



Small Business Digital Exclusion

Desk Research Report

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1. Introduction

1.1 Project context

Over the past 7 years the proportion of small businesses with high digital capability in Wales has risen from 45% in 2014 to 79% in 2021¹. The impact of the pandemic has accelerated the pace of digital adoption; for some this was through necessity and for others a desire to adopt digital solutions.



However, in 2021 21% of businesses in Wales were classed as being in the low digital capability segment². For those with low digital capability 56% state they had no intention of prioritising digital development.

Cwmpas's Digital Communities Wales: Digital Confidence, Health, and Well-being programme (DCW) exists to reduce digital exclusion in Wales. This aligns to Mission 2 (Digital Inclusion) and Mission 3 (Digital Skills) of the Welsh Government's Digital Strategy for Wales². Mission 2 focuses on understanding the barriers to digital inclusion and providing

targeted support. Mission 3 seeks to create a workforce that has the digital skills, capability, and confidence to excel in the workplace and in everyday life. The outcome of this Mission is people and businesses that are digitally confident.

DCW does not currently have a specific offer for the private sector in Wales, specifically small businesses. It is against this backdrop that the research takes place to explore the impact of digital exclusion on small businesses, their staff, and their customers.

1.2 Desk research objectives

The desk research focused on the following two objectives:

- Identifying the characteristics of the small business private sector in Wales; particularly in terms of business size, industry sector and locations
- Establishing what is already known about digital inclusion within the small business private sector in Wales and in the UK more broadly

¹ [businessdigitalindexreport.pdf \(lloydsbank.com\)](#)

² Digital strategy for Wales. How we will use digital, data and technology to improve the lives of people in Wales. [Digital strategy for Wales \[HTML\] | GOV.WALES](#)

1.3 Desk research scope and approach

The desk research began with an initial search using agreed search terms relevant to the objectives. This identified **23 possible sources** which were then reviewed against the below exclusion and inclusion criteria to narrow down the list of potentially relevant sources.

- Subject matter relevant to the project. To be included the studies should focus on one or more of the following topics:
 - The makeup of the private small business sector in Wales; business size, industry sector, locations
 - The digital capability of the small business private sector
 - Barriers to developing digital skills amongst small businesses, their staff, and customers
 - The impact of digital exclusion on small businesses
 - The impact of covid on digital capability in the small business private sector

- Geographic focus: Wales or the UK
- Date of research/publication: include only studies published after 2015
- Research methods: Both primary and secondary research will be considered, as well as studies using diverse methods, including qualitative, quantitative, and mixed methods. Both academic and grey literature will be included

This identified **17 relevant sources which were reviewed, in full**, and relevant information extracted to form part of this report. This desk research report will summarise these key findings and reflect on any gaps in knowledge and the implications of this research for the sample and discussion content of the qualitative interviews.



2. Desk Research Findings

2.1 Summary

The desk research uncovered a **several sources of data about the characteristics of the small business sector in Wales** including ONS data, BEIS estimates on the private business sector in the UK, and the BEIS longitudinal small business survey. Small businesses make up 13.4% of all businesses in Wales and the industry groups with the highest proportion of small businesses are Health, Accommodation and food, Wholesale, Production, and Education. Wales has a higher proportion of businesses in the Agriculture, forestry, and fishing industry group than England however 98% of these businesses are micro sized.

Just over one quarter of SME employers in Wales had **innovated processes for producing or supplying goods or services in the last three years** when surveyed in 2021 which was higher than the fifth of SME employers in England who stated the same.

SME employers in Wales had a higher level of confidence that the number of employees, and turnover, would grow when surveyed in 2021 than their counterparts in England.

More limited information was uncovered about digital inclusion within the small business private sector in Wales. Most of the sources identified focus on SMEs rather than small-sized business specifically. Sources indicate that SME businesses in Wales have **similar levels of digitisation to many regions in England** and the proportion of businesses in 2021 with a high digital capability had risen to 79%. This left 21% in the **low digital capability segment**.

Research indicates that micro businesses are likely to have lower levels of digitisation than small or medium businesses though it should be noted that the desk research did not uncover a large evidence base looking at the different levels of digital capability by size of business.

