

Date:26/01/2021

Ref: 2020 Digital Technology Survey Results

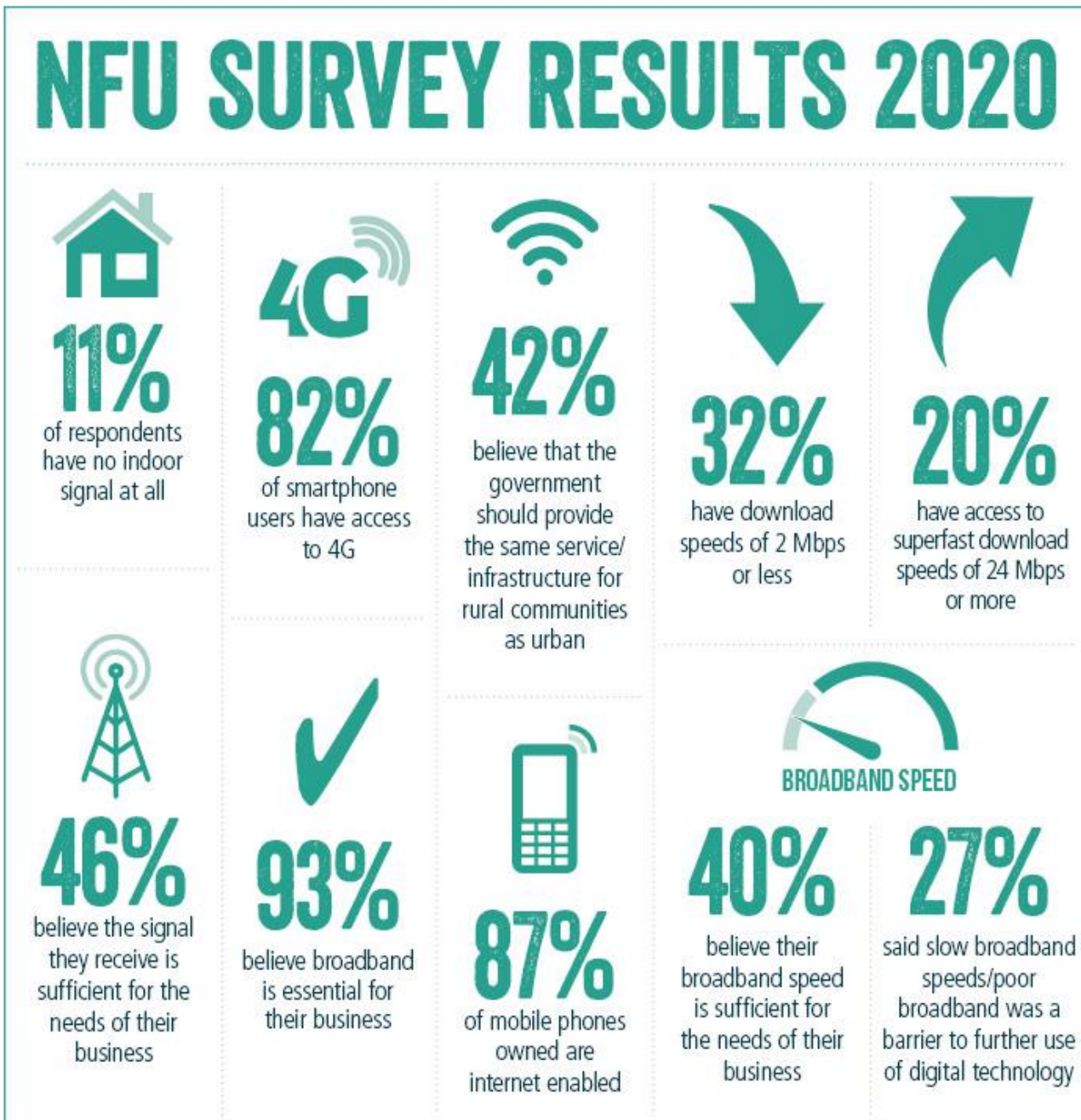
Contact: Amy Cobbett – Business and Rural

Affairs Adviser (amy.cobbett@nfu.org.uk)

The NFU represents 55,000 members across England and Wales. In addition, we have 20,000 NFU Countryside members with an interest in farming and rural life.

2020 Digital Technology Survey Results

The results below summarise a snapshot of farmer connectivity from 430 NFU farmers and growers surveyed between 21st September and 5th November 2020.



Executive Summary

- Since 2015, this annual survey has been an integral part of the NFU's efforts to highlight the urgent need for improved rural digital services. While some areas of access have improved, there is still too large a gap between current levels of access and achieving full coverage. This paper describes the key results from the 2020 survey, the key NFU policy asks, and an annex with information for members on accessing broadband in rural locations.
- While nearly all farmers surveyed (99.5%) owned a mobile phone, only 46% felt their signal is sufficient for the needs of their business
- 93% of internet users believe that broadband is an essential tool for their business but 42% still report that the broadband speed they are able to receive is insufficient for their business
- Slow broadband speed was noted most often as a barrier to making further use of digital technology
- The key message from our members surveyed to government is that rural communities should have the same level of service or infrastructure as urban areas

Introduction

Digital technology has a huge role to play in farming and rural life. This has been particularly highlighted during the current global crisis surrounding Covid-19 which has demonstrated that digital connectivity is a necessity for every rural household. With the implementation of social distancing and working from home, the ability to connect with workplaces remotely and also with family and friends has been a lifeline for most people, including those who are having to isolate. Connectivity allows people to stay in touch, follow the news and NHS health and government guidelines, conduct business, and overall stay connected during this unprecedented time.

While the reasons for needing connectivity during Covid-19 are clear, 30% of farmers surveyed reported one or more additional challenges with internet access during lockdown. One member reported that "virtual meetings are only possible if every other internet-connected device in the house is turned off" which is impractical in a household of numerous people. Similarly, another member highlighted that children returning from school and university stretched the capacity of the internet to beyond its operational limit. Better connectivity has to become accessible in a timely manner so rural households are better equipped to deal with a new reality of working from home for the foreseeable future.

In addition to the consideration of health and safety measures, reliable mobile and broadband connection can support:

- Increasing farm productivity through improved planning, monitoring and delivery of farming operations and the employment of technology
- Driving environmental performance through data driven resource use efficiency and engagement in environmental schemes delivered through online platforms
- Access to remote learning and working
- Expansion of businesses and engagement in the planning system

The voice of British farming

- Access to online government and public services including farm support schemes
- Diversification of farm businesses
- Combating social isolation
- Networking
- Farm safety
- Integration of AgriTech and 5G technologies onto farms

Digital Connectivity and Agricultural Productivity

The farming industry is facing major changes due to changes in agricultural policy. The Defra [Agricultural Transition Plan](#) announced in November 2020 will see direct payments being phased out from 2021 and new government schemes being introduced that, amongst other things, will focus on payment for public goods along with grant funding for improving farm productivity. A fundamental building block for driving efficiency and productivity growth is access to new technologies and management practices that come with digital connectivity. [A report](#) from the Centre for Economics and Business Research (CEBR) for Openreach estimated that businesses with a substantial broadband speed increase of 200-500 Mbps had an estimated incremental impact of 3% productivity gain per worker.

A large part of this productivity gain will come from farmers increasingly using digital technologies in order to manage their business operations and daily lives. The rate of UK Agricultural productivity growth is lower than many comparable countries and must be addressed if farming is to be competitive in new global markets. The impact is potentially large - reliable connections enable greater use of data and analysis, management through key performance indicators, adopting innovative best practice, knowledge exchange, improving skills and accessing training as well as adopting cutting edge farming technologies. Moreover, many of the necessary services and advice from relevant professionals and government agencies are now often only accessible via online services. For example, farmers are required to register online with the Rural Payments Agency in order to apply for agricultural subsidies (Basic Payment Scheme), as well as having to submit VAT returns and Real Time PAYE information to HMRC via a Government Gateway account.

Livestock farmers also need to register animal births, deaths and their movements via the British Cattle Movement Service's CTS Online website. It is therefore essential for farmers to be able to access online services in order to comply with UK regulations and to operate their businesses as efficiently as possible. Like other businesses, farmers also depend on mobile telecommunications for day to day operations such as GPS as well as business needs that include interacting with customers and suppliers. Therefore, ensuring that farms have access to reliable mobile and broadband signal is imperative to improving on-farm productivity.

Key Results: Mobile

Nearly all the farmers surveyed (99.5%) owned a mobile phone, and there was a significant jump in smartphone ownership compared with 2019, with an increase of 13% (Figure 1). This alongside a shift of 3% fewer members having phones with no internet access shows that there is a greater reliance on phones and receiving internet access through them.

