NFU Briefing

Ref: 2023 Digital Access Survey Results

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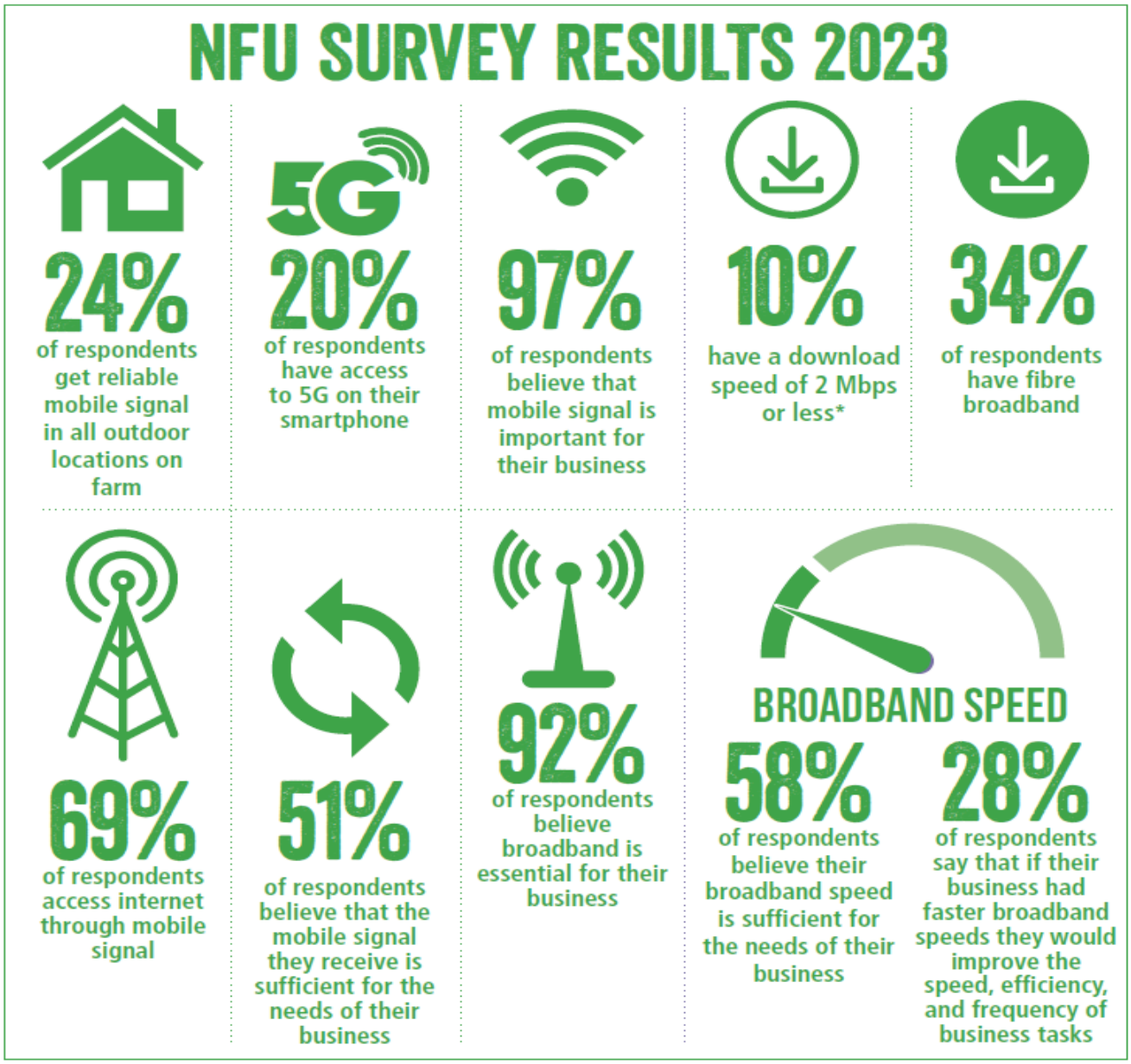
The NFU represents more than 46,000 members across England and Wales. In addition, we have 20,000 NFU countryside members with an interest in farming and rural life.

NFU 2023 Digital Access Survey Results

The results below summarise a snapshot of farmer connectivity from 755 NFU farmers and growers surveyed in February and March 2024 about their experience with digital connectivity and its uses on farm in 2023**.



*These figures are not inclusive of those that answered “don’t know”

**These numbers are rounded so may not add up to 100%

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Rural Connectivity and Agricultural Productivity

Like most modern businesses, farmers are increasingly using digital technologies in order to manage their business operations and daily lives. Moreover, many of the necessary services and advice from relevant professionals and government agencies are now often only accessible via online services.

