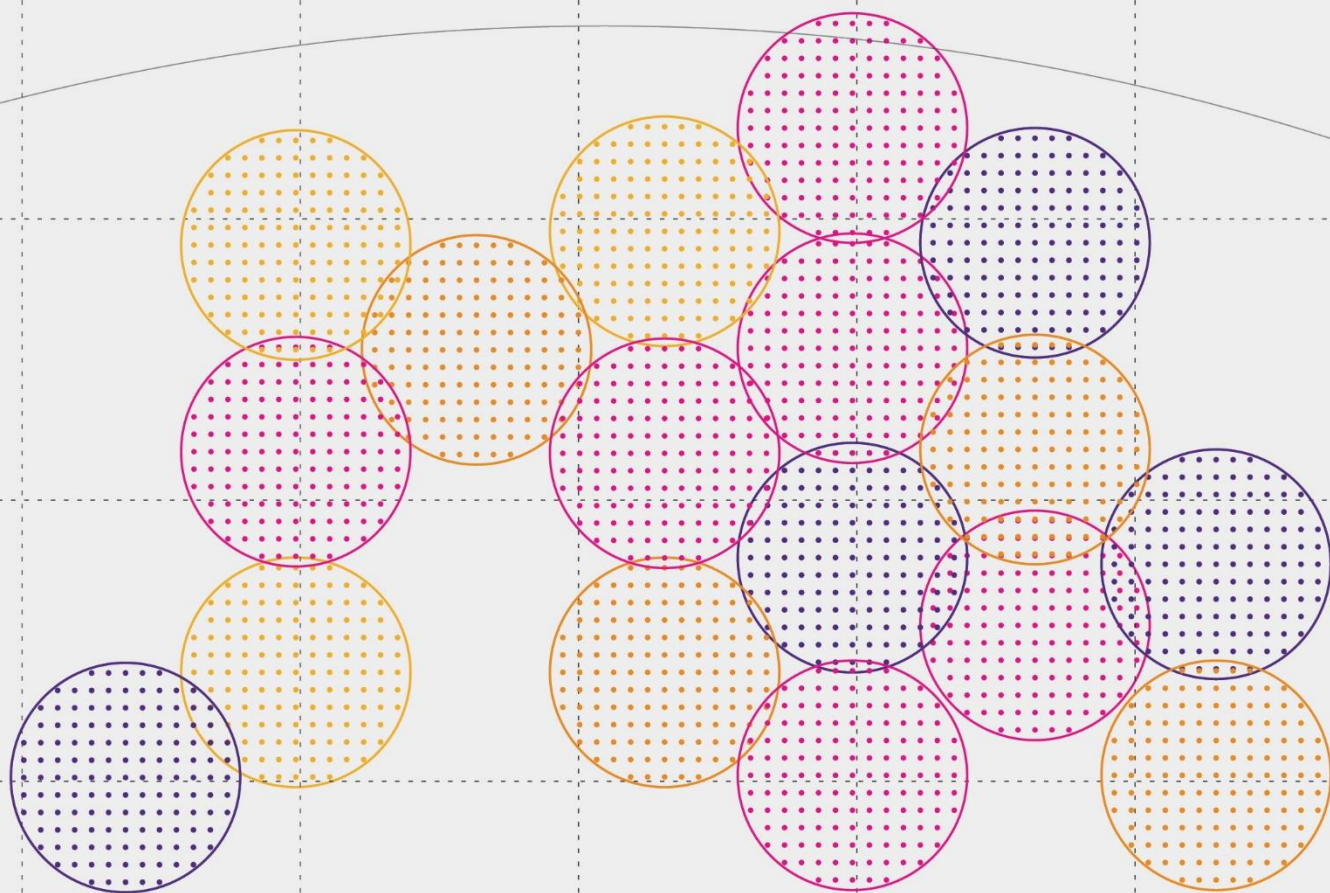




Understanding the barriers to digital connectivity in Cheshire and Warrington Final Report

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Summary

This Report sets out the conclusions of our project *Understanding the Barriers to Digital Connectivity*.

The project was undertaken to help the Cheshire and Warrington Local Enterprise Partnership (LEP) develop its understanding of the barriers to digital connectivity, take-up and usage in Cheshire and Warrington; and to identify and prioritise interventions to reduce or overcome them. The project has been structured in two stages. Stage 1 included research into barriers to connectivity, take-up and usage. The findings from Stage 1 were documented in a Position Paper presented to the LEP in March 2023.¹ This report completes the project by setting out recommendations to reframe and refresh digital strategies in the LEP as appropriate.

Our research analysed barriers to connectivity, take-up and usage of digital services arising from:

- connectivity gaps, i.e. barriers driven by lack of available infrastructure (supply side barriers); and
- usage gaps, i.e. barriers driven by non-usage or low usage of available connections and technology even where connectivity is available (demand side barriers).

Barriers to connectivity

Our findings and recommendations to address supply-side barriers to connectivity are included in Section 2.

Overall we found good levels of connectivity available in the sub-region. However, there is evidence of gaps and some participants in our research reported poor experiences.

Initiatives are in place to deliver new or upgraded infrastructure to improve connectivity, as discussed in Section 2.

We recommend the following activities to enhance the ability of local stakeholders to identify and coordinate infrastructure development opportunities, and to help measure and track outcomes from initiatives to improve connectivity.

