
| | | Number of improved research infrastructure facilities  
6 |
| | | Number of new researchers in supported entities*  
470 |
| | | Number of researchers working in improved research infrastructure facilities*  
200 |
| SO(1.2) To increase the successful translation of research and innovation processes into new and improved commercial products, processes and services, in particular through improved technology transfer from HEIs | • Average share of total turnover from product innovation, and novel innovation: new to market, new to business and significantly improved (UKIS)  
Target: Increase from 22% to 24-27% | Number of enterprises supported to introduce new to the market products*  
490 |
| | | Number of enterprises supported to introduce new to the firm products*  
725 |
| | | Number of enterprises cooperating with supported research institutions*  
1,212 |
| | | Number of enterprises receiving grants*  
520 |
| | | Number of enterprises receiving non-financial support*  
3,750 |
| | | Number of new enterprises supported*  
30 |
| | | Private investment matching public support in innovation or R&D projects*  
42,840,000 |
| | | Employment increase in supported enterprises*  
1,125 |
| | | Number of patents registered for products  
519 |
| | | Number of pilot projects completed  
n/a |
| | | Enterprises adopting or improving:  
• equality and diversity strategies and monitoring systems  
956 |
| | | • sustainable development strategies and monitoring systems  
956 |
## (2) SME Competitiveness

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Result indicators/ Targets</th>
<th>Outputs [<em>Commission Core indicators</em>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO(2.1) To increase the amount of finance available to SMEs for both business start-up and for business expansion</td>
<td>• Annual amount invested in Venture Capital and Expansion Capital (BCVA data) Target: increase from £18m to £26-£27m a year</td>
<td>Investment in enterprises 91,556,196</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of enterprises receiving grants* 160</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of enterprises receiving financial support; non-grants* 235</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private investment matching public support to SMEs; Non-grants* 132,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employment increase in supported enterprises* 2,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enterprises adopting or improving: 190 • sustainable development strategies and monitoring systems;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• equality and diversity strategies and monitoring systems 190</td>
</tr>
<tr>
<td>SO(2.2) To increase the number of SME start-ups through the provision of information, advice and guidance and support for entrepreneurship</td>
<td>• Count of birth of new enterprises (ONS) Target: 8% increase in annual birth-rate</td>
<td>Number of new enterprises supported* 5,150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of enterprises receiving non-financial support* 275</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individuals receiving support 14,350</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individuals receiving support - Female individuals 7,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individuals receiving support - BME individuals 375</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individuals receiving support - Disabled individuals 3,650</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employment increase in supported enterprises* 8,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enterprises adopting or improving: 2,710 • sustainable development strategies and monitoring systems;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• equality and diversity strategies and monitoring systems 2,710</td>
</tr>
<tr>
<td>SO(2.3) To increase the take-up and exploitation of NGA networks and ICT infrastructure by SMEs</td>
<td>• SME use of fibre and cable broadband (Ofcom) Target: increase from 22% SMEs (2014) to 27%</td>
<td>Number of enterprises supported to introduce new to the firm products* 1,480</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of enterprises receiving non-financial support* 3,450</td>
</tr>
</tbody>
</table>
### 2. SUMMARY TABLES AND CHARTS

#### SO(2.4) To increase the growth of those SMEs with growth potential, in particular through accessing new markets (both domestic and international)

<table>
<thead>
<tr>
<th><strong>Employment within small (10-49 employees) and medium (50-249) SMEs</strong> (Welsh Government)</th>
<th>Employment increase in supported enterprises*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target: 9% increase</strong></td>
<td><strong>6,450</strong></td>
</tr>
<tr>
<td>Number of enterprises receiving grants*</td>
<td>40</td>
</tr>
<tr>
<td>Number of enterprises receiving financial support other than grants*</td>
<td>330</td>
</tr>
<tr>
<td>Number of enterprises receiving non-financial support*</td>
<td>13,650</td>
</tr>
<tr>
<td>Private investment matching public support to SMEs - Grants*</td>
<td>4,320,000</td>
</tr>
<tr>
<td>Private investment matching public support to SMEs - Non-grants*</td>
<td>6,600,000</td>
</tr>
<tr>
<td>Increase in level of export</td>
<td>167,100,000</td>
</tr>
<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>8,700</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>8,700</td>
</tr>
</tbody>
</table>

#### SO(2.5) To address market failures in the availability of finance, in particular risk capital, for Welsh SMEs to undertake innovation and commercialise R&D

<table>
<thead>
<tr>
<th><strong>Annual Early stage equity investment</strong> (British Venture Capital Association data)</th>
<th>Investment in enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target: increase from £9m to £12-16m a year</strong></td>
<td><strong>26,536,773</strong></td>
</tr>
<tr>
<td>Number of enterprises receiving financial support other than grants*</td>
<td>90</td>
</tr>
<tr>
<td>Private investment matching public support to SMEs - Non-grants*</td>
<td>23,760,000</td>
</tr>
<tr>
<td>Employment increase in supported enterprises*</td>
<td>490</td>
</tr>
<tr>
<td>Number of enterprises supported to introduce new to the firm products*</td>
<td>20</td>
</tr>
<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>45</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>45</td>
</tr>
</tbody>
</table>
### (3) Renewable Energy and Energy Efficiency

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Result indicators/ Targets</th>
<th>Outputs [*Commission Core indicators]</th>
</tr>
</thead>
</table>
| SO(3.1) Increase the number of wave and tidal energy devices being tested in Welsh waters and off the Welsh coast, including multi-device array deployments, thereby establishing Wales as a centre for marine energy production | • **Installed capacity in wave and tidal** (DUKES)  
Target: Increase from 7MW to 20MW | **Additional capacity of renewable energy production**  
20 |
|                      |                           | Energy support site preparation schemes  
2 |
|                      |                           | Number of renewable energy prototypes tested  
8 |
| SO(3.2) To increase the number of small scale renewable energy schemes established | • **Number of sites in Wales generating electricity from renewable sources [excluding PV]** (DUKES)  
Target: to increase from 493 to 530 | **Community energy schemes**  
37 |
|                      |                           | Number of enterprises receiving non-financial support  
150 |
|                      |                           | Number of enterprises supported to introduce new to the firm products  
75 |
|                      |                           | Number of pilot projects completed  
4 |
| SO(3.3) Increase the energy efficiency of the existing Welsh housing stock, particularly in areas of fuel poverty | • **Energy efficiency rating of households facing severe fuel poverty** (Welsh Government)  
Target: increase the energy performance by 2 ratings in 10% of households facing severe fuel poverty | **Number of households with improved energy consumption classification**  
5,500 |
|                      |                           | Estimated decrease of GHG  
10 |
## (4) Connectivity and Urban Development

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Result indicators/ Targets</th>
<th>Outputs [*Commission Core indicators]</th>
</tr>
</thead>
</table>
| **SO(4.1)** To address issues of peripherality and improve private investment in local areas through improvements to the functioning of the Trans-European Transport Network | • Average speed on TEN-T road (Trafficmaster data)  
Target: Increase by 5-10% on selected sections of TEN-T network (A40 and A55) | Total length of reconstructed or upgraded roads (including TEN-T)*  
15 |
| **SO(4.2)** Increasing urban and labour mobility to and from key urban and employment centres | • The number of people aged 16 and over within 15, 30, and 45 minute travel time of a key employment centre between 7am and 9am on a Tuesday by public transport (GIS data for National Transport Plan Monitoring)  
Target: 5-10% increase in both the 0-15mins and 0-30mins time-bands | Public transport services created or improved  
2,500,000 |
| **SO(4.3)** Contribute to Digital Agenda for Europe targets for 100% access to next generation broadband (30Mbps and above) and 50% access to 100Mbps | • Proportion of premises that are in postcodes served by NGA networks (Ofcom)  
Target: Increase from 58% to 65% | Additional premises with broadband access of at least 30 Mbps* - Households  
28,000 |
| **SO(4.4)** To increase employment through prioritised local or regional infrastructure supporting an urban economic strategy | • Claimant Count rate in Travel to Work Areas (Welsh Government)  
Target: average reduction of 8% (dependant on schemes prioritised) | Jobs accommodated  
1,770 |
| | | Land developed  
50 |
| | | Premises created or refurbished  
56,430 |
| | | SMEs accommodated  
235 |
## 2e. Summary of Performance Framework

<table>
<thead>
<tr>
<th>Priority Axis</th>
<th>Indicator Type</th>
<th>Definition of the indicator or implementation step</th>
<th>Milestone for 2018</th>
<th>Final target (2023)</th>
<th>Explanation of the relevance of the indicator, where appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Research and Innovation</td>
<td>Implementation step</td>
<td>x% of final target for ‘number of enterprises receiving non-financial support’ achieved by partially complemented and fully completed operations</td>
<td>31%</td>
<td>n/a</td>
<td>Necessary as output unable to report reasonable milestone in 2018</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Number of enterprises receiving non-financial support</td>
<td>n/a</td>
<td>3,750</td>
<td>The output is the main measure of activity which covers 60% of the Priority Axis</td>
</tr>
<tr>
<td></td>
<td>Financial</td>
<td>Total amount of eligible expenditure entered into the accounting system of the certifying authority and certified by the authority</td>
<td>€115.3m</td>
<td>€452.2m</td>
<td></td>
</tr>
<tr>
<td>(2) SME Competitiveness</td>
<td>Implementation step</td>
<td>x% of final target for number of enterprises receiving non-financial support achieved by partially implemented and fully implemented operations</td>
<td>44%</td>
<td>n/a</td>
<td>Necessary to provide milestone for final output target</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Number of enterprises receiving non-financial support</td>
<td>n/a</td>
<td>17,375</td>
<td>The output is the main measure of activity under 2 out of 3 Investment Priorities of the Priority axis. This equates to 90% of the priority</td>
</tr>
<tr>
<td></td>
<td>Financial</td>
<td>Total amount of eligible expenditure entered into the accounting system of the certifying authority and certified by the authority</td>
<td>€85.1m</td>
<td>€333.2m</td>
<td></td>
</tr>
</tbody>
</table>
## 2. SUMMARY TABLES AND CHARTS

### Performance Framework

<table>
<thead>
<tr>
<th>Priority Axis</th>
<th>Indicator Type</th>
<th>Definition of the indicator or implementation step</th>
<th>Milestone for 2018</th>
<th>Final target (2023)</th>
<th>Explanation of the relevance of the indicator, where appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Renewable Energy and Energy Efficiency</td>
<td>Implementation step</td>
<td>X number of Energy site preparation schemes achieved by partially completed and fully completed operations</td>
<td>1</td>
<td>n/a</td>
<td>Needed to capture milestone in the deliver of related output final target</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Energy support site preparation schemes</td>
<td>n/a</td>
<td>2</td>
<td>Will capture a key element of the support for marine energy. This and the output 'Number of renewable energy prototypes tested' captures the 59% of the priority</td>
</tr>
<tr>
<td></td>
<td>Implementation step</td>
<td>X Number of renewable energy prototypes tested achieved by partially completed and fully completed operations</td>
<td>3</td>
<td>n/a</td>
<td>Needed to capture milestone in the deliver of related output final target</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Number of renewable energy prototypes tested</td>
<td>n/a</td>
<td>8</td>
<td>See explanation for Energy support site preparation schemes above.</td>
</tr>
<tr>
<td></td>
<td>Implementation step</td>
<td>x% of final target for householder with improved energy consumption classification achieved by partially completed and fully completed operations</td>
<td>50%</td>
<td>n/a</td>
<td>Needed to capture milestone in the delivery of related output final target (below)</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Number of households with improved energy consumption classification</td>
<td>n/a</td>
<td>5,500</td>
<td>Will capture activity for energy efficiency in housing element</td>
</tr>
<tr>
<td></td>
<td>Financial</td>
<td>Total amount of eligible expenditure entered into the accounting system of the certifying authority and certified by the authority</td>
<td>€62.8m</td>
<td>€246.0m</td>
<td></td>
</tr>
<tr>
<td>Priority Axis</td>
<td>Indicator Type</td>
<td>Definition of the indicator or implementation step</td>
<td>Milestone for 2018</td>
<td>Final target (2023)</td>
<td>Explanation of the relevance of the indicator, where appropriate</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------</td>
<td>----------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>(4) Connectivity and Urban Development</td>
<td>Implementation step</td>
<td>x% of the priority financial allocation accounted for by contractual agreements to deliver infrastructure works</td>
<td>35%</td>
<td>n/a</td>
<td>Agreements with contractors to deliver infrastructure works. For the rail industry these could be Implementation Agreements (IAs) or Basic IAs. This is required to report a milestone against the gross passenger km output, which has a time lag associated with it.</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Gross passenger kilometres on public transport</td>
<td>n/a</td>
<td>400,000,000</td>
<td>The output measures activity under one of four Investment Priorities under the Priority axis (around 34% of all activity)</td>
</tr>
<tr>
<td></td>
<td>Implementation step</td>
<td>X number of projects submitted to the Managing authority having undergone agreed prioritisation process</td>
<td>3 and approval of at least 3 regionally significant schemes</td>
<td>Successful completion of at least 5 regionally significant schemes</td>
<td>Will capture the Urban Development elements and is necessary to capture milestone for land developed output.</td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>Land developed (Ha)</td>
<td>n/a</td>
<td>50</td>
<td>The output measures activity under one of four Investment Priorities covering around 33% of all activity for the Priority Axis.</td>
</tr>
<tr>
<td></td>
<td>Financial</td>
<td>Total amount of eligible expenditure entered into the accounting system of the certifying authority and certified by the authority</td>
<td>€194.7m</td>
<td>€763.5m</td>
<td></td>
</tr>
</tbody>
</table>
3. CROSS-CUTTING THEMES

Sustainable Development

3. Cross-Cutting Themes

Sustainable development

3.1 The Welsh Chapter of the UK Partnership Agreement provides an overview of the approach to promoting the horizontal principles across the ESI funds in Wales which includes the Sustainable Development Cross Cutting Theme (CCT). It also outlines the main Welsh Government organising principles and objectives for sustainability which provide the basis for the implementation of the CCT within the ESF Programmes in Wales. The Partnership Agreement also describes the progress towards related environmental sustainability targets and other parts of this programme describe some of the vertical actions contributing to them (e.g. support for renewable energy and energy efficiency).

3.2 In terms of environmental sustainability, *Sustaining a Living Wales* is the Welsh Government’s new approach to natural resource management in Wales and is based on the ecosystem approach. An ecosystem being defined as all the living things, in an environment, including their interactions, with each other and their environment.

3.3 This ERDF Programme will contribute to the achievement to environmental sustainability goals as follows:

- Promoting research and innovation in the Grand Challenge area of low carbon, energy and environment, building on the significant investments made in this area under the 2007-2013 programmes
- Developing the low carbon, energy and environment sector through business advice and support and business finance under the SME Competitiveness Priority
- Promoting resource efficiency, including energy efficiency, through interventions under the SME Competitiveness Priority
- Increasing the potential to generate renewable energy through support for R&I, and enabling infrastructure investments in the Marine Energy industry in Wales
- Increasing the number of small scale and community renewable energy projects
- Improving the energy efficiency of Welsh Homes, in particular in areas of particular fuel poverty and deprivation (as measured by WIMD)
- Promoting low carbon energy schemes for urban and rural areas
3. CROSS-CUTTING THEMES

- Supporting low carbon and sustainable transport solutions, including through linking unemployed and economically inactive individuals with work and training

3.4 In addition, the following actions will be taken in the selection and development of operations under this Programme to ensure that environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and management:

- Targets will be set at Priority Axis level providing an important driver to ensure that projects address the programmes cross cutting theme objectives

- Cross cutting theme assessment at all stages of project development, including assessment against contribution towards sustainable development objectives for environmental protection, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and management

- Ongoing specialist advice will be made available to projects from WEFO and through arrangements being developed for the implementation of projects, including the consideration of green procurement and the potential to incorporate green infrastructure solutions. A key objective will be to provide the specialist input at an early stage in the process to maximise take-up of the opportunities to promote the cross cutting themes

- A programme of awareness raising and training will be provided to WEFO staff and project sponsors on the benefits of, and best practice in, integrating the cross cutting themes

- Activity level guidance will be prepared together with best practice case study examples that will provide specific information on how sponsors can address the cross cutting themes within their project plans

- Regular monitoring of progress, through ‘forecast’ data (the targets set by projects at the outset) and ‘actual’ achievement (what projects actually achieve monitored through the quarterly return system), allowing for early intervention if necessary

- Update reports to PMC and other stakeholders

- WEFO will encourage key equality, social inclusion and sustainable development organisations to be involved in an attempt to establish an effective network of specialist support

3.5 Through indirect measures, at an individual or organisational level, and through ensuring projects adopt appropriate Sustainable Development practices and principles in the delivery of ERDF activity, investments will be
able to support the overall Welsh Government Sustainable Development principles and objectives.

3.6 Dedicated actions are not envisaged related to Natura 2000 for the ERDF, though the approach set out above will ensure opportunities are not lost to contribute to the objectives of the related Prioritisation Action Framework for Wales through embedding sustainability principles in the design and delivery of operations. It is anticipated other national and European resources (including the EAFRD) will be available to contribute more directly to the Prioritisation Action Framework to achieve the favourable conservation status of habitats and species of community interest.
Equal opportunities and non-discrimination

3.7 The integration of equal opportunities, gender mainstreaming and the Welsh language is important not only for legal reasons, but also because different social and demographic sections of society in the labour market contribute to the overall effectiveness of the activity delivered by the programmes.

3.8 The Welsh Government’s Strategic Equality Plan (2012-16) and equality objectives highlight how the Welsh Government is fulfilling its legal obligations as well as its strong commitment to equality and inclusion. The Plan was developed in-line with the general duties under the Public Sector Equality Duty (PSED) of the Equality Act 2010.

3.9 An Equality Impact Assessment (EIA) has been undertaken to assess potential impacts of the ERDF programmes on people with different socio-demographic characteristics. The EIA supports the compliance of the Welsh Government with the PSED by providing evidence on the potential effects of the programme on people with the nine protected characteristics:

- Age
- Disability
- Gender Reassignment
- Marriage and Civil partnership
- Pregnancy and Maternity
- Race and Ethnicity
- Religion and Belief
- Sex / Gender
- Sexual Orientation

3.10 The report concludes that the process for the development of the 2014-2020 ERDF programmes for Wales has included extensive consideration of equality and because of this it is highly unlikely that there will be any disproportionate negative impacts on any of the characteristics protected under the Equality Act and will support the Welsh language as required by the 2006 Government of Wales Act.

3.11 Key equality objectives for the ERDF programme in Wales are to:

- Encourage entrepreneurship and business start-up initiatives to encourage more take up from young people, women, Black and minority ethnic people, disabled people and LGBT people
- Support the creation of an environment which supports inclusive work places and promotes equality of opportunity for staff, including reconciliation of work and private life
- Ensure access to technology is available and accessible to all, particularly for people in rural areas, older people and others affected by the ‘digital divide’
• Support RD&I which seeks to address societal challenges, such as supporting active ageing, opening up employment and training opportunities for individuals and supporting independent living

• Support access for disabled people and those from BME backgrounds to training and employment opportunities, including through sustainable transport solutions

• Identify and support opportunities to promote and facilitate the use of the Welsh language

3.12 The UK Partnership Agreement includes details of the approach to promoting the horizontal principles across the ESI funds in Wales.

3.13 Specific to this Programme, the following actions will be taken in the selection and development of operations to promote equal opportunities and prevent any discrimination based on the nine protected characteristics outlined above:

• On-going specialist advice will be made available to projects by the Welsh Government and through arrangements being developed for the implementation of projects. A key objective will be to provide the specialist input at an early stage in the process to maximise take-up of the opportunities to promote gender mainstreaming and equal opportunities

• A programme of awareness raising and training will be provided to Welsh Government staff and project sponsors on how to integrate equal opportunities objectives

• Activity level guidance will be prepared together with best practice case study examples that will provide specific information on how sponsors can address gender mainstreaming and equal opportunities within their project plans

• Regular monitoring of progress, through ‘forecast’ data (the targets set by projects at the outset) and ‘actual’ achievement (what projects actually achieve monitored through the quarterly return system), allowing for early intervention if necessary

• Update reports to PMC and other stakeholders

• Welsh Government will encourage key gender mainstreaming, equality and social inclusion organisations to be involved in an attempt to establish an effective network of specialist support

• The international move towards a rights based approach to disability is based on the notion of right rather than charity. The limitations faced by disabled people should no longer be linked to their disability, but to society’s inability to provide equality of opportunity to all. The link
between skills, qualifications, life chances and disability are well established, resulting in people acquiring fewer qualifications, often through early educational disadvantage, resulting in a dependency on disability-related benefits later in life.

- The Welsh programmes will aim to ensure early intervention to help disabled people become employable and not to define themselves as unable to work before they have accessed such support. Mechanisms need to be integrated into a wide range of employment programmes to ensure that disabled people are able to remain in employment. Solutions should not be based on traditional assumptions or stereotypes, but on the particular need of the individual.

- Without an accessible environment the support mechanism and employment programmes are of little use. Designing and providing the environment in which disabled people can travel to, enter and make use of independently or with support where appropriate, will be a key consideration for any activity funded.

Equality between men and women

3.14 The Welsh Government’s Gender Equality Scheme sets out its plans to promote equality of opportunity for women and men in Wales.

3.15 Although the Welsh Government has no specific duty to produce a Gender Equality Scheme it wants to be recognised for providing an exemplary service to women and men in Wales by developing strategies and policies that are effective and outcome focused.

3.16 Key gender equality objectives will primarily be addressed through the ESF programmes. The ERDF programmes will be able to complement this activity through:

- Supporting the competitiveness of the childcare sector where it meets the objectives of the related Priority Axis

- Support the creation of an environment which supports inclusive work places, which promotes equality of opportunity for staff, including the reconciliation of work and private life

- Encourage entrepreneurship and business start-up initiatives to encourage more take up from women

3.17 The UK Partnership Agreement includes details of the approach to promoting the horizontal principles across the ESI funds in Wales.
Tackling Poverty

Geographical areas most affected by poverty/target groups at highest risk of discrimination or social exclusion

3.18 In Wales poverty is defined as 'A long-term state of not having sufficient resources to afford food, reasonable living conditions or amenities, or to participate in activities (such as access to attractive neighbourhoods and open spaces) that are taken for granted by others in society'. Social Exclusion or the ability to participate is strongly linked therefore to issues of Poverty.

3.19 The Socio Economic Analysis which accompanies this Operational Programme concludes that interventions designed to improve employment and income outcomes are more likely to succeed when focussed on individuals but that carefully targeted initiatives focussed on ‘place’ can also be effective. It suggests that a mix of interventions may be appropriate in West Wales and the Valleys where there are weaknesses in the skills profile of the workforce and areas of physical deprivation which may act to reinforce poor labour market outcomes.

3.20 The Welsh approach to the development of integrated activity as outlined in Section 4 will be of particular importance for investments which seek to target those at risk of poverty, disadvantage and exclusion and linking these target groups with economic opportunity and growth at local, regional and national level and placed based investments made across the ESI funds. All operations will be expected to incorporate such linkages and integrated approaches at an early stage in the development process.

3.21 Relative income poverty in Wales (defined as households living on 60% or less of the UK median income across different population groups) is broadly similar to that of UK averages, although the percentage of children living in poverty in Wales is currently 31% (2 percentage points above that of the UK average)\(^2\).

3.22 The percentage of the population living in persistent poverty after housing costs (defined as being in relative income poverty for at least three of the last four years) is 11%, slightly higher than in England and Scotland\(^3\).

3.23 Wales also has a higher percentage of workless households and children living in workless households than UK averages. HMRC data on children living in low income families highlights an acute issue in the South Wales Valleys\(^4\).

3.24 In addition to poverty, the Welsh Government also monitors levels of deprivation in Wales. Deprivation is a wider concept than poverty. Poverty

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\(^2\) *Family Resource Survey* (2010/11), DWP. Data from 2008/9 to 2010/11
\(^3\) Longitudinal data from the British Household Panel Survey and Understanding Society Survey
\(^4\) *Children in Low-Income Families Local Measure* (2011), HMRC
means not having enough money (or other essentials) to get by. Deprivation refers to problems caused by a general lack of resources and opportunities (not just money). The Welsh Index of Multiple Deprivation 2011 (WIMD) is the official measure of deprivation for small areas in Wales which are called Lower Super Output Areas (LSOAs). Although the geographical size of these LSOAs varies quite widely, and depends on the local population density, the populations are intended to be roughly the same in each, with an average population of 1,500.

3.25 In WIMD 2011, the most deprived local authority is defined as the authority with the greatest fraction of its LSOAs in the most deprived 10% of all LSOAs in Wales. This method can be seen as identifying the concentration of the most deprived areas in a Local authority, rather than an average level of deprivation.

3.26 Integrated investments based on functional economic areas will consider links between programme areas (e.g. in the case of City Regions); the summary of most deprived wards below does not, therefore, make a distinction between programme areas. Coordinated and integrated investments should consider the whole picture, not just within statistical boundaries.

3.27 Areas of the upper valleys have the highest relative concentrations of deprivation across Wales as a whole. This is highlighted in Figure 29 of the Socio economic analysis. Some inner-city wards of Cardiff, Newport and Swansea also suffer from high relative deprivation. This broad picture holds true across 5 of the 8 WIMD deprivation measures, namely income; employment; education; health and community safety.

3.28 The most deprived local authority is Merthyr Tydfil with 25.0% of its LSOAs in the most deprived 10% in Wales, followed by Blaenau Gwent (23.4%) and Rhondda Cynon Taff (17.8%). Blaenau Gwent has 87.2%, Merthyr Tydfil 77.8% and Rhondda Cynon Taff 73.7% of their LSOAs in the most deprived 50% in Wales.

3.29 The most deprived local authorities in the income domain are Blaenau Gwent, with 21.3% of its LSOAs in the most deprived 10% in Wales, Cardiff with 21.2% and Merthyr Tydfil with 19.4%.

3.30 The Equality Impact Assessment, which accompanies this programme, provides a robust assessment of the needs of those who may be at risk of exclusion, disadvantage or discrimination as a result of one or more characteristics protected under the Equality Act (2010) and their specific needs in terms of supporting access to employment and skills. These ‘protected characteristics’ include age (covering all age groups), disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race and ethnicity, religion or belief, sex / gender and sexual orientation.

3.31 The EIA highlights that groups with characteristics protected under the Equality Act 2010 can face specific issues that impact upon their ability to
access and progress within the labour market, and which place them at
greater risk of poverty and exclusion. The EIA: also shows that BME groups
are disproportionately affected by unemployment\textsuperscript{5}, with ethnicity closely linked
to income poverty.

**Strategy to address the specific needs of geographical areas most affected by
poverty/target groups at highest risk of discrimination or social exclusion**

3.32 The focus of the Welsh ERDF Programmes is to promote economic growth
and the creation of sustainable jobs across the programme area. Many of the
jobs created will be of relevance to new entrants and returners to the labour
market. It will be a key part of the integrated approach to territorial
development set out in Section 4 for regional and urban authorities to look at
how integration of the ESI funds can add value in their areas, in particular
where ESF activities targeting specific groups can complement ERDF
investments in places. The Managing Authority will also be testing
beneficiaries to ensure that all proposals for operations fully consider
opportunities to integrate activity across funds.

3.33 This is consistent with the Welsh Government’s Tackling Poverty Action Plan
which focuses on three areas: Preventing poverty; Helping people into work;
and Mitigating the impact of poverty.

3.34 The approach is complemented by the ESF Programme’s emphasis on
providing good quality, affordable childcare and targeted action to help people
improve their skills and qualifications, recognising that the best route out of
poverty is through employment. The ESF programme will seek to support
target groups most affected by poverty and discrimination.

3.35 Targeting using WIMD data will not be extensively used in the ERDF
programme, though it will be expected in relation to activities seeking to help
address issues of fuel poverty through improving the energy efficiency of
housing. A consideration of deprivation would also be expected in any urban
or regional strategy being supported in terms of sustainable urban
development under Priority 4.

**Key Tackling Poverty Objectives for the Welsh Programmes:**

- Focus on the creation of jobs and growth providing employment
  opportunities for those who are out of work. For example through
  increasing the competitiveness of SMEs

- Tackling barriers to employment. For example addressing poor skills and
  lack of childcare through the ESF, complemented by addressing transport
  barriers to accessing employment through the ERDF

• Focusing on growth. For example through support for key knowledge-based sectors through the ERDF, aligned with skills development interventions enabling those experiencing in-work poverty to access more highly-skilled, better paid jobs through the ESF.

3.36 The UK Partnership Agreement includes details of the approach to tackling poverty across the ESI funds in Wales. The Welsh Government is clear in its expectation that integrated action is needed to promote social inclusion and combat poverty, contributing simultaneously to the 2020 initiative and the Welsh Government’s Tackling Poverty Action Plan.

3.37 Support under the infrastructure Priority Axis will be targeted at regeneration, creating jobs and improving connectivity in specific geographic areas where deficiencies are often cited as being a barrier to accessing employment. Where possible, projects will be encouraged to link areas of growth opportunity to areas with high incidence of poverty and deprivation.

3.38 Action to address the energy efficiency of housing will be targeted specifically at those suffering from fuel poverty and the use of WIMD data is anticipated in the design of appropriate targeting mechanisms.

**Actions to address specific needs of geographical areas most affected by poverty/target groups at highest risk of discrimination or social exclusion**

<table>
<thead>
<tr>
<th>Target group/geographic area</th>
<th>Main types of planned actions which are part of the integrated approach</th>
<th>Priority Axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical area to be decided through consultation</td>
<td>Physical infrastructure improvements to promote local economic growth and jobs.</td>
<td>4</td>
</tr>
<tr>
<td>Communities suffering from fuel poverty</td>
<td>Energy efficiency measures which will cut fuel costs for those with low incomes</td>
<td>3</td>
</tr>
</tbody>
</table>
4. Priority Axis 1: Research and Innovation

4.1 A high level analysis and summary of key needs and opportunities leading to the selection of this Priority Axis is set out in Sections 1.1 and 1.3 of the Welsh Chapter of the UK Partnership Agreement.

4.2 Both Science for Wales\(^6\) and Innovation Wales\(^7\) (which together form the Welsh Smart Specialisation Strategy) provide a clear policy focus for this priority. They stress the need to promote innovation across Wales and in all sectors of the economy, to build capacity and promote excellence in research and innovation, and to seek new global and digital opportunities. The strategy also sets out areas of specialisation which can provide a focus for investments and the development of excellence and clusters. These are broadly organised under the headings of ‘Grand Challenge’ areas, which align with UK and EU policy priorities:

- **Life Sciences and Health** (for example Patient data records, Wound healing, e-health or stem cell research);
- **Advanced Engineering and Materials** (e.g. Photonics, or Maintenance Repair and Overhaul in aerospace); and
- **Low Carbon, Energy and Environment** (e.g. Smart living, eco innovation, or Low-carbon energy).
- The importance of **ICT and the Digital Economy** is also recognised as a key enabling area (e.g. trust and security and through developing world class enabling infrastructure).

4.3 These areas also include identification of a number of areas of existing and emerging expertise in Key Enabling Technologies such as nanotechnology, semiconductors, advanced materials, and photonics. Further illustrative examples of smart specialisation are given in the Welsh chapter of the UK Partnership Agreement. To support research excellence in these areas new ‘Sêr Cymru’ teams and National Research Networks aim to strengthen Wales’ research performance by targeting investment, supporting infrastructure and attracting world-class research talent. Innovation Wales also aims to focus significant investment in areas of Smart Specialisation.

