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# Evaluation of Next Generation Broadband Wales Programme 2015-18

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## Executive Summary

- 1.1 This summary report is an output of the external evaluation of the Next Generation Broadband Wales Programme 2015-18. Other published outputs from the evaluation include the full Evaluation Report.
- 1.2 The Next Generation Broadband Wales Programme 2015-18 (hereafter 'the Programme') was delivered by the Economy, Skills and Natural Resources Group of Welsh Government and part-funded by the European Union through four operations (80912 through to 80915) under Priority 4 of the European Regional Development Fund (ERDF) programme in Wales. The four operations delivered against the Specific Objective: 'To contribute to the Digital Agenda for Europe targets in Wales for 100 per cent access to next generation broadband (30 Mbps and above) and 50 per cent access to 100 Mbps'.
- 1.3 The aim of the evaluation was to assess the outcomes and impact of the Programme over the period 2015 to 2018.
- 1.4 The concentration of the evaluation on the 2015-18 activity of the Programme was designed to align with the timescales of the four ERDF operations within the 2014-20 funding round through which the Programme was delivered after June 2015. The Programme's activity between its start in February 2013 and September 2015 was previously externally evaluated (SQW, 2016).
- 1.5 It was agreed that this evaluation should seek to complement existing research and the previous evaluation of the Programme and use existing evidence where possible to avoid over-burdening households and businesses through additional survey work.
- 1.6 Complementary strands of research informed this evaluation, including: **scoping interviews** with ten Programme stakeholders from Welsh Government and BT; **a review of existing research and programme documentation** to inform the development of key

evaluation tools; **development of an evaluation logic model** through a workshop with the evaluation steering group; **engagement with stakeholders** through 17 qualitative, semi-structured telephone interviews; **case studies of non-beneficiary communities** to demonstrate what might have happened in the absence of the Programme; **analysis of monitoring data** to provide insights into the delivery and impact of the Programme; and **assessment of economic impact** based on the impact model produced for the previous evaluation of the Programme and in consultation with the Welsh Government.

## **2. Key Findings**

### **Policy context, objectives and targets**

- 2.1 The introduction of new legislation and policy, including the Well-being of Future Generations (Wales) Act and Taking Wales Forward, strengthened the policy context for intervention, whilst the continued availability of funding (ERDF, Welsh Government and BDUK) from 2014 onwards enabled continued public-sector intervention.
- 2.2 Successive Open Market Reviews demonstrated that commercial providers would not address the broadband infrastructure needs of many households and businesses in Wales as they deemed the activity commercially unviable. The 2014 Open Market Review expanded the intervention area for the Programme.
- 2.3 The Programme delivered between 2015 and 2018 was a continuation of previous activity. The 2014-20 funding round output indicators agreed with the Welsh European Funding Office (WEFO) were less wide-ranging in terms of wider activity (for example, apprenticeships) than those in the 2007-13 funding round. In some respects, the Programme output indicators and targets—although sensible from the perspective of WEFO and the European Commission—did not reflect the full achievements of the Programme.

### **Programme resources and delivery**

- 2.4 Between 2015 and 2018, the Programme received £29,185,825 in funding from the ERDF across four operations. Match-funding was provided by Welsh Government and BDUK. The four ERDF 2014-2020 operations covered in the 2015 to 2018 delivery period (the focus of this evaluation) technically started on 1 January 2016, but the two East Wales operations provided retrospective funding from 1 July 2015 to align with the final expenditure through the ERDF 2007-13 operations. The Programme was delivered between February 2013 and February 2018.
- 2.5 In order to comply with funding rules, Welsh Government was not able to influence where and when upgraded infrastructure would be rolled out within the defined intervention area.

Fibre to the Cabinet (FTTC) was used to connect premises within a certain distance of a street cabinet, whilst Fibre to the Premises (FTTP) was used to connect premises in less densely populated areas. BT/Openreach's process for delivering Fibre to the Premises evolved to become more efficient throughout the delivery of the Programme.

- 2.6 The Programme's management and governance processes functioned well. Stakeholders praised the Welsh Government delivery team for their agile decision-making capability and expertise. The Programme developed an innovative Test and Verification procedure that provided Welsh Government and BT/Openreach with more accurate and reliable monitoring data and ensured value for money for the public purse. The approach taken to internal monitoring of the Programme is an example of good practice for Welsh Government and other public sector bodies.
- 2.7 The Programme's marketing aimed to maximise take-up of next generation broadband amongst individuals, businesses and communities provided with access to next generation broadband through the Programme. Evidence suggests that it was successful at doing this, as take-up amongst these premises is higher than the average across Wales and across the other UK nations. Attempts to address previous criticism of the external communications approach were partly successful, but the Programme was unable to address dissatisfaction with the information itself, as this was an inevitable result of the Programme's delivery model and the complexity and uncertainty of large-scale infrastructure delivery. Processes for communication between internal stakeholders functioned well.
- 2.8 The Programme fulfilled its statutory obligations relating to Cross-Cutting Themes through its day-to-day activity. As a project that delivered enabling infrastructure, the Programme had limited opportunity to go beyond this in its day-to-day activity, but its direct and indirect effects delivered benefits that closely align with the Themes.

#### **Direct effects of 2014-20 ERDF operations (Programme delivery 2015-18)**

- 2.9 In both the Superfast ERDF operations (80912 and 80913), the Programme narrowly failed to reach its output indicator targets for additional premises with broadband access of at least 30 Mbps. The Ultrafast ERDF operations (80914 and 80915), however, exceeded their targets for the number of premises provided with access to ultrafast broadband speeds, and so overall the Programme delivered greater benefits than these indicators suggest. In the same time period, the Programme provided a total of 1,275 enterprises with access to next generation broadband infrastructure that enables them to achieve download speeds of at least 100 Mbps. The Programme greatly surpassed both of its targets for this indicator in both operations (80914 and 80915).

- 2.10 Monitoring data suggests that approximately 733,000 premises in Wales were provided with access to broadband with download speeds of 24 Mbps and above<sup>1</sup> by the Programme between 2013 and 2018, and these premises would not have been connected by commercial providers without this intervention (according to the Open Market Review returns). Most premises connected through the Programme were located in local authority areas with relatively low population density. Fibre to the Premises was used more extensively in local authority areas with lower population densities—predominantly more rural local authorities—in which the distance between cabinets and premises and the limitations of the existing copper technology meant that FTTC could not be used to deliver superfast speeds. Current analysis suggests that the cost of connecting premises by FTTP through the Programme was, on average, more than five times more expensive than connecting premises by FTTC.
- 2.11 As of September 2018, coverage of superfast broadband (30 Mbps and above download speed) in Wales reached 1,352,193 premises or 93 per cent of all premises (homes and businesses).<sup>2</sup> Compared to the rest of the UK, coverage of superfast broadband in Wales at this point in time was greater than in Scotland (92 per cent) and Northern Ireland (89 per cent) but slightly lower than in England (94 per cent).
- 2.12 At 50 per cent, take-up of superfast or better broadband services in the Programme intervention area is higher than the figure for the whole of Wales (which, at 38 per cent, is the lowest amongst the UK nations).
- 2.13 Communities either not in the Programme intervention area or in the intervention area but not included in the network roll-out without access to next generation broadband have options to use alternative technological solutions or find funding to install fibre technology themselves. Support to these communities is provided by private companies, local authorities and Welsh Government and its voucher schemes (Access Broadband Cymru and Ultrafast Connectivity Voucher).

### **Medium- and long-term effects**

- 2.14 Impact modelling suggests that the Programme will deliver a projected £162 million of net annual Gross Value Added (GVA) impact by 2026 and a total GVA impact of £843 million between 2015 and 2026. It is estimated that the Programme had a Net Present Value of £635 million at 2015 prices against an investment of £48.9 million, equating to a return on investment of £12.99 for every £1 spent. Stakeholders were positive about the impact of

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<sup>1</sup> Until recently, BDUK and UK Government defined superfast broadband as 24 Mbps and above.

<sup>2</sup> These figures include all premises connected, including through commercial rollouts and the Programme.

improved connectivity on local economies. They particularly identified benefits for self-employed people in rural areas, suggesting that this would give people more options in terms of where they work and what work they undertake.