Figure 1: Recommendations to help address barriers to connectivity

Objective	Recommended activity
Gather regular data on infrastructure and connectivity	Regular tracking of available data on infrastructure and connectivity (e.g. from the Ofcom Connected Nations Reports)
Gather supplementary data on consumer and business user experience of connectivity	Consider primary research to investigate consumer and business user experience
Coordination of infrastructure projects	Together with Connecting Cheshire, the Local Authorities and other stakeholders in the sub-region, the LEP to consider whether there are opportunities for improved coordination between infrastructure projects in the sub-region and deployment of digital infrastructure

¹ <https://cheshireandwarrington.com/media/z2znva2m/barriers-to-digital-connectivity-and-engagement-in-cheshire-and-warrington-final-position-paper.pdf>

Barriers to take-up and usage

Our findings and recommendations to address demand-side barriers to connectivity are included in Section 3.

There are demand-side barriers to connectivity and use for citizens and businesses in Cheshire and Warrington. These are likely to be similar to those at the national level because Cheshire and Warrington does not exhibit substantially different demographic and socioeconomic characteristics to the UK as a whole. The key demand-side barriers in the sub-region are likely to be a lack of digital skills, affordability and attitudinal factors.

Initiatives are in place to address demand-side barriers, as discussed in Section 3. We recommend the following activities to enhance these.

Figure 2: Recommendations to help address barriers to take-up and usage

Objective	Recommended activity
Improve coordination of work on take-up and usage of digital services across the sub-region	Establish a regular forum linking ground level initiatives and stakeholders across the sub-region
Targeting of remedies to the causes of barriers to take-up and usage in each neighbourhood	Income and skills analysis in LSOAs with IUC rating 7,8,9 or 10. This may be developed in collaboration with Cheshire and Merseyside NHS, incorporating their Digital Exclusion Heatmap Tool
Develop a dataset from which the LEP and stakeholders can establish a baseline and track progress on take-up and usage of digital services	<ol style="list-style-type: none"> 1. Gather and consolidate data from agencies in the sub-region to measure activity to improve take-up and usage 2. Consider commissioning of primary research to capture baseline and time series data to track take-up and usage outcomes across the sub-region

KPIs

A deliverable for the project was the development of key performance indicators (KPIs). We have developed recommendations for KPIs to enable the LEP and other stakeholders to track progress against objectives to improve connectivity, take-up and usage of digital services. The recommended KPIs are intended to measure outcomes resulting from work across a broad range of stakeholders. Their delivery is not within the control of any single organisation, and hence the KPIs are not organisational performance measures.

Potential KPIs are set out in Section 4 of this document.

In some cases, robust data to establish baseline performance and changes going forward are not available. In those cases, we make recommendations for the LEP to consider new primary research to establish a dataset for measurement. Our recommendations on KPIs are shown below.

Figure 3: Recommendations for KPIs

Objective	Recommended activity
Set KPIs to measure progress against addressing infrastructure barriers	See potential KPIs in Section 4.3
Set KPIs to measure progress against addressing demand side barriers to connectivity, take up and usage of digital services	See potential KPIs in Section 4.3
	Consider new research to establish baseline and eventually time series of data
Gather evidence not captured by aggregated quantitative data	Establish a method for sharing insights, case studies and best practice amongst the stakeholder network

1 Introduction

This Report sets out the conclusions of the project *Understanding the Barriers to Digital Connectivity*. Plum Consulting and our partners, i2 Media Research, were commissioned by the Cheshire and Warrington Local Enterprise Partnership (LEP) to undertake this study in December 2022.

The objectives of the research and the study were for the LEP to:

1. develop its understanding of the barriers to digital connectivity, take-up and usage in Cheshire and Warrington; and
2. identify and prioritise interventions to reduce or overcome them.

We completed Stage 1 of the project, and our findings were published in a Position Paper.²

In this Report we complete the project by setting out recommendations, based on evidence, to reframe and refresh digital strategies in the LEP as appropriate.

The conclusions of the Report add to and complement pre-existing work by the LEP and other stakeholders in the sub-region.

1.1 Review of existing documents and strategies

The project included review of existing plans, reports and strategies in the LEP. Documents in scope of this review were:

- The LEP Delivery Plan;³
- The Strategic Economic Plan;⁴
- The Skills Report 2022;⁵
- The Digital Infrastructure Plan;⁶ and
- The Digital Strategy.⁷
- Digital Skills in Cheshire and Warrington 2022 Report;⁸

The last three of these are particularly relevant.

The Cheshire and Warrington Digital Strategy, published by the LEP in 2019 established the overarching strategy and framework to realise digital opportunities in the sub-region.