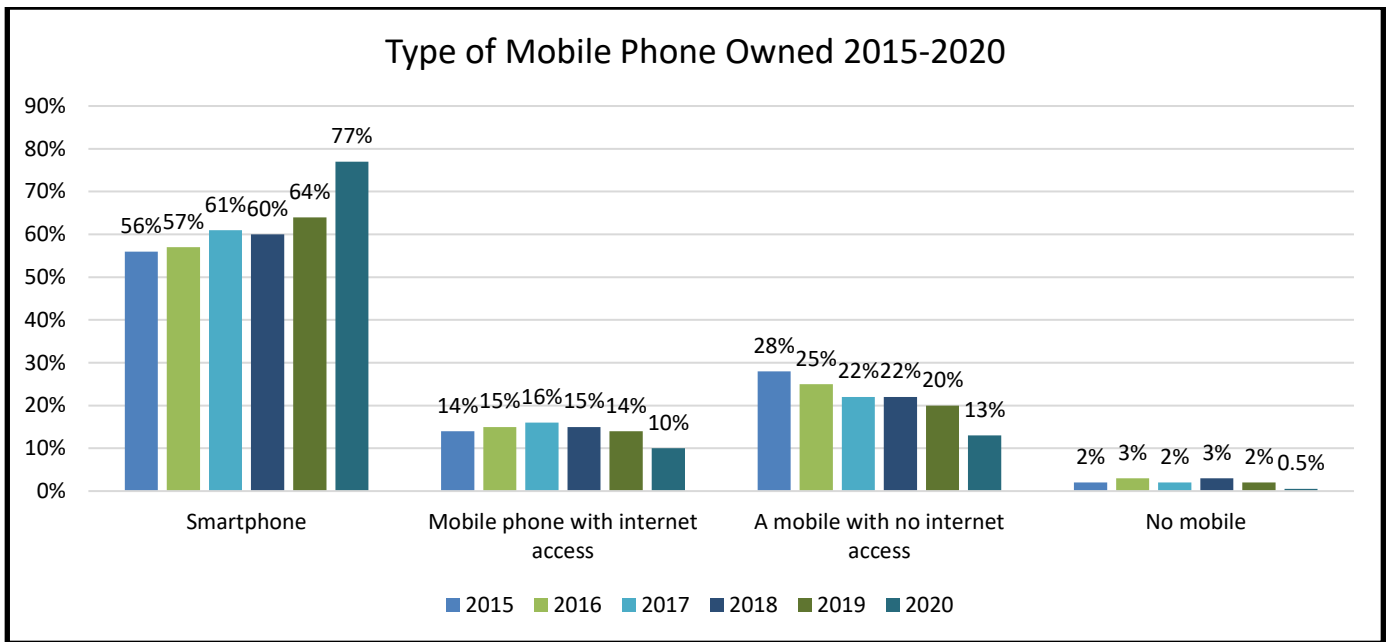


Figure 1: Types of phones owned since 2015

However, despite the significant portion of members with smartphones and internet-capable phones, our survey suggests that 4G access has actually fallen in the past 12 months. In 2019, 84% of smartphone users had access to 4G which has fallen to 82% this year. That is the lowest access level since 2017 as seen below in Figure 2.