4.4 The Grand Challenges recognise the importance of **addressing societal challenges for balanced, sustainable and inclusive economic growth**. Territorial cohesion is also sought through supporting areas of existing and emerging expertise, such as clusters. The contribution investment in R&I can make to genuine sustainable development is illustrated in the opportunities for

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\(^6\) Science for Wales: http://wales.gov.uk/topics/businessandeconomy/csaw/publications/130319sfw/?lang=en

\(^7\) Innovation Wales: http://wales.gov.uk/topics/businessandeconomy/innovation/innovation-strategy-wales/?lang=en
**Green growth** and the transition to a low Carbon economy. Green growth has been identified as presenting significant opportunities for future growth and jobs.

4.5 **Investment in R&D in West Wales and the Valleys** (WW&V) is much lower than the UK as a whole (0.96% of GVA in 2011 compared to 1.79%)\(^8\), and even further behind the best performing regions across the EU. Lower levels across Wales in comparison to these regions reflect fewer world-class institutions and specialisation clusters, fewer R&D intensive businesses, but also the potential for more RD&I to be carried out in Wales by those multinational R&D intensive businesses with a Welsh presence.

4.6 Demonstration of research excellence and securing **competitive research funds** attracts businesses, which in turn can support the creation of specialised clusters. *Science for Wales* highlights a need to increase our share of UK Research Council funding from 3.3 per cent in 2009/10 to 5 per cent (reflecting Wales’ population share in the UK). Wales attracted just over 2% of the Framework Programme 7 (FP7) funding to the UK in 2011\(^9\), though it should be noted that a significant proportion of this was secured by institutions in East Wales, such as Cardiff University; a strength that could be more fully exploited. *Innovation Wales* also recognises that Wales needs to play a bigger role in the wider UK and European innovation system; Wales is identified an Innovation Follower\(^10\) which is a strength in the EU context, but a challenge in relation to the best performers in the UK and across Europe.

4.7 **Barriers to accessing competitive funding** relate to capacity and capability of existing institutions within Wales in terms of facilities, equipment, excellence of research and researchers, and lack of previous success. Other barriers include a lack of: finance and technical expertise to prepare bids; horizon scanning; and international partners / networks.

4.8 As competitive funds are secured and partnerships develop a key aim should be the **creation of clusters**, building on existing strengths, which bring together researcher institutions with both large and small businesses\(^11\). The demonstration of research excellence can attract business investments, which is where the transformational change in this area can be delivered. This is not a rapid process, but it is clear progress is being made in Wales with increased industrial collaborations and increasing private investment in RD&I in Wales.

4.9 **Private sector investment in research** in Wales fluctuates subject to investment programmes of a small number of businesses. Overall, private sector investment in research in Wales has been increasing (both cash value

\(^{8}\) Gross domestic expenditure on research and development (GERD) ONS  
\(^{9}\) Welsh participation in EU research, innovation and lifelong learning programmes, National Assembly for Wales, European and External Affairs Committee (February 2011)  
\(^{10}\) *Innovation Union Scoreboard 2013*, Hugo Hollanders and Nordine Es-Sadki, (UNUMERIT), for the European Commission  
\(^{11}\) This is a key feature of the smart specialisation approach. For example: Policy Instruments for RIS3 Clusters, Jaime del Castillo, Belen Barroeta and Jonatan Paton, 2012. Available at: http://s3platform.jrc.ec.europa.eu/links
and as a percentage of Welsh GVA). Wales does not have many research intensive companies with research centres in Wales and successful clusters across the EU often have large research intensive companies, helping to support diverse supply chains. There are signs of this changing as clusters in key sectors are being developed and will be strengthened through the National Research Networks.

4.10 A small number of significant investments in **R&D infrastructure** were made under the 2007-2013 ERDF programme, increasing the availability of facilities suitable for highly specialised research as well as business incubation by 10,000 square meters. This Priority will seek to increase the specialised research infrastructure only where this can clearly demonstrate that it will increase the capacity and capability to undertake world class research, encourage inward investment and develop existing and emerging capability. Investments in R&D infrastructure are supported by the ERDF on condition that they are in line with the smart specialisation strategy and that the research results be applied for the economic development of the region.

4.11 Welsh businesses report a relatively high involvement in **innovative activities** compared to other parts of the UK, but it is recognised that there is a need to develop a better understanding of our strengths in innovation to achieve genuine Smart Specialisation.

4.12 The UK Innovation Survey reported that the overall proportion of **innovation-active businesses cooperating with universities** in the UK is only 15%, although HEBCIS data indicates a well developed and effective knowledge transfer system between HE and business. This suggests room for further improvements in cooperation, in particular with a view to commercialisation. This is particularly true given **Innovation Wales** recognises that pockets of world class expertise exist in academia in areas with commercial potential, although lacking in global scale and an opportunity to build on existing best practice in the commercialisation of R&D.

4.13 Significant barriers to the **commercialisation of R&D** remain. Science for Wales recognises the world-class science undertaken in Wales, particularly in the Grand Challenge areas, but also found

> “frequently SMEs and individuals have considerable difficulty being able to demonstrate to potential funders the proof of concept for the

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12 A number of case studies are highlighted in *An analysis of the effects of Structural Funds support for Research, Technological Development and Innovation 2000-2010* (2011)
13 For example Institute for Life Sciences 2, Centre for Nanohealth, Arts and Innovation Centre
14 For example those identified in *Science for Wales and Innovation Wales* (collectively the Welsh Smart Specialisation Strategy) as areas with existing and emerging strengths (e.g. stem cell research around Cardiff or agricultural research in Aberystwyth).
15 *UK Innovation Survey 2011* (2012), UK Department for Business, Innovation, and Skills (BIS)
16 *Innovation Wales* (2013, Welsh Government)
17 *UK Innovation Survey 2011* (2012), BIS
18 *Higher education-business and community interaction survey 2011-12* (2013), HEFCE
idea, technique or [product] that they want to develop [and] It is often necessary to demonstrate experience and competence by a proof of concept study for… competitive calls. "

4.14 The ERDF regulations require a focus on the transition to a low Carbon economy and, as one of the three Grand Challenge areas identified in the Welsh Smart Specialisation strategy, it offers a particular opportunity in Wales, particularly given emerging expertise in key specialisation areas. The Welsh Low Carbon and Environmental Goods and Services sector was estimated to be worth over £5.5bn in sales in 2010/11, employing well over 40,000 people. The sector is expected to continue growing¹⁹ and there is some existing expertise in a range of related areas highlighted in the Welsh Smart Specialisation approach²⁰. Wales benefits from significant academic expertise in developing and integrating low-Carbon technologies, for example in the Sustainable Buildings Envelope Centre in Flintshire (East Wales).

4.15 Renewable energy technologies (e.g. on and off shore wind, photovoltaic, biomass, etc) are already more mature and are key growth sectors (for example there are now a number of off-shore wind arrays across the Welsh coast). To realise benefits of these and other major investments in the programme area consideration needs to be given as to whether investment can be made in helping to capture new manufacturing, operation and maintenance opportunities in the programme area, for example through research and innovation to lower costs in deployment and maintenance and to demonstrate newer and more innovative technologies.

4.16 This priority is expected to work in close cooperation with the delivery of Science for Wales and Innovation Wales, which are seeking to address a number of additional challenges in the Welsh economy. For example, to address challenges related to capacity in fundamental research and attracting world class research teams, the Ser Cymru programme (a key part of Science for Wales) is developing that world class research excellence by bringing world-class research teams to Wales. Innovation in the public sector, in particular innovation in the use of significant public sector budgets, is being addressed through the delivery of Innovation Wales which has a particular emphasis on innovation through public sector procurement. There are also initiatives planned to use the Welsh public sector as a test-bed for innovation, in particular social innovation. More efforts are also being made to attract additional funding sources to Wales to support research and innovation goals (e.g. Horizon 2020, UK Research Councils, Technology and Strategy Board), including by encouraging and supporting Welsh stakeholders to access those funding sources.

¹⁹ Low carbon and environmental goods and services (LCEGS) report (2011 to 2012), UK Department for Business Innovation and Skills, 18 July 2013
²⁰ For example smart living, energy resource-efficiency, sustainable buildings, crop management, etc
## Summary of justification for selection of Specific Objectives

<table>
<thead>
<tr>
<th>Needs</th>
<th>Growth Opportunities</th>
<th>Specific Objective (SO)</th>
</tr>
</thead>
</table>
| • To promote innovation in all sectors  
  • To build capacity (including facilities and infrastructure) and promote excellence in research and innovation  
  • To seek new global and digital opportunities  
  • Greater investment of private businesses in RD&I  
  • Secure more competitive funding  
  • To remain competitive in growing markets, particularly relating to the transition to a Low Carbon economy | • Specialisations in Grand Challenge areas, including low carbon areas  
  • Some existing and emerging expertise in Key Enabling Technologies  
  • Some centres of excellence and improving capacity  
  • Existing and emerging clusters of specialisation  
  • Green growth as significant opportunity for future growth and jobs  
  • To better exploit the strengths of existing capability (e.g. Cardiff University) and the UK innovation system as a whole  
  • Increasing industrial collaborations and private investment in RD&I in Wales | (1.1) To increase the success of Welsh research institutions in attracting competitive and private research funding |
| • Develop culture of innovation and widen scope to include range of smart specialisation sectors, not just technological or science-based  
  • More successful products to be launched in Wales  
  • Greater benefits realisation for businesses within Wales  
  • Support to get to ideas / products to be investor-ready (proof-of-concept)  
  • Need more innovation-active businesses to cooperate with universities  
  • To remain competitive in growing low carbon market | • History of innovation and relatively high levels of innovation by Welsh SMEs  
  • Innovation as a driver for productivity improvements  
  • Is a well developed and effective knowledge transfer system between HE and business  
  • Specialism and clusters provide opportunity for benefit realisation in the programme area, including in the energy and the environment and low carbon sectors  
  • Advanced Manufacturing and materials capability could support retention of commercial processes  
  • Assets like Low Carbon Research Institute and | (1.2) To increase the successful translation of research and innovation processes into commercial products, processes and services, in particular through improved technology transfer from HEIs. |
4. PRIORITY 1: RESEARCH AND INNOVATION

Background

<table>
<thead>
<tr>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green growth as significant opportunity for future growth and jobs and emerging specialisms in Low Carbon Energy and Environment sector</td>
</tr>
</tbody>
</table>

Scope

4.17 This Priority Axis is focused on the development of research, technological development and innovation. While all activity is to be funded under Thematic Objective 1, the Priority Axis will make a specific contribution to climate change objectives, supporting the transition to a low carbon economy. This is reflected in the Categories of Intervention and consideration will be given to capturing outputs related directly to low carbon transition activity.
Specific Objective 1.1: To increase the success of Welsh research institutions in attracting competitive and private research funding.

Description of baseline and results

4.18 It is proposed to monitor two aspects of the desired results in order to reflect both the long-term structural change being sought and the shorter to medium term impact being sought.

4.19 As set out in the strategy and the Partnership Agreement the key structural issue is a relative lack of Business Expenditure on R&D (BERD). This is therefore set as a context indicator to retain a focus on the long-term aim and to provide a context for investments. This should ensure all projects are able to demonstrate they are looking at how activity can lever private investment in R&D within the programme area.

4.20 BERD in Wales in 2012 was £272 million, representing 1.6% of the UK total. The BERD figures fluctuate in Wales subject to the investment programmes of a small number of businesses, but long terms trends are positive with increases in both cash and proportional terms. In 2011 BERD represented nearly 46% of all research expenditure in Wales, though it lags the Lisbon target of two thirds of research to be carried out by the private sector.

4.21 In order to be able to set a target for a shorter term impact the selected indicator seeks to provide a measure of the research funding coming to Wales (albeit limited to HEI institutions, given limited data availability). A key factor for the location of research-intensive businesses and the development of smart specialisation is the endogenous research capacity in the programme area. This should help demonstrate an improving capacity and capability in key research priority areas, but it should not limit support to HEIs or prohibit support to build capacity of SMEs to access competitive research funding.

4.22 Data show that research income in West Wales and the Valleys is concentrated on Swansea, Aberystwyth and Bangor; together accounting for 98% of research income in the programme area. This figure is even higher for the more competitive funding (e.g. EU, Central Government or Research Council funds). As a whole the programme area accounts for 43% of the total income across Wales (and Wales accounts for 3.8% of the total UK research income).
### Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Income for HEIs in WW&amp;V (data from HESA)</td>
<td>£</td>
<td>West Wales and the Valleys</td>
<td>£82.4 million</td>
<td>2011/12</td>
<td>10-15% increase</td>
<td>Higher Education Statistics Agency</td>
<td>Annual</td>
</tr>
</tbody>
</table>

### Description of the type and examples of actions to be supported

#### 4.23
The scope of this Investment Priority provides for specific challenges of innovative and research intensive businesses to be addressed and for specific research infrastructure investments outside of the SME Competitiveness and Infrastructure priorities.

#### 4.24
The ERDF programme will seek to build the capacity and address other barriers to Welsh research institutions (not just Higher Education Institutions) successfully accessing competitive research funds. A key outcome will be for supported institutions to have the capacity to carry out internationally recognised collaborative research and to be bidding collaboratively for competitive research funding from the UK\(^{21}\) and the EU, such as Horizon 2020. This will help support the continued development of the Welsh research base, which in turn will help encourage inward investment, business expenditure on research, and the development of research-intensive and innovative clusters. A contribution to the long term goal of an increase in Business Expenditure on Research and Development should be demonstrated for each investment.

#### 4.25
Research infrastructure has the potential to catalyse the knowledge creation process and facilitate the networking of researchers and stimulate knowledge flows generally. It can act as the catalyst for inward investment, co-location of research-intensive industry, development of supply chains and the exchange and transfer of innovation and knowledge\(^{22}\). There are already emerging

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\(^{21}\) Includes TSB and Research Councils for which budgetary frameworks are available. For example the TSB 2013/14 delivery plan is available at [https://www.innovateuk.org/documents/1524978/2138994/Delivery+Plan+-+Financial+year+2013-14/c435471d-222c-4e63-8269-d0f4b2b61c2f](https://www.innovateuk.org/documents/1524978/2138994/Delivery+Plan+-+Financial+year+2013-14/c435471d-222c-4e63-8269-d0f4b2b61c2f)

\(^{22}\) For example a series of case studies of exemplar regions demonstrating smart specialisation, all of which involve the development of clusters around key research infrastructure: *An analysis of the effects of Structural Funds support for Research,*
clusters and existing infrastructure in Wales (including major investments in Grand Challenge areas) that provide a basis on which to build.

4.26 A small number of significant investments in R&D infrastructure were made under the 2007-2013 ERDF programme\(^{23}\), increasing the availability of facilities suitable for highly specialised research. This Priority will seek to increase the specialised research infrastructure where this can clearly demonstrate that it will increase the capacity and capability to undertake world class research, encourage inward investment and develop existing and emerging capability. Investments in R&D infrastructure are supported by the ERDF on condition that they be in line with the smart specialisation strategy and that the research results be applied for the economic development of the region.

4.27 In order to support the transition to a low-carbon economy through Research and Innovation a range of competitive funds have been put in place to support the development of renewable energy and energy efficient technologies and innovations. Welsh research institutions face the same barriers to accessing these sources of competitive funding as they do other Research and Innovation funding so support will be required to address these barriers.

4.28 Types of action to be supported to address key barriers:

- Building research capacity and capability. For example through:
  - centres of excellence
  - supporting cluster development, through infrastructure and supply chain development
  - applied research, development of prototypes
  - collaboration and networks, in particular industrial and international links
  - investment in technology and technology transfer
  - building partnerships
  - increasing interaction and influence with external bodies

- Capacity building to address barriers to accessing competitive research funding. For example to develop more competitive bids, building networks, finding international partners, new ways of working.

- All investments should have a focus on areas with potential for developing or strengthening world-class excellence (e.g. through Smart Specialisation and identified in *Science for Wales*) and should identify links to Sêr Cymru and National Research Networks.

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\(^{23}\) Institute for Life Sciences 2, Centre for Nanohealth, Arts and Innovation Centre
Guiding principles

4.29 Actions supported under this Investment Priority will support the *Innovation Wales*\(^{24}\) key theme of prioritising and creating critical mass and support the continued development of the Welsh research base, which in turn will help encourage inward investment (both in terms of general private sector investments and significant additional Business Expenditure on Research and Development) and the development of research-intensive and innovative clusters.

4.30 *Science for Wales*\(^{25}\) will be the key guiding policy for this objective and investments will need to demonstrate they are consistent with the emerging focus on excellence advocated and are complementing activity taking place in the Grand Challenge areas of: Life Sciences and Health; Low carbon, Energy and Environment; Advanced Engineering and Materials; all underpinned by ICT and the Digital Economy. These broadly align with other efforts to prioritise societal challenges, such as those identified as funding priorities for Horizon 2020\(^{26}\).

4.31 Targeting will be expected on each of the grand challenge areas with investments in the Low Carbon Energy and Environment sector in particular expected to contribute to Climate Change targets (with indicative financial allocations set out in the Categories of Intervention table).

4.32 Projects will be tested on their contribution to the Smart Specialisation strategy (also incorporating *Innovation Wales*) and subject to technical assessment by experts in respective research fields. Projects will be expected to be able to demonstrate a clear route along the ‘stairway of excellence’ whereby they will be expected to be applying for competitive funds. As part of this projects will be expected to collaborate with international partners, thereby addressing one of the key barriers which impede organisations accessing international research funding. Alignment with the Smart Specialisation strategy is essential for all investments across this Priority Axis.

4.33 In demonstrating alignment to the Smart Specialisation strategy for Wales operations will need to illustrate how they are contributing directly to the indicators and objectives identified in the latest associated Delivery Plans\(^ {27}\). These Strategies are being delivered in close cooperation and measures are in place to ensure cooperation and coordination in delivery (e.g. use of

\(^{24}\) Available at: [http://wales.gov.uk/topics/businessandeconomy/policy/innovationwales/?lang=en](http://wales.gov.uk/topics/businessandeconomy/policy/innovationwales/?lang=en)

\(^{25}\) Available at: [http://wales.gov.uk/topics/businessandeconomy/publications/130319sfw/?lang=en](http://wales.gov.uk/topics/businessandeconomy/publications/130319sfw/?lang=en)

\(^{26}\) Grand Societal Challenges identified as: Health, demographic change and wellbeing; Food security, sustainable agriculture, marine and maritime research, and the bio-economy; Secure, clean and efficient energy; Smart, green and integrated transport; Inclusive, innovative and secure societies; Climate action, resource efficiency and raw materials

\(^{27}\) The Science for Wales Delivery Plan is published at: [http://wales.gov.uk/topics/businessandeconomy/csaw/publications/deliveryplan/?lang=en](http://wales.gov.uk/topics/businessandeconomy/csaw/publications/deliveryplan/?lang=en) and the Innovation Wales Delivery Plan will be published at: [http://wales.gov.uk/topics/businessandeconomy/innovation/?lang=en](http://wales.gov.uk/topics/businessandeconomy/innovation/?lang=en)
4. PRIORITY 1: RESEARCH AND INNOVATION

specialist Advisory Councils with cross-membership to develop priorities, monitor delivery plans and indicators, and coordinate activity).

4.34 Industrial engagement is essential for the development of internationally successful clusters and an essential component in increasing levels of business expenditure on R&D. Industrial engagement is also increasingly important for attracting competitive research funding. Projects should demonstrate industrial engagement where possible, and proposals involving industrial partners and private investment will be particularly encouraged; especially where they can involve Welsh SMEs or attract SMEs to Wales. All projects should be able to demonstrate how they will support a medium to long-term increase in the levels of Business Expenditure on Research and Development.

4.35 Research and Innovation are two elements of the “knowledge triangle”, with education as a third element. All three will need to work in concert to maximise impact. Research activity could have commercial application for SMEs for instance, and there may be a need to underpin the investment with the skills development of both the researchers and individuals in SMEs. Projects that consider and combine elements of all three pillars will be encouraged. As a minimum projects will need to be coordinated with one another across this Priority and with the rest of the ERDF and ESF programmes (in particular skills elements of the ESF). The possibility of joint investments should be explored. Links to wider investment programmes will also be sought where possible and appropriate (see Section 8).

4.36 The programme will support the European Research Area key priorities of enabling: more effective national research systems; optimal transnational cooperation and competition; an open labour market for researchers; gender equality and gender mainstreaming in research; and optimal circulation, access to and transfer of scientific knowledge including via digital ERA.

4.37 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

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28 As defined in the Commission Communication “A Reinforced European Research Area Partnership for Excellence and Growth” (COM(2012)392 final) and endorsed by the Council of the European Union in its conclusions of December 2012 identified.
### Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises cooperating with supported research institutions*</td>
<td>Number</td>
<td>160</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of improved research infrastructure facilities</td>
<td>Number</td>
<td>6</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Amount of research funding secured</td>
<td>GBP</td>
<td>165,000,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of new researchers in supported entities*</td>
<td>FTE</td>
<td>470</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of researchers working in improved research infrastructure facilities*</td>
<td>Number</td>
<td>200</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
4. PRIORITY 1: RESEARCH AND INNOVATION

Specific Objective 1.2: To increase the successful translation of research and innovation processes into new and improved commercial products, processes and services, in particular through improved technology transfer from HEIs.

Description of baseline and results

4.38 HEBCIS data\(^{29}\) indicates a well developed and effective knowledge transfer system between HE and business in Wales although the UK Innovation Survey\(^ {30}\) reported that only 15% of innovation-active businesses cooperate with universities in the UK. This suggests significant scope for greater interaction. While these interactions are a key component in many innovation chains, the key change (result) being sought is for more commercialisation benefits within the programme area. Clearly HEI-SME interactions are a core part of this but is it the growth supported in SMEs that leads to growth and jobs; hence the desire for an indicator that tries to capture this more directly.

4.39 Broader Innovators\(^ {31}\) demonstrate above average scores for a range of innovation factors, including introduction of new and improved goods and services, entering new markets and increasing market share. Wales has the highest proportion of Broader Innovators in the UK (43.3% for 2008-2010); a key advantage for increasing the benefits of commercialisation. However, enterprises in Wales self-identify a greater number of barriers to innovation than other regions, with the availability and cost of finance a key barrier to innovation (addressed specifically in the SME Competitiveness Priority Axis).

4.40 These high levels of innovation activity across Welsh enterprises are not resulting in the same levels of successful new products or even improved products that can be seen in other regions. Welsh enterprises introducing new or significantly improved services and products report only 22.4% of turnover from innovation is related to those products or services (against a UK average of 29.7%); the lowest of all UK regions. Targeting on smart specialisation areas will mean less focus on volume and more on capturing benefits in the programme area. The target therefore seeks to reflect this with more intense targeted investment expected to generate greater results in those SMEs supported to at least the UK average.

\(^{29}\) Higher Education – Business and Community Interaction Survey (2013), HEFCE.
\(^{30}\) UK Innovation Survey 2011 (2012), BIS
\(^{31}\) Distinguished in the UK Innovation Survey from Innovation Active enterprises in that they will have carried out "activities in areas such as internal research and development, training, acquisition of external knowledge or machinery and equipment linked to innovation activities".
Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value 2023</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average share of total turnover from product innovation, and novel innovation: new to market, new to business and significantly improved</td>
<td>%</td>
<td>Wales</td>
<td>22.4%</td>
<td>2010</td>
<td>24-27%</td>
<td>UK Innovation Survey (BIS)</td>
<td>Every two years</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions to be supported

4.41 This Priority will include support set out below and, in doing so, will contribute primarily to two of Innovation Wales’ five key themes - providing flexible support for innovation and improving collaboration.

4.42 Innovation Wales recognises that pockets of world class expertise exist in academia in areas with commercial potential. It also recognises emerging clusters of Smart Specialisation (although these may currently be lacking in global scale) as well as opportunities to build on existing best practise in the commercialisation of R&D. The Welsh National Research Networks will cover the Grand Challenge areas and will provide leadership for knowledge transfer and commercialisation activity. Targeting on the Low Carbon Energy and Environment sector will be expected to contribute to Climate Change targets and categorised separately (indicative allocations have been included in the Categories of Expenditure table).

4.43 The Priority will support the provision of flexible support for innovation which can address specific barriers for SMEs to carry out innovative or research focused activities, as well as for businesses seeking to increase innovation or use of research. The actions will be complemented by the repayable financial support for innovation available from Priority 2 of this Programme: SME Competitiveness.
4.44 We recognise that innovation can be carried out by any organisation (e.g. private, third and public), and is not only linked to science and technological research by academia and business. We want to be able to encourage a greater number of SMEs to carry out innovation activities in Wales, in particular where they can help address the grand societal challenges (for example eco-innovation). All such investments under this priority must still align with the smart specialisation strategy. All other SMEs are eligible for support through the SME Competitiveness Priority Axis.

4.45 Success cannot be guaranteed and failure is an essential part of innovation; the Priority will therefore seek to support a balanced portfolio of investments using the Smart Specialisation approach to encourage pilot activities, applied research and innovation with a high risk of failure alongside those with clear market exploitation potential.

4.46 The Commission’s Digital Agenda for Europe\(^{32}\) sets out the important role of ICT in research and innovation. ICT as a sector represents 5% of the total GDP and 20% of overall productivity growth in Europe. Digital Wales\(^{33}\) and Delivering a Digital Wales\(^{34}\) (as well as Innovation Wales) describe the current strengths and weaknesses of the sector in Wales.

4.47 The Priority will also support initiatives to promote knowledge transfer, the dissemination of new technologies, and the commercialisation of research based on market pull - the need and ability of businesses to exploit knowledge and a business culture which encourages problem solving in the workplace\(^{35}\).

4.48 The European Commission\(^{36}\) defines Research and Innovation as interrelated but independent concepts (essentially research to improve our knowledge base and innovation as new ways of doing things that may include use of research).

4.49 The ERDF programme will seek to increase investment in applied research or experimental development with a clear link to economic outcomes, where it can contribute to growth and productivity in the programme area. ERDF will not simply substitute domestic funds for competitive funds. Opportunities to

\(^{32}\)http://ec.europa.eu/digital-agenda/
\(^{33}\)http://wales.gov.uk/topics/businessandeconomy/digitalwales/?lang=en
\(^{34}\)http://wales.gov.uk/topics/businessandeconomy/digitalwales/publications/framework/?lang=en
\(^{35}\)Also a key feature of Innovation Union Flagship Initiative under Europe 2020
\(^{36}\)Innovation Union - A rationale for action (2010), European Commission. Available at: http://ec.europa.eu/research/innovation-union/pdf/rationale_en.pdf. This describes research and innovation as:
Research: investment of resources in attempts to expand scientific and technological knowledge base, often in order to solve particular problems that confront different sectors of society.
Innovation: creation of value via the introduction of new products, processes, services and ways of doing things; requires knowledge inputs not only from scientific and technological research, but also from other sources such as non-technological, user-driven and social innovation.
co-invest with other organisations, such as the Technology Strategy Board or Nesta\textsuperscript{37}, should be explored where possible.

4.50 In terms of meeting Climate Change targets there are already a number of Smart Specialisation areas in Wales (for example Smart living, technology demonstration, applied advanced powertrain and battery research for electric and hydrogen vehicles, or smart grid / distribution). There is also some existing expertise in renewable energy and energy efficiency technologies (e.g. photovoltaic, energy generating building envelopes, hydrogen energy systems) and alternative fuels (to exploit the opportunities of the Low Carbon Vehicles sector\textsuperscript{38}). Wales also benefits from significant academic expertise in developing and integrating low-Carbon technologies, for example through the Low Carbon Research Institute which is a partnership of a number of Universities across Wales, and has established a significant economy in the renewable and low carbon sectors. Support will need to ensure that these existing strengths are fully exploited.

4.51 Examples of the type of actions to be supported are:

- Support businesses to undertake innovation (e.g. demand-led or eco-innovation) and improve innovation supply chains\textsuperscript{39} between businesses and with academia

- Support to address the barriers to innovation for businesses

- Piloting of initiatives to test innovative products, processes or services in areas with commercial potential

- Support the development of prototypes, pilot schemes, demonstrations and working models

- Development of low-cost hubs or clusters for innovative businesses and sectors (e.g. virtual hubs for ICT, Creative or Tourism sector)

- Development and launch of innovative new uses and adaptations for existing technology, processes or services into new markets

- Commercialisation, protection and exploitation of research (including applied research to improve market readiness)

- Improved industrial and SME collaboration with Universities and other research intensive institutions. Wherever possible, the collaboration should seek to build the confidence and capacity of SMEs to exploit the benefits of research to become more productive or to grow their business.

\textsuperscript{37} Formerly NESTA, (National Endowment for Science, Technology and the Arts)

\textsuperscript{38} Further details of market and Welsh Government ambitions in statement at: http://wales.gov.uk/about/cabinet/cabinetstatements/2013/lownotoriotic/?lang=en

\textsuperscript{39} The innovation supply chain (as opposed to innovation in the supply chain) is the process by which companies obtain and/or develop future products, processes and services and improve on their current products, processes and services.
4. PRIORITY 1: RESEARCH AND INNOVATION

- Support for the development of Smart Specialisation clusters with a focus on commercial application of research and innovation.

- Investments in advanced manufacturing and production capabilities (e.g. first production of Key Enabling Technologies)

- The use of ICT innovation vouchers (as described in the Digital Agenda Toolbox\(^{40}\)), regarded as an efficient mechanism to reach out to SMEs, may be considered

Guiding principles

4.52 Support from this Priority will be consistent with the overriding principle of Innovation Wales in that innovation will be promoted across the whole economy but that significant levels of dedicated support to clusters, institutions, businesses or for specific technologies or innovations should be made on the basis of building on Wales’ strengths. This focus on activities that are already strong or are showing promise follows the Smart Specialisation\(^{41}\) concept and the Welsh Government’s Grand Challenge areas. Expert advice will be sought to assist with the prioritisation of investments in line with the governance arrangements for the Smart Specialisation Strategy. Alignment with the Smart Specialisation strategy is a pre-condition for all support under this Priority Axis.

4.53 Investments will be prioritised using the Smart Specialisation approach whereby expertise and genuine specialisation is being demonstrated. It is expected that this will primarily be around the Grand Challenge areas though other specialisms may emerge through entrepreneurial discovery. The Managing Authority will make use of technical and expert advice to ensure support is targeted appropriately, ideas are credible, realistic and do not duplicate existing research or innovation.

4.54 In demonstrating alignment to the Smart Specialisation strategy for Wales operations will need to illustrate how they are contributing directly to the indicators and objectives identified in the latest associated Delivery Plans\(^{42}\), including any additional or innovative measures introduced during the ongoing evolution of the Smart Specialisation strategy. These Strategies are being delivered in close cooperation and measures are already in place to ensure cooperation and coordination in delivery (e.g. use of specialist Advisory Councils with cross-membership between them to develop priorities, monitor


\(^{41}\) Smart Specialisation – The Concept, Knowledge Economists Policy Brief n° 9 (2009), Dominique Foray, Paul A. David and Bronwyn Hall

\(^{42}\) The Science for Wales Delivery Plan is published at: http://wales.gov.uk/topics/businessandeconomy/csaw/publications/deliveryplan/?lang=en and the Innovation Wales Delivery Plan will be published at: http://wales.gov.uk/topics/businessandeconomy/innovation/?lang=en
4. PRIORITY 1: RESEARCH AND INNOVATION

delivery plans and indicators, and coordinating activity where there are overlaps).

4.55 There will need to be an element of specific targeting focussed on encouraging innovation in those enterprises either not currently innovating, or those that do not consider themselves as innovative. This should include specific targeting approaches for sectors outside of the science and technological sectors, and should complement activity encouraging deeper innovation processes in those enterprises already innovating.

4.56 Efforts will also be needed to identify those businesses in Wales with the potential to commercialise and use research and innovation, where linked to a smart specialisation. Targeted and tailored support to help those enterprises realise the benefit in the programme area will be key to delivering the desired results.

