



LOST CONNECTION

HOW POOR BROADBAND AND MOBILE CONNECTIVITY
HINDERS SMALL FIRMS

Published: October 2019

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45 fsb⁸³
YEARS OF SUPPORTING
SMALL BUSINESSES
1974 - 2019

ACKNOWLEDGEMENTS

This report was authored by Jaynesh Patel, Senior Policy Advisor for Infrastructure. Special thanks to FSB's policy, public affairs and media teams in Westminster, Scotland, Wales and Northern Ireland, in particular the project team responsible for delivering the report: Andy Poole, David Hale and Charlotte Talbot. The research was carried out by Verve – the market research agency responsible for administering the survey. The report was designed by Cactus Design Limited – a small business based in Wales. This report contains data provided by FSB members who generously took time to complete the survey, and has been enriched by case studies from experiences shared by members in focus groups, which were organised by FSB field staff.

WHO WE ARE

The Federation of Small Businesses (FSB) is the UK's leading business organisation. Established over 40 years ago to help our members succeed in business, we are a non-profit making and non-party political organisation that's led by our members, for our members. Our mission is to help smaller businesses achieve their ambitions. As experts in business, we offer our members a wide range of vital business services, including legal advice, financial expertise, access to finance, support, and a powerful voice in government.

FSB is the UK's leading business campaigner, focused on delivering change which supports smaller businesses to grow and succeed. Our lobbying arm starts with the work of our team in Westminster, which focuses on UK and English policy issues. Further to this, our expert teams in Glasgow, Cardiff and Belfast work with governments, elected members and decision-makers in Scotland, Wales and Northern Ireland.

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LOST CONNECTION

How poor broadband and mobile connectivity hinders small firms

30%

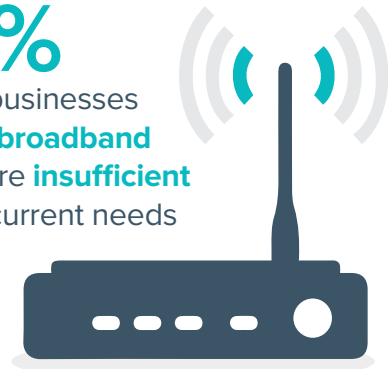
of small businesses receive **download speeds** of **less than 10 Mbps**

rising to **39%** in rural areas



33%

of small businesses say their **broadband speeds** are **insufficient** for their current needs



rising to **40%** when thinking about their **future needs**



Almost half (47%) of small firms say their **internet speeds** are **lower** than what was **promised** by their provider

45%

of small businesses experience **unreliable voice connectivity**



rising to **57%** in rural areas

Impact of poor broadband or mobile coverage on small businesses:



32%

prevented from contacting, or being contacted by, customers



31%

say it's a barrier to the growth of their business



26%

have lost business or sales

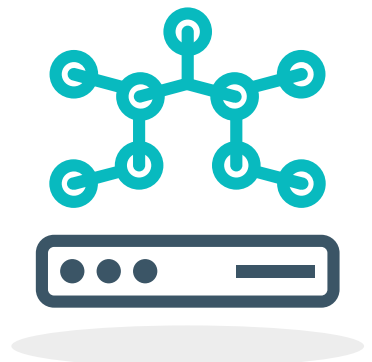


34%

of small firms are willing to **upgrade** to **5G** when available in their area

52%

of small businesses plan to **upgrade** to **full fibre connectivity** when it becomes available in their area



FOREWORD

Improving digital infrastructure across the UK is an urgent priority. Whether in relation to broadband or mobile connectivity, digital infrastructure is a critical enabler of productivity and broader business competitiveness both within the UK and globally.

The way that business is being done is changing. The adoption of digital technology to enhance productivity, the increasing usage of e-commerce and the fact that an ever-increasing number of Government services are being delivered online, makes the importance of fit for purpose digital infrastructure paramount.

The UK Government, the regulator Ofcom, and the private companies operating in the telecoms market need to work together to achieve a major improvement in broadband and mobile connectivity, to help unlock the potential of the UK.

FSB research clearly shows the difficulties experienced by small businesses that receive download speeds of less than 10 megabits per second (Mbps) in their day to day activity. This is despite the fact that almost half of such businesses are paying over £40 a month for their broadband, with a quarter paying more than £60 a month.

This report also exposes the plight of small firms in rural areas that are particularly disadvantaged by low speeds, with 39 per cent of them receiving download speeds of less than 10 Mbps.

FSB welcomes the Government's commitment that everyone in the UK will have access to full fibre or gigabit capable broadband by 2025. It is important to show reinvigorated ambition given that the UK is still far behind most other EU countries in relation to full fibre, ranking at 25 out of 28 EU countries.

For those small businesses most affected by poor connectivity, we want to see a corresponding commitment to ensure that no business is in receipt of download speeds of less than 10 Mbps by the end of 2021. The Universal Service Obligation (USO), coming into force at the beginning of next year, is a promising start, but more needs to be done.

The shared rural network proposals made by the four mobile network operators are a step in the right direction. If necessary, Government and Ofcom may need guarantees from the mobile network operators in exchange for removing coverage obligations and subsidising some of the extra costs involved.

Inclusiveness of mobile connectivity is paramount as we move towards 5G if all in the UK are to benefit. It should not be forgotten that improving access to 4G and improving voice connectivity would provide immediate benefits to many of those currently experiencing unreliable connectivity and poor coverage.

Whether in relation to broadband provision or mobile and data connectivity, Ofcom should extend the existing compensation schemes that apply to consumer contracts to business contracts. This would show all that Government is serious about incentivising private sector companies working in the telecoms space. This will help to ensure that small business connectivity is taken seriously, rather than being a luxury, and will level the playing field with consumer contracts.

The Government has made its ambitions clear; now it must translate words into action to help millions of small businesses to boost their productivity and power the UK economy post-Brexit.



Martin McTague,
FSB Policy and Advocacy Chairman

EXECUTIVE SUMMARY

Introduction

Digital infrastructure in the UK needs to be improved as soon as possible so that small businesses and consumers can significantly contribute to the growth of the economy. The National Infrastructure Commission, in its first National Infrastructure Assessment, noted that: 'In the past, the UK had the ambition and foresight to connect the whole country to electricity, water and transport networks. The benefits today are obvious. The same ambition is needed now for digital infrastructure.'¹

Given the high importance of digital connectivity to conducting business, it is of real concern that the digital infrastructure of the UK is still limiting, rather than helping, the growth of the economy, with a third of small businesses saying that their current speeds are not sufficient. The UK lags significantly behind most EU countries on full fibre coverage, relying on an ageing copper network to provide the final connection to premises.

The National Infrastructure Assessment also makes this clear, with broadband highlighted as a priority that needs to be addressed in the short-term because it represents 'major opportunities for growth... particularly time critical if the UK is to remain internationally competitive.'²

In addition to the required improvements in infrastructure, there are also important market issues that need to be addressed.

Mobile connectivity is also moving into its next generational iteration, 5G, the benefits of which need to be shared across the whole of the UK. Existing voice and 4G coverage will also need to be improved so that large areas of the UK are not left behind in their connectivity.

Comprehensive broadband and mobile connectivity would enable small businesses to carry out their everyday business with full confidence. Businesses need to be able to access customers online, through websites and social media, and use digital tools such as accounting software. An ever increasing number of government services are being made available online, with some of them essential for businesses to access, e.g. Making Tax Digital. In addition it would allow innovation to take place, adopting technologies such as cloud computing applications and Artificial Intelligence, which can enable a business to grow and become more productive.

This report outlines practical measures that can be undertaken by all those actors involved in broadband and mobile connectivity policy and provision to improve connectivity for all.

¹ National Infrastructure Commission, National Infrastructure Assessment 2018, p25, <https://www.nic.org.uk/publications/national-infrastructure-assessment-2018/>
² National Infrastructure Commission, National Infrastructure Assessment 2018, p114, <https://www.nic.org.uk/publications/national-infrastructure-assessment-2018/>

Summary

Small businesses continue to be badly affected by poor connectivity, for both broadband and mobile. Many small businesses still don't receive a decent broadband connection from their providers, and yet are still paying equivalent costs to those with much better connections. Mobile coverage in both voice and data connections needs to significantly improve so that small businesses can use their smartphones and devices with confidence, and without inhibiting their ability to conduct day to day business.

This report is split into five parts. The first two sections explore the broadband connectivity of small businesses in detail, looking at their current connectivity, future needs, and the policy outlook for improving connectivity.

The focus then shifts to the experiences that small businesses have with mobile connectivity, and again looks at the policy developments in that field that have the potential to improve mobile connectivity.

The report then outlines the stark consequences of poor broadband and mobile connectivity for small businesses, providing an empirical case for showing why inaction in improving connectivity is not a viable option.

FSB operates throughout the UK, and so the final chapter brings together the policy pictures in Scotland, Wales and Northern Ireland, outlining the specific challenge that each nation has in improving connectivity.

Taken together, these sections show the generally negative state of both broadband and mobile connectivity in the UK for small businesses. There is cause for optimism if the opportunities for improvement that have arisen in both types of connectivity are taken up by Government, the regulator Ofcom, and the telecoms providers themselves.

KEY FINDINGS

Broadband

Download speeds:

- 30 per cent of small businesses receive download speeds of less than 10 megabits per second (Mbps).
- 39 per cent of small businesses in rural areas receive download speeds of less than 10 Mbps.
- One third (33%) of small businesses consider their broadband speeds to be insufficient for their current needs, rising to 40 per cent when considering their future needs.
- 39 per cent of small businesses in rural areas consider their broadband speeds to be insufficient for their current needs, rising to 46 per cent when considering their future needs.
- Over two thirds (68%) of small businesses that currently receive download speeds of less than 10 Mbps consider their broadband speeds to be insufficient for their current needs, rising to three quarters (75%) for those considering their future needs.
- Only 74 per cent of those that currently receive download speeds of less than 10 Mbps think that they will benefit from the Universal Service Obligation (USO).

Digital infrastructure:

- Full fibre and leased line connectivity take up among small businesses (14%) is much higher than the national average (estimated to be 2%).
- Over half (52%) of small businesses plan to upgrade to full fibre connectivity when it becomes available in their area.
- 72 per cent of small businesses that currently receive download speeds of less than 10 Mbps plan to upgrade to full fibre connectivity when it becomes available in their area.

Reliability and value for money:

- 41 per cent of small businesses consider that their broadband is often unreliable.
- Almost half (47%) of small businesses report that the speeds they receive are often lower than the speeds they were promised by their provider when they first signed up.
- 70 per cent of small businesses that currently receive download speeds of less than 10 Mbps report that this is lower than the speeds they were promised by their provider when they first signed up.
- Almost half (49%) of small businesses that currently receive download speeds of less than 10 Mbps are paying over £40 a month for their broadband, with a quarter (25%) paying over £60 a month.

Mobile:

- 45 per cent of small businesses experience unreliable voice connectivity.
- 57 per cent of small businesses in rural areas experience unreliable voice connectivity.
- Almost half (47%) of small businesses experience unreliable data connectivity.
- 59 per cent of small businesses in rural areas experience unreliable data connectivity.
- Around a third (34%) of small businesses are willing to upgrade to 5G when it becomes available in their area.

Broadband and mobile:

Impact of poor broadband or mobile connectivity on small businesses' performance and growth:

- Just under a third (32%) of small businesses have been prevented from contacting, or being contacted by, customers.
- 31 per cent of small businesses report that it is has been a barrier to the growth of their business. This figure rises to 49 per cent for small businesses that currently receive download speeds of less than 10 Mbps.
- 26 per cent of small firms say that they have lost business or sales as a result, rising to 36 per cent for those that currently receive download speeds of less than 10 Mbps.

