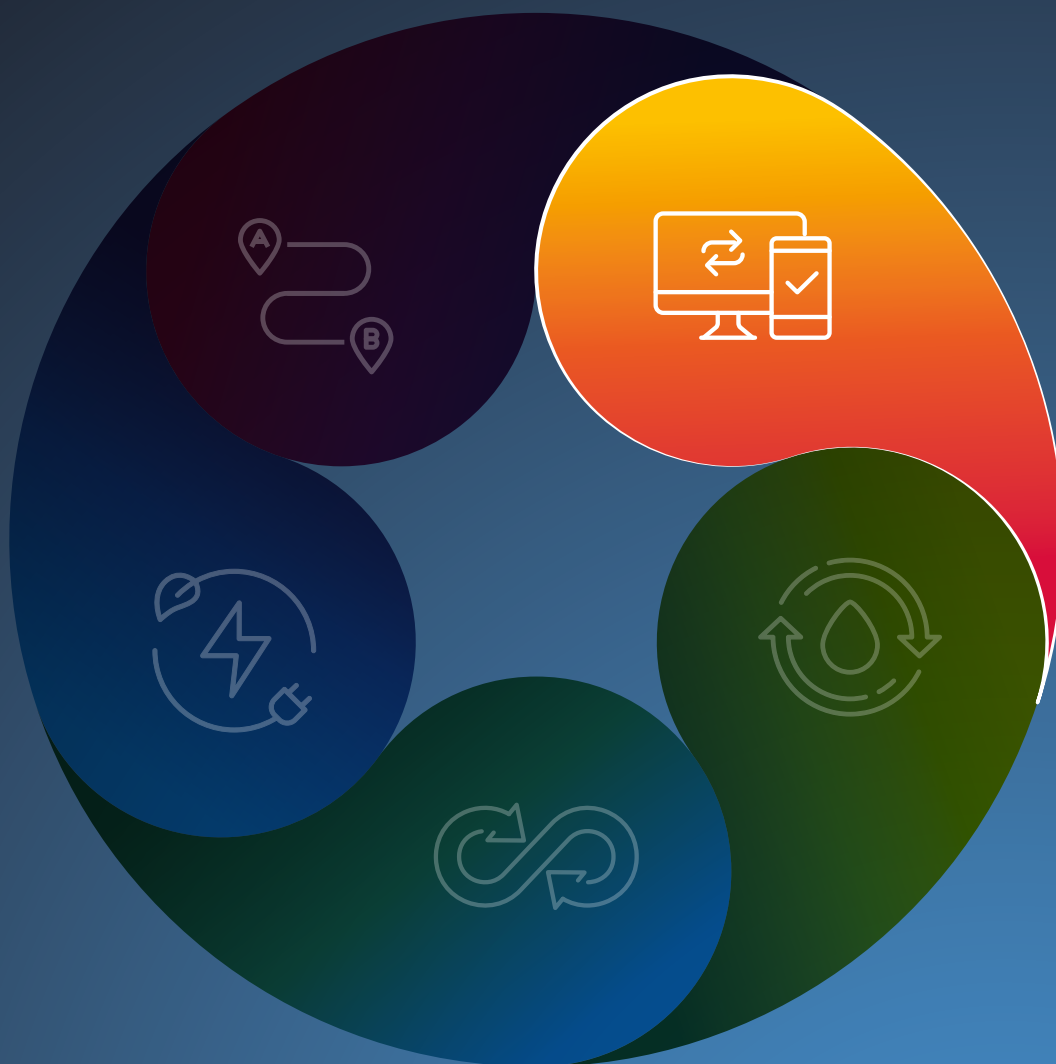




Comisiwn **Seilwaith**
Cenedlaethol **Cymru**
National **Infrastructure**
Commission **Wales**



DIGITAL AND TELECOMMUNICATIONS SECTOR INFRASTRUCTURE INSIGHTS

EXECUTIVE SUMMARY

in partnership with



The National Infrastructure Commission for Wales (NICW) commissioned Arcadis to assess the current and future infrastructure needs across the energy, water, transport, digital, and circular economy sectors, and to identify the key issues requiring Welsh Government attention.