4.57 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.
## Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises cooperating with supported research institutions*</td>
<td>Number</td>
<td>1,212</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises receiving grants*</td>
<td>Number</td>
<td>520</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises receiving non-financial support*</td>
<td>Number</td>
<td>3,750</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of new enterprises supported*</td>
<td>Number</td>
<td>30</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Private investment matching public support in innovation or R&amp;D projects*</td>
<td>EUR</td>
<td>42,840,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Employment increase in supported enterprises*</td>
<td>FTE</td>
<td>1,125</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises supported to introduce new to the market products*</td>
<td>Number</td>
<td>490</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises supported to introduce new to the firm products*</td>
<td>Number</td>
<td>725</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of patents registered for products</td>
<td>Number</td>
<td>519</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of pilot projects completed</td>
<td>Number</td>
<td>n/a</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>Number</td>
<td>956</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>Number</td>
<td>956</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
4.58 ESI programmes in Wales have been designed to be complementary, and the ERDF programmes share an analysis and structure, reflecting the common challenges across the whole of Wales.

4.59 The project selection and prioritisation criteria will test how each project has considered other available funding sources and the links they have made to them. Projects will be particularly encouraged where they can contribute simultaneously to both ERDF and wider EU funding instrument priorities (e.g. Horizon 2020 or LIFE).

4.60 This section sets out the links to ESI, other EU and UK funds by Priority Axis, not duplicating coordination mechanisms or links to macro-regional strategies set out in the Partnership Agreement.

4.61 Research and Innovation are two elements of the “knowledge triangle”, alongside education. ESF investments can help increase the supply of individuals with the specialised skills to support capacity building in research institutions, and increase innovation in Welsh business. Very close coordination of these activities will be sought, with the potential for complementary funding actively explored; in particular where Research, Innovation and Skills can be combined.

4.62 There is scope for complementarity with the EAFRD programme to promote innovation and the knowledge base in rural areas, and especially through investments under the Grand Challenge area of Low carbon, energy and environment. ERDF investments supporting the transition to a low carbon economy may complement activity funded under the EMFF, depending on the specialisms supported.

4.63 A major link is expected with the Horizon 2020 programme and other competitive research funding, such as UK Research Councils, UK Technology and Strategy Board and UK NESTA funding. For example the UK is involved in the Eureka network through the TSB, offering a route to develop international clusters and partnerships. The ERDF expects to invest in upstream research and innovation with an explicit aim of building capacity in order to increase access to those funds. The clear international dimension being sought through capacity building will require a greater consideration of EU-wide initiatives such as the European Research Area and work of the European Research Council. ERDF will also be used downstream to ensure the outcomes of that research are being exploited and the benefits captured in the programme area, including the potential to commercialise European research (e.g. from Horizon 2020) in Wales.

4.64 Synergies with Horizon 2020 should also consider links with public-public partnerships (Joint Programming Initiatives, ERA-NET, Article 185 initiatives), public-private partnerships (Article 187 initiatives) and actions under Part IV of
4. PRIORITY 1: RESEARCH AND INNOVATION

Horizon 2020 relating to Spreading Excellence and Widening Participation, where West Wales and the Valleys could provide potential advanced partners in all Widening actions.

4.65 There are a plethora of EU and UK funding instruments seeking to address challenges relating to the transition to a low-Carbon economy. Horizon 2020 will be a key link, and the New Entrants Reserve (NER) 300 demonstration funding should also be considered. There may also be opportunities to support the roll-out of approaches validated under the LIFE programme, where they meet the ERDF programme objectives, for example in demonstrating eco-innovation or adopting innovative technologies. ERDF can support a range of actions complementary to these other EU programmes (e.g. LIFE) where they also meet the objectives of this Operational Programme.

4.66 While this implies a demarcation between the funds, the possibility for joint funding will be examined on a case by case basis (a project should meet both the ERDF objectives and the requirements of the other competitive fund). ERDF projects will not substitute for other competitive research funds. Projects will be challenged to ensure they participate in other competitive bidding (e.g. Horizon 2020 or domestic research funds) where that is the most appropriate funding source. The co-location of a Horizon 2020 unit with the Managing Authority for ERDF, coupled with use of expert advice (internal and external) to inform project selection, will help ensure close coordination between these funds.

4.67 Complementarity also exists with the Marie Curie Actions and linked ERDF proposals will be considered on a case by case basis. Many of the links to ERASMUS and other people-related initiatives will be more directly linked to ESF interventions; nevertheless these will be coordinated with ERDF RD&I investments. This opens up the potential to combine ERDF, ESF and EU finance (H2020, ERASMUS, Marie Curie) on common goals. No specific action by the Managing Authority is planned to stimulate or target these links, but where links are identified coordination and expert advice will be sought from the Department coordinating information on Marie Curie and ERASMUS actions in Wales.

4.68 All European Territorial Cooperation (ETC) programmes that Wales participates in are expected to feature RD&I investments. ERDF projects seeking upstream support should have a clear international dimension to them, as an essential way to achieve genuine mainstreaming of transnational activity and address one of the main barriers for Welsh research institutions accessing competitive research funding (namely a lack of international networks and partners). This is an opportunity to consider potential links to relevant ETC programmes; where it is hoped that links between research institutions, researchers, networks and successful clusters can be supported.

4.69 EIB funding as part of ERDF funded projects might be possible should significant investment proposals emerge for research infrastructure. The provision of risk capital for innovative SMEs is likely to be part of a Financial
Instrument to which EIB funding may also be sought. The use of ESI funds for ESFRI research infrastructures should also be considered where appropriate.
5. Priority Axis 2: SME Competitiveness

5.1 A high level analysis and summary of key needs and opportunities leading to the selection of this Priority Axis is set out in Sections 1.1 and 1.3 of the Welsh Chapter of the UK Partnership Agreement.

5.2 This Priority will promote entrepreneurship and business **start-ups** and help SMEs to improve their competitiveness through **growth in the size of businesses** and support an **increase in productivity** through a range of measures, with specific actions to support the take-up and exploitation of Next Generation Broadband in Wales. Employment growth and productivity growth are complementary but sometimes contradictory elements of SME competitiveness. Productivity growth is essential for competitiveness, but can lead to reductions in the number of employees within a business as processes improve. Growth in the size of businesses supports long-term employment, but only where the growing business is doing so sustainably and is genuinely competitive.

5.3 **Barriers and tipping points** to business growth include concerns over regulation and legislation and negotiating transactions such as breaking through a tax threshold, needed to become an incorporated business, employing staff, and entering a new market\(^{43}\). This suggests that tailored support is needed to address these barriers, for example access to finance and business support targeted at the key stages of business growth (e.g. creation, export and expansion), with particular emphasis on the role of broadband and associated ICT exploitation in helping promote productivity growth.

5.4 The Partnership Agreement set out the issues relating to **access to finance for both starting and expanding businesses**, and data from the 2012 Small Business Survey\(^{44}\) also suggests that SMEs in Wales are more likely to experience difficulties in gaining finance than SMEs across the UK as a whole\(^{45}\). Furthermore, micro enterprises are more likely to report difficulties in gaining finance than small and medium-sized ones.\(^{46}\) The **Ex Ante Assessment for the use of Financial Instruments** has found evidence of market gaps in the provision of microloans, SME debt finance, finance for social enterprises, and risk capital and a Financial Instrument will be

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\(^{43}\) *Business Growth Ambitions Amongst SMEs* (2012), Department for Business, Innovation and Skills (BIS)

\(^{44}\) *2012 Small Business Survey* (2013), BMG Research for the Welsh Government


\(^{46}\) *2012 Small Business Survey: SME Employers in Wales* (2013), BMG Research for the Welsh Government
5. PRIORITY 2: SME COMPETITIVENESS

Background

developed to address these gaps\textsuperscript{47}. The Welsh Government is also reviewing available financial support for SMEs and the ex-ante assessment informing ERDF funding will need to take account of and be coordinated with any changes resulting from that process, including the potential for closer links between finance and wider business support\textsuperscript{48}.

5.5 *Innovation Wales* recognises that **innovative activity** in Wales is constrained by a lack of private development finance. A culture of innovation is one of the features of high growth firms\textsuperscript{49}, indicating that targeting of innovative firms and supporting innovation through risk capital might be a useful mechanism to specifically support those SMEs.

5.6 The **business birth rate** in Wales in 2012 was 2.0 percentage points below that for the UK as a whole\textsuperscript{50} and one of the main barriers to the creation of new SMEs is access to business advice and guidance\textsuperscript{51}. In addition levels of entrepreneurship in Wales on average underperform those in the UK\textsuperscript{52}. Although early stage entrepreneurial activity in Wales rose through the recession, tracking the UK average, as with the other home nations, 2013 saw a decline in levels of entrepreneurial activity and start-up intention in Wales with a significant decrease in activity rates amongst 18-29 year olds, possibly as a result of improving economic conditions contributing to less reliance on self-employment as a source of employment\textsuperscript{53}. Women remain under-represented in early-stage entrepreneurial activity in Wales and across the UK as a whole\textsuperscript{54}. Start-up support schemes in Wales have demonstrated some success in removing barriers to entrepreneurship\textsuperscript{55}.

5.7 Research recognises productivity is a key driver of economic growth\textsuperscript{56}, but that rapid and significant growth is achieved by relatively few businesses\textsuperscript{57}. For example, Global Entrepreneurship Monitor data suggest that 10% of emerging entrepreneurs expect to create 70% of all job creation forecast by their cohort\textsuperscript{58}. It is very difficult to identify those **growth businesses**.

\textsuperscript{47} Ex Ante Assessment for the use of Financial Instruments, Regeneris Consulting, not yet published.
\textsuperscript{48} http://wales.gov.uk/about/cabinet/decisions/dl2014/janmar/business/eh0608/?i=lang=en
\textsuperscript{49} *The vital 6 per cent.: How high-growth innovative businesses generate prosperity and jobs* (2009), NESTA
\textsuperscript{50} StatsWales - *Business Demography: Birth Rates by area 2012*, Welsh Government
\textsuperscript{51} For example: *Barriers encountered during micro and small business start-up in North-West England* (2000), S L Davidson Fielden, M J, P J Makin
\textsuperscript{52} Statistical bulletin “Business Demography: enterprise births and deaths, 2010” (19 Jan 2012), Welsh Government
\textsuperscript{53} Ibid.
\textsuperscript{54} Ibid.
\textsuperscript{55} Mid Programme Evaluation of the Start Up Service for the Welsh Assembly Government (Undated), ERS, Beaufort Research and Hywel Evans Associates.
\textsuperscript{56} For example: *The ONS Productivity Handbook, Chapter 3: Productivity Theory and Drivers*
\textsuperscript{57} For example around 2-4% of high-growth businesses are estimated to be responsible for the majority of employment growth in the UK private sector. *BERR economic paper No. 3 “High growth firms in the UK: Lessons from an analysis of comparative UK performance*” (November 2008), UK Department for Business Enterprise and Regulatory Reform (now BIS)
especially when they are first formed; however there is evidence\(^{59}\) that the growth intentions of businesses have a large effect on whether they will indeed grow. High growth businesses, while small in number and notoriously difficult to identify, remain key to driving productivity across the board and in increasing jobs. The UK compares well internationally in its percentage of high growth businesses, 5.8% against US (c. 5%) and Italy (3%) and there are therefore clearly significant potential benefits in targeting growth businesses. Wales has some previous success with high growth firms, having the highest proportion of high growth firms of any region in the UK between 2002 and 2005 (though this position has subsequently fallen)\(^{60}\).

5.8 Research\(^ {61}\) confirms that SMEs have a number of concerns relating to the seeking of advice and information which point towards some of the market failures in this area. The concerns particularly relate to the expense and time involved with taking up formal business assistance, not being able to trust external advisors, or concerns about whether they would understand the business, and confidence in being able to access appropriate assistance.

5.9 **New market entry** is one of the key points and barriers to business growth\(^{62}\). Export figures in Wales are below the UK average and dominated by a small number of large companies\(^ {63}\). The Welsh Government has recognised that significant opportunities also lie within supply chains, from procurement opportunities and in links with anchor companies\(^ {64}\). This in turn can help build capacity for access to national and international supply chains and procurement opportunities. Since 1999 there has been a 105% increase in Welsh exports (UK average 79%)\(^ {65}\). The majority of growth is demonstrated in markets outside of the EU reflecting both the weakness of the EU economy and the potential for growth in emerging markets. This suggests the internationalisation of Welsh SMEs can be encouraged through both domestic and international supply chain development, including seeking new markets.

5.10 Domestic markets are also important sources of growth opportunities for SMEs, in particular through procurement opportunities. For example the public sector across the UK spends £150 billion a year and the Welsh public sector £4.3 billion a year. Businesses successful in domestic procurement should find fewer capacity barriers to export markets and international procurement opportunities (e.g. through OJEU).

5.11 The importance of **ICT and the digital economy** to productivity growth set out in the Partnership Agreement needs to be reflected in the support offered

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\(^{59}\) ERC White paper: Growth and growth intentions(2013), Levy and Autio  
\(^{60}\) The vital 6 per cent: How high-growth innovative businesses generate prosperity and jobs (2009), NESTA  
\(^{61}\) Research to understand the barriers to take up and use of business support (2011), Centre for Enterprise and Economic Development Research for BIS  
\(^{62}\) A review of the literature addressing the role of external knowledge and expertise at key stages of business growth and development (2005), Bessant, J., Phelps, B., & Adams, R. Cranfield School of Management  
\(^{63}\) Regional Trade statistics (5 December 2013), Welsh Government  
\(^{64}\) Economic Renewal: a new direction (July 2010), Welsh Government.  
\(^{65}\) Regional Trade statistics (5 December 2013), Welsh Government
to SMEs. There is a need to ensure that SMEs take advantage of significant ICT infrastructure and capacity investments\(^66\). Evidence exists of positive economic impact of broadband but with benefits dependent on managerial culture and skills\(^67\). Furthermore, research suggests that the impact of broadband does not happen in isolation and that complementary technologies, products, services and skills are also important\(^68\). Although the UK performs well against many indicators of ICT exploitation, one study has indicated that UK SMEs lag behind their international peers in the digitisation of some back office functions, suggesting that there may be a need for support in this area\(^69\).

5.12 Wales performs similarly to the rest of the UK on indicators of business exploitation of ICT, with figures from the 2012 Small Business Survey showing that 69% of SME Employers in Wales (i.e. all SMEs excluding those with no employees) had a business website, compared with 71% across the UK as a whole\(^70\). Of those SME Employers in Wales with internet access, 43% sell goods and services through a website (compared with 41% in the UK as a whole) and 67% promote their goods and services through a website (compared with 70% in the UK as a whole). However, in a survey of SMEs undertaken by Ofcom, 36% of SMEs in Wales reported that they did not have confidence in their ability to identify which new communications products or services would be valuable for their organisation, suggesting a need for interventions targeted at businesses and individuals\(^71\).

5.13 In terms of the economic impact of faster broadband, research has identified ‘cloud computing’ as one of the primary routes through which faster broadband is predicted to have an economic impact\(^72\). In the Ofcom SME survey, 23% of SMEs in Wales reported the use of cloud services\(^73\). In a survey of businesses across the EU 81% of businesses that were already using cloud services reported lower IT costs as a result of adoption of cloud computing\(^74\). However, barriers to more extensive cloud adoption amongst businesses include concerns over legal jurisdiction and data location issues.

\(^{66}\) For example: Next Generation Broadband (www.superfast-cymru.com) or Super Connected Cities (http://www.cardiff.gov.uk/content.asp?nav=2%2C2867%2C6556%2C6557)
\(^{67}\) UK Broadband Impact Study: Literature Review (2012), SQW for the Department for Culture, Media and Sport (DCMS)
\(^{68}\) Ibid.
\(^{69}\) “This is for Everyone”: The Case for Universal Digitization (2012), Booz & Co. Booz & Co analysed the levels of digitization in the back office of more than 500 SMEs in the UK, France, Germany, the Netherlands and Brazil. The concept of digitization (Booz & Co) is described in a World Economic Forum report as “the mass adoption of connected digital technologies and applications by consumers, enterprises, and governments.” The UK is ranked as a leading nation on the Digitization Index “Maximising the Impact of Digitization”, Booz and Katz (2012). In The Global Information Technology Report 2012: Living in a Hyperconnected World. World Economic Forum. Eurostat figures, quoted in E-Commerce and ICT Activity, 2012 (2013), Office for National Statistics (ONS), rank the UK as fifth out of all EU-28 nations in terms of Proportion of total turnover from e-commerce.
\(^{70}\) Small Business Survey 2012 (2013) BIS
\(^{71}\) Communications Market Report: Wales (2014), Ofcom
\(^{72}\) UK Broadband Impact Study: Literature Review (2012), SQW for DCMS
\(^{73}\) Communications Market Report: Wales (2014), Ofcom
\(^{74}\) Quantitative Estimates of the Demand for Cloud Computing in Europe and the Likely Barriers to Uptake (2012), IDC for the European Commission
and security and data protection regulations, uncertain trust in suppliers and lack of guaranteed data access and portability between cloud systems. Some of these concerns link to wider concerns over e-crime so interventions to promote SME exploitation of ICT should be sensitive to the fact that e-crime and the fear of e-crime represent a significant barrier to business adoption of ICT. In the Ofcom SME survey, 35% of SMEs in Wales indicated that they have security concerns related to communications services. Estimates for the cost of e-crime suggest it could cost the UK economy around £27 billion every year.

5.14 There are around 3,000 organisations carrying out social enterprise activity in Wales with a combined turnover of £2.2 billion (07/08 estimate). Welsh social enterprises operate in most industries across Wales, though the majority are involved in training and education, arts and Welsh language, business support, health and social care, and sports; the same research noted social enterprises in Wales seek specialist advice and support to become better businesses.

5.15 Energy consumption in Wales is nearly 30% higher than the average across Great Britain, largely accounted for by industry and reflecting a larger proportion of more energy intensive businesses such as manufacturing in Wales. Challenges and opportunities related to increased energy efficiency of businesses is a challenge for all sectors, however, given the need to address targets for the reductions of emissions and the increasing costs associated with energy. In addition to being able to contribute to energy efficiency targets (complementing initiatives under Priority Axis 3) there are significant benefits related to improved energy efficiency for individual businesses. The increasing energy costs in the UK are a barrier to the competitiveness of Welsh businesses, and in particular for those that are more energy intensive. While those most energy intensive of businesses have strong incentives to pursue energy efficiency goals, supported through capital investment, medium and lower energy intensive businesses do not and need support to do so.

5.16 There are also significant opportunities to improve the competitiveness of SMEs through greater resource efficiency beyond solely energy consumption, which can also have positive environmental impacts. The Waste & Recycling Action Plan estimates that UK businesses could save £23 billion per year by improving the way they use resources, and suggests waste and

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75 Ibid.
76 Communications Market Report: Wales (2014), Ofcom
77 The Cost of Cyber Crime (14 February 2011), Detica and Cabinet Office
78 Tailored research informing Social Enterprise Action Plan (2009), Welsh Government. No regular or reliable data at Wales level given different legal structures, different definitions and lack of visibility.
79 Mapping social enterprise activity in Wales (October 2009), Welsh Government. Available at: http://wales.gov.uk/topics/housingandcommunity/regeneration/publications/110803socialmap ping/?lang=en
80 Average final energy consumption per thousand population in Great Britain by region and consuming sector - Sub-national total final energy consumption statistics (2011 data), DECC
poor resource efficiency could cost businesses as much as 4% of turnover\textsuperscript{81}.

Improved resource efficiency can therefore help boost productivity, in turn helping to support growth and jobs.

5.17 A range of barriers affect the uptake of **energy and resource efficiency** measures in businesses, particularly SMEs, including it being a low priority, lacking expertise, lacking capital, and no compelling case given perceived long payback periods\textsuperscript{82}. Given that around 55% of delivered energy use in the public and commercial sector is in SMEs\textsuperscript{83} there is potentially a significant opportunity being lost because of a lack of incentive for less energy intensive businesses, and this is not being addressed through loan schemes with lengthy payback periods.

### Summary of justification for Specific Objectives

<table>
<thead>
<tr>
<th>Needs</th>
<th>Growth Opportunities</th>
<th>Specific Objective (SO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lack of availability of private finance / lack of bank lending</td>
<td>• History of nurturing high growth SMEs in Wales</td>
<td>(2.1) To increase the amount of finance available to SMEs for both business start-up</td>
</tr>
<tr>
<td>• Additional barriers for micro-finance</td>
<td>• Emerging clusters key sectors and specialisms</td>
<td>and for business expansion</td>
</tr>
<tr>
<td>• Business birth rate below that of the rest of the UK</td>
<td>• Increasing levels of entrepreneurship in Wales during recession</td>
<td>(2.2) To increase the number of SME start-ups through the provision of information,</td>
</tr>
<tr>
<td>• Barriers remain to new start-ups</td>
<td>• Success of previous investments to build upon</td>
<td>advice and guidance and support for entrepreneurship.</td>
</tr>
<tr>
<td>• Overall levels of entrepreneurship lower than the UK</td>
<td>• Significant potential through high-growth start-ups</td>
<td></td>
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<tr>
<td>• Women under-represented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Some SMEs in Wales lack confidence in their ability to identify</td>
<td>• Evidence of positive economic impact of broadband and faster broadband</td>
<td>(2.3) To increase the take-up and exploitation of NGA networks and ICT infrastructure</td>
</tr>
<tr>
<td>which new communications products or services would be valuable for</td>
<td>• SME exploitation of ICT in Wales comparable to the UK as a whole on a number of indicators</td>
<td>by SMEs</td>
</tr>
<tr>
<td>their business</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{81} Finding Cost Savings: Resource Efficiency for SMEs, Waste & Recycling Action Plan,
\textsuperscript{82} Exploring the design of policies to increase efficiency of electricity use within the industrial and commercial sectors (November 2012), Carbon Trust & SPA Future Thinking for DECC
\textsuperscript{83} Engaging SMEs to improve their Energy Efficiency, A Market Appraisal (2009), DECC
- Some evidence of UK businesses lagging behind their international peers in the digitization of some back office functions
- Low level of e-commerce and take up of ICT by businesses affecting both productivity and growth
- Major investments in ICT infrastructure underway opens new opportunities

<table>
<thead>
<tr>
<th>- Some evidence of UK businesses lagging behind their international peers in the digitization of some back office functions</th>
<th>- Major investments in ICT infrastructure underway opens new opportunities</th>
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<tr>
<th>- Export figures in Wales are below the UK average and dominated by a small number of large companies</th>
<th>- Previous success across UK and in Wales with high growth firms</th>
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<tr>
<th>- Support needed to increase SME exports and to access new markets</th>
<th>- Existing clusters and specialisms supported through increasingly strong innovation system</th>
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</table>

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<tr>
<th>- Barriers remain at each stage of business growth (or each tipping point)</th>
<th>- Exports from Wales increasing at a greater rate than the UK average since 1999</th>
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<tr>
<th>- Tailored advice needed on some issues specific to social enterprises (e.g. governance) to reflect differences between them and conventional SMEs</th>
<th>- Domestic and foreign markets offer significant opportunities to support growth, in particular outside of the EU</th>
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<tr>
<th>- Need for advice for SMEs to improve their energy and resource efficiency to improve competitiveness and productivity, whilst also delivering environmental outcomes</th>
<th>- Scope to exploit the significant market offered by procurement</th>
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<tr>
<th>- Opportunities for resource efficiency to support green growth through integrated actions, delivering multiple outcomes and improving competitiveness</th>
<th>- Social Enterprises are a growth sector in Wales, which has a strong tradition of social enterprise and active financial providers</th>
</tr>
</thead>
</table>

(2.4) To increase the growth of those SMEs with growth potential, in particular through accessing new markets (both domestic and international)
5. PRIORITY 2: SME COMPETITIVENESS

Background

- Access to finance barriers even more pronounced for innovation and innovative SMEs
- Evidence of market failures in innovation finance
- Productivity and business growth more likely to come from innovative firms and from the products and process they develop.
- Smart specialisation highlights specific growth opportunities

(2.5) To address market failures in the availability of finance, in particular risk capital, for Welsh SMEs to undertake innovation and commercialise R&D

Scope

5.18 The primary objective of this Priority Axis is to improve the competitiveness of SMEs in the programme area aligned to Thematic Objective 3 by promoting entrepreneurship and increasing the capacity of SMEs. An Investment Priority from another Thematic Objective has been included given the relevance to increasing SME competitiveness and the alignment of the ex-ante assessment based on identified market failures with activity under this Priority Axis. This is (1b) promoting business investment in innovation and research etc.

5.19 A proportion of the finance for innovation will be delivered through a Financial Instrument, and will therefore be supported through this Priority Axis to allow a single operation helping address market failures in the access for finance for SMEs.

5.20 There are very close links between this Priority Axis and the Research and Innovation Priority Axis with both being vital to improve productivity and support business growth (traditionally spearheaded by innovative SMEs). The assessment informing the Financial Instrument in this area was done on the basis of market failure in the provision of finance, rather than based on the potential leverage effects on Business Expenditure on R&D (BERD). It is therefore included in this Priority Axis to reflect that distinction, though it is expected to be a complementary activity to support increased BERD (along with dedicated activity under the Research and Innovation Priority Axis).
Specific Objective 2.1: To increase the amount of finance available to SMEs for both business start-up and for business expansion.

Description of baseline and results

5.21 Survey evidence suggests that only 66% of Welsh SMEs were successful in accessing some of the finance they needed which compares with around 74% across the UK. Data from the Welsh Small Business Survey suggests that it is micro enterprises in Wales that face the biggest difficulties in gaining finance. The BIS Small Business Survey indicates that Welsh SMEs are generally finding it harder to access finance than their English counterparts (e.g. for result indicator it is 26% failing to access any finance in Wales, compared to only 21% across the UK and 20% in England). Banks are unlikely to return to their lending levels pre credit crisis and a gap in equity finance has been evidenced.

5.22 The ex-ante assessment of opportunities for Financial Instruments identifies a strong case for investment of a capital value of between £120-160 million (including seed and early stage growth).

5.23 A market assessment has initially identified potential to support micro-loans, loans and risk capital (for business expansion). Further assessment identifies opportunities to combine this with additional seed, early stage and follow-on investments for R&D related activity; this element is addressed under Specific Objective 5, but activity would be expected to be closely coordinated, if not delivered together.

5.24 The result indicator used is the Amount invested in Venture Capital and Expansion Capital, as measured by annual reports from the British Venture Capital Association. The levels identified by this report support the market failure argument in Wales and the low levels of investment mean figures will be particularly sensitive to ERDF investment. Despite this other measures have too much noise associated with them (e.g. the market gap assessment as part of the ex-ante assessment would not be useful as a result indicator).

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84 2012 Small Business Survey (2013), BMG Research for Welsh Government
85 BIS Economics Paper No. 16: SME Access to External Finance (January 2012), BIS
86 2012 Small Business Survey (2013), BMG Research for Welsh Government
87 Ex Ante Assessment for the use of Financial Instruments, Regeneris Consulting, not yet published
88 Ibid.
5. PRIORITY 2: SME COMPETITIVENESS

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Category of Region (where relevant)</th>
<th>Baseline value</th>
<th>Baseline year</th>
<th>Target value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount invested in Venture Capital and Expansion Capital</td>
<td>GBP</td>
<td>West Wales and the Valleys</td>
<td>£18m</td>
<td>2012</td>
<td>£26m-£27m</td>
<td>Investment Stage Analysis by Region – Amount invested (UK), (BVCA Private Equity and Venture Capital Report on Investment Activity 2012)</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions to be supported

5.25 Particular consideration should be given to the need to provide Social Enterprises with specialist advice and guidance to enable start-ups and promote growth where gaps evidenced in mainstream support for SMEs.

5.26 Types of action to be supported:

- Access to debt, equity and mezzanine finance
- Micro-finance investment vehicle
- Tailored business finance schemes (e.g. for key sectors, specific geographic areas or growth businesses)

Guiding principles

5.27 The Priority’s support will take account of the Welsh Government’s key sectors approach, which targets some tailored support on economically important and potential growth sectors (including those which have exhibited high growth in the past) as well as offering advice and information to all businesses where private sector provision is lacking.

5.28 Financial support will primarily be focussed on providing debt, equity and mezzanine finance. Given the recognition of the need to be able to tailor support, provision will need to be retained to support other repayable or grant packages in exceptional circumstances and where economic conditions
dictate. Evidence from counterfactual impact evaluations of support given to firms across the EU\textsuperscript{89} indicates that often loans are at least as effective as a grant. The stage of business development will also be an important consideration in deciding the efficiency of allocating a grant or loan.

5.29 Advice and information may be offered universally at a relatively low cost through websites and dedicated help-lines. The more in-depth, tailored support and investment will be targeted and dependent on: the growth potential of the business; the lifecycle of the business recognising the “critical events” of business growth\textsuperscript{90}; and gaps in the provision by the private sector.

5.30 Given limited available funding there is a case to target specialist support at potential high-growth start-ups; though this should take account of the fact that the majority of jobs created in the UK economy are through business expansion rather than business creation so there will need to be an element of realism about the short-term growth potential of start-ups\textsuperscript{91}. This suggests the main contribution to the programme of these investments will be towards the creation of new enterprises, but future jobs growth will also be monitored through the Business Survey and evaluation.

5.31 A targeted approach is expected to generate the greatest return on the investments. The approach will also complement the Smart Specialisation approach\textsuperscript{92} which advocates a concentration of resources on a few key priorities where a region has an existing or emerging specific strength, rather than spreading investment thinly across a broad number of areas or trying to develop capacity without some endogenous capability.

5.32 It is recognised\textsuperscript{93} that there is an opportunity to encourage greater involvement from the private sector in delivering information and advisory services, but there is arguably a key role for the public sector in the interim. It is also recognised that social enterprises may encounter difficulties with accessing ‘mainstream support’ and require different or tailored approaches to the delivery of support.

5.33 Complementarity, particularly around the early stages of entrepreneurship, will be sought with investments likely to be made under the ESF. For example ESF support should help to remove barriers to entrepreneurship, such as skills, while ERDF will be used to provide finance and support to turn ideas into businesses.

\textsuperscript{89} What are counterfactual impact evaluations teaching us about enterprise and innovation support? (2012), Daniel Mouqué, DG Regio, European Commission

\textsuperscript{90} A review of the literature addressing the role of external knowledge and expertise at key stages of business growth and development (2005), J. Bessant, B. Phelps and R. Adams, Cranfield School of Management.

\textsuperscript{91} Job creation and destruction in the UK: 1998 to 2010 (2011), Department for Business Innovation and Skills

\textsuperscript{92} http://s3platform.jrc.ec.europa.eu/home

\textsuperscript{93} Mid term evaluation of the Customer Engagement WG/EU project (2012), Old Bell 3 and Cardiff University
5.34 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

**Planned use of financial instruments**

5.35 To date, an initial high level assessment of the suitability of Financial Instruments for the different programme components has been undertaken, and for those parts deemed suitable and of high priority (i.e. SME finance), a market assessment has been undertaken. On the basis of this, detailed proposals for the Financial Instruments are currently being prepared and these will be reviewed as part of the final stages of the ex ante assessment.

5.36 The assessment to date has identified a strong case for the ERDF programme to provide an integrated and coordinated approach to the provision of finance for SMEs. This should cover micro-loans, loans, and risk capital. It is envisaged that the majority of SO2.1 will be delivered through such a Financial Instrument.

**Output indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises receiving grants*</td>
<td>Number</td>
<td>160</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises receiving financial support other than grants*</td>
<td>Number</td>
<td>235</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Investment in enterprises</td>
<td>GBP</td>
<td>91,556,196</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Private investment matching public support to SMEs - Non-grants*</td>
<td>EUR</td>
<td>132,000,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Employment increase in supported enterprises*</td>
<td>FTE</td>
<td>2,300</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>Number</td>
<td>190</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>Number</td>
<td>190</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
5. PRIORITY 2: SME COMPETITIVENESS

Specific Objective 2.2: To increase the number of SME start-ups through the provision of information, advice and guidance and support for entrepreneurship.