RECOMMENDATIONS

Broadband speed and type of connection

- Government, industry and regulators should work together to remove barriers to deployment and installation of full fibre, in order to deliver full fibre connectivity to all premises by 2025. If that is not possible in some of the most remote areas, those premises should be gigabit capable by 2025, which widens the scope of technologies available to achieve such a connection. (p22)
- Government should provide more funding, or incentivise funding from telecoms providers, to provide full fibre or gigabit capable connections for the hardest to reach premises. (p23)
- Government should review existing voucher schemes, and other stimulus schemes, to ensure that funding is targeted to those that need it the most. (p16)
- Government, Ofcom, BT and KCOM should run public awareness campaigns about the Universal Service Obligation (USO) before it launches in March 2020. (p19)
- Ofcom must hold BT and KCOM fully to account for any unnecessary delays in the implementation of USO connections. (p19)
- FSB is calling for a public commitment that, as a minimum, no premise should receive download speeds of less than 10 Mbps by the end of December 2021, irrespective of whether they have proactively asked to be connected under the USO. (p20)
- FSB recommends that, where possible to implement within the USO installation timeframes, BT should use full fibre or a gigabit capable connection to connect properties eligible for a USO connection. (p20)

Broadband reliability, market interaction and cost

- Government should make it mandatory for new build properties to have full fibre connectivity, or be gigabit capable in places where full fibre will not be a feasible solution. (p25)
- Business and industrial park owners should actively work with providers of full fibre to connect their premises. (p25)
- Ofcom should make the Voluntary Codes of Practice compulsory, as they outline best practice, and providers should not be operating if they do not adhere to best practice. Any future codes of practice should be made compulsory, to create a level playing field for suppliers, and to protect all customers. (p26)
- Ofcom should improve the advice it provides online, and find new ways to reach customers to provide them with the information required to make informed decisions. If Ofcom cannot find a useful way of doing so, they should instead focus on ensuring that the market suppliers provide the relevant information. (p28)
- Ofcom should mandate broadband providers that cannot supply a service in an area to be transparent about the possibility that a separate provider can supply a connection instead. (p29)
- For the USO, a fairer affordable safeguard cap should be set at £35 a month, to protect USO customers. (p31)

Mobile connectivity

- Ofcom should ensure that the 3.6-3.8 GHz spectrum band (for 5G) auction takes place as scheduled, without delays. (p34)
- FSB supports a shared rural network. If necessary, government and Ofcom may need guarantees from the mobile network operators in exchange for removing coverage obligations and subsidising some of the extra costs involved. (p34)
- Ofcom should also ensure that the 700 MHz spectrum band (for 4G) auction takes place as scheduled, without delays. (p34)
- Funds raised from both of the 2020 spectrum band auctions should be ring-fenced to be spent on infrastructure improvements. (p34)

Impact on small businesses

- Ofcom should extend the existing compensation schemes so that they also apply to business contracts. (p37)

Connectivity in the devolved nations

- The Scottish Government should publish their revised timetable for the delivery of the R100 programme as soon as possible. (p39)
- The Scottish Government and UK Government should develop a memorandum of understanding regarding the development and deployment of digital infrastructure interventions. (p39)
- The UK Government should instruct Ofcom to develop a plan to close the mobile coverage gap between UK nations within the next four years, and future market interventions should be designed to benefit all parts of the UK. (p39)
- The National Infrastructure Commission for Wales should continue to address market failure trends in Wales ahead of rollout for technologies such as broadband and 5G mobile coverage in its 30 year infrastructure plan. (p40)
- The Welsh Government should fund market interventions similar in scale and ambition to Superfast Cymru to ensure Wales is at the forefront of digital connectivity. (p40)
- UK and Welsh Governments should continue to work with mobile operators to expand the network coverage for mobile internet, especially with the onset of 5G. (p40)
- The Welsh Government should work with Ofcom to ensure that regulation of mobile networks includes greater investment in Wales's harder to reach areas. (p40)
- The Northern Ireland Executive must ensure that support for new infrastructure available through Project Stratum is unrestricted by postcode, to benefit all those who need it. (p41)
- The Department for the Economy in Northern Ireland should ensure unserved premises are able to register their lack of connectivity through a touchpoint for business owners and consumers. This should be monitored closely until a sufficient threshold of service is met. (p41)

BROADBAND SPEED AND TYPE OF CONNECTION

Broadband speed

Download speed

Broadband and mobile connectivity has become increasingly important to small businesses, to the point where it is absolutely essential to have good connectivity to conduct business effectively. For broadband, the speed of service is crucial to be able to access any internet service. Lower speeds limit what small businesses are able to do online, and so we asked small businesses to conduct a speed test on their connection.

Figure 1: Small business download speeds

Source: FSB Broadband and mobile survey, 2019

	All		Rural		Urban	
0 – 4 Mbps	18%	30%	26%	39%	12%	23%
5 – 9 Mbps	12%		13%		11%	
10 – 19 Mbps	16%		17%		16%	
20 – 50 Mbps	27%		25%		28%	
Above 50 Mbps	27%		18%		33%	

Our data shows that 30 per cent of small businesses receive download speeds of less than 10 Mbps. The Government has defined a decent connection as one that can deliver 10 Mbps download speed and 1 Mbps upload speed (along with other defined quality parameters).³

Therefore 30 per cent of small businesses do not have a decent broadband connection.

CASE STUDY

“Slow connection speeds hold me back from using the internet more – I have to ‘share’ it with my husband who works from home, as we can’t both be online at the same time.”

Charlotte Rooke, White Syke Fields & Apple Charlotte, Sandhutton, North Yorkshire

The distribution of these businesses without decent connection varies depending on where they are based.

A total of 39 per cent of small businesses in rural areas receive download speeds of less than 10 Mbps, which shows how rural businesses continue to have different experiences to urban businesses. Twenty-three per cent of small businesses in urban areas experienced those same slow speeds. This imbalance in connectivity indicates a digital divide that needs closing.

³ Hutton, G, The Universal Service Obligation (USO) for Broadband – House of Commons Library Briefing Paper, p3

Ofcom's latest Connected Nations update indicates that the coverage of superfast broadband, which provides download speeds of over 30 Mbps, is now at 95 per cent for the UK.⁴ However, it does not provide take-up figures, which would generally be lower as not every premise that could experience a superfast connection has chosen to upgrade. FSB's survey is focused on take-up, and the types of connection used by small businesses are explored later in the chapter.

Another reason why business take-up of superfast broadband is lower than the overall figures reported in Connected Nations is because business coverage is lower than residential coverage. Coverage of business premises with superfast broadband is now at 88.4 per cent, compared with 96.2 per cent for residential.⁵

Figure 2 shows that these figures differ significantly depending on where businesses are based. Each of the superfast figures listed in the table are lower than the overall figure provided by Ofcom, and go some way to explaining the difference in figures between it and FSB's research. The rest of the differences can be explained by market issues, which are explored further later in the report.

Figure 2: Business premises broadband coverage

Source: thinkbroadband.com⁶

	Urban (covering c. 80% of the UK)	Rural (covering c. 20% of the UK)	Deep Rural (a subset of Rural, covering c. the last 10% of the UK)
Under 10 Mbps download speed and 1 Mbps upload speed (USO speeds specification)	8.3%	12%	17.8%
Above 30 Mbps download speed (‘superfast’)	90.9%	79.4%	69.2%

Ofcom has also previously identified that business parks receive lower download speeds than would be expected, and FSB has found that 26 per cent of small businesses based in business or industrial parks receive download speeds of less than 10 Mbps. This is notable because these are places specifically set up and designed for business use, and yet offer speeds that are generally no better than home internet. The owners of these parks need to prioritise addressing broadband issues that small businesses face when renting in such premises, as they are a barrier to business growth.

CASE STUDY

“I receive most of my work from agencies who contact me by email or over the internet. Our typical internet speed is 0.25 Mbps. No, that isn't a mistype.”

FSB member, independent management consultant,
telecoms & customer service industry, Shropshire

4 Ofcom, Connected Nations update: Summer 2019, <https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-update-summer-2019>

5 Thinkbroadband.com, <https://www.thinkbroadband.com/news/8538-free-gift-for-efra-committee-business-rural-versus-urban-broadband-picture-for-great-britain>

6 Thinkbroadband.com, <https://www.thinkbroadband.com/news/8538-free-gift-for-efra-committee-business-rural-versus-urban-broadband-picture-for-great-britain>

Upload speed

In addition to requiring a broadband connection with decent download speeds, small businesses also require decent upload speeds. Uploading is required for many business activities, including video conferencing, sending large files and making use of cloud services.

Figure 3: Small businesses upload speeds

Source: FSB Broadband and mobile survey, 2019

	All	
0 – 4 Mbps	33%	53%
5 – 9 Mbps	20%	
10 – 19 Mbps	26%	
20 – 50 Mbps	14%	
Above 50 Mbps	7%	

Unfortunately over half of small businesses (53%) receive an upload speed of less than 10 Mbps. In total, almost a third (33%) receive an upload speed of more than 4 Mbps. These speeds limit the amount of digital innovation that small businesses can undertake.

CASE STUDY

“The lack of good broadband affects the VoIP phone system the most. In particular the upload speed affects voice quality and has caused lost phone calls. The customer in many instances can be clearly heard but they cannot hear us clearly or sometimes not at all.”

FSB member, utilities provider, Lancashire

Both upload and download speeds on a broadband connection can vary over the course of a day, and we would expect peak time speeds to be worse than off-peak speeds (on non-full fibre connections). Therefore it is particularly concerning that only seven per cent of the reported speeds in our survey were from evening peak times (7-11pm). It follows that already poor speeds reported would be even worse at peak times, and so the effective peak time speeds for many small businesses would actually be a lot lower, perhaps pulling some of them down into the 10 Mbps or less download speed category.

Current needs

FSB recognises that small businesses have their own needs and requirements from broadband connectivity, so we wanted to know more about how well their broadband speeds serve their needs.

Figure 4: Small business views on current sufficiency of broadband speeds

Source: FSB Broadband and mobile survey, 2019

	All	
Strongly agree	28%	59%
Slightly agree	31%	
Neither agree nor disagree	8%	33%
Slightly disagree	14%	
Strongly disagree	19%	

One third (33%) of small businesses do not believe their broadband speeds are sufficient for their current needs, with this rising to 39 per cent for small businesses in rural areas (compared to 28% for small businesses in urban areas).

The situation is much worse for those who currently receive download speeds of less than 10 Mbps, with 68 per cent of them saying that their broadband speed is insufficient for their current needs. This is an important finding, as it puts to rest the idea that a majority might stick with a slower speed connection voluntarily. It is clear that a majority of small businesses that experience these very poor speeds are well aware of the limitations of their current speeds, and would like the situation to be remedied by an improvement in digital infrastructure.

Future needs

When thinking about their future needs, most small businesses are well aware that they will require faster speeds to continue to operate effectively.

Figure 5: Small business views on future sufficiency of broadband speeds

Source: FSB Broadband and mobile survey, 2019

	All	
Strongly agree	19%	47%
Slightly agree	28%	
Neither agree nor disagree	13%	40%
Slightly disagree	16%	
Strongly disagree	24%	

Overall, 40 per cent of small businesses disagree that their broadband speed is sufficient for their future needs, rising to 46 per cent for those based in rural areas. Once again, those who currently receive download speeds of less than 10 Mbps realise that their speeds are insufficient for their future needs, with 75 per cent of them saying that their broadband speed is insufficient for their future needs.

These figures indicate the need for a sustained shift away from both ADSL and fibre/cable (FTTC – fibre to the cabinet) towards full fibre solutions (FTTP – fibre to the premises). Broadband connections will need to be upgraded over the next few years so that small businesses can compete in the markets of the future. Without significant improvements, digital infrastructure will prove to be even more of a barrier to growth than it is today.