The biggest **barriers to increasing digital capability for businesses** uncovered in the desk research were a lack of time and funding. Again, a small amount of evidence focused on the barriers amongst the business audience specifically, with most of the identified literature focussing on barriers for the public.



2.2 The characteristics of the small business sector in Wales

2.2.1 Business size and contribution to employment and turnover

The size profile of businesses in Wales is like that in England and 13.4% of businesses in Wales fall into the Small employment size band with 10-49 employees³.

Employment size band	Business size	Wales	England
0-4	Micro	69.1%	72.4%
5-9	Micro	14.6%	12.6%
10-19	Small	8.1%	7.3%
20-49	Small	5.2%	4.8%
50-99	Medium	1.6%	1.6%
100-249	Medium	0.9%	0.9%
250+	Large	0.4%	0.4%

Table 2: The % of the total number of businesses registered for VAT and/or PAYE broken down by employment size band and region

By nation, SME employers in Northern Ireland (21%) and Wales (19%) were more likely to be aged between zero and five years than those in Scotland and England (both 10%)³.

The Department for Business, Energy and Industrial strategy (BEIS) estimates the number of **private sector businesses specifically and in 2022 in Wales** estimated the following⁴:

208,700 private businesses

in Wales are micro (95.4%)

8,500 private businesses

in Wales are small (3.9%)

1,300 private businesses

in Wales are medium-sized (0.6%)

200 private businesses

in Wales are large (0.1%)

³ BEIS Longitudinal Small Business Survey: SME Employers – UK, 2021.

[Small Business Survey 2021: businesses with employees - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/small-business-survey-2021-businesses-with-employees)

⁴ BEIS National statistics. Business population estimates for the UK and regions 2022: statistical release. This reports on private sector businesses, excludes the government and not-for-profit sectors and estimates numbers of private sector businesses by combining estimated numbers of unregistered businesses with data on registered businesses derived from a comprehensive business register (the ONS Inter Departmental Business Register)

Alongside the number of businesses of each size it is worth considering the contribution of each business size to overall employment and turnover. BEIS provides estimates of this for UK businesses and states that while **large businesses in the UK make a major contribution to employment and turnover, nonetheless SMEs account for three-fifths of the employment and around half of turnover** in the UK private sector³. (Figure 1)

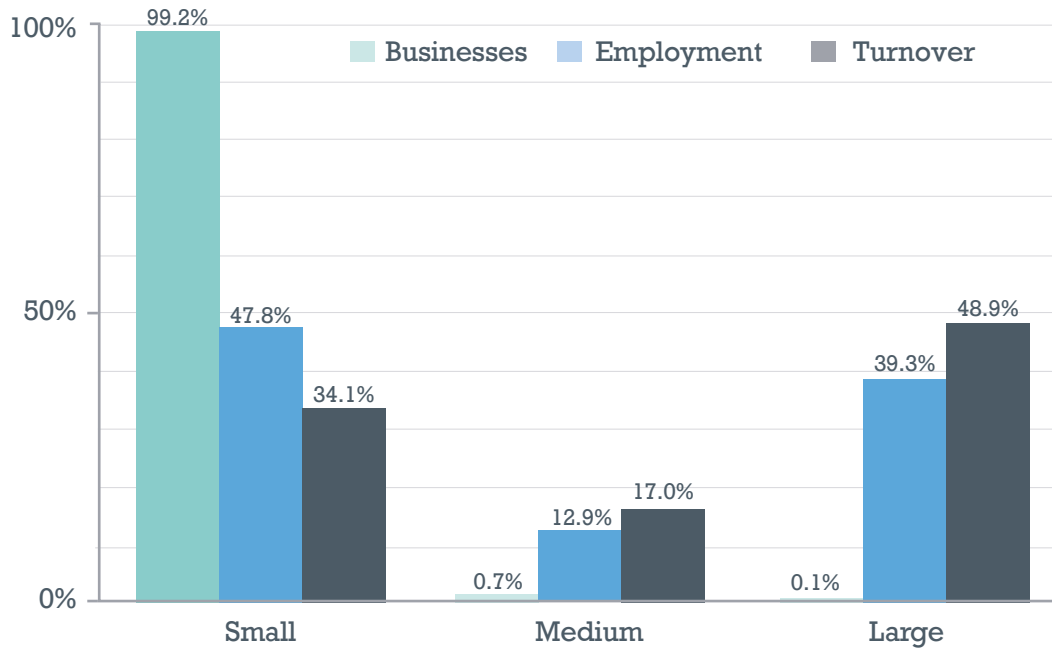


Figure 1: Contribution of different sized businesses to total population, employment, and turnover, start of 2022. Note: these figures are for the UK as a whole