Farmers now have increasing obligations online, including registering online with the Rural Payments Agency in order to apply for agricultural subsidies (e.g. the Environmental Land Management Schemes), as well as submitting VAT returns and Real Time PAYE information to HMRC via a Government Gateway account. Livestock farmers are also required to register animal births, deaths, and their movements via British Cattle Movement Service's CTS Online website. In an increasingly digital world 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 talking to customers and suppliers. This technology is also essential for health and safety in an industry recognised by the International Labour Organisation as "particularly hazardous"[1], where farmers are often working alone in remote areas.

Reliable mobile and broadband connection can support:

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

The farming industry is facing major challenges due to new agricultural policies that will see current direct payments being phased out and new schemes focussing on payment for public goods being introduced. This change is presenting a key challenge for the profitability of farming enterprises. British farming businesses are being required to significantly adapt their business models in order to remain competitive and contribute to the government targets for net zero and nature recovery. A fundamental building block for driving efficiency and productivity growth is access to new technologies and management practices that will come with digital connectivity.

[1] Agriculture: a hazardous work (ilo.org)

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In our survey, members have reported a desire to add technology to their farm businesses, including cattle movement collars or robotic milking parlours, but cannot due to lack of connectivity. One member said that if they had greater access to mobile and broadband connections, they would have soil analysis that would feed data to fertiliser spreaders in real time as well as thermal monitoring of stored grains. These changes would help support net zero and environmental considerations on farm where inputs could be reduced, and efficiency increased.

Key Results: Mobile

Overall levels of mobile coverage are increasing, which is a positive change, as seen in Figure 1. Access to 4G has significantly improved since the beginning of this survey, with an overall increase of access to 4G or 5G of 67 percentage points from 2015. **An increase of 10 percentage points in 5G since 2022 is also a positive sign that more farmers are able to access faster speeds and capacity on their phones.** This is positive as approximately 70% of respondents use 3G, 4G, or 5G to access the internet.