Overall, the poor speeds experienced by many small businesses is regrettable, especially when compared to the performance of other utilities such as water and energy. In the same way that a lack of water or energy would be considered a failure to deliver a basic product and service, so it should be with a lack of broadband connectivity, either because of market or infrastructural failures. FSB research shows too many small businesses are not receiving a minimally acceptable standard of product or service, according to the Government's own definition. This shows that the market in broadband connectivity is failing to deliver as it should do, and requires much stronger oversight from the regulator Ofcom. Central government policy also needs to be developed to address these issues, confronting clear market failures with government intervention.

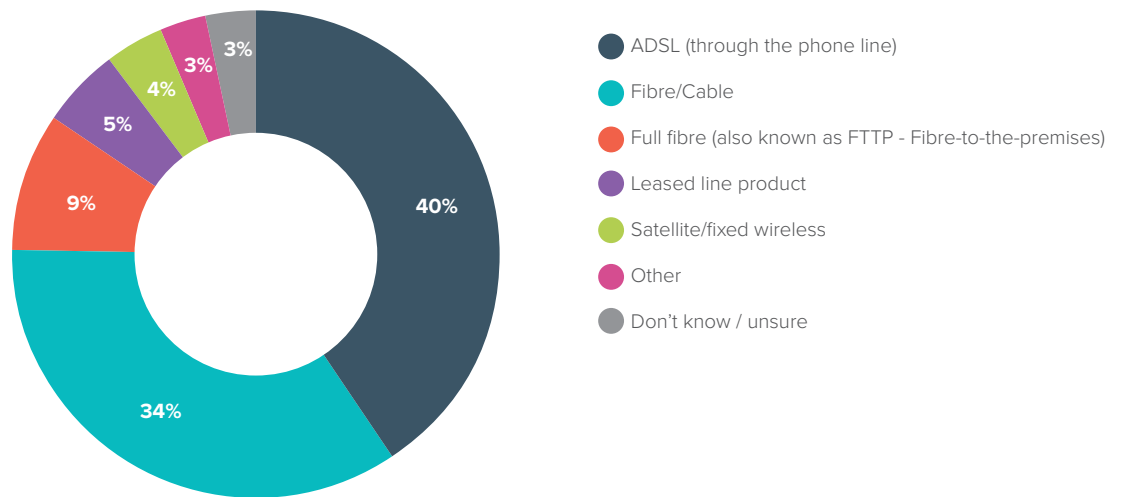
Previous attempts to intervene, such as voucher schemes, have had a minimal impact on improving the broadband experience for many small businesses, and as such represent a government failure to intervene in the market effectively, with taxpayers' money spent inefficiently. Therefore UK Government needs to honestly reflect on the effectiveness of its existing policies, without having to feel bound by policies tried under previous administrations. Government should review existing voucher schemes, and other stimulus schemes, to ensure that funding is targeted to those that need it the most. This includes rural areas, business and industrial parks, and other sections of society that will not be covered under proposed new schemes and industry-led rollout programmes. All of this may require new funding depending on the scale of the challenge identified, combined with stimulating and unlocking private sector investment.

Type of connection

The type of connection a small business has for its broadband has an impact on their everyday experience.

Figure 6 shows that the majority (74%) of small businesses are using ADSL (40%) or fibre/cable (34%) connections for their business broadband use. It is encouraging that nine per cent are using full fibre, and five per cent are using a leased line product. Combined, this means that 14 per cent of small businesses have an FTTP connection, much higher than the national average (estimated to be 2%). There is a clear opportunity to replace both ADSL and fibre/cable connections to ensure businesses have the broadband connection they will need to meet future needs, namely FTTP.

Figure 6: Types of small business broadband connections
Source: FSB Broadband and mobile survey, 2019



There are still variations in connection type across the UK. Forty-seven per cent of rural businesses use an ADSL connection, and have a slightly lower use of FTTP at 11 per cent. This is compared to 35 per cent of urban businesses which use an ADSL connection, and 17 per cent which use FTTP.

Typology of connectivity

Small businesses can be broadly categorised into three groups.

The first group are 'left behind'. These businesses receive poor download speeds of less than 10 Mbps. Furthermore, without strong intervention they are at risk of being left even further behind in the future, widening the digital divide. Improving the experience of this group provides an opportunity to unlock their productivity.

There are many reasons why small firms may be left behind in terms of their slow broadband speeds. Some will be affected by poor infrastructure, with little to no competition in their specific areas. Others will be discouraged by failures (perceived or real) in the market. FSB explores market issues more in the next chapter of this report.

The second group are the 'middle majority'. Their current speeds are fine for their business needs at present, but risk being insufficient for their future needs. They also represent an opportunity for future growth, as they are conducting their current business on at least minimum acceptable speeds, and could do a lot more with faster speeds.

The third group are 'pioneers'. These small businesses have full fibre broadband connectivity, either through an FTTP package or a leased line package. Not only do they receive fast speeds, they demonstrate that the small business community is ahead of the curve relative to the wider public in understanding the importance of high-performing services. This group also represents where we would like all small businesses to be, namely having full fibre connectivity to enable them to grow their business and improve their productivity.

These three groups will be referenced in the following broadband sections, as shorthand for the direction of travel required in different policy areas.

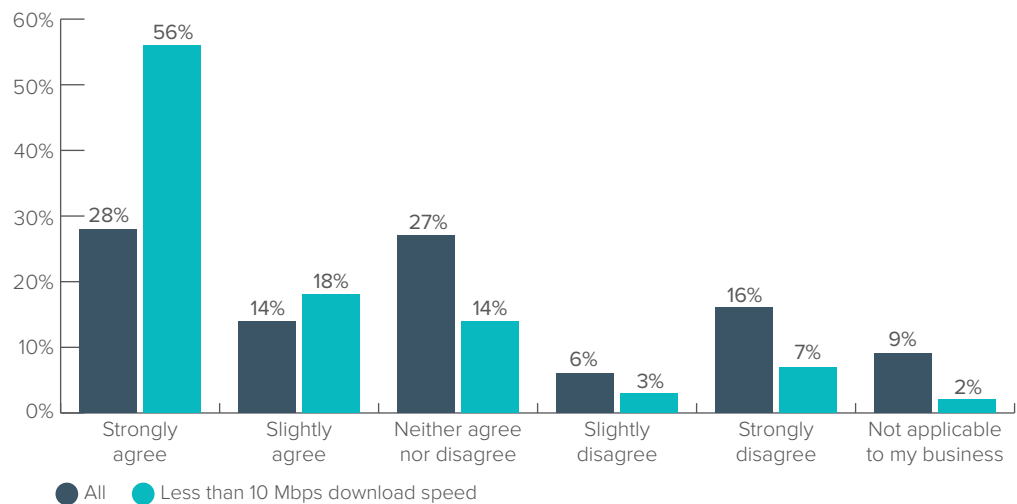
Policy outlook

Universal Service Obligation (USO)

To address the issues experienced by the left behind group, Government and Ofcom have legislated to put in place a broadband USO, which will start in March 2020.⁷ The USO will provide the right to request a decent and affordable broadband connection, which will be provided without a customer contribution for connections costing up to £3,400 (any connections costing more will require a customer contribution). The Government has defined decent broadband as a service that can provide a download speed of 10 Mbps, and an upload speed of 1 Mbps, and Ofcom has defined 'affordable' as a connection that costs less than £45 per month.

Figure 7: Small business views on the Universal Service Obligation (USO)

Source: FSB Broadband and mobile survey, 2019



Therefore, the USO is designed to benefit those who currently receive a download speed of less than 10 Mbps (and upload speed of less than 1 Mbps). Forty-two per cent of small businesses say that they will benefit from the USO, which is a higher percentage than those reporting download speeds of less than 10 Mbps. This indicates that there are some small businesses that might be able to record more than 10 Mbps in a download speed test at off-peak times, but may experience actual speeds of lower than 10 Mbps during peak times. There will also be a proportion which experience the minimum acceptable download speeds, but experience upload speeds of less than 1 Mbps.

It is a cause for concern that only 74 per cent of those who reported that they receive download speeds of less than 10 Mbps think that they will benefit from the USO. This suggests that awareness of the USO is not as high as it needs to be, with a significant minority of small businesses unaware of their eligibility to benefit from the scheme.

Government, Ofcom, BT and KCOM should run public awareness campaigns about the USO before it launches in March 2020. This will enable small businesses to demand the connection they deserve.

The speed at which BT (the designated USO provider, with KCOM in Hull only) connects small businesses that request a connection is key. Ofcom needs to hold BT and KCOM fully to account for any unnecessary delays in the implementation of USO connections. Without such oversight, combined with remedial action, faith in the USO process will be forfeited very quickly.

However, the USO specification is not ambitious enough on the time allowed to connect a premise. It states that, 'BT must deliver every USO connection as quickly as possible and deliver at least 80 per cent of connections within 12 months'.⁸

⁷ Ofcom, Your right to request a decent broadband service: What you need to know, <https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/broadband-usage-need-to-know>

⁸ Ofcom, Statement: Delivering the Broadband Universal Service, p2, <https://www.ofcom.org.uk/consultations-and-statements/category-1/delivering-broadband-universal-service>

Many small businesses simply cannot wait that long for decent connectivity. Under the USO 20 per cent of small businesses that apply for a connection will have to wait longer than 12 months before their download speeds improve. FSB is calling for a public commitment that, as a minimum, no premise should receive download speeds of less than 10 Mbps by the end of December 2021, irrespective of whether they have proactively asked to be connected under the USO. This will be a down payment on connecting all premises to full fibre, or a gigabit capable connection, by 2025.

FSB recommends that, where possible to implement within the USO installation timeframes, BT should use full fibre or a gigabit capable connection to connect properties eligible for a USO connection. This will contribute to the ambition of full fibre coverage to every premise, and prevent a situation in which a property is connected by copper under the USO, and then has to be re-done with full fibre in later years. The ambition should be to avoid unnecessary expense and disruption in the future by connecting using full fibre now. Ideally, we would like this to be changed in the USO specification. Failing that, Ofcom should monitor the USO providers' plans when they receive requests for a connection, and challenge the ambition of the USO providers if they are not using full fibre.

It is worth noting that, regardless of the successful implementation of the USO, the UK will still lag behind the EU in the ambition set out by the European Commission, which has a broadband objective for 2020, 'to supply every European with access to at least 30 Mbps connectivity'.⁹ This limits the ability for those in the left behind group to experience the level of connectivity enjoyed by businesses in the EU, and consequently puts them at a competitive disadvantage, and holds back the growth of the UK economy.

CASE STUDY

"You can't run a business without broadband. Without doing anything you are pushing remote businesses, or any business that isn't based in a city, out of business."

Amy Hare, White Horse Business Services Ltd, Bedale, North Yorkshire

⁹ European Commission, Broadband Europe, <https://ec.europa.eu/digital-single-market/en/broadband-europe>

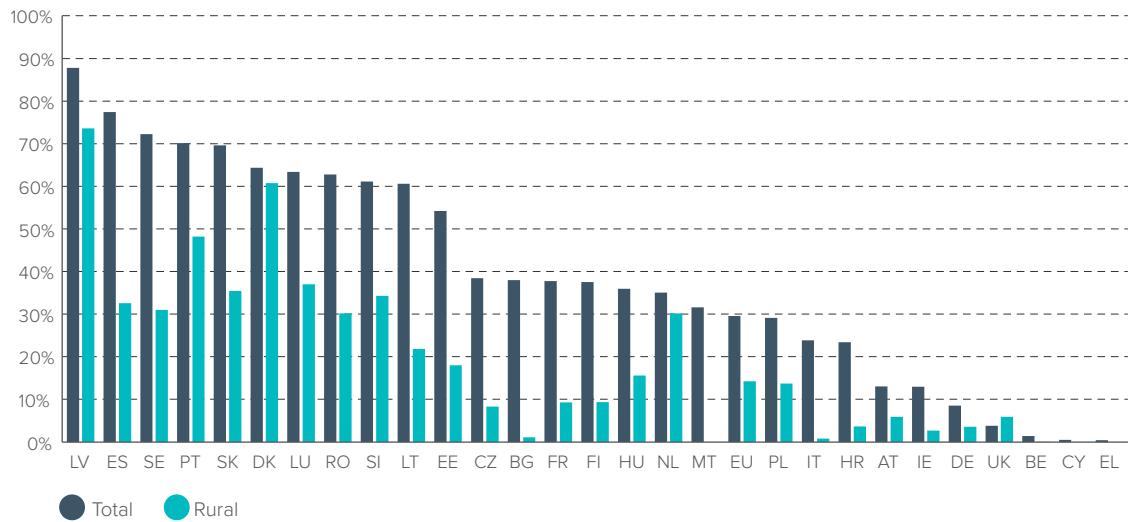
Full fibre

A further incentive to improve the UK’s connectivity is to ensure that we do not continue to lag behind other EU countries’ level of full fibre connectivity. The European Commission has outlined a strategic objective for 2025, ‘Gigabit connectivity for all main socio-economic drivers such as schools, transport hubs and main providers of public services as well as digitally intensive enterprises.’¹⁰

The UK is still far behind most other EU countries in relation to full fibre, ranking at 25 out of 28 EU countries.¹¹

Figure 8: Fibre-to-the-premises (FTTP) coverage in the EU (% of homes), mid-2018

Source: European Commission, Digital Economy and Society Index Report 2019



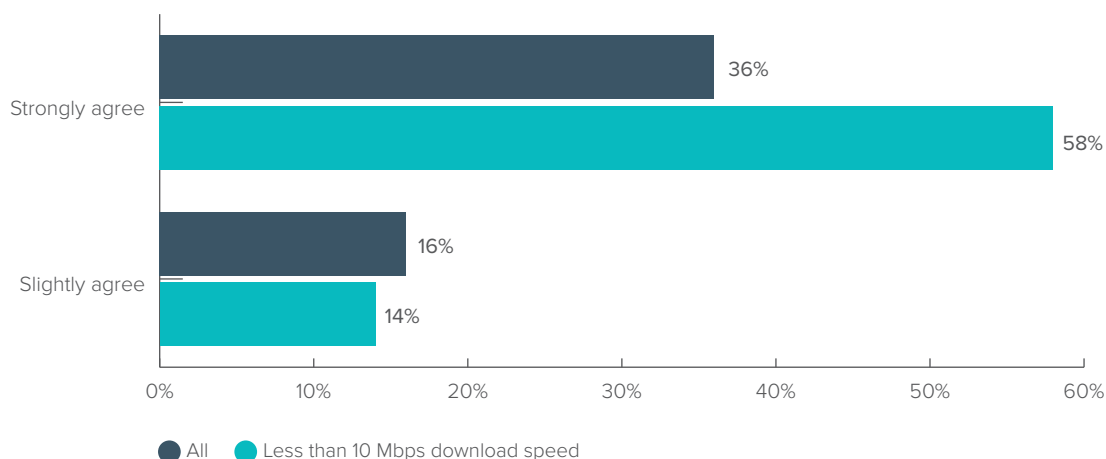
This demonstrates a real deficit of action in the UK to use the best technology solutions, and shows that more competition in the full fibre market is necessary.

¹⁰ European Commission, Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society, p6, <https://ec.europa.eu/digital-single-market/en/news/communication-connectivity-competitive-digital-single-market-towards-european-gigabit-society>

¹¹ European Commission, Digital Economy and Society Index Report 2019.

Figure 9: Proportion of small businesses that propose to upgrade to full fibre connectivity when it becomes available in their area

Source: FSB Broadband and mobile survey, 2019



It is encouraging that small businesses sense the opportunity presented by the rollout of full fibre connectivity. Fifty-two per cent of small businesses agree that they plan to upgrade to full fibre connectivity when it becomes available in their area. Only nine per cent of small businesses stated they did not plan to upgrade to full fibre once it becomes available.

The left behind group and middle majority group of small businesses can both benefit from full fibre, and the enthusiasm shown in this data demonstrates a genuine demand for full fibre infrastructure upgrades as soon as possible. Openreach and other full fibre providers therefore need to press forward with their upgrade plans.

In the Future Telecoms Infrastructure Review, the Government had set a target of 2033 to build a UK-wide full fibre network, with an interim target of 15 million premises by 2025.¹² For many small businesses, that are ready to upgrade now, having to wait until 2033 for full fibre connectivity is not really a viable option. The current Government has set an ambition to bring forward the 2033 date to 2025 instead.¹³ We agree with this ambition, and would prefer those in the left behind group of connectivity to be targeted first so that they receive full fibre sooner, having the most need for an increase in speed and reliability of connection. FSB challenges industry to deliver full fibre connectivity by 2025. If that is not possible in some of the most remote areas, those premises should be gigabit capable by 2025, which widens the scope of technologies available to achieve such a connection.

Prioritising those small businesses that currently have the worst connectivity will help make swift progress in addressing the gap. This will enable small businesses to access a much higher level of connectivity than they had before, and raises the minimum level of connectivity in the UK. Such ambition will be even more important for the UK to deliver its global growth ambitions and to deliver on the vision set out in the Industrial Strategy.

Government and Ofcom need to encourage the full fibre rollout by reducing the barriers to deployment and installation of full fibre. This is a clear opportunity to help grow the economy by enabling businesses to take advantage of the best type of connectivity sooner, and clearing the way for full fibre for every premise.

Full fibre rollout is likely to initially take place in urban areas, which already experience better connectivity than rural areas. Fifty-eight per cent of small businesses based in rural areas agree that they plan to upgrade to full fibre when available, compared to 46 per cent of small businesses based in urban areas. There is clear latent demand for full fibre infrastructure, with 72 per cent of small businesses which currently experience less than 10 Mbps agreeing that they plan to upgrade to full fibre when available. Therefore there is a need to open dialogue with infrastructure providers to

¹² Hutton, G, Full-fibre networks in the UK – House of Commons Library Briefing Paper, p3
¹³ <https://www.telegraph.co.uk/politics/2019/06/16/reboot-left-behind-britain-turbo-charged-broadband-revolution/>

ensure that their plans also include areas which need connectivity the most. This may require more active intervention in the market than has previously taken place before, to both reduce technical and legal barriers to deployment in rural areas, and to encourage competition in the market provision of full fibre.

Currently, there are areas in the UK that are seen as commercially unviable to provide full fibre. Government should provide more funding, or incentivise funding from telecoms providers, to provide full fibre or gigabit capable connections for the hardest to reach premises. Therefore FSB welcomes the Government's commitment for £5 billion to 'support the rollout of full-fibre, 5G and other gigabit-capable networks to the hardest-to-reach 20% of the country',¹⁴ and looks forward to seeing more detail on how this funding will be used.

Existing telecoms companies have been too willing to sweat the assets of an ageing infrastructure, with an over-reliance on copper. The new 2025 ambition is a very welcome proposal to create a market where the default option available is a full fibre or gigabit capable option.

CASE STUDY

"You're selling to 60 countries, that's the thing that's overlooked. When you're using KPIs that are based on national level, and you're getting a 50 per cent increase in speed, it doesn't matter because your customers are still suffering because our infrastructure is poor. So the Government needs to move away from actually measuring against ourselves, and benchmarking ourselves against the best in the world."

Chris Manka, CM Consulting, Greater Manchester

¹⁴ <https://www.bbc.co.uk/news/technology-49881168>

BROADBAND RELIABILITY, MARKET INTERACTION AND COST

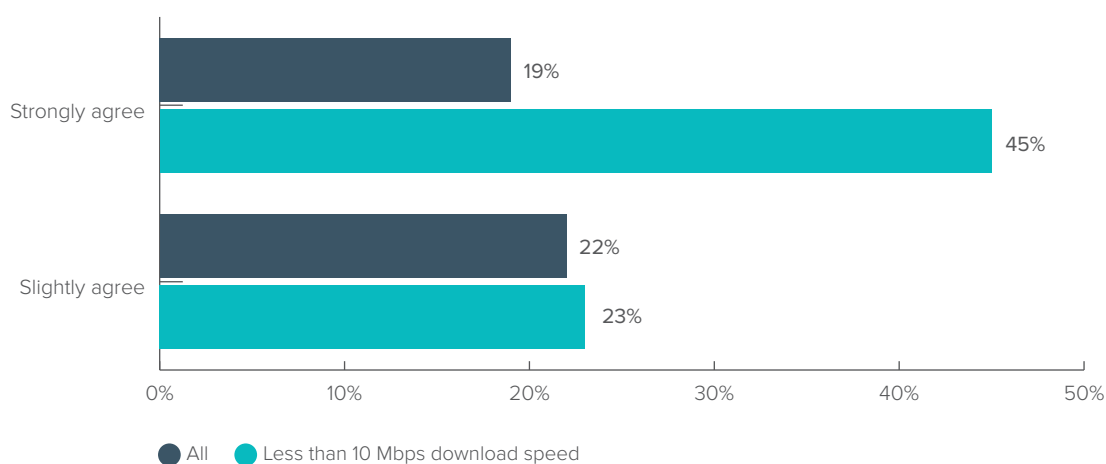
Broadband reliability

Reliability of connection

Small businesses are concerned about the reliability of their broadband connection, given that the whole point of having a broadband connection is the ability to access the internet reliably.

Figure 10: Proportion of small businesses that say their broadband is reliable

Source: FSB Broadband and mobile survey, 2019



Forty-one per cent of small businesses agree that their broadband is often unreliable, which is a remarkably low level of service provision. Rural businesses suffer more than urban businesses, with half (50%) experiencing unreliable broadband in rural areas compared with just over a third (34%) in urban areas.

This variability in service is seen most acutely for those in the left behind group, who already experience poor download speeds of less than 10 Mbps, with 68 per cent of those small businesses agreeing. This is in stark contrast to small businesses which experience download speeds of over 10 Mbps, with only 29 per cent reporting their broadband is often unreliable. The unreliability in broadband connection clearly affects those businesses in the middle majority group too, which is one of the causes of concern for them as they do not have confidence in the connection they have.

The infrastructure used for most broadband connections is owned and managed by Openreach (the exceptions mostly being Virgin Media cable users, and new full-fibre providers). Therefore they need to act with more urgency to improve the network, as our evidence shows that the low quality of broadband infrastructure is holding back small businesses.

Reliance on home internet

Small businesses are not a homogenous group, and are therefore based in different types of premises. A majority of UK small businesses rely heavily on home internet for business use.

Figure 11: Proportion of small businesses that say they rely heavily on their home internet for business use

Source: FSB Broadband and mobile survey, 2019

	All	
Strongly agree	44%	61%
Slightly agree	17%	
Neither agree nor disagree	10%	21%
Slightly disagree	9%	
Strongly disagree	12%	
Not applicable to my business	9%	

Overall 61 per cent of small businesses rely on their home internet for business use. This rises to 80 per cent for sole traders as they tend to use their home, or premises attached to the home, as their business premises. However, even for those small businesses that are not based at home or similar premises, 46 per cent use their home internet for business use. This indicates that there should not be a specific policy difference when thinking about ‘business’ users compared to ‘home’ users, as there is a lot of overlap between those groups.

To address the issues that affect businesses based at home, and in business and industrial parks, more emphasis needs to be placed on connecting these types of premises to full fibre. It will take time for all residential properties to be covered by full fibre, but there is an opportunity to future proof new build homes. It should be mandated that new build properties have full fibre connectivity, or be gigabit capable in places where full fibre will not be a feasible solution. This would unlock productivity, and have the added benefit of future-proofing new build properties without having to cause further disruption by installing new cables in later years.

Business and industrial park owners should actively work with providers of full fibre to connect their premises. It is clear that this will help many small businesses, making these places more attractive to rent and thus avoiding properties sitting empty and untenanted.