BEIS estimates that the overall numbers of **private sector businesses decreased by 86,000 in England and by 1,000 in Scotland, whilst numbers increased in both Wales (11,000) and Northern Ireland (4,000)**⁵.



⁵ BEIS National statistics. Business population estimates for the UK and regions 2022: statistical release.

⁶ UK business, activity, size and location; 2022. Source: Office for National Statistics.

2.2.2 Industry group

The sectors with the largest number of businesses in Wales are Construction, Agriculture, Retail, Professional Scientific and Technical, Accommodation and food and Business administration and support (Table 1)⁶. It is notable that Agriculture, forestry, and fishing businesses make up a larger proportion of total businesses in Wales than they do in England (11% in Wales and 3% in England).

Broad industry group	Wales	England
Agriculture, forestry & fishing	11%	3%
Construction	11%	12%
Retail	10%	10%
Professional, scientific & technical	9%	15%
Accommodation & food services	9%	7%
Business administration & support services	8%	9%
Arts, entertainment, recreation & other services	7%	6%
Health	6%	5%
Production	6%	5%

Table 1: The % of the total number of businesses registered for VAT and or/PAYE broken down by industry and region. Showing all sectors that account for over 5% of the businesses in Wales.

One of the largest broad industry groups in Wales, Agriculture, Forestry and Fishing, is dominated by micro businesses. Micro sized businesses make up 98% of all the Agriculture, Forestry and Fishing businesses in Wales³. Construction paints a similar picture with 94% of all construction businesses in Wales micro sized.

Micro sized businesses dominate the figures for numbers of businesses and so it is useful to consider the industry groups that have a **higher proportion of small businesses in Wales** as this is the focus of this research. The industry groups with the largest proportion of small businesses in Wales are Health (30% of businesses in Health are small), Accommodation and food (19%), Wholesale (14%), Production (14%) and Education (12%). (Table 3)

Broad industry group	Wales: small businesses	England: small businesses
Health	30%	24%
Accommodation & food services	19%	20%
Wholesale	14%	14%
Production	14%	15%
Education	13%	15%
Retail	9%	8%
Arts, entertainment, recreation & other services	8%	8%
Motor trades	8%	7%
Business administration and support	8%	8%
Transport & Storage (inc. postal)	7%	6%
Professional, scientific & technical	7%	6%
Construction	6%	5%
Information & communication	5%	6%
Finance & insurance	5%	6%

Table 3: The % of small businesses (with 10-49 employees) registered for VAT and or/PAYE within each broad industry group. Showing all broad industry groups where over 5% of businesses are small.

This ONS data covers all businesses (including those in the public sector and not for profit organisations). The BEIS estimates look at the private sector specifically and here we can see an estimate of which industrial sectors have the **highest proportion of SMEs in the UK as a whole: construction and professional, scientific, and technical.**

