FarrPoint

Swansea Bay City Deal

Swansea Bay City Deal Digital Infrastructure Investment FY2023-24

Final Report

Certified B Corporation

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1. Introduction

1.1 Background

The Swansea Bay City Deal (SBCD) has a number of digital elements within its programme to improve the local economic and social circumstances of the region. The programme includes, but is not limited to, full fibre fixed connectivity and associated infrastructure, as well as 4G, 5G, and Internet of Things wireless networks. The key aims of the programme are to enable:

- Better broadband for everyone… leaving nobody behind.
- A smart region ready and able to innovate and adopt emerging technology.
- An inclusive digital landscape that meets everyone's needs.

As part of the City Deal funding, the SBCD programme team is required to report on a number of outcomes. This report is concerned specifically with the levels of investment in digital infrastructure, seen as an essential part of improving the social and economic performance of the region.

The initial Programme Business Case contained an overview of the projected Digital Infrastructure Programme Investment within the region over the course of the programme (Table 1).

FY	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
SBCD	£532,070	£8,402,392	£8,402,392	£6,402,392	£902,392	£358,364	**£25,000,000**
Public Sector	£2,350,000	£2,700,000	£2,700,000	£2,700,000	£2,700,000	£350,000	**£13,500,000**
Private Sector	-	£6,500,000	£4,500,000	£4,500,000	£1,000,000	-	**£16,500,000**
Total	£2,882,070	£17,602,392	£15,602,392	£13,602,392	£4,602,392	£708,364	£55,000,000

Table 1: Projected Digital Infrastructure Programme Investment Overview (Source: SBCD Digital Infrastructure Programme Business Case, March 2022)

In 2024/25 the SBCD Digital Infrastructure Programme restructured funding between the Rural and Connected Places workstreams. As part of this exercise an economic assessment was undertaken to ascertain its impact on the expected economic impact of the programme. As a result, an update was produced to the expected Digital Investment (Table 2).

FY	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
SBCD	£450,000	£390,000	£830,000	£2,780,000	£12,690,000	£7,860,000	**£25,000,000**
Public Sector	£7,400,000	£3,600,000	£4,330,000	£5,710,000	£20,950,000	£19,980,000	**£61,970,000**
Private Sector	£23,660,000	£32,500,000	£29,050,000	£30,000,000	£35,470,000	£30,950,000	**£181,630,000**
Total	£31,210,000	£36,490,000	£34,210,000	£38,490,000	£69,110,000	£58,790,000	£268,600,000

Table 2: Projected Digital Infrastructure Programme Investment Overview (Source: SBCD Digital Infrastructure Programme Economic Appraisal, November 2024)

1.2 About FarrPoint

FarrPoint is an independent technology consultancy that specialises in digital connectivity. We provide independent advice on the commercial and technical considerations of the design of national and regional connectivity strategies, economic assessment, technical planning and modelling, use case development, procurement support, and implementation assurance.

Our team comprise a mix of consulting technologists, economists and data scientists who work together to provide experience, expertise, and complementary resource to clients in the public and private sectors.

Our approach is unlike many other consultancies; what clients get from FarrPoint is pragmatic guidance from a team that understands both the commercial, regulatory and policy considerations, plus how these connectivity and technology solutions can be delivered on the ground to deliver the desired benefits.

As trusted advisers, we build strong relationships with our clients based on empathy, flexibility, and independence. We have a strong track record of delivering Benefits Realisation, Impact Assessments and Programme Evaluations for a range of public and private sector clients.

With decades of experience advising clients on connectivity, telecoms and enterprise IT, we continue to evolve and innovate. We believe that connectivity is the underlying mechanism to bringing social and economic benefits to societies and communities.

1.3 Document Structure

This report is split into two main sections:

- Approach - this section sets out the approach (assumptions and data sources) taken to assess the level of public and private sector investment for both fixed and mobile infrastructure. This approach is in line with that used in the previous year as part of the SBCD reporting requirement.
- FY2023-24 Analysis – using the outlined approach, this section analyses the Investment in 2023-24 financial year, split into three distinct high-level sources: SBCD; Public Sector; and Private Sector.

2. Approach

This section sets out the approach taken to assess the level of public and private sector investment for both fixed and mobile infrastructure in FY2023-24. It details any assumptions required and the data sources used to establish the indicated improvement in the level of infrastructure. This approach is in line with that used by previous year's iterations as part of the SBCD reporting requirement.

2.1 Digital Connectivity Assessment

The initial stage in assessing the investment in digital infrastructure in the region examines the changes in coverage from the previous year - both fixed and mobile. This analysis uses data from Ofcom's Connected Nations reporting, for each of the region's four Local Authorities, as well as Wales and the UK for reference.

2.1.1. Fixed Connectivity

Table 3 sets out changes in fixed connectivity, including in Superfast (above 30Mbps), Full Fibre, and Gigabit (1 Gbps) coverage. For completeness, information is also provided on the number of premises that are unable to get 'decent broadband', defined by Ofcom as premises with a sub 10Mbps download speed.