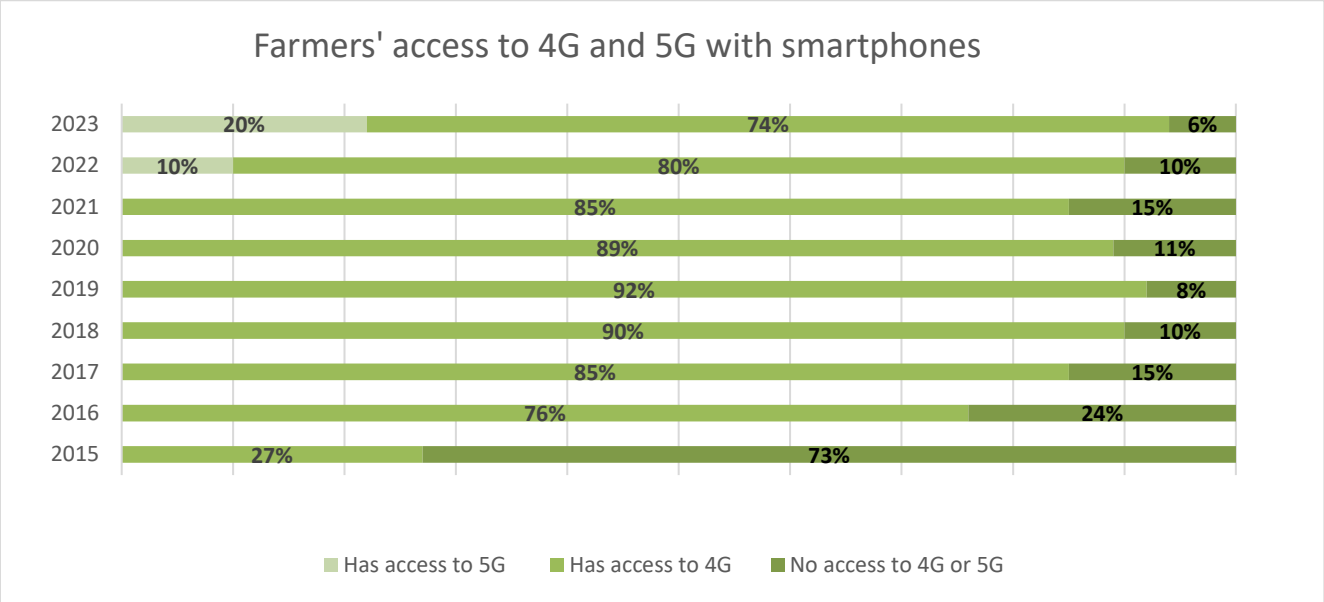

Figure 1: Farmer's access to 4G and 5G on their smartphones

However, there is still much further to go before there is universal coverage of 4G in rural areas. In Figure 2, we see that outdoor overage of mobile signal has only improved with a 3-percentage point increase in coverage across all outdoor locations, and a 1 percentage point increase in coverage across most outdoor locations. With less than a quarter of respondents having reliable signal across all locations on farm, it is clear that rural communities have far less coverage than national averages. According to Ofcom's Connected Nations Report, 85% of England has 4G geographic coverage from all of the four Major Network Operators (MNO) of Three, O2, EE, and Vodafone in 2023. Rural 4G coverage needs to remain a priority to deliver, as it is much further behind the reported numbers.

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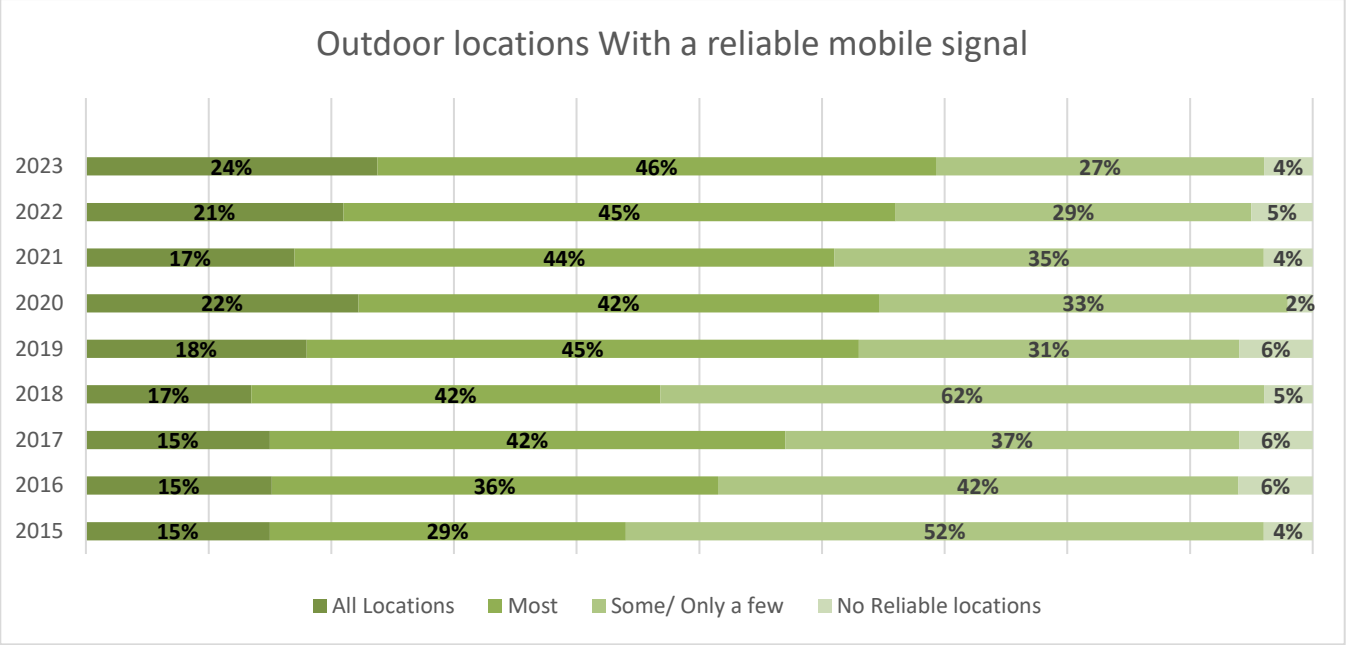

Figure 2: Member's experience of outdoor locations with a reliable mobile signal

The same trend goes for indoor mobile coverage. **Members report only 22% have reliable mobile signal in all indoor locations on farm, while 8% still have no coverage in any indoor locations.** Again, this is behind Ofcom's numbers, which say that 50% of rural premises can access indoor 4G coverage from all 4 MNOs. Even by Ofcom's reporting, rural connectivity is lagging behind, with 4G coverage in rural areas of England now ranging between 73-83% by operator, compared to 97-98% of urban premises.

