5G Public Private Partnership Infoday

Brussels, 21st January 2016

Views and initiatives from A-CING on ICT-7-2017

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Worldwide Spectrum allocation

What tools are needed for 2019 and beyond? What research and technology should help?

- Statistical approach for sharing in multi-service environment
- Dynamic resource allocation in a variety of frequency ranges and capacity performances
- Network control management for resource allocation and interconnection with third parties data providers (for example, consultation of data bases for spectrum directory).
- Network reconfiguration with multiple sets of requirements, intra and inter network data.

CommonREG

ICT 7 -7 - 2017

Towards efficient European common regulation of advanced radio spectrum sharing techniques

- CommonREG is a Support Action focused on how to help projects to better achieve their goals regarding their influence on regulatory bodies, ITU R and CEPT. In particular, debating on mechanisms for more efficient use of spectrum and new schemes, like LSA in several bands.
  - Grouping of spectrum techniques results towards defining common policies and regulation
  - Channeling the spectrum technologies advances to the realistic implementation in the Regulatory world (ITU-R, CEPT, …)
  - Common actions by research projects addressing regulatory affairs on spectrum management. Enhancing visibility of spectrum management techniques and project results at the ITU R and CEPT.
  - Case studies (LSA concept in 2.3 GHz (PMSE/LTE), advanced sharing in the 18 GHz band, FS/FSS, …
  - Regulation on technology for sharing planes: space, time, frequency. Efficiency modelling for several bands.
  - Proactive support to the emergence of a 5G PPP "5G vision", to key international co-operation activities. A clear proactive strategy is expected to channel relevant 5G PPP project outcomes towards key SDO's like 3GPP (standardisation work expected to start in 2016) and to valorise relevant spectrum work in the context of future WRC's
  - Maximised output and exploitation of 5G PPP project results in key domains (standardisation, spectrum) through managed projects cooperation

European Licensing Shared Spectrum Access technologies

ICT-07-2017

5G PPP Research and Validation of critical technologies and systems.

- TA1: 5G Wireless System Design (utilisation of different spectrum ranges and paradigms, innovative spectrum usage concepts (e.g. LAA and LSA), advanced aspects of spectrum sharing, sharing of spectrum between mobile access
- TA2: Air Interface and Multi-Antenna, Multi-Service Air Interface (efficiency in terms of spectrum, Flexible spectrum utilisation, shared spectrum use
- TA3: New Spectrum and mm-Wave Air Interface for Access, Backhaul and Fronthaul (below 6 GHz and above 6 GHz), adapt Phase 1 to the WRC 15 decisions , Help consensus building on globally to be identified frequency bands (in preparation for WRC19)
- TA4 : Subsystems(*) for 5G Platforms: Integration of Hardware and Software Aspects (subsystems for 5G supporting relevant scenarios and use cases including multiple frequency bands)
- TA6: Seamless Integration of Satellites Networks and Air Platforms into 5G (technology recommendations on the usage of spectrum across satellite and terrestrial 5G)
- TA7: 5G for Future MTC Solutions (spectrum demands)
- TA23: Cooperation in Access Convergence 2 (licensed and unlicensed, Resources and Spectrum Management)

Thank you!

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