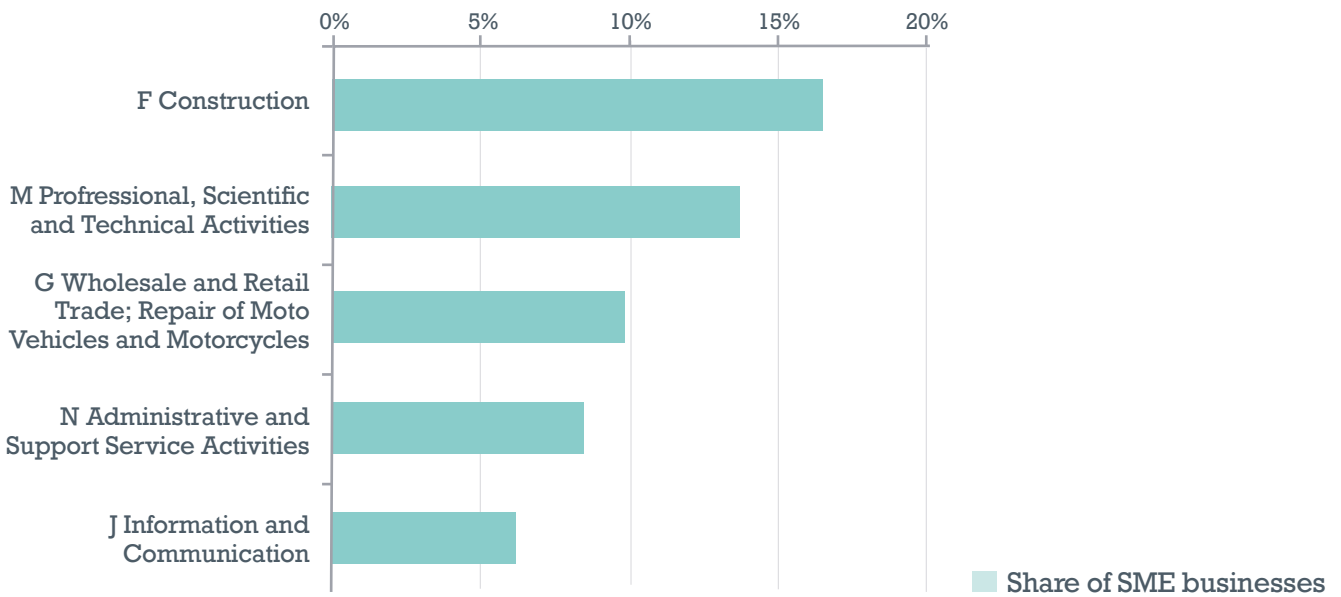


Figure 2: Industrial sectors with most SMEs, as percentage of total SME numbers, start of 2022⁷.

Note: This data includes both Micro and Medium sized businesses and is for the whole of the UK

This dataset also provides detail on the **industrial sectors in the UK with the highest SME employment and turnover** which are Wholesale and Retail Trade of motor vehicles, construction, and professional, scientific, and technical activities. At the start of 2022:

- Wholesale and Retail Trade and Repair accounted for 14% of all SME employment and 34% of SME turnover in the UK private sector
- Almost a third of SME turnover was spread across three more sectors: Construction (12%), Professional, Scientific, and Technical (11%) and Manufacturing (9%)

StatsWales provides data on which industries are present in which area of Wales based on the Inter-Departmental Business Register (IDBR) and Office for National Statistics⁸. A summary table based on this data is included below.



⁷ BEIS National statistics. Business population estimates for the UK and regions 2022: statistical release.

⁸ Stats Wales Enterprises by industry (SIC2007), size-band and area. Source: Inter-Departmental Business Register (IDBR), Office for National Statistics.

Industry group	North Wales	Mid Wales	Southwest Wales	Southeast Wales
Agriculture	6%	21%	7%	1%
Production	6%	8%	7%	5%
Construction	17%	12%	18%	17%
Wholesale, retail, transport, hotels, food & communication	25%	22%	22%	28%
Financial and business services	22%	18%	21%	25%
Private sector health and education	13%	14%	13%	14%
Other services	11%	7%	12%	11%

Table 4: Enterprises by industry (SIC2007) and area in Wales⁷.

2.2.3 Legal status

Most Small Enterprises⁹ in Wales (with 10-49 employees) have the legal status of a Company however a larger proportion of small enterprises in Wales are Partnerships than in England. (Table 5).

Legal status	Wales: small businesses	England: small businesses
Company (including building society)	74.6%	83.1%
Partnership	12.2%	6.9%
Non-profit Body or Mutual Association	6.6%	5.4%
Sole proprietor	6.2%	4%
Local Authority	0.3%	0.3%
Public Corporation/Nationalised Body	0.2%	0.1%

Table 5: The % of small enterprises (with 10-49 employees) registered for VAT and or/PAYE by legal status.

⁹ A group of legal units under common ownership is called an Enterprise Group. An Enterprise is the smallest combination of legal units (generally based on VAT and/or PAYE records) which has a certain degree of autonomy within an Enterprise Group. An individual site (for example a factory or shop) in an enterprise is called a local unit.