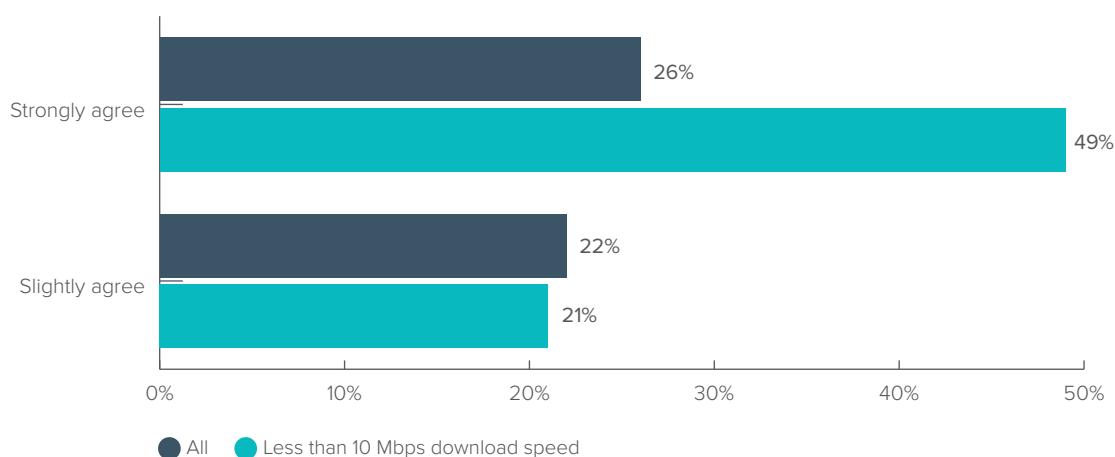
Market interaction

Lower speeds than promised

Small businesses require trust in the market to be able to make the right choices for them.

Figure 12: Proportion of small businesses that say their internet speeds are often lower than promised

Source: FSB Broadband and mobile survey, 2019



Forty-seven per cent of small businesses agree that the speeds they currently receive are often lower than that promised by their provider when they first signed up. The New Voluntary Codes of Practice on Broadband Speed published by Ofcom go some way to address speed inconsistencies.¹⁵ However, most small businesses will have signed up to contracts before the new codes were introduced. Ofcom should make the Voluntary Codes of Practice compulsory, as they outline best practice and providers should not be operating if they do not adhere to best practice. Any future codes of practice should be made compulsory, to create a level playing field for suppliers, and to protect all customers.

A lot of the small businesses affected will be in the middle majority group, that might generally receive download speeds of more than 10 Mbps, but then find that at certain times of the day their actual download speeds are lower, due to the ageing infrastructure which underpins their connection. In the left behind group, which experience download speeds of less than 10 Mbps, 70 per cent of them say that the speeds that they currently receive are lower than promised, which is clearly an example of market failure.

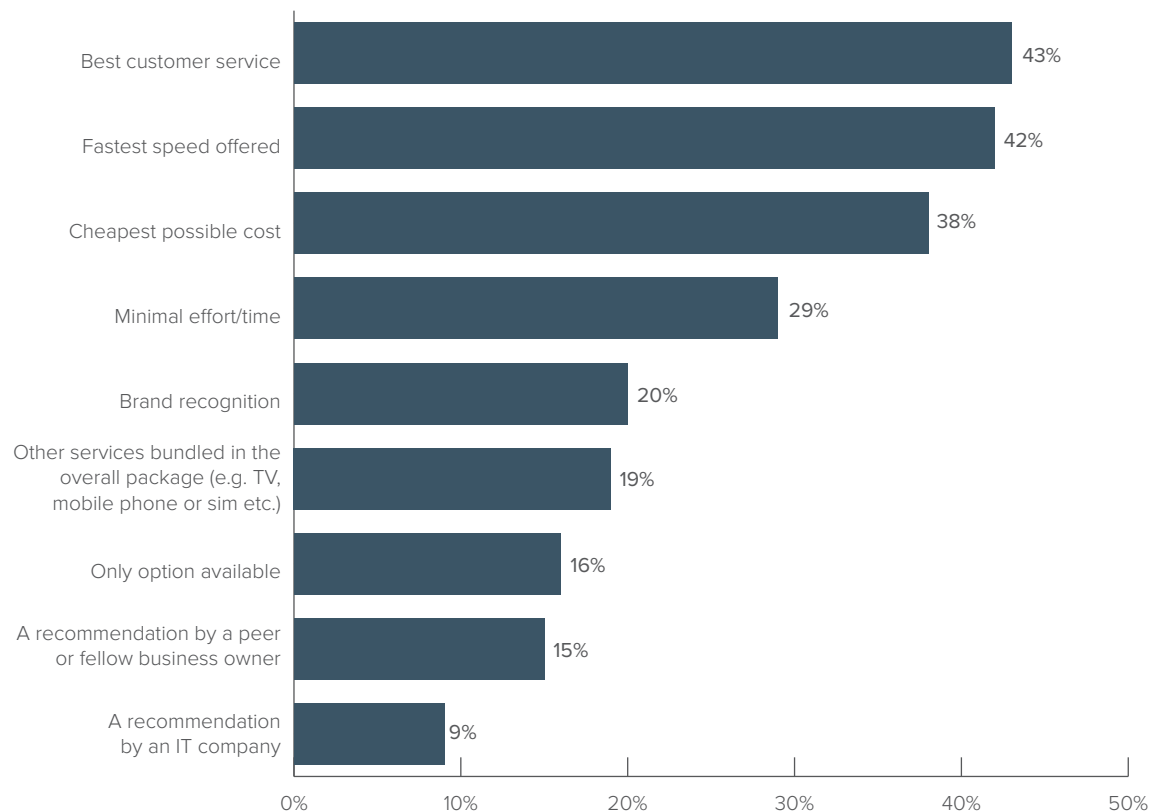
¹⁵ Ofcom, Codes of practice, <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/codes-of-practice>

Reasons for choosing current broadband provider

Historical reasons have led to a situation in the UK where the majority of the infrastructure used is provided by one private sector firm, Openreach. The telecoms ISPs (internet service providers) that consumers will be familiar with provide the customer service element.

Figure 13: Factors affecting how small businesses choose their broadband provider

Source: FSB Broadband and mobile survey, 2019



This importance on customer service is reflected in the way that small businesses choose their broadband provider, with 43 per cent ranking it as one of their top three considerations. The fastest speed offered (42%) is also important, closely followed by the cheapest possible cost (38%).

These considerations accurately reflect the drivers for assessing how well the market operates. Telecoms providers are responsible for their customer service, whilst Openreach (and Virgin Media and smaller FTTP providers) are responsible for the speed offered based on the customer package.

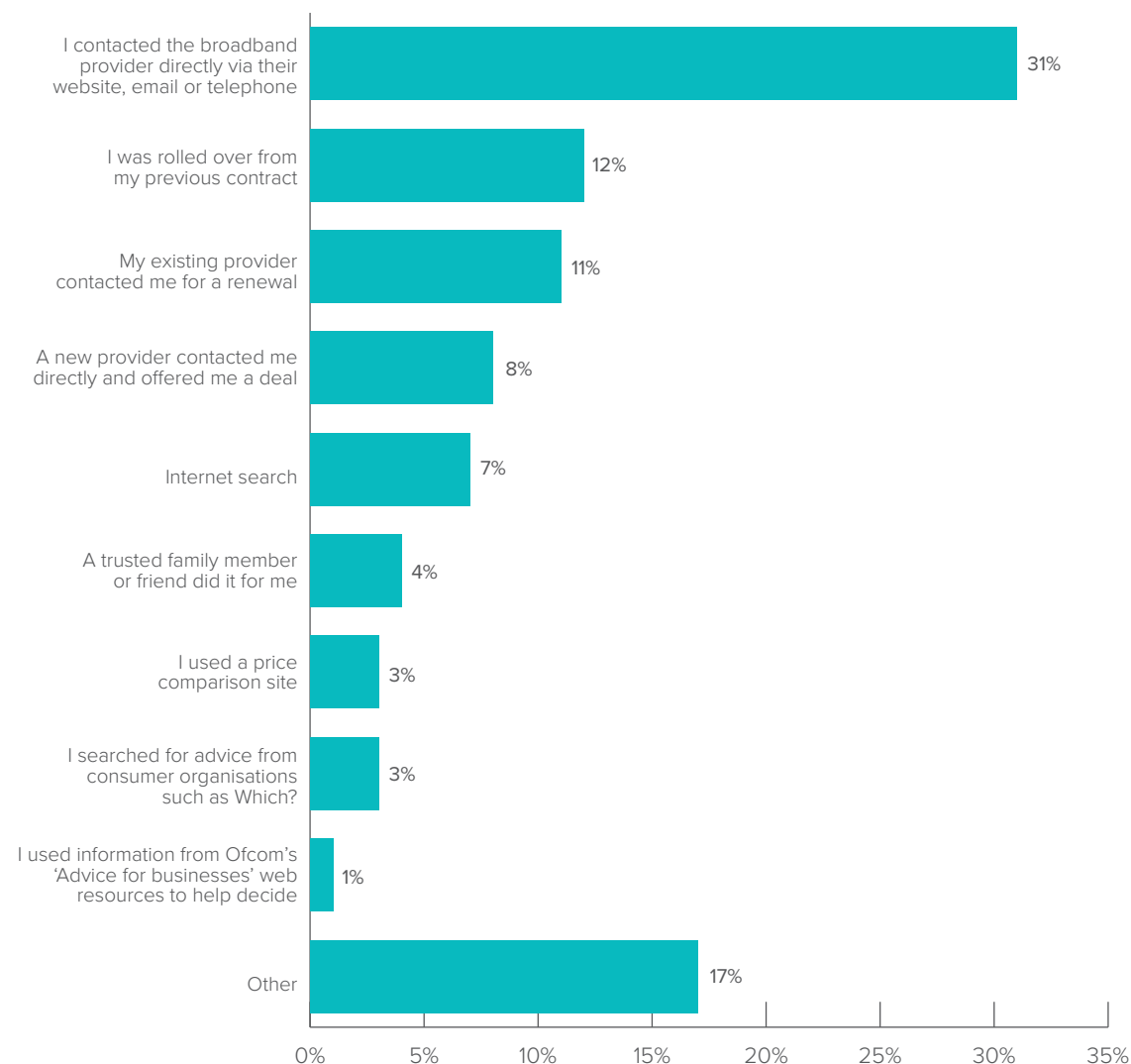
Sixteen per cent of small businesses reported that they only have one option available for their connection, which is reflective of the virtual monopoly that Openreach have over broadband infrastructure and the relative lack of competitiveness in areas which telecoms providers feel are not profitable. Of those that reported that they didn't have a choice (i.e. that their current broadband is the only option available to them), 42 per cent receive download speeds of less than 10 Mbps. This finding suggests a market failure, as the lack of choice that small businesses have seems to disincentivise broadband providers to supply a decent broadband connection. Government and Ofcom need to do more in these areas to ensure that universal coverage can be reached in an equitable way.

Contract decisions

There is little evidence that the market is making it easy for small businesses to make informed buying decisions when they need to choose their broadband provider.

Figure 14: How small businesses found their current broadband provider

Source: FSB Broadband and mobile survey, 2019



Thirty-one per cent identified and signed up to their current contract by contacting a broadband provider directly, which is far more than used an internet search (7%) or a price comparison site (3%). Searching for advice and information from either Which? or Ofcom were also much less used options, at three per cent and one per cent respectively. Ofcom need to re-evaluate the advice they provide online and find new ways to reach customers to inform them about what they need to know, and of the options that they have. If they cannot find a useful way of doing so, they should instead focus on ensuring that the market suppliers provide the relevant information instead.

Comparing offers

As mentioned, broadband providers currently do not have a market incentive to ensure that their packages are easy to compare against similar packages offered by their competitors.