	Total number of premises	Unable to get 'decent' broadband (<10Mbps)		Superfast		Full Fibre		Gigabit	
		Coverage	Premises	Coverage	Premises	Coverage	Premises	Coverage	Premises
Swansea									
2020-21	118,819	0.6%	703	97.5%	115,811	30.6%	36,380	30.6%	36,388
2021-22	118,948	0.5%	577	98.1%	116,738	33.8%	40,207	78.2%	93,009
2022-23	119,131	0.5%	573	98.3%	117,123	45.1%	53,787	81.5%	97,102
2023-24	119,652	0.4%	523	98.5%	117,882	71.2%	85,163	87.5%	104,680
Last year change	*+521*	*-0.1%*	*-50*	*+0.2%*	*+759*	*+26.1%*	*+31,376*	*+6.0%*	*+7,578*
Carmarthenshire									
2020-21	93,256	6.5%	6,042	86.6%	80,797	24.2%	22,573	24.2%	22,573
2021-22	93,885	5.2%	4,905	89.0%	83,553	42.5%	39,916	42.5%	39,919
2022-23	94,336	4.4%	4,194	90.6%	85,514	51.0%	48,142	51.0%	48,144
2023-24	94,823	4.2%	4,015	91.0%	86,287	59.3%	56,228	59.3%	56,230
Last year change	*+487*	*-0.2%*	*-179*	*0.4%*	*+773*	*8.3%*	*+ 8,086*	*8.3%*	*+ 8,086*
Neath Port Talbot									
2020-21	68,958	0.4%	286	97.0%	66,905	4.2%	2,882	29.7%	20,507
2021-22	69,046	0.4%	286	97.4%	67,236	7.8%	5,374	61.9%	42,722
2022-23	69,285	0.4%	245	97.8%	67,746	30.2%	20,939	69.3%	47,989
2023-24	69,452	0.3%	235	98.1%	68,120	51.3%	35,646	77.0%	53,508
Last year change	*+167*	*-0.1%*	*-10*	*+0.3%*	*+374*	*+21.1%*	*+14,707*	*+7.7%*	*+ 5,519*

	Total number of premises	Unable to get 'decent' broadband (<10Mbps)		Superfast		Full Fibre		Gigabit	
		Coverage	Premises	Coverage	Premises	Coverage	Premises	Coverage	Premises
Pembrokeshire									
2020-21	65,855	6.4%	4,243	88.0%	57,953	6.8%	4,490	6.8%	4,495
2021-22	66,278	4.5%	2,974	90.6%	60,064	15.8%	10,505	15.8%	10,505
2022-23	66,658	3.6%	2,400	92.9%	61,905	31.7%	21,153	31.7%	21,153
2023-24	66,871	3.1%	2,048	93.8%	62,704	56.5%	37,762	56.5%	37,762
Last year change	*+213*	*-0.5%*	*-352*	*+0.9%*	*+799*	*+24.8%*	*+16,609*	*+24.8%*	*+16,609*
SBCD Area Total									
2020-21	346,888	3.3%	11,274	92.7%	321,466	19.1%	66,325	24.2%	83,963
2021-22	348,157	2.5%	8,742	94.1%	327,591	27.6%	96,002	53.5%	186,155
2022-23	349,410	2.1%	7,412	95.1%	332,288	41.2%	144,021	61.4%	214,388
2023-24	350,798	1.9%	6,821	95.5%	334,993	61.2%	214,799	71.9%	252,180
Last year change	*+1,388*	*-0.2%*	*-591*	*+0.4%*	*+2,705*	*+20.0%*	*+70,778*	*+10.5%*	*+37,792*
Wales									
2020-21	1,535,457	3.4%	51,794	93%	1,434,871	23.1%	354,983	29.4%	450,879
2021-22	1,545,321	2.7%	41,432	95%	1,461,121	34.7%	535,901	47.6%	736,151
2022-23	1,555,294	2.4%	37,062	95.5%	1,485,267	48.9%	760,059	58.8%	914,562
2023-24	1,563,408	2.2%	35,064	95.9%	1,498,613	66.3%	1,036,175	72.0%	1,125,144
Last year change	*+8,114*	*-0.1%*	*-1,998*	*+0.4%*	*+13,346*	*+17.4%*	*+276,116*	*+13.2%*	*+210,582*
UK									
2020-21	28,253,406	2.2%	611,035	95.1%	26,858,955	22.5%	6,343,011	38.0%	10,722,676
2021-22	28,559,727	1.7%	482,611	95.8%	27,365,327	36.1%	10,316,598	66.8%	19,074,711
2022-23	31,833,510	1.3%	428,031	96.6%	30,735,679	50.6%	16,096,417	73.6%	23,418,949
2023-24	32,136,752	1.2%	384,542	97.1%	31,193,482	67.4%	21,670,765	81.7%	26,255,693
Last year change	*+303,242*	*-0.1%*	*-43,489*	*+0.5%*	*+457,803*	*+16.9%*	*+5,574,348*	*8.1%*	*+2,836,744*

Table 3: Fixed Connectivity Assessment (Source: Ofcom Connected Nations)

As can be seen from the results in Table 3, there have been significant changes in fixed connectivity across the region, in line with the national and UK averages. This will be used as a basis for assessing the size of investment in the region.