This summary focuses on the digital and telecommunications sector, assessing the state, resilience, and inclusivity of Wales's digital infrastructure.

Digital connectivity underpins economic growth, innovation, and social wellbeing in Wales, enabling access to jobs, education, healthcare, and public services. Delivering the ambitions of the Well-being of Future Generations (Wales) Act depends on fast, reliable, and inclusive digital infrastructure, serving urban communities and the c.33% of the Welsh population living in rural areas.

Despite significant progress, the sector faces ongoing challenges in delivering ubiquitous coverage, addressing 'not-spots', and ensuring equitable access. Tackling these issues requires coordinated action from UK and Welsh Government, local government and the telecoms industry.

Sustained investment, supportive policies and focussed interventions will be essential to ensure digital infrastructure is capable of supporting Wales's wider economic, social, and environmental objectives, now and in the future.

CURRENT ISSUES AND CHALLENGES



Gigabit Broadband

Wales has benefited from a combination of the UK-wide Project Gigabit and supportive Welsh Government interventions that have improved the availability of high speed and reliable digital connectivity. Increasing activities to address the needs of very hard to reach rural areas and urban 'not spots' is now the priority.

Across the UK, some commercial fibre operators have been delaying or even cancelling new build projects to focus on monetising the existing network. This risks opening up new coverage 'not spots' in areas with a previously committed commercial build, which would have been excluded from Project Gigabit and other state intervention. Welsh Government will continue to work closely with the operator community to minimise this risk.



Mobile Networks

The mobile operators face a two fold challenge in Wales; closing primarily rural coverage gaps and addressing capacity issues in urban areas. Wales has benefited disproportionately from the UK's Shared Rural Network programme but there is still more to do.

Mobile capacity issues in urban areas – a UK wide problem – is a function of the challenges of maximising (and retaining) existing mast sites and acquiring new ones to keep pace with customer demand. Constraints on mast sizes in Wales are more pronounced than in the rest of the UK. At a time when mobile operators are stepping up their investment programmes, creating the right climate for investment will be critical.



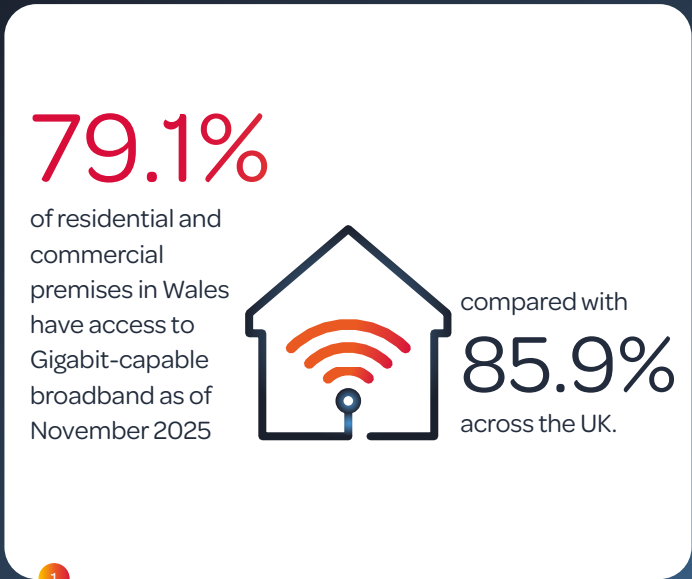
Innovation and Co-ordination

Technological advances, such as the deployment of mini-exchanges, are improving the economics of fibre build and the viability of rural networks. Satellite technology is maturing rapidly and has the potential to improve both fixed and mobile network coverage. The Welsh Government has been active in piloting the application of new technologies against specific Welsh pain points and should continue to do so; ultimately success is about adoption and adaption of communications technology, not simply making networks available.

