**Presentation Abstracts (avail. 8-1-2014)**

**CEPT Workshop on How Measurement of Spectrum Occupancy can help Spectrum Management, 15 January 2014**

**Session A**

**Summary of the discussions so far in ECC fora, key issues (Ralf Trautmann)**

The purpose of this presentation is the introduction of the various Recommendations available in ITU-R and CEPT considering the technical requirements for spectrum occupancy measurements. The presentation further reflects the discussions of the Microsoft spectrum observatory in CEPT WGFM PT 22, WGFM and ECC which form the basis for this workshop.

**Expectations from spectrum managers of administrations (Laurent Bodusseau)**

The presentation will inform the audience of the legal framework in France, frequency assignments and documentation in the national database. The presentation will also contains details on the monitoring approach and latest development in France as well as well as lessons learn on the subject. Then bringing both subjects together to identify how both spectrum monitoring and other tools can help meeting the expectation from spectrum managers.

**Definitions of Spectrum Occupancy (Thomas Hasenpusch)**

Based on Recommendation ITU-R SM.1880 and Report ITU-R SM.2256, the presentation will introduce the different terms and definitions related to spectrum occupancy such as frequency-, channel- and band occupancy. Principles of occupancy measurement and evaluation of data will be explained.

**The instruments of spectrum monitoring (Lilian Jeanty)**

The presentation will provide:

- A short introduction of the Radiocommunications Agency and its policy

and strategy;

- The instruments we use to gather information on the use of spectrum;

- The use of the instrument of spectrum monitoring in particular;

- The tasks and products we deliver;

- The European context within which we operate;

- The technology we use;

- The experience with Mobile Data Collection;

- The future plans we have with regard to monitoring.

The presentation will give examples of actual measurements that have been undertaken.

**Session B**

**Microsoft Spectrum Observatory (Jim Beveridge)**

The presentation will provide an insight in the Microsoft spectrum Observatory and its capabilities with regards to spectrum occupancy measurements.

**Requirements to obtain useful results from spectrum occupancy measurements (Thomas Krenz)**

This presentation focuses on prerequisites that must be fulfilled so that spectrum occupancy measurements can actually mitigate the need for unused frequencies.

**Spectrum Occupancy Measurements Tools (Stefan Georgi)**

Smart Spectrum Occupancy measurements precede the intelligent Spectrum Management tasks required to utilize the limited electromagnetic spectum to the max. The presentaton will introduce SDR-based spectrum occupancy methologies, it's benefits, capabilities and limitations aided by spectrum management tools. The presenter will look at spectrum usage characteristics, spectrum monitoring receivers and antenna requirements alike. Stand-alone sensor architectures will be highlighted in lieu with sensor networks as well as supportive methods with intelligent modes on occupancy data processing.

**Monitoring Activity in the 2.4GHz and 5GHz bands and handling of the generated large amount of data (Simon William Day)**

Presentation about the monitoring work performed for OFCOM UK about the activity in the 2.4GHz and 5GHz bands and generation of a large amount of data, the method of summarising this data and some of the conclusions drawn.

**Session C**

**Role of sensing for identifying <spectrum holes>** (**Prof. Martin Weiss)**

Sharing in the US is moving forward in fits and starts. The emergent nature of sharing systems suggests that enforcement approaches should allow for learning from the environment. Technical details, costs and tradeoffs are quite situation-specific.

**Effective spectrum monitoring using mobile nodes (Pravir Chawdhry and Francis Clement)**

Efficient use of spectrum requires a good knowledge of the way spectrum is currently being used before criteria for technical efficiency can be applied. Spectrum monitoring with mobile devices is an efficient way to get large coverage map of the use of spectrum over space and time. This case study will present strategies for mobile spectrum monitoring and its role in long-term support to the spectrum policy.

**Experience with sensing Radiomicrophones (PMSE applications) in the UHF spectrum** **(Matthias Fehr)**

This presentation focuses on the specifics of radio microphones as a nomadic application and the limited results of spectrum scans in this environment.

**Measurement of Spectrum Occupancy - a perception from industry (John Falck)**

In 2008 WGFM instructed FM22 to undertake a monitoring campaign in the frequency band 863-870 MHz. The task was to investigate the spectrum occupancy of SRDs and RFID in the band 863 – 870 MHz. The presentation will report about the experience with this.

**Are sensing approaches mature enough to support cognitive radio solutions? – Summary of the investigations in WGFM and WGSE so far (Thomas Weber)**

The presentation will provide a summary of the sensing approaches discussed in recent years in WGFM and WGSE such as for the TVWS and the outcome of these discussions / the results in frequency management.