Policy Position:

DIGITAL CONNECTIVITY

May 2024

ADEPT

The Association of Directors of Environment, Economy, Planning & Transport

POLICY POSITION: DIGITAL CONNECTIVITY KEY MESSAGES

- **Urgency**

  We need a national digital strategy that addresses the 'digital divide' - the gap between those who have full access to digital technologies and those who do not. This matters. The scale and speed of services shifting online is unprecedented with consequences for economic growth, public health, levelling up, education and net zero objectives. The imminent switch off of the 3G mobile networks could worsen this. Each mobile provider is setting its own timetable for its 3G network switch-off – it is critical that they clearly communicate the switch off with customers and businesses, giving them enough time to upgrade their phone or 3G device.
  New digital infrastructure must be inclusive and accessible.

- **Need for speed**

  Improved access to gigabit capable broadband is urgently needed in rural areas. The government must work with Building Digital UK (BDUK) to speed up the deployment of fast and reliable broadband and mobile coverage in hard-to-reach areas. In addition, despite progress with the Shared Rural Network, the disparity in coverage across rural areas because of a lack of competition remains a key concern.

- **Need for planning reforms**

  Planning reforms should make it easier to roll out 5G infrastructure. New homes and commercial premises need access to full fibre ultrafast broadband from the outset. The government must work with local authorities to reduce the cost of the street works and other barriers to digital infrastructure delivery.

- **Need for security**

  Security considerations must be at the forefront of the deployment of new digital infrastructure and 'Internet of Things'.

- **Digital Champions**

  Enhanced digital connectivity should be a priority within local economic and growth strategies. It is a key enabler in tackling the 'not spots', driving innovation, improving productivity and levelling up places across the UK. These strategies should be led locally by a digital champion.

Introduction

Digital infrastructure is increasingly crucial as our everyday services become predominantly digital. Not only that but our smartphones become the centre of how people stay in touch and go online. As cities, towns and villages grow increasingly 'smarter'[1], the need for better infrastructure grows too - full fibre fixed networks and 5G mobile networks to deliver faster, more affordable and better connectivity.

We also need to tackle the digital divide- the gap between those who have full access to digital technologies and those who do not. This issue became glaringly evident at the beginning of the COVID-19 pandemic when there was a sudden shift to digital services for work, education, healthcare and social interaction. In March 2020, when stay-at-home orders were first issued, only 51% of households with an income between £6,000 and £10,000 had home internet, compared to 99% of households earning over £40,000.

This disparity is not necessarily caused by a lack of infrastructure in low-income areas. A study by the Local Government Association found no evidence that socio-economically deprived areas had poorer broadband coverage. However, the study did highlight that there is a notable gap in gigabit broadband availability between urban and rural areas, and many regions still face challenges with mobile coverage across multiple providers. Interestingly, in regions with the best 4G and 5G coverage, the growth of fixed broadband is slower, indicating that some people may be substituting mobile internet services over fixed broadband.

The risk of digital exclusion is significant and can prevent access to essential services like work, education, and healthcare, influenced by factors such as infrastructure availability, digital skills, socioeconomic status and location. The rising cost of living could further heighten digital exclusion too. Ofcom's latest research (April 2023) estimated that around eight million households struggle to afford communication services.

Local authorities are vital in the deployment of new digital infrastructure. They need to understand the specific needs of their residents and businesses to enhance digital connectivity. This might involve improving digital skills or ensuring faster and more reliable broadband. Local authorities are also crucial in coordinating with suppliers, residents, councillors and landowners to overcome obstacles to infrastructure deployment, such as the placement of facilities or disruptive road works.

1 'Smart Places' are towns, cities or villages that use data and emerging Internet of Things (IoT) technologies to connect, protect and enhance the lives of residents and businesses. The IoT will collect huge amounts of data via sensors, video cameras and other input devices on roads and transport, and in buildings, towns and city centres. Properly integrated and managed, this data will have the potential to help local authorities tackle congestion, air quality, public safety and other common challenges facing local communities.