2.1.2. Mobile Connectivity

For mobile connectivity, the comparison focusses on changes in 4G coverage from at least 1 network, and from all 4 networks. In addition to the information on 4G coverage, in this iteration of the study, additional comparisons are made concerning the infancy of 5G roll out within the region. Table 4 sets out the changes in mobile (4G / 5G) coverage.

	4G Coverage			5G Coverage	
	At least 1 Network	All 4 networks	4G Notional Not Spots[1]	At least 1 Network (High Confidence)	At least 1 Network (Very High Confidence)
Swansea					
2020-21	98%	85%	2%	-	-
2021-22	98%	85%	2%	45%	25%
2022-23	98%	85%	2%	59%	38%
2023-24	99%	86%	1%	69%	60%
Last year change	*+1%*	*+1%*	*-1%*	*+10%*	*+22%*
Carmarthenshire					
2020-21	93%	62%	7%	-	-
2021-22	95%	65%	5%	6%	4%
2022-23	95%	67%	5%	24%	18%
2023-24	97%	76%	3%	61%	48%
Last year change	*+2%*	*+9%*	*-2%*	*+37%*	*+30%*
Neath Port Talbot					
2020-21	95%	68%	5%	-	-
2021-22	96%	70%	4%	33%	14%
2022-23	98%	73%	2%	51%	30%
2023-24	99%	83%	1%	76%	61%
Last year change	*+1%*	*+10%*	*-1%*	*+25%*	*+31%*
Pembrokeshire					
2020-21	98%	74%	2%	-	-
2021-22	98%	74%	2%	5%	4%
2022-23	99%	78%	1%	31%	25%
2023-24	99%	84%	1%	72%	61%
Last year change	-	*+6%*	-	*+41%*	*+36%*
Wales					
2020-21	90%	60%	10%	-	-
2021-22	90%	62%	10%	12%	8%
2022-23	91%	64%	9%	24%	18%
2023-24	95%	75%	5%	52%	42%
Last year change	*+4%*	*+11%*	*-4%*	*+28%*	*+24%*
UK					
2020-21	92%	69%	8%	-	-
2021-22	92%	70%	8%	17%	11%
2022-23	93%	71%	7%	34%	26%
2023-24	95%	80%	5%	60%	48%
Last year change	*+2%*	*+9%*	*-2%*	*+26%*	*+22%*

Table 4: Mobile Connectivity Assessment (Source: Ofcom Connected Nations)

[1] Not Spots are assumed to exist where there is no available 4G signal. This is a result of low-to-no network availability from at least one mobile network provider. The numbers used here are supplied by Ofcom using reporting directly from mobile providers.

2.2 Public Sector Funding

To understand the role of public investment in the region, data has been collected by the Digital Infrastructure Programme Team on the various public sector programmes including:

- Swansea Bay City Deal (both capital and revenue investment);
- Access Broadband Cymru Voucher Scheme (ABC);
- Gigabit Vouchers;
- Superfast Cymru;
- Mobile Connectivity Programs (e.g. Emergency Services Network (ESN) and Shared Rural Network (SRN));
- Other public sector digital programmes - e.g. LoRaWAN projects.

To understand the impact of these public sector programmes on connectivity in the SBCD region, the number of premises connected, as well as the total funding spent, will be utilised.

Assumption 1: Vouchers cover the entire cost of connection: for simplicity, it is assumed that there is no additional private sector investment for the cost of connection for voucher premises and that a single voucher connects a single premise with no incremental connections resulting from the use of a voucher. It may be that subsequent voucher programme reporting will change this assessment.[2]

2.3 Private Sector Funding

2.3.1. Fixed Connectivity

To calculate the level of fixed connectivity that has occurred in the most recent year, a series of assumptions have been made considering factors such as overbuild, rural/ urban investment, and the network operator.

Overbuild

Overbuild in the context of fixed digital connectivity refers to the deployment of overlapping network infrastructure, particularly in areas where existing networks already provide sufficient coverage or capacity. It typically involves multiple providers building similar or identical infrastructure in the same geographic area. Overbuild can occur due to competitive pressures, regulatory factors, or market dynamics.

Within the analysis of the SBCD region investment, the overbuild is in addition to the premises which have newly received a "Full Fibre" connection, as they may have already been able to connect to another operator. Ofcom's Planned Network Deployment dataset indicates that by 2025, 78% of the premises across the region may have access to 2 or more operators, with 43% likely to have access to 3 or more (Table 5).[3]

[2] Source: UK Government Evaluation of BDUK Gigabit Vouchers: Initial Impacts and Benefits

[3] Source: Connected Nations - Planned Network Deployment

	Proportion of premises expected to have Gigabit coverage by March 2025	
	With access to 2 or more operators	With access to 3 or more operators
Swansea	91%	51%
Carmarthenshire	64%	33%
Neath Port Talbot	91%	58%
Pembrokeshire	60%	17%
SBCD Region	**78%**	**43%**
Note: 2025 is the earliest year for which this information is available		

Table 5: Number of operators available to premises in 2025 (Source: Ofcom)

Assumption 2: For the purpose of the annual impact assessments, investment in overbuild has been estimated using the total number of new 'Full Fibre' connections for FY2023-24 within each Local Authority area. This total new 'Full Fibre' figure is multiplied by the portion of premises within each local authority with access to 2 or more operators (Table 5).