Description of baseline and results

5.37 The situation and rationale for investment regarding entrepreneurship, birth rates and business creation has been set out in the strategy of this programme. Across Wales 8,270 new enterprises were counted in 2012 (provisional data); this compares to around 8,225 new enterprises in 2011. Within West Wales and the Valleys this figure was 4,675 in 2012 (provisional), compared with 4,850 in 2011.

5.38 Since 2009 the number of business deaths in Wales has outstripped the number of births, leading to a net reduction in the active businesses in Wales of 3,140. In West Wales and the Valleys the net reduction in active businesses over the same period was 2,290, representing 73% of the net Welsh reduction.

5.39 Supported actions should not only increase the numbers of new businesses in Wales but should also be seeking to increase the survival rates and achieve higher growth rates of those supported businesses compared to average survival and growth rates. This should be possible given that the support should include more tailored, targeted, and therefore relevant advice. Impact on survival and growth rates will be considered in the evaluations of this element of the programmes, in particular through the regular business survey of supported SMEs.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Category of Region</th>
<th>Baseline value</th>
<th>Baseline year</th>
<th>Target value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of birth of new enterprises</td>
<td>No.</td>
<td>West Wales and the Valleys</td>
<td>4,675</td>
<td>2012</td>
<td>8% increase in annual birth-rate</td>
<td>ONS (Business Demography)</td>
<td>Annual</td>
</tr>
</tbody>
</table>
Type and examples of actions

5.40 Particular consideration should be given to the need to provide Social Enterprises with specialist advice and guidance to enable start-ups and promote growth where gaps evidenced in mainstream support for SMEs.

5.41 Types of action to be supported:

- Advice and mentoring for start-ups, with a focus on high growth-potential start-ups
- Pre-start entrepreneurship activity (e.g. ability to test business ideas or support for graduate and high potential starts).
- Customised delivery of support for social enterprise creation (including the promotion of innovative business models) where there are evidenced gaps in mainstream provision

Guiding principles

5.42 The Priority’s support will take account of the Welsh Government’s key sectors approach, which targets some tailored support on economically important and potential growth sectors (including those which have exhibited high growth in the past) as well as offering advice and information to all businesses where private sector provision is lacking.

5.43 Advice and information may be offered universally at a relatively low cost through websites and dedicated help-lines. The more in-depth, tailored support and investment will be targeted and dependent on: the growth potential of the business; the lifecycle of the business recognising the “critical events” of business growth\(^4\); and gaps in the provision by the private sector.

5.44 Given limited available funding there is a case to target specialist support at potential high-growth start-ups; though this should take account of the fact that the majority of jobs created in the UK economy are through business expansion rather than business creation so there will need to be an element of realism about the short-term growth potential of start-ups\(^5\). This suggests the main contribution to the programme of these investments will be towards the creation of new enterprises, but future jobs growth will also be monitored through the Business Survey and evaluation.

5.45 A targeted approach is expected to generate the greatest return on the investments. The approach will also complement the Smart Specialisation approach\(^6\) which advocates a concentration of resources on a few key

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\(^4\) A review of the literature addressing the role of external knowledge and expertise at key stages of business growth and development (2005), J. Bessant, B. Phelps and R. Adams, Cranfield School of Management.

\(^5\) Job creation and destruction in the UK: 1998 to 2010 (2011), Department for Business Innovation and Skills

\(^6\) [http://s3platform.jrc.ec.europa.eu/home](http://s3platform.jrc.ec.europa.eu/home)
5. PRIORITY 2: SME COMPETITIVENESS

priorities where a region has an existing or emerging specific strength, rather than spreading investment thinly across a broad number of areas or trying to develop capacity without some endogenous capability.

5.46 It is recognised\(^97\) that there is an opportunity to encourage greater involvement from the private sector in delivering information and advisory services, but there is arguably a key role for the public sector in the interim. It is also recognised that social enterprises may encounter difficulties with accessing ‘mainstream support’ and require different or tailored approaches to the delivery of support.

5.47 Complementarity, particularly around the early stages of entrepreneurship, will be sought with investments likely to be made under the ESF. For example ESF support should help to remove barriers to entrepreneurship, such as skills, while ERDF will be used to provide finance and support to turn ideas into businesses.

5.48 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

### Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measure</th>
<th>Target (2023)</th>
<th>Source of data</th>
<th>Reporting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises receiving non-financial support*</td>
<td>Number</td>
<td>275</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of new enterprises supported*</td>
<td>Number</td>
<td>5,150</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Individuals receiving support</td>
<td>Number</td>
<td>14,350</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Individuals receiving support - Female individuals</td>
<td>Number</td>
<td>7,300</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Individuals receiving support - BME individuals</td>
<td>Number</td>
<td>375</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Individuals receiving support - Disabled individuals</td>
<td>Number</td>
<td>3,650</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Employment increase in supported enterprises*</td>
<td>FTE</td>
<td>8,800</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>Number</td>
<td>2,710</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>Number</td>
<td>2,710</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>

\(^97\) Mid term evaluation of the Customer Engagement WG/EU project (2012), Old Bell 3 and Cardiff University
**Specific Objective 2.3:** To increase the take-up and exploitation of NGA networks and ICT infrastructure by SMEs

**Description of baseline and results**

5.49 As this specific objective is focussed on SME take-up and exploitation of ICT, in theory it would be desirable to develop a result indicator describing the effective use of ICT by SMEs. However, although the BIS Small Business Survey provides a regular source of data on SMEs’ use of ICT for a range of purposes, given the unpredictability of developments in ICT, it would not be sensible to set a target for very specific uses of ICT when other uses may become more important as the technology develops further.

5.50 As take-up is also an integral component of this Specific Objective, an alternative to setting a target on how SMEs use ICT is to set a target on SMEs’ take-up of faster broadband, especially the faster broadband that will be delivered through the infrastructure investment in Priority Axis 4. Ideally, the result indicator would refer to SME take-up of broadband of a particular speed, for example, 30Mbps, which will be available to the majority of business and residential premises following completion of the Superfast Cymru Next Generation Broadband programme, or 100Mbps, which will be available to businesses that wish to upgrade even further.

5.51 However, given the lack of available data on SME take-up of broadband of particular speeds, a result indicator has been developed on SME use of fibre and cable broadband, the types of broadband offering the highest speed. In a survey of SMEs undertaken by Ofcom in 2014, 8% of SMEs reported the use of fibre broadband and 14% cable broadband. Although trend data are unavailable it is reasonable to assume that take-up would increase even in the absence of any demand stimulation activity funded under this Specific Objective. The target for this Specific Objective is to bring take-up levels to over half of SMEs by 2022.

5.52 The expected increase due solely to ERDF support is an additional 5 percentage points. It should be noted that growth would be expected without intervention (and some will be as indirect result of stimulation activity) so the total coverage by 2023 would be closer to 55% when ERDF and anticipated normal growth is combined.
Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Category of Region</th>
<th>Baseline value</th>
<th>Baseline year</th>
<th>Target value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME use of fibre and cable broadband</td>
<td>% of SMEs</td>
<td>Wales</td>
<td>22%</td>
<td>2014</td>
<td>27%</td>
<td>Communications Market Report: Wales (Ofcom)</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions to be supported

5.53 The result indicator for SO2.3 provides a clear focus on assisting SMEs to take up faster broadband opportunities. However, to successfully encourage SMEs to make this investment, activity will need to be very clear on the business benefits of faster broadband. As noted in the Strategy section, some SMEs in Wales lack confidence in their ability to identify which communications products or services would be valuable for their organisation, highlighting a need for well-tailored advice and guidance\(^98\). Furthermore, evidence from the 2007-2013 Programmes suggests that awareness-raising can be effective in encouraging businesses to introduce new ICT.\(^99\) This provides some success that can be built on for the 2014-2020 period.

5.54 Research has identified routes through which exploitation of ICT can provide economic impact. This includes productivity growth through enhanced business innovation, increased international trade and through teleworking enabling more productive use of some workers’ time\(^100\). Furthermore, ‘cloud computing’ has been highlighted as a particular potential source of positive impact of faster broadband\(^101\). Research has also suggested that UK SMEs may lag behind their international peers in the digitisation of some back office functions\(^102\). All this evidence provides pointers to inform activity to encourage SMEs to maximise ICT exploitation. However, perhaps most importantly,

\(^98\) Communications Market Report: Wales (2014), Ofcom
\(^99\) ERDF Business Survey (2012), Old Bell 3 for WEFO: 49% of surveyed businesses that reported that ERDF had helped them adopt ICT said that this was through the ERDF support making them aware of what was available.
\(^100\) UK Broadband Impact Study: Literature Review (2012), SQW for DCMS
\(^101\) Ibid.
\(^102\) “This is for Everyone”: The Case for Universal Digitization (2012), Booz & Co. Booz & Co analysed the levels of digitization in the back office of more than 500 SMEs in the UK, France, Germany, the Netherlands and Brazil. UK SMEs were found to lag behind their peers in the digitization of three key business functions: commercial processes, including sales management and customer relationship management, financial processes, including budgeting, planning, accounting and reporting, and people processes, including payroll, benefits management and flexible working arrangements.
activity will need to take account of SMEs’ particular circumstances, as well as emerging technologies and trends. As well as focussing on the benefits of faster broadband, interventions will also need to address any barriers to take-up, including, for example, any security fears.

5.55 Types of action to be supported might therefore include a combination of the following areas of support:

- The delivery of workshops, clinics and one-to-one business diagnostics focussed on take-up and exploitation of NGA broadband, emphasising the benefits to SMEs but also addressing any barriers to effective take-up and exploitation.

- The use of ICT innovation vouchers (as described in the Digital Agenda Toolbox\textsuperscript{103}), regarded as an efficient mechanism to reach out to micro-enterprises and SMEs, may be considered.

Guiding principles

5.56 Research suggests\textsuperscript{104} that identifying and targeting “high growth” firms is difficult although the growth intentions of businesses have a large effect on whether they will indeed grow\textsuperscript{105}. This suggests that flexibility will be required in terms of identifying growth potential and the intensive support for businesses identified as having growth potential must be equally flexible and tailored to individual company needs. In recognition of the difficulties of identifying high-growth businesses some research has suggested the use of universal provision of ‘marketing’ messages and case studies but with content designed to influence ‘receptive’ SMEs\textsuperscript{106}.

5.57 The ERDF Business Survey for the 2007-2013 programming period suggested that, in view of potential displacement effects of assistance to businesses operating largely within local markets and evidence from the survey that job creation is not strongly associated with the smallest businesses, there may be a case for focussing support on businesses employing five or more staff.\textsuperscript{107} This is not to say that businesses employing fewer than five staff will be ineligible for growth support but a convincing case will need to be made in such circumstances.

\textsuperscript{103}http://s3platform.jrc.ec.europa.eu/documents/10157/130815/Digital%20Agenda%20Tool%20Box%20v.13\_CONSULTATION.pdf
\textsuperscript{104}Final Evaluation of Business Growth Programme (2012), BMG, Wavehill Ltd and Hywel Evans & Associates for the Welsh Government
\textsuperscript{105}ERC White paper: Growth and growth intentions (2013), Levy and Autio
\textsuperscript{106}Business Growth Ambitions Amongst SMEs (2012), Department for Business Innovation and Skills. Examples of such businesses given in the report include SMEs which have downsized due to the recession but have survived, SMEs concerned about difficulties in breaking through a threshold, the “ambitious but unprepared”, younger owner / managers, owner / managers willing to take risks and SMEs that export, plan to export.
\textsuperscript{107}ERDF Business Survey (2012), Old Bell 3 for WEFO
5.58 Social enterprises are also more likely to seek specialist and tailored business support\footnote{Mapping social enterprise activity in Wales (October 2009), Welsh Government. Available at: http://wales.gov.uk/topics/housingandcommunity/regeneration/publications/110803socialmapping/?lang=en}, even though the support needs for social enterprises are broadly similar to other SMEs. Operations providing support for SMEs should fully consider the range of different challenges and barriers facing different businesses with different objectives and legal constitutions and consider tailoring delivery approaches and support. Despite this, social enterprises may encounter difficulties with accessing ‘mainstream support’ and require different or tailored approaches to the delivery of support.

5.59 Universally available information and advice should be available to all SMEs (though the design of the intervention will need to consider the specific requirements of key sectors or types of SMEs, such as social enterprises).

5.60 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted. The sensitive nature of aid measures aimed at promoting export and internationalisation should be paid particular attention, specifically as export subsidies are “prohibited subsidies” under WTO rules and are excluded from the scope of the de minimis Regulation.
## Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement</th>
<th>Target (2023)</th>
<th>Source of data</th>
<th>Reporting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises receiving non-financial support*</td>
<td>Number</td>
<td>3,450</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises supported to introduce new to the firm products*</td>
<td>Number</td>
<td>1,480</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Specific Objective 2.4: To increase the growth of those SMEs with growth potential, in particular through accessing new markets (both domestic and international)

Description of baseline and results

5.61 The Strategy section identifies tipping points that SMEs reach where a critical mass of knowledge and support needs to be in place to enter the next phase of growth. The result being sought for the programme area is a growth in the number of employees as SMEs grow. Employment as an indicator for businesses located within the programme area reflects the benefit within the programme area better than other measures of growth such as numbers of businesses or turnover. Other data are not available at this level of detail.

5.62 There are large numbers of micro-enterprises in the programme area but these often represent lone traders, not necessarily with ambitions to grow. Micro enterprises in West Wales and the Valleys for 2013 accounted for 95% of SMEs by number, but only 55% of employment within SMEs and 40% of turnover. Additionally, whilst employment in micro-enterprises increased by 57,600 between 2003 and 2013, the actual number of micro-enterprises increased by 48,500, suggesting that the bulk of the increase in employment came through micro-enterprise creation rather than growth. This suggests that, while a vital part of the Welsh economy, including employment within micro-enterprises in the result indicator is likely to skew results, given the increases in employment is associated with new businesses, not with business growth. The new businesses element will be captured in the results indicator for SO2.2.

5.63 Small and Medium enterprises, however, have seen an increase in employment of 34,700 in West Wales and the Valleys since 2003 alongside a net increase of 10,300 small and medium businesses. These are the SMEs in which the growth companies either already exist or to which an innovative micro-enterprise will be looking to transition towards. This subset of the data is therefore taken to form the result indicator, allowing for a target to be estimated. This will not capture any SMEs that grow to large businesses (over 250 employees), but, should these transitions take place, they will be captured by evaluation. Targeting based on growth potential and tailoring support should support greater employment growth than other approaches.

109 Size analysis of Welsh businesses 2013 (2013), Welsh Government
### Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Category of Region</th>
<th>Baseline value</th>
<th>Baseline year</th>
<th>Target value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment within small (10-49 employees) and medium (50-249) SMEs</td>
<td>No. in employment</td>
<td>West Wales and the Valleys</td>
<td>169, 100</td>
<td>2013</td>
<td>10% increase</td>
<td>Size Analysis of Welsh Businesses (Welsh Govt.)</td>
<td>Annual</td>
</tr>
</tbody>
</table>

### Type and examples of actions to be supported

5.64 Whilst support under SO2.3 should be universally available given the potential for broadband to generate positive effects for all businesses, for SO2.4, targeting is essential to ensure those SMEs with genuine growth potential are identified so that employment growth is sustainable, and not just contributing to lower productivity. In this respect, interventions funded under the two Specific Objectives ought to complement each other. Where businesses are identified to have genuine growth potential but with some ICT-related barriers to growth, it is envisaged that these barriers will be addressed as part of the support funded under SO2.4. If this support is unable to fully address the issues for some businesses then such businesses ought to be referred to support funded under SO2.3. High growth businesses, while small in number, remain key to driving productivity and increasing jobs - the UK compares well internationally with 5.8% of businesses “high growth” against US (c. 5%) and Italy (3%). It is very difficult to identify those businesses, especially when they are first formed, and a flexible approach is required to identifying, targeting and supporting such businesses.

5.65 The Mid Term Evaluation of the Welsh Government’s Customer Engagement project highlighted opportunities to further stimulate private sector involvement in business advice and guidance but also recognised the signs of ongoing market failure in the provision of advice and guidance to businesses in Wales.

5.66 Research suggests that programmes which use a hands-on, ‘managed brokerage’ approach may perform better than those using a ‘light touch’ approach, though these type of programmes will inevitably be more expensive, and to date there has been no comparison of the cost-effectiveness of hands-on versus light touch. Where interventions do involve in depth support, evidence strongly suggests that this should be

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110 A number of different definitions, including the OECD as those with at least 10 employees and who have experienced growth at an annual average of 20% over a three year period

tailored, mixing appropriate financial and non-financial elements\textsuperscript{112}. Evidence also points to the importance of business planning as a factor associated with growth so, where applicable, this should be incorporated in any support\textsuperscript{113}. SMEs have a number of concerns relating to the seeking of advice and information which point towards some of the market failures in this area\textsuperscript{114}. The concerns particularly relate to the expense and time involved with taking up formal business assistance, not being able to trust external advisors, or concerns about whether they would understand the business, and confidence in being able to access appropriate assistance.

5.67 Types of action to be supported might therefore include a combination of the following areas of support:

- Information and advice for business, such as universally available support to all SMEs e.g. through websites and help-lines.

- Tailored support for economically important and growth businesses, including Social Enterprises, to address barriers to improving productivity, for example: sales, marketing, product development, pricing and risk management

- Tailored advice and business support to address barriers to growth, for example: HR issues, strategy, marketing, business models, systems, risk management, resource efficiency, operational improvement, product development, supply chains and distribution.

- Customised delivery of support for social enterprise development and growth (including the promotion of innovative business models) where there are evidenced gaps in mainstream provision

- Capacity building, advice, guidance and support to address barriers for Welsh businesses to access procurement opportunities (including internationally)

- Support for the internationalisation of businesses and increasing exports, such as brokerage and partner events, trade fairs, training, counselling/advice/mentoring, mission-related costs or other financial support, market research or other information services.

- Support for resource efficiency and energy efficiency measures within SMEs, including addressing barriers to related investment, supporting

\textsuperscript{112} Ibid. \textit{What are counterfactual impact evaluations teaching us about enterprise and innovation support?} (December 2012), Daniel Mouque, DG for Regional and Urban Policy Evaluation and European Semester Unit, European Commission. \textit{Mid Programme Evaluation of the Start Up Service}, ERS, Beaufort Research and Hywel Evans for the Welsh Assembly Government.

\textsuperscript{113} 2012 \textit{Small Business Survey: Growth Special Report} (2013), Department for Business Innovation and Skills

\textsuperscript{114} \textit{Research to understand the barriers to take up and use of business support} (2011), Centre for Enterprise and Economic Development Research for BIS
behavioural change, supporting the diffusion of technology and innovation and encouraging SMEs to undertake energy audits

Guiding principles

5.68 The Welsh Government has recognised that businesses are best placed to advise other businesses and that support should be procured rather than delivered directly by government.\textsuperscript{115}

5.69 Research suggests\textsuperscript{116} that identifying and targeting “high growth” firms is difficult although the growth intentions of businesses have a large effect on whether they will indeed grow.\textsuperscript{117} This suggests that flexibility will be required in terms of identifying growth potential and the intensive support for businesses identified as having growth potential must be equally flexible and tailored to individual company needs. In recognition of the difficulties of identifying high-growth businesses some research has suggested the use of universal provision of ‘marketing’ messages and case studies but with content designed to influence ‘receptive’ SMEs.\textsuperscript{118}

5.70 The ERDF Business Survey for the 2007-2013 programming period suggested that, in view of potential displacement effects of assistance to businesses operating largely within local markets and evidence from the survey that job creation is not strongly associated with the smallest businesses, there may be a case for focussing support on businesses employing five or more staff.\textsuperscript{119} This is not to say that businesses employing fewer than five staff will be ineligible for growth support but a convincing case will need to be made in such circumstances.

5.71 Social enterprises are also more likely to seek specialist and tailored business support,\textsuperscript{120} even though the support needs for social enterprises are broadly similar to other SMEs. Operations providing support for SMEs should fully consider the range of different challenges and barriers facing different businesses with different objectives and legal constitutions and consider tailoring delivery approaches and support. Despite this, social enterprises may encounter difficulties with accessing ‘mainstream support’ and require different or tailored approaches to the delivery of support.

\textsuperscript{115} Programme for Government, Welsh Government
\textsuperscript{116} Final Evaluation of Business Growth Programme (2012), BMG, Wavehill Ltd and Hywel Evans & Associates for the Welsh Government
\textsuperscript{117} ERC White paper: Growth and growth intentions (2013), Levie and Autio
\textsuperscript{118} Business Growth Ambitions Amongst SMEs (2012), Department for Business Innovation and Skills. Examples of such businesses given in the report include SMEs which have downsized due to the recession but have survived, SMEs concerned about difficulties in breaking through a threshold, the “ambitious but unprepared”, younger owner / managers, owner / managers willing to take risks and SMEs that export, plan to export.
\textsuperscript{119} ERDF Business Survey (2012), Old Bell 3 for WEFO
\textsuperscript{120} Mapping social enterprise activity in Wales (October 2009), Welsh Government. Available at: http://wales.gov.uk/topics/housingandcommunity/regeneration/publications/110803socialmapping/?lang=en
5.72 Universally available information and advice should be available to all SMEs (though the design of the intervention will need to consider the specific requirements of key sectors or types of SMEs, such as social enterprises).

5.73 A range of barriers affect the uptake of resource efficiency and energy efficiency measures in businesses, particularly small and medium businesses, including it being a low priority, lacking expertise, lacking capital, and no compelling case given perceived long payback periods. Support will need to demonstrate market failure and take account of the other initiatives in the market such as the UK Government’s Green Deal or any other energy efficiency schemes. Requirements for company energy audits set out in the Energy Efficiency Directive do not apply to SMEs, but such a process could be of benefit to them. Promotion and support for this process may also encourage the behaviour change sought.

5.74 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted. The sensitive nature of aid measures aimed at promoting export and internationalisation should be paid particular attention, specifically as export subsidies are “prohibited subsidies” under WTO rules and are excluded from the scope of the de minimis Regulation.

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121 Exploring the design of policies to increase efficiency of electricity use within the industrial and commercial sectors (November 2012), Carbon Trust & SPA Future Thinking for DECC
## Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2022)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprises receiving grants*</td>
<td>Number</td>
<td>40</td>
<td>Monitoring</td>
<td>Quarterly</td>
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<tr>
<td>Enterprises receiving financial support other than grants*</td>
<td>Number</td>
<td>330</td>
<td>Monitoring</td>
<td>Quarterly</td>
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<tr>
<td>Enterprises receiving non-financial support*</td>
<td>Number</td>
<td>13,650</td>
<td>Monitoring</td>
<td>Quarterly</td>
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<tr>
<td>Private investment matching public support to SMEs - Grants*</td>
<td>EUR</td>
<td>4,320,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Private investment matching public support to SMEs - Non-grants*</td>
<td>EUR</td>
<td>6,600,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Employment increase in supported enterprises*</td>
<td>FTE</td>
<td>6,450</td>
<td>Monitoring</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Increase in level of export</td>
<td>GBP</td>
<td>167,100,000</td>
<td>Monitoring</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>Number</td>
<td>8,700</td>
<td>Monitoring</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>Number</td>
<td>8,700</td>
<td>Monitoring</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
5. PRIORITY 2: SME COMPETITIVENESS

Specific Objective 2.5: To address market failures in the availability of finance, in particular risk capital, for Welsh SMEs to undertake innovation and commercialise R&D.

Description of baseline and results

5.75 The UK innovation survey 2011 published by BIS in June 2013 found that 44.3% of innovative firms who try to obtain finance find it difficult to do so, compared to 32.6% of other firms, and 37.8% of innovative firms who tried to access finance were unable to obtain any (doubled from 14% in 2007/8). A culture of innovation is one of the features of high growth firms indicating that targeting of innovative firms and supporting innovation through risk capital might be useful.

5.76 The result indicator used is the amount of early stage equity investment, as measured by annual reports from the British Venture Capital Association. The levels identified by this report support the market failure argument in Wales and the low levels of investment mean figures will be particularly sensitive to ERDF investment. Despite this other measures have too much noise associated with them (e.g. the size of the market gap identified as part of the ex-ante assessment would not be useful as a result indicator). Similarly the UK Innovation Survey did not provide the level of specificity required.

5.77 Required evaluations of Financial Instruments should seek to identify more direct impact of major EU funded schemes against the market analysis within the ex-ante assessment.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Baseline value</th>
<th>Baseline year</th>
<th>Target value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early stage equity investment</td>
<td>GBP</td>
<td>£9m</td>
<td>2012</td>
<td>£12.5m-£16m</td>
<td>Investment Stage Analysis by Region – Amount invested (UK), (BVCA Private Equity and Venture Capital Report on Investment Activity 2012)</td>
<td>Annual</td>
</tr>
</tbody>
</table>

123 Credit and the crisis: Access to finance for innovative small firms since the recession (June 2013), Neil Lee, Hiba Sameen and Lloyd Martin, Big Innovation Centre

124 Policies in support of high-growth innovative SMEs (2011), European Commission
Type and examples of actions

5.78 The ex-ante assessment of opportunities for Financial Instruments\(^{125}\) identified an important role for finance to support the set-up, early growth and expansion of high-tech firms:

“There is clearly a strong case for publicly backed finance in Wales to support the commercialisation of R&D. The actions of Welsh Government and Finance Wales have played an important role in addressing the issue of market failure in the provision of finance, but also helping to stimulate R&D activity and the demand for finance to commercialise this.

*Given the experience of JEREMIE, we would expect there to be capacity for in the order of a total fund of £20-£40 million over a five year period (of which ERDF would be roughly 50%).”*

5.79 The market assessment resulted in initial recommendations for proof of concept funding to remain grant-funded but for early stage seed (between £20,000 and £50,000) and follow on investments (up to £100,000) as financial instruments. Early stage investments should reach between £50,000 and £1 million overall (including follow-on).

5.80 Actions to be supported are expected to consist of provisions for access to risk-capital finance and support for the creation and growth of research-intensive and innovative businesses, such as spin-outs. This should be complementary to any investments under Specific Objective 1. Examples include:

- Access to debt, equity and mezzanine finance
- Tailored business finance schemes (e.g. for key sectors or specific geographic areas)

Guiding principles

5.81 The priority’s support will take account of the Welsh Government’s key sectors approach, which targets some tailored support on economically important and potential growth sectors (including those which have exhibited high growth in the past).

5.82 Financial support will primarily be focussed on providing debt, equity and mezzanine finance. Given the recognition of the need to be able to tailor support, provision will need to be retained to support other repayable or grant packages where economic conditions dictate. The stage of business development will also be an important consideration in deciding the efficiency of allocating a grant or loan.

\(^{125}\) *Ex Ante Assessment for the use of Financial Instruments*, Regeneris Consulting, not yet published
5.83 Tailored support and investment will be targeted and dependent on: the growth potential of the business; the lifecycle of the business recognising the “critical events” of business growth; and gaps in provision by the private sector.

5.84 Targeting should also ensure that all investments under Specific Objective 2.5 are aligned with the Welsh Smart Specialisation Strategy as described under Priority Axis 1 (Research and Innovation). The Smart Specialisation approach advocates a concentration of resources on a few key priorities where a region has an existing or emerging specific strength, rather than spreading investment thinly across a broad number of areas or trying to develop capacity without some endogenous capability.

5.85 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

**Planned use of financial instruments**

5.86 To date, an initial high level assessment of the suitability of Financial Instruments for the different programme components has been undertaken, and for those parts deemed suitable and of high priority (i.e. SME finance), a market assessment has been undertaken. On the basis of this, detailed proposals for the Financial Instruments are currently being prepared and these will be reviewed as part of the final stages of the ex ante assessment.

5.87 The ex ante assessment to date has indicated that there is a strong case for the ERDF programme to provide an integrated and coordinated approach to the provision of finance for SMEs. Initial recommendations are for proof of concept funding to remain grant-funded but for early stage seed (between £20,000 and £50,000) and follow on investments (up to £100,000) to be delivered through a Financial Instrument. Early stage investments should reach between £50,000 and £1 million overall (including follow-on).

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126 A review of the literature addressing the role of external knowledge and expertise at key stages of business growth and development (2005), J. Bessant, B. Phelps and R. Adams, Cranfield School of Management

127 http://s3platform.jrc.ec.europa.eu/home
### Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises receiving financial support other than grants*</td>
<td>Number</td>
<td>90</td>
<td>Monitoring data</td>
<td>Quarterly</td>
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<tr>
<td>Investment in enterprises</td>
<td>GBP</td>
<td>26,536,773</td>
<td>Monitoring data</td>
<td>Quarterly</td>
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<tr>
<td>Private investment matching public support to SMEs - Non-grants*</td>
<td>GBP</td>
<td>23,760,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Employment increase in supported enterprises*</td>
<td>FTE</td>
<td>490</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises supported to introduce new to the firm products*</td>
<td>Number</td>
<td>20</td>
<td>Monitoring data</td>
<td>Quarterly</td>
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<tr>
<td>Enterprises adopting or improving sustainable development strategies and monitoring systems</td>
<td>Number</td>
<td>45</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Enterprises adopting or improving equality and diversity strategies and monitoring systems</td>
<td>Number</td>
<td>45</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Coordination between the funds, the EAFRD, the EMFF, and other Union and national funding instruments

5.88 ESI programmes in Wales have been designed to be complementary, and the ERDF programmes share an analysis and structure, reflecting the common challenges across the whole of Wales.

5.89 The project selection and prioritisation criteria will test how each project has considered other available funding sources and the links they have made to them. Projects will be particularly encouraged where they can contribute simultaneously to both ERDF and wider EU funding instrument priorities (e.g. Horizon 2020 or LIFE).

5.90 This section sets out the links to ESI, other EU and UK funds by Priority Axis, not duplicating coordination mechanisms or links to macro-regional strategies set out in the Partnership Agreement.

5.91 ESF investments to up-skill the workforce, address skills gaps, and support individuals to become work-ready (including addressing barriers to work) will support the competitiveness and productivity of SMEs. Support for entrepreneurship skills will also complement the ERDF objective of increasing the number of start-ups. Complementarity will be sought with business advisory services and start-up activity under the EAFRD and EMFF programmes to ensure that services are delivered efficiently and businesses in the farming and fisheries sectors have access to the support services funded through ERDF.

5.92 Start-up support targeting key growth sectors should also consider the potential to align with Start-Up Europe for ICT SMEs, delivered as part of Europe 2020’s Digital Agenda for Europe.

5.93 The main link with other funding sources will be in the provision of access to finance, where a number of schemes seeking to ease pressures for SMEs are emerging; for example COSME at an EU level or a number of specific loan and venture capital funds supported by the EIF.

5.94 The UK Government has sought to encourage financial institutions to invest in SMEs, for example through the Funding for Lending scheme and the Enterprise Finance Guarantee. The UK Government also invests alongside the private sector in commercial funds and is also developing proposals for a Business Bank, to provide finance for SMEs. Venture capitalists and business angels also remain key sources of finance, but tend to be focussed in the South East of England.

5.95 Coordination of access to finance will be sought through existing arrangements for SME support (e.g. the One-Stop-Shop for Business Advice). Provision through the ERDF will be subject to assessment of market failure, including consideration other funding sources.
5.96 There are also links with the European Union Programme for Employment and Social Innovation with measures aimed at entrepreneurship, business creation and tailored delivery of provision for social enterprises; for example the ERDF, alongside ESF, might support the scaling-up of successful innovations aligned to ERDF or ESF objectives.

5.97 The ETC programmes in which Wales participates are also likely to have strands dedicated to SME Competitiveness. Links will be encouraged between the programmes, particularly where ERDF might support the roll-out or trial of innovative support identified through ETC. Mainstream transnational activity is expected to be lower in this Priority Axis, though there are opportunities in the promotion of growth opportunities (for example in seeking to enter new markets.
6. PRIORITY 3: RENEWABLE ENERGY AND ENERGY EFFICIENCY


6.1 A high level analysis and summary of key needs and opportunities leading to the selection of this Priority Axis is set out in Sections 1.1 and 1.3 of the Welsh Chapter of the UK Partnership Agreement.

