**Historic England Response to the National Infrastructure Commission's Call for Evidence on the Deployment of 5G Telecommunications**

Historic England is the Government's statutory adviser on all matters relating to the historic environment in England. We are a non-departmental public body established under the National Heritage Act 1983 and sponsored by the Department for Culture, Media and Sport (DCMS). We champion and protect England's historic places, providing expert advice to local planning authorities, developers, owners and communities to help ensure our historic environment is properly understood, enjoyed and cared for.

Historic England welcomes the opportunity to submit evidence on the following areas:

*4.2 What regulatory, planning and other key challenges need to be overcome to support the rapid and cost effective deployment of 5G across the UK?*
- *Are there planning or wider legal issues which have the potential to hold back the deployment of 5G networks?*
- *Are there issues around working across industry sectors which may hold back the deployment of 5G networks?*

As noted in the call for evidence, a precise definition of what 5G will encompass has yet to be agreed, and thus the related infrastructure and regulatory issues are also currently lacking in precision.

Whether 5G proves to be evolutionary or revolutionary, though, existing regulatory mechanisms provide an obvious starting point when considering future challenges, and here it is worth noting that much has already been done to ensure efficiency in the handling of planning controls, including the introduction (and extension) of various permitted development rights. National planning policy, and the (regularly revised) Code of Best Practice on Mobile Network Development in England further support the delivery of mobile infrastructure, balancing the economic and social benefits of this technology with environmental protection (with appropriate reference to the historic environment). These provisions provide a suitable basis for the further consideration of 5G networks.

*4.3 What are the infrastructure requirements for 5G deployment likely to be?*
- *What do the services and uses for 5G suggest about the infrastructure requirement?*
- *What level of UK coverage will be optimum and what does this mean for the challenge of delivering higher speeds and lower latency? Are there particular issues faced by urban, suburban and rural areas?*
- *Are there any 'no regrets' and 'low regrets' infrastructure investments that can be made to support 5G deployment?*
- *In what ways could collaboration between infrastructure sectors speed up and improve deployment, and how might it be incentivised?*

- *Are there any relevant international examples in the deployment of telecoms infrastructure that the UK can learn from?*

The infrastructure requirements for 5G networks are not yet known. If higher frequency radio spectrum bands are sought, this suggests smaller cell radiuses, and thus a requirement for more infrastructure (and different masthead requirements) – and thus a corresponding increase in both the cost and impact of that infrastructure. Both cost and impact could be reduced if mast sharing was a key element of any 5G network strategy, and also if existing infrastructure could be reused as much as possible.

The delivery of existing networks demonstrated that urban, suburban and rural areas all face different challenges: urban areas primarily in relation to the impact of installations on people, and rural areas primarily in relation to landscape impact and the difficulties of access and power supply. The historic environment can be affected in any of these locations, however, and any proposals for the implementation of a 5G network need to maintain current safeguards. The opportunities presented by the historic environment should also be noted, however, e.g. the use of church towers – where appropriate – for the installation of telecommunications equipment.

*4.5 Is the existing UK telecommunications model able to facilitate the efficient roll out of 5G infrastructure and technologies?*
- *Is spectrum policy and its management well placed to support future 5G technologies?*

Those elements of the existing UK telecommunications model which promote shared infrastructure provide a useful foundation for the rollout of a 5G network. The technological advancements associated with 5G could also usefully be extended to reducing the size and improving the appearance of the necessary hardware, to reduce its impact, and also make it more acceptable to communities and thereby more straightforward to deliver.

*Victoria Thomson*
*Head of Planning Advice and Reform*
*victoria.thomson@HistoricEngland.org.uk*
*0207 973 3826*

If you require an alternative accessible version of this document (for instance in audio, Braille or large print) please contact our Customer Services Department:
Telephone: 0370 333 0607
Fax: 01793 414926
Textphone: 0800 015 0516
E-mail: customers@HistoricEngland.org.uk