² <https://cheshireandwarrington.com/media/z2znva2m/barriers-to-digital-connectivity-and-engagement-in-cheshire-and-warrington-final-position-paper.pdf>

³ https://cheshireandwarrington.com/media/ixufejlx/lep220526-p1_1080d-05.pdf

⁴ <https://cheshireandwarrington.com/media/qvhhspzh/strategieconomicplan.pdf>

⁵ <https://cheshireandwarrington.com/media/jhtnqy2u/skills-report-2022.pdf>

⁶ <https://cheshireandwarrington.com/media/2lacsjdo/cwl1d2v2-0-digital-infrastructure-plan-final-report-issued.pdf>

⁷ https://cheshireandwarrington.com/media/t5ri5s1p/cheshire-and-warrington-digital-strategy_2019.pdf

⁸ <https://cheshireandwarrington.com/media/3m3jwhaz/digital-skills-in-cheshire-and-warrington-october-2022-report.pdf>

The LEP's vision for digital infrastructure is set out in its Digital Infrastructure Plan 2020 - 2025. In this document the LEP is clear that it sees digital infrastructure as central to prosperity and economic success in the sub-region, and therefore also to future prospects. The Plan has four strategic objectives:

- **Objective 1:** Enable gigabit capable infrastructure across the C&W LEP sub-region, with particular focus on delivery to priority/gap areas, through leveraging commercial and government investment programmes that promote services delivered at a fair price and through an open network infrastructure that attracts a wide variety of retail service providers.
- **Objective 2:** Address areas of coverage inconsistencies and speed/service inequalities in recognition of changing work patterns, a mobile workforce, reliance on connectivity and the convergence of fixed/mobile technologies.
- **Objective 3:** Adopt/strengthen a consistent barrier busting approach to digital policy.
- **Objective 4:** Drive adoption of digital connectivity by increasing participation/skills and take-up of services.

The Plan also sets out measures to meet these objectives.

The Digital Skills in Cheshire and Warrington Report 2022 provides information on digital skills in the sub-region for local employers and their communities, and information and guidance for individuals, support services, and other stakeholders.

1.2 Relationship of this report to the existing documents and strategies

The output of this project and findings of our research do not replace the pre-existing framework, rather they build on and complement it. Through this work we aim to enhance the LEP's capability to deliver against its objectives, and to measure progress.

In the Position Paper prepared in Stage 1 of this project, we set out an assessment of digital connectivity, take-up and usage in the sub-region based on the available evidence. We provided coverage information to update that contained in the Digital Infrastructure Plan.

On take-up and usage, there was less information available to us at the sub-regional level for the study. Therefore, we used national data and cross-referenced this to demographic and socioeconomic data from the sub-region to identify demand side barriers to take-up and use of digital services. This enables us to create a profile for each neighbourhood (Lower layer Super Output Area – LSOA) which can be used for targeting remedies to the barriers which are most prominent locally.

Our partners, i2 Media Research also carried out primary research to help understand barriers to take-up and usage of digital services.

We have used the new data and our findings to supplement the conclusions of the LEP's existing approach as set out in the Digital Strategy and Digital Infrastructure Plan.

1.3 Review of activities driving take-up and usage of digital services in other LEPs and Local Authorities

As additional research in Stage 2 of the project, we conducted interviews with other LEPs and agencies concerned with addressing barriers to connectivity, take-up and usage of digital services. We wanted to understand what initiatives are in place elsewhere in the UK, and what could be learned from them by the Cheshire and Warrington LEP.

This exercise included interviews with colleagues from the Cornwall and Isles of Scilly LEP, Lancashire LEP, the Solent LEP and Catalyst South Region, and the West Midlands Combined Authority LEP. Each of these LEPs also coordinates a Local Digital Skills Partnership (LDSP) linking local stakeholders and providing valuable support on digital skills and education. We also spoke to 100% Digital Leeds. We thank all of these colleagues for their time, and for their valuable and expert insights.

Some key themes we took away from the interviews include:

- Distinctions between related concepts, including between digital exclusion and a lack of digital skills.
- The need to design and execute different interventions accordingly.
- For initiatives addressing digital exclusion to succeed, the motivation for individuals to address resistance to digital technology needs to be greater than the level of resistance.
- Local and community organisations, including third sector stakeholders are sometimes best placed to reach excluded individuals and understand their needs.
- Digital exclusion is dynamic, people can fall in and out of it.
- High level quantitative KPIs are not suitable for capturing individual experiences.

2 Recommendations for refreshed strategies and activities to address connectivity gaps

In the Position Paper prepared in Stage 1 of this project, we set out an assessment of digital connectivity in the sub-region.

2.1 Connectivity overall

We identified good levels of connectivity available in the sub-region.

- There are reasonable levels of coverage for fixed “superfast” broadband across Cheshire and Warrington (where superfast is defined as a broadband connection with download speed of 30 Mbps or above).
- There is above UK-average coverage of direct fibre connectivity in Cheshire West and Chester. By the same measure, Cheshire East lags behind the national average, but recent deployments have narrowed this gap.
- Urban Warrington has low direct fibre penetration, but high penetration of cable capable of delivering gigabit speeds.
- Cheshire West and Chester, and Warrington are performing slightly better than the UK average in terms of a lower percentage of premises unable to achieve a download speed of at least 10 Mbps. Performance in Cheshire East is equal to the UK average. (Under the Universal Service Obligation, every UK household and business has a right to a broadband connection with a download speed of at least 10 Mbps and upload speed of 1 Mbps. BT is required to provide the USO in the sub-region under conditions and directions made by Ofcom.⁹)
- There is good 4G mobile coverage across the region, comparable data on 5G coverage are unavailable.

Whilst we found good reported availability of connectivity overall, there are gaps, and the reported data does not match all the evidence of consumer experience gathered in our research. Our primary research in Stage 1 uncovered new evidence on this: a number of participants in our research groups identified poor experiences. In our Position Paper we also reported Ofcom data on business user experience showing that business users in the North West are less satisfied than the national average with Internet performance and mobile signal strength.