6.2 Green Growth and the transition to a low-Carbon economy represents a key opportunity to support both jobs and business across Wales; particularly given an abundance of natural resources and assets, a good research base, strong endogenous technical expertise and key energy infrastructure (including substantial National Grid transmission capacity\(^\text{128}\)) in place. Energy Wales sets out the Welsh strategy for coordinating action, and existing capability will be strengthened through clusters within three Enterprise Zones. The Research and Innovation Priority Axis sets out how related support will be available for research and innovation in the low carbon field.

6.3 Wales’ significant natural resources\(^\text{129}\) and assets indicate major growth potential in renewable energy generation in the long term. The opportunities for the more developed sectors are mostly around Research and Innovation to further develop technologies (e.g. wind and solar), perhaps seeking to attract finance from some of the already well established market leaders outside of the programme area.

6.4 Wales has key assets important to the emerging marine energy sector where there is still an opportunity to capture greater market share and realise more benefits within the programme area, attracting investment into the programme area. Wales also has key infrastructure assets providing advantages over other territories investing in this area such as: deep ports; well connected transmission and distribution grids; research expertise in businesses and universities; and employers with skilled workforces that can take advantage of supply chain opportunities.

6.5 The UK Energy and Climate Change Select Committee\(^\text{130}\) reported that the marine renewables industry (tidal and wave) could be worth £3.7billion to the UK by 2020 and RenewableUK suggests the marine energy industry (tidal and wave) is forecast to be worth £6.1 billion to the UK economy by 2035,

\(^{128}\) Marine Energy Infrastructure Study : Stage A - Industry Consultation and Concept Design (July 2012), Halcrow

\(^{129}\) Significant wind resources (on- and off-shore); significant wave and tidal energy potential (Marine Renewable Energy Strategic Framework, 2011); one of the best solar resources in the UK; and scope for more biomass and hydro

creating nearly 20,000 jobs (not including export opportunities)\textsuperscript{131}. Given Wales' comparative advantages there is the potential to become a significant market player in this area\textsuperscript{132}, albeit in a nascent market. Some private investment in \textit{marine energy} in Wales is emerging\textsuperscript{133}, but much more investment is needed to demonstrate commercial viability of emerging technology solutions, in particular through larger scale tests if we are to see benefits realisation in the programme area (e.g. R&D, manufacture, operation and maintenance).

6.6 The marine energy sector was highlighted in the European Commission's \textbf{Blue Growth} Strategy as one of five developing areas in the 'blue economy' that could help drive job creation in coastal areas. Other Commission initiatives, such as the Communication on Energy Technologies and Innovation and the Atlantic Action Plan\textsuperscript{134}, have recognised the importance of ocean energy and aim to encourage collaborative research and development and cross-border cooperation to boost its development. Furthermore, the Commission's Communication on Blue Energy considers the potential of the ocean energy sector to contribute to the objectives of the Europe 2020 Strategy.

6.7 \textit{Tidal and wave} technology is only just reaching testing phases, but getting closer to commercialisation, indicating a wider potential need for investment (e.g. infrastructure, R&D&I, demonstration of working models to make schemes more attractive to potential investors\textsuperscript{135}). Emerging clusters in North Wales and South West Wales offer specific opportunities to develop the marine energy sector in a targeted way. To retain and develop existing businesses, as well as attract new businesses, we need to ensure these clusters are not hampered through a lack of viable and consented test sites, connectivity and capacity to demonstrate technology.

6.8 As at 31 December 2011 the installed capacity of sites generating electricity from renewable sources in Wales was 929.4 MW\textsuperscript{136}. \textbf{Small scale energy schemes} can make a contribution to reducing carbon emissions and stimulating local economic growth (for example a cooperative community model will allow money to be reinvested in other community schemes\textsuperscript{137}). Access to finance is good (albeit fragmented) for viable small-scale schemes,

\textsuperscript{131} \textit{Wave and Tidal Energy in the UK 2013: Conquering Challenges, Generating Growth} (27 February 2013), RenewableUK
\textsuperscript{132} Small clusters are developing in the South West and in North Wales, but creating new and attracting other businesses to Wales will be necessary to capture market share.
\textsuperscript{133} For example Marine Current Turbines off the coast of Anglesey and Tidal Energy Ltd off the coast of Pembrokeshire.
\textsuperscript{134} COM(2013)279Final of 13 May 2013: “Action plan for a Maritime Strategy in the Atlantic Area”
\textsuperscript{135} Marine Energy Technology Innovation Needs Assessment (TINA) (August 2012), Low Carbon Innovation Co-ordination Group (LCICG). Available at:\ http://www.lowcarboninnovation.co.uk/working_together/technology_focus_areas/marine/
\textsuperscript{136} \textit{Renewable electricity in Scotland, Wales, Northern Ireland and the regions of England in 2012} (September 2013), DECC
\textsuperscript{137} For example some case studies are set out in: \textit{Co-operative renewable energy in the UK: a guide to this growing sector} (2012), Rebecca Willis and Jenny Willis, The Cooperative Group
but there is a need to de-risk the early stage development of proposals before they can attract finance. The ex-ante assessment to inform potential Financial Instruments in Wales for 2014-2020\textsuperscript{138} and findings to date from Ynni’r Fro (community energy scheme funded through ERDF) suggest that large capital finance is not the main barrier to local and community schemes; indeed there is a relatively crowded market for finance for this activity. There remains a need, however, for advice and guidance for groups to address those barriers prior to reaching consent (and therefore having a financially viable proposition).

6.9 A number of mature technologies are available to support small scale and community scale low Carbon initiatives (e.g. wind, solar PV, hydro) but the adoption of such technology is expensive and not as widespread as it could be due to uncertainty caused by early stage and planning activity raising questions over commercial viability and benefits. There is a need to demonstrate viability on small scale / community scale and to support measures to speed up the process to help lever additional private resource into these models.

6.10 There is a need to address the poor energy efficiency of much of the housing stock in Wales. Wales’ housing stock has poor energy efficiency in comparison with the rest of Europe\textsuperscript{139}, households account for 29\% of final energy use in the UK\textsuperscript{140}, and many households in Wales face issues of fuel poverty\textsuperscript{141}. The heating of rooms is by far the highest source of energy consumption in the household sector\textsuperscript{142}. The sheer scale of the challenge dwarfs the available funding and there will be a need to target resources while not missing opportunities for economies of scale or flexible support. There is a need for intervention for those households with lower incomes or facing issues of deprivation, in particular where the incentive to invest in energy efficiency measures (for example through the Green Deal) is less clear as they don’t benefit from reduced energy bills directly, have poor credit history, or lack finance for associated upfront costs. Investing in energy efficiency will not only enable cost-effective reductions in greenhouse gas emissions, but will create business and employment opportunities for local labour.

6.11 Economies of scale will be sought at the same time as targeting based on those in most need and consistent with the Welsh Government central organising principle of sustainable development (an integrated approach seeking economic, social and environmental outcomes). Promoting and supporting behaviour change should be integral to all investments, given the

\textsuperscript{138} Ex Ante Assessment for the use of Financial Instruments, Regeneris Consulting, not yet published

\textsuperscript{139} The average Standard Assessment Procedure (SAP) rating of energy efficiency for Welsh homes is 50 (2008 to be updated in August 2013).

\textsuperscript{140} DECC Energy Consumption in the UK (2013)

\textsuperscript{141} Welsh Government ambition to eradicate fuel poverty by 2018, but in 2010 over 23\% (332,000) of households in Wales face issues of fuel poverty: Fuel Poverty Evidence Plan (March 2012), Welsh Government

\textsuperscript{142} Energy Efficiency Policies and Measures in UK (2012), ODYSSEE MURE Intelligent Energy Europe project
key role behaviour plays in the sustainable use of energy. The areas most affected by fuel poverty in Wales tend to be areas identified as suffering from multiple issues of deprivation, as well as the more rural and peripheral areas (where there is a greater dependence on other sources of fuel such as oil). The Welsh Index of Multiple Deprivation therefore offers a potential method for helping to target energy efficiency in housing measures to specific communities where the greatest impact can be achieved.

6.12 Careful attention will need to be given to any ERDF support for energy efficiency in housing aimed at addressing issues of fuel poverty to avoid duplication with existing schemes and initiatives, in particular any legislative changes introduced during the programme period. Targeting based on fuel poverty and areas of deprivation should help mitigate this as those involve households not able or willing to participate in the available loan schemes.

6.13 Wales has developed a comprehensive energy efficiency supply chain to take advantage of the opportunities offered by the promotion of energy efficiency in housing (for example over 80% of the businesses that delivered phase 1 of Arbed operated primarily, or solely, in Wales). These businesses should be in a position to help deliver wider schemes, such as the Green Deal across the UK and significant opportunities to access Energy Company Obligation (ECO) funding. There are therefore significant opportunities for the Welsh supply chain that could be maximised through complementary investment (for example by addressing barriers to accessing new markets – such as accreditation or collaboration to build consortia to access procurement opportunities – through the SME Competitiveness priority) in the supply side to take advantage of the opportunities in the design, manufacture, distribution, installation and maintenance of domestic energy efficiency measures and renewable energy technologies.

Summary of justification for identification of Specific Objectives

<table>
<thead>
<tr>
<th>Needs</th>
<th>Growth Opportunities</th>
<th>Specific Objective (SO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• RTD&amp;I necessary for commercial viability of marine energy sector</td>
<td>• Green Growth and the transition to a low-Carbon economy represents a key opportunity to support both jobs and business across Wales</td>
<td>(3.1) To increase the number of renewable energy devices being tested in Welsh waters and off the Welsh coast, including multi-device array deployments, thereby establishing Wales as a centre</td>
</tr>
<tr>
<td>• Lack of private investment as nascent sector</td>
<td>• Abundance of natural resources and assets</td>
<td></td>
</tr>
<tr>
<td>• Need for accessible test sites, in particular infrastructure deficits around port</td>
<td>• A good research base</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• strong endogenous</td>
<td></td>
</tr>
</tbody>
</table>

143 A Small Area Fuel Poverty Indicator for Wales (September 2008), David Gordon and Eldin Fahmy, University of Bristol. Available at: http://wales.gov.uk/docs/desh/policy/090129fuelpovertyreporten.pdf
6. PRIORITY 3: RENEWABLE ENERGY
AND ENERGY EFFICIENCY

<table>
<thead>
<tr>
<th>Background</th>
<th>technical expertise</th>
<th>for marine energy production</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Need to de-risk early stage development work to demonstrate viability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of capacity of community groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of finance for early stage development of small scale or community renewable energy project proposals before they can attract finance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Small scale energy schemes contribute to reducing carbon emissions and can stimulate local economic growth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A range of financial support available once schemes developed (albeit fragmented)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A range of mature technologies available</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope</th>
<th>Poor energy efficiency of Welsh housing stock</th>
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<tbody>
<tr>
<td>• Need for intervention for households with lower incomes or facing issues of deprivation</td>
<td></td>
</tr>
<tr>
<td>• Issues of fuel poverty</td>
<td></td>
</tr>
<tr>
<td>• Growing supply chain</td>
<td></td>
</tr>
<tr>
<td>• Potential for use of new technology</td>
<td></td>
</tr>
<tr>
<td>• Growth sector in Wales and UK.</td>
<td></td>
</tr>
<tr>
<td>• ECO and Green Deal opportunities across UK</td>
<td></td>
</tr>
<tr>
<td>• Opportunities to incorporate multiple benefits, including community involvement and behaviour change</td>
<td></td>
</tr>
</tbody>
</table>

6.14 This Operational Programme includes the Extraregio territory (UKZZ) for the purposes of including activity with the UK territorial waters as eligible for support through this Operational Programme. This is to support ambitions for development of a marine energy sector in Wales, some of which will involve investment in infrastructure and studies of the marine environment. The economic benefit of that investment is expected to be accrued to the programme area and connections supported through this programme should be to the programme area of West Wales and the Valleys.
6.15 Research and Development and Innovation related to the transition to a low carbon economy – including that related to renewable energy and energy efficiency – is supported under Priority Axis 1. A focus for this Priority Axis is to support a suite of dedicated investments outside of the Smart Specialisation approach (which provides the focus for Priority Axis 1) in specific areas of renewable energy and energy efficiency.

6.16 It is important to recognise that research, technological development and innovation supporting renewable energy and energy efficiency can still be supported through the Research and Innovation Priority Axis, as long as it can demonstrate smart specialisation.
Specific Objective 3.1: Increase the number of wave and tidal energy devices being tested in Welsh waters and off the Welsh coast, including multi-device array deployments, thereby establishing Wales as a centre for marine energy production

Description of baseline and results

6.17 Given the focus intended for this Specific Objective is on wave and tidal energy, it is difficult to find an indicator that offers that specificity (even at a UK-wide level). Of the data regularly collected in the Digest of UK Energy Statistics (DUKES), the majority of related indicators also include renewable energy from wind (already an established market).

6.18 Of those indicators that do have a breakdown, data is only available at a UK-wide level and relate to either installed capacity in wave and tidal or electricity generated from wave and tidal. Given the emphasis of this investment priority is not in direct generation of electricity but in preparing the ground for significant long-term private investment in the sector installed capacity has been selected as it seeks to focus on getting the capacity (and associated requirements to do so).

6.19 A target has been set against this indicator as it reflects an end result of an expected accumulation of investments to improve the attractiveness of investment in Welsh marine and tidal energy. ERDF will make an area more attractive to private investors, but will not directly install capacity (therefore it is a relevant result indicator). The majority of impact on this indicator that would be expected may well not materialise until after the programme investment; that will need to form part of the assessment of impact as part of the evaluation plan. The performance framework therefore seeks to capture this approach in terms of key implementation steps rather than attaching quantitative targets to a range of different activities.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed capacity in wave and tidal.</td>
<td>MW</td>
<td>UK-wide</td>
<td>7</td>
<td>2012</td>
<td>Additional 20MW</td>
<td>Digest of UK Energy Statistics (table 6.4)</td>
<td>Annual</td>
</tr>
</tbody>
</table>
6.20 This Priority is limited to supporting renewable energy and, while the Welsh Government recognises nuclear energy as a source of low carbon energy, the regulations specifically disallow direct investment in nuclear energy.

6.21 Research and development and innovation investments related to Renewable Energy and Energy Efficiency and other areas of Low-Carbon, Energy and Environment Welsh Government Grand Challenge area can be funded through the Research and Innovation Priority Axis, though they will be expected to consider their links to the Smart Specialisation approach. The Research and Innovation Priority Axis will enable support to develop and improve a wide range of renewable energy and energy efficiency technologies where there is an expertise or opportunity to capture benefits within the programme area (e.g. photovoltaic, offshore wind, fuel cells, sustainable buildings etc.). Limited support for enabling infrastructure for offshore wind might incidentally be supported through this Priority where it shares requirements with the marine energy sector (e.g. shore based facilities, access, operation and maintenance).

6.22 SMEs in the Energy and Environment sector will be eligible for all business support and finance under the SME Competitiveness priority. Only specific investments directly linked to energy efficiency projects are envisaged in terms of sector and supply chain development through this priority.

6.23 Investments under this Priority will be focused on developing the emerging marine energy sector in Wales and on enabling the development of small scale or community scale renewable energy schemes. All of these investments should be aimed at attracting additional investment into the programme area: major private investment in the case of marine energy; and finance from mainstream / private providers for small scale schemes.

6.24 Support contributing to this Specific Objective may be directed at a number of target groups in the marine energy innovation supply chain, from research institutions to SMEs to Local Government or any other organisation. Territorially, investments would be expected along the Welsh coast in identified areas with links to the specific resources and opportunities identified in the Welsh Government’s Marine Renewable Energy Strategic Framework.

6.25 Given Wales’ comparative advantages there is the potential to become a significant market player in this area\textsuperscript{144}, albeit in a nascent market; an opportunity not afforded in other renewable energy sectors in Wales, given the maturity of those sectors and market share already established for manufacture, operation and maintenance outside of the programme area.

\textsuperscript{144} Small clusters are developing in the South West and in North Wales, but creating new and attracting other businesses to Wales will be necessary to capture market share.
6.26 Some private investment in marine energy in Wales is emerging\textsuperscript{145}, but much more investment is needed to demonstrate commercial viability of emerging technology solutions, in particular through larger scale tests. Demonstrating these successfully in the programme area will help to ensure that economic benefits are realised in the programme area (for example research and development, manufacture, operation and maintenance).

6.27 Tidal and wave technology is only just reaching commercialisation, indicating a wider potential need for investment (e.g. infrastructure, R&D&I, demonstration of working models to make schemes more attractive to potential investors\textsuperscript{146}).

6.28 Emerging clusters in North Wales and South West Wales offer specific opportunities to develop the marine energy sector in a targeted way. To retain and develop existing businesses, as well as attract new businesses, these clusters will need access to viable test sites, improved connectivity and be able to successfully demonstrate technology.

6.29 Types of action to support the deployment of marine energy technology (tidal, wave and wind) as part of developing the Welsh sector (SO1):

- Marine energy innovation and R&D with commercial potential including prototypes, demonstrators and pre-commercial devices and arrays. May include a range of activity leading to this, including:
  - applied research,
  - design,
  - manufacture,

- Increase the capability to test marine energy devices off the Welsh coast by targeted infrastructure investments and preparatory work to remove barriers, reduce risks and maximise investor confidence. These investments should be aimed at encouraging deployment of pre-commercial marine devices for testing and demonstration. For example:
  - site preparation
  - shore-based facilities\textsuperscript{147}
  - connections
  - access
  - surveys

\textsuperscript{145} For example Marine Current Turbines off the coast of Anglesey and Tidal Energy Ltd off the coast of Pembrokeshire.
\textsuperscript{146} Marine Energy Technology Innovation Needs Assessment (TINA) (August 2012), Low Carbon Innovation Co-ordination Group (LCICG). Available at: http://www.lowcarboninnovation.co.uk/working_together/technology_focus_areas/marine/
\textsuperscript{147} For example the Marine Energy Infrastructure Study for Wales (http://wales.gov.uk/topics/environmentcountryside/energy/renewable/marine/infrastructure-study/?lang=en). This indicated differing needs dependant on the area, but a general need for de-risking of private investment through infrastructure including: specialist machinery; large laydown and storage areas for assembly and rapid deployment; dry and wet commissioning of electrical parts; sufficient quay length / wide slipway; transport access; etc.
6. PRIORITY 3: RENEWABLE ENERGY
AND ENERGY EFFICIENCY

- Support to remove barriers and help part-finance test and demonstration devices and arrays.

**Guiding principles**

6.30 Schemes will be expected to complement the activity of the Energy Wales Programme.

6.31 Business cases will need to clearly demonstrate market failure and that opportunities for co-investment and synergies with other funding programmes have been fully explored (for example UK, Welsh and Local Government schemes or specialist lenders, such as Triodos).

6.32 Proposals for investments in wave and tidal energy should demonstrate clearly how they fit with and take account of developments and technological advances in the field elsewhere in the UK and Europe, and the operations should generally add value to these. Proposals should also identify how Wales can maximise economic benefits in the long term from investments, including manufacturing, operation and maintenance, and continued research and innovation.

6.33 Marine energy proposals should also consider and ensure consistency with the Marine Policy Statement and the Marine Strategy Framework Directive. Links should also be considered across the ESI funds, including investment in the marine environment through EMFF and the ETC programmes (particularly the Ireland / Wales programme), and links to the Low Carbon Energy and Environment sector (e.g. Research and Innovation, SME Competitiveness or Skills support).

6.34 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

**Output indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional capacity of renewable energy production*</td>
<td>MW</td>
<td>20</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Energy support site preparation schemes</td>
<td>Number</td>
<td>2</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of renewable energy prototypes tested</td>
<td>Number</td>
<td>8</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>

6. PRIORITY 3: RENEWABLE ENERGY AND ENERGY EFFICIENCY

Specific Objective 3.2: To increase the number of small scale renewable energy schemes established.

Description of baseline and results

6.35 As at 31 December 2012 the installed capacity of sites generating electricity from renewable sources in Wales was 929.4 MW\(^{150}\). The bulk of this capacity is through technology associated with a mix between small and larger scale schemes (e.g. wind and wave, solar and hydro account for over 90% of capacity). While data at the level of scale per scheme is not readily available an analysis of the regional capacity and generation noted above shows that Wales has 6% of the generating capacity, generates 5.5% of UK electricity from renewable sources, and yet has 6.8% of the total number of sites generating electricity. While generation is around the population share it potentially indicates a lack of major schemes; however the number of sites generating renewable energy suggests a demand for smaller scale renewable schemes.

6.36 The lack of regular and reliable data relative to the size of renewable energy schemes has led to the selection of a broader result indicator, which small schemes will influence. The key indicator selected is the number of sites generating electricity (excluding Photovoltaic) as this is most likely to be influenced by small scale schemes as capacity and amount of energy will be driven primarily by a few large schemes. The exclusion of Photovoltaic is necessary because of the large numbers of individual premises fitted with panels for micro-generation, skewing the figures (e.g. there were 27,173 sites generating from PV in 2012). This is considered a reasonable result indicator as the ERDF support is only intended to address market failure in the early stages of developing small scale or community energy schemes, not to establish schemes in their entirety. ERDF will fund capacity building and early stage development work to make commercially viable schemes in which the market will invest.

6.37 Project selection, monitoring and evaluation will need to ensure that the sites ERDF contributes to developing are of a reasonable scale (e.g. more than micro-generation and of benefit to at least a community, potentially a larger region, business community or urban area).

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\(^{150}\) Renewable electricity in Scotland, Wales, Northern Ireland and the regions of England in 2012 (September 2013), DECC
Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sites generating electricity from renewable sources (excluding PV)</td>
<td>No.</td>
<td>Wales</td>
<td>493</td>
<td>2012</td>
<td>530</td>
<td>DUKES (DECC): Report on Renewable electricity in Scotland, Wales, NI and regions of England</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions to be supported

6.38 This Priority is limited to supporting renewable energy and, while the Welsh Government recognises nuclear energy as a source of low carbon energy, the regulations specifically disallow direct investment in nuclear energy.

6.39 Research and development and innovation investments related to Renewable Energy and Energy Efficiency and other areas of Low-Carbon, Energy and Environment Welsh Government Grand Challenge area can be funded through the Research and Innovation Priority Axis, though they will be expected to consider their links to the Smart Specialisation approach. The Research and Innovation Priority Axis will enable support to develop and improve a wide range of renewable energy and energy efficiency technologies where there is an expertise or opportunity to capture benefits within the programme area (e.g. photovoltaic, offshore wind, fuel cells, sustainable buildings etc).

6.40 Investments under this Investment Priority will be focused on developing the emerging marine energy sector in Wales and on enabling the development of small scale or community scale renewable energy schemes. All of these investments should be aimed at attracting additional investment into the programme area: major private investment in the case of marine energy; and finance from mainstream / private providers for small scale schemes.
6.41 The ex-ante assessment to inform potential Financial Instruments in Wales for 2014-2020 and findings to date from Ynñi’r Fro (community energy scheme funded through ERDF) suggest that there is already a good supply of capital finance, but there remains a need for advice and guidance for groups to address those barriers prior to reaching consent (and therefore having a financially viable proposition).

6.42 A number of mature technologies are available to support small scale and community scale low Carbon initiatives (e.g. wind, solar PV) but the adoption of such technology is expensive and not as widespread as it could be due to uncertainty caused by early stage project development and planning activity raising questions over commercial viability and benefits. There is a need to demonstrate viability on small scale / community scale and to support measures to speed up the process to help lever additional private resource into these models.

6.43 Support will be particularly focused on social enterprises and community groups where additional support would be required in the early stages of project development to get to a stage where other investors will be willing to invest. Schemes will be particularly encouraged where they form part of low-Carbon strategies for a specific area, and additional support will be necessary to achieve this given the relatively novel approach and as an additional exercise.

6.44 Types of actions anticipated include:

- Capacity development for local groups,
- Advice and guidance on setting up small scale renewable energy generation schemes
- Support for collaborative working with developers on community supported schemes
- Investments tailored to address barriers to accessing finance for small and community schemes supporting a low Carbon transition.
- Development and implementation of low Carbon strategies supporting the demonstration of benefits for a specific geographical area

Guiding principles

6.45 Schemes will be expected to complement the activity of the Energy Wales Programme.

6.46 Business cases will need to clearly demonstrate market failure and that opportunities for co-investment and synergies with other funding programmes

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151 Ex Ante Assessment for the use of Financial Instruments, Regeneris Consulting, not yet published
have been fully explored (for example UK, Welsh and Local Government schemes or specialist lenders, such as Triodos)

6.47 Schemes are anticipated to be able to demonstrate a degree of scale (e.g. greater than micro-generation and of benefit to entire communities, regions, or urban areas). Small scale and community energy schemes should ensure consistency and coordination with any proposals in the Welsh Rural Development Programme, in particular which fund will support which elements (in terms of demarcation).

6.48 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

**Output indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises receiving non-financial support*</td>
<td>Number</td>
<td>150</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of enterprises supported to introduce new to the firm products*</td>
<td>Number</td>
<td>75</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of pilot projects completed</td>
<td>Number</td>
<td>4</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Community energy schemes</td>
<td>Number</td>
<td>37</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Specific Objective 3.3: To increase the energy efficiency of the existing Welsh housing stock, particularly in areas of fuel poverty

Description of baseline and results

6.49 The selection of results indicators is difficult as there are difficulties in the collection and analysis of relevant data. For example energy consumption by household can be used to track global changes, but the number of households is too large to be able to impact significantly. Energy consumption also only captures gas and electricity usage, whereas many parts of rural Wales rely on other sources of fuel.

6.50 The use the Welsh Government’s indicators for fuel poverty are used to determine a more limited and specific target group where the greatest need exists and who are less likely to access other forms of support. This also includes the use of other fuels. In order to set a reasonable baseline a specific subset of severe fuel poverty has been selected. This equates to households that are spending 20% or more of their income on fuel.

6.51 As fuel poverty itself can be influenced by too large a range of other factors (e.g. energy prices, inflation, wages, employment levels, etc), the associated target is to increase the energy efficiency ratings of a significant proportion of those households, recognising evidence that these households are recognised as having the lowest levels of energy efficiency.

6.52 The target should be considered alongside the complementary action under the East Wales programme, given the indicator is only available at an all Wales level. A significant proportion of those households supported should be those in severe fuel poverty, but opportunities for economies of scale should not be lost where streets or communities could benefit from an integrated action. It is also recognised that targeting on severe fuel poverty may be difficult but reasonable proxies should be used (e.g. Index of Multiple Deprivation).

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency rating of households in severe fuel poverty</td>
<td>No. (%)</td>
<td>Wales</td>
<td>61,000 (4.81% of housing stock in Wales)</td>
<td>2010</td>
<td>Increase Energy Performance by 2 ratings for 10% of baseline</td>
<td>WEFO &amp; Fuel Poverty Annual Report</td>
<td>Annual</td>
</tr>
</tbody>
</table>
6. PRIORITY 3: RENEWABLE ENERGY AND ENERGY EFFICIENCY

Type and examples of actions

6.53 The SME Competitiveness Priority encourages support for sector and supply chain development and support for the energy efficiency supply chain should be funded through that Priority where there are realistic growth opportunities.

6.54 Existing schemes (such as Green Deal) will not address the causes of fuel poverty in the short term as savings will be used to repay the loan (and interest) over long pay-back periods and there is therefore little incentive for the fuel-poor to take part. The scale of the challenge dwarfs the available funding and the results to be sought for this Investment Priority needs to balance a need for targeting with a desire not to miss opportunities for economies of scale or flexible support.

6.55 Investing in energy efficiency will not only enable cost-effective reductions in greenhouse gas emissions, but will create business and employment opportunities for local labour. Wales has developed a comprehensive energy efficiency supply chain to take advantage of the opportunities to date offered by the promotion of energy efficiency (for example over 80% of the businesses that delivered phase 1 of Arbed operated primarily, or solely, in Wales). It is expected that this progress will be built upon and where necessary, complementary action targeted under Priority 2 (SME Competitiveness).

6.56 Community participation and involvement will be encouraged as an important element in the effective delivery of measures to improve the energy efficiency of housing.

6.57 Types of action to be supported:

- Energy conservation and efficiency measures in existing housing. Consideration should be given to achieving multiple benefits, appropriate targeting to achieve that, and opportunities to utilise repayable finance.

- Energy efficiency advice and measures to encourage behavioural change

- The provision of green infrastructure such as the construction of "green" roofs and "green" walls and other appropriate actions to reduce energy use and for smarter energy management

- Opportunities to support the development and use of ICT-based solutions to address energy efficiency in housing challenges

Guiding principles

6.58 Support for energy efficiency measures will need to take account of other initiatives in the market such as the UK Government's Green Deal[^152], Energy

Company Obligation\textsuperscript{153}, as well as the scope to utilise repayable forms of finance where appropriate.

6.59 The scale of the problem suggests a need to focus on those areas with the greatest market failure (for example those affected most by fuel poverty and least likely to engage in loan schemes such as Green Deal) and at the same time to consider economies of scale (e.g. where entire streets or communities can be covered).

6.60 Structural funds investments should be seeking to achieve multiple benefits at the same time as addressing an identified market failure. Investing in energy efficiency will not only enable cost-effective reductions in greenhouse gas emissions, but will create business and employment opportunities for local labour. These businesses should be encouraged to develop further to be in a position to help deliver wider schemes, such as the Green Deal across the UK.

6.61 Energy saving measures should consider the scope to utilise ecologically sound practices and the scope to use green infrastructure.

6.62 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

**Planned use of financial instruments**

6.63 There is no planned use of Financial Instruments for this Investment Priority given the current existence of loan schemes such as Green Deal. The option to contribute resources to a financial instrument will be considered if the ex-ante assessment on financial instruments identifies an opportunity to use repayable finance (e.g. an Urban Development Fund supporting energy efficiency as an element).

**Output indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households with improved energy consumption classification*</td>
<td>Number</td>
<td>5,500</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Estimated decrease of GHG*</td>
<td>tons of CO2 equivalent</td>
<td>10</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>

\textsuperscript{153} \url{https://www.gov.uk/energy-company-obligation}
6. PRIORITY 3: RENEWABLE ENERGY AND ENERGY EFFICIENCY

Coordination between the funds, the EAFRD, the EMFF, and other Union and national funding instruments

6.64 ESI programmes in Wales have been designed to be complementary, and the ERDF programmes share an analysis and structure, reflecting the common challenges across the whole of Wales.

6.65 The project selection and prioritisation criteria will test how each project has considered other available funding sources and the links they have made to them. Projects will be particularly encouraged where they can contribute simultaneously to both ERDF and wider EU funding instrument priorities (e.g. Horizon 2020 or LIFE).

6.66 This section sets out the links to ESI, other EU and UK funds by Priority Axis, not duplicating coordination mechanisms or links to macro-regional strategies set out in the Partnership Agreement.

6.67 Opportunities to link with the EAFRD and EFF will be actively sought under this Priority Axis; for example by setting out opportunities for complementary support for small scale renewable energy between the EAFRD and ERDF (e.g. EAFRD for community engagement, micro-generation and piloting; then ERDF for scaling-up schemes to a community-wide level). The links with EMFF are expected to revolve around the potential for marine energy, with EMFF measures for marine spatial planning and management complementing ERDF ambitions to support the testing and demonstration of marine energy technology within that marine environment.

6.68 Support for skills development and identifying any gaps that could be funded by ESF projects will also be an important link; either through ensuring flexibility in mainstream ESF provision to support the energy sector, or through dedicated demand-led skills support.

6.69 At a UK level funds available include the Green Investment Bank, a range of funds from the Department for Energy and Climate Change, and dedicated funds through the Technology and Strategy Board. A range of legislation and incentives add further complexity to the funding landscape, including the Green Deal and Feed in Tariffs.