Figure 15: Proportion of small businesses that say they found it hard to understand and compare different offers from broadband providers

Source: FSB Broadband and mobile survey, 2019

	All	
Strongly agree	18%	39%
Slightly agree	21%	
Neither agree nor disagree	30%	
Slightly disagree	9%	25%
Strongly disagree	16%	

Thirty-nine per cent of small businesses agree that they find it hard to understand and compare different offers from broadband providers, compared to 25 per cent who disagree. Therefore, as well as fixing their own advice, Ofcom needs to consider new ways to improve and strengthen its oversight of the market to ensure that broadband providers are making every effort to genuinely improve the connectivity of customers.

There is currently little incentive for a broadband provider that cannot provide a service to a particular area to recommend that a potential future customer instead contact a rival broadband provider to supply a service instead. Ofcom needs to mandate that broadband providers that cannot supply a service in an area should be transparent about the possibility that a separate provider can supply a connection instead.

Summary

The experiences of many small businesses engaging with the broadband market do not make for encouraging reading. Market issues are likely to be a significant contributor to the reasons why those in the left behind group have not upgraded their broadband connection (in areas in which the infrastructure itself is actually available), and are likely to prevent those in the middle majority from being able to exploit the full potential of digital connectivity, especially when considering their future needs.

It is clear that unreliable broadband and experiencing lower speeds than promised affect those receiving slower download speeds more than those with faster speeds. This can be mostly explained by the prevalence of ADSL connections amongst the left behind group of small businesses.

However, other market issues seem to affect those in the middle majority too, such as the difficulty in comparing offers between telecoms providers, and the relative passivity of market engagement.

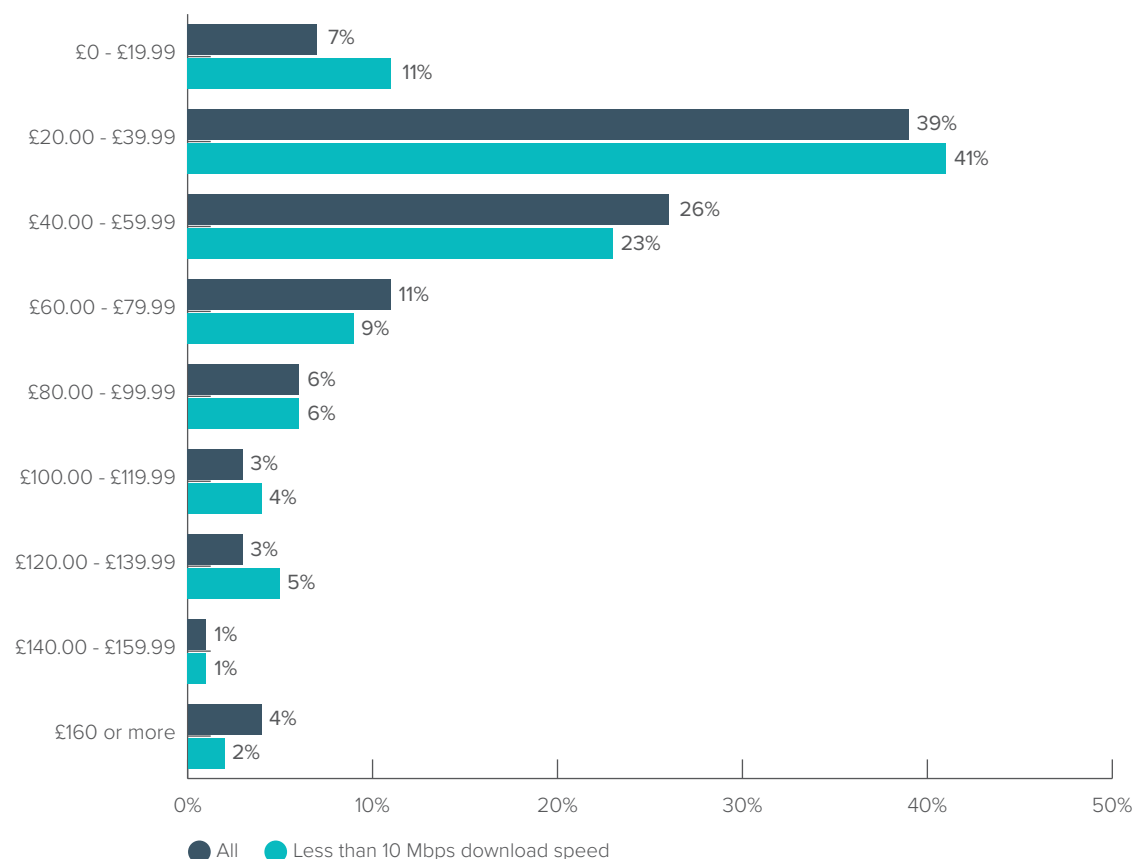
There are many reasons for passive market engagement, such as becoming disengaged or feeling disempowered from previous negative experiences, or deciding that the perceived extra benefits from more active participation are outweighed by the extra costs involved in terms of time, resources and the market prices of various packages. The degree to which infrastructure or markets are seen as a barrier or an opportunity for small businesses is highly individual to the unique characteristics of their business needs.

Cost

Small businesses are similar to consumers because they lack time, resources, and in some cases expertise, to find the best value deal that meets their requirements. The cost of technology in general has decreased over time, but the same does not appear to be the case with broadband packages.

Figure 16: Monthly costs of small business broadband services

Source: FSB Broadband and mobile survey, 2019



It is concerning to learn just how much small businesses are paying for unacceptably poor broadband. Almost half (49%) of small businesses that currently receive download speeds of less than 10 Mbps are paying over £40 a month for their broadband, with a quarter (25%) paying over £60 a month. This is a sobering finding, showing that the left behind group suffer many penalties. Not only do they have poor broadband speeds, they are paying a high price for their poor service.

It is in this context that policymakers should consider the effectiveness of the USO, as it is currently specified. It is clear that many small businesses are paying more than expected for a poor broadband service.

The USO specification proposes a cap of £45 a month for a connection. BT has also committed to offering at least one broadband connection and service that meets the USO specification at no more than £45 per month.¹⁶

Compared to similarly priced offerings, this cap is set too high. FSB understands the need to balance affordability between USO and non-USO customers, but we are concerned that setting a cap can produce undesirable behaviour to charge at the top end of the cap. Therefore the de facto default price charged would be £45 a month.

¹⁶ Ofcom, Statement: Delivering the Broadband Universal Service, p3, <https://www.ofcom.org.uk/consultations-and-statements/category-1/delivering-broadband-universal-service>

From our research, the majority of small businesses (69%) have a broadband cost of less than £60 a month. For the USO, a fairer affordable safeguard cap should be set at £35 a month, to protect USO customers. This would ensure that small business customers, as well as consumers, can afford to benefit from connectivity. This is particularly important as the connectivity delivery solutions have not been mandated, so some areas could be covered using copper connections if BT believe that to be the most cost effective delivery route for those areas.

CASE STUDY

“Our download speed is 1.1 Mbps, provided by BT on a residential package – it costs us £42.99 per month including line rental.”

Chris & Suzanne Mitchell, Swaledale Country Holidays, Muker, North Yorkshire

MOBILE CONNECTIVITY

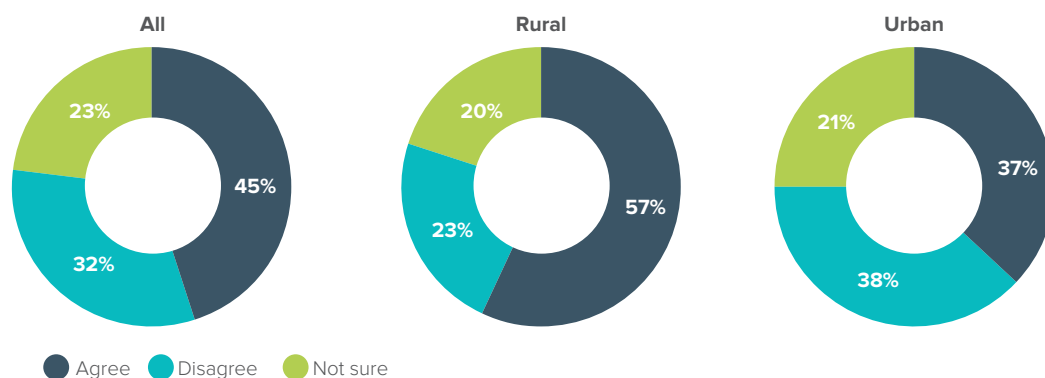
Reliability of voice and data connections

Voice connection

Mobile connectivity is just as essential as broadband connectivity for small businesses. Most, if not all, activity that can be carried out online using a broadband connection can now also be achieved on a mobile phone. Even the term ‘mobile’ seems close to obsolete now, with the ubiquity of smartphones and the access they provide to the internet. This has led to a large shift in how business can be conducted now, compared with just a decade ago. It is therefore very important that mobile connectivity is reliable for small businesses.

Figure 17: Proportion of small businesses with unreliable mobile voice connection

Source: FSB Broadband and mobile survey, 2019



Because the very nature of ‘mobile’ phones is that they can be used anywhere, it is frustrating to see that 45 per cent of small businesses agree that their mobile voice connection is often unreliable. There is a general assumption that rural areas have worse voice connectivity than urban areas, which was backed up by our data – 57 per cent of small businesses based in rural areas agree that their mobile voice connection is often unreliable, compared to 37 per cent of small businesses based in urban areas.

These figures are much higher than would be found for any comparable utility, and suggest that the current model of individual phone masts providing a service to its own set of customers is not working well. This fragmentation of service provision, where major telecoms providers do not achieve universal coverage, is hampering business from being conducted in a reliable way.

CASE STUDY

“Our connection by mobile phone is not good enough for a professional business conversation – it’s just not professional to keep saying ‘sorry I can’t hear you’ when you’re consulting with a customer. We get one bar of phone signal, and get excited if we get two outdoors, it’s never stronger than that.”

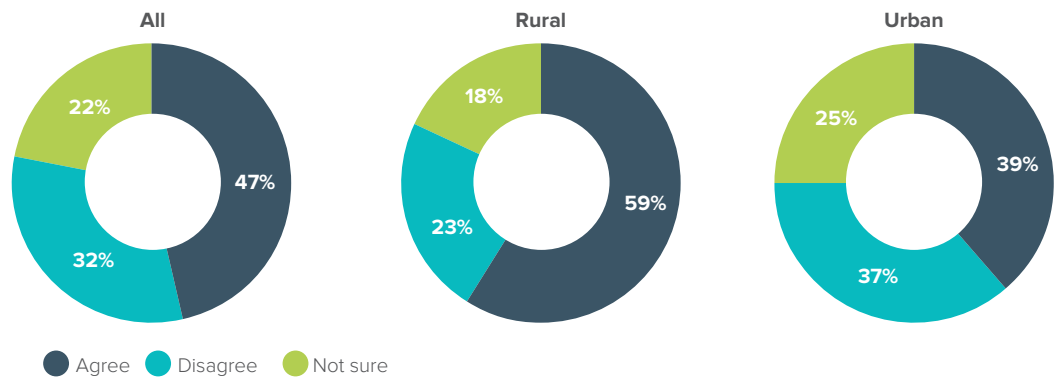
Charlotte Rooke, White Syke Fields & Apple Charlotte,
Sandhutton, North Yorkshire

Data connection

The smartphone era has enabled another possibility for transmitting voice (i.e phone calls) over long distances – using mobile data instead, conducting phone calls over Voice over Internet Protocol (VoIP), through apps such as WhatsApp, Facebook Messenger, and Skype.