Data are available from a number of sources to identify areas of weak connectivity or coverage to a fairly granular level.¹⁰

Opportunities exist to address these through national infrastructure programmes, and the LEP together with other sub-regional stakeholders continue to leverage these. Connecting Cheshire¹¹ has a leading role in this work.

⁹ https://www.ofcom.org.uk/_data/assets/pdf_file/0018/202383/universal-service-conditions-and-directions-unofficial-consolidated-version.pdf

¹⁰ For example, post code level checkers are available from Ofcom and Think Broadband.

¹¹ Connecting Cheshire is a Partnership of four local authorities across Cheshire is made up of Cheshire East, Cheshire West and Chester, Halton and Warrington borough councils. The Partnership was established to deliver fibre broadband to areas hitherto outside the commercial deployment of fibre broadband

2.2 Current strategic approach to connectivity gaps

The LEP has a strategic approach in place to address connectivity gaps. This are set out in the Digital Infrastructure Plan. In Figure 2.1 we report the current status of relevant activities against the milestones identified in the Digital Infrastructure Plan to track progress against the strategic objectives.

Figure 2.1: Milestones in the Digital Infrastructure Plan

Digital Infrastructure Plan target measures to address connectivity gaps	Current Status
Outcome of the Connecting Cheshire extended NGA Broadband and Gigabit access procurement	Delivery of ultrafast connectivity under past contracts with Openreach and the current contract with Airband Gigabit vouchers are also deployed in the sub-region
Project Gigabit/Outside In programme, the Rural Gigabit Connectivity programme (2021) and any additional funding announcements leveraged in line with targets within the period of this Digital Infrastructure Plan (2025)	Work on procurement for a Project Gigabit contract for Cheshire is underway. DSIT anticipates that the contract will be awarded early in 2024 ¹²
Shared Rural Network (SRN) Programme	This is monitored, and is not expected to be significant in the sub-region
Alignment and coordination of policies and processes related to deployment of digital infrastructure across the C&W LEP sub-region	There are potential opportunities for wider awareness of local infrastructure projects which may present opportunities for digital infrastructure deployment
Comprehensive list of assets and strategic case	Asset mapping is carried out according to need and available funding, for example the recent Farrpoint study of mobile connectivity on transport routes ¹³
Collaboration with neighbouring regions on digital infrastructure projects	Case-by-case evaluation
Pipeline of digital infrastructure projects	Connecting Cheshire evaluates areas for potential future focus and development, for example smart cities, infrastructure supporting agriculture

In the Stage 1 Position Paper we also noted developments since the Digital Infrastructure Plan was created, including plans in place to improve digital connectivity, for example, expansion of fibre connectivity through planned "Project Gigabit" procurement.¹⁴ This is in keeping with the LEP's strategic objectives as set out in the Digital Infrastructure Plan. Ultrafast connectivity (in this case, gigabit) is a future proof strategy, designed to meet demand for future industrial and domestic use cases. It is therefore appropriate for the LEP, together with other stakeholders, to pursue this objective.

Overall, the LEP's strategic objectives and approach to digital connectivity remain appropriate. There continues to be a need to coordinate activities in this area with other stakeholders. In particular, on digital connectivity, we note that Connecting Cheshire plays a key role in tandem with the LEP. Coordination may extend to working on

¹² <https://www.gov.uk/government/publications/project-gigabit-delivery-plan-winter-update-2022-to-2023/project-gigabit-winter-update-2022-to-2023#project-gigabit-procurement-pipeline>

¹³ <https://www.farrpoint.com/news/mobile-coverage-map-cheshire>

¹⁴ Project Gigabit is the government's programme to enable hard-to-reach communities to access gigabit-capable broadband - <https://www.gov.uk/guidance/project-gigabit-uk-gigabit-programme>

infrastructure projects in the sub-region outside the sector, for example transport, housing or business part projects. These may present opportunities to coordinate digital infrastructure deployment.

2.3 Tracking connectivity performance

Data are available from a number of sources to enable the LEP and other stakeholders to continue to track infrastructure and connectivity in the sub-region. These are listed in Figure 2.2.

Figure 2.2: Data sources to track infrastructure and connectivity performance in the sub-region

Metric	Source(s)	Geography
4G coverage (% premises)	Ofcom Connected Nations	County, local authority
5G coverage (% premises)	Ofcom Connected Nations	County, local authority
% premises covered by a gigabit-capable network	Ofcom Connected Nations	County, constituency
% premises covered by at least 1 full fibre network	Ofcom Connected Nations	County, constituency
% premises covered by cable network	ThinkBroadband	County, constituency, postcode
% premises unable to achieve a download speed above 10 Mbps	Ofcom Connected Nations	County, constituency

These data sources enable performance to be tracked regularly. The Ofcom Connected Nations and Infrastructure Reports are updated twice every year, ThinkBroadband data are updated in real time, and contemporaneous data are also available through coverage checkers provided by each of the operators.

In addition, supplementary data can be collected for deeper dive analysis, for example, in areas where consumers have experienced poor quality connectivity. This will allow more granular mapping of connectivity gaps and hence targeting of initiatives to address them. We note that Connecting Cheshire has recently completed a survey of mobile connectivity on transport routes, carried out by the connectivity consultancy, Farrpoint.¹⁵ Further exercises to technically measure connectivity and network coverage may be used to analyse local connectivity in future, including for close examination of areas where consumers or businesses have experienced problems.