The Shared Rural Network (SRN) which is a joint government and industry endeavour which is designed to deliver 4G connectivity across the UK through the sharing of masts which will increase the mobile coverage of all the major operating networks (EE, Vodafone, O2, and Three) by 2025. Our results indicate that a concerted effort to reach the most remote areas still without coverage is required to achieve this aim by the 2025 deadline. As one member put "due to lone working conditions, mobile phone signal in all areas of the farm is essential as a health and safety requirement".

Key Results: Broadband

Overall, access to broadband remains high, with access through mobile signal being the most common method of access (Figure 3). There has also been a positive shift in access to fibre to the premises, with an increase of 9 percentage points to 2022 as **34% of members report having fibre broadband**. This is a positive increase, but still lagging behind the UK average of 57% of residential premises having full fibre. Copper line connections have dropped by nearly 20 percentage points since 2022, while access to the internet through mobile connections has remained consistent over the past 4 years hovering at around 70% of members. Take-up of satellite remains low at 8% for 2023. While satellite broadband remains a good option for rural households as it can be installed anywhere and speeds are increasing, it is clear that the cost continues to inhibit rollout.

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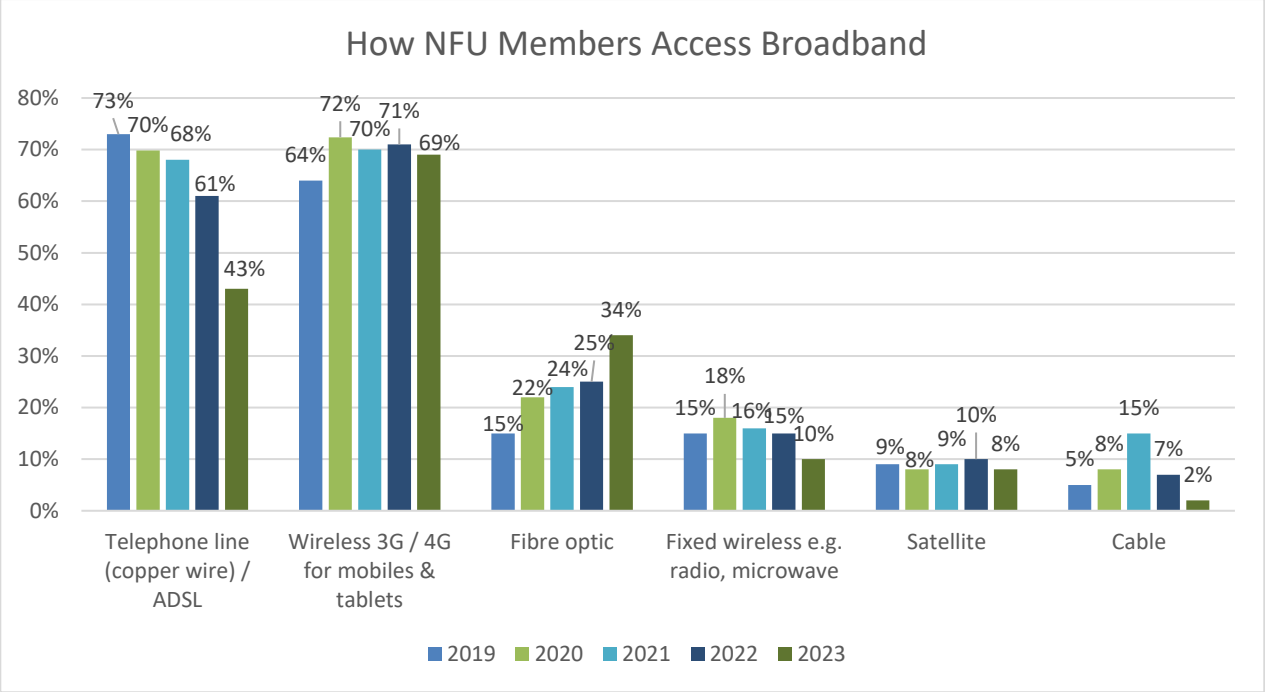

Figure 3: Ways that NFU members access internet

Member access to better broadband speeds is increasing**. For the first time, members are reporting ultrafast speeds of over 300Mbps**, which is a positive change (Figure 4). With those speeds, members can run numerous data-heavy programs at the same time, have a system with the Internet of Things (IoT), or run fully autonomous projects on farm. The number of members reporting very low speeds has also decreased from last year. Ofcom categorises 10Mbps as the minimum standard of decent broadband. Last year, 42% of respondents that knew their download speeds had less than 10Mbps. **This year, that has fallen by 17 percentage points to 25% of respondents having less than 10Mbps speeds.** However, it is still far below national averages. Ofcom estimates that only 1% of all UK premises cannot access decent broadband, so a quarter of NFU members reporting these speeds shows how it is rural and farming communities being left behind.

