

# General Background Information for Telecommunications Development.

## Wales

cornerstone

# Introduction.

**Cornerstone is the UK's leading mobile infrastructure services company. We acquire, manage, and own over 20,000 sites and are committed to enabling best in class mobile connectivity for over half of all the country's mobile customers. We oversee works on behalf of telecommunications providers and wherever possible aim to:**

- Promote shared infrastructure;
- Maximise opportunities to consolidate the number of base stations;
- Significantly reduce the environmental impact of network development.

This document is designed to provide general background information on the development of UK mobile telecommunications networks.

It has been prepared for inclusion with planning applications and supports network development proposals with general information.

## Background

Over 30 years ago under the Telecommunications Act 1984, a licence was granted to mobile network operators. The licence was to provide wireless (or mobile) phone services utilising unused radio frequencies adjacent to those transmitted for over 50 years by the television industry.

With the wireless technology being new and the number of potential customers unknown, several tall masts were used to provide basic radio coverage to the main populated areas.

As the way we use our phones and other technologies have changed over the past 30 years, where we locate masts is crucial.

Due to the increased data transfer necessary for the latest telecommunication services, locations of base stations must be where the local demand exists.

# Digital networks.



## 2G

**2G digital networks developed in the early 1990s.**

This digital technology is also known as GSM (Global System for Mobile Communications), which is the common European operating standard. This technology enabled phones to interconnect to other networks throughout Europe and internationally.



## 3G

**In 2000, the 'Third Generation' mobile telecommunications service was launched, known as 3G or UMTS.**

In addition to voice services, this allowed broadband access to the internet for mobile phones and laptop computer data card users.



## 4G

**2013 saw the launch of 4G services on the network.**

This technology allows for ultra-fast speeds when browsing the internet, streaming videos or sending emails. It also enables faster downloads.



## 5G

**2019 saw the introduction of 5G services, with the Government's ambition for the UK to become a world leader in this technology.**

5G Connectivity will ensure that everyone benefits from early advantages of its potential and that the UK creates a world-leading digital economy that works for all.

# What is 5G?



**5G is the new generation of wireless technology that will deliver reliable and faster networks of the future, changing how we understand wireless connectivity.**

The technology will see us all move from something we experience through personal devices to an integrated infrastructure across buildings, transport and utilities. The new technology will provide enormous benefits for citizens, businesses and urban regions alike.

5G will also offer a new level of underlying connectivity to transform services and create new digital ecosystems.

# The benefits of 5G.

## The economic benefit

- Businesses offering online services can extend their products to a broader audience
- Local areas and businesses can benefit from tourists and visitors as hotels, attractions, and restaurants can be booked online from anywhere in the world
- Business owners and services like doctors can provide a faster and more cost effective service by offering both online appointments and ordering
- Digital connectivity facilitates economic growth, something which the Government is keen to progress and promote

## The social benefit

- Mobile communications can help people to stay in touch wherever and whenever, which can help improve social wellbeing
- Contacting emergency services is easier, especially in remote areas
- Using a mobile wherever you go can provide better personal security
- Having access to social networking sites and applications can keep people entertained with their lifestyles and interests
- Mobile connectivity helps promote smarter and productive ways of working. For example, working from home can help minimise commuting which can provide better work and home life balance
- Access to personal information 24/7, e.g. bank accounts, can offer efficiency and convenience

5G is the next generation of mobile connectivity, providing us with a new level of experience. It will offer immense opportunities, given the faster and more reliable connectivity that it will provide.

We will experience new technologies that will help us become more efficient and save costs as an individual or business.

## What can we expect from 5G?

- Driverless vehicles – this will give drivers autonomy to do other things while driving
- Advanced healthcare facilities – performing surgeries remotely will be made possible, along with freeing up more GP time through better online facilities
- Enhanced Virtual and Augmented reality (AR) – used in gaming and entertainment already, with 5G, live interactions will be taken to the next level
- Greater Internet of Things (IoT) transformation – with better connected devices, the IoT will enable us to control devices more independently
- Cutting-edge agricultural operations – operating farming machinery and tools remotely will promote smart agriculture, saving time and increasing productivity for farmers

We need to continue to work together to enable the opportunities that mobile technology brings to all of us.