2.4 Consumer and business user experience

Our Stage 1 research for this study included some evidence that consumer experience does not always match reported performance data. Specifically:

- Participants in the research groups run by i2 Media research reported some bad experiences.¹⁶

¹⁵ <https://digital-cheshire.co.uk/mobile-connectivity/>

¹⁶ See the Stage 1 Report, Appendix A <https://cheshireandwarrington.com/media/z2znva2m/barriers-to-digital-connectivity-and-engagement-in-cheshire-and-warrington-final-position-paper.pdf>

- Ofcom research on the SME consumer experience found that SMEs in the North-West region are less likely than the UK average to be satisfied with some aspects of their Internet connection and mobile coverage.¹⁷

There is potential benefit in gathering further evidence on consumer and business user experience. This could be used to supplement infrastructure data and give the LEP access to evidence on the demand side to help identify coverage gaps and/or locations where further investigation is needed. The LEP conducts periodic research, including their Growth Hub Survey, which could be used for this. The LEP may also consider further primary research on the consumer experience of connectivity and coverage.

2.5 Recommendations to refresh the strategic approach on digital connectivity

We note that Connecting Cheshire is the lead agency for the key initiatives to improve connectivity, for example the planned Project Gigabit contract for Cheshire, and that a strategic approach to connectivity is in place as set out in the Digital Infrastructure Plan.

We recommend the following activities to supplement the existing strategic approach.

Figure 2.3: Recommendations to refresh the strategy to address connectivity gaps

Objective	Recommended activity
Gather regular data on infrastructure and connectivity	Regular tracking of available data on infrastructure and connectivity (e.g. from Ofcom Connected Nations)
Gather supplementary data on consumer and business user experience of connectivity	Consider primary research to investigate consumer and business user experience
Coordination of infrastructure projects	Together with Connecting Cheshire, the Local Authorities and other stakeholders in the sub-region, the LEP to consider whether there are opportunities for improved coordination between infrastructure projects in the sub-region and deployment of digital infrastructure

¹⁷ https://www.ofcom.org.uk/_data/assets/pdf_file/0026/245078/SME-consumer-experience-in-the-communications-market-2022-.pdf

3 Recommendations for refreshed strategies and activities to address take-up and usage gaps

In the Position Paper, we analysed barriers to take-up and usage of digital services in the sub-region. We looked at factors which affect take-up and usage. Whilst comprehensive data at sub-regional level are not available to assess these barriers in all cases, we used a number of other data sources to develop an analysis.

3.1 Conclusions on take-up and usage

There are demand-side barriers to connectivity and usage for citizens and businesses in Cheshire and Warrington. These are likely to be similar to those at the national level (Cheshire and Warrington does not exhibit substantially different demographic and socioeconomic characteristics to the UK as a whole). The key demand-side barriers in the subregion are likely to be a lack of digital skills, affordability and attitudinal factors.

Initiatives are in place to address demand-side barriers. There is less linkage between these and national work to address demand-side barriers than there is between local infrastructure policy and national programmes to address connectivity gaps. This is because the UK government has larger programmes in place to build and extend infrastructure than it does to address take-up and usage gaps. For example, Project Gigabit has nationwide coverage with contracts and funding available in areas that meet the criteria anywhere in the country, so local stakeholders have opportunities to seek funding or other types of support from national programmes.

3.2 Current approach to take-up and usage gaps

The LEP has a strategic approach in place to address take-up and usage gaps. This are set out in the Digital Infrastructure Plan. In Figure 3.1 we report progress against the milestones identified in the Digital Infrastructure Plan to track progress against the strategic objectives.

Figure 3.1: Milestones in the Digital Infrastructure Plan

Digital Infrastructure Plan target measures to address take-up and usage gaps	Current Status
Increased digital skills and participation	Activity coordinated by the Local Digital Skills Partnership, and undertaken by other stakeholders. For example: <ul style="list-style-type: none"> • Community digital learning hubs • The STREAM programme • Connecting Cheshire business support • Cheshire and Warrington Skills Bootcamps
Increased adoption of digital connectivity services	Activity coordinated by the Local Digital Skills Partnership, and undertaken by other stakeholders. For example: <ul style="list-style-type: none"> • Local Growth Fund skills projects • Good Things Foundation – Everyone Connected (formerly Devices Dot Now) • Department for Education funded devices for young people

There is significant activity in the sub-region to drive and encourage take-up and use of digital services where there are gaps.

The Cheshire and Warrington Local Digital Skills Partnership (DSP), in which the LEP has a coordinating role, is an important part of this. The Cheshire and Warrington Local DSP is one of eight Local DSPs working in different areas of the country.¹⁸ Local DSPs are partnerships between government, business and third sector stakeholders to improve digital skills and capability. The Cheshire and Warrington Local DSP is focused on improving digital skills across the sub-region with a particular emphasis on young people, the unemployed, and economically inactive citizens.

More information on the Cheshire and Warrington Local DSP, the activities it coordinates, and the work of other agencies is contained in the Stage 1 Position Paper.

