Providing the spectrum to fuel the 5G eco-system

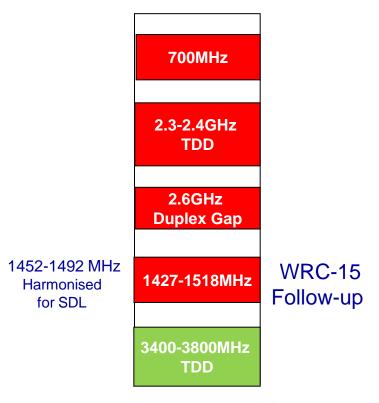
Heykel Houas

National coordinator on WRC 19 AI 1.13 Former national coordinator on WRC 15 AI 1.1

Spectrum Planning and International Affairs Directorate



Any Spectrum Opportunities?



Harmonised spectrum for Wireless BroadBand (EC, CEPT or both)

24.25-27.5GHz 31.8-33.4GHz 40.5-43.5GHz

WRC-19
Al 1.13
Other possible bands:
45.5-47.2GHz, 66-71GHz,
71-76GHz, 81-86GHz...

Where the spectrum is potentially available

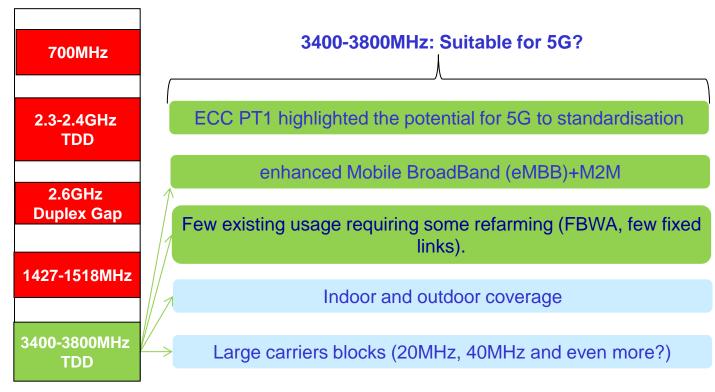


Where the spectrum is already available?



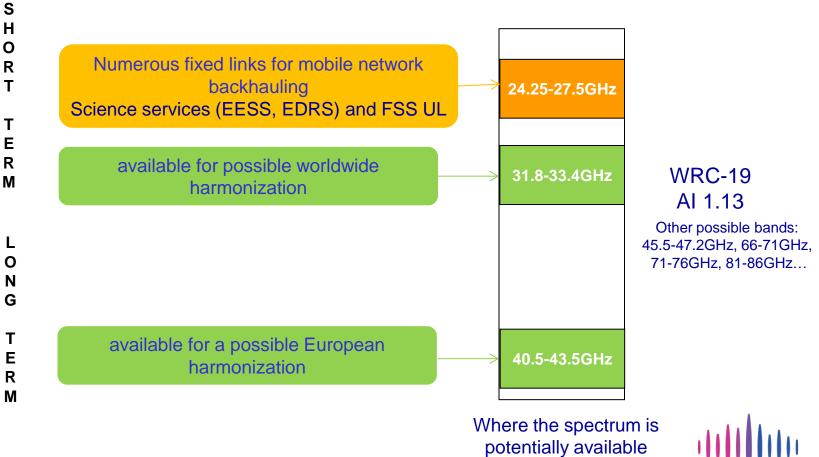


Where the spectrum is already available?





Where to find spectrum for mobile networks?



In conclusions

5G current trends: TDD, massive MIMO

Initial introduction of 5G likely to be in

C-Band (coverage+capacity band)

Mm waves: parts of 24.25-27.5GHz/31.8-33.4GHz/40.5-43.5GHz (high capacity)...

Further questions:

- 1. Are the existing « 4G » conditions adapted to 5G?
- 2. How to introduce at a latter point 5G in bands with FDD plan?
 - 3. What are the sharing opportunities with 5G?
- 4. Are new features (e.g. Massive MIMO, Full Duplex) raising sharing issues?