Figure 18: Percentage of small businesses which report that their mobile data connection is often unreliable

Source: FSB Broadband and mobile survey, 2019



However, our data shows that almost half of small businesses (47%) agree that their mobile data connection is often unreliable, rising to 59 per cent for small businesses based in rural areas (compared to 39% for small businesses based in urban areas). This is concerning given how reliant small businesses are on strong, reliable mobile data connections.

CASE STUDY

“We’ve got over 200 acres of farmland but there’s a quarter of an acre you can go, that is perfect for data connectivity. I can only do everything in that quarter of an acre. Sometimes I’m sat there in the middle of the night freezing cold but I can access data there.”

Lisa Hodgson & Tim Otterburn, Otterburn Mangalitzza, Carlton, North Yorkshire

Policy outlook

The current direction of travel for improving mobile data connectivity is the rollout of 5G (fifth generation) connectivity. Mobile network operators in the UK have revealed their plans, which so far consist of deploying to major cities and towns. Small businesses in these areas will benefit, whether they upgrade to 5G straight away or wait for longer.

Early adopters of 5G will benefit from vastly improved data speeds and lower data latency. Those who choose to wait slightly longer to upgrade, due to financial constraints in upgrading their mobile phones, will also benefit from the alleviation in bandwidth constraints on the 4G network by others leaving it behind for 5G. These benefits will take some time to accrue, as the 5G network will require large-scale investment in more localised masts to improve coverage, but will be tangible within years.

The 3.6-3.8 GHz spectrum band auction due to take place in 2020 will be another opportunity for mobile network operators to buy new spectrum, and rollout 5G to more areas. Ofcom should ensure that the 3.6-3.8 GHz spectrum band auction takes place as scheduled, without delays. FSB recognises the significant benefits that the 5G rollout promises, and we will monitor those benefits that accrue to small businesses.

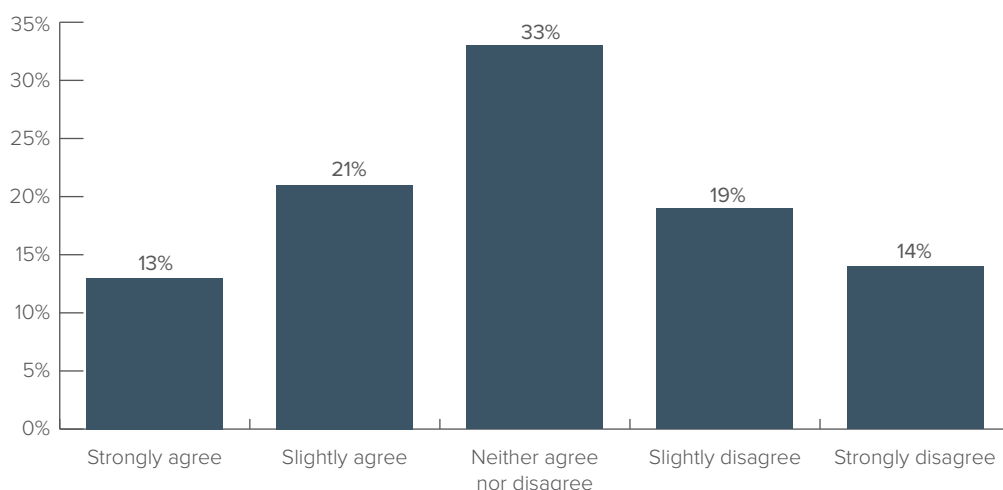
It will take longer for rural areas to benefit from this new technology, as the 5G rollout is currently focused on urban areas. However, the most pressing need for rural areas is in improving voice and data coverage by building on existing masts, and building new masts to provide a mobile service to areas that are currently not covered.

The four mobile network operators (EE, O2, Vodafone and Three) have proposed to create a shared rural network to significantly reduce, with a view to eliminating, partial ‘not spots’ (areas where at least one operator provides coverage, but not all four). It is important to note that the details of this proposal have yet to be published, but the overall aim of eliminating partial ‘not spots’ is welcome. FSB supports a shared rural network. If necessary, Government and Ofcom may need guarantees from the mobile network operators in exchange for removing coverage obligations and subsidising some of the extra costs involved. We will monitor these plans as they develop to ensure that the appropriate safeguards are put in place if necessary.

Rural connectivity will also be improved when mobile network operators are able to buy new spectrum in the 700 MHz spectrum band auction (4G), which is due to take place in 2020 alongside the 3.6-3.8 GHz spectrum band auction (5G). Ofcom should also ensure that the 700 MHz spectrum band auction takes place as scheduled, without delays. Funds raised from both of the 2020 spectrum band auctions should be ring-fenced to be spent on infrastructure improvements.

Figure 19: Percentage of small businesses which report that they are willing to upgrade their phone so that they can use 5G when it becomes available in their area

Source: FSB Broadband and mobile survey, 2019



Thirty-four per cent of small businesses agree that they will upgrade their phone so that they can use 5G when it becomes available in their area. This is a very encouraging sign that they value high levels of connectivity, and are willing to pay a substantial amount to upgrade, because using 5G will require a new compatible phone, and a new sim card package that includes the use of 5G data. This high level of support for a very new technology is perhaps surprising. This is because there are currently few significant use cases outlined for 5G that can be used effectively for the majority of small businesses.

There is the potential for 5G connectivity to be used as one substitute option for full fibre connectivity in more difficult to reach parts of the UK, such as in rural areas. However, for that to work effectively would require significant levels of investment, perhaps more than would be required to complete a full fibre network.

Currently, the UK is meeting the EU's ambitious targets for 5G connectivity. The European Commission has set an intermediate objective for 2020 of '5G connectivity to be available as a fully-fledged commercial service in at least one major city in each Member State'. This has happened in the UK, with 5G commercial services now available in major cities. The EU's strategic objective for 2025 is 'All urban areas and all major terrestrial transport paths to have uninterrupted 5G coverage'.¹⁷

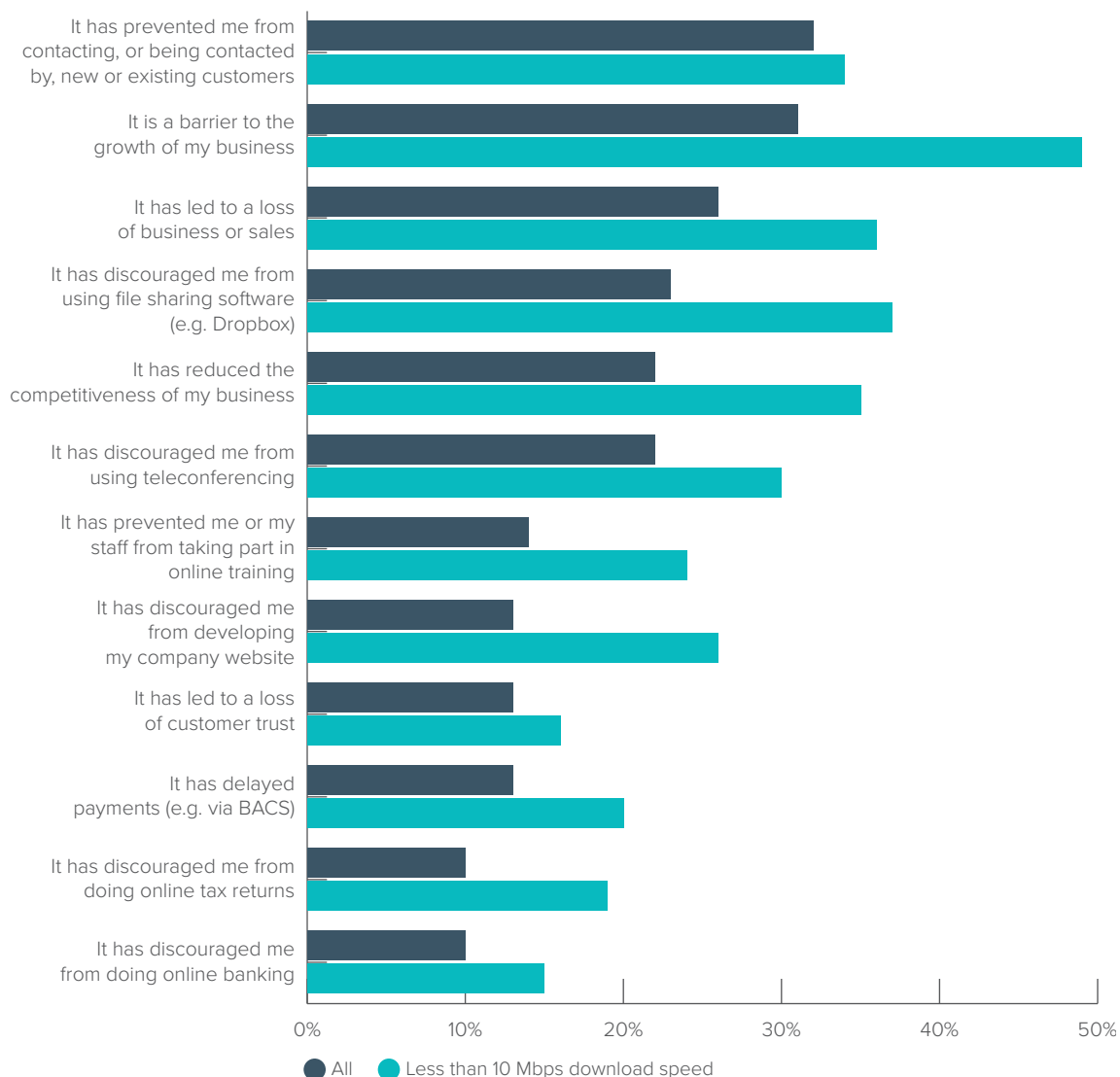
5G will be phased in over the coming years, so will take time to reach all the major terrestrial transports paths that the EU refers to. We know that transport connectivity has long been a frustration for small businesses, that often conduct business whilst travelling. This is especially true for rail journeys - wifi, mobile voice and mobile data connections are often unreliable, both on trains and in train stations. We have submitted our recommendations to improve these connections to the Williams Rail Review, and believe that the Government should ensure that appropriate action is taken.

¹⁷ European Commission, Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society, p7, <https://ec.europa.eu/digital-single-market/en/news/communication-connectivity-competitive-digital-single-market-towards-european-gigabit-society>

IMPACT ON SMALL BUSINESSES

Poor broadband and mobile coverage is very damaging to small businesses. It leads to the converse of the benefits that good connectivity offers, and is hampering the ability of these businesses to operate day to day.

Figure 20: Impact of poor broadband and mobile coverage on affected small businesses
Source: FSB Broadband and mobile survey, 2019



Of those that experienced poor coverage, 32 per cent say it has prevented them from contacting, or being contacted by, new or existing customers. This is fundamental to conducting business, and shows how important digital connectivity has become.

Poor coverage can also be a barrier to the growth of business, with almost a third (31%) of businesses experiencing poor coverage reporting this. This rises to 49 per cent of small businesses that currently receive download speeds of less than 10 Mbps. This is a concerning finding, and as a barrier to growth poor coverage needs to be addressed by government, Ofcom and the industry working together. Other infrastructure areas such as transport are very important too, but they tend to receive far more government support. Unlocking the productivity of small businesses, and enabling them to grow, will benefit the whole economy, and therefore improving connectivity should be an infrastructure priority for government.

CASE STUDY

“As a distance learning provider poor connectivity severely limits us and the services we are able to offer to our students, and is preventing us from undertaking considerable expansion plans, which would also result in new jobs – both sub-contracted and direct. In order to do this we need our head office to be well connected to a reasonable internet connection.”

FSB member, online learning business, Lancashire

Twenty-six per cent of small businesses that have experienced poor coverage reported that they have lost business or sales as a result, rising to 36 per cent of small businesses who currently receive download speeds of less than 10 Mbps. This needs to be addressed by Ofcom, as it is costing small businesses. Ofcom should extend the existing compensation schemes so that they also apply to business contracts. This will help to ensure that small business connectivity is taken seriously, rather than being a luxury, and will level the playing field with consumer contracts.