3.3 Tracking take-up and usage performance

Data at the sub-regional level to measure and track take-up and usage of digital services is not available. As demonstrated in the Position Paper, we are able to combine demographic data for the subregion with national data on demographic data to build a picture of digital engagement in Cheshire and Warrington.

Examples of data available for this are summarised in Figure 3.2.

¹⁸ See <https://www.gov.uk/guidance/digital-skills-partnership>

Figure 3.2: Data sources to analyse take-up and usage of digital services in the sub-region

Metric	Source(s)	Geography	Notes
% of individuals using internet in the past 3 months	ONS (to 2020) ¹⁹ Lloyds UK Consumer Digital Index	C&W (ONS) National (Lloyds)	Note that data for C&W are only available up to 2020. ONS data discontinued from 2020 on.
Frequency of internet use (e.g. daily, weekly)	ONS (to 2020) ²⁰ Ofcom Technology Tracker ²¹	National (ONS) Regional (Ofcom)	Ofcom reports data at regional level (e.g. North West). ONS data discontinued from 2020 on.
Households with internet access (i.e. do you have internet access at home)	ONS (to 2020) ²² Ofcom Technology Tracker ²³ Ofcom Online Nations Report Restart survey on digital inclusion ²⁴	National (ONS) Regional (Ofcom) Sub-regional (DfE)	ONS data discontinued from 2020 on. Restart participants have completed the digital inclusion survey. It is not clear how often this data will be gathered.
Reasons for not getting internet access at home	Ofcom Technology Tracker ²⁵	National (Ofcom)	
Device ownership	Ofcom Technology Tracker ²⁶	National (Ofcom)	Ofcom reports data at regional level (e.g. North West).
Reasons given for not using the internet in the past 3 months	Lloyds UK Consumer Digital Index ONS Ofcom’s Adults’ Media Literacy Tracker Various surveys (e.g. Age UK)	National (Lloyds, ONS, Ofcom)	
Affordability, take up of social tariffs	Ofcom Affordability of Communications Services ²⁷	National (Ofcom)	
Internet User Classification	Consumer Data Research Centre ²⁸	LSOA ²⁹	Sporadic; not annual

It is also relevant to track digital skills data and more general skills data as this can be useful in assessing digital engagement.

¹⁹ <https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/datasets/internetusers>

²⁰

<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/datasets/internetaccesshouseholdsandindividualsreferencetables>

²¹ https://www.ofcom.org.uk/_data/assets/pdf_file/0022/239431/Tech-Tracker-2022-Main-Data-Tables.pdf (Table 67)

²²

<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/datasets/internetaccesshouseholdsandindividualsreferencetables>

²³ https://www.ofcom.org.uk/_data/assets/pdf_file/0022/239431/Tech-Tracker-2022-Main-Data-Tables.pdf (Table 63)

²⁴ <https://forms.office.com/Pages/AnalysisPage.aspx?AnalyzerToken=GOArCWfhs9WDq6WPD8ejEAIXCluuXXn8&id=8DDcn-gHzk6W5F2u-NR50Zn2rfXbl8Jlt4IBE4bwHaFUOUhDVFFTV0tTSU4yWTA4TDhONDA0MENOTS4u&wdLOR=cB1F48AA6-9166-422A-A88F-874DF94BD96D>

²⁵ https://www.ofcom.org.uk/_data/assets/pdf_file/0022/239431/Tech-Tracker-2022-Main-Data-Tables.pdf (Table 79)

²⁶ https://www.ofcom.org.uk/_data/assets/pdf_file/0022/239431/Tech-Tracker-2022-Main-Data-Tables.pdf (Table 24)

²⁷ https://www.ofcom.org.uk/_data/assets/pdf_file/0019/244513/2022-september-affordability-of-communications-services.pdf

²⁸ <https://data.cdrc.ac.uk/dataset/internet-user-classification>

²⁹ Lower-level super output area.

Figure 3.3: Data sources to analyse digital skills

Metric	Source(s)	Geography	Notes
% of individuals with Foundation Level digital skills	Lloyds UK Consumer Digital Index	Regional	Data reported at regional level (e.g. North West)
Local 'digital capital' index	TechUK	County-level	Combined index. Data reported at Cheshire level.
Adult skills	Index of Multiple Deprivation	LSOA	Measures general skills, not specifically digital skills – however can proxy digital skills.
Enrolments on digital learning schemes	Cheshire and Warrington LEP	C&W	Enrolments on digital learning aims at Entry Level and Levels 1-3
Workplace digital skills	Cheshire and Warrington LEP	C&W	Research into digital skills and occupations across the subregion

Unlike the infrastructure and connectivity data, the available data on take-up and usage of digital services will not allow robust tracking of local outcomes. In the Position Paper we used a combination of national and regional data to produce a picture of take-up and usage in the sub-region. To meaningfully measure changes in take-up and usage and progress against LEP objectives, it will be necessary to identify or generate more precise data for the sub-region. We discuss this further in our recommendations below, and in Section 4 (on KPIs).

3.4 Recommendations to refresh the strategic approach on digital take-up and usage

Our research identified that there are a variety of initiatives driving improved take-up and usage of digital services in the sub-region. These have been and are being delivered by the DSP, the three Local Authorities, and other stakeholders. As stated, our approach is to build on and complement the current strategy and activities.

