

Dear Recipient,

Elisa thanks for opportunity to respond to this this “Draft RSPG Report on 6G Strategic vision” and strongly supports that RSGP will finalize the 6G spectrum roadmap during its next working period (2026-2027). This is the most important task which is needed to foster 6G rollouts in the EU region in timely manner.

Advantages of same kind of pioneer band concept that was adopted in 5G should be emphasized more in the report. New low-band, mid-band and high-band 6G frequencies are needed to meet the growing data volume demands. The legacy low-band and mid-band spectrum is largely utilized for former generations far into the future, thus enough new spectrum for 6G is needed to secure Europe’s competitiveness in mobile technologies.

New low-band spectrum is essential to achieve nationwide coverage for 6G and to support deep indoor coverage requirements. The possibilities of whole the band 470-698 MHz for mobile networks should be taken under study for WRC-31. It should also be noted that non-terrestrial networks (NTN) are not an option for basic rural coverage - they are more suitable to supplement in special use cases. If spectrum is shared between terrestrial mobile spectrum and NTN, it is important to observe that terrestrial networks shall be protected from NTN.

To encourage initial deployments or spectrum for 6G, the allocation of whole the upper 6 GHz (6425-7125 MHz) for mobile networks is essential. This would make possible to initially allocate at least 200 MHz of contiguous spectrum per operator in starting phase of 6G networks. It should also be noted that normal power levels (i.e., macro network level) are needed so that current 3.5 GHz network grid could be utilized effectively.

At later stage more mid-band spectrum for 6 GHz is needed (at least 400 MHz per operator). In WRC27 the studies should not be restricted only within the relatively narrow band 7125-7250 MHz, but the studies for additional 6G spectrum should be conducted within whole the spectrum range 7125-8400 MHz also in Europe. If enough mid-band spectrum is not allocated to 6G networks, it causes a very severe concern that Europe would lag behind in 6G development and utilization.

In the report it has been stated that more dedicated spectrum for local network is needed. Please, indicate also references to studies according to which it has been proved that more frequencies for local networks are needed bearing in mind that currently 3800-4200 MHz is being harmonized for low- and mid-power use. Elisa expects that 3800-4200 MHz spectrum will be considered in the future also for mobile usage (first for 5G, later for 6G) with higher power levels than current studies include. According to this harmonization it’s possible that also local networks can utilize part of this band but it’s very uncertain that this frequency band will be utilized efficiently by local networks throughout EU. The report should emphasize more that in terms of the efficient use of frequencies there are also other means that allocating dedicated spectrum for local networks to satisfy their usage needs.

In some part of the report attention should be paid to its balance. For example, the input from research and development consists of 8 pages in total. On the other hand, the input from equipment manufacturers and operators consists only of one page. The proposal would be to summarize very much the input from research and development.

On behalf of Elisa Finland,

Jarno Niemelä

Dr. Jarno Niemelä
Head of Mobile Access Technologies
Elisa