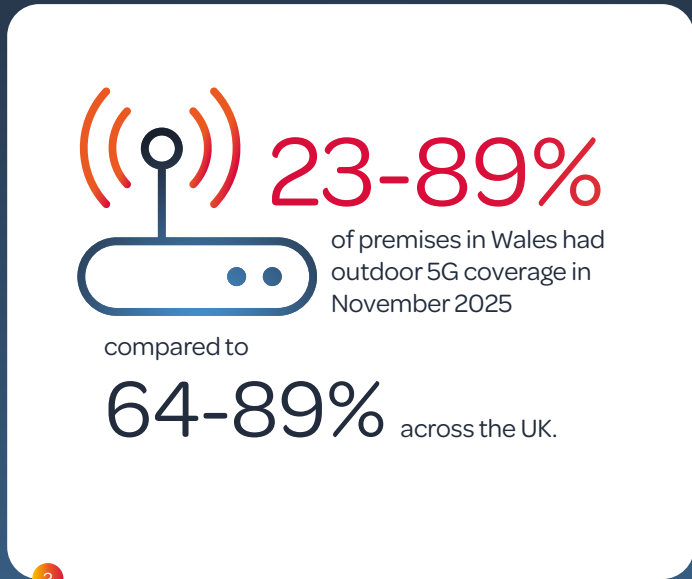
At a local level, so-called Digital Champions have been successfully adopted by most Welsh local authorities. Digital Champions provide consistency and a single point of contact for operators, helping remove roadblocks. The remaining local authorities should be encouraged to adopt this successful model.



WHERE ARE WE NOW



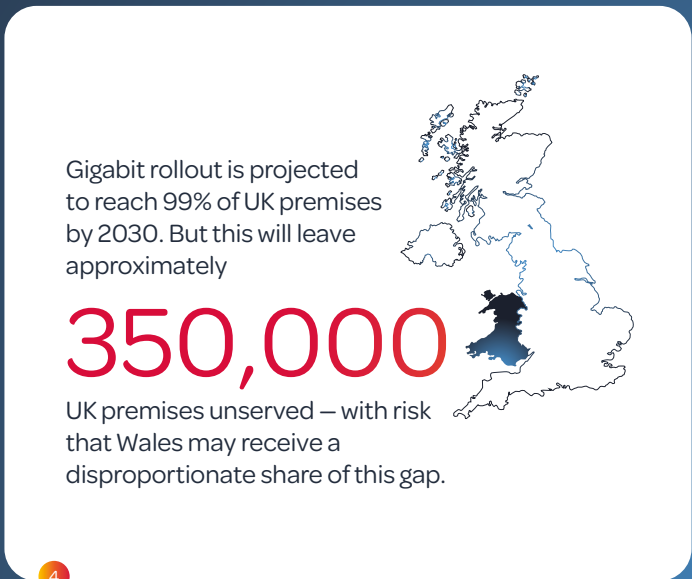
1 Ofcom Connected Nations Wales Report 2025



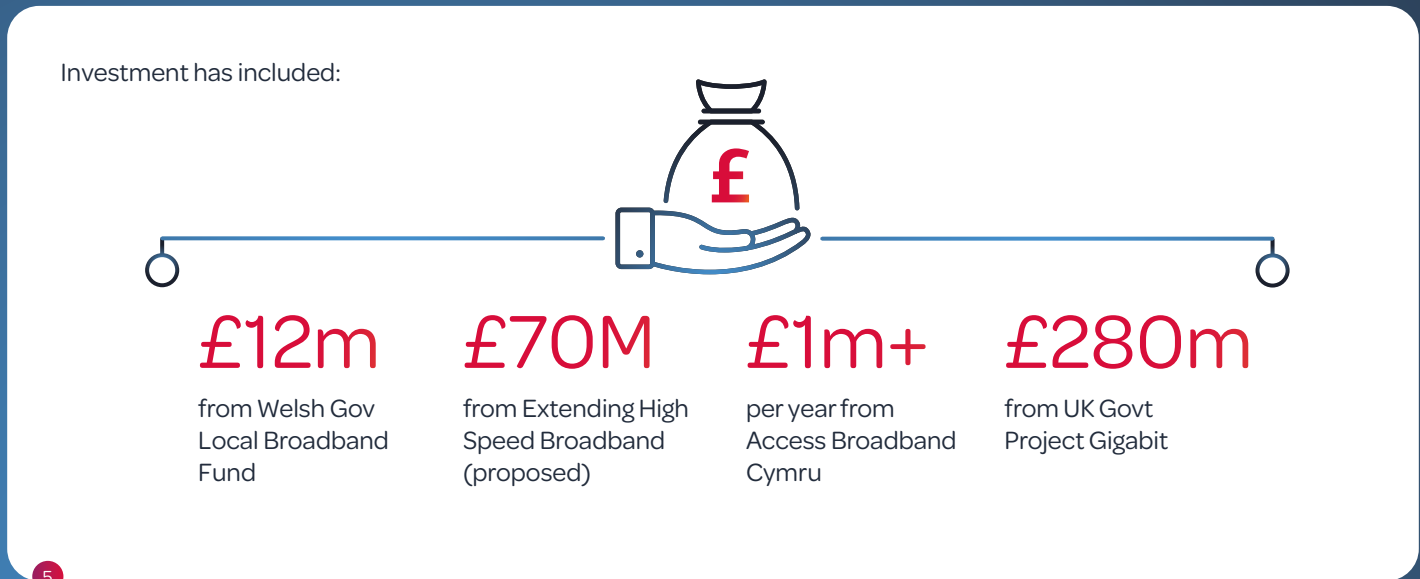
2 Ofcom Connected Nations Report November 2025
Range refers to the span between the Mobile Network Operator with the least coverage and that with the most coverage.



3 Welsh Government



4 Based on UK 2025 population of c 35,000,000



5 Various sources

FUTURE CHALLENGES

1. The UK target is for 99% of premises to have gigabit connectivity by 2032. Where the 1% shortfall lands is not clear. Wales must act to make sure it does not bear a disproportionate burden.
2. As 5G standalone and eventually 6G mobile are rolled out, much more will need to be done to help businesses to evolve existing and develop new business models.
3. Wales has an opportunity to champion mobile operator network build at a time of significant change in network investment. A good first step would be to address the constraints of Welsh permitted development rights.
4. Mobile Infrastructure Providers (MIPs), who own mobile mast and rooftop sites and rent space to mobile operators for their radio equipment and who also invest in new sites where they see coverage or capacity problems, are vital. They are a critical stakeholder, particularly in marginal locations where they will help to consolidate mobile operator demand.
5. Lack of reliable mobile network coverage and capacity data shared by operators is a challenge; without it local planners struggle to support applications for new mast sites. MIPs have access to the same crowdsourced data the operators use and would be willing to help.

