

## Press release

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### UK Spectrum Policy Forum releases today study on access to the 3.8-4.2 GHz band

- *New study dives into the future of communications in the UK and spectrum policy development for the use of one of the most relevant frequency bands for 5G and other technologies*
- *More than half of 3.8-4.2GHz SALs is issued to internet service provision*

**LONDON, 19 October 2023:** The industry-led think tank UK Spectrum Policy Forum (UK SPF) commissioned an independent study from Analysys Mason to explore the requirements for use cases in the 3.8-4.2 GHz band. The research focuses on Ofcom's current Shared Access Licence (SALs) and local access licence frameworks and looks into the future innovative ways of using the frequency bands.

With support from the wireless community, the research addressed licencing approaches for local networks. Available spectrum is a source of concern to several countries, and the UK is an international reference to regulatory approaches to making spectrum available for an array of services, including 5G.

### Increasing demand for 5G

The constant expansion of 5G networks requires harmonised licensing procedures in the UK and European countries. As licence requests for the 3.8-4.2GHz band increase above other available bands, there should be a focus on timescale management and coordinated procedures for authorizing spectrum usage.

Several industries are affected by a policy decision in the 3.8-4.2GHz frequency band. Opportunities span from smart cities to remote healthcare. The use cases directly impacted by lower latency and enhanced capacity offered by private 5G networks include:

- Transport: rails, roads, airports and seaports see an increase in efficiency for operational and safety.
- Manufacturing: automated solutions are powered by the use of 5G technology in the 3.8-4.2 band.
- Venue-based connectivity: private 5G networks enable content streaming and AR/VR applications.

- Content-production: improvements in real-time capture of video and audio allow live broadcasts.
- Rural wireless connectivity: fixed-wireless access (FWA) connects homes to broadband in rural areas, and industry is capable to access localised connectivity.
- Energy: smart grid applications would be unlocked, along with remote management and monitoring capabilities.
- Construction: improvements in connectivity would allow the broad use of drones and robotics in construction sites.

The main use cases identified by Analysys Mason are wireless voice and data connectivity, research, and FWA. With SALs, access to private 5G networks would be more widespread, with customizing features that cater to individual service needs. These are currently offered by Ofcom under a low- and medium-power licence on a first come, first serve basis.

## Predicting the evolution of use cases

The report offers a prospective view of the most prominent future use cases in the 3.8-4.2GHz band. Based on interviews with industry specialists, the evolution of use cases will likely touch on advanced technologies such as AI, robotics, and AR/VR. Besides the increase in applications for licences, a consequence of these use cases is the enhanced capacity requirements by the technological applications. Meaning that most applicants will require the higher bandwidths offered by Ofcom – 80MHz and 100MHz.

- Uplink use cases might increase in demand over downlink applications, particularly on the use of n7 band for IoT sensor networks.
- Medium-power licenses will continue to be the most requested use for outdoor deployment.
- Low-power base stations power limit is below what is required, increasing the cost of deployment.

Nevertheless, 5G, FWA, IoT and content production will remain the key industry verticals to require access to the 3.8-4.2GHz band. This is predicted to have a similar adoption trend throughout Europe, suggesting more harmonization between the continent and UK spectrum policies.

**[Name], [title], [company], said/commented:**

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**Dr. Abhaya Sumanasena, Chair of the UK Spectrum Policy Forum, said:**

“After pioneering work from Ofcom, spectrum sharing in the 3.8-4.2 GHz band is gaining significant popularity across Europe. A review of potential use cases and further recommendations to improve the usability of the SAL provided in this report will no doubt

help accelerate the use of this band further. UK SPF congratulates the Analysis Mason for successfully delivering this important report.”

**-ENDS-**

## Notes to Editors

The full report can be downloaded [here](#).

For more information about the UK SPF, [please click here](#).

## About UK Spectrum Policy Forum

Set up at the request of government and Ofcom the Spectrum Policy Forum (SPF) act as a pro-active industry-led ‘sounding board’ to UK Government and Ofcom on future policy and approaches on spectrum and a cross-industry ‘agent’ for promoting the role of spectrum in society and the maximisation of its economic and social value to the UK. We do this by exchanging news and views on developments in using spectrum, drawing on our industry expertise from around the world.

## About techUK

techUK is the technology trade association that brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve.

With over 900 members (the majority of which are SMEs) across the UK, techUK creates a network for innovation and collaboration across business, government and stakeholders to provide a better future for people, society, the economy and the planet.

By providing expertise and insight, we support members, partners and stakeholders as they prepare the UK for what comes next in a constantly changing world.