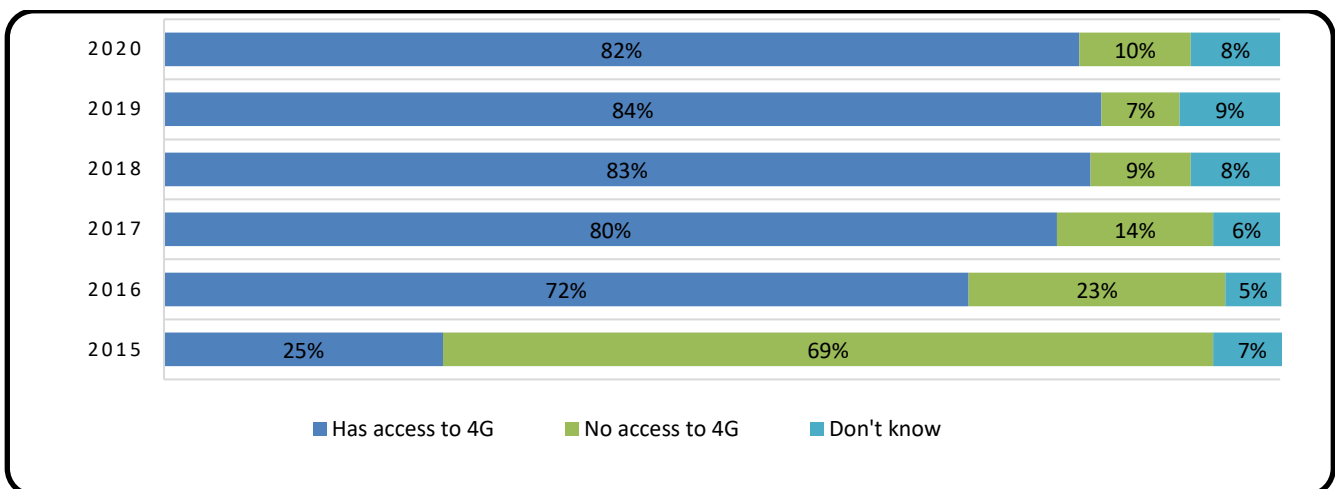


Figure 2: Smartphones with Access to 4G

The most common reason for not having access to 4G was that there is no 4G coverage in the member’s geographical area. This presents a significant barrier to member’s businesses as 94% of respondents view having access to a reliable mobile phone signal as important for the needs of their business, yet less than half (46%) feel their mobile signal is sufficient for their business needs.

Indoor signal has improved in the past 12 months with 24% of members reporting a reliable mobile signal in all indoor locations and 4% fewer reporting no indoor signal at all. Similarly, outdoor location reliability has improved with 22% of respondents reporting reliable mobile signal in all outdoor locations. Only 2% reported no reliable location at all. However, while these are improvements it is still less than a quarter of respondents reporting having reliable indoor or outdoor signal which is unacceptable for business use or to address health

and safety concerns. As one respondent to the survey said, “it is unacceptable in these times for anywhere to be without signal, it’s not safe and it’s discriminatory against rural homes and businesses”.

Key Results: Broadband

Broadband access has largely remained the same in the past year. In 2020, 27% of respondents have superfast broadband of 24 Mbps or faster, which is only a 1% improvement on 2019 (Figure 3). For the first time since the survey began, internet access is mostly being obtained from 3G or 4G through phones and tablets, with 72% of respondents accessing internet in this way. In addition, 70% of respondents use copper wire/ ADSL connections. However, the estimated actual download speeds were lower in 2020. Only 20% reported download speeds of 24 Mbps or above, and a further 2% more respondents had download speeds of 2 Mbps or less compared to 2019.

When asked what reasons they had for not taking up superfast broadband when offered, 43% of respondents said that it was not available to them (e.g. the fibre cabinet was too far away for a connection). 27% of respondents said it was too expensive, with one member saying it would have cost £1.5 million to install, which while an outlier in terms of cost, illustrates the barriers some members face in becoming connected. Another member would have had a monthly fee of £500 plus installation costs.