FY2023-24	Total Premises from Connected Nations with New 'Full Fibre' Connection (A)	Additional Overbuild Connections who already had 'Full Fibre' Connection (B)	Total Connections Invested In (A+B)
Swansea	31,376	42,421	**73,797**
Carmarthenshire	8,086	6,084	**14,170**
Neath Port Talbot	14,707	13,480	**28,187**
Pembrokeshire	16,609	12,449	**29,058**
SBCD Region	**70,778**	**74,434**	**145,212**

Table 6: Analysis of new and overbuild full fibre connections. (Source: FarrPoint)

It is worth noting that while the annual assessments assume the investment required for an 'overbuild' premise is equal to that of a new 'Full Fibre' connection, the end of programme evaluation will assess the incremental benefit of overbuild on employment and GVA growth, etc. It is likely that the incremental benefit of a premise having overbuild will be less than for a premise that had no prior full fibre connectivity.

Digital Infrastructure Provider

The number of premises connected by the public sector are removed from the new connections figures (Table 6) as these are included within the public sector analysis.

In 2021, Virgin Media O2 (VMO2) completed a UK-wide upgrade programme to ensure its entire fixed network delivers broadband with average download speeds of 1,130Mbps. Subsequently, VMO2 announced its intention to upgrade its fixed network to fibre to the premises (FTTP) by 2028.[4]

Assumption 3: Given the initial VMO2 upgrade to Gigabit was not classified as Full Fibre connectivity, it is assumed that all 'Gigabit' premises that do not have a 'Full Fibre' are connected via VMO2. As the number of these is reducing in each local authority, this takes into account the roll out of FTTP to VMO2 premises.

[4] Source: Virgin Media O2 investment gives Welsh customers and businesses a mobile and broadband boost

CASE STUDY: DALE, PEMBROKESHIRE – FIBRE COMMUNITY PARTNERSHIP

The picturesque coastal community of Dale in Pembrokeshire has long struggled with poor internet connectivity, which has hindered residents' ability to work, communicate, and access online services. A lack of fast, reliable broadband was a significant barrier to the community's ability to thrive in an increasingly digital world. However, thanks to the funding opportunity through UK Government's Building Digital UK's (BDUK) Gigabit Broadband Voucher Scheme, and collaborative efforts between Openreach, the local community and the Digital Infrastructure Programme's Digital Champions, Dale can now reap the benefits of full fibre broadband.

Instrumental to this project were the programme's Digital Champions who played a crucial role in supporting Dale's residents and businesses.

They undertook extensive engagement work within the community, offering information on a variety of options for improved connectivity, and guidance on the process. They organised drop-in sessions for residents and business owners to ask questions about their broadband options, allowing the community to make informed decisions and understand how to move the project forward.

With that support, Dale successfully pledged their vouchers for a Fibre Community Partnership with Openreach, resulting in the installation of gigabit-capable broadband throughout the village. This upgrade has enabled residents to work from home with confidence and enjoy stable, high-speed internet for online services and entertainment.

The benefits to the wider community in Dale are a testament to the opportunities that joint investment from the public and private sector unlocks for harder to reach communities.

By working together, these initiatives have demonstrated the potential to transform rural communities and provide them with the digital tools needed to thrive in the modern world.

The Digital Infrastructure Programme continues to focus on ensuring that all communities in the Swansea Bay City Region have access to fast and reliable internet. This commitment to bridging the digital divide is at the heart of the programme's mission.

Find out more: Getting Better Broadband, Dale

For the remaining premises, in addition to the VMO2 premise upgrades, there has been investment and improvements in connectivity from a range of other suppliers across the region. All these suppliers are contained in the Ofcom Connected Nations dataset, see the *Connected Nations' Methodology Annex*.[5] Local Authority supplier engagement established that during FY2023-24, the only suppliers active in deployment in the region were VMO2, Openreach, Netomnia, Ogi and WeFibre.

Assumption 4: 'Altnet' activity has been calculated through supplier engagement to obtain the number of premises passed by each network. Premises that were not connected by Netomnia, Ogi, WeFibre, or upgraded by VMO2 are assumed to have been connected by Openreach. Note: These figures are presented as "commercially delivered connections" as they factor in multiple connections to the same premise due to overbuild, and do not include those delivered by public intervention.

FY2023-24	VMO2	Openreach	Netomnia	Ogi	WeFibre	Total Connections
Swansea	23,798	-	49,954	-	-	73,752
Carmarthenshire	-	4,589	8,894	-	162	13,645
Neath Port Talbot	9,188	2,422	16,564	-	-	28,174
Pembrokeshire	-	16,373	-	11,479	-	27,852
SBCD Region	32,986	23,384	75,412	11,479	162	143,423

Table 7: Breakdown of Commercially delivered Local Authority (Source: Supplier engagement)

Rural/ Urban Investment

To understand the level of investment required to connect the premises (by any commercial supplier) that have not been connected by a Public Sector Programme, these premises have been split by urban and rural based on Census results[6], shown in Table 8. Whilst it is recognised that this may not be an accurate split as a larger number of newly connected premises are likely to be classified as "rural", this approach will lead to an average figure for the cost to be obtained.

