

# Workshop on the Concept of Cognitive PMSE Systems

## Initial Results of the C-PMSE Project

**December 7, 2011**  
**DLR, Berlin, Germany**

### AGENDA

**09:30 - 10:00**                      **REGISTRATION**

**10:00 - 10:15**                      **WELCOME**

*Andreas Wilzeck, Uwe Beutnagel-Buchner  
Project Office*

**10:15 - 10:45**                      **INVITED SPEECH**

**Overview of Cognitive Radio Systems**  
*Prof. Rüdiger Kays, TU Dortmund*

**10:45 - 11:00**

**Overview and status of the project**  
*Andreas Wilzeck, Uwe Beutnagel-Buchner*

**11:00 - 11:30**

**The C-PMSE system concept**  
*Axel Schmidt, Sennheiser electronic  
Radu Circa, Robert Bosch*

**11:30 - 11:50**                      **COFFEE BREAK**

**11:50 - 12:10**

**Measurement report - Messe Berlin**  
*Sven Dortmund, Universität Bochum*

**12:10 - 12:30**

**Radio frequency management and  
Cognitive Engine**  
*Leonid Tomaschpolski, Universität Hannover*

**12:30 - 13:30**                      **LUNCH BUFFET**

**13:30 - 14:00**

**Signal detection, sensing network &  
scanning receiver, smart antennas**  
*Johannes Brendel, Uni. Erlangen-Nürnberg  
Rafael Rummel, eesy-id*

**14:00 - 14:30**                      **INVITED SPEECH**

**Overview of the EU-project QoS MOS**  
*Michael Fitch, BT Group  
QoS MOS Project Coordinator*

**14:30 - 14:50**

**Technology and business potentials  
and conditions for market introduction**  
*Norbert Hilbich, Sennheiser electronic*

**14:50 - 15:10**                      **COFFEE BREAK**

**15:10 - 16:00**                      **PANEL & DISCUSSION**

**Introduction speech:**  
*Frank Ernst, beyerdynamic*

**Panel:**

*Michael Mahler, Robert Bosch  
Norbert Hilbich, Sennheiser electronic  
and others ...*

## ABOUT THE C-PMSE PROJECT

PMSE stands for **Programme Making and Special Events** and covers Services Ancillary for Programme-Making (SAP), Services Ancillary for Broadcasting (SAB), Electronic News Gathering (ENG) and Outside Broadcasting (OB).

Typical **PMSE components** are video cameras, microphones, in-ear monitors, conference systems, intercom devices as well as data links (e.g. for remote control).

The C-PMSE project is running from April 2011 until May 2013 and is focussing on **Professional Wireless Microphone Systems (PWMS)**, which cover all wireless equipment used at the front end of professional audio productions.

The **goal of the project** is the design, development, verification and research on a **cognitive PMSE system** which provides **cooperative co-existence** with other C-PMSE systems and white space devices.

**Basic requirements** are automation of the frequency utilization within the assigned frequency spectrum, securing a coordinated coexistence of different users in the same frequency range, and efficient frequency utilization.

The **objectives of the project** are:

**1) R&D on the cognitive system and procedures for PMSE** by development of system components such as antennas, scan receiver, scan controller, cognitive engine, data base, etc., measurement- and test procedures as well as channel-, interference- and coexisting models as reference for the standardization and regulation activities.

**2) Setting up a field trial platform** for cognitive PMSE applications at the fair grounds of Messe Berlin, technical and economical proof of concept of the cognitive procedures for PMSE and realizing an open and modular R&D platform for future research.

**3) Supporting frequency regulation and standardization** by setting up a forum to discuss and prioritise necessary actions concerning cognitive PMSE on national, European and worldwide level as well as active collaboration with ITU, ETSI, CEPT and Bundesnetzagentur by disseminating the project results and the preparatory work of the Special Task Force ETSI STF 386.

## PROJECT PARTNERS



**BOSCH**  
Technik fürs Leben



**SENNHEISER**

**beyerdynamic**

**RFmondial**

**eesy-id**

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## REGISTRATION

Please register online at: <http://cpmse.research-project.de>

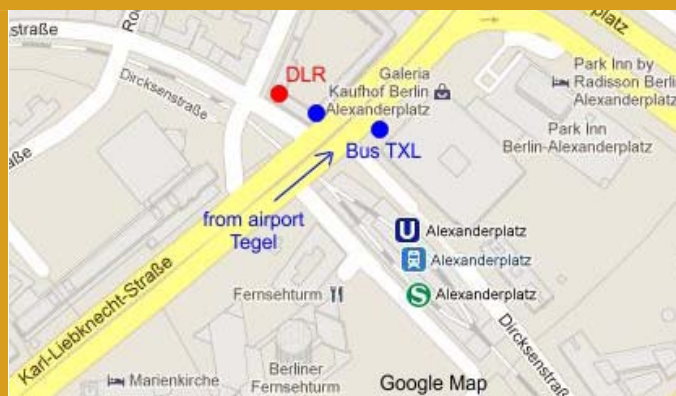
Registration fee: 50 € (+ 7% VAT)

## VENUE

**DLR**

Dircksenstr. 35  
10179 Berlin  
Room Nr. 6.31., 6th floor

From **Airport Berlin-Tegel** or **Berlin Main Station** take the bus "TXL" until stop "S+U Alexanderplatz Bhf/Memhardstraße" (40 min. or 20 min.). Opposite of the bus stop follow "Dircksenