Technology Adoption Review

Independent Networks Co-operative Association

February 2025

Introduction

1. The Independent Networks Cooperative Association (INCA) is the leading UK trade association representing organisations deploying independent digital infrastructure. Founded in 2010, INCA aims to foster a new approach to digital infrastructure, focusing on full fibre (FTTP) and high-quality wireless broadband whilst campaigning for the policy and regulatory support needed to maintain a healthy, competitive market that continues to attract investment to the UK. INCA has over 200 members and represents most of the full fibre infrastructure builders commonly referred to as Altnets. Members include network owners, operators, suppliers, and managers as well as access networks, middle mile networks, network hubs and exchanges and organisations (including public sector) that are developing or promoting independent networks.

2. INCA welcomes the opportunity to respond to the Department for Science and Innovation's (DSIT) call for evidence on the technology adoption review to illustrate the importance of full-fibre digital infrastructure as the primary driver to generate economic and productivity growth and to explain that full-fibre broadband adoption is the key enabler of wider technology adoption.

3. For the effective adoption of new, innovative technology, INCA contends that the role and adoption of foundational full-fibre broadband is crucial. Consider reliable and high-speed telecoms networks as a 21st century equivalent of the railways during the industrial revolution; connectivity and fast access to the internet are a vital and necessary component for economic growth, GDP acceleration, productivity and the adoption of new technologies.

The Current Situation

Full-Fibre Coverage and Adoption

4. Full-fibre coverage stands at 74.64% and Altnets provide full-fibre coverage to 39.98%.[1] Compared to only a few years ago, this is an immense improvement, however the benefits attained from full-fibre networks are not felt from coverage alone; as such there is now a renewed focus on premises connected and customer acquisition.

5. In terms of full-fibre adoption, the average take-up[2] stands at 54.4% across Europe while the UK achieved 34.7%.[3] Some European nations are achieving full-fibre adoption of above 80%[4]. In this research, which looked at 30 European nations, the UK ranks 24th, however, the UK does demonstrate high growth of full-fibre subscribers as infrastructure has been deployed at pace in recent years from a variety of providers. Acceleration of full-fibre coverage will be critical to

[1] https://labs.thinkbroadband.com/local/uk, data correct as of 10 Feb 2025
[2] Note: This data refers to Q2 2022; it is difficult achieve get synchronisation of current data across multiple countries.
[3] https://www.point-topic.com/post/fttp-broadband-adoption-rates-europe
[4] Iceland, Sweden, Finland, Norway

achieving growth within sectors in the Industrial Strategy green paper and wider technology adoption.

Barriers to Full-Fibre Adoption

6. There remain significant barriers to the adoption of full-fibre which the government (and Ofcom) must help overcome to drive growth and technological adoption. For example, the largest internet service providers (ISPs) do not routinely utilise the vast array of Altnet networks, meaning businesses and homes in certain locations do not benefit from full-fibre when they are able to, meaning full-fibre adoption and subsequent technology adoption is slowed down and the associated benefits on economic growth and productivity are not realised.

7. INCA believes that government should encourage Ofcom to introduce provisions to ensure that barriers to market expansion for new network operators are removed or reduced as rapidly as possible and that ISPs are incentivised to provide services across those new full-fibre networks on reasonable terms and conditions. This would have the effect of faster adoption of full-fibre by end consumers, speeding up the country's migration from outdated copper networks, allowing for adoption and utilisation of further transformative technology.

Existing Measures

Funding

8. The advent of infrastructure competition brought with it huge sums of private investment which has funded the vast majority of the network build in the UK today. Furthermore, the introduction of Project Gigabit has been a success in allowing for hard-to-reach areas, otherwise deemed to be economically unviable, to be covered by full-fibre networks through the use of taxpayer subsidies.

9. But all areas of the UK should have access to full-fibre connectivity and there remains urban locations which are disconnected from gigabit connectivity. Whilst the majority of Project Gigabit subsidies have been spent on the hard-to-reach areas, it is correct that urban not-spots are also addressed to encourage the adoption of full-fibre and to allow for the adoption of further technological developments.

10. In order to encourage greater adoption of full-fibre and future transformational technology, INCA believes the subsidy levels need to be amended to more accurately reflect current real-world deployment costs. INCA also calls for BDUK contracts to be accelerated to complete full-fibre roll-out faster, to allow for a quicker adoption and subsequent economic and productivity benefits to be realised as soon as possible.

International Comparisons

11. A number of European countries, as well as jurisdictions further afield have rolled-out full-fibre networks ahead of the UK and have witnessed a gap between premises passed and premises where full-fibre has been adopted. Gigabit-capable coverage currently exceeds 80% of

households in each of Spain, Portugal and Sweden. The take-up gaps in these countries, in 2023, were 9%, 8% and 12% respectively.[5]

12. These nations had more favourable conditions for a migration to full-fibre than the UK; consumers were reliant on ADSL connections when full-fibre was being rolled-out, and there was not widespread FTTC coverage as an intermediate solution as seen in the UK. Therefore, full-fibre represented more of a step change in service than it represents in the UK.

13. The transition to full-fibre in Singapore is also a useful example. Singapore rolled-out FTTP through the publicly funded *Next Generation National Broadband Network* and achieved 100% coverage in 2013 but had only 36% full-fibre adoption. Now, the adoption gap between coverage and take-up is negligible, but this was only minimised through further state intervention.[6] This included contests to promote full-fibre adoption organised by the telecoms regulator as part of a public outreach effort and led by grassroots leaders who engaged with communities and explained the benefits of full-fibre adoption.

14. INCA believes that a similarly-focussed government-led campaign to encourage adoption of full-fibre connectivity in the UK would prove to be a valuable and worthwhile endeavour; experiences of other countries tell us there is likely to be an adoption gap in 2030 (the ambition of government to have full gigabit coverage) between coverage and full-fibre adoption. INCA believes for government growth objectives to be realised a catalyst of consumer communications are needed by government and regulator alike.

Further Action to Drive Technology Adoption

Financial Incentives for SMEs

15. INCA believes the government should consider financial incentives for businesses to encourage full-fibre broadband adoption. The now defunct *Help to Grow: Digital*,[7] introduced under the last government, was designed to provide SMEs with vouchers worth up to £5,000 to cover up to 50% of the costs of buying pre-approved software. It was a well-intentioned scheme, but it was restrictive and overly cautious, and subsequently, utilisation of the scheme was disappointing, but there remains significant demand for digital adoption across the UK, with polling of UK SMEs showing strong support for incentives.[8]

16. Looking further afield, other nations have economic incentives which have greater flexibility. For example, Australia introduced the Small Business Technology Investment Boost[9] which allowed for SMEs to claim a 20% bonus deduction on technology expenditure. Eligible expenditure included "computer and telecommunications hardware and equipment, software, internet costs, systems and services that form and facilitate the use of computer networks." The Technology Investment Boost is projected to result in $1.15 billion in forgone tax revenue between 2023-2024 and 2025-2026, which is $150 million above the plan put forward by the Australian government but is expected to deliver a further $300 million in benefits.[10] This

[5] Spain's FTTH wholesale market: Closing the Digital Gap, Jan 2025
[6] Frontier Economics, Unlocking the Gigabit Dividend, Aug 2022
[7] https://www.gov.uk/government/news/final-opportunity-for-businesses-to-access-help-to-grow-digital-scheme
[8] Sage, Digital Britain: How small businesses are turning the tide on tech, June 2022
[9] https://www.ato.gov.au/businesses-and-organisations/income-deductions-and-concessions/income-and-deductions-for-business/deductions/small-business-technology-investment-boost
[10] https://www.smartcompany.com.au/tax/small-business-technology-training-boost-bonus-tax-deductions-estimates/

indicates that the scheme, ergo technology adoption, has been far more popular than anticipated.

17. INCA encourages government to be radical vis-à-vis taxation incentives to encourage technology adoption amongst SMEs across the UK. Evidence suggests there remains strong support for such endeavours; these investments could boost the UK economy by £232bn annually.[11]

National Information Campaign

18. As mentioned previously, INCA believes it would be beneficial if government was to initiate a government-led campaign on the migration from copper networks to full-fibre. Moving from a copper to a full-fibre networks represents a significant change which will require end users to change their telecoms equipment and necessitate a new network installation into the premise; this will undoubtedly lead to a level of confusion and resistance in some quarters.