CASE STUDY

“Uploading photos takes forever, and videos are almost impossible to upload or download. A faster connection would enable greater use of social media apps such as Facebook and Instagram and better marketing overall. In addition, guests nowadays expect good wifi in a holiday cottage and we are unable to provide this. As a result, we have lost bookings.”

Chris & Suzanne Mitchell, Swaledale Country Holidays, Muker, North Yorkshire

Poor connectivity also has the subsequent effect of reducing the confidence of small businesses to use new technology, as they know that their current level of connectivity will not support it. This also negatively affects their ability to make use of digital innovation, to improve their business by reducing costs or increasing revenues.

CASE STUDY

“I did a winter fair at Tatton Park... we had a card reader and if somebody wanted to pay by card we had to go and stand in the car park to make the transaction.”

Chris Manka, CM Consulting, Greater Manchester

CASE STUDY

“Our internet went off for over a week. We couldn't kill a pig to supply meat, because you have to go online to send the details to the slaughterhouse, and we couldn't do it.”

Lisa Hodgson & Tim Otterburn, Otterburn Mangalitza, Carlton, North Yorkshire

CASE STUDY

“I have had to outsource my social media to another small business owner who has a better connection because it was too slow loading for me to do at home. With our new events business we want to do more ‘real time’ social media which is currently impossible. I have to send them images via DropBox or WeTransfer when I am anywhere with good wifi – like our local Starbucks in York. My husband also goes there when he is working from home as he finds it impossible here.”

Charlotte Rooke, White Syke Fields & Apple Charlotte,
Sandhutton, North Yorkshire

CONNECTIVITY IN THE DEVOLVED NATIONS

Each of the devolved nations have their own specific connectivity challenges.

Scotland

Official figures show that Scotland continues to have the poorest digital connectivity amongst UK nations despite some recent improvements.

Data collected by Ofcom demonstrates that superfast broadband availability in Scotland has increased dramatically from 59 per cent of premises in 2014 to 93 per cent in January 2019. On the other hand, the availability of 4G mobile services in Scotland remains poor, with only 41 per cent of the country's geographic area with receiving 4G coverage from all network operators.

Scotland's poorer digital connectivity is partially due to market failure. Rural Scotland is a relatively unattractive place for telecoms companies to invest due to low population density and challenging terrain. That is why Scotland's smaller business community have made the case to governments in Edinburgh and London for action on digital connectivity.

The FSB in Scotland has argued that the digital connectivity gap between Scotland and England should be closed. Unfortunately, earlier this year it was revealed that the Scottish government's programme to install universal superfast broadband – the R100 programme – was likely to be delayed beyond its initial completion date of 2021. And at this time, it remains unclear how R100 will interact with the UK Government's Universal Service Obligation or any replacement programme.

Co-ordinated multi-governmental action will be required on an ongoing basis to ensure that Scottish businesses and households have access to digital infrastructure suitable to their needs.

Recommendations

- The Scottish Government should publish their revised timetable for the delivery of the R100 programme as soon as possible.
- The Scottish Government and UK Government should develop a memorandum of understanding regarding the development and deployment of digital infrastructure interventions.
- The UK Government should instruct Ofcom to develop a plan to close the mobile coverage gap between UK nations within the next four years, and future market interventions should be designed to benefit all parts of the UK.

Wales

Official figures show good progress in Wales in approaching the UK average, but shows substantial work still to do.

Major progress on broadband infrastructure has happened since the inception of Welsh Government's Superfast Cymru project, with coverage of premises going from 55 per cent (2014) to 97 per cent (2019 – UK 98%) in five years.

SME premises' access to superfast has grown from 72 per cent of SMEs having access (2017) to 87 per cent (2019).

Broadband infrastructure has vastly improved. However, thought still needs to be given to areas which are harder to reach and how they are catered for.

The picture in relation to indoor 4G coverage in Wales is patchier, at 73 per cent (UK 92%) indoor 4G, and 60 per cent of geographic area coverage (UK 67%) from all network operators. Mobile phones are increasingly becoming a key element of connectivity for small business owners, for voice, SMS or data services. In areas where superfast broadband is not available, there are disproportionately high numbers of small firms who say they use their mobile phone for internet banking and to interact with customers and suppliers.

A lesson that can be learnt from Wales is that government intervention can be used to address market failure, and it is important that the Welsh government continues to view this as a priority.

Recommendations

- The National Infrastructure Commission for Wales should continue to address market failure trends in Wales ahead of rollout for technologies such as broadband and 5G mobile coverage in its 30 year infrastructure plan.
- The Welsh government should fund market interventions similar in scale and ambition to Superfast Cymru to ensure Wales is at the forefront of digital connectivity.
- UK and Welsh Governments should continue to work with mobile operators to expand the network coverage for mobile internet, especially with the onset of 5G.
- The Welsh government should work with Ofcom to ensure that regulation of mobile networks includes greater investment in Wales's harder to reach areas.

Northern Ireland

Across Northern Ireland FSB represents 6,000 members, where the long-lasting under-investment in overall digital connectivity has contributed to a rural-urban disparity in provision. In the past decade, public investment of over £77m in broadband infrastructure has helped approximately 89 per cent of premises in Northern Ireland gain access to at least superfast services of 30 Mbps.

However, the UK Government has fallen short of its own target to ensure 95 per cent of premises were able to access superfast provision by December 2017. Estimates state that around 25 per cent of Northern Ireland SMEs still cannot access these speeds, and over 100,000 premises overall.¹⁸

Furthermore, 17 per cent (36,000) of premises in Northern Ireland are unable to access the basic universal service obligation speed of 10 Mbps, most of which are in rural areas.¹⁹ Where broadband has not been at sufficient speed, some have turned to mobile. While 79 per cent of the Northern Ireland land mass now has access to 4G, coverage levels drop to 57 per cent indoor premises. This means that notwithstanding expensive data caps for those with access to 4G, there are still too many premises unable to connect digitally through mobile and/or fixed broadband.

Overall Northern Ireland currently sits in last place amongst the four UK nations, when measured on key broadband or connectivity indicators. However, despite no functioning government in Northern Ireland since 2016, there does appear to be reason for optimism.

After the 2017 UK General Election, £150m was made available for broadband infrastructure investment across Northern Ireland, as part of the government's confidence and supply agreement. An additional £15m has been contributed by the Department of Agriculture, Energy and Rural Affairs and on top of the £165m committed so far, this could rise to £200m. It is also expected that industry will make additional investment upon roll out of services.

The investment, known as Project Stratum for delivery purposes, aims to bring as many of the estimated 100,000 premises in Northern Ireland with speeds below 30 Mbps above that threshold. In particular, the focus will be on those areas where there is no qualifying infrastructure and where none is likely to be developed within three years.

Procurement is underway to appoint a 'single lot' contractor for roll-out across Northern Ireland. While FSB has concerns with this approach, it is vital that the investment reaches all premises with poor provision, that industry makes further investment on top of government spend, and that SMEs have an opportunity to form a key part of the supply chain for delivery in the coming years.

Recommendations

- The Northern Ireland Executive must ensure that support for new infrastructure available through Project Stratum is unrestricted by postcode, to benefit all those who need it.
- The Department for the Economy in Northern Ireland should ensure unserved premises are able to register their lack of connectivity through a touchpoint for business owners and consumers. This should be monitored closely until a sufficient threshold of service is met.

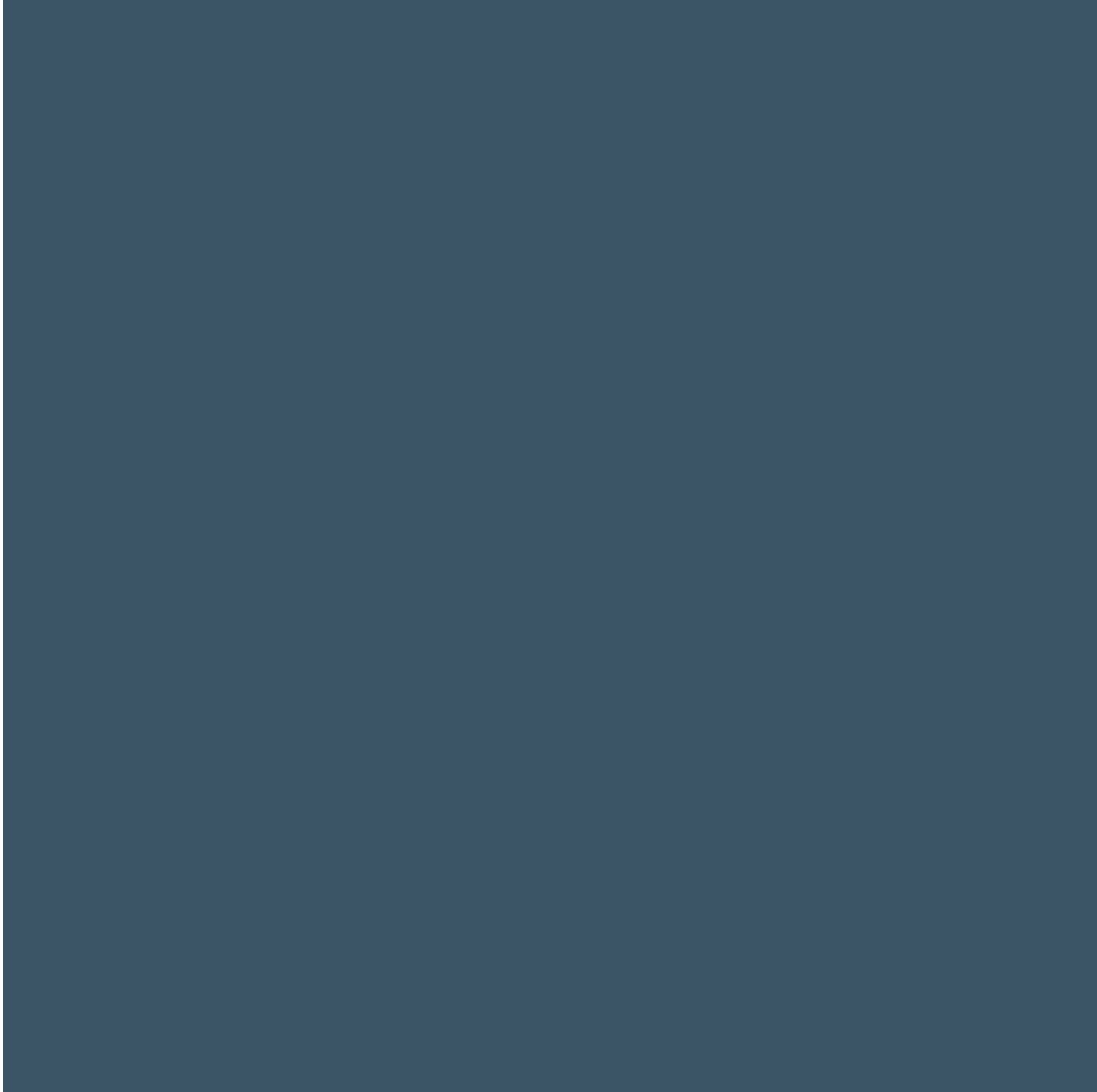
¹⁸ Project Stratum - Consultation Summary, <https://www.economy-ni.gov.uk/sites/default/files/consultations/economy/Project-Stratum-Consultation-Summary.pdf>

¹⁹ Hutton, G, The Universal Service Obligation (USO) for Broadband – House of Commons Library Briefing Paper, <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8146#fullreport>

METHODOLOGY

The data used in this report came from a survey conducted with FSB members in the United Kingdom, administered by the research agency Verve. Individuals were invited to participate in the survey via email and social media channels. The survey was in the field in April 2019, and was completed by 1,136 small businesses.

The survey was complemented by two focus groups hosted by FSB in Yorkshire and Cheshire, in June 2019.



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