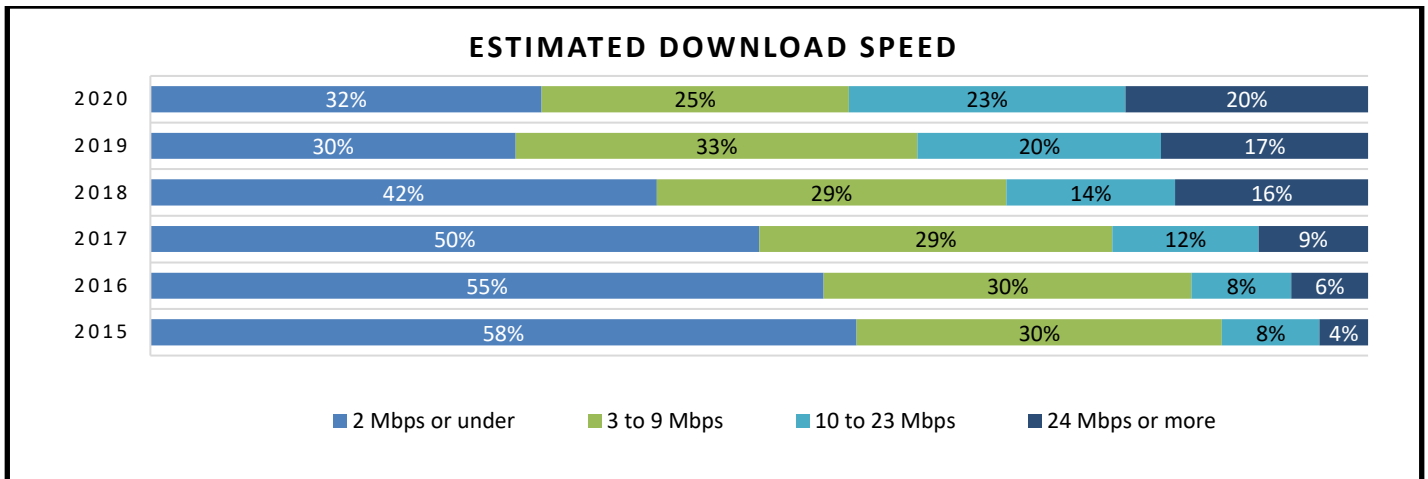


Figure 3: Estimated Actual Download Speeds

Furthermore, 93% of respondents felt that access to broadband is essential to their business, yet only 40% felt their broadband speeds are sufficient for their business needs (Figure 4). In fact, the number of farmers who feel their broadband is insufficient has increased by 1% from 2019, indicating that the issues surrounding lack of digital access is still a significant issue for farming businesses. The concern is that the importance for the need of digital access is increasing faster than the rate of necessary infrastructure that is being rolled out. As a consequence, rural areas are in many cases being left behind creating a growing gap between those who are digitally connected and those that are not.

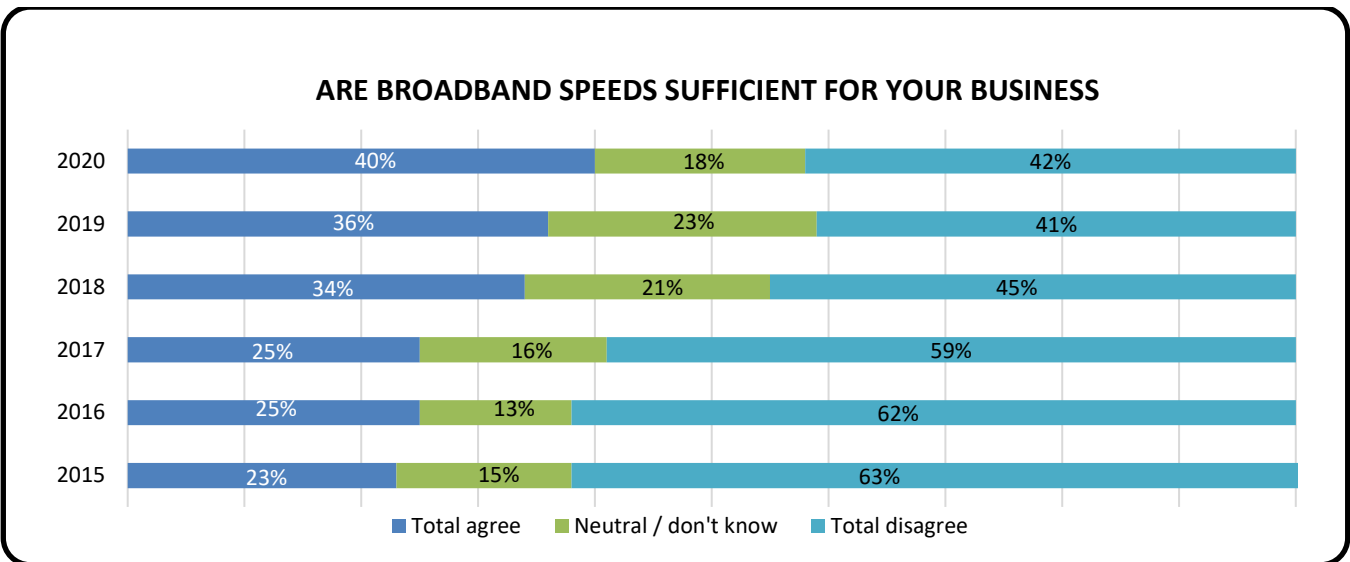


Figure 4: Access to Sufficient Broadband Speeds for the Business

The lack of access to decent broadband speeds is impacting member businesses. When asked how businesses would make use of faster broadband speeds, one member said they would be able to “make use of technology and save time plus could expand [their] business”. Another member said faster speeds would make operations quicker and as a result, they wouldn’t be “tempted to throw the tech out of the window”. Once again, the most common response to the question of uses for faster broadband speeds was for improving productivity and better farm business management. 29% of respondents agreed that they could do things faster, efficiently, or more frequently with better broadband, but the range of answers includes everything from data storage and analysis to robotic feeding and milking (Figure 5).