6.70 An assessment of how any project proposal fits within the context of other sources of finance will be essential to demonstrate added value and will feature as part of the project selection and prioritisation process. Expert advice will be sought where market failure or specific opportunity is not clear. This may take the form of internal advice (on alignment with Government policy and instruments) and external advice (technical assessment).

6.71 In terms of international cooperation there are considerable opportunities in the development of a marine energy sector in West Wales, seeking to add value to similar activity taking place in other areas such as Scotland and Cornwall. The marine environment and marine energy is also expected to
feature in the various ETC programmes Wales participates in, and complementarity will be sought with those programmes (recognising that the ERDF will be the driver of this activity in the main). Actions should seek to complement the objectives of the LIFE programme, specifically the CLIMA element of LIFE (or LIFE ENV projects). Projects that can demonstrate that they contribute simultaneously to both LIFE and ERDF priorities and avoid negative impacts on LIFE projects will be encouraged.

6.72 EIB funding may be sought if the ex-ante assessment on Financial Instruments identifies an opportunity to use repayable finance (e.g. an Urban Development Fund supporting energy efficiency as an element).
7. Priority Axis 4: Connectivity and Urban Development

7.1 The UK Partnership Agreements sets out the importance of investment in connectivity and urban development, in particular for the lagging and more peripheral parts of the UK. The Welsh chapter highlights how peripherality and the lack of agglomeration effects from large urban centres is a key component of the productivity gap in Wales. The UK Chapter also emphasises the importance attached to this type of investment across the world and how the UK is lagging in a number of areas. The UK Country Specific Recommendations (CSRs) are also highlighted in the UK Partnership Agreement, with a focus on addressing key infrastructure bottlenecks one of the key recommendations for action, and ESI funds are recognised in the ESI fund regulations as important tools to help deliver against the CSRs. While the UK is taking action, those prioritised investments are in the more central areas with the majority of UK Government funding directed in and around London, where there greatest economic gains can be made.

7.2 The OECD has recognised in a recent report the importance of investing in infrastructure, and the World Economic Forum has also noted the importance and benefits of infrastructure investment. The evidence in favour of investment is significant and there are clear indications that regions such as Wales, with structural and geographical challenges but many of the other preconditions for growth, is a region that can gain real benefits from such infrastructure investment.

7.3 In its Programme for Government the Welsh Government acknowledges that its interventions can only impact significantly on the Welsh economy in the longer-term. Evidence shows that investment in connectivity and enabling infrastructure is one of the two most important ‘levers’ (in addition to investment in skills development) through which the Welsh Government can help to achieve transformational economic change. A ‘Wales Infrastructure Strategic Transport Infrastructure Needs to 2030, OECD International Futures Programme (2011). For example it describes the major challenges of funding such schemes, and the long-term economic benefits. The report calls for comprehensive measures to support the infrastructure development required, noting that “Quality infrastructure is a key pillar of international competitiveness. It is trade-enhancing – especially for exports – and has positive impacts on economic growth”.

154 Strategic Transport Infrastructure Needs to 2030, OECD International Futures Programme (2011). For example it describes the major challenges of funding such schemes, and the long-term economic benefits. The report calls for comprehensive measures to support the infrastructure development required, noting that “Quality infrastructure is a key pillar of international competitiveness. It is trade-enhancing – especially for exports – and has positive impacts on economic growth”.

155 Global Agenda Council on Infrastructure 2012-2014. For example it notes “The costs of building infrastructure are vast, but the costs of failing to make such investments are incalculable. Improved infrastructure produces abundant benefits for the economy, environment and social progress. However, many countries, developing and developed, are facing significant infrastructure deficits, owing to growing populations, urbanization, changing demands and ageing assets.”

156 Economic Renewal: a new direction (2010), Welsh Government. Other levers include targeted business support, encouraging innovation, and making Wales a more attractive place to do business.
Investment Plan’ (WIIP) has therefore been created to prioritise, scope, and coordinate delivery of major infrastructure investments over a 10 year period and will help identify areas in which there are investment opportunities.

7.4 Investment to improve connectivity is an essential pre-requisite for the long-term success of all other ESI funds and all other ERDF Priority Axes. A well functioning transport system helps people to access work, increases the forces of competition, promotes greater efficiency, and increases the likelihood of co-location and clustering. Without improvements to connectivity, all other ESI investments helping businesses to grow or improving the skills and employability of the workforce in West Wales and the Valleys may simply result in that added value migrating out of the programme area and closer to the key urban centres of Cardiff or in England. For example investments in Marine energy will be in peripheral areas; if connectivity to those areas are not improved opportunities for co-located R&D, prototyping, construction and manufacture may be lost to more accessible areas. We want to see the benefits of ESI investments made in people and businesses in West Wales and the Valleys stay in West Wales and the Valleys – but to achieve this we need to urgently improve the connectivity of the region. The Welsh Government is prioritising this investment, but as much finance as possible needs to be mobilised to these objectives and the ERDF can still make a valuable contribution.

7.5 Improving transport infrastructure can lead to greater competition for local businesses and while this may adversely affect local uncompetitive businesses in the short-term, in the long term it will improve the competitiveness, productivity and wages in SMEs in the region. Protection of uncompetitive businesses should not be a reason to avoid improving connectivity if we are serious about supporting the development of a competitive and outward looking economy which trades internationally. Effective investment in connectivity should help to both retain existing competitive businesses and specialist skills and attract new businesses and skilled workers to the region. Measures tackling poverty through improving employability under the ESF need to be supported through sustainable employment growth in those areas, and that is only possible if the right physical environment exists to sustain businesses and supply labour.

7.6 A key benefit of improved connectivity is allowing more people to access a wider range of jobs and for a wider labour market available to businesses. Travel to work areas in Wales have been growing in size (and reducing in number) as people travelling further and further for work with less short journeys and more longer ones. Commuting patterns in Wales indicate significant flows across Local Authority boundaries and there are multiple

157 Going for Growth, OECD, and Understanding productivity variations between Wales and the rest of the UK, Welsh Assembly Government

7. PRIORITY 4: CONNECTIVITY
AND URBAN DEVELOPMENT

Background

Employment centres across Wales\(^{159}\). Despite the peripheral nature of the West of Wales, those most westerly Local Authorities (e.g. Gwynedd, Ceredigion and Pembrokeshire) are the only territories except Swansea and Cardiff to demonstrate a net inflow of commuters\(^{160}\). This suggests a potential focus for investment within the two City Regions and in the Westerly parts of the TEN-T networks in Wales.

7.7 Despite the polycentricity noted in the two Welsh City Regions, with commuting across the whole region, those areas demonstrate much higher uses of low carbon transport (e.g. 22% of commuters in Cardiff City Region use rail, bus, walking, cycling or other means of transport) than other parts of Wales. Compared to other City regions with well connected public transport there is the potential to increase this for those City regions (given expected growth and limited capacity)\(^{161}\).

7.8 Commuting flows are particularly pronounced around the two City regions in Wales (Cardiff / Newport and Swansea) with significant flows between Cardiff, Newport and the Valleys regions\(^{162}\). Significant improvements in sustainable transport and better connectivity would enable the regions to properly exploit the potential for agglomeration effects noted in other city regions across the UK and Europe. Expected continuing increases in commuting can only be achieved sustainably through investing in the effectiveness, viability and affordability of genuine alternatives to private travel. There are also opportunities to increase the volume of freight travelling by more sustainable means (e.g. rail) at the same time as improving labour market mobility.

7.9 Transport barriers to accessing employment are still a big problem across Wales, with respondents to the 2011 Wales ESF Leavers Survey\(^{163}\) who were out of work prior to their participation cited a perceived lack of appropriate jobs in the area where they lived (65%), and transport difficulties / barriers associated with accessing appropriate work (23%) amongst the key barriers to accessing work.

7.10 In particular lower skilled workers have lower levels of access to private transport\(^{164}\), less spatial mobility, and therefore fewer opportunities to access jobs in locations less accessible by public transport\(^{165}\) (and lower skilled jobs

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\(^{159}\) For example an analysis of commuting in South Wales (diagram included in Welsh chapter of the UK Partnership Agreement) showed that only 59-75% of the working population originated from the same Local Authority as the place of employment, meaning 25-41% of the entire working population are commuting across Local Authority boundaries. It also illustrates commuting in South Wales is not just into the City areas of Cardiff and Newport.


\(^{161}\) Statistical Bulletin: Commuting in Wales (2011), Welsh Government

\(^{162}\) ESF Leavers Survey 2011 (2013), WISERD (Cardiff University) et al

\(^{163}\) National Travel Survey (2011), DfT. Uses 2009 data.

\(^{164}\) Transport and Social Inclusion. Have we made the connections in our cities? (2010), PTEG
are increasingly dispersing out of urban centres\textsuperscript{166}). Lower skilled workers therefore need \textbf{well functioning public transport} to access employment opportunities.

7.11 **Use of public transport has increased** in Wales, particularly in larger urban areas where it offers a viable alternative to private travel. The use of the rail system in particular has increased sharply, both in terms of numbers of scheduled services that are run, and in terms of passenger numbers. There were approximately 28 million rail passenger journeys which either started or ended in Wales in 2011-12; an increase of 3 per cent compared to the previous year. Cardiff was the destination of almost two-fifths (39 per cent) of rail passenger journeys within Wales\textsuperscript{167}. There are still particular barriers associated with public transport in those urban areas with capacity constraints emerging\textsuperscript{168} and a lack of service or regularity of service preventing modal shift for those travelling into congested urban areas by private vehicle. For example, while 91\% of people over 16 are within 15 minutes drive time to a key centre, only 26\% have the same level of accessibility by public transport, rising to just 68\% in 30 minutes – the same as by cycling\textsuperscript{169}.

7.12 Particular issues that could be priority investments for public transport through the ERDF might therefore be in **addressing capacity constraints to key urban centres, in particular where modal shift can be supported.** Particular emphasis could be placed on increasing services (either new services or more regular easier to access services) to increase the attractiveness of public transport and support a modal shift, thereby reducing congestion associated with road transport in those areas. This would need to be complemented through activity to stimulate demand, de-incentivise road travel and remove barriers (e.g. smart ticketing). Innovative solutions to address particular geographical handicaps in the region (e.g. difficulty travelling between the Valleys areas in South Wales) should also be considered (e.g. multimodal solutions). The EU’s Sustainable Urban Mobility Plans\textsuperscript{170} set out good practice in addressing these challenges and Intelligent Transport Systems\textsuperscript{171} also have a key role to play, applying information and communication technologies to transport to make it more efficient, clean, safe and seamless.

7.13 **Use of private vehicles, however, remains the main commuting method** in Wales with 8 out of 10 journeys to work made by car (the highest proportion of people travelling to work by car of any region or country within Great Britain)\textsuperscript{172}. Car use is particularly important in the more peripheral and sparsely populated areas of Wales, where there is less availability of public transport.

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\textsuperscript{166} Moving on up, moving on out? Overcoming the jobs-skills mismatch (July 2011), Lena Tochtermann & Naomi Clayton, Centre for Cities
\textsuperscript{167} Annual Report: Rail transport, 2012 (November 2013), Welsh Government
\textsuperscript{168} For example to see the analysis informing proposals for South Wales Metro: http://wales.gov.uk/topics/transport/integrated/metro/?lang=en
\textsuperscript{169} Monitoring the National Transport Plan, Update 2012 (24 September 2013), StatsWales
\textsuperscript{170} http://www.mobilityplans.eu/11
\textsuperscript{171} http://ec.europa.eu/transport/themes/its/index_en.htm
\textsuperscript{172} Statistical Bulletin: Personal travel in Wales – 2012 (November 2013), Stats Wales
transport (placing a greater reliance on bus routes). Road travel is therefore essential in these areas where commuting often takes place over even larger distances than are seen around large urban centres. In terms of access to employment and travel for business, the reliability of travel time is of a particular concern. Poor quality roads coupled with an increase in private travel is leading to congestion pinch points on the TEN-T network in particular the Western sections of the A40 and A55 (which also provide important connections to ports on the TEN-T network and key Enterprise Zone employment sites in Anglesey and the Haven Waterway) where the main TEN-T routes contain constrains in having single carriageway, lack of overtaking places, and multiple roundabouts. These all lead to congestion and bottlenecks in normal rush-hour traffic, and are particularly sensitive to any incidents which can create significant problems.

7.14 Any investment using ERDF to address pinch points on TEN-T routes, particularly roads, should not be done in isolation. To maximise the impact of other ERDF investments and other investments using ESI funds, any ERDF transport investment will need to be part of an integrated package of investments. In this way a critical mass of investment can be achieved creating a greater cumulative impact. For example an investment to improve the lowest quality section of the A55 should complement planned investments in the nearby Anglesey Enterprise Zone; or an investment in the South Wales Metro Area should add value to ERDF and ESF investments being made in the Valleys areas as well as taking advantage of major UK investment in electrification of the main railway line to Swansea.

7.15 Annual reporting on the National Transport Plan shows that transport in Wales accounts for an increasing proportion of GHG emissions (increase from 12.2% to 16.3% between 1990 and 2011). Cars represented 9 per cent of the total greenhouse gas emissions for Wales in 2011. Road transport produces the vast majority of greenhouse gas emissions from the transport sector. In 1990, 91 per cent of greenhouse gas emissions from the transport sector were from road transport; by 2011 this had marginally increased to 92 per cent. All this suggests more investment is needed to both promote greener alternatives to car travel, but also to improve the efficiency and emissions relating to private travel, for example through addressing bottlenecks in the network, improving the reliability of travel and reducing congestion.

7.16 Research has found evidence of a positive economic impact of broadband, including that generated through the construction process, but also through productivity growth via enhanced business innovation, increased international trade and more opportunities for teleworking, enabling more productive use of

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173 This concept is explored in: Value of travel time reliability: A review of current evidence (May 2012), Carlos Carrion and David Levinson, Transportation Research Part A: Policy and Practice Volume 46, Issue 4, May 2012, Pages 720–741. The Welsh Government is also developing a measure of travel time reliability as part of the National Transport Plan and proposals in the Operational Programme are consistent with that work.
some workers’ time. There are fewer studies currently available on faster broadband but those available mostly point to a positive incremental effect, with cloud computing identified as one of the primary routes through which faster broadband is predicted to have an economic impact. However, a study undertaken for the European Commission found that slow connectivity was a constraint to cloud adoption amongst SMEs.

7.17 In June 2014, 78% of UK premises were able to receive fixed broadband services over NGA networks (speed of up to 30Mbit/s or higher). Wales had the lowest availability of NGA broadband services among the UK nations, with 58% of premises being able to receive such services, although this was an increase of more than ten percentage points compared to June 2013. Across the other UK nations this proportion ranged from 64% in Scotland to 95% to in Northern Ireland, with 80% of premises in England being within NGA network footprints. The market failure in Wales, which includes a wide range of urban areas, is a combination of the geography and a larger number of less affluent areas; areas traditionally less likely to take up higher speeds connections and therefore less likely to feature in private sector ICT infrastructure investment plans. This means those areas lose out on the significant benefits arising from this investment (for example the Digital Agenda for Europe suggests that a 10% increase in broadband penetration can raise GDP by 1%-1.5%).

7.18 The importance of ensuring the benefits of ICT infrastructure are not just localised in already economically strong areas highlights the vital role of a direct link to exploitation measures to ensure take-up and exploitation by indigenous SMEs, as noted earlier in this strategy. It can be seen across Europe that take-up of NGA services generally follows availability; this trend is also clear in the UK with Northern Ireland having excellent coverage of NGA networks and also having the highest take up rates of that technology (and rising fast). There is a need to ensure exploitation measures are incorporated in digital planning, but there still remains significant investment needs to address market failure in supply to meet the Digital Agenda for Europe targets.

7.19 The changes to the commercial footprint and market in Wales led to an Open Market Review being carried out in February 2014. This sought to identify areas where the existing and planned coverage of next generation broadband (30Mbps and above) would not be met through either the Superfast Cymru programme (which runs until 2016 and includes ERDF,

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174 UK Broadband Impact Study: Literature Review (2012), SQW for the Department for Culture, Media and Sport (DCMS) (page 1)
175 Ibid.
176 Quantitative Estimates of the Demand for Cloud Computing in Europe and the Likely Barriers to Uptake (2012), IDC for the European Commission
177 Communications Market Report Wales (August 2014), Ofcom
178 Communications Market Report: Wales (August 2014), Ofcom
private and public investment) or other planned commercial rollout. This is expected to include around 45,000 premises (approximately 4% of Welsh premises in total); however, excluding the most difficult to reach and most rural premises would lead to a focus for investment addressing the white areas covering around 39,000 premises. Part of this investment cost can be met through UK Government funding allocated for this purpose, but there will remain a funding gap. This will be known as Superfast Cymru Infill Phase 1.

7.20 Following the completion of the Superfast Cymru NGA Broadband project and the Superfast Cymru Infill Phase 1 project in 2016 there is expected to be a further 30,000 to 45,000 premises not passed (approximately 3-4% of total premises). It is not possible to pre-empt the Open Market Review that will need to be undertaken to identify any remaining white areas in the second half of 2016, though it is anticipated they will include a mix of different territories (urban, peri-urban and rural). Given significant previous commitments, it is hoped that further UK and Welsh Government funding will be made available to help address these remaining market failures, but – in order to extend this as far as possible to help meet the Digital Agenda for Europe target of full coverage by 2020\textsuperscript{181} – the use of a combination of ERDF and EAFRD will be required. Costs are expected to be higher per premises, though remaining urban and peri-urban areas will be prioritised for ERDF support. The combination of investment, alongside continued private investment, should help to achieve near-full coverage of NGB in Wales by 2020.

7.21 Investment in ICT infrastructure has the potential to improve the connectivity of the programme area and to underpin innovation, and the wide-scale application, commercialisation and exploitation of digital technologies by Welsh businesses, and particularly the ICT and Creative Industries sectors. This is particularly true for ultrafast broadband (100Mbps and above) and it is anticipated that specific provision targeted at SMEs (e.g. voucher scheme) can seek to extend the uptake towards the target in the Digital Agenda for Europe of 50% of the EU to be subscribed to broadband above 100 Mbps by 2020.

7.22 As well seeking to prevent disparities there are significant opportunities to take a lead in seeking to attract and retain key businesses requiring ultrafast connectivity solutions (100Mbps and above). Larger businesses, businesses requiring upload speeds which match their download speeds (so called Symmetric services), and enterprises who need to connect securely from one site to another will need more tailored ICT connectivity and there is an opportunity to capture and retain these businesses in strategic sites.

7.23 Welsh labour market statistics are examined in detail in the socioeconomic analysis and as part of the ESF programmes more generally, with Wales lagging the UK, and West Wales and the Valleys lagging Wales. There are significant variances in employment rates and the reasons for those variances in rates differ across Local Authorities in Wales. In order to support

\textsuperscript{181} Digital Agenda for Europe
employment friendly growth across Wales a range of different factors need to come together. Some of these are addressed in complementary parts of the ESI programmes for Wales (e.g. transport connectivity, skills, employability, etc.) and others more generally by Government (e.g. education, public services, etc.).

7.24 The Welsh Index of Multiple Deprivation\(^\text{182}\) highlights those local authorities performing worst in the employment domain are Merthyr Tydfil (33.3% of its Low Super-Output Areas in the most deprived 10% in Wales) and Blaenau Gwent (31.9%), though again pockets of deprivation exist in the wealthiest of Local Authority areas. More generally lower skilled jobs are moving out of cities and higher skilled jobs are becoming more concentrated in urban areas. These patterns need to be better captured and exploited in the design of integrated support for specific geographical regions. A study that assessed the impact of area-based regeneration policies found that accessible and meaningful levels of funding are an essential component of regeneration. The level of funding must enable physical renewal as well as community engagement\(^\text{183}\), and experience has shown the driver for these regeneration outcomes is key investments in infrastructure in places (e.g. sites and premises, developing a tourism asset, improving access, a centre of excellence).

7.25 A review of economic evidence has indicated that “physical regeneration that is intended to address market failure is most likely to be successful when the other elements necessary for economic success are present, and that success should become self-sustaining (and for this reason the intervention should be time-limited)”\(^\text{184}\). The Centre for Regeneration Excellence Wales\(^\text{185}\) also recognises that, generally, public sector financial resources have been allocated as a response to need (as distinct from a market response to demand and to ‘opportunity’); arguing that regeneration should encapsulate both a response to need and to opportunity.

7.26 A key lesson learned from the New Deal for Communities (‘NDC’) Programme, an area-based initiative in England is that regeneration agencies need flexibility to set targets which meet local needs and circumstances\(^\text{186}\). This is reflected in Vibrant and Viable Places, the Welsh Government regeneration framework which seeks to encourage a greater prioritisation on a limited number of growth opportunities driven by analysis


\(^{185}\) Regeneration Targeting (2011), Centre for Regeneration Excellence Wales for the National Regeneration Panel

\(^{186}\) The New Deal for Communities Programme: Achieving a Neighbourhood Focus for Regeneration (2010), G. Fordham, Department for Communities and Local Government. Available at: http://www.communities.gov.uk/publications/communitys/achievinganeighbourhood
rather than central targets. This prioritisation is also a central theme for this programme and infrastructure-led schemes will be sought from partners that offer the greatest opportunity for employment growth across an entire region whilst incorporating all elements of sustainable development (economic, environmental and social outcomes).

### Summary of justification for Selection of Specific Objectives

<table>
<thead>
<tr>
<th>Needs</th>
<th>Growth Opportunities</th>
<th>Specific Objective (SO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Peripheral areas not priority for core Government funding, leading to cycle of underinvestment and lost opportunities for growth</td>
<td>• Major investments announced in M4 and Electrification addressing key TEN-T bottlenecks</td>
<td>(4.1) To address issues of peripherality and improve private investment in local areas through improvements to the functioning of the Trans-European Transport Network (TEN-T).</td>
</tr>
<tr>
<td>• Reliance on cars and road transport in peripheral areas creates need for better networks</td>
<td>• Strategic Planning approach in place across Wales to prioritise investments in transport</td>
<td></td>
</tr>
<tr>
<td>• Poor quality sections of TEN-T networks</td>
<td>• Focus on Enterprise Zones could create growth opportunities outside of City Regions if accessible</td>
<td></td>
</tr>
<tr>
<td>• Increasing proportion of emissions from road transport and cars</td>
<td>• Connectivity improvements can support inward investment, increase productivity, and wages.</td>
<td></td>
</tr>
<tr>
<td>• Lack of connectivity constraint to growth and unattractive to inward investment</td>
<td>• West of Wales demonstrates in-commuting indicating opportunities for growth</td>
<td></td>
</tr>
<tr>
<td>• Peripherality and lack of connectivity identified as significant component of the productivity gap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Welsh ESF Leavers Survey out of work cited transport difficulties / barriers as one of the main barriers to accessing work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Geography of programme areas can mean complex public transport routes</td>
<td>• City Regions focus could improve agglomeration effects if constraints addressed (e.g. transport)</td>
<td>(4.2) To increase urban and labour mobility to and from key urban and employment centres</td>
</tr>
<tr>
<td>• Lack of accessibility</td>
<td></td>
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</table>
### Background

- **Focus on City Regions** will consider improving urban mobility beyond the city centres
- **Rail electrification by 2020 opportunity to build upon**
- **More integrated public transport and increased road congestion and opportunity to create modal shifts in transport use in Cardiff and Swansea City regions**
- **Expected continuing increases in commuting likely to create demand and opportunity to do so sustainably through investing in the effectiveness, viability and affordability of genuine alternatives to private travel**

<table>
<thead>
<tr>
<th><strong>for those dependant on public transport and to key strategic sites</strong></th>
<th><strong>Geographical and socioeconomic barriers creating market failures in broadband coverage</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Car transport still predominant in Cardiff and Swansea and lack of integrated public transport a constraint to growth</td>
<td>• Gaps remain in all areas of Wales, including white areas around urban areas</td>
</tr>
<tr>
<td>• Lower skilled workers have less access to private transport and spatial mobility; and therefore fewer opportunities to access jobs in locations less accessible by public transport</td>
<td>• Lack of multiple provider coverage</td>
</tr>
<tr>
<td>• Welsh ESF Leavers Survey out of work cited transport difficulties / barriers as one of the main barriers to accessing work</td>
<td>• Funding gaps, despite Government financial commitments (e.g. BDUK funding)</td>
</tr>
<tr>
<td>• Expected continuing increases in commuting likely to create demand and opportunity to do so sustainably through investing in the effectiveness, viability and affordability of genuine alternatives to private travel</td>
<td>• Lack of coverage potential constraint on demand for take-up</td>
</tr>
</tbody>
</table>

- **Significant investment in Next Generation Broadband and private investment expected to take coverage up to 92%.**
- **Strategic planning for key strategic sites (e.g. enterprise zones)**
- **4G rollout potential opportunity to address legacy issues**
- **Opportunities for range of providers and innovative approaches / technologies to address particularly difficult areas**

<table>
<thead>
<tr>
<th><strong>Range of employment challenges across the programme area, including areas of deprivation and</strong></th>
<th><strong>Improvements in partnership working and collaboration should lead to greater impact</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Significant opportunities</td>
<td>• Significant opportunities</td>
</tr>
</tbody>
</table>

(4.3) To contribute to Digital Agenda for Europe targets in Wales for 100% access to next generation broadband (30Mbps and above) and 50% access to 100Mbps.

(4.4) To increase employment through investments in prioritised local or regional
decline
- Need for more effective and coordinated planning of place-based development – based on growth opportunities

for integration across the ESI funds supporting spatial strategies and initiatives
- Investments made under ESF to tackle poverty can be complemented by supporting investments that can allow the private sector to create employment growth
- Number of growth opportunities across Wales (e.g. tourism, strategic sites, industrial) prioritised in a range of strategies

infrastructure supporting a regional or urban economic strategy (through Sustainable Urban Development).

**Scope**

7.27 This Priority Axis brings together Investment Priorities from four different Thematic Objectives in order to maximise the efficiency and impact of investments by aligning them with the priorities of the Wales Infrastructure Investment Plan for Growth and Jobs (WIIP). The Welsh Government has published the WIIP to ensure that its future capital investment is used to deliver the maximum benefits to Wales. Given that its capital spending power has been reduced (40% lower in 2014-15 than 2010-11) the Government’s focus is on not only seeking innovative ways of financing infrastructure investments but on being very clear about priorities and driving greater economy and efficiency.

7.28 This Priority Axis aims to support the improvement of the attractiveness of places in the programme area; and by doing so attract further private investment to help drive employment growth. Actions supported under this Priority will be enablers for all other Priorities and also key to the success of the ESF programmes (e.g. to ensure skills investments do not simply result in movement of skilled labour out of the programme area); as such they will need to demonstrate how they will interact with other investments in a territorial area for greater collective impact.

7.29 Transport investments will constitute the majority of funding (primarily through the “Transition to a Low Carbon Economy” thematic objective, but also the “Promoting sustainable transport and removing bottlenecks in key network infrastructures” one) which will address issues of peripherality and lack of urban mobility, seeking to better link urban growth centres in the programme area to markets and improve access to employment opportunities across the region.
7.30 Digital connectivity is also of increasing importance for businesses and for business growth in urban centres; in particular those areas where there are issues of peripherality and lack of labour mobility, opening up greater opportunities for remote working. In terms of providing the right environment in which businesses can flourish and grow, and in turn create employment directly and through supporting supply chains, ICT connectivity is as important as transport connectivity. Indeed the two are mutually reinforcing with better ICT connectivity reducing the need to travel.

7.31 Investments in physical infrastructure are the key drivers of regeneration and employment growth within places. They can stimulate further investments in an area or region, in particular through inward investment or greater involvement of the private sector. As part of this, projects supported under this third Thematic Objective should complement and add value to accessibility and connectivity investments. The intention is that the appropriate mix of activity to develop strategic sites should be determined by the relevant regional or urban authority (as a key part of sustainable urban development), as long as it supports employment growth in a key centre and as part of a prioritised integrated territorial strategy. It is considered important to keep these activities together as they are mutually reinforcing and to contribute to a coherent spatial investment strategy.
Specific Objective 4.1: To address issues of peripherality and improve private investment in local areas through improvements to the functioning of the Trans-European Transport Network (TEN-T).

Description of baseline and results

7.32 Evidence suggests that the impact of investment in roads is strongest for local economies; bringing improvements in employment, productivity, numbers of businesses and wages\(^{167}\). Funding available would mean that only 2-4 significant schemes would be likely to receive support from this Investment Priority; those schemes must therefore both address the issue of peripherality and also maximise the local economic impact in order to help address widening regional disparities and underpin the range of other investments being made across the ESI programmes.

7.33 Employment, productivity, business creation and growth, and wages are all key elements being targeted by different parts of the ESI programmes; demonstrating how this Investment Priority can help to underpin all those other ESI investments to retain benefits within the programme area. Connectivity investment will have a direct short-term (and longer term) influence over the location of firms (new to the area) and the investment they bring.

7.34 Investments are expected to improve reliability (e.g. through addressing congestion bottlenecks) in specific and low quality sections of the TEN-T network. Modelling on possible sections of the TEN-T suggests that a minimum increase of 10% is a reasonable result to be sought from any significant investment.

7.35 A separate baseline has been set for each of the A40 and A55 roads, focussing on average speeds during peak times.

7.36 It is clear that reduction of accidents is also an issue in these parts of the TEN-T network, so a secondary objective would be to reduce the number and severity of accidents to the national average (both sections are currently seeing higher than average levels). This will be addressed at a project level looking to set baselines and associated targets on a project-by-project basis.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average speed on TEN-T road (Welsh Govt.)</td>
<td>Kmph</td>
<td>Less Developed</td>
<td>A40: 58</td>
<td>2013</td>
<td>5-10% increase</td>
<td>(Traffic Master data)</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions

7.37 The National Transport Plan sets out that Wales should aim to get more out of its transport infrastructure by integrating all modes to make the system work better, and increase the use of more healthy and sustainable travel options. Actions should seek to add value to existing and planned investments, address specific bottlenecks and address the issues of peripherality faced by the programme area. This will mean more of a focus on the peripheral areas and local economic benefit (which will not penalise the scheme for being in peripheral areas). Further investments may be required in order to extract the maximum economic benefit for the programme area from this investment and to encourage modal shifts (e.g. in complementary sites and premises or local skills support to attract inward investment).

7.38 Expenditure envisaged under this Specific Objective will be on the TEN-T network, and are strictly limited to investments that can demonstrate an impact on the result indicator in relation to the A55 and the A40 only (i.e. improve average speeds and travel times at bottlenecks on the A55 an A40). The analysis informing this programme has identified those sections of the TEN-T network in Wales as major bottlenecks and areas of growth opportunity, in particular where there are commuting inflows or specific growth opportunities associated with key sites (e.g. Enterprise Zones). Investments must therefore aim to address a significant and evidenced bottleneck (e.g. for commuter and holiday traffic).

7.39 A focus on sustainability will also be essential for all schemes with specific measures to be identified to support the use of public transport and clean transport.

7.40 Types of actions anticipated to support:

- Targeted investment in the TEN-T road network along the A40 and A55 to alleviate congestion at identified bottlenecks
• Complementary measures to improve accessibility along the TEN-T routes by public transport (e.g. bus access, cycle / walking routes, multimodal links, etc).

Guiding principles

7.41 Investment in TEN-T routes will have to be identified as nationally significant infrastructure schemes prioritised in the National Transport Plan and Wales Infrastructure Investment Plan, utilising the improved business assurance process to maximise value for money.

7.42 Transport schemes can play an important role in promoting economic development but to be successful the other elements necessary for growth need to be present\textsuperscript{188} and are accompanied by complementary interventions. The specific investments in transport from this programme will need to demonstrate that they are addressing genuine bottlenecks, in terms of access to employment or that they are unlocking opportunities for economic growth at a regional level rather than just affecting sub regional or local choices for business locations.

