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Overview of European regulatory activities on CR/SDR

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2nd May 2012

Workshop on Cognitive Radio and Software Defined Radio: Policy and Regulations, organised jointly by ECC/ETSI/COST-TERRA, 02-03 May 2012, Mainz (Germany)

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Content

- Where do we come from?
- What did we do?
- Where are we going?...

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Looking back to... (1)

2006: questionnaire to CEPT administrations from E2R through WGFM…
… WGFM May 2007 : "globally speaking, most of the administrations consider that some regulatory changes were needed to fully exploit the reconfigurability capabilities. Also, it appeared that there is a wide support for the deployment of a cognitive pilot channel at a regional or global basis."

2008-2009: CG CR ECC to elaborate a first CEPT roadmap until WRC-12.

2010: ECC strategic objective
"Cognitive Radio has been identified as one of the key technologies to support innovation. This technology directly impact spectrum management by fostering sharing and access to spectrum. Relevant actions were carried out by CEPT ECC in the past in relation to RLAN 5 GHz or UWB/DAA. CEPT ECC shall continue in this direction by defining which issues should be studied by the ECC and initiate the work. ECC should define conditions for the introduction of devices implementing cognitive technologies and facilitate their operation. ECC should collect together various stakeholders in Europe and provide a forum for exchange of views and put forward European interests in international fora.

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Looking back to… (2)

2010: CG CRS of WGFM:

"to allow CEPT to be able to adopt, if necessary, a relevant regulatory framework in due time for the deployment of CRS when they will be available" with the support of the industry:

to better understand and assess the characteristics of foreseen CRS […];

to assess the possible categorisation of bands in which the CR technology foreseen by industry can be deployed so as to anticipate the potential regulatory changes for each case;

to develop potential scenarios not limited to the white space case;

on the basis of the above and under request of industry (SRDoc), to identify possible bands where deployment of CRS can be considered, subject to appropriate WG SE studies;

… starting with the UHF band

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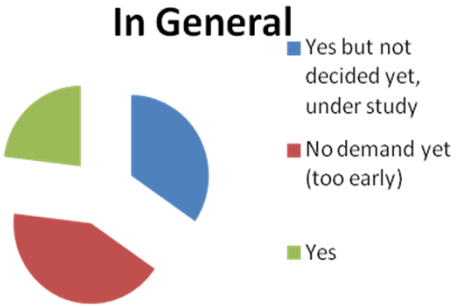
Which outcome? (1)

2008: CEPT Report 24: practicability of implementation of new/future applications within the white space spectrum in the band 470 - 862 MHz

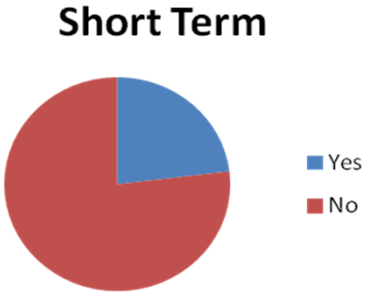
2009: 1st WS and already the "lack of strong justifications"…

2010: Scenarios with ETSI TC RRS

2011: Protection of PMSE in case of introduction of WSD in the UHF band:
doubts from Administrations and little interest from industry
Do you envisage the introduction of white space devices in the 470-790 MHz band?



yet…



"A clarification of the actual needs and perspectives with regard to the use of the UHF band by WSD may be then necessary quite urgently" (conclusion endorsed by WGFM#74)

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Which outcome? (2)

2011

Draft ECC Report on the "consideration of the regulatory mechanisms needed to facilitate the introduction of cognitive radio systems (CRS) in the ‘white spaces’ of the frequency band 470-790 MHz”

… investigating on sensing, beacons and data bases

2012

Internal WGFM report on evaluation and analysis of Authorised Shared Access

… potentially with CR functionnalities (data base)

Several years groping our way along with negative or positive signals…

… and quite a lot of questions:

Compliance of equipment?

Accurateness and confidentiality of data in data bases?

Business case?

Time to market?

…

?

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What for the (close) future? (1)

Questions or remarks to be raised...

Why after so much effort in the UHF band, no application shows up?... and little (serious) project

Should we continue to concentrate on the same band?... Or shouldn't we optimise the use of our "resources"? What to learn from our studies in the UHF band?

Can cognitive radio enhance the use of the UHF band WS by PMSE?... to decrease the pressure on other bands

Did we decide to work on UHF band because of the situation in the US?... Shouldn't we "think by ourself"?