# Planning policies.

**Planning policy guidance on telecommunications**

**Planning Policy Wales (PPW) 2021 and in addition the National Planning Framework (NPF) 2021 sets out the land use planning policies of the Welsh Government.**

Together with Technical Advice Notes (TANS), it provides the national planning policy for Wales. The Code of Best Practice, (as updated in March 2021) is a further supplementary document which plays its part in achieving the aims of the planning policies. PPW makes clear that infrastructure, whether it be physical, electronic, or digital, plays a pivotal part in the economic well-being of Wales. It outlines that "poor infrastructure can be both a disincentive to investment and growth, and have a detrimental impact on the quality of life, prosperity and the well-being of communities."

PPW recognises that affordable, secure electronic communications infrastructure is essential to people and businesses, and for Wales, long term prosperity. To this end, it states:

"It is the Welsh Government's objective to offer fast and reliable broadband to every property in Wales and to support the deployment of mobile infrastructure across the country".

**It goes on to state:**

"The planning system should help support telecommunications infrastructure where it is required, whilst taking in to account the status of protected land and buildings, as well as amenity considerations to protect what is valued most in our communities and environment. Planning authorities should not question the need for the telecommunications system, nor seek to prevent competition between different operators."

"New technologies such as 5G will result in the densification of mobile infrastructure, particularly in urban areas which could require more small cell sites in street settings. The planning system will need to respond positively to this evolution in technology whilst being mindful of the impacts on amenity and the historic environment."

**PPW also sets out Welsh Government expectations on how new infrastructure should be rolled out:**

"The impact from new mobile telecommunications infrastructure will be the greatest in sensitive landscapes and other designated areas and should be carefully planned. However, it is these areas, which are mostly rural in nature, which are affected economically and socially by limited coverage. Proactive, but considered planning, is therefore essential to ensure greatest coverage whilst maintaining the character of these special areas"

"The sharing of masts and sites is strongly encouraged where that represents the optimum environmental solution in a particular case, for example, in designated or sensitive landscape areas. The design of masts will be an important consideration where sharing is likely to be the preferred approach and efforts to disguise apparatus should be pursued where necessary.

Wherever possible, use should be made of existing buildings and other structures to site new equipment and developers should engage with planning authorities and the community to identify possible locations that could bring additional benefits. Siting should allow for the greatest possible coverage while, so far as is practicable, minimising the impact on amenity and the external appearance of a building."

# Planning policies.

**Planning policy guidance on telecommunications**

**National Planning Framework (NPF)**

"Better digital communication will enable economic and social progress and ensure Wales can lead and keep pace with the latest global technological advancements"

"The Welsh Government supports the provision of digital communications infrastructure and services across Wales. Planning authorities must engage with digital infrastructure providers to identify the future needs of their area and set out policies in Strategic and Local Development Plans to help deliver this."

"The Welsh Government supports the roll-out of digital communications infrastructure across Wales. Modern, reliable mobile telecommunications and fast broadband services are essential to our everyday lives, as highlighted by the number of people working and learning from home during the COVID-19 pandemic."

"Digital communications infrastructure is crucial to the future success and economic competitiveness of Wales' businesses and supports community and individual needs, including access to key services and facilities. In rural areas the provision of both mobile telecommunications and broadband infrastructure is particularly important where topography, physical distance and sparse distribution of population make the roll-out of infrastructure and access to key services and facilities difficult. Little or no coverage in some locations disadvantages businesses, communities and individuals, both economically and socially, and can contribute to deprivation, social isolation and lack of well-being."