2.2.4 Growth and future aspirations

The BEIS longitudinal Small Business survey highlighted that **31% of SMEs in Wales had increased the number of employees** when surveyed in 2021, 17% had decreased and 52% had remained the same¹⁰. This is a similar picture to England. Those businesses who had reported a reduction in staff were asked to report why, and businesses in Wales were more likely to report that COVID-19 was one of many factors that explained this (34% compared with 22% in England).

Looking ahead SME employers in Wales (33%) and Northern Ireland (33%) were more confident that **employment numbers would increase** than those in Scotland (31%) and England (30%).

SME employers in England (40%) and Scotland (39%) were more likely to have reported a growth in turnover than those in Wales (33%) and Northern Ireland (32%). By nation, 52% of SME employers in Scotland and 49% of those in Wales expected **turnover to grow**, compared with 45% of SME employers in England and 43% of those in Northern Ireland¹¹.



¹⁰ BEIS Longitudinal Small Business Survey: SME Employers – UK, 2021. [Small Business Survey 2021: businesses with employees - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/small-business-survey-2021-businesses-with-employees)

¹¹ BEIS Longitudinal Small Business Survey: SME Employers – UK, 2021. [Small Business Survey 2021: businesses with employees - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/small-business-survey-2021-businesses-with-employees)

2.3 Digital inclusion within the small business private sector in Wales the UK more broadly

2.3.1 Digital capability of businesses in Wales

The Lloyds Bank Business Digital Index provides a rich source of information on the level of digitisation of SME businesses in the UK¹².

In Wales, **the proportion of businesses with high digital capability has increased** from 45% in 2014, to 65% in 2019 and 79% in 2021. Both London and the Southwest had higher levels of businesses with high digital capability in 2021 at 86% and 84% respectively, and Yorkshire and the Humber had the lowest levels at 77%.

In 2021 **21% of businesses in Wales were in the low digital capability segment**; within this segment 56% stated they had no intention to prioritise digital development.

The report lists essential digital skills and highlights the proportion of businesses which state they can undertake each of these essential skills (Table 5). The proportion of businesses in Wales which state they can communicate digitally, create digitally, problem solve and transact online is in-line with the different regions in England. A higher proportion of Welsh businesses felt they could manage information digitally than many other regions in England, and a lower proportion felt they had skill in cybersecurity compared to many other regions in England.

Essential digital skill	Wales	Region with highest proportion of SMEs with this skill
Communicating digitally with customers	90%	94% East of England, London
Creating e.g., website or social media content	70%	78% London
Cybersecurity	89%	94% East Midlands
Managing information digitally	91%	92% North East, East Midlands, London
Problem solving e.g., using data	66%	77% London
Transacting online	96%	99% Yorkshire and the Humber

Table 5: The % of businesses with up to 250 employees that can undertake each of these essential digital skills⁶.

¹² Lloyds Bank UK business digital index, February 2022.
<https://www.lloydsbank.com/business/resource-centre/businessdigitalindex.html>

When considering social media specifically, just 15% of businesses in Wales stated they *did not use* social media for their business which is one of the lowest percentages compared to regions in England.

While this source provides welcome data on the level of digitisation in business specifically, It is worth noting it's limitations for this study; the data includes Medium sized businesses as well as small.

2.3.2 Usage of digital technology by businesses in Wales

When surveyed in 2021, **just over a half of all SME employers (55%, one percentage point down on 2020) used technologies or web-based software to sell to customers or to manage the business**, whereas 43% did not¹³. SME employers in Wales were equally as likely to use technologies or web-based software as those in England (both 56%) and the proportion had increased by 6 percentage points in Wales compared to 2020.

In 2021 30% of businesses in Wales stated they planned to invest in digital technology in the next 12 months and 70% did not – this was a similar picture across regions in England¹⁴.

It is estimated that 19% of SME employers, the same proportion as in 2019 and 2020, had **innovated processes for producing or supplying goods or services in the last three years**. By nation, the proportion was similar across Scotland (28% - a six percentage points increase on 2020), Northern Ireland (27% - a 16 percentage points increase) and Wales (27% - a 13 percentage points increase on 2020), but lower in England (18% - a two percentage points decrease)¹⁵.