- 2.15 Existing evidence suggests that increased superfast connectivity has positive effects on people's well-being, through enabling increased leisure time as a result of increased teleworking and enabling people to stay connected more easily. The potential social impacts of the Programme were also highlighted by the evaluation consultees. The impacts most relevant to Wales identified by stakeholders included the benefits of improved connectivity on those who feel isolated in rural communities and on young people who need it for doing homework and socialising online.
- 2.16 Existing evidence suggests that increased superfast connectivity has both positive environmental impacts, including a reduction in carbon dioxide emissions from increased teleworking and reduced commuting, and negative environmental impacts, such as the increased emissions caused by rolling-out and maintaining a new network.

### **3. Conclusions, Lessons Learnt and Recommendations**

- 3.1 Through its activity between 2015 and 2018, the Programme provided 101,202 premises across Wales with access to next generation broadband infrastructure that enables them to achieve superfast or higher download speeds (30 Mbps or above). 56,696 of these premises, including 1,275 enterprises, are able to access ultrafast speeds. The Programme affected the greatest change in more rural local authorities of Wales (those with comparatively low population density). Developments in the Programme over the course of its delivery meant that the Programme was able to connect a greater proportion of premises with more future proofed FTTP technology than previously anticipated. As a result, the balance of outputs shifted towards the delivery of ultrafast access to premises and so the Programme surpassed its targets against ultrafast indicators but fell short of its targets against superfast indicators.
- 3.2 The Programme's activity between 2015 and 2018 was a continuation of activity that began in 2013 under a previous programme of European Union funding. Across the whole Programme, around 733,000 premises in Wales were provided with access to broadband speeds of 24 Mbps and above, and these premises would not have been connected without public sector intervention.
- 3.3 Largely due to the Programme's activity, Wales has gone from being the UK nation with the lowest availability of next generation broadband access in 2014 to one with the second highest availability. As of September 2018, 93 per cent of all premises in Wales had

access to superfast broadband, and whilst superfast availability remains lower in rural areas at 77 per cent, it is the highest rural coverage amongst the UK nations. Accordingly, the Programme and its four operations will undoubtedly have contributed significantly towards the ERDF result indicator target for 65 per cent of premises in both West Wales and the Valleys and East Wales to be in postcodes served by NGA networks by 2023, which are likely to have been greatly exceeded already. The level of take-up of superfast or faster services in Wales remains the lowest across the UK nations at 38 per cent, but it is substantially higher amongst premises connected through the Programme, at around 50 per cent.

3.4 The wide-ranging impacts of the Programme demonstrate how it strongly delivered against the European Commission's Cross-Cutting Themes of Equal Opportunities and Gender Mainstreaming, Sustainable Development, and Tackling Poverty and Social Exclusion.

### **Lessons learnt**

- Welsh Government and the Programme's commercial delivery partner significantly developed both their understanding of and the processes for rolling-out Fibre to the Premises in rural areas. This learning can be applied in future rollouts of next generation broadband infrastructure.
- Welsh Government and the Programme's commercial delivery partner used local champions to overcome barriers to delivery such as access to land for engineering works.
- Welsh Government developed a marketing approach that sought to maximise uptake of next generation broadband whilst also managing the expectations of individuals and communities in an inevitably uncertain and dynamic delivery context.
- Welsh Government developed an internal monitoring approach that made the monitoring data produced by the Programme highly accessible, therefore informing different stakeholder groups and facilitating evidence-driven decision-making.

### **Recommendations**

- **Recommendation 1:** The internal monitoring approach developed for the Programme is an example of best practice that could be adopted by other interventions that generate a large quantity of monitoring data. The Programme delivery team should work to share this approach with others in Welsh Government and with public sector organisations.

- **Recommendation 2:** In any future public sector programme to deliver next generation broadband infrastructure, the monitoring, management and governance systems used in the Next Generation Broadband Wales Programme should be replicated to encourage continuity and the application of lessons learnt.
- **Recommendation 3:** Any future public sector programme around next generation broadband should continue to provide support to the remaining communities in Wales without access to superfast or faster broadband; address the remaining difference in availability between urban and rural premises, and, where viable, use Fibre to the Premises technology to future-proof developments as much as possible.

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Available at: <https://gov.wales/evaluation-next-generation-broadband-wales-programme-2015-2018>

Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government

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