7.43 The local impact should be a major feature of any successful investment, particularly where it contributes to an integrated approach to development within a local, urban or regional area (e.g. to a regional strategy). There should be an expectation that investment will leverage additional private sector investments (e.g. through inward investment).

7.44 Proposals should also consider and demonstrate how they are supporting sustainable urban development and improving access to and use of sustainable forms of transport, in particular given the emphasis expected on linking people to jobs. They should also consider the potential effects of transport interventions on carbon emissions in their local using the UK Department for Transport basic carbon tool\textsuperscript{189}. Sustainable development concerns and potential negative impacts on health and the environment should be assessed when considering all investments under this Specific Objective.

7.45 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

\textsuperscript{188} Promoting Growth in All Regions: Lessons from across the OECD (2011), OECD.
\textsuperscript{189} https://www.gov.uk/government/publications/local-authority-basic-carbon-tool
## Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total length of reconstructed or upgraded roads (including TEN-T)*</td>
<td>Km</td>
<td>15</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Footpath or cycleway created or reconstructed</td>
<td>Km</td>
<td>10</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Specific Objective 4.2: To increase urban and labour mobility to and from key urban and employment centres

Description of baseline and results

7.46 Urban mobility, and good links between places of work and living, is central to an effectively functioning urban centre and to spreading the benefits of growth in urban centres more widely in the region.

7.47 Improving access to sustainable forms of transport is a barrier to employment to be addressed, but that must also be complemented by considering the regularity of services. Services to employment centres need to operate at regular intervals and over more extended periods to support access to employment opportunities over longer distances and reflecting increasing demands for shift working or more flexible working patterns. The only option in some areas of Wales is taxi services which can negate the benefits of employment given the cost.

7.48 The selected result indicator therefore seeks to incorporate not only accessibility of public transport (e.g. number of stations or stops within walking distance) but also the frequency of services (e.g. to enable travel to work). The baseline is set using a number of key employment centres to assess their accessibility via public transport. Careful targeting will be required to address particular constraints / issues where the greatest gains can be achieved in order to reach the target value.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proportion of people aged 16 and over within 15, 30, and 45 minute travel time thresholds of A 'Key Centre' between 7am and 9am on a Tuesday by public transport</td>
<td>No</td>
<td>0-15mins: 636,562 0-30mins: 1,664,666</td>
<td>2012</td>
<td>5-10% increase in each time-band</td>
<td>GIS data, National Transport Plan reporting</td>
<td>Annual</td>
</tr>
</tbody>
</table>
Type and examples of actions

7.49 Consideration of City Regions in Wales has illustrated a mono-centric City Region in the South West of Wales and a polycentric City Region in the South East, as well as the importance of connectivity to England in North Wales. As the major growth centres a focus will be expected in improving connectivity to and between these urban areas. Some emphasis might therefore be expected in delivering an element of the Cardiff Capital City Region Metro given it covers the key population centres in the West Wales and the Valleys programme area.

7.50 Significant improvements in sustainable transport and better connectivity would improve access to employment for people in more peripheral areas where unemployment rates are high. Furthermore it would enable the regions to properly exploit the potential for agglomeration effects noted in other city regions across the UK and Europe. There are also opportunities to increase the volume of freight travelling by more sustainable means (e.g. rail) at the same time as improving labour market mobility.

7.51 The National Transport Plan sets out that Wales should aim to reduce carbon emissions from transport and to get more out of transport infrastructure by integrating all modes to make the system work better, and increase the use of more healthy and sustainable travel options. Actions under this Investment Priority need to consider how they can help ensure the benefits of major investments in the TEN-T and other transport networks, such as electrification, are felt by those in more peripheral regions; supporting employment growth within those regions and improving access to urban centres.

7.52 The advice and recommendations from the City Regions Task and Finish group, commissioned by the Welsh Government, identified opportunities for integrated transport solutions to improve connectivity of those regions with their hinterlands, and with each other; in particular in relation to the Cardiff Capital Region and the potential to support a Metro system. Actions under this Investment Priority should seek to complement and add value to those findings, particularly where they can support jobs and growth in Wales.

7.53 Enterprise Zones have been identified as particular clusters of economically important and growth sectors. To further support those growth opportunities, accessibility options should be pursued that open up the areas to a wider labour market and improve the attractiveness to new businesses (e.g. Deeside Enterprise Zone has vacancies, but suffers from a lack of accessibility to concentrations of economic inactivity along the North Wales coast such as Rhyl to fill those jobs).

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7.54 Connectivity to and between the City Regions, for example through the emerging Cardiff Capital Region Metro proposals, will the main priority for investment across the programmes given the potential impact and population concentrations in Wales. This will mean building on improvements in TEN-T networks to ensure urban mobility benefits and agglomeration effects are felt across the West Wales and the Valleys regions.

7.55 Types of action to be supported could include:

- Intermodal and sustainable transport facilities that improve access to employment and education, better integrating public transport and increasing its accessibility and likely use as a viable alternative for commuting (e.g. park and ride facilities, transport hubs, connecting bus and rail, cycle links, etc.).

- Improvements to rail network where it can deliver against the result indicator, specifically where it can connect growth areas to areas of unemployment (e.g. station improvements, signalling, new lines, electrification, etc.).

- Alleviation of urban congestion (e.g. traffic management, developing low-carbon transport systems and strategies, promoting urban mobility)

- Piloting or roll-out of Smart ticketing and Intelligent Transport Systems solutions that provide a more seamless integrated transport system, encouraging more regular use of public transport as preferred transport mode.

**Guiding principles**

7.56 A clear emphasis for this Investment Priority will be on sustainable transport. Funding under this Investment Priority will be expected to be spent on schemes that will improve the use of sustainable transport modes, such as rail. This should lead to the reduction of emissions from the air and support compliance with the Air Quality Plans under Directive 2008/50/EC; this should be a consideration in project development and project evaluation to demonstrate a contribution to the respective Welsh Air Quality Plans. This will also be measured through a dedicated output indicator which sustainable urban transport schemes will be expected to contribute to.

7.57 The result indicator and target will require a careful prioritisation based on improving accessibility within 30 minutes of key centres. In order to have an impact on the target there will need to be targeting on key urban centres where enough of a population exists to influence the indicator (e.g. Cardiff and the Valleys, Swansea, Bangor). There will also need to be some targeting based around those areas within 45 minutes which can be improved to 30 or less. Studies assessing these kind of pinch-points and bottlenecks have informed the National Transport Plan and prioritisation in the Wales Infrastructure Investment Plan. Consistency will be sought with these planning
documents, as well as Regional Transport Plans and regional economic strategies.

7.58 The National Transport Plan also includes a commitment to reduce carbon emissions equivalents from transport, including a move towards sustainable transport solutions. In demonstrating consistency with the National Transport Plan all operations will also need to demonstrate how they are contributing to this objective, including how they will measure their contribution through the related output indicator for this Specific Objective.

7.59 The objectives in the National Transport Plan (NTP) are also consistent with priorities identified by the Welsh Government in its Climate Change Strategy for Wales. This sets out ambitions (mirrored in the NTP) to reduce emissions in the transport sector through (amongst other things) the increased usage of public transport, fewer passenger kilometres by vehicles and greater role for sustainable travel options in the development of places. All of these features have informed the development of this Specific Objective and will be expected to also be reflected in the design of operations funded through this Specific Objective.

7.60 Investments should seek to incorporate the good practices promoted through the EU’s Sustainable Urban Mobility Plans. Relevant investments should align with mobility and transport plans that can demonstrate they have been developed in line with the Sustainable Urban Mobility Plan concept.

7.61 Investments under this Investment Priority will be expected, where appropriate, to be complementary with TEN-T investments and also feed into complementary investments in specific geographical areas to improve employment growth (Specific Objective 4.4).

7.62 Opportunities for complementary investments as part of an integrated package will be particularly important to ensure that the full economic benefit of investing in infrastructure is realised.

7.63 Investments should not only consider improvements to the accessibility by distance of public and sustainable transport modes, they should also consider linking that to the regularity of services to ensure it is fit for purpose to support access to employment. Similarly, investments should also be able to demonstrate how links are improved between less well connected areas (e.g. areas of deprivation or low employment) and employment centres (e.g. so the routes are high value ones).

7.64 Schemes should consider the role of Intelligent Transport Systems, utilising information and communication technologies to transport to make it more efficient, clean, safe and seamless.

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193 http://www.mobilityplans.eu/11
7.65 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

### Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public transport services created or improved</td>
<td>Vehicle</td>
<td>2,500,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>Km</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermodal facilities created or improved</td>
<td>Number</td>
<td>25</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total length of new railway line (including TEN-T)*</td>
<td>Km</td>
<td>15</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total length of reconstructed or upgraded railway line (including TEN-T)*</td>
<td>Km</td>
<td>15</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in CO2 equivalent emissions</td>
<td>tCO2e</td>
<td>10,700</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total length of reconstructed or upgraded roads (including TEN-T)*</td>
<td>Km</td>
<td>5</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross passenger kilometres on public transport</td>
<td>Passenger km</td>
<td>400,000,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Specific Objective 4.3: To contribute to Digital Agenda for Europe targets in Wales for 100% access to next generation broadband (30Mbps and above) and 50% access to 100Mbps.

Description of baseline and results

7.66 There is a broad consensus that a significant increase in bandwidth gives rise to a range of new applications which generate business benefits such as improved productivity and access to new markets, as evidenced from the step up to ADSL from dial up services.\textsuperscript{195}

7.67 Direct ERDF investments for 2014-2020 are anticipated to contribute around a 7 percentage point increase in coverage of 30Mbps NGA networks. This includes around 3-4 percentage points related to addressing white areas in the recently completed Open Market Review (OMR) and an additional 3 percentage points for white areas expected in an OMR to be carried out in 2016. The current OMR estimates coverage of around 92% without further investment. ERDF can help raise this by 2020 to up to 99%, with EAFRD supporting investment in the remaining 1-2% of most difficult areas. All together these investments should help deliver the Digital Agenda for Europe target for NGA.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value (2023)</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of premises that are in postcodes served by NGA networks</td>
<td>%</td>
<td>Wales</td>
<td>58%</td>
<td>June 2014</td>
<td>65%</td>
<td>The Communications Market survey: Wales, Ofcom</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions to be supported

7.68 Next generation broadband (30Mbps) will be the priority for the Welsh ERDF programme, and within that priority will be given to urban areas where the greatest added value can be delivered. Without further ERDF investment it is

\textsuperscript{195}For example: Proven economic benefits of superfast broadband (2011), Arthur D Little; and The Impact of Broadband on the Economy: Research to Date and Policy Issues’ (2010), Global Symposium for Regulators (GSR)
estimated around 92% of coverage will be achieved. ERDF investment is expected to support additional investment leading to up to 99% coverage, with the hardest to reach and more rural areas targeted through the RDP.

7.69 Investment will be targeted on white areas identified through Open Market Reviews and will be expected to contribute to targets for Next Generation Access networks set out in a Digital Agenda for Europe.

7.70 The Next Generation Broadband investments will deliver superfast broadband services (up to 30Mbps and above) which will be ideal for domestic premises and many small businesses. As well as catching up to avoid widening disparities there are significant opportunities to attract and retain key businesses requiring ultrafast connectivity solutions (100Mbps and above). Larger businesses, businesses requiring upload speeds which match their download speeds (Symmetric services), and enterprises who need to connect securely from one site to another will need more tailored ICT connectivity and at higher speeds. There are opportunities to capture and retain these businesses in strategic sites across Wales (e.g. relevant Enterprise Zones or areas of City Regions) and investments should be considered on a case by case basis, particularly where it can be linked to research and innovation and can deliver the target in a Digital Agenda for Europe for increasing the use of 100Mbps networks.

7.71 The Commission *Communication on Smart Cities*\(^{196}\) also recognises the potential to deploy “smart city solutions” particularly in the areas of energy, transport and mobility and ICT.

7.72 Types of action to be supported:

- Infrastructure improvements to improve connectivity of superfast broadband of 30Mbps and above (completing networks where market failure).

- Targeted infrastructure investments (e.g. voucher scheme) to improve connectivity of ultrafast broadband of 100Mbps and above (targeted at business take-up and exploitation).

**Guiding principles**

7.73 Actions to stimulate the demand for, and uptake of ICT networks should be considered in the development of any proposals and direct links made where appropriate (including ICT demand stimulation supported under the SME Competitiveness Priority Axis). There is a poor understanding amongst some businesses of the productivity benefits of telecoms networks which result in lower levels of take up. The full benefits of broadband will only be maximised if demand stimulation is pursued in parallel to supply side interventions.

7.74 Potential State Aid and competition rules should be considered at the earliest opportunity in any proposal, particularly where looking to support strategic sites.

7.75 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

**Output indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measure unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional premises with broadband access of at least 30 Mbps* - Households</td>
<td>Number</td>
<td>28,000</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of Enterprises supported to connect to 100Mbps or higher networks</td>
<td>Number</td>
<td>250</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Additional population covered by ultrafast broadband (&gt;100Mbps) broadband</td>
<td>Number</td>
<td>N/A</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Specific Objective 4.4: To increase employment through investments in prioritised local or regional infrastructure supporting a regional or urban economic strategy.

Description of baseline and results

7.76 Welsh labour market statistics are examined in detail in the socioeconomic analysis and as part of the ESF programmes. There are significant variances in employment rates and the reasons for those rates across and even within the different Local Authorities in Wales. Pockets of low employment and deprivation exist across Wales, not just in the poorest regions or Local Authorities.

7.77 Many of these areas suffer from poor physical infrastructure, under-developed tourism or natural assets and a lack of suitable or attractive premises for businesses as well as wider issues of low skills and economic inactivity. An integrated approach is therefore desirable that considers all elements together, but at the same time does not duplicate provision. A key element of this will need to be a prioritisation process which identifies growth opportunities for specific sites, rather than seeking employment growth everywhere. The indicator selected is complementary to that selected for the Vibrant and Viable Places targeted regeneration funding provided by the Welsh Government to also seek an alignment and integration in planning.

7.78 Given the sub-regional areas to be targeted have not yet been identified or prioritised by the relevant regional or urban authorities relevant baselines cannot be set for the result indicator, given the opportunities will be different in each region. Targets will also vary dependant on the scheme but in taking an average of Claimant Count rates in travel to work areas and an average expected number of new jobs to be created and filled by jobseekers it is possible to set an average target value. Clearly each operation needs to be considered on its merits and opportunities sought to exceed the average overall.

7.79 The use of Travel to Work Areas and focus on new jobs created for the benefit of jobseekers in those areas is important to try and ensure that the creation of jobs is of benefit to the surrounding areas rather than solely to commuters from outside of the programme area. Specific targeted action, including the potential for integration with ESF activity, should be incorporated to ensure appropriate focus on the result.
7.80 A limited number of spatially prioritised schemes will be supported that identify key regional or urban growth opportunities. These schemes will be driven by small number of key infrastructure investments that will encourage business investment and employment growth in the region. A number of spatial targeting mechanisms already exist across Wales and should be considered in the development of any schemes as they may help provide critical mass or specific opportunities. For example the Welsh Government’s Enterprise Zones and the developing “City Regions” approach encourage investments based on the potential of clusters or growth poles (often characterized by key industries around which linked industries develop, mainly through direct and indirect effects) to promote economic development. Local Authorities also have their own economic strategies on a local and regional basis. All of these will identify key infrastructure requirements and these offer opportunities for strategic targeting (e.g. in helping identify key strategic business sites and premises).

7.81 It will be essential that a consideration of how the employment opportunities being created through the operations funded under this Specific Objective can be taken up by the local labour market, and particularly the unemployed and those at a disadvantage. While the focus for the location of investment is clearly on growth opportunities, it will be essential that those operations demonstrate they have identified nearby areas of low employment or deprivation and can demonstrate how new employment opportunities will be made accessible for those areas (e.g. public transport links, employment support, engagement activities, etc). Links to ESF and other schemes (e.g. Communities First or targeted regeneration investments) will be vital and the opportunity for joint funding should be explored.

7.82 The Welsh Government’s regeneration framework, Vibrant and Viable Places, also seeks to target fewer investments in fewer places for greater strategic impact. The policy also places an emphasis on evidence, strategic planning

## Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Category of region</th>
<th>Baseline Value</th>
<th>Baseline Year</th>
<th>Target Value2 (2023)3</th>
<th>Source of Data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claimant Count rate in Travel to Work Areas</td>
<td>Number</td>
<td>Less Developed</td>
<td>11,442</td>
<td>2013</td>
<td>Average decrease of 8%</td>
<td>Employment rate by Welsh local area and year (stats Wales)</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Description of the type and examples of actions
and seeking holistic approaches that do not just focus on one aspect of regeneration (e.g. social cohesion through targeting the most deprived areas).

7.83 In seeking consistency with these approaches, actions under this Investment Priority should seek to respond to the central organising principle of sustainable development (i.e. demonstrate how investments will support economic, social and environmental outcomes) and as such should be focused on opportunities for growth (rather than solely seeking to mitigate the effects of decline).

7.84 Investments under this Investment Priority will be expected to demonstrate how they complement wider investment programmes and other strategic investments across the suite of ESI programmes. For example investments in TEN-T routes and accessibility might be complemented by regeneration of key strategic sites connecting to those routes to take full advantage of the TEN-T and accessibility investment (e.g. developing tourism opportunities opened up through better accessibility to the Heads of the Valleys or supporting new strategic sites for business clusters and manufacturing emerging as a result of complementary investments in connectivity and low Carbon energy in Anglesey and North Wales’ ports).

7.85 In order to meet the change being sought by the Specific Objective (and measured in the result indicator) actions will be expected to create a number of new jobs. In addition it would be expected that a proportion of those new jobs should be filled by jobseekers in nearby areas and appropriate measures should be incorporated into plans to ensure that happens (e.g. outreach, recruitment policy, links to ESF programmes, etc). in order to be able to have an impact on claimant count data. An integrated approach is therefore desirable to consider all elements together, but prioritising opportunities for specific sites, rather than seeking employment growth everywhere.

7.86 Types of action to be supported:

- Business sites and premises in strategic sites, including property development and land remediation.

- Economically significant investments in Wales’ physical infrastructure (built and natural/green). In particular where a key component of integrated regeneration and economic development schemes (such as tourism, culture or heritage assets)

- Enabling infrastructure (e.g. local road investment improving access to a site) where an essential part of an integrated scheme delivering against the Specific Objective and result indicator.

**Guiding principles**

7.87 Further to the principles set out in the section above (e.g. links to nearby areas of deprivation, ESF and other schemes) all investments under this
Investment Priority will either be supported through a Financial Instrument (see below) or through an integrated set of actions in a specific geographical area. Where a Financial Instrument is being utilised, the targeting approach will be identified as part of the dedicated ex-ante assessment informing the size, scope and delivery model for that fund.

7.88 These integrated actions might incorporate different actions as set out above, but should have a clear evidence-based focus on a specific growth area (e.g. tourism, strategic business sites, employment centre, etc.). These should be identified in existing territorial strategies (e.g. regional economic strategy or City Region strategy).

7.89 For all support outside of any Financial Instrument, partnership working and collaboration will be essential. The relatively small level of funds available and the high level of interest envisaged under this Specific Objective means that only a limited number of spatially prioritised schemes can be supported. Therefore, it is essential that the Welsh Government, Local Government, Community actors, and local / regional private sector organisations work together to identify and prioritise investments. This should ensure any scheme is truly integrated and focused on the most appropriate growth area thereby providing best value for money.

7.90 The Managing Authority will expect all applications to provide clear evidence of comprehensive partnership working and to demonstrate a degree of prioritisation. The Managing Authority will also solicit a range of advice to ensure those proposals finally awarded funding are those with the greatest potential to deliver against the Specific Objective and result and can demonstrate they meet the requirements set out in this Operational Programme. In order to deliver on the results targets it is anticipated that the majority of funding will be allocated to a relatively small number of schemes where the potential for new jobs is greatest.

7.91 Selected areas are expected to be areas with employment growth potential rather than simply targeting areas in most deprivation. ERDF support should aim to provide the right environment for private investment and private sector involvement in a scheme, particularly through financial contributions, can represent one indication that a scheme is likely to be self-sustaining over the longer term and will be essential. Approved schemes will be able to demonstrate how they will ensure that employment opportunities created are accessible to those in more deprived areas (e.g. links to transport, skills, possible use of ESF, etc).

7.92 All proposals will be expected to demonstrate due consideration of existing and emerging key spatial initiatives, including the role of Enterprise Zones, Local Growth Zones, Business Improvement Districts, Communities First Clusters, and others. Enterprise Zones would be expected to feature in any proposals for business sites and premises in particular.
7.93 Proposals should also demonstrate economic market failure that once corrected will support an increase in employment and growth through the more effective optimisation of economic output by the market.

7.94 Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted.

### Output indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement unit</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land developed</td>
<td>Ha</td>
<td>50</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Premises created or refurbished</td>
<td>M²</td>
<td>56,430</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Jobs accommodated</td>
<td>Number</td>
<td>1,770</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
<tr>
<td>SMEs accommodated</td>
<td>Number</td>
<td>235</td>
<td>Monitoring data</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Coordination between the funds, the EAFRD, the EMFF, and other Union and national funding instruments

7.95 ESI programmes in Wales have been designed to be complementary, and the ERDF programmes share an analysis and structure, reflecting the common challenges across the whole of Wales.

7.96 The project selection and prioritisation criteria will test how each project has considered other available funding sources and the links they have made to them. Projects will be particularly encouraged where they can contribute simultaneously to both ERDF and wider EU funding instrument priorities (e.g. Horizon 2020 or LIFE).

7.97 This section sets out the links to ESI, other EU and UK funds by Priority Axis, not duplicating coordination mechanisms or links to macro-regional strategies set out in the Partnership Agreement.

7.98 Investments in transport, connectivity and physical infrastructure have a key enabling role in the economy and therefore it is important that other investments are co-ordinated to seek maximum impact. There is considerable scope to co-ordinate with the skills and employment measures under the ESF programme in this respect, ensuring that residents are able to take advantage of new opportunities which come as a result of the infrastructure investment (including any inward investment).

7.99 The key related instrument at an EU level is the Connecting Europe facility. This will be considered as the first port of call for major infrastructure investments of European importance. The issues to be addressed by the ERDF focus on more regional and local barriers contributing to increasing regional disparities; in particular issues of peripherality and lack of connectivity between labour markets and key urban and employment centres. Both areas of investment (Connecting Europe and ERDF) should be mutually reinforcing.

7.100 There are some significant investments in transport infrastructure in Wales planned during the programme period, for example electrification of the rail line between London and Swansea and electrification of the South Wales Valleys lines. ERDF will seek to add value to those planned investments by seeking to ensure the greatest impact can be achieved through complementary investments e.g. support for regeneration activity where the connectivity of an area has been improved, or ensuring that local connectivity is improved to be able to capture the benefits of the major (non-ERDF) investments more widely.

7.101 The local and regional impact sought from investments in this Priority Axis limited the international cooperation opportunities, though any areas of best practice or innovation should be considered in scheme design.

7.102 The importance of infrastructure investments to the Welsh economy, coupled with the lack of resource to support them, has led to the Welsh Government
7. PRIORITY 4: CONNECTIVITY AND URBAN DEVELOPMENT

exploring a range of innovative finance mechanism to support those essential investments. Where there are opportunities EIB funding will be sought to co-invest in infrastructure improvements in the programme area.

7.103 Proposals for urban development should link in with related funds and networks, dependant on the region or urban authority involved. This might include URBACT, European Territorial Cooperation, LIFE, CIVITAS, Urban Mobility Portal, CONCERTO, Smart Cities and Communities European Innovation Partnership, and links to rural areas through the RDP
8. Priority Axis 5: Technical Assistance

8.1. Technical Assistance (TA) funded actions, as with the 2007-2013 programmes, will be developed as part of mono fund priorities but will be delivered by the Managing Authority (MA) and relevant stakeholders as part of collaborative and integrated approaches across the ERDF and ESF programmes for the West Wales and the Valleys and East Wales programme areas. The approach outlined in the priority axis below will be mirrored across these programme areas and reflected in the result and output indicators selected.

8.2. The approach builds on the successful implementation of TA activity in the 2007-2013 programmes which utilised TA to enhance implementation arrangements, providing additional capacity for programme support and development, research and monitoring activity and programme promotion. TA was also utilised in the direct support of salary costs by the MA and relevant stakeholders.

8.3. Supporting direct salary costs within the 2014-2020 programmes of the MA, Certifying Authority (CA), Audit Authority (AA) and partners is considered an important element of the delivery of the programmes. It is proposed for the 2014-2020 programmes to utilise TA to continue to support those posts identified within the 2007-2013 programme as increasing the capacity of the administrative functions of the relevant authorities and partners. In line with this approach any new additional posts required for the 2014-2020 programmes to further develop the audit and administrative function of the MA, CA and AA will also be supported by TA. The resources of the Welsh Government and its partners will be used alongside the TA resource.

8.4. A number of programme level evaluation and external reviews have been undertaken during the 2007-2013 programmes which have covered a number of areas supported through TA funded activity including;

- The enhanced programme management and monitoring arrangements, to include the Project Development Officer (PDO) function;
- specialist and technical guidance and support, including the Specialist European Teams (SET) and Cross Cutting teams;
- research and evaluation;
- information and publicity, including operating a customer helpline; and
- strengthened audit arrangements and irregularities’ management

8.5. The findings of the evaluations showed that there is widespread support for the PDO role and support services for beneficiaries, delivered through the MA and SET bringing genuine programme benefits and ensuring that the appraisal and management processes are well understood and effectively implemented. The successful management of the 2007-2013 Welsh programmes has also been recognised through a number of awards to Wales including the ‘Region of Excellence’ Awards and three project based RegioStars awards.

8.6. It is important that TA funds are used during the 2014-2020 programmes to maintain this strong position and deliver further improvements

**Specific Objective 5.1:** To ensure the efficient and effective management of the 2014-2020 programmes.

**Results expected**

8.7. Specific Objective 1 aims to ensure that the programmes are delivered efficiently and effectively in Wales. The key measure underpinning this objective and forming part of the compliance report for the programme is the irregularity rate. This measure displays the total value of irregularities for the programme reported to OLAF as a percentage of total certified eligible expenditure claimed by projects.

8.8. In 2013 the irregularity rate for the programme area was 0.53%, well below the 2% threshold used by the EC to implement corrective action.

8.9. In addition, the WEFO error rate, published by the Audit Authority in the Annual Control Report will also be used as a measure to support and measure the achievement of the Specific Objective. The December 2012 WEFO error rate for the programme areas was 0.81%.

**Specific Objective 5.2:** To provide high quality advice to key partners involved in the design and delivery of operations.

**Results expected**

8.10. Specific Objective 2 aims to improve customer satisfaction levels through providing high quality advice to key partners involved in the design and delivery of operations. Measured across TA funded activity for all Structural funds in Wales this reflects the satisfaction of beneficiaries with the service received from WEFO for all approved operations.

8.11. The baseline overall customer satisfaction rating, dating from 2009, is 45%.\(^{198}\)

\(^{198}\) WEFO Customer Insight Survey 2009 - This is the percentage of interactions, where the operation was approved, with which the beneficiary was satisfied or very satisfied with the service received
8. PRIORITY 5: TECHNICAL ASSISTANCE

8.12. Specific Objective 2 aims to ensure that the programmes complement and are integrated with all ESI funds in Wales and wider Commission, Welsh Government and Sector Led programmes. Measurement of this activity will primarily be in the form of the outputs such as the number of collaborative projects delivered.

Specific Objective 5.3: To enhance the integration and the complementarity of investments with other ESI funds and wider Commission led and Sector based programmes.

Results expected

8.13. Specific Objective 3 aims to ensure that the programmes complement and are integrated with all ESI funds in Wales and wider Commission, Welsh Government and Sector Led programmes. Measurement of this activity will primarily be in the form of the outputs such as the number of collaborative projects delivered.

Result indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Unit</th>
<th>Baseline Value</th>
<th>Baseline year</th>
<th>Target Value (2023)</th>
<th>Source of data</th>
<th>Frequency of reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregularity Rate</td>
<td>Percentage</td>
<td>0.53%</td>
<td>2013</td>
<td>Below 2%</td>
<td>WEFO Compliance Report</td>
<td>Annual</td>
</tr>
<tr>
<td>WEFO error rate</td>
<td>Percentage</td>
<td>0.81%</td>
<td>2013</td>
<td>Below 2%</td>
<td>WEFO Compliance Report</td>
<td>Annual</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>Percentage</td>
<td>45%</td>
<td>2009</td>
<td>50%</td>
<td>Customer Insight Survey</td>
<td>One-off</td>
</tr>
</tbody>
</table>

Actions

8.14. Technical Assistance is an essential resource for supporting the effective delivery of the Programme. The delivery of the 2014-2020 programmes requires a continued emphasis on strategic delivery with greater alignment and harmonisation of ESI Fund investments through the concentration of resources to achieve sustainable outcomes for jobs and growth.

8.15. In Wales there are a number of key areas which will be developed and undertaken by partner organisations and the MA itself in order to deliver the objectives and ensure programmes achieve the integration, concentration and focus required. Actions are not mutually exclusive to any of the objectives and have therefore been grouped around 6 key investment areas which collectively will ensure the objectives and associated results are achieved.
8. PRIORITY 5: TECHINCAL ASSISTANCE

8.16. Salary costs, as with the 2007-13 programmes, will form an important part in the delivery of TA funded activity for the MA, AA, CA and wider delivery partners. These salary costs will be incurred within all activities below so enhancing the capacity to achieve the overall objectives of the TA priority.

8.17. The MA and its partners have substantial experience in the implementation of TA in this way. All posts funded via TA will be subject to the Human Resources and remuneration policies of the employing organisation.

Management

8.18. Integration of funds will bring new administrative challenges for the MA, for example in the implementation of an enhanced role for Financial Instruments and the integration of specialist functions such as Cross Cutting Themes\(^{199}\). Actions will enhance and strengthen strategic and integrated programme support and development.

8.19. Actions will include:

- To continue to enhance the internal programme management function in the development and delivery of integrated and sustainable programmes;
- To continue to develop the specialist knowledge within the MA and stakeholders through regular training and networking activities;
- To advise and support the development of projects, encouraging innovation, transnational cooperation, sharing of good practice and mainstreaming;
- Actions, in line with those outlined in Section 10, seeking to reduce the administrative burden on beneficiaries;
- To provide high quality technical advice and expert functions, in areas relating to, for example; procurement, financial (to include Financial Instruments) and scientific expertise, project development, complaint resolution, innovation and compliance;
- To develop and enhance bespoke and integrated IT systems for the delivery of ESI Funds and to aid e-Cohesion; and,
- To provide specialist advice and support to projects on the integration, implementation and monitoring of the Cross cutting themes.

Partnership and Networking

8.20. Strong partnerships and networks lie at the heart of the successful implementation of the programmes and the integration of the ESI funds at all levels. The Managing Authority will continue to engage partners, including social partners, and key stakeholders in programme implementation and delivery.

8.21. Actions will include:

\(^{199}\) WEFO Customer Insight Survey 2009 and *The Effectiveness of Implementation in the 2007-2013 Structural Funds Programming Period*
8. PRIORITY 5: TECHNICAL ASSISTANCE

- Encouraging and facilitating collaborative projects and approaches;
- Alignment with European Commission led, ESI fund and Sector based programmes;
- Enhancing capacity for cross programme coordination and the integration of ESI funds with national expenditure and programmes; and,
- Strengthening coordination and liaison mechanisms with partnerships and promoting partnership working.

Monitoring

8.22. A single Programme Monitoring Committee (PMC) will be established to oversee the effectiveness, quality and integration of the ESI Fund programmes. TA will be used, where eligibility allows, to ensure the efficient and effective management of the programme through supporting the duties of the PMC.

