

Group of operators' common vision and priorities for Next Generation Radio Technology

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Telus, Swisscom

5G technical study phase

5G RAN WGs Technical Studies shall start from March 2016:

- Study and target support for eMBB, uMTC, mMTC and other uses cases, aiming to define at least Stage 2 specifications for all of them in phase 1 specification.
- It is too premature at this stage to prioritize some use cases over the others
- The study shall cover all deployment environments: indoor, urban, rural, high speed, etc.
- 5G RAN WG studies should also cover functions required for network slicing: e.g Network Functions Virtualization, functional decomposition of RAN functions, ...

All use cases & deployment environments shall be addressed sufficiently

- to ensure forward compatibility with phase 2 and beyond
- Relevant features to be specified in the first phase should be decided ONLY at the end of the RAN WGs technical studies, accounting for the market demand for 2020 and the results of the RAN WGs studies

5G technical study phase

Spectrum

- National licences for bands above 6GHz will not be allocated in many countries until 2021-2022 at the earliest. The RAN technical studies should cover support for bands below 6 GHz, both for FDD and TDD

5G air interface performance evaluation

- It is key to evaluate the gains of potential new 5G air interface(s) against LTE-A evolutions & CioT
 - proposed baseline: $\text{LTE Rel-13+} = \text{LTE Rel-13} + \text{results of feasibility studies performed in the framework of Rel-13}$

5G design recommendations

5G key design principles include:

- Forward compatibility with radio protocol L1/2/3 structures and functionalities required for future services (including phase 2 and beyond)
- Energy efficiency should be a fundamental design principle
- Enhanced security and privacy design
- Cost efficiency
- Tight interworking with LTE (including e.g. bandwidth aggregation, seamless mobility)
- Fixed Mobile Convergence with seamless user experience