



5G PPP Workshop

Spectrum for 5G



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Bernard Barani
European Commission
Acting head of unit, DG CONNECT E1
Future Connectivity Systems

5G in the Digital Single Market (DSM)

The 5G Action plan

- Commission Communication: to support European industrial leadership;
- Part of the September 2016 "Connectivity Package"
- Preparing Framework Conditions at EU level for 5G deployment
- Demand Side

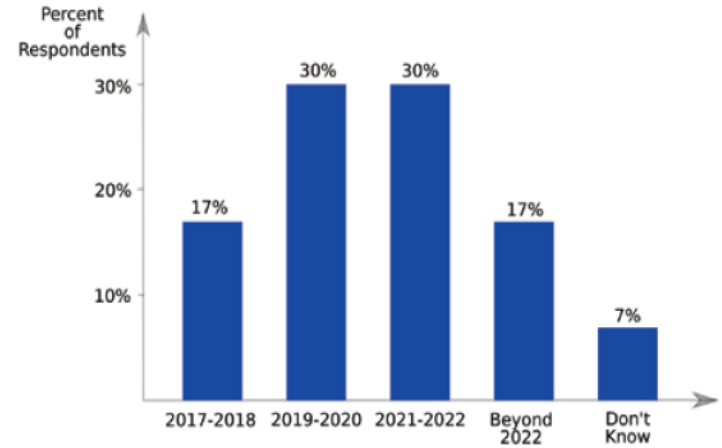
The 5G Public Private Partnership (5G PPP)

- 700 M€ initiative under R&I H2020 programme
- Technologies, systems, applications,
- spectrum, standards;
- International cooperation
- Supply Side

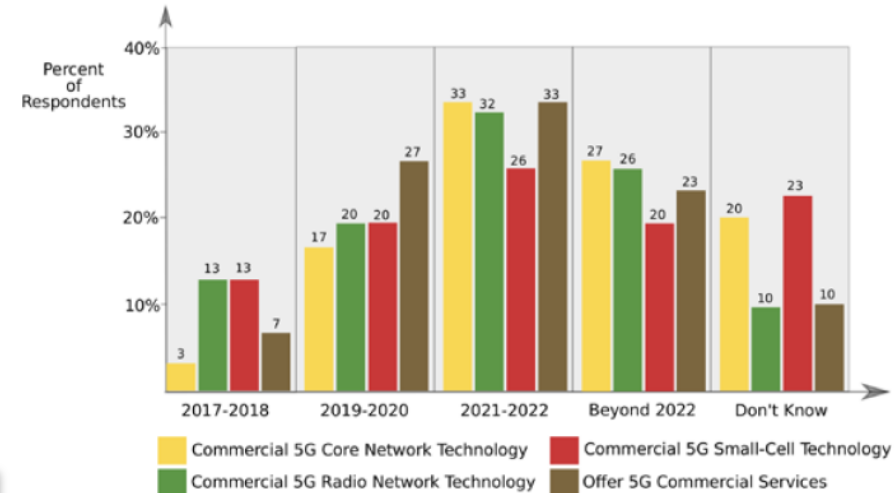


Towards Deployment

- Verizon, 11 cities pre commercial trials in 2017, Fixed Wireless Access
- AT&T trials, streaming DirectTV services, 2017
- South Korea, Pyun Cheong trials, 2018 Winter Olympic Games
- Japan, 2020 Olympic Games
- China, technology and system trials under National Key Projects
- EU: precommercial bilateral trials, EU Roadmap



When do you expect your company will deploy?



Key to stay in the race

- **Putting in place the Framework conditions → 5G Action Plan → spectrum**

5G Disruptions impacting spectrum (some)

- **New Digital Business Models, new spectrum usages**
- **New Actors, vertical industries;**
- **New unchartered Bands, new operation constraints**
- **New sharing models**
- **New licensing models?**

Thank you for your attention

Enjoy the Workshop !



Towards 5G PPP Phase 3 (WP18-20)

5G R&I for "Long Term Evolution"

User needs, partnerships with vertical industries

Early 5G introduction
Lower frequency bands

Later 5G introduction
Higher frequency bands

Phase 3 b) Integrated Verification Trial
- radio+network+applications -

Kick off at EUCNC Conference 12-15 June, Oulu, Fin

5G Connected Cars in EU corridors

Phase 3 a) Verification Demo/Trial Platform
- Integration radio+ network

Phase I Core Technologies

Phase 2 - Demos PoC- Core Techs Components

Work in Progress

