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Progress with TV White Space regulation in Europe

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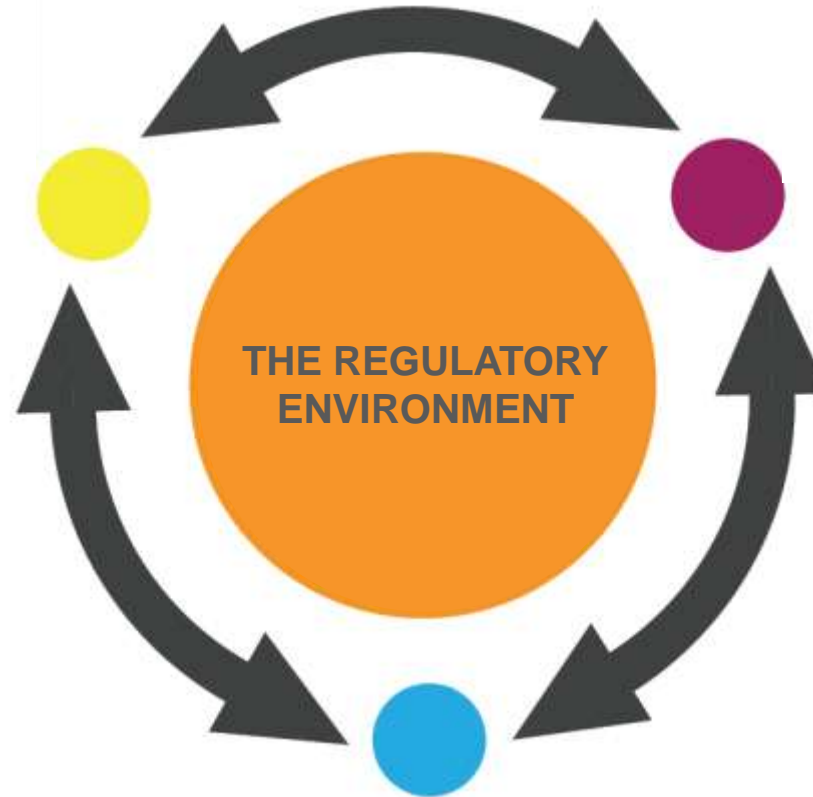
European regulatory environment

applied to TV **WS**



European
Commission

2007: Mandate to CEPT
on Digital Dividend



CEPT **ECC**
Electronic Communications Committee

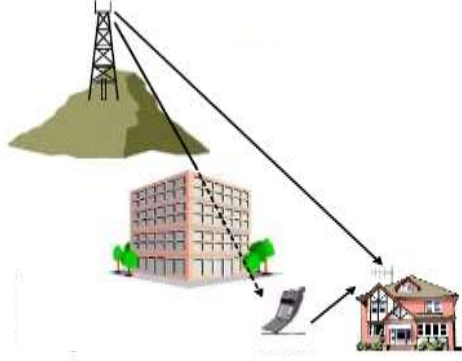
TG4: CEPT Report 24 (2008)
SE43: ECC Report 159 (2011)
Complementary
ECC Reports (2012)

ETSI
World Class Standards

TC RRS: Technical Reports (2011-2012)
Technical Specifications (2012)

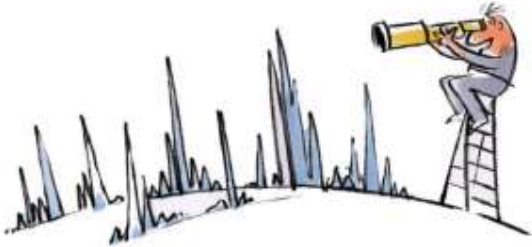


Preliminary CEPT findings



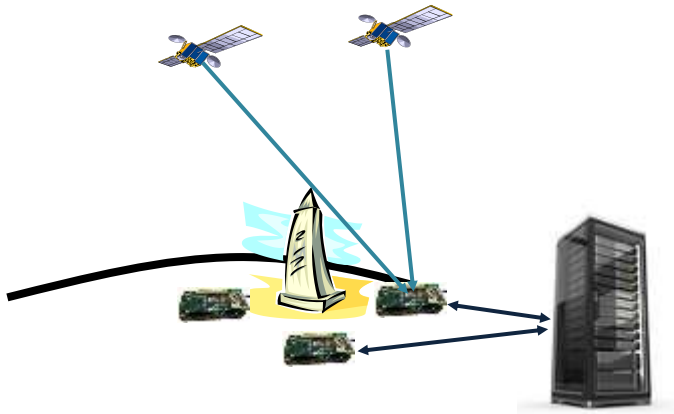
Very low sensing thresholds are required to account for the hidden node

→ down to -155 dBm for DVB-T and down to -167 dBm for PMSE



Spectrum sensing alone is not reliable to guarantee protection of incumbent services

→ is collaborative sensing an option ?



Geo-location database is the most feasible approach to ensure the protection of incumbent services

→ principles and requirements for geo-location operation

→ a number of open issues (PMSE, communication interface, ...)



Further studies

and where TV WS industry can help



- ✓ **WSD technical characteristics**
- ✓ **Protection of broadcasting service**
- ✓ **Protection of PMSE systems**
- ✓ **Protection of ARNS**
- ✓ **Protection of mobile service in adjacent bands**
- ✓ **Specification and implementation of geo-location database approach**

- ← **WSD emission technology (ACLR, PR)**
- ← **Use cases including operational ranges**
- ← **Feasibility of sensing of PMSE**
(e.g. in cooperative environment)



Towards European regulation for TV WS



Regulators should be provided with **more information**

- studies are based on assumptions
- calculated powers are below 1 mW (for portable WSDs)

Potential TV WS industry should be more involved in the **CEPT** studies



Thank you for your attention