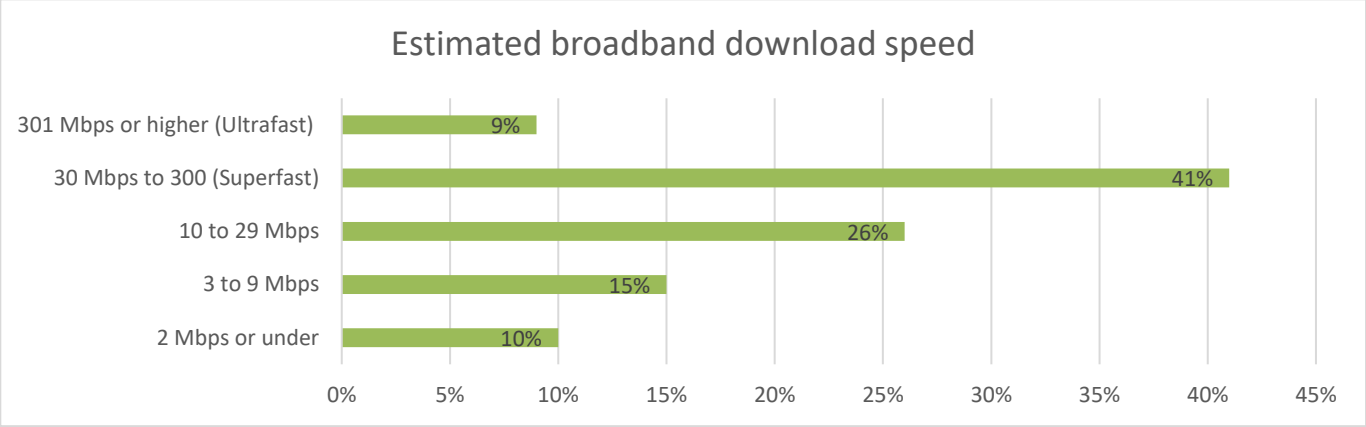

Figure 4: Estimated broadband download speeds from those that know their broadband speeds

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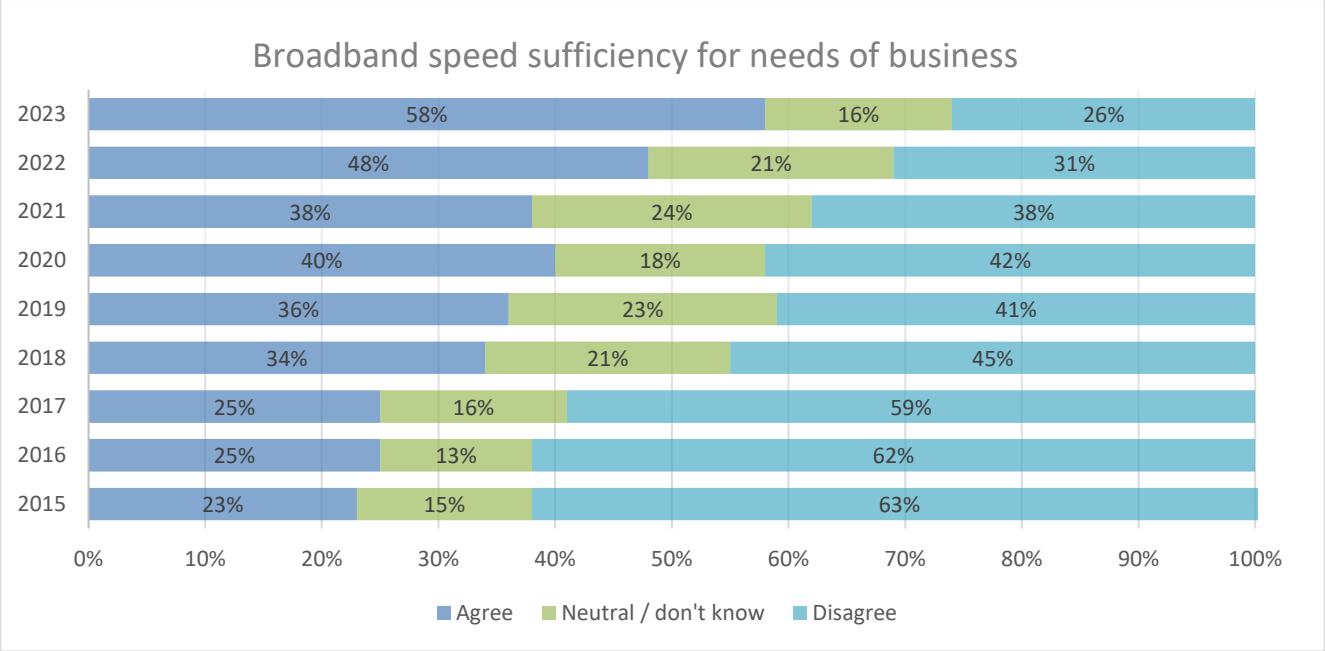