Current activities include ground-level initiatives helping individuals and groups within local communities. Coordinating and disseminating information about these is key to their success. Ensuring that those who need support know where and how they can get it is a challenging aspect of improving digital take-up and usage in the sub-region. Measuring and tracking outcomes with consistent metrics is a further challenge.

3.4.1 The LEP's role

The LEP is not a front line delivery agency for interventions to improve take-up and usage. However, its remit covering the whole sub-region means it has a platform from which it can enhance work on take-up and usage across the sub-region on collaboration with other stakeholders. Ways in which the LEP can drive take-up and usage outcomes include:

- The LEP as a focal point connecting initiatives and activities across the sub-region.
- Connecting sub-regional stakeholders to relevant work elsewhere, including national work and initiatives in other parts of the UK and overseas.
- Consolidating performance data and input from ground level initiatives to track outcomes.

- New research to track outcomes and/or identify available resources to drive take-up and usage.
- Sharing best practice.

The Cheshire and Warrington Local DSP coordination role enhances the ability of the LEP to enhance local initiatives from a central position in the sub-region.

3.4.2 Lower layer Super Output Area (LSOA) analysis

Our analysis, explained in the Position Paper, set out an approach to identifying the most prevalent barriers to take-up and engagement in each neighbourhood. We did this by analysing Internet User Classification (IUC) data for each Lower layer Super Output Area (LSOA)³⁰ in the sub-region. This revealed that, of 573 LSOAs in the sub-region, 199 have IUC profiles of 7, 8, 9, or 10 indicating lower levels of Internet engagement. We supplemented the IUC dataset with data on the proportion of online responses to the 2021 census (these data broadly corroborated the IUC data, with areas of lower levels of engagement in general having a lower proportion of online responses to the census).

By cross-referencing ONS data on skills deprivation and income deprivation,³¹ we can identify what the most likely barriers to digital engagement are in each LSOA. This method can be used to target remedies in each LSOA. For example, for a LSOA with low IUC rating and relative income deprivation, remedies to support affordability should be investigated.

During the project the LEP has held discussions with Cheshire and Merseyside NHS about the Integrated Care System Digital Exclusion Heatmap Tool³² which the NHS is developing. This tool has the capability to identify barriers to take-up and usage in each LSOA using the approach described above. Furthermore, the Heatmap Tool identifies community resources which can provide help and support to address barriers. The Heatmap tool includes the sub-region within its coverage and so could potentially be used to support LSOA analysis.

The LEP is continuing to engage with Cheshire and Merseyside NHS as the Heatmap Tool continues in development.

3.4.3 Recommendations

Figure 3.4 sets out our recommendations to the LEP to build and develop the strategy to address barriers to take-up and usage of digital services.

³⁰ Lower Layer Super Output Areas (LSOA) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales.

³¹ The Indices of Deprivation provide a set of relative measures of deprivation for LSOAs across England, based on seven different domains of deprivation

³²

<https://app.powerbi.com/view?r=eyJrIjoieYzODYyYzAtMDQ0NC00NTA2LWEzZjEtY2NIZTE3Yzc5ZTE1liwidCl6jg1OTE4ZmY4LTQ3OWYtNDZINi1iMDE2LTIYzY4YWVvZTc4OCJ9&pageName=ReportSection9546b630beaee0b97a00>

Figure 3.4: Recommendations to refresh the strategy to address usage and take-up gaps

Objective	Recommended activity
Improve coordination of work on take-up and usage of digital services across the sub-region	Establish a regular forum linking ground level initiatives and stakeholders across the sub-region
Targeting of remedies to the causes of barriers to take-up and usage in each neighbourhood	Income and skills analysis in LSOAs with IUC rating 7,8,9 or 10. This may be developed in collaboration with Cheshire and Merseyside NHS, incorporating their Digital Exclusion Heatmap Tool
Develop a dataset from which the LEP and stakeholders can establish a baseline and track progress on take-up and usage of digital services	<ol style="list-style-type: none"> 1. Gather and consolidate data from agencies in the sub-region to measure activity to improve take-up and usage 2. Consider commissioning of primary research to capture baseline and time series data to track take-up and usage outcomes across the sub-region

4 Key Performance Indicators

We have identified potential key performance indicators (KPIs) to enable the LEP and stakeholders to track digital connectivity, take-up and usage in the sub-region.

KPIs are an important feature of effective policy making, and the implementation of remedies to address any problem. They provide a quantifiable measure of progress towards any intended result, and hence also focus on operational alignment to achieve identified outcomes.

In this case, we propose KPIs to measure progress against the LEP's desire to address barriers to connectivity, take-up and usage of digital services in Cheshire and Warrington.

4.1 Identifying the right KPIs

Progress against objectives can be measured in a number of ways. For example, one can measure:

- Inputs to a desired outcome, i.e. the amount or quality of resources used in a process.
- The efficiency and effectiveness of processes used to deliver an outcome.
- Outputs of the process, showing what has been produced resulting from the inputs and processes.
- Outcomes resulting from a project or activity.

These are not mutually exclusive. Organisations may use a combination of KPIs across these categories to measure and track their progress.

