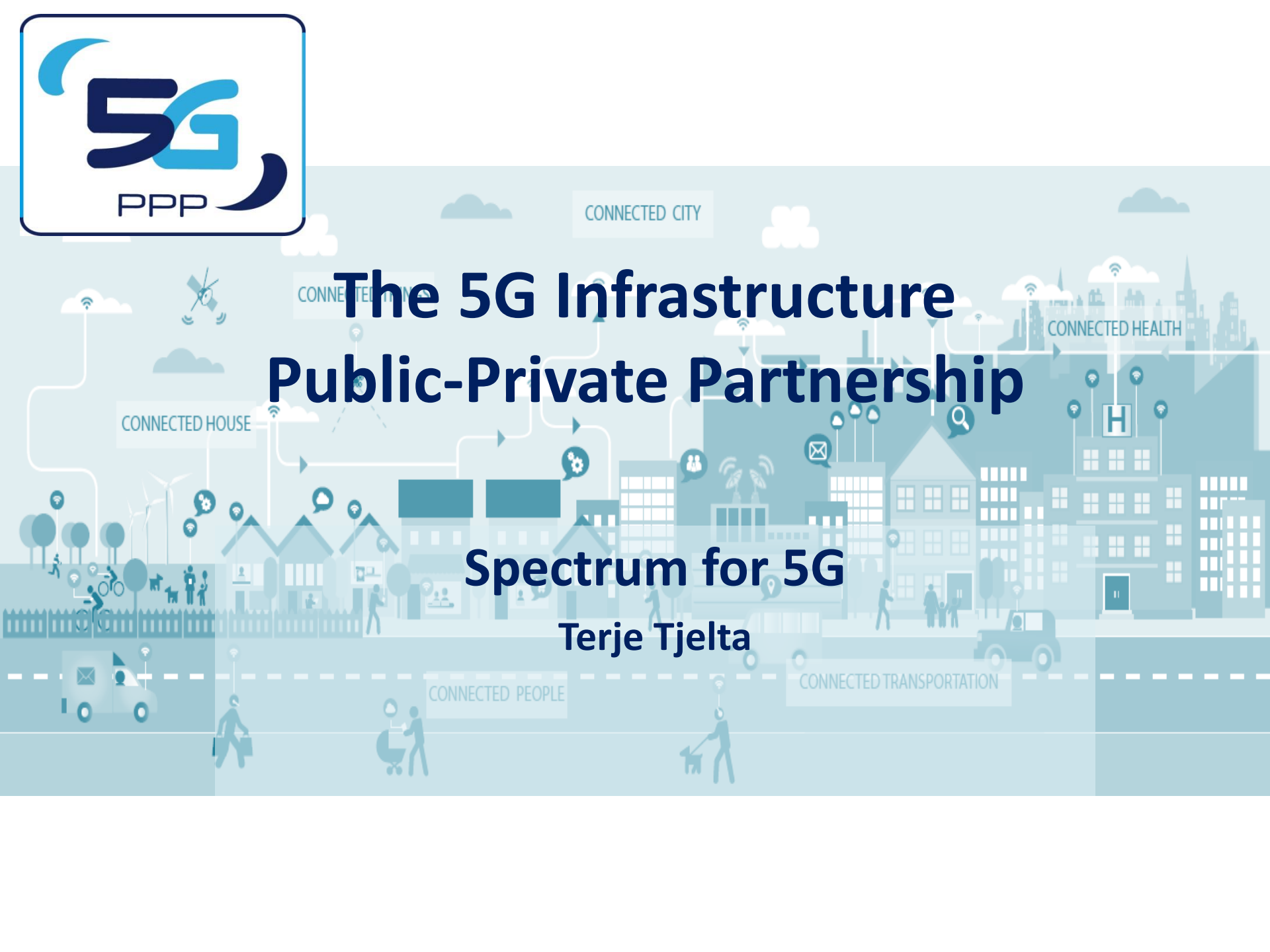




The 5G Infrastructure Public-Private Partnership

Spectrum for 5G

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5G Infrastructure Association Working Group 5G Spectrum

Main focus :

- Promote European research results
- Facilitate common interests across projects
- Maximize the outcome towards relevant technical bodies
- Establish a knowledge base from project results
- Liaise with regulatory bodies and industry associations
- Improve understanding of spectrum research importance
- Coordinate with other researches worldwide to assure convergence and compatibility

5G needs access to more spectrum



Ambitious KPIs and initial use case analyses suggest that wide operational bandwidths of several hundreds of MHz will be required leading to overall spectrum needs of several GHz

Ideally bands that are contiguously wide and globally harmonized

- Bands to be studied for WRC-19 should include ⁽¹⁾
 - millimetre range (30 – 100 GHz)
 - lower frequency range (6 - 30 GHz)
- 5G PPP appreciates support of all regions for wide candidate bands ranges for studies prior to WRC-19 ⁽²⁾
- There is very little spectrum proposed to be studied by the Regional bodies in the 6 – 30 GHz range ⁽³⁾

(1), (2), and (3): the following members of the 5G IA do not support these statements: Airbus, SES, Thales Alenia Space (TAS), and Telespazio

(1) They consider such statement i) to be out of scope of the WG Spectrum terms of reference (ToR); and ii) to be premature given the status of the research within 5G PPP; and iii) not sufficiently substantiated by the use cases; and iv) too wide a range to be meaningful or manageable for WRC-19; and v) potentially harmful of an expedited 5G deployment

(2) They consider such statement i) to be out of scope of the WG Spectrum ToR; and ii) to be premature given the status of the research within 5G PPP; and iii) not sufficiently substantiated by the use cases; and iv) potentially harmful of an expedited 5G deployment

(3) They consider this statement to be out of scope of the WG Spectrum ToR, believe that such limited attention by the Regional bodies to spectrum in the 6 – 31 GHz range in favour of a strong focus on certain frequency bands above 31 GHz is judicious and supportive of an expedited 5G deployment



Spectrum management is important for 5G



Stable and predictable regulatory environments are critically important for long term investments

Research on this spectrum has to take into account long-term investments so that they can be preserved

Exclusive mobile licensed spectrum assignment methods will remain important

However, it will be beneficial with new solutions to better facilitate coexistence with other services

Studies of new bands must carefully assess other existing and planned services in these bands

Backhaul is increasingly important and spectrum and new methods for wireless options must not be forgotten

Only use spectrum where needed such as through beam forming to reduce interference and improve the wanted signals

5G PPP projects that in part address spectrum topics



Project	Focus with respect to 5G Spectrum
5G-Xhaul	Focus on the 60 GHz band for backhaul/fronthaul
COHERENT	Management schemes for shared spectrum
FANTASTIC 5G	Access to spectrum below 6 GHz
METIS-II	Spectrum rationale and technical aspects of spectrum
mmMAGIC	Spectrum above 6 GHz, including mm-waves, for 5G mobile communications access and self-backhaul
Speed-5G	Management: Dynamic spectrum access
Xhaul	Integrated fronthaul/backhaul wireless options in frequency bands up to 100 GHz, with particular attention to the 50-90 GHz range





<http://5g-ppp.eu>

Thank you for your attention!