Figure 5: Members agreement or disagreement with if their broadband speeds are sufficient for the needs of their business

Use of Digital Access on Farm

The NFU Digital Access Survey results have shown that there are definite improvements in digital access, which has made a positive impact on farming businesses. Members with superfast broadband were asked what having better internet has enabled their business to do that they were not able to do before. There was a range of answers including letting out buildings to other businesses, working from home for family members and partners, diversifying into the tourism industry, and generally remain connected and up to date on farming news.

Another common answer was running higher quality security systems including CCTV and remote monitoring. According to NFU Mutual, the cost of rural crime is estimated at around £49.5 million for 2022, an increase of 22%. With 80% of NFU Mutual Agents saying that rural crime disrupts farming activities, greater access to quality CCTV and safety-enhancing technologies on farm is extremely important.

Many members also referenced the increasingly online nature of farming businesses including reporting of livestock movement, RPA forms, and keeping up to date with an extremely fast paced policy landscape. One member said they're "more informed, with easier access to the information [they] want" and another saying it has allowed them to "know more (about) what is going on in the industry". These priorities were echoed by those asked what they would do if they had faster broadband speeds (figure 6).

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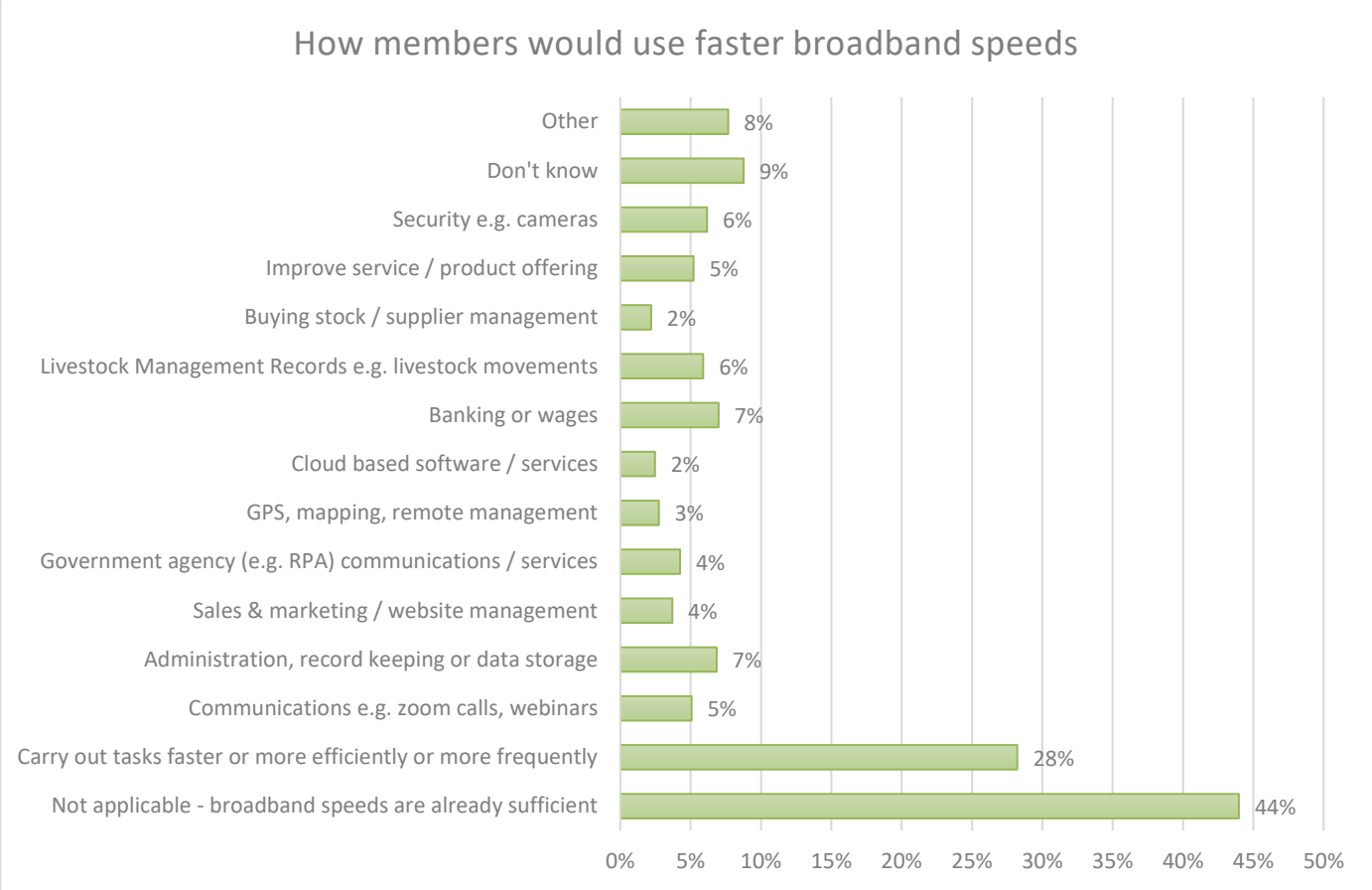