¹³ BEIS Longitudinal Small Business Survey: SME Employers – UK, 2021. [Small Business Survey 2021: businesses with employees - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101482/small-business-survey-2021-businesses-with-employees.pdf)

¹⁴ Lloyds Bank UK business digital index, February 2022. <https://www.lloydsbank.com/business/resource-centre/businessdigitalindex.html>

¹⁵ BEIS Longitudinal Small Business Survey: SME Employers – UK, 2021. [Small Business Survey 2021: businesses with employees - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101482/small-business-survey-2021-businesses-with-employees.pdf)

2.3.3 Digital capability of Small business in the UK more broadly

The Lloyds Bank Business Digital Index highlights that the **proportion of smaller micro businesses with 'high digital capability' was lower than for small and medium businesses**¹⁶. In 2021 78% businesses with 0 employees had high digital capability, 83% of businesses with 2-5 employees, 92% of businesses with 6-9 employees and 92% of those with 10-249 employees. The **number of essential digital skills also increases with business size** with 80% of businesses with 10-249 employees having all 6 essential digital skills, but just 56% of those with 2-5 employees.

Looking forwards the **proportion of businesses looking to invest in digital technology in the next 12 months** is also higher amongst small and medium businesses than micro businesses:

24% of businesses with one employee intend to invest in digital technology

33% of those with 2-5 employees

55% of those with 6-9 employees

62% of those with 10-249 employees

Research was conducted by HMRC in early 2022 to identify levels of preparedness for Making Tax Digital amongst businesses with a turnover below the VAT threshold (below £85,000). **This research uncovered that 20% of these businesses were still using**

paper as their main method for record keeping in January 2022; keeping paper records was more common in specific nations (40% in Northern Ireland, **36% in Wales**) and industries (43% in the agriculture, forestry and fishing sector)¹⁷.

¹⁶ Lloyds Bank UK business digital index, February 2022. <https://www.lloydsbank.com/business/resource-centre/businessdigitalindex.html>

¹⁷ HMRC: Monitoring businesses' awareness of Making Tax Digital. HM Revenue and Customs (HMRC) Research Report 649. Research was conducted by Yonder between June 2021 and January 2022. Prepared by Yonder (Simon Taylor and Florrie Hodgkinson) for HMRC.

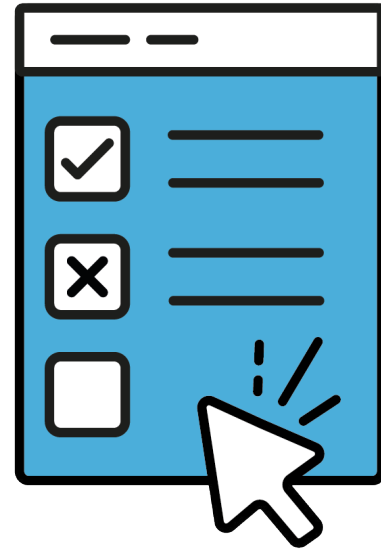
2.3.4 Attitudes to digital and barriers

The Lloyds Bank Business Digital Index report states that **time and funding are the biggest barriers to businesses exploring more technology solutions**. Funding was highlighted as a particular issue in Wales as well as the East of England and East Midlands with 48% of businesses stating they lack the funding to make their business more digital⁶.

The research by HMRC on making tax digital uncovered time and funding as key barriers amongst those businesses with a turnover below the VAT threshold. The two biggest barriers to Making Tax Digital were felt to be the time taken to get used to software (19%) and the cost of software (15%). In addition, just over a quarter of businesses agreed with the statement that they were worried about the **security of keeping business records digitally** (29%) and this was slightly higher in Wales specifically at 32%.

The barriers of time and funding were also evidenced in a survey for BEIS in 2015. A survey of 800 small businesses asked the barriers to making more of digital resources: for 61% it was a low priority, 43% lacked time, 41% didn't want to spend money on an outside party, 40% did not want to employ an expert member of staff and 38% cited lack of knowledge¹⁸.

