

GÉANT Position Statement on Wi-Fi on the upper 6GHz band

The Digital transformation is having a strong impact on service development and builds on cloud and other new ICT infrastructures. Wireless networks provide the underlying support for cutting-edge technologies, such as cloud computing, edge computing and AI. Within this landscape, it can be easy to forget that Wi-Fi remains essential for supporting upper-layer application technologies.

The opportunity of using the upper 6GHz band should be made available for Wi-Fi in Europe and should preferably also become globally available.

We fully support the allocation of the upper 6GHz band to wireless communications in general and for license free protocols such as Wi-Fi in particular. The European Commission has the potential to realise that the 6GHz becomes a frequency band that is (almost) globally available for Wi-Fi.

Problem statement

In October 2025 the Radio Spectrum Policy Group decided to assign 540 MHz of the upper 6 GHz band to 4G/5G.

We find the motivation for allocating the upper part of the 6 GHz band to 4G/5G/6G questionable. The usage of the 6 GHz frequency band for 4G and 5G or in the future for 6G has significant limitations.

Many trials to study the coexistence of Wi-Fi and cellular protocols in the same frequency band have started¹, but all efforts to bring them to practise have failed, including the standardised solutions such as LWA, LWIP, LAA, and LTE-U. Given these issues and the continued need for Wi-Fi spectrum due to its broad societal success, and the niche character of private cellular networks, we believe that the focus for local area wireless access should be on Wi-Fi.

Also, measurements show that the most suitable 5G band, the 3.5 GHz band, is still only partially utilised in Europe².

As long as existing frequencies remain underutilised, it is difficult to justify allocating new spectrum to 4G/5G/6G. Furthermore, there is currently no commercial 5G equipment that operates on the upper 6 GHz band, whereas Wi-Fi 6E and Wi-Fi 7 equipment is already widely available and uses the 6 GHz band extensively.

We would recommend to:



Reserve 320 MHz (but at least 160 MHz) for Wi-Fi in the upper 6GHz band

Ensure that Wi-Fi has sufficient capacity in the upper 6 GHz band to reliably handle the growth in data. Wi-Fi capacity problems can arise at the institutions of research and education if this capacity isn't sufficient.



Use social importance as an assessment criterion

Radio spectrum is a scarce resource for society in general. The institutes of education and research in particular heavily depend on Wi-Fi. When arguing for sufficient capacity, it should be noted that Wi-Fi plays a crucial role in areas such as education, research, libraries, town halls, home use and healthcare institutions

1) see GSMA: [gsacom.com/paper/lte-in-unlicensed-spectrum-trials-deployments-and-devices](https://www.gsma.com/paper/lte-in-unlicensed-spectrum-trials-deployments-and-devices)

2) See e.g., figure on page 11 of the of Ericsson's mobility rapport: www.ericsson.com/en/reports-and-papers/mobility-report/reports/june-2025