Figure 6: How members would make use of better and faster broadband

An important area to address is the lack of knowledge and training around digital skills. Members reference how important digital access is to farm businesses with one member saying that "they have encouraged everyone in every industry to go online, all of the forms and RPA stuff", yet 13 % of members feel they do not have the necessary training or knowledge to deal with the increasing digitalisation of farming businesses. Looking at figure 7, it is clear that there is appetite to use more digital technologies on farm, but due to lack of connectivity, access, skills, and other factors, it remains inaccessible for many members.

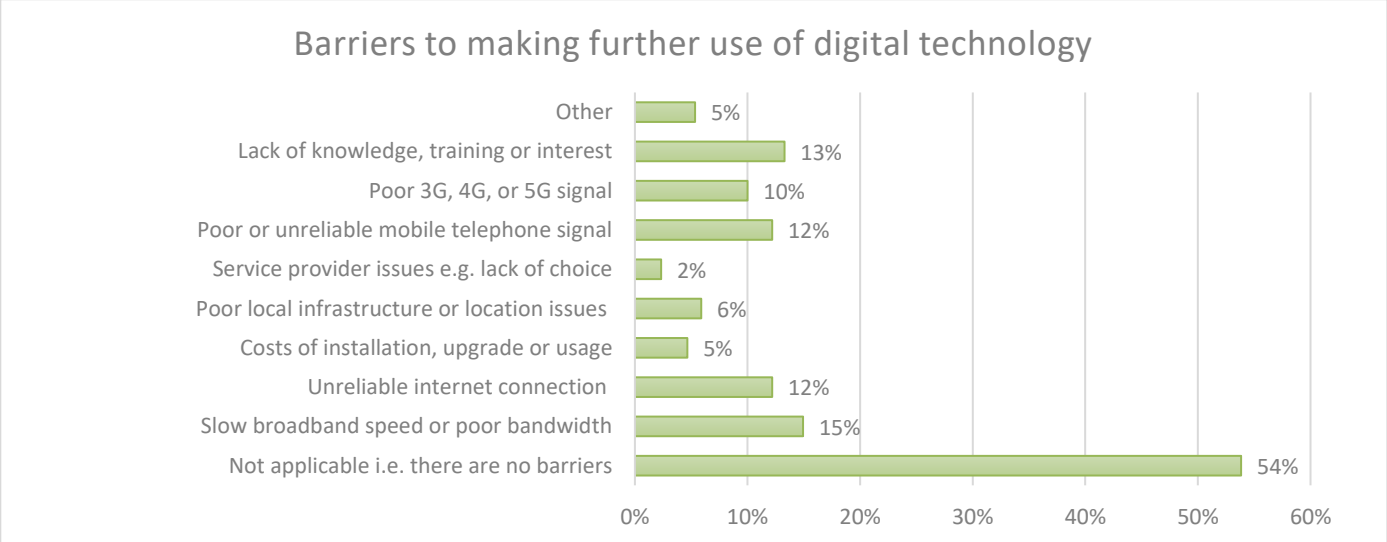

Figure 7: Barriers members feel are preventing further use of digital technology in their farming businesses

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Key Messages to Government

The results of this year's survey indicate a mixed picture of progress, with clear improvements in broadband speeds and mobile coverage for some, while many remain outside the parameters of what is accepted as decent connectivity. Connectivity remains a priority for members with 97% of respondents believing mobile signal is important for their business and 92% of respondents agreeing that broadband is essential for their business.