KEY ISSUES

• Switching off 3G mobile networks could worsen the digital divide

Mobile operators are currently in the process of switching off their 3G mobile networks to make room for more advanced 4G and 5G mobile networks. Vodafone commenced in early 2023; EE and Three expect to complete their switch off by the end of 2024.

It is thought that older people and those on lower incomes will be most affected by the change as they are most likely to be using older 3G handsets and are reluctant to upgrade because of both cost and lack of visible benefits to do so. However, it is not just smartphone users who are likely to be impacted. Devices such as care alarms, security systems, and payment terminals that rely on 3G connections could also face disruptions.

To prevent widening the digital divide, it's crucial for mobile operators to communicate clearly about the shutdown. They need to inform customers and businesses well in advance, giving them ample time to replace or upgrade their 3G devices.

• Improved access to gigabit capable broadband is needed in rural areas to support levelling up

In the UK, far fewer rural homes and businesses have access to gigabit-capable and full-fibre broadband compared to urban areas. Delays by Building Digital UK (BDUK) in rolling out the Futures Programme, aimed at providing broadband in the most difficult-to-reach places, have made the situation worse.

Currently, only 36% of rural premises in England can access gigabit broadband, while in urban areas, the figure is 75%. Additionally, 35% of rural areas still lack superfast broadband (with download speeds of 30Mbit/s or more), and 17% of rural broadband users experience download speeds of less than 10 Mbps during peak times (see 'Project Gigabit winter update 2022 to 2023').

To support levelling up, provide equal access to opportunities and support services, and support government decarbonisation targets, it is vital that rural areas have the same access to full fibre broadband as urban areas. The government must work with BDUK to speed up the deployment of fast and reliable broadband and mobile coverage in hard-to-reach areas.




• Lack of competition could disadvantage residents and businesses in rural areas

To improve mobile coverage in rural areas, the Shared Rural Network (SRN) was set up. This program involves the UK's four mobile operators (EE, O2, Three and Vodafone) sharing their existing masts in some areas and collaboratively building and sharing new masts in others as needed.

The goal of the SRN is to extend 4G mobile broadband coverage to 95% of the UK by 2025, covering 280,000 premises. In 2020, the four mobile network operators (MNOs) committed to legally enforceable coverage obligations to reach 88% coverage across the UK by 2024 and 90% by 2026.

Despite these efforts, there are ongoing concerns about coverage inconsistency in rural areas. ADEPT is worried that some rural areas might still be left behind or find themselves at a disadvantage due to limited competition among providers.

Table 1 below shows that only 90% of England is expected to have coverage from all four MNOs following the completion of the SRN. This could leave many areas with 4G coverage from a single operator.

Table 1 – 4G Coverage pre and forecast post-SRN

	4G Coverage from all MNOs		4G Coverage from at least one MNO	
	Pre-SRN	Forecast post-SRN	Pre-SRN	Forecast post-SRN
Overall	69%	84%	91%	95%
England	84%	90%	97%	98%
Scotland	44%	74%	81%	91%
Wales	60%	80%	90%	95%
Northern Ireland	79%	85%	97%	98%

Data source: SNR.org.uk, Forecast Coverage Improvements

• Supplier and delivery cost challenges are hampering efforts to improve gigabit broadband in communities without commercial rollout programmes

To speed up the deployment of gigabit broadband in communities without any commercial rollout plans, residents and businesses can apply for vouchers of up to £4,500 through the Government's Gigabit Broadband Voucher Scheme (GBVS) to cover the cost of installing gigabit broadband.

While uptake has generally been good, difficulties using the Gigabit Broadband Voucher website and high delivery costs are lowering take up and deployment of voucher led schemes in some rural areas. These challenges are preventing the scheme from effectively addressing local connectivity needs.