A further barrier identified by the National Innovation Centre for Rural Enterprise in rural areas is broadband quality. A survey of 4000 rural businesses in England in 2021 **identified 34% of rural firms judged their broadband quality to be 'poor' or 'very poor'**, compared to 20% of urban firms¹⁹. Considering this on a



more granular level 10% of rural firms in town and fringe locations judged their broadband to be 'very poor', compared to nearly 23% of village-based firms and more than 25% of hamlet-based firms. Just over one fifth of the businesses surveyed (22%) reported they will find it difficult to use software for record keeping in January 2022.

The Welsh government publish statistics about broadband access in different regions in Wales however the most up to date release is based on 2019 and is therefore likely to be out of date. In 2019 the percentages of homes and businesses with access to superfast broadband was highest in South East Wales and lowest in mid Wales (Powys and Ceredigion)²⁰.

¹⁸ BEIS: BIS RESEARCH PAPER NUMBER 24: Digital Capabilities in SMEs: Evidence Review and Re-survey of 2014 Small Business Survey respondents. A report by BMG research and Durham university. September 2015

¹⁹ Infrastructure, networks: rural enterprises and the levelling up agenda, NICRE, May 2022

²⁰ Summary statistics for Wales, by region: 2020

2.4 Digital inclusion in the population at large

Investigating the level of digital inclusion in the wider population is not an objective of this research, however briefly reflecting on the picture in Wales is helpful wider context.

Amongst the public, **digital capability in Wales lags the rest of England**; 59% of those in Wales had high digital capability in 2022 compared with 63% in England²¹.

The National Survey for Wales states that **digital exclusion impacted 7% of adults in Wales between 2021 and 2022**²². This level of digital exclusion rises for certain demographic groups:

- Amongst those aged over 50 it is 13% of adults, and rises to 32% for those aged over 75
- Residents of social housing: 14% are digitally excluded
- Those living with a long-term illness: 12% are digitally excluded

The research indicates that 78% of adults in Wales have all 5 digital skills and in the past three months the following proportions of the population had used these digital skills:

98% Handling information and content

92% Problem solving

95% Communicating

84% Being safe and legal online

90% Transacting

The Ofcom adult's media usage and attitudes report published in March 2022 provides some baseline statistics on **digital usage in Wales**; 95% use the internet at home, 19% only use a smartphone to go online, and 28% are 'narrow' internet users²³. The picture for Wales on these metrics was in-line with the UK average. Across the UK, the groups more likely **not to have internet access** at home were those aged 75+ (26%), those in DE households (14%) and those who are most financially vulnerable (10%).

When considering the use of digital technology to support health a study by Public Health

Wales uncovered that in 2019 one third of the adult population was not yet using internet-enabled digital devices to support their health (including making appointments, and self-diagnosing using online content²⁴). This research uncovered three contributors to digital exclusion in health – access, use and engagement. Evidence suggested that digital infrastructure such as internet access had a big impact on adoption of digital health support. **Concerns over privacy and the use of information**, or preferences for non-digital services led to less engagement in digital health.

²¹ Lloyds Bank UK consumer digital index, 2022

²² National survey for Wales. <https://statswales.gov.wales/Catalogue/National-Survey-for-Wales>. A survey of adults in Wales.

²³ Ofcom: adults media use and attitudes report. 2022.

²⁴ Public Health Wales. Honeyman M, Maguire D, Evans H and Davies A. (2020). Digital technology and health inequalities: a scoping review (2020). Cardiff: Public Health Wales NHS Trust

3. Implications for the next stages of this research

3.1 Sample

Our sample comprises 3 interviews with membership organisations, 3 interviews with providers of IT solutions, and **18 interviews with small businesses**. The desk research has identified four factors to consider for our sample of 18 small business interviews.

1. The first consideration is **what size of businesses to focus on**. The research brief discussed a focus on Small business (10-49 employees) with consideration of Micro (0-9 employees) and Large business (250+ employees). The desk research has highlighted that **digital capability is likely to be lower amongst micro businesses than small businesses** so a larger inclusion of micro firms could be beneficial to understand how to support this business group.
2. The second is **which industry groups to represent in our sample**. The desk research has highlighted the following important industry groups:
 - **The three largest industry groups in Wales in terms of numbers of businesses:**
 - Agriculture, forestry, and fishing
 - Construction
 - Retail
 - **The five industry groups in Wales that have the highest proportion of small businesses specifically:**
 - Health
 - Accommodation & food services
 - Wholesale
 - Production
 - Education
 - **The industry groups with the highest proportion of private sector SMEs in the UK as a whole:**
 - Construction
 - Professional, scientific, and technical
 - **The industry groups with the highest SME employment and turnover in the UK:**
 - Wholesale and Retail Trade of motor vehicles
 - Construction
 - Professional, scientific, and technical activities