Assumption 5: Given VMO2's historic delivery approach, it is assumed that all the premises it is providing with an upgrade to FTTP are within an urban setting. For premises being connected by Openreach directly via FTTP, the analysis takes into account the difference in costs of connecting urban and rural premises, the Census' Urban:Rural split has been applied to the remaining commercially delivered premises.

	Urban: Rural	Population Density (people per Km2)
Swansea	88: 12	632
Carmarthenshire	60: 40	79
Neath Port Talbot	74: 26	322
Pembrokeshire	20: 80	76
Wales	**64: 36**	**150**
UK	**84: 16**	**281**

Table 8: Urban Rural Split by Local Authority (Source: Census 2021)

[5] Source: Ofcom Connected Nations 2023 Annex

[6] Source: ONS D1 – F2 Census 2021 Results

Assumption 6: The cost of an urban fixed connection utilised within the previous annual assessment[7] is multiplied by FY2023-24 annual CPI figure to give an average cost of £223. Whereas, in line with the previous annual assessment, the cost of a rural fixed connection is in line with the average cost of a Superfast Cymru Programme Gigabit connection of £1,183.

As part of the engagement with Netomnia, the supplier provided figures for investment in the region. These included the total investment being made in each Local Authority area and the number of premises being passed within the programme. In addition, through engagement with Ogi, figures have been provided for total investment and premises passed in Pembrokeshire.

Assumption 7: Total investment from Netomnia was £19.5 million covering 75,412 premises. Total investment from Ogi was £9.0 million covering 11,479 premises. The amount of investment from WeFibre has not been provided, therefore, it has been assumed to be the average cost per premises of the four other network infrastructure suppliers building within the region.

2.3.2. Mobile Connectivity

The information on private investment in mobile connectivity focusses on the planning applications and responses received by each of the four Local Authorities as shown in Table 9.

Assumption 7: FarrPoint's analysis indicates that the average cost of a typical micro infill (4G or 5G) site is c.£50k, including materials, for a 15m GDPO (General Permitted Development Order), planning, groundworks etc. For larger macro cellular sites (4G or 5G), the average cost is assumed to be c.£250k.

	Micro In-fill Sites (4G and 5G)	Macro Cellular Sites	
		Private	Public
Swansea	4	1	-
Carmarthenshire	9	2	2 (ESN)
Neath Port Talbot	4	-	-
Pembrokeshire	3	-	-
SBCD Area Total	20	3	2

Table 9: Mobile Connectivity Infrastructure Planning Applications Approved (Source: Local Authorities)

Assumption 8: Figures for the cost of the 2 Emergency Services Network (ESN) mast installations in Carmarthenshire were estimated by the council to cost £500,000 each.

[7] This is based on an average cost of VMO2 connection, which is almost entirely an urban provider - 23m premises connected for £4.5 bn (source: New £4.5bn investment to extend Virgin Media O2's fibre footprint to 80% of the UK)

3. FY2023-24 Analysis

3.1 Swansea Bay City Deal Investment

Using the assumptions and approach set out in Section 2, Table 10 details the investment from the Swansea Bay City Deal, split by the Local Authority within which it was spent in the FY2023-24.

	Public Sector Partner Contribution	Digital Innovation Network (LoRaWAN)	SBCD Programme General Revenue Spend	Total
Swansea	£175,000.00	£9,724.53	£142,399.79	**£327,124.32**
Carmarthenshire	£175,000.00	£14,653.50	£148,949.69	**£338,603.19**
Neath Port Talbot	£175,000.00	£3,902.37	£173,843.01	**£352,745.38**
Pembrokeshire	£175,000.00	£12,044.16	£163,933.21	**£350,977.37**
SBCD Area Total	£700,000.00	£40,324.56	£629,125.70	£1,369,450.26
Note: Totals may not sum due to rounding.				

Table 10: Swansea Bay City Deal Investment FY2023-24 (Source: SBCD)

3.2 Fixed Connectivity

3.2.1. Public Investment

Using the assumptions and approach set out in Section 2, Table 11 details the number of premises connected and summarises the level of public investment from the wider Public Sector in the region in FY2023-24.

	LFFN	RGC	Local Authority	Gigabit Vouchers	ABC Vouchers	Superfast Cymru	Total
Number of Premises Connected							
Swansea	-	-	11	-	22	12	**45**
Carmarthenshire	-	-	-	88	273	164	**525**
Neath Port Talbot	-	-	-	2	6	5	**13**
Pembrokeshire	-	-	-	1,002	139	65	**1,206**
SBCD Area Total	-	-	11	1,092	440	246	1,789
Total public sector investment to connect these premises							
Swansea	-	-	£1,375.00	-	£16,064.00	£14,196.00	£31,635.00
Carmarthenshire	-	-	-	£148,676.00	£205,622.00	£194,012.00	£548,310.00
Neath Port Talbot	-	-	-	£7,000.00	£4,667.00	£5,915.00	£17,582.00
Pembrokeshire	-	-	-	£833,850.28	£107,971.00	£76,895.00	£1,018,716.28
SBCD Area Total	-	-	£1,375.00	£989,526.28	£334,324.00	£291,018.00	£1,616,243.28
Note: Totals may not sum due to rounding.							