• Slow progress delivering the next generation Emergency Service Network is hindering ability to make emergency calls in rural parts of the UK

At present all Great Britain's emergency services and over 300 public safety organisations communicate using the Airwave Network. This is part of the nation's Critical National Infrastructure designed to withstand major incidents and provide secure and speedy communications. However, according to a report by the National Audit Office (NAO), the network is slow and focused on voice communications. As such in 2015 the government committed to replacing it with a 4G alternative.

The proposed new system, known as the Emergency Service Network (ESN) would replace the current Airwave network and will enable fast, safe and secure voice and video data across the 4G network. However, progress has been slow; hampered by delays with developing new end-user kit such as handsets, competition disputes and delays with the network build. This has hindered the ability for emergency calls to be made from 4G enabled mobile phones in some of the most remote and rural parts of the UK. Completion is not expected until 2026, 11 years after the decision to replace the existing Airwave network.

The ongoing delays are causing a lack of confidence in the ESN project. Given that the Airwave network still needs replacement, a more realistic and practical approach to the delivery of the new system is necessary.

• Planning reforms should make it easier to roll out 5G infrastructure

Planning reforms (April 2022) have made it easier for mobile operators to roll out 4G in rural areas and accelerate the 5G roll out. This is through changes to existing permitted development rights that:

- Strengthening existing mobile masts without prior approval, allowing upgrades to 5G and shared use between operators.
- Increasing the allowable height of masts (subject to approval by the local planning authority).
- Permitting buildings to host smaller masts up to six meters above the structure without prior approval (unprotected buildings only).
- Allowing masts to be positioned closer to public roads (subject to approval).
- Deploying cabinets containing radio equipment next to masts without prior approval.
- Implementing conditions to ensure that telecoms equipment does not obstruct pavements or access to properties.

While ADEPT members generally support these reforms, they emphasise the importance of ensuring that new infrastructure near highways does not compromise road safety, especially near existing junctions or crossings.

Further adjustments to the planning system could also help reduce obstacles to deploying new digital infrastructure. This includes changes to the planning system, simplifying wayleave agreements and addressing other barriers to roll out:

- Cost of permits.
- Issues around dealing with uncommunicative landowners/managers.
- Reducing the cost of street works required to deliver digital infrastructure. Street works should be carefully planned and executed, with assets properly reinstated to avoid disruptions and ensure road safety and quality at no additional cost to councils.
- New homes and commercial premises must be future proofed and have access to full fibre ultrafast broadband from the outset.
- Digital services and infrastructure should be integrated into new transport infrastructure.

More generally, local economic recovery and growth strategies must deliver enhanced digital connectivity. Digital is a key enabler in driving innovation, improving productivity and levelling up places across the UK.

Case Study 1: Cambridgeshire County Council - Dig Once

Connecting Cambridgeshire is speeding up digital delivery with its innovative 'Dig Once' policy - the first of its kind in the country. First adopted in 2019, the policy requires fibre ducting to be deployed in new transport infrastructure schemes, which is now bringing benefits for the economy, local communities and the environment.

The fibre ducting is being made available on a commercial basis, making it quicker and easier for telecoms operators to extend gigabit-capable broadband networks and avoid costly, disruptive retrofitting. This helps connect businesses and communities that would not otherwise have access.

To date, over 21 km of fibre ducting has been installed or is planned during the construction of new road and cycleway schemes by 2025.

Using the Highways England calculator, it is estimated the 'Dig Once' policy has already resulted in savings of over twenty tonnes of CO_2e emissions in relation to materials use alone over the last two years. This is equivalent to the carbon emission of nearly half a million miles driven by an average car.

• Challenges in deploying digital infrastructure within Highways

ADEPT members take a collaborative approach to ensure the highways deployment of digital infrastructure is planned and delivered with minimum disruption whilst maintaining all safety requirements. However, delays frequently occur. This is often associated with the cost and sourcing of permits, alignment of coordination and highway programming and support for escalations. It is important that local authorities have the funding and resources to support the deployment of new digital infrastructure.