"Planning authorities must also be alert and responsive to the positive effects of forthcoming 5G services and Gigabit broadband and other such technologies. They should work with infrastructure and service providers to consider the potential impacts of these technologies and the needs of business, public services, communities, and individuals"

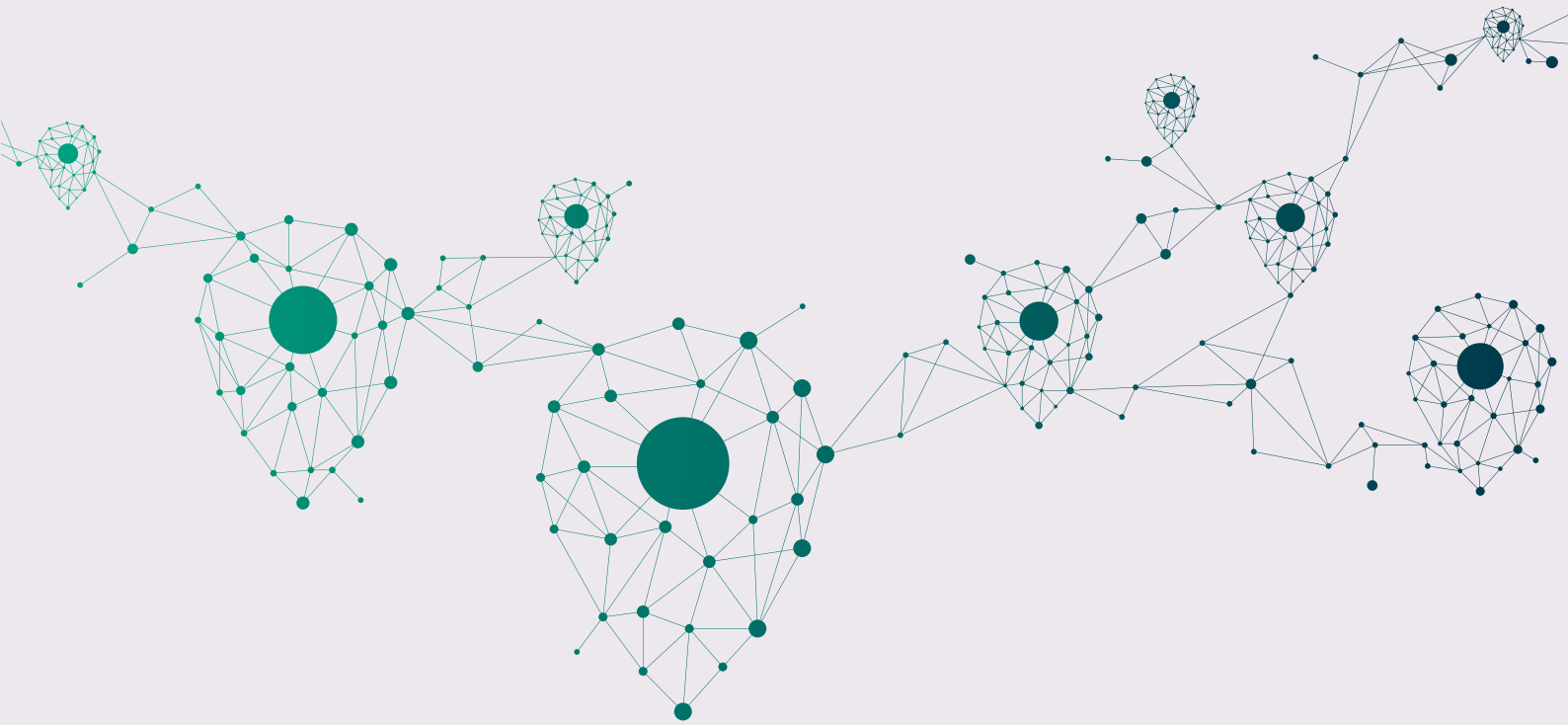
**The new Code of Best Practice on Mobile Phone Network Development**

"Affordable, secure digital infrastructure is essential to people and businesses. The availability and exchange of information afforded by telecommunications ensures people and businesses are connected to communities and the wider world and are essential for long term prosperity. Modern society demands reliable and fast communication networks to drive economic activity, to allow people to keep in touch and to access public services."

For more information click on the links below:

- PPW (2021)
- NPF (2021)
- CoBP (2021)

# Site/mast sharing.



Cornerstone actively encourages and supports site-sharing for both commercial and environmental reasons.

All operators are required to explore site-sharing opportunities under the terms of their licences.

Cornerstone has implemented many measures to identify and maximise site-sharing opportunities.