… strength of CEPT is also related to the multiplicity of its members and situations

With regard to unlicensed use, the current situation in the 5 GHz band (with thousands of cases of non-compliant/unlawful equipment) should be taken into account

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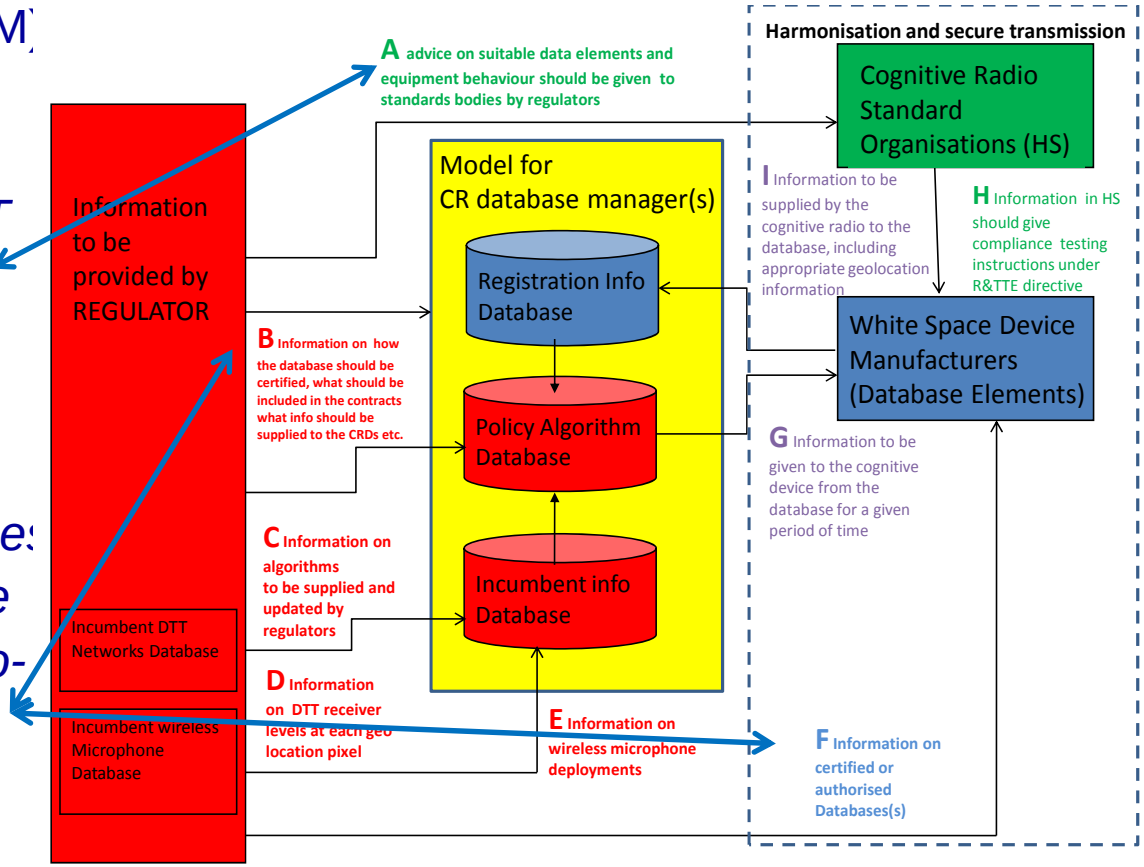
What for the (close) future? (2)

Are we at a turning point?...

Concrete proposals for UHF band (see other presentations)
… and political decisions to be taken with regard to the UHF band (WRC-15 AI 1.2)

Adoption of specific work (WG FM) on data bases to address issues

1. *To provide a master set of the overall requirements for all CEPT countries that will be needed to facilitate communication and interaction between a WSD and WS Data Base*;
2. *To provide information on issues and requirements that need to be addressed when setting up a geo-location database and/or the management of independent database providers*.



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What for the (close) future?

Turning point? (continued)

Authorised Shared Access / Licensed Shared Access concept

… can benefit from cognitive functionalities (access to data bases) facilitating its full implementation

- Endorsement of its analysis: basis for future work

- Subsequent work to be carried out: starting from the needs (of incumbent and of LSA users)

- Study in the context of a specific band… that may turned to be used in a short to medium time frame (in some countries at least)

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Thanks for your attention

Any question?