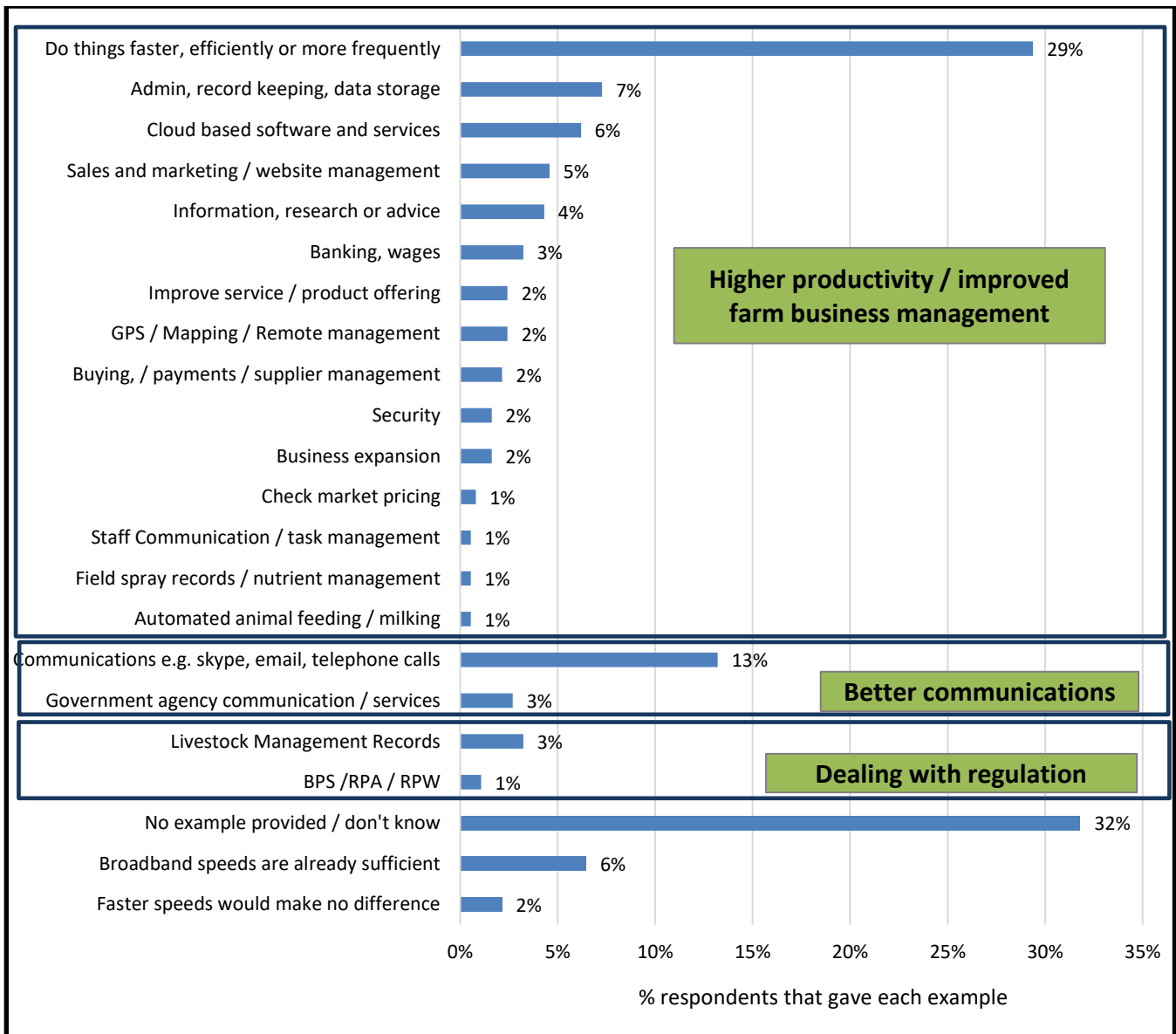


Figure 5: How Members Would Make Use of Faster Broadband

NFU Mobile and Broadband Policy Asks

The results of the survey show that the current levels of access for both mobile and broadband are often far below the needs of families and businesses in rural areas. While the levels of access have increased over the last year, the rate of improvement is still not fast enough to keep up with an increasing demand and rural areas are lagging far below the national average rates of connectivity. An Ofcom [report](#) found that by the end of 2019, 67% of all UK broadband connections were superfast, compared to 20% of our surveyed members. The Ofcom [Connected Nations Report](#) found that 91% of the UK has access to good 4G outdoor mobile coverage from at least one operator and 66% of the UK has coverage from all four operators, yet only 22% of our respondents have outdoor signal in all locations on farm.