There is naturally some overlap in the industry sectors that lead on each of these measures; with 10 industry groups appearing in total. Some industries are more likely to be public sector, and not private, for example Health and Education. This would leave 8 industry groups to represent within our sample.

3. A third consideration is how we **define ‘digitally excluded businesses’** as part of our recruitment process. It would be advisable to target businesses that are digitally excluded so we can properly unpick the impact of this and the barriers to becoming more digitally capable to inform future decisions about how best to support them.

Lloyds bank business digital index have **5 digital capability segments and some of the metrics used to define this could be utilised to identify those businesses which are less digitally confident.** This measures elements like whether a business has a website, uses email or social media to communicate with customers, and use of internet banking and accounting software. This index also provides a list of essential digital skills which could be used to define businesses who are less digitally confident.



4. Finally, it will be important to reflect both **urban and rural businesses** in the sample to explore any connectivity barriers for businesses in rural areas. It will also be important to consider the **prevalent industries in each region in Wales when selecting sample.**

3.2 Content of discussion

The insight gleaned from the desk research on **levels of digital maturity in SMEs** in Wales and the UK more broadly is a helpful starting point to explore levels of digital exclusion qualitatively. Some of the ‘essential digital skills’ listed in the Lloyds Bank Business Digital Index can be used as prompts to establish the specific areas in which businesses struggle.

This qualitative research can further probe the **barriers to developing digital skills identified in the desk research; namely cost, time, security of information**

and broadband connectivity (the latter particularly for rural businesses). It will be worth revisiting these in a post-Covid context and in the context of the current cost of living crisis and identifying if these remain the dominant barriers and if any others exist.

The desk research uncovered very little about the **impact of digital exclusion on small business** so this will be something to explore in-depth as part of this qualitative research.

4. References

The following sources have been reviewed as part of this desk research (in alphabetical order):

BEIS (Department for Business, Energy, and Industrial Strategy): Digital Capabilities in SMEs: Evidence Review and Re-survey of 2014 Small Business Survey respondents

September 2015

<https://www.gov.uk/government/publications/digital-capabilities-in-small-and-medium-enterprises>

BEIS (Department for Business, Energy, and Industrial Strategy): Longitudinal Small Business Survey: SME Employers (businesses with 1-249 employees) – UK, 2021

31st August 2022

<https://www.gov.uk/government/statistics/small-business-survey-2021-businesses-with-employees>

BEIS National statistics Business population estimates for the UK and regions 2022: statistical release

6 October 2022

<https://www.gov.uk/government/statistics/business-population-estimates-2022/business-population-estimates-for-the-uk-and-regions-2022-statistical-release-html>

Digital Inclusion Alliance for Wales: From Inclusion to Resilience An agenda for digital inclusion

March 2021

<https://www.digitalcommunities.gov.wales/wp-content/uploads/2021/04/DIAW-Inclusion-to-Resilience-0221-1.pdf>

Good Things Foundation. The economic impact of Digital Inclusion in the UK

July 2022

<https://www.goodthingsfoundation.org/insights/the-economic-impact-of-digital-inclusion-in-the-uk/>

Gov.Wales: Digital strategy for Wales

<https://gov.wales/digital-strategy-wales-html>

March 2021

HMRC: Monitoring businesses' awareness of Making Tax Digital. HM Revenue and Customs (HMRC) Research Report 649.

June 2022

<https://www.gov.uk/government/publications/monitoring-businesses-awareness-of-making-tax-digital/monitoring-businesses-awareness-of-making-tax-digital>

Lloyds Bank Business Digital Index

February 2022

<https://www.lloydsbank.com/business/resource-centre/businessdigitalindex.html>

Lloyds Bank Consumer Digital Index

November 2022

<https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.html>

National Survey for Wales

April 2021-March 2022 results

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