ADEPT members agree that the quality of highway reinstatement by contractors is problematic. Many reinstatements fail, leading to additional costs for local authorities, which are already under financial strain.

ADEPT also has significant concerns about the ability of mobile operators and contractors to recruit an appropriately skilled workforce to deploy new digital infrastructure. This can be further impacted by permit allocation delays which can result in subsequent movement of delivery dates.

• Digital champions can help reduce barriers to the rollout of fixed broadband and mobile infrastructure

To support the planning and building of mobile infrastructure, digital champions can be used minimise the barriers to the rollout of broadband and mobile networks and support effective engagement between local authority and network operators. A digital champion can be a senior member of a local authority, a councillor or a cabinet member. For more information on digital champions, see Mobile UK's 'Building Mobile Britain' report.

ADEPT will help to support digital champions and encourage them to share and educate other members on the importance of digital connectivity.

• New digital infrastructure must be inclusive and accessible to all to help bridge the digital divide

The provision of broadband and mobile services must be inclusive to all regardless of mobility and affordability restraints.

People and businesses need to be provided with opportunities and access to devices to develop the skills to use them effectively.

Case Study 2 – 100% Digital Leeds, Leeds City Council

100% Digital Leeds helps to promote the benefits of being online to digitally excluded people to help accelerate digital inclusion. It involves cross sector partnerships and works with third sector organisations to support improved resilience and increase digital inclusion across health and care. By working in this way, the digital inclusion programme is contributing to strategic priorities across the council and of stakeholders across the city.

The 100% Digital Leeds approach includes:

- A citywide digital inclusion programme led by a permanent council team.
- Building the capacity of partners across third sector, public sector, health and care.
- Making Leeds the most digitally inclusive city for everyone.

What has been delivered?

More than 3,000 Digital Champions have been trained from over 250 teams and organisations in all sectors working across the city. It has supported third sector organisations to secure £1million funding into digital inclusion interventions and projects to increase capacity and capability in communities, with £200,000 funding awarded to more than 150 third sector organisations.

• Security considerations must be at the forefront of the deployment of new digital infrastructure and 'Internet of Things'

The deployment of new smart devices and sensors by local authorities to manage their assets and deliver services presents a security challenge (Trendmicro.com – IoT Security Issues, Threats, and Defences).

This is because:

- Internet of Things (IoT) devices often have little or no security, and those that do often receive no security patches or updates. This presents a gateway for malicious actors to gain access to a network and launch wider cyberattack.
- IoT devices often store and transmit large quantities of data. There is a risk that the device and information could be physically stolen or, if the data is being sent unencrypted, intercepted. Malicious actors could also spoof the data from IoT devices.
- IoT devices are prone to mismanagement and misconfiguration. This could result in the unintentional exposure of information or provide open access to a network.

To address this and mitigate the risk, it is important that local authorities are provided with the correct tools and resources to manage and secure their network and IoT devices.

WHAT ADEPT HAS DONE TO DATE

ADEPT's Digital Connectivity Working Group focuses on the short to medium term delivery of improved broadband and mobile connectivity at a local level. It is building links with the Sub National Transport Bodies (STBs) to ensure digital equality across local authority boundaries and throughout regions of the UK.

The working group has identified a number of key issues:

- Many new homes are not fibre enabled.
- There needs to be a clear strategy that addresses the disparity in digital connectivity coverage. This includes a solution to 'not spots' and 'partial not spots' in rural areas deployment of 5G in urban areas.
- How to bring together fibre and mobile deployment strategies to drive the deployment of a world class digital infrastructure.
- There are opportunities for better collaboration between stakeholders through round-table discussions.
- The key role that local authorities play in facilitating digital infrastructure delivery.