When asked what the NFU key message to government should be regarding mobile and broadband and mobile service provision, the most common answer was that the government and industry need to provide the same level of service for rural communities as urban ones. As one member stated, “Broadband and mobile phone

provision needs to improve... we are businesspeople who are providing food for the country”, highlighting that digital connectivity is vital for supporting farmers working to feed the nation. Another member mentioned the role of connectivity in achieving Net Zero in terms of greenhouse gas emissions. “Farmers and the rural community cannot be expected to help the country reach Net Zero when the broadband connection alienates the industry from efficiencies and technologies widely available in towns and cities”.

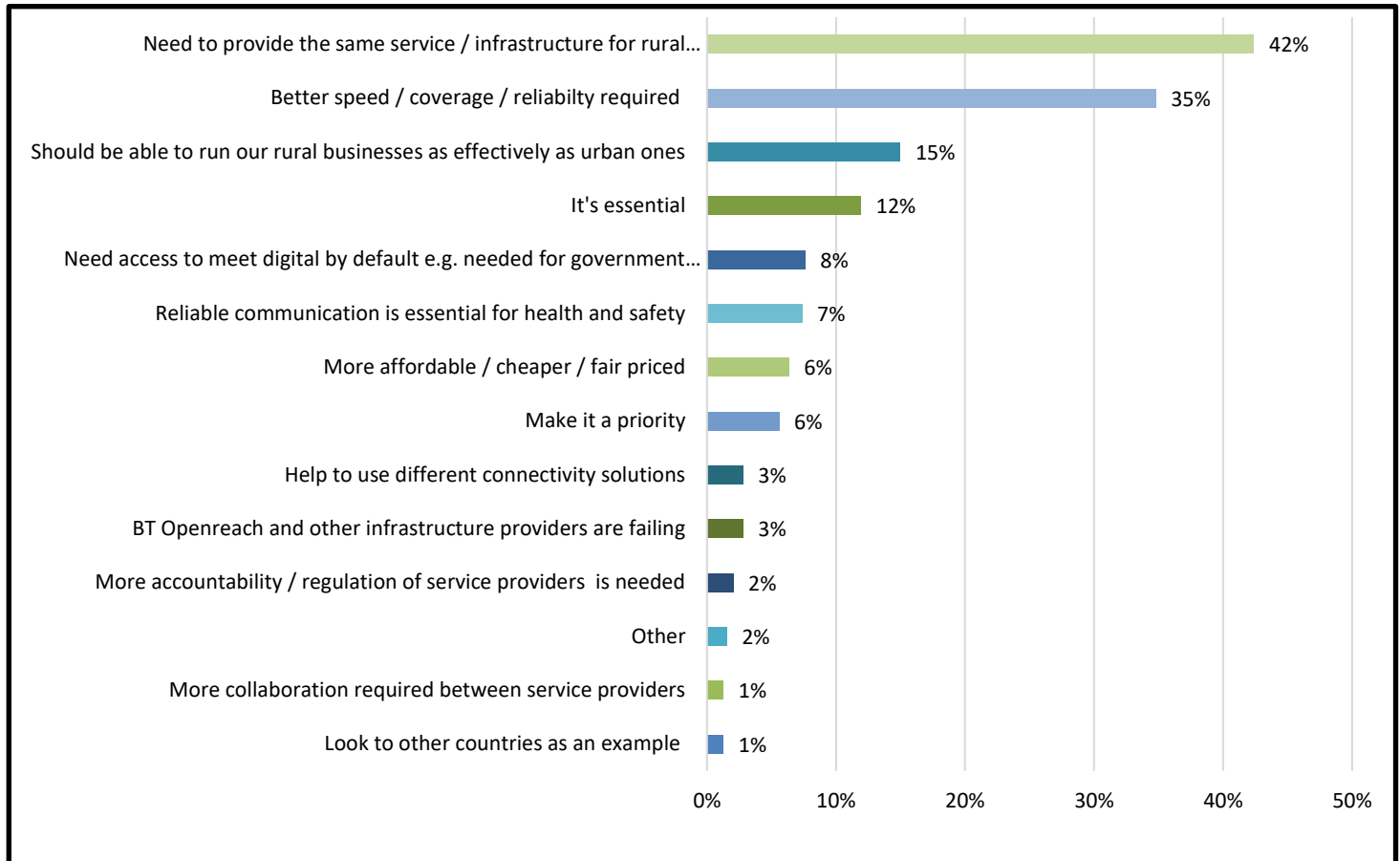


Figure 6: Key Messages to Government on Mobile and Broadband

The Government is aware of the challenges faced by rural areas and has pledged to deliver 85% nationwide gigabit-capable broadband coverage by 2025. This target has recently been downgraded from the initial pledge of nationwide coverage by 2025. Whilst this new target may be seen as being more realistic, given the capacity constraints (e.g. the lack of available labour to deploy the gigabit network), it will mean that the remaining 15%, which will be predominantly rural areas, will still have no access to effective broadband. This was highlighted by the recent [DCMS committee report](#) on broadband and the road to 5G.

The Spending Review, announced in November 2020, also outlined that while the Government remains committed to delivering the £5 billion allocated to achieving broadband to the hardest to reach areas of the UK, only £1.2 billion for the funds will be released in the next four years. This will limit rollout in these areas as supplying broadband infrastructure is expensive and will need more investment in the workforce. The lower target as well as less funding makes it less likely that many hard to reach areas (rural communities in particular) will have access to decent broadband anytime soon.

In order to help support rural communities get access to broadband, **we are asking for the Shared Rural Network to remain a priority and to be entirely complete by 2025**. This is so that all communities can have access to a good mobile signal, which can also be used for mobile broadband as a working solution while communities wait for fibre broadband.

We also want **all government broadband schemes to offer all types of broadband and not just fibre. Fibre can often be extremely expensive and often impractical to get to rural locations**. There are solutions that are rural-proofed including mobile broadband or fixed wireless broadband which can offer decent broadband speeds and are not as cost intensive to install as fibre (Further detailed in Annex 1). This will also help the government achieve the goal of 85% gigabit capable coverage by 2025 without rural areas having to be left behind.

Annex 1: Broadband Solutions for Members