Table 11: Public Sector Investment in Fixed Connectivity FY2023-24 (Source: SBCD)

CASE STUDY: EXPANDING IOT CONNECTIVITY ACROSS THE SWANSEA BAY CITY REGION

As part of the programme's ambition to be a smart region, ready and able to innovate and adopt emerging technology - Welsh Government, WLGA, the Digital Infrastructure Programme and the four local authorities across the region have invested in LoRaWAN sensors and the installation of 240 gateways to trial IoT use cases, which form the Digital Innovation Network.

The Digital Innovation Network lays the foundation for data-driven solutions that improve efficiency, drive innovation, and reduce costs. Over the past year, the programme has invested £98,000 to support this initiative, installing 86 new gateways in key locations, significantly expanding the network's coverage and enabling local authorities to trial new IoT applications.

This growing network is enabling several public sector use cases, including:

Smart Waste Management in Swansea

Swansea Council has successfully piloted a SMART bins project, using IoT sensors to monitor bin capacity levels in real time. With a large number of bins across the city, the council were looking for effective ways to manage their operations to reduce cost and better inform routes. Data from these sensors has enabled the team to plan collections more efficiently, ensuring bins are emptied only when necessary. Unnecessary journeys have been reduced, fuel costs lowered, and resources freed up for other essential services. Following the pilot's success in the marina, the Council is now considering adopting the same approach in the Gower, where there are fewer bins which may fill up at varying rates depending on the season. Using data to inform collection routes and account for seasonal changes could significantly enhance efficiency.

Monitoring life buoys in Carmarthenshire

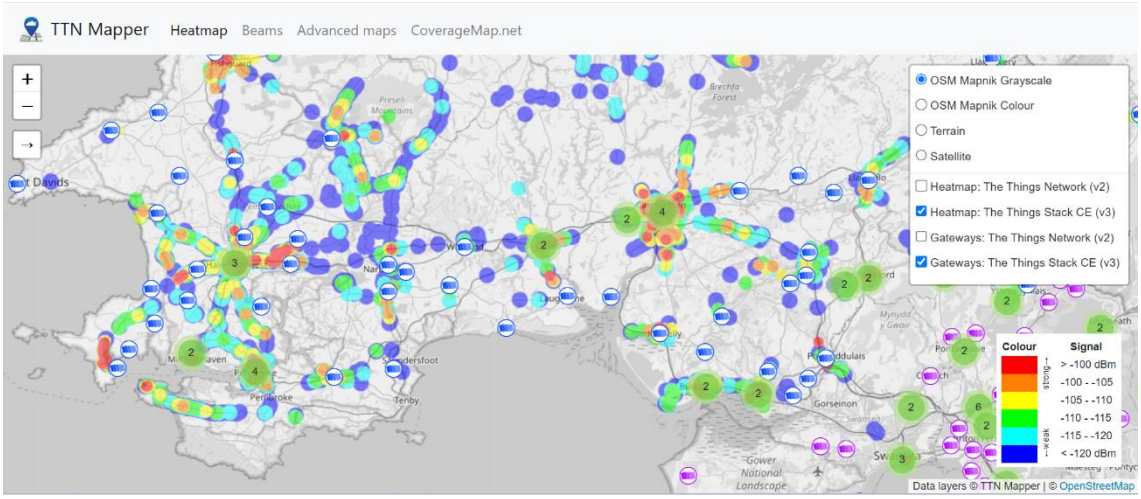
At Llyn Llech Owain, Carmarthenshire County Council has deployed LoRaWAN sensors on life buoys to tackle vandalism and anti-social behaviour. These sensors alert relevant teams when a buoy is accessed, which ensures that teams can investigate quickly. This proactive approach is improving public safety while ensuring that life-saving equipment remains available when needed.

Smart Car Park Management in Neath Port Talbot

Neath Port Talbot Council has piloted IoT sensors to monitor occupancy at a multi-storey car park in Neath town centre. Led by the parking facilities team, the project aims to provide greater visibility of vehicle usage, enabling more effective operational planning. Real-time data allows the team to analyse demand, adjust opening hours, and enhance parking enforcement. It also provides councillors with valuable insights into car park usage and profitability, supporting informed decision-making and efficient management.

The adoption of cost effective IoT solutions is transforming public sector operations across the region through:

- Improving Efficiency - Real-time data allows for smarter, evidence-based decisions, reducing the need for manual checks and improving service delivery.
- Cost Savings - Optimising resources has already resulted in reductions in fuel consumption, maintenance costs and operational inefficiencies through the SMART bins project which can be replicated across other areas of the region.
- Sustainability - Reducing unnecessary vehicle trips and improving resource management also supports the region's net zero ambitions, ensuring the public sector strives for sustainability.



By embracing new technology and new ways of working, the Digital Innovation Network is helping local authorities modernise services and cut costs.