The working group is supportive of the Department for Science, Innovation and Technology's 5G Innovation Regions fund. This is a £40m fund designed to help local areas across the UK boost their digital connectivity and develop advanced wireless technologies in areas such as healthcare solutions, futuristic farming and smart systems to improve transport and cut congestion.

The working group is studying closely the implications of government policy for fibre to new builds, including the Future Telecoms Infrastructure Review (2018). It is in active discussions with Ofcom, the Barrier Busting Taskforce, Mobile UK (which represents mobile network operators), the British Standards Institute and a number of other related industry bodies, to identify barriers, solutions and opportunities for joint advocacy.

The working group continues to work with BDUK, the delivery body for Project Gigabit.

WHAT ADEPT WILL DO

The Digital Connectivity Working Group continues to work closely with the government's broadband delivery arm, BDUK. We welcome the opportunity to make a positive impact on digital deployment by drawing upon the wide-ranging ideas and experiences of different local authorities and broadband programmes, and through highlighting and sharing good practice.

We will continue to:

- Broker understanding of the work completed so far by local authorities to make local broadband deployments a success.
- Provide open, honest and constructive feedback to BDUK on key aspects of the development of the new UK Gigabit Programme; including the procurement approach, strategy and the proposed future partnership model, and more.
- Provide subject matter expertise – both from a strategic oversight and a practical day-to-day deployment perspective.
- Bring together government, digital infrastructure providers, service operators, regulators, business boards and our corporate partners to identify key barriers and develop cross-sector interventions to tackle them.
- Advocate what 'good' looks like, using our evidence base and case studies. We will use the ADEPT annual President's Awards to spread best practice, and our Live Labs 2

Programme to link up with transport innovation.

- Provide a community of practice, collective thinking and options appraisal.
- Encourage local planning authorities to include digital policies in their Local Plans and economic development strategies and ensure that staff are knowledgeable about the benefits of digital connectivity.
- Encourage local highway authorities to adopt a pragmatic approach to street works to facilitate the deployment of digital infrastructure, while requiring contactors to ensure public safety and maintain the quality of highway assets.
- Make the case for regional spatial strategies that aligns digital infrastructure with sub-national transport, infrastructure and economic planning.
- Encourage a more collaborative approach in two tier areas so that local planning decisions align with strategic needs.
- Help articulate the different digital connectivity issues between high coverage areas in the big cities and poorly served rural areas.

ADEPT'S KEY ASKS OF THE GOVERNMENT, OFCOM AND THE INDUSTRY

ADEPT calls for the creation of a national digital strategy that addresses the imbalance in coverage across the UK, including 'not spots' within rural areas, and supports innovative solutions to tackle the digital divide between rural, coastal and urban communities.

The strategy should:

- Recognise the need for better communication between industry and local government to improve the deployment of digital infrastructure.
- Provide clearer guidance on the requirement and role of digital champions in local authorities and consideration on how funding could be allocated to local authorities to support the digital champion roles.
- Tackle data poverty by ensuring access for all to support the continuation of flexible working patterns and remote education.
- Examine the current legislation for developers and proposed changes to building regulations to ensure clear governance is provided on the implementation of digital infrastructure to support wider connectivity for new developments.
- Encourage increased engagement between local authorities, Ofcom and DSIT to ensure that mobile coverage in rural areas is meeting agreed obligations and timelines.

ADEPT is also asking for further information on the Emergency Shared Network to understand how this will be deployed on a local level and the possible impacts on local authorities.




- ADEPT members are the place-making strategists and policy shapers across top tier local authority areas
- ADEPT members are specialists, delivering services and sharing best practice across key sectors including environment, planning, housing, transport and economy
- ADEPT members design strategies for the future, taking communities beyond 2035
- ADEPT members operate in networks, cutting through boundaries to work with partners across the political, public, private and community sectors
- ADEPT members provide opportunities to develop new talent, supporting the place directors of tomorrow

ADEPT

The Association of Directors of Environment, Economy, Planning & Transport

www.adeptnet.org.uk