Universal Service Obligation (USO)

The 2017 Digital Economy Act set out the government's plans for universal access to broadband. The Universal Service Obligation (USO) is intended as a safety net for those currently without any access to broadband connectivity. The USO is a pledge to give homes that ask for access to broadband with minimum speeds of 10 mbps at a cost of no more than £46.10 a month. Ofcom has determined this to be an appropriate speed to ensure that a family does not remain isolated due to lack of access. Universal service providers have an obligation to provide the broadband if the project can be undertaken for less than £3,400 per household. Due to this caveat, it is often advantageous that rural communities ask for the broadband as a whole in order to reduce costs per household.

To find out if you are eligible or read more information from Ofcom [here](#) and from BT [here](#).

Gigabit Broadband Voucher Scheme

The Department for Culture, Media, and Sport (DCMS) launched a programme in March 2018 to help support houses and businesses that want to install gigabit-capable broadband. Rural premises with broadband speeds of less than 100Mbps can use vouchers worth £1,500 per home and up to £3,500 for each small to medium-sized business (SME) to support the cost of installing new fast and reliable connections. The programme is set to run until March 2021.

To check for eligibility, look [here](#). **Due to the popularity of the scheme, the gigabit voucher scheme is not accepting new applications everywhere. Refer to [this map](#) to check if the scheme is still working in your area.**

Openreach – Community Fibre Partnerships

If you live in a community that is impacted by poor broadband speeds, then a community-led programme may work. Openreach have a programme where interested communities register their interest and together, Openreach will work with the community to install fibre broadband. Openreach will contribute to some of the costs while the community covers the rest. Openreach will also advise on more localised funding streams that may be available in an area.

More information can be found [here](#).

Further DCMS guidance on community-led broadband programs can be found [here](#).

Other Options

In the unfortunate event that none of these solutions work, there are some other options. Mobile broadband can be accessible and easy to connect and cheap to run for some with a decent mobile signal. The speeds can vary, but with the [Shared Rural Network \(SRN\)](#) working to increase 4G mobile coverage to 95% of the population

by 2025 from all providers, mobile broadband will increase in reliability. This could be a good short-term option while waiting for fibre broadband.

Satellite broadband is a good rural broadband option as it can be installed virtually anywhere where a clear line of sight to the sky is available. However, satellite broadband can be expensive and does not have the fastest speeds but can provide broadband access to the most remote areas. There are many rural broadband providers which specialise in connecting rural homes.