With a new government in place, the NFU welcomes the renewed commitment to delivering gigabit capable broadband and 5G coverage by 2030. Greater coverage is needed as currently only 58% of members agree that their broadband speeds are sufficient for the needs of their business, and only 51% believe their mobile signal is sufficient for the needs of their business. However, greater detail is needed on how this will be delivered.

We asked our members what the NFU's key message to government should be regarding mobile and broadband provision. The most common answers included:

Rural areas need the same access to connectivity as urban areas.

- "it's absolutely essential for a good signal [to be available] across the country"
- "More equality in provision across the country is needed"
- "We need the same mobile and internet services as they get in the cities"
- Connectivity "is not a luxury"

Speeds in rural areas need to improve and be more reliable.

- "We want to use mobile reception for automation on the farm tractors and it's letting us down. We use a lot of man hours instead"
- [slow speed] is holding us back in our business, we interact with the public but it's hard to keep customers happy with the internet crashing"

Connectivity is vital to health and safety on farm

- "From a safety perspective with sophisticated machinery, having good connectivity is essential"
- "Your safety is at risk if you can't ring anyone when lone working"
- "Due to health and safety, it is important to be able to access [connection] easily; if a vet or help is needed with livestock (you need to be able to call someone), also so the public can report sheep straying"

Solutions must be accessible and rural proofed.

- **"**Having decent broadband is essential, but it costs a fortune"
- Connectivity should be "available and relatively cost effective to all farmers"
- "It should be accessible to everyone, and you should not have to be paying extra to have it (in a rural area)"

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There has been a welcome reduction in the proportion of members on very slow (2 Mbps and under download speed) broadband. However, 10% still represents a significant amount of those who know their broadband speeds. Combined with slow progress in mobile data connections, this presents serious challenges to farm businesses that are trying to future-proof their businesses and work within an increasingly online world. The government is aware of the challenges faced by rural areas and has pledged to deliver nationwide gigabit-capable broadband coverage by 2030.

While we welcome the commitment to delivering nationwide coverage, the fact that the goal has been pushed back by 5 years from the original 2025 date set out in the 2017 Conservative Manifesto is disappointing. The increase to 72% gigabit capable connections available to UK premises as of January 2023 is encouraging. However, the record on superfast connections shows that progress is not equally distributed. **A situation where 72% of the country has the potential to reach speeds of 1000 Mbps whilst 10% of our members cannot access above 2 Mbps highlights that rural communities are not given sufficient priority in digital infrastructure delivery.** Significant intervention is required from government and industry combined to ensure that rural areas do not continue to be left behind.

In order to best support farmers and other rural businesses, the NFU has the following asks of government for delivering mobile and broadband connectivity to rural areas:

- **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. The Shared Rural Network delivery must be transparent so it is clear what areas are still in need of upgrading and the data should be assessed by an impartial party as it is currently reported directly by industry, which can lead to a discrepancy between reported levels of coverage and coverage experienced by members.

- **All government broadband schemes must be applicable to 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. This will also help the government achieve the goal of 100% gigabit capable coverage by 2030 without rural areas being the last to be upgraded.

- **Rural and agricultural-specific digital skills training must be offered widely and supported in government skills initiatives.** With many farmers and business owners not having the knowledge to make best use of increasing speeds and new technologies, the skills gaps leave huge areas of opportunity for productivity increases.

- **Timelines must be laid out and followed,** as 2030 remains six years away and for farming and rural businesses waiting on greater connectivity, which is a substantial wait time. The lack of sufficient connectivity impacts rural and farming businesses and is a barrier to greater productivity, business expansion, and investment into the rural economy. Addressing rural connectivity must remain a priority for government.

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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 households and businesses can apply for up to £4,500 to support the cost of installing new fast and reliable connections. The criteria for these vouchers include those premises where:

- existing available broadband download speeds are less than 100Mbps
- a gigabit-capable network isn't likely to be built to that area commercially in the near future
- there is no government-funded contract planned or in place to improve your network already

These vouchers are designed to be used by communities in order to reduce the total cost to businesses and industry.

To check for eligibility, look here.

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.

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- **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.
- **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, but is becoming a more common rural broadband solution.
- **Fixed wireless access** provides connectivity through radio links. This is often provided by local providers and can be worth checking if there is a local rural specific provider in your area.

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