3.2.2. Private Investment

Table 12 provides information on the Private Sector investment made in fixed connectivity improvements in the four Local Authority areas, and the overall total within the SBCD area in FY2023-24.

FY2023-24	VMO2	Openreach	Netomnia	Ogi	WeFibre	Total Investment
Swansea	£5,315,000.00	-	£12,945,000.00	-	-	**£18,260,000.00**
Carmarthenshire	-	£1,920,000.00	£2,105,000.00	-	£65,000.00	**£4,090,000.00**
Neath Port Talbot	£2,050,000.00	£950,000.00	£4,470,000.00	-	-	**£7,470,000.00**
Pembrokeshire	-	£3,830,000.00	-	£8,960,000.00	-	**£12,790,000.00**
SBCD Region	£7,365,000.00	£6,700,000.00	£19,520,000.00	£8,960,000.00	£65,000.00	£42,610,000.00
Note: Figures have been rounded to the nearest £5,000. Totals may not sum due to rounding.						

Table 12: Summary of Private Sector Investment in Fixed Connectivity in FY2023-24 (Source: FarrPoint)

3.3 Mobile Connectivity

Table 13 provides information on the public and private investment made in mobile connectivity improvements in the four Local Authority areas, and the overall total in the SBCD area in FY2023-24.

	SBCD	Public Sector	Private Sector	Total
Swansea	-	-	£700,000	£700,000
Carmarthenshire	-	£1,000,000	£1,450,000	£2,450,000
Neath Port Talbot	-	-	£200,000	£200,000
Pembrokeshire	-	-	£150,000	£150,000
SBCD Area Total	-	£1,000,000	£2,500,000	£3,500,000
Note: Figures have been rounded to the nearest £5,000. Totals may not sum due to rounding.				

Table 13: Summary of Public and Private Sector Investment in Mobile Infrastructure in FY2023-24 (Source: FarrPoint)

3.4 Summary of Investment

Table 14 summarises the overall SBCD, Public Sector and Private Sector investment in the four Local Authority areas in digital connectivity, as well as in the SBCD area in FY2023-24.

	SBCD	Public Sector	Private Sector	Total
Swansea	£327,124.32	£31,635.00	£18,960,000	**£19,318,759.32**
Carmarthenshire	£338,603.19	£1,548,310.00	£5,540,000	**£7,426,913.19**
Neath Port Talbot	£352,745.38	£17,582.00	£7,670,000	**£8,040,327.38**
Pembrokeshire	£350,977.37	£1,018,716.28	£12,940,000	**£14,309,693.65**
SBCD Area Total	£1,369,450.26	£2,616,243.28	£45,110,000	£49,095,693.54
Note: Totals may not sum due to rounding.				

Table 14: Summary of Total Investment in Digital Infrastructure in FY2023-24 (Source: FarrPoint)

Table 15 gives a timeline of total investment in digital connectivity to date in each of the Local Authority areas and SBCD region.

	FY2021-22	FY2022-23	FY2023-24	FY2024-25	FY2025-26	FY2026-27	Total
Swansea	£6,902,793.17	£7,826,689.02	£19,320,000.00	tbc	tbc	tbc	**£34,049,482.19**
Carmarthenshire	£11,130,844.05	£8,111,338.49	£7,426,913.19	tbc	tbc	tbc	**£26,669,095.73**
Neath Port Talbot	£3,802,613.88	£8,891,822.02	£8,040,327.38	tbc	tbc	tbc	**£20,734,763.28**
Pembrokeshire	£7,574,862.64	£11,645,291.92	£14,309,693.65	tbc	tbc	tbc	**£33,529,848.21**
SBCD Area Total	£29,411,113.74	£36,475,141.45	£49,095,693.54	tbc	tbc	tbc	£114,981,948.73
Note: Totals may not sum due to rounding.							

Table 15: Time series of Total Investment in Digital infrastructure in current prices (Source: FarrPoint)

3.5 Comparison with Programme Business Case

Table 16 compares the projected digital investment figures from the SBCD Digital Infrastructure Programme Business Case (March 2022) with the outturn data from the impact studies to date.

FY2021-22 Prices	FY2021-22	FY2022-23	FY2023-24	FY2024-25	FY2025-26	FY2026-27	Total
Actual Digital Infrastructure Programme Investment from FarrPoint Analysis							
SBCD	£846,790.80	£1,208,580.72	£1,369,450.26	tbc	tbc	tbc	£3,424,821.78
Public Sector	£6,754,322.94	£3,596,560.73	£2,616,243.28	tbc	tbc	tbc	£12,967,126.95
Private Sector	£21,810,000.00	£31,670,000.00	£45,110,000.00	tbc	tbc	tbc	£98,590,000.00
Total	£29,411,113.74	£36,475,141.45	£49,095,693.54	tbc	tbc	tbc	£114,981,948.73
Projected Digital Infrastructure Programme Investment from SBCD Digital Infrastructure Programme Business Case							
SBCD	£532,070	£8,402,392	£8,402,392	£6,402,392	£902,392	£358,364	**£25,000,000**
Public Sector	£2,350,000	£2,700,000	£2,700,000	£2,700,000	£2,700,000	£350,000	**£13,500,000**
Private Sector	-	£6,500,000	£4,500,000	£4,500,000	£1,000,000	-	**£16,500,000**
Total	£2,882,070	£17,602,392	£15,602,392	£13,602,392	£4,602,392	£708,364	£55,000,000
Projected Digital Infrastructure Programme Investment from Updated SBCD Digital Infrastructure Programme Appraisal							
SBCD	£450,000	£390,000	£830,000	£2,780,000	£12,690,000	£7,860,000	**£25,000,000**
Public Sector	£7,400,000	£3,600,000	£4,330,000	£5,710,000	£20,950,000	£19,980,000	**£61,970,000**
Private Sector	£23,660,000	£32,500,000	£29,050,000	£30,000,000	£35,470,000	£30,950,000	**£181,630,000**
Total	£31,210,000	£36,490,000	£34,210,000	£38,490,000	£69,110,000	£58,790,000	£268,600,000
Note: Totals may not sum due to rounding.							