# Consultation & legal case.

## Consultation

Cornerstone is committed to carrying out appropriate consultations with Local Planning Authorities, stakeholders and the public. The Code of Best Practice on Mobile Network Development gives guidance on the factors that operators should consider when determining what consultation is required, as each development is different. These factors are equally applicable for Local Planning Authorities who carry out their own consultation once the application has been submitted.

## Legal case

The following legal case may be helpful:

**Harrogate case November 2004**

The Court of Appeal gave a judgement that Government Planning Guidance in PPG8 (now replaced by the NPPF) is perfectly clear in relation to compliance with the Health and Safety standards for mobile phone base stations. The Court of Appeal and the High Court both upheld Government policy in response to a planning inspector's decision that departed from that policy and failed to give adequate reasons for doing so.

**Bardsey case January 2005**

The Court of Appeal confirmed that the permitted development regime for mobile phone base stations is compliant with the Human Rights Act. This was a case in which a local planning authority failed to comply with its obligations to act within the 56 day period provided under the permitted development regulations.

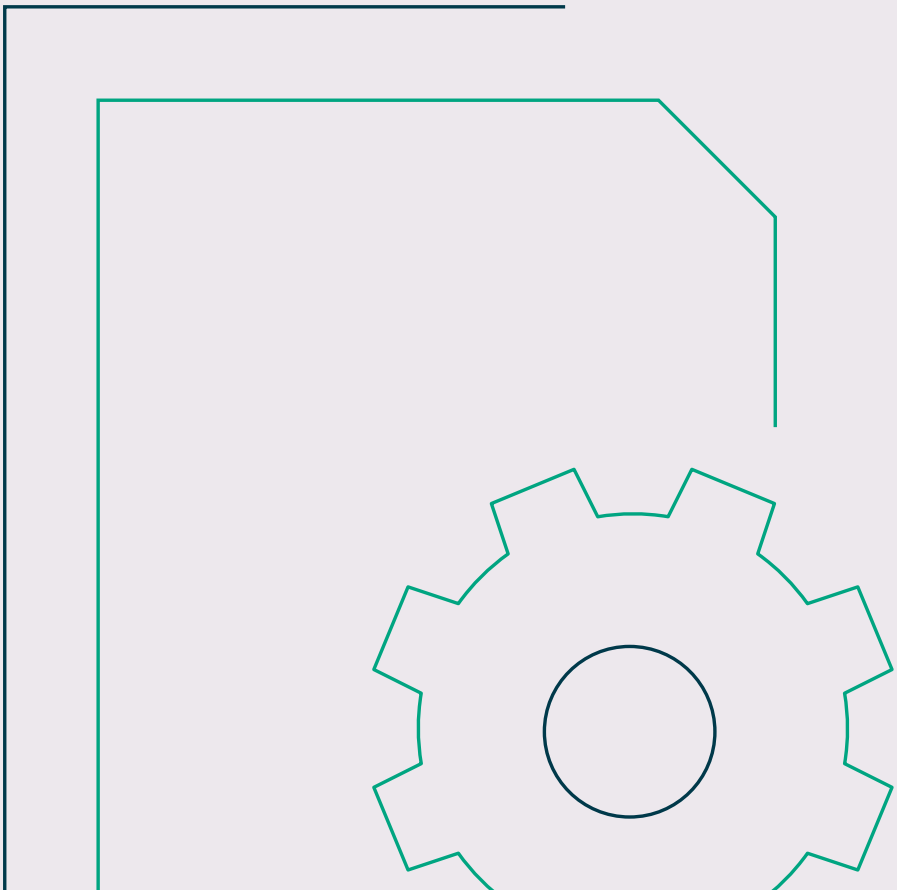
# Further information.

**We trust that this document answers your main queries regarding our planned installation.**

The enclosed site-specific details will identify any alternative discounted options and reasons why they were rejected and how the proposed site complies with national and local planning policies.

The Local Government Ombudsman's Special Report on Telecommunication Masts gives some positive recommendations and advice to Local Planning Authorities in determining prior approval applications.

The **Digital Connectivity Portal** provides guidance for local authorities and network providers on improving connectivity across the UK. Produced by DCMS, it promotes closer co-operation between network providers and local authorities, and offers guidance on effective policies and processes to facilitate deployment of digital networks.



For further information or to contact Cornerstone, please visit **www.cornerstone.network**

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