To track progress against objectives to address barriers to connectivity, take-up and usage of digital services in Cheshire and Warrington, we recommend the setting of outcomes-focussed KPIs. This is because delivery of these objectives requires complex multi-stakeholder interactions with many factors not directly within the LEP's remit or control. Input and process-based KPIs are better suited to initiatives aimed at organisational efficiency, so are often used for internal projects and objectives. Output based KPIs are better suited to work where the objective is to deliver products for which success can be measured quantitatively (e.g. number of widgets produced). Outcome based measures anchor the system of evaluation directly to the objective being pursued, and this is an effective way to evaluate initiatives aimed at furthering public benefits.

Whilst KPIs measuring broad outcomes are appropriate, it is important to keep in mind that improvements to connectivity, take-up and/or usage also deliver private benefit. That is, where an individual or household can use digital services more, perhaps as a result of better connectivity or access to a social tariff, they will enjoy significant benefits in the form of improved access to digital healthcare, education, community services, entertainment services and so on. These benefits to individuals are unlikely to be captured very well by aggregated measures of outcomes across the whole sub-region. Therefore, we recommend that the LEP combines the setting of outcomes based KPIs with qualitative case studies and information from partner organisations delivering initiatives to support individuals to overcome barriers to digital engagement.

4.2 Robust measurable data

KPIs can only be as good as the data used to produce them. In order to track progress, time series of data are also needed.

As noted earlier in this report, time series of robust data are available on connectivity and infrastructure at the sub-regional level (and lower). The principal source of these data is Ofcom. Whilst we have noted the data do not always match consumer experience, at aggregate level these data are reliable and robust. Therefore they are a good basis for KPIs.

For take-up and usage data, there are a number of challenges.

- Data on take-up and usage, and on digital skills, are mostly available at national or regional level, and not for the sub-region.
- Data on Internet usage used to be tracked at local authority level by ONS, but this was discontinued in 2020.

Therefore there are challenges establishing a baseline and time series for KPIs in these areas. In some cases, it is possible for stakeholders to incorporate data for the North-West region – see the potential KPI for digital skills set out below. Whilst this does not directly measure performance in the sub-region, it is a relevant and potentially useful datapoint. In other cases, it would be possible to gather new data through primary research.

4.3 Potential KPIs

Tracking the metrics in Figure 4.1 would enable the LEP to create a balanced scorecard of KPIs measuring connectivity, take-up and usage outcomes across the sub-region.

Delivering these outcomes is not within the sole remit or control of the LEP or any other agency, and they are therefore not suitable to evaluate organisational performance. They would provide a holistic regular assessment of digital infrastructure and engagement in the sub-region, and establishing a time series would enable the LEP and other stakeholders to track performance and identify areas requiring focus or investment.

Some of the potential KPIs can be developed from currently available data. Others would require new data and hence require consideration by the LEP and other stakeholders whether to commission new research.

Figure 4.1: Potential KPIs

Metric	Potential KPI	Frequency of measurement	Data source
Superfast connectivity	% premises passed at or above UK average	Every 6 months	Ofcom
Gigabit connectivity	% premises passed at or above UK average	Every 6 months	Ofcom ThinkBroadband
Connectivity below universal service requirement	% premises at or below UK average	Every 6 months	Ofcom
4G mobile coverage	% premises with coverage by at least 1 network at or above UK average	Every 6 months	Ofcom
	% premises with coverage by 4 networks at or above UK average		
5G mobile coverage	% premises with coverage by at least 1 network at or above UK average	To be reviewed and developed when data is available	
	% premises with coverage by 4 networks at or above UK average		
Satisfaction with fixed broadband connection - residential	% of individuals satisfied > previous year	Annual	New primary research
Satisfaction with fixed broadband connection – small business	% of small businesses satisfied > previous year	Annual	New primary research
Satisfaction with mobile network coverage and quality – individual consumers	% of individuals satisfied > previous year	Annual	New primary research
Satisfaction with mobile network coverage and quality – small businesses	% of small businesses satisfied > previous year	Annual	New primary research
Digital engagement	% of individuals using internet in the past 3 months > previous year	Annual	New primary research
Digital skills	% of individuals in the North-West with essential digital skills > previous year ³³	Annual	Lloyds UK Consumer Digital Index
	Number of learners benefitting from Local Growth Fund funded digital skills projects ³⁴		Cheshire and Warrington LEP
	Number of learners benefitting from DfE funded Skills Bootcamps		
Affordability	% of eligible individuals on social tariffs for broadband > previous year	Annual	New primary research

³³ Data is not available for the sub-region. Data for the North-West region does not directly measure performance in the sub-region, it is a relevant and potentially useful datapoint.

³⁴ This is an output based measure. Data to evaluate outcomes is not readily available in this case. For example, IUC data is not produced regularly. Data on adult skills, which was used for some research in this project, would not be an effective proxy to capture changes in digital skills year on year.

4.4 Recommendations

Figure 4.2 sets out our recommendations to the LEP to develop KPIs the strategy to address barriers to connectivity, take-up and usage of digital services.

Figure 4.2: Recommendations to develop KPIs

Objective	Recommended activity
Set KPIs to measure progress against addressing infrastructure barriers	See potential KPIs in Section 4.3
Set KPIs to measure progress against addressing demand side barriers to connectivity, take up and usage of digital services	See potential KPIs in Section 4.3
	Consider new research to establish baseline and eventually time series of data
Gather evidence not captured by aggregated quantitative data	Establish a method for sharing insights, case studies and best practice amongst the stakeholder network

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