Table 16: Comparison with Actual and Projected Digital Infrastructure Programme Investment Overview in current prices (Source: FarrPoint and SBCD Digital Infrastructure Programme Business Case, SBCD Digital Infrastructure Programme Economic Impact Appraisal)

CASE STUDY: DIGITAL CHAMPIONS

The Digital Infrastructure Programme has funded two Digital Champions in each local authority to facilitate the deployment of digital infrastructure at a local level across the Swansea Bay City Region.

Driven by recommendations from UK Government's Department of Culture, Media and Sport's Barrier Busting Handbook and recognised as best practise by Welsh Government's Barrier Busting Task Force, the programme has led the way with its team structure by becoming the first region in Wales to appoint a dedicated team of Digital Champions to work directly with suppliers and local communities.

The programme's digital champions act as the first point of contact for suppliers, UK and Welsh Government, internal departments, residents and businesses and have been central to the programme's progress since its inception in 2021.

The Digital Champions have two distinct roles. The Digital Connectivity Relationship Managers facilitate the deployment of both fixed and mobile infrastructure in their respective counties. Working across all key stakeholders, their role as a single point of contact, helps to identify and minimise barriers for suppliers. They lead a "Barrier Busting Working Group," which provides a space for internal departments to address any challenges, ensuring projects progress efficiently and fostering a culture that recognises the value of connectivity.

Our Broadband Engagement Officers are on-hand to support residents and business owners who are often frustrated with the poor quality of their current broadband and are unsure of their options. The team has undertaken extensive engagement work in the region's most poorly connected communities - listening to concerns and offering impartial advice on alternative technologies, voucher schemes and updates on planned deployment in the local area.

The Digital Champions play a vital role in shaping the programme's direction at a local level, ensuring it aligns with the evolving needs of communities and businesses. By engaging with key stakeholders, gathering insights, and identifying opportunities, they help tailor initiatives that drive digital inclusion, economic growth, and innovation. Their efforts support the seamless deployment of digital infrastructure, enabling local authorities to address connectivity challenges, enhance public services, and create a more resilient and future-ready region.

4. Key Findings

The key findings from the FY2023-24 analysis are:

- In FY2023-24, there was £49.1 million of investment in digital connectivity in the SBCD region, up from the previous year (£36.5 million), driven by continued strong private sector investment in the region.
- There have been significant improvements in both fixed and mobile digital connectivity across the SBCD region. On the fixed side, the nationwide roll out of fibre infrastructure meant that Gigabit connectivity has increased to 71.9% in 2023-24 (up 10.5% over the year), with Superfast connectivity up to 95.4% (up 0.4% over the year). For mobile connectivity there were significant improvements across the region in both 4G and 5G. In particular, there were decreases in 4G notional not-spots in Swansea, Carmarthenshire and Neath Port Talbot, with the geographic percentage covered by all 4 networks increasing across the region.
- Investment by the Swansea Bay City Deal team in 2023-24 was £1.4 million. This means that just over £3.4 million out of the total £25.0 million has been utilised by the programme to date. This investment is largely driven by revenue expenditure on Digital leads in each of the Local Authorities to engage with the market and support both public and private investment across the region.
- Wider public sector investment, through vouchers and other Government digital programmes, has decreased to £1.6 million in FY2023-24. This is due to reduction in ABC Vouchers and Superfast Cymru programmes ahead of the investment in the Project Gigabit programme. There was also continued investment in the EAS and SRN programmes in Carmarthenshire in FY2023-24.
- Finally, Private Sector investment was £45.1 million in FY2023-24, up from £31.7 million the year before. This was particularly driven by investment from all active suppliers in the region, with notable increases from Netomnia (£19.5 million) and Ogi (£9.0 million). In addition, the improvement in mobile connectivity has been driven by increased private investment (£3.5 million) leading to improvements and installations of 25 sites.

Version Control

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1.0	Issued	MIL	SS	RP	MIL	24/02/25
1.1	Inclusion of Case Studies	MIL	SS	RP	MIL	03/03/25
1.2	Client Comments	MIL	SS	RP	MIL	20/03/25
1.3	Minor amends	MIL	SS	RP	MIL	20/04/25
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