8.23. The Managing Authority will establish a Secretariat team to manage PMC arrangements for all ESI Fund programmes. The Secretariat will approve, manage and monitor all Technical Assistance expenditure declared in respect of PMC meetings and functions, ensuring that expenditure is not declared more than once against different ESI Fund. PMC costs will be apportioned across the ESI fund programmes, based on the relative size (value of EU contribution) of each programme.

8.24. Actions will include:

- Enhanced management support to the PMC and improved reporting to the European Commission; and;
- Expenditure on PMC including expenses and fees for appointed experts (experts appointed to the PMC based on merit will be remunerated in line with the Welsh Governments normal practice).

Research and Evaluation

8.25. Research and Evaluation continues to play a central role in helping the MA to manage programmes effectively. The specialist Research, Monitoring and Evaluation (RME) team within the MA will continue to design, carry out and manage programme level evaluations and provide or source expert advice and guidance to project level evaluations.

8.26. Actions will include:

- Programme level research and evaluation, including research into the Cross Cutting themes;
- Provision of evaluation advice and guidance to sponsor organisations;
- Research and evaluation dissemination and workshops events; and

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200 ERDF and ESF (Less Developed and More Developed Regions) and EAFRD
8. PRIORITY 5: TECHNICAL ASSISTANCE

- Management of research and evaluation exercises, for example through the Evaluation Advisory Group.

**Information and Publicity**

8.27. The successful integration of ESI funded programmes will depend to a large degree on a wide understanding among the sponsors, partners and stakeholders of its contents, governing regulations, aims and objectives. It is also essential that the benefits and achievements of the programmes are widely publicised to highlight the value added by the EU working in partnership with the Welsh Government and its partners.

8.28. Actions will include:

- Dissemination of information, publicity and communication including guidance for partners and sponsors, seminars and workshops and networking events;
- Disseminating and promoting of the impacts of enhanced integration with ESI funds and wider sector programmes e.g. Horizon 2020;
- WEFO website development and maintenance;
- Diversity and accessibility initiatives; and
- The operation of a Helpline.

**Audit and Control**

8.29. WEFO and the Audit Authority has developed significant strengths in audit and control within the 2007-2013 programmes. Further enhancing the audit and control functions alongside a dedicated compliance unit will ensure that WEFO continue to build on developed strengths and maximise the opportunity structural funds investments can bring.

8.30. Actions will include:

- Enhanced audit arrangements to ensure that these work effectively, improving quality and timelines;
- Improving irregularity monitoring and reporting;
- Enhanced support to combat fraud and corruption; and
- Provision of consistent advice and guidance to sponsors and partners through the WEFO compliance unit.
## Output indicators

<table>
<thead>
<tr>
<th>Indicator (name of indicator)</th>
<th>Measurement unit</th>
<th>Target value (2023)</th>
<th>Source of data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of training events held*</td>
<td>Number</td>
<td>10</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Framework Contract for Specialist Expertise in place for project delivery*</td>
<td>Number</td>
<td>1</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of projects undergoing a formal assessment for their cross cutting themes integration</td>
<td>Percentage</td>
<td>90</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of research reports published</td>
<td>Number</td>
<td>114</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of projects given Monitoring and Evaluation advice</td>
<td>Percentage</td>
<td>100</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of dissemination events*</td>
<td>Number</td>
<td>6</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of events organised by WEFO*</td>
<td>Number</td>
<td>10</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of press releases issued*</td>
<td>Number</td>
<td>150</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of high profile project launches</td>
<td>Percentage</td>
<td>50</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of e-newsletters issued*</td>
<td>Number</td>
<td>72</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Percentage of enquiries resolved within 5 working days</td>
<td>Percentage</td>
<td>75</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of audit visits</td>
<td>Percentage</td>
<td>50</td>
<td>Monitoring data</td>
</tr>
<tr>
<td>Number of employees FTEs (full time equivalents) whose salaries are co-financed by TA</td>
<td>Number</td>
<td>N/A</td>
<td>Monitoring data</td>
</tr>
</tbody>
</table>

* Targets cover both ESF and ERDF operational programmes. Owing to the way the Managing Authority publicise EU funding it is not possible to apportion this activity to each programme.
9. Integrated approach to territorial development

A description of the integrated approach to territorial development

9.1. The Welsh ESI programmes have all been developed together, taking a holistic view across the whole of Wales. Effective spatial targeting will be a key mechanism to support integration and concentration of funds based on specific territorial needs and opportunities in the most appropriate way (national, regional, sub-regional or local). The NUTS2 regions do not take into account sub-regional functional economic areas in Wales, such as the Cardiff City Region in South East Wales or the Swansea Bay City Region in South West Wales. Integrated approaches to territorial development based on strategic planning will therefore be actively encouraged. The Welsh Economic Prioritisation Framework acts as a complement to the various Operational Programmes, helping to identify key spatial targeting approaches already underway and key opportunities for future investment.

9.2. Spatial strategies are emerging to support the development of urban areas (City Region strategies), rural areas (the Growth Zone initiatives), and strategic sites (Enterprise Zones). Each initiative has its own strategic planning and governance arrangements, complemented through local government and regional planning (e.g. Regional Learning Partnerships).

9.3. There are clear common needs identified across each spatial analysis, with the need for better connectivity through investment in transport infrastructure the top priority (albeit the challenges are different). Other priority areas depend more on the area but generally include strategic infrastructure (business sites, tourism or accessibility), skills (to address deficits) and attracting private investment (e.g. through business support); closely reflecting the priorities identified for the Welsh ESI funds.

9.4. The Managing Authority will work with beneficiaries to identify the most appropriate funding package across the ESI funds. This will be of particular importance for investments with a clear territorial dimension. Due consideration will need to be given to areas of particular disadvantage, in

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201 To see report on City Regions: [http://wales.gov.uk/topics/businessandeconomy/publications/120711cityregions/?lang=en](http://wales.gov.uk/topics/businessandeconomy/publications/120711cityregions/?lang=en)


204 Seven Enterprise Zones have been identified across Wales, each focussing on specific sectors. More information available at: [www.enterprisezones.wales.gov.uk](http://www.enterprisezones.wales.gov.uk)
9. TERRITORIAL DEVELOPMENT

particular those places set out in Section 5 as suffering from deprivation. The priority for this programme will be for investments to target growth opportunities that can help improve employment prospects not only in the area being supported, but also in nearby areas.

9.5. Coordinated investments in key growth centres must be supported through a range of different funding sources to have a genuine impact, therefore funding from this programme will be expected to contribute to holistic integrated territorial strategies (e.g. regional economic strategy or city region strategy). Dedicated support will be expected, in line with the principles for Sustainable Urban Development, under Priority Axis 4 for targeted strategic site development.

**Community-led local development**

9.6. The general approach is set out in the Partnership Agreement. No support for Community Led Local Development (CLLD) as set out in Article 32 of the Common Provisions Regulation is envisaged for this Operational Programme.

9.7. In order to ensure an integrated approach to territorial development direct links will be encouraged between CLLD supported through the EAFRD (under LEADER) and investments made under the ERDF. This should help enable the scaling-up of any particularly successful LEADER initiatives with the potential to deliver ERDF results.

9.8. The regional coordination described in the Partnership Agreement will be a key link between the CLLD investments made under the RDP and the opportunities for larger scale investments under the ERDF.

9.9. It is anticipated that part of the strengthened regional coordination to be put in place for 2014-2020 (and as recommended by the Guilford Report) will be identification of links between different ESI funds. Successful CLLD initiatives funded through the RDP should then have the potential to be scaled-up using ERDF or other funds. For example an innovative pilot community energy approach through LEADER could be scaled-up to a regional or national scheme through the ERDF (Specific Objective aiming to increase the number of community energy schemes).

9.10. It was not felt appropriate to use ERDF alongside EAFRD for CLLD for two key reasons: firstly the strategies for the two funds are different, with EAFRD operating on a local basis and ERDF seeking regionally and nationally significant investment; and secondly because the types of activity supported are very similar across the two funds. The planned coordination between the funds is set out in more detail in Section 2 of the Partnership Agreement and Section 8 of this Operational Programme.
9. TERRITORIAL DEVELOPMENT

Integrated actions for sustainable urban development

9.11. No ERDF will be used to support sustainable urban development in line with Article 7(2) of the ERDF regulation. The Partnership Agreement sets out how the UK will meet requirements for 5% of ERDF in this area.

9.12. Integrated actions supporting sustainable urban development will, however, be supported in the programme area meeting the spirit of the regulations (including the use of strategies, involvement of partners in decisions, and coordinated action). These will not fully comply as it will not be delivered through the use of an entirely separate Operational Programme, Priority Axis, or ITI; nor through the full delegation of tasks for selection.

9.13. We are keen to ensure integrated territorial strategies are not only about securing and spending of EU funds and are therefore encouraging the use of existing economic strategies rather than creating new ones. This should help ensure genuine integration of any supported actions cross-economy rather than just with other ESI funds. For example investment in housing, healthcare, education and inward investment can all be key territorial drivers and would not feature in an approach that focussed solely on spending ESI funds.

9.14. A clear role for appropriate regional and urban authorities in helping plan and deliver the programmes will be encouraged, building on the collaboration developed during 2007-2013. A role for regional and urban authorities in developing and prioritising key opportunities will help in demonstrating a clear strategic fit to the Managing Authority and can be supported through the use of Technical Assistance.

9.15. We envisage all parts of the ERDF programme being able to support integrated strategies for sustainable urban development. The strategic physical infrastructure investments (excluding any allocation to a dedicated Financial Instrument) under Priority 4 will be delivered in accordance with the principles for Sustainable Urban Development as they are key drivers for integrated territorial strategies. There will be significant reductions in the proportion of funding available to invest in this area (relative to 2007-2013) to meet regulatory requirements, but we still aim to make available around 10% of the ERDF programme to help drive this type of regional growth.

9.16. Common features of integrated strategies for sustainable urban development are improvements in connectivity and investing in business, tourism and heritage infrastructure. The aim for investments in the connectivity to and from key urban centres, and in the physical infrastructure offer (for businesses and visitors) within those centres, is to create new territorial opportunities, including inward investment. The challenge is to ensure that investment does not happen in isolation but opens up opportunities for regeneration and encourages greater private sector investment.

9.17. If coordinated with other activities, an integrated package of support for the regeneration of a place can be underpinned through a single (or small number of) investment(s) in physical infrastructure or improved connectivity. These
elements will be supported under Priority Axis 4, and where such investments are supported they will be expected to be a prioritised part of an integrated territorial strategy in line with the principles for Sustainable Urban Development. Furthermore, they should demonstrate how that investment will complement other initiatives (e.g. skills investments, local labour markets, business investment, etc).

**Integrated Territorial Investment (ITI)**

9.18. There is no immediate intention to use Integrated Territorial Investment (ITI) vehicles. This approach and a period of review is set out in the Welsh chapter of the UK Partnership Agreement.

9.19. At this time it is felt that the same benefits can be achieved through Welsh-designed implementation arrangements that would not require pre-selection of funding allocations or new reporting and monitoring requirements. The Welsh Managing Authorities are seeking to ensure greater integration and coordination between all ESI funds in Wales, and as a small country are able to work closely with partners across Wales in delivering integrated territorial investments without needing to put in place new administrative architecture.

9.20. Regional and urban authorities will be encouraged to use existing planning and coordination mechanisms (for the delivery of existing territorial strategies) to prioritise investments for their territorial areas. The Managing Authority will work with those authorities to help identify the most appropriate ESI funding package, if relevant. For example an integrated package of support might be developed across the ESI funds to support the development of a City Region or Enterprise Zone, but this does not need to be done through an ITI, merely through effective planning and coordination.

**Interregional and transnational actions**

9.21. A key challenge for the programme will be to more effectively mainstream cooperation actions and achieve better international coordination. This is particularly important for all investments in Research and. A lack of international partners and networks is a key barrier to Welsh research institutions accessing competitive research funding and needs to be directly addressed in any support provided through this programme. It is expected that the majority of projects supported in these areas through this programme will incorporate some form of transnational activity.

9.22. The marine energy sector was highlighted in the European Commission's Blue Growth Strategy as one of five developing areas in the 'blue economy' that could help drive job creation in coastal areas. Other Commission initiatives, such as the Communication on Energy Technologies and Innovation and the Atlantic Action Plan, have recognised the importance of ocean energy and aim to encourage collaborative research and development and cross-border cooperation to boost its development. Furthermore, the Commission's Communication on Blue Energy considers the potential of the
9. TERRITORIAL DEVELOPMENT

Ocean energy sector to contribute to the objectives of the Europe 2020 Strategy.

9.23. There are potentially also opportunities for cooperation activities in the SME Competitiveness and Connectivity and Urban Development priorities, though less direct action to encourage these will be made. SMEs support, SME finance initiatives and integrated actions for regeneration, sustainable transport and networks should seek to build on international best practice both in terms of spatial planning and technical expertise.

9.24. Direct links are also being made between this programme and the European Territorial Cooperation programmes in which the programme area participates. There are a number of common objectives, for which complementary funding packages will be sought: in particular objectives for Research and Innovation, Renewable Energy, Low Carbon transition and infrastructure investments of common interest (e.g. actions to protect the marine environment and exchange best practice at an European level could be co-ordinated with R&I actions to develop marine energy resources). Wales participates in the Ireland / Wales cross-border programme, the Atlantic Area programme and the North West Europe programme.

Macro-regional and sea-basin strategies

9.25. The UK is incorporated in the Atlantic Strategy and this is described in the Partnership Agreement. Links will be encouraged where opportunities arise in areas of blue growth, and cooperation on research and innovation (particularly that supporting marine energy and the environment and energy Grand Challenge area).
10. Role of Relevant Partners

Relevant authorities and bodies

<table>
<thead>
<tr>
<th>Authority / body</th>
<th>Name of the authority/body, and the department or unit</th>
<th>Head of the authority/body (position or post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Authority</td>
<td>Welsh European Funding Office (WEFO)</td>
<td>WEFO Chief Executive</td>
</tr>
<tr>
<td>Certifying authority, where applicable</td>
<td>Welsh European Funding Office</td>
<td>Head of Certifying Authority</td>
</tr>
<tr>
<td>Audit authority</td>
<td>European Funds Audit Team (Welsh Government)</td>
<td>Head of Corporate Governance &amp; Assurance (Welsh Government)</td>
</tr>
<tr>
<td>Body to which Commission will make payments</td>
<td>Strategic Planning, Finance &amp; Performance (Welsh Government)</td>
<td>Director General, Strategic Planning, Finance &amp; Performance</td>
</tr>
</tbody>
</table>

Involvement of relevant partners

10.1. The Operational Programme has been developed in partnership with key stakeholders. WEFO, as Managing Authority, has taken the lead and been responsible for compiling the Programme but there has been extensive engagement with partners over the development and content.

10.2. This has involved a number of specifically appointed Advisory Groups and expert workstreams/working groups together with extensive public engagement over the development period. Membership of each group reflected a full range of stakeholder interests (and those specified in Article 5) from the public, private and third sectors, together with appropriate gender and geographical balance and with equality and environmental interests represented. The various groups are described below with membership details at 12.3.

10.3. Before embarking upon drafting the Operational Programme the then Deputy Minister for Agriculture, Food, Fisheries and European Programmes initiated a “Reflections Exercise” which provided stakeholders with an early opportunity to comment on the strategic direction and future investment priorities based on the draft legislative proposals. Partners and stakeholders

were generally supportive of the principles underpinning the legislative proposals and the need to align the new programmes with Welsh Government policy objectives to maximise impact. This enabled the Deputy Minister to outline the strategy direction and a number of guiding principles under which the 2014-2020 programmes would be developed in a statement to the National Assembly for Wales on 8 May 2012. These included the need to focus and concentrate resources on areas most likely to have a transformational impact on the Welsh economy and contribute significantly to job creation.

10.4. Initial work was assisted through the Ministerial Advisory Group on European Programmes, a small task-and-finish group, established to generate ideas and advise Ministers directly on a number of key strategic issues. The members were carefully selected as experts in their field, with the ability and insight to offer the necessary strategic thinking across all programme and policy areas. The group consists of external experts with significant experience and strategic expertise, senior Officials from the main Welsh Government spending departments and advisors offering specialist advice, including senior officials responsible for the development and delivery of European programmes.

10.5. The European Programmes Partnership Forum was established as the main vehicle for external stakeholder engagement on European funding developments post 2013. The Forum was established in 2011 and remained in operation during the entire programme development period; providing direct input into the formation of both the Operational Programme and Partnership Agreement. The membership was drawn partially from the All-Wales Programme Monitoring Committee (PMC), supplemented with additional partners to ensure that the Forum reflected the interests of all relevant stakeholder groups in Wales. The formation of the group provided a balance of interests and reflected an appropriate level of private sector representation, gender balance, spread across funds, and geographical representation.

10.6. Four technical workstream groups were established in mid 2012 to consider the technical and operational detail of the 2014 to 2020 programmes and to advise on the content, processes and procedures reflecting Ministerial strategic direction. These covered:

- Operational Programmes
- Delivery and Compliance
- Monitoring and Evaluation; and
- Territorial Cooperation

10.7. Members of the Operational Programmes workstream were directly involved in defining the content of the programmes including the direction of the strategy and cross cutting themes (horizontal principles) while members of the Delivery and Compliance and Monitoring and Evaluation workstreams were

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specifically involved in the consideration and preparation of guidance, indicators and delivery and control arrangements. Members were appointed via invitations for nominations and were selected based on experience of EU funded programmes and relevant EU, UK and Welsh policy, together with relevant subject experience appropriate to each Workstream. A full stakeholder interest, geographical and gender balance was maintained.

10.8. Finally, to ensure proposals were aligned to Welsh Government policies and strategies a Welsh Government European Programmes Policy Group was established. Policy Group meetings followed those of the Operational Programmes workstream and both groups informed the draft proposals presented for public consultation in early 2013. Members comprised senior level policy representatives nominated by Directors General from all relevant Welsh Government Departments.


10.10. The consultation was supported by four Welsh Government regional stakeholder events, with over 300 stakeholders attending to discuss the key opportunities and challenges in a series of workshops. A number of external stakeholder groups also organised sectoral events during the consultation period which were attended by WEFO officials.

10.11. Consultants were appointed to analyse the results of the consultation and their Structural Funds report was published on the WEFO and Welsh Government websites and announced by the Minister of Finance in a statement to the National Assembly for Wales on 9 July 2013. The consultants appointed to analyse the consultation were from the same organisation responsible for the Ex Ante Evaluation and therefore had a detailed understanding of the issues raised.

10.12. The consultation generated overwhelming support for the Structural Fund proposals both in terms of the investment priorities selected and the importance of concentrating resources in order to achieve a transformational impact. A number of respondents raised concerns about the absence of a discrete Priority relating to tackling poverty and social exclusion. The ESF programme has been developed in line with the Welsh Government policy, as articulated within its Tackling Poverty Action Plan, which states that the best route out of poverty is through employment.

10.13. Actions to address poverty and social exclusion therefore focus on removing barriers to employment and helping people to move onto the employment ladder. With this as the underlying principle, WEFO re-framed actions to

support those living in or at risk of poverty and social exclusion to sit within a ‘Tackling Poverty through Sustainable Employment’ Priority Axis supporting these participants to access and retain secure and sustainable employment. This Priority Axis complements the cross-cutting theme on Tackling Poverty and Social Exclusion.

10.14. A single Wales Programme Monitoring Committee for the 2014-2020 European and Structural Investment (ESI) programmes has been established in shadow form and will be formally be adopted following approval of the programmes by the European Commission.

10.15. The PMC will cover all three ESI funds managed by the Welsh Government (ERDF, ESF, EAFRD) and will be responsible for approving Structural Funds project selection criteria, examining the progress made in delivering agreed programme objectives, and any modifications to the programmes and agreeing the Evaluation Plan and any modifications to the programmes.

10.16. The membership of 27 (plus Chair), based on the principles of partnership and many of the best practices set out in the European Code of Conduct on Partnership, consists of 6 expert members appointed via a public appointments process and 21 members nominated on a sectoral basis. Members were drawn from across the private, public and third sectors (including economic and social partners, national, regional and local authorities; and representatives of civil society including environmental and equality bodies). The membership composition was also designed to deliver a broad gender balance and distribution across the two Welsh regions and the urban/rural dimension. Draft terms of reference will be prepared and agreed at the inaugural meeting. This will include detailed guidance on how potential conflicts of interests are addressed.

10.17. The establishment of a single PMC was supported by our partners on the basis of the feedback received during the public consultation and will facilitate a more holistic assessment of the impact and effectiveness of the funds in delivering the Europe 2020 agenda, set against the Economic Prioritisation Framework and supported by enhanced management and monitoring information.

10.18. The existing Delivery and Compliance and Evaluation Advisory Groups will remain in operation for the duration of the 2014-2020 to continue to advise on delivery and implementation (including the content of guidance) and monitoring and evaluation arrangements. These groups have been in existence throughout the 2007-13 programming period and comprise wide internal Welsh Government and external stakeholder interests.

10.19. The Delivery and Compliance Group (D&CG) is a technical expert group established by the Managing Authority (WEFO) as a forum for partners to feedback implementation and compliance operational issues.

10.20. The Group’s work informs the work of PMC, and has a specific remit to review WEFO’s regular ‘Compliance Report’ before presentation at the PMC. This
10. PARTNERSHIP

includes audit results and common errors found in management verification work. The group supports the PMC to satisfy itself of the effectiveness and quality of the implementation of the Welsh Structural Funds Programmes in the areas of delivery and compliance.

10.21. The role of the Evaluation Advisory Group is to advise and assist in designing evaluation studies, quality controlling the research final reports and ensuring that findings are disseminated widely. The group will also monitor the implementation of the Monitoring and Evaluation Strategy for the Structural Funds programmes in Wales for the period 2014 – 2020.

10.22. In the 2007-2013 programme period Technical Assistance has been used to support the engagement of, and developing the capacity of, NGOs and voluntary organisations in the delivery of programmes. This has included the provision of support, information, advice and networking opportunities. It is proposed that similar activities will be possible through Technical Assistance activities within the ERDF programme as described in Section 2.B., these will include;

- Management – further developing the functions and systems of the Managing Authority to deliver integrated sustainable programmes and to provide expert advice and guidance to beneficiaries
- Partnership and Networking – facilitating effective engagement and partnership working with stakeholders in support of programme implementation
- Monitoring – establishing and supporting the single ESI Funds Programme Monitoring Committee
- Research and Evaluation – continuing to deliver quality evidence based information to support programme delivery
- Information and Publicity – highlighting the value added by the EU working in partnership with the Welsh Government and its partners.
- Audit and Control – delivering effective and compliant programmes in Wales

10.23. There are no plans to entrust part of the management of the Operational Programme to Intermediate Bodies, for example by using Global Grants or Integrated Territorial Investments and using the provisions set out in article 123(7) of the Common Provisions Regulation (CPR) EU 1303/2013. Intermediate Bodies, using the provisions set out in article 123(6) of the CPR, will be designated to perform certain delegated tasks in relation to the management of certain aid schemes. Delegated tasks will include, at least, the selection of projects (beneficiaries), the issue of documents to beneficiaries that set out the conditions of support and state aid administration for the scheme. The Intermediate Bodies designated to manage the aid schemes are likely to be Welsh Government departments.
10. PARTNERSHIP

Relevant partners involved in the preparation of the operational programme

MINISTERIAL ADVISORY GROUP (EUROPEAN PROGRAMMES 2014-20)

Partners:
- British Telecom (private sector)
- Cogitamus (private sector)
- Equality and Human Rights Commission (equalities)
- Swansea Council for Voluntary Service (third sector)
- Swansea University (higher education)
- Torfaen County Borough Council (local government)
- Plus representatives from key Welsh Government spending departments

EUROPEAN PROGRAMMES PARTNERSHIP FORUM (2014-20)

Partners:
- Bangor Mussel Producers Ltd (fisheries / private sector)
- Barsby Associates (Institute of Directors)
- British Telecom (private sector)
- CBI Wales (employers organisation)
- Cardiff University (higher education)
- Equality and Human Rights Commission (equalities)
- Forestry Commissioner for Wales (environment / rural)
- Grahame Guilford & Co Ltd (private sector)
- Gower College (further education)
- Job Centre Plus (employment)
- National Institute for Continuing Adult Education (education)
- National Trust (environment/rural)
- Rhondda Cynon Taff County Borough Council (local government)
- Swansea University (higher education)
- Torfaen County Borough Council (local government)
- Wales Commissioner for Sustainable Futures (environment)
- Wales Co-operative Centre (third sector)
- Wales Council for Voluntary Action (third sector)
- Wales TUC (workers organisation)
- Welsh farmers (agricultural)
- Welsh Local Government association (local government)
- Working Links (employment)
- Plus representatives from key Welsh Government spending departments

POST 2013 WORKSTREAMS
10. PARTNERSHIP

(i) *Operational Programmes Workstream*

Partners:
- Anglesey County Council CBI Wales (employers organisation)
- Cardiff County Council (higher education)
- Chwarae Teg (third sector)
- Countryside Council for Wales (environment/rural)
- Cynnal Cymru-Sustain Wales (environmental / sustainability)
- EEF Cymru (manufacturers’ organisation)
- Higher Education Funding Council for Wales (higher education)
- Job Centre Plus (employment)
- Rhondda Cynon Taff County Borough Council (local government)
- Swansea University (higher education)
- RSPB Cymru (environment and countryside)
- Wales Co-operative Centre (third sector)
- Wales Council for Voluntary Action (third sector)

(ii) *Delivery and Compliance Workstream*

Partners:
- Arts Council of Wales (arts)
- Bridgend County Borough Council (local government)
- Countryside Council for Wales (rural)
- Gower College (further education)
- Rhondda Cynon Taff County Borough Council (local government)
- Swansea University (higher education)
- Wales Council for Voluntary Action (third sector)

(iii) *Monitoring and Evaluation Workstream*

Partners:
- Bridgend County Borough Council (local government)
- Countryside Council for Wales (environment/rural)
- London Economics (private sector consultancy)
- Monmouthshire County Council (local government)
- National Trust (environment/rural)
- Swansea University (higher education)
- Wales Council for Voluntary Action (third sector)
- Welsh Local Government association (local government)
11. Reduction of the Administrative Burden

Summary of the assessment of the administrative burden for beneficiaries

11.1. Significant progress was made in reducing the administrative burden for beneficiaries under the 2007-2013 programmes. This has involved the introduction of new working procedures around the introduction of the PPIMS IT system which led to the harmonisation of processes across structural funds and enables beneficiaries to input project data directly via a web based portal. This has resulted in common processes, the improved exchange of documentation together with efficiency gains and quicker processes and payments to beneficiaries. The 2007-2013 programmes have also seen the establishment of the Project Development Officer model. This has involved a single officer as a primary point of contact for beneficiaries throughout the application, development and post approval stages.

11.2. A customer insight survey was undertaken by WEFO in 2009\(^{209}\) which sought the views of project sponsors on administrative procedures and processes involved in applying for and managing EU projects. There was general support for efficiencies resulting from many of the web based improvements introduced for the 2017-13 funding round together with support for the concept of the Project Development Officer. Some concerns were raised over the bureaucracy involved in applying for funding (decisions could be made earlier involving less form filling) and over the accessibility and technical language in some of the guidance.

11.3. The Welsh Government is building upon previous developments and addressing feedback from project sponsors for the 2014-2020 programmes by maximising integration and harmonisation opportunities wherever possible in order to assist delivery and further reduce the burden for beneficiaries.

11.4. This will include a streamlined application and assessment process involving a series of gateways and decision points over the eligibility of projects, together with further enhancements to PPIMS. This will include a single online gateway for potential projects to access all ESI funds, which will direct potential projects to a specific team, and facilitate the selection of the optimal funding instrument(s) and delivery mechanism (whilst respecting the differences between funds).

11.5. Harmonised ESI national eligibility rules and common supporting guidance will be in place for all organisations in Wales receiving funds from ERDF, ESF and the EAFRD, other than where eligibility rules have been determined by fund-
11. SIMPLIFICATION

Specific EC legislation. This will represent a significant simplification for beneficiaries in Wales and builds on the European Commission’s common eligibility provisions in the Common Provisions Regulation for matters such as durability, revenue generation, and simplified cost options. The harmonised eligibility rules will be published and easily accessible via the WEFO website.

11.6. In addition, Wales intends to encourage the take-up of simplified cost reimbursement options (lump sums, flat-rates, unit costs) by making all legislative options available to potential applicants, issuing detailed guidance, and running training workshops with representatives from key sectors to understand and address the barriers to take-up. It is expected that flat-rate costs in relation to reimbursement of indirect costs will be of particular interest to Welsh beneficiaries. The extent of the shift towards a more results-based reimbursement system (lump sums, unit costs) will also depend on the provisions of the cohesion policy legislative package, the suitability of the EC standard rates, and the implementation guidance from the Commission. This is however, unlikely to include the use of Joint Action Plans which are not considered suitable in Wales.

11.7. Welsh projects will also benefit from a reduction in administration by Welsh Government implementing in full the EC simplification measures, such as shorter document retention periods, flat-rate revenue generation calculations, and protecting projects against duplication of audit activity from both the Audit Authority and European Commission in the same year.
# 12. Glossary of Common Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BAME</td>
<td>Black Asian and Minority Ethnic people</td>
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<tr>
<td>CSF</td>
<td>Common Strategic Framework</td>
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<td>EAFRD</td>
<td>European Agricultural Fund for Rural Development</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EIA</td>
<td>Equality Impact Assessment</td>
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<td>EMFF</td>
<td>European Maritime and Fisheries Fund</td>
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<td>EPPF</td>
<td>European Policy Partnership Forum</td>
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<tr>
<td>ERDF</td>
<td>European Regional Development Fund.</td>
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<td>ESF</td>
<td>European Social Fund</td>
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<td>ESI</td>
<td>European Structural and Investment</td>
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<td>EU</td>
<td>The European Union</td>
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<td>EU2020</td>
<td>Europe 2020</td>
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<td>EW</td>
<td>East Wales</td>
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<tr>
<td>FTE</td>
<td>Full Time Equivalent</td>
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<tr>
<td>GVA</td>
<td>Gross Value Added</td>
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<td>IP</td>
<td>Investment Priority</td>
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<td>ITIs</td>
<td>Integrated Territorial Investments</td>
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<td>JAPs</td>
<td>Joint Action Plans</td>
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<tr>
<td>NUTS</td>
<td>Nomenclature of Territorial Units for Statistics</td>
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<td>NRP</td>
<td>National Reform Programme</td>
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<td>NRW</td>
<td>Natural Resources Wales</td>
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<td>OP</td>
<td>Operational Programme</td>
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<tr>
<td>PMC</td>
<td>All-Wales Programme Monitoring Committee</td>
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<td>PSED</td>
<td>Public Sector Equality Duty</td>
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<td>RDP</td>
<td>Rural Development Plan</td>
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<tr>
<td>RME</td>
<td>Research, Monitoring and Evaluation</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment.</td>
</tr>
<tr>
<td>SMART</td>
<td>Specific, Measurable, Realistic and Time-bound</td>
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### 12. GLOSSARY OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SMEs</td>
<td>Small and Medium Sized Enterprises</td>
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<tr>
<td>SO</td>
<td>Specific Objective</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities, and Threats</td>
</tr>
<tr>
<td>TEN-T</td>
<td>Trans-European Transport Network</td>
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<tr>
<td>TO</td>
<td>Thematic Objective</td>
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<td>TRL</td>
<td>Technology Readiness Levels</td>
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<tr>
<td>UKCSRs</td>
<td>UK Country-Specific Recommendations</td>
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<td>WEFO</td>
<td>Welsh European Funding Office</td>
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<td>WIIP</td>
<td>Wales Infrastructure Investment Plan</td>
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<td>WWV</td>
<td>West Wales and the Valleys</td>
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