

## UK Wireless Infrastructure Strategy

Founded in 2004, Comms Council UK is a UK membership-led organisation that represents companies who provide or resell business and residential customers voice services over data networks (VoIP) as well as other “over the top” applications including instant messaging and video. The membership is a mixture of network operators, service providers, resellers, suppliers, and consultants involved in a sector that is diversifying rapidly from just voice services to other innovative IP applications.

### Contact

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### Overview

The Department for Science, Technology & Innovation (DSIT) [published](#) its Wireless Infrastructure Strategy on Tuesday, 11th April. The strategy outlines the importance of mobile connectivity to the UK economy and society, with a mix of new and existing policies and commitments. This includes a national ambition to deliver nationwide coverage of standalone 5G to all populated areas by 2030, encouraging take up and investment by supporting certain use cases for 5G (such as rail and hospitals), investing £40m in new ‘5G Innovation Regions’, a new approach to managing Spectrum and looking to future innovation with £100m research funding for 6G.

Alongside the new strategy, DSIT also announced:

- A [spectrum statement](#) that sets out a new ‘strategic vision and principles’ for spectrum policy, with a focus on innovation in the use and management of spectrum to create greater opportunities for growth and societal benefits through increased access to spectrum. These principles and actions range from greater government coordination with Ofcom, the promotion of innovation and investment and consumer outcomes, repurposing spectrum where appropriate and keeping the legislative framework under review.
- A [Rural 10 Point Plan](#) to support rural communities that brings together key government actions (mobile coverage reporting, 5G adoption campaign, Project Gigabit funding, etc).
- Further trials of flexi-permits to accelerate broadband rollout in certain counties (including rural)
- £8 million fund to provide capital grants to further promote new satellite connectivity.

### Achievements to date

The strategy outlines progress over the last five years in the deployment of “world class fixed and wireless networks across the whole of the uk”, including:

- Investing £5 million via Project Gigabit, to achieve gigabit broadband to at least 85% of premises by 2025.
- Reaching £1bn deal with mobile network operators (MNOs) to support rural communities to ensure 95%+ have 4G coverage by 2025.
- Deploying 5G to achieve the goal of majority access to 5G signal by 2027.
- Strengthening network security by implementing the [Telecommunications \(Security\) Act 2021](#) and the [5G Supply Chain Diversification Strategy](#).

### Why the Government wants to achieve more

The Strategy states that widespread adoption of 5G can bring a cumulative productivity benefit of £159 billion by 2035, with two main benefits connected to the Government’s broader [Digital Strategy](#):

- The Government wants to “realising [its] vision” to:
  - Underpin new technologies such as AI, self-driving cars and digital twins, which need fast and reliable digital infrastructure to work.

- Transform public services, from smart cities to healthcare and education.

### Challenges

DSIT has identified a number of challenges to realising the benefits as the investment case for 5G evolves:

- High costs associated with upgrading and maintaining networks.
- Uncertainty with 5G demand.
- The need for higher quality connectivity in national public networks.
- More of a focus on urban settings for 5G deployment.
- Connectivity disparities in various parts of the country.
- Access to spectrum is becoming increasingly competitive.
- Changing market dynamics:
  - The important role that emerging operators will play in delivering wireless connectivity.
  - Lack of nationwide awareness about the benefits of 5G.
  - Keeping private networks secure, considering their increasing number.

## How the Government will address key challenges

The strategy sets out six steps the government will take to address the challenges and realise the benefits.

### 1. Ensuring good connectivity for all

As well as increasing deployment of 5G, 4G will still play an important role aiming towards 95% coverage. To ensure this delivers for consumers and businesses, the Government is focusing on:

- Reporting:
  - The Government has asked Ofcom to:
    - Ensure **accountability of MNOs via signal testing and crowdsourced data**.
    - Consider improvements to accuracy of network performance levels reporting for rural areas and indoor coverage.
  - The Government will work with Ofcom to **increase rail network coverage reporting**.
  - The Government has expressed the importance to Ofcom of regularly reviewing its definitions of 'good' 4G and 5G coverage.
- Affordability:
  - Government will work with all stakeholders – including Ofcom and industry – to ensure services are affordable.
  - It has also pledged to monitor market affordability with Ofcom.
  - **A Rural Connectivity Champion will be appointed**, reporting into DSIT and DEFRA's Secretary of State to remove local deployment barriers.

### 2. Setting a bold 2030 ambition

- The Government wants to build higher quality 5G networks that do not need to rely on old infrastructure, and it will look to extend coverage to all populated UK areas.
- Its stated "headline ambition" is to have **nationwide coverage of standalone 5G to all populated areas by 2030**.

### 3. Strengthening the investment climate

- With a more challenging investment environment, the Strategy looks to:
  - **Remove barriers to deploying 5G infrastructure.**
  - **Reaffirm openness to market consolidation.**
  - Work across departments to ensure policies and regulation have a 'positive impact' on investment.

- Reduce regulatory barriers by:
  - **Ensuring net neutrality rules are fit for purpose.**
  - Asking Ofcom to review the approach to setting spectrum fees by the end of 2023.
  - Working with industry and Ofcom to reframe spectrum if it isn't being used effectively.
  - Ensuring spectrum arrangements are working as intended.
  - Maximising the UK's influence at an international level.
  - Ensuring MNOs benefit from relief in economic areas.

#### 4. Realising the full benefits of 5G

Government will open up opportunities for industry and public service providers to be empowered customers for future connectivity solutions by:

- Encouraging commercial investment in wireless connectivity.
- Supporting and scaling up new and existing provision.
- Encouraging local authorities (LAs) to employ **'digital champions' to provide strategic leadership for local strategies.**
- Providing up to **£40m for regional and LAs to establish themselves as '5G Innovation Regions'** to promote innovation and growth.

#### 5. Driving adoption

Government will drive adoption across the public sector and public estates across the UK by:

- Working with departments to understand how 5G can support delivery of Government objectives to improve public services.
- Ensuring digital connectivity is at the heart of infrastructure projects.
- **Working with the Crown Commercial Service to drive 5G demand.**
- **New hospitals will be 5G or equivalent-enabled.**
- Highlighting benefits of 5G-enabled services by local and regional authorities.
- **Establishing a Digital Infrastructure Advisory Group** made up of regional digital leaders to promote investment and adoption of digital connectivity.
- Supporting local digital infrastructure and connectivity plans via any **City region and Local Growth Deal, Devolution Deal, Investment Zone or Levelling Up funding activities.**
- Undertaking a nationwide campaign for business 5G adoption.
- Working with Ofcom to improve spectrum access via **shared access spectrum licence applications by 2024.**
- Assessing the role 5G and advanced wireless connectivity can play in net zero delivery.

#### 6. Shaping the development of 6G

Looking ahead to help shape the next generation of mobile technology through:

- **Investing up to £100m in future telecoms R&D via the Engineering and Physical Sciences Research Council's Future Telecoms Research Hubs.**
- Developing a UK vision for 6G.
- Creating international alliances to joint research.
- Shaping our 6G future through working with standards bodies.
- Setting out a roadmap for 6G in the UK by considering whether the framework is appropriate for future networks.

## Implementation

The Government states it will work closely with devolved administrations, industry, public sector, academia and investors to monitor future developments.