19. INCA believes that government, with the support of the regulator and industry stakeholders, should initiate a national information campaign which outlines the benefits that the adoption of full-fibre will offer to consumers, businesses and the resulting societal gain. If led by government it would be able to explain from an impartial position that new full-fibre networks are being built by multiple operators across the country, and these networks are faster, more resilient, more reliable and not susceptible to the same problems experienced with the existing copper networks.

Digital Inclusion

20. Whilst access to competitive and affordable full-fibre broadband infrastructure is of critical importance for future economic growth, availability alone does not guarantee universal coverage or economic growth. A holistic policy approach is required which tackles the complex interaction between factors that contribute to the digital divide, specifically: affordability, skills, confidence and availability. Each of these factors requires careful consideration for digital exclusion to be overcome.

21. The last UK government Digital inclusion strategy was published in 2014.[12] By 2023, the House of Lords Communication and Digital Committee concluded that digital exclusion was "a serious problem" with digital skills "set to become the UK's largest skill gap by 2030".[13] It is vital that a new digital inclusion strategy is developed and delivered; growth through digitalisation will only become apparent if it can be accessed and exploited to allow for the public and businesses to reap the rewards of what full-fibre can deliver. Full technology adoption across the UK will only materialise if all residents and businesses can fully engage in the digital economy.

[11] Sage, Digital Britain: How small businesses are turning the tide on tech, June 2022
[12] https://www.gov.uk/government/publications/government-digital-inclusion-strategy/government-digital-inclusion-strategy
[13] https://lordslibrary.parliament.uk/digital-exclusion-in-the-uk-communications-and-digital-committee-report/

Digital Champions

22. Local authorities (LAs) who INCA has previously engaged with on digital champions have voiced support for digital champions and applauded the positive impact they have had in their respective locations with regards to increasing funding and investment and increasing full-fibre coverage and adoption. LAs, however, have also expressed concern that without further central government funding, it is unlikely that digital champions and/or digital co-ordinators can be retained by authorities as savings need to be identified; in FarrPoint's Annual Connectivity survey,[14] 76% of councils said they had a Digital Champion, but only 42% of these were fulltime roles. The same survey showed 74% of councils felt lack of funding from central government was a barrier to improved local connectivity.

23. There has been widespread support for the funding of digital champions within local councils for several years; Mobile UK[15] reported that "Councils with a Digital Champion are 4x more likely to smooth the rollout of mobile infrastructure" and the Digital Connectivity Forum have highlighted the importance of digital champions as a single point of contact for infrastructure providers.[16] Some Altnets have previously voiced that they have not had engagement with digital champions, therefore there must be a concerted effort to engage strategically with full-fibre infrastructure builders to help drive full-fibre adoption.

24. Government must recognise the vital role that local authorities play in the delivery of full-fibre digital infrastructure. The funding of digital champions at a strategic authority level will help speed up full-fibre deployment, and subsequent technology adoption.

Telecommunication Poles

25. Poles perform a critical role in the digital infrastructure landscape, allowing for: 1) full-fibre to be deployed cost-effectively, 2) allowing for increased coverage, and 3) allowing for full-fibre to be adopted by more consumers. Whilst INCA is sympathetic to genuine concerns with regards to pole deployment, we encourage government to back the network builders, not the blockers. Full-fibre roll-out and subsequent technology adoption will be much slower without permitted development rights and pole infrastructure.

Cross-departmental Co-ordination

26. INCA contends that digital connectivity, adoption and inclusion needs to be considered as a whole-government priority. The objective should receive support not only from DSIT, but from the range of Departments which play a critical role in promoting technological adoption as well as removing/reducing barriers to roll-out, including (but not limited to) the DfT, MHCLG, DWP, DHSC and DBT.

27. The competing priorities of various different Departments can often act as obstacles, preventing the effective roll-out of full-fibre connectivity, for example, a lack of co-ordination surfaced between DWP and DSIT in the attempts to support the physically or financially vulnerable during 2024. This needs to be overcome to promote future adoption.

[14] https://www.farrpoint.com/news/dcri-2025
[15] https://www.mobileuk.org/digital-champions
[16] Local Authorities as Connectivity Enablers, https://www.connectivityuk.org/publications/