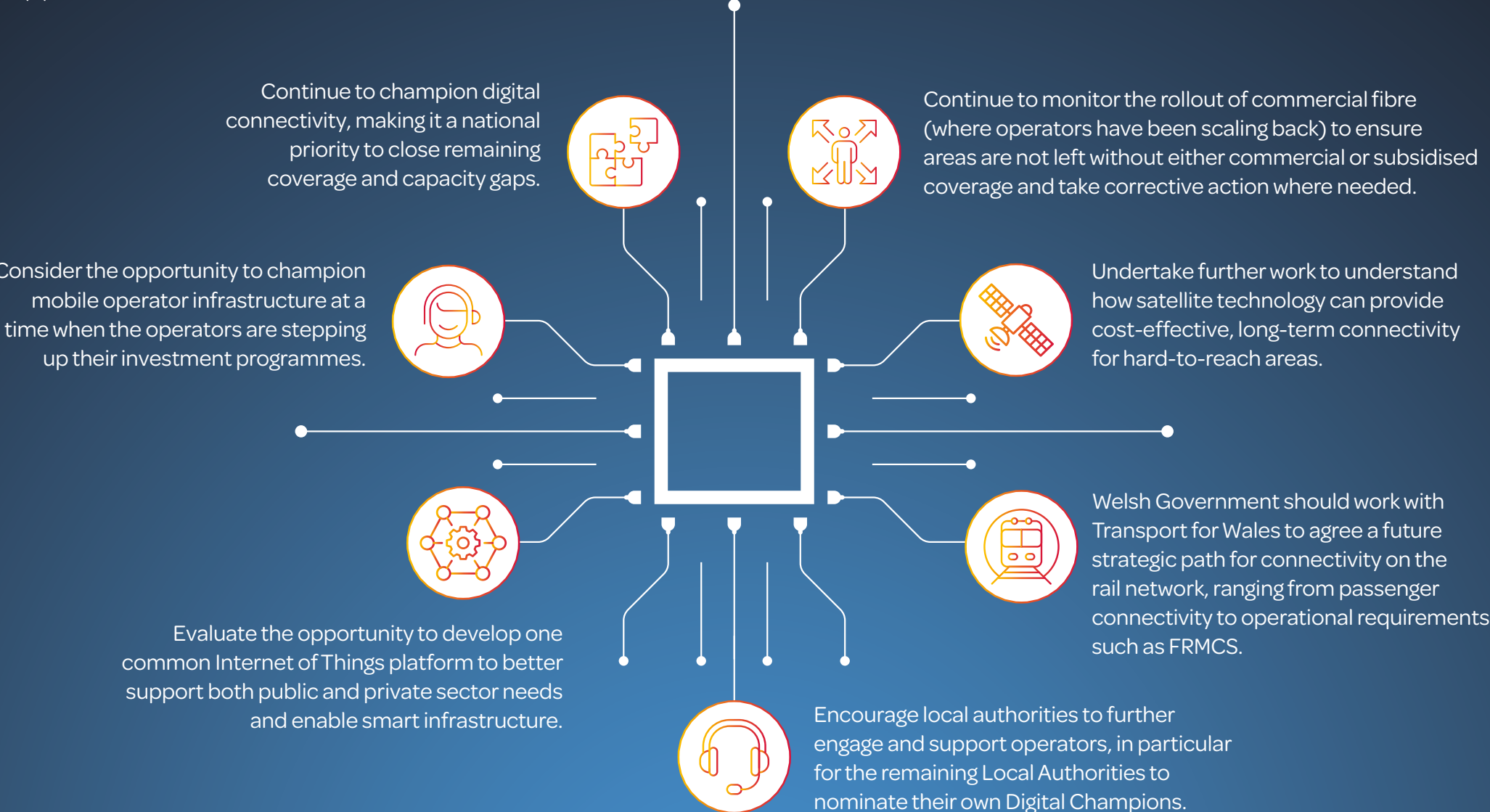
FUTURE AMBITION

The time is right for Wales to begin to shift focus away from building digital infrastructure to leveraging it. Welsh Government should continue to do what it does well; helping to optimise UK Government interventions for maximum benefit to Wales and augmenting these with well-designed local interventions. Welsh Government should increase emphasis on adoption and local adaptation of digital communications networks to support specific Welsh social and economic policies. Focus should be on:

- Completing Gigabit and 5G network build. Welsh Government should maintain a relentless focus on closing Gigabit broadband and mobile not spots or not-a-lot spots in both rural and urban areas.
- Championing mobile infrastructure and applications at a time of significant acceleration of operator investment, recognising that mobile networks do not enjoy the level of UK Government support that has been given to broadband.
- Using digital communications to transform public service delivery and extend employment opportunities. In rural areas especially, removing barriers or distance and improving access to services is critical.
- Utilising maturing satellite technology to benefit rural communities. Welsh Government are already innovating with satellite and encouraging its use. This could be the basis of a UK leading focus.
- Revisiting understanding and predictions of digital inclusion/exclusion in order to make the right interventions, recognising that those born in the digital age make up an increasing proportion of the population.

PRIORITY ACTIONS

In this context, this review has identified a range of issues and challenges that require further action. Top priorities are to:



See the main report for further details on additional actions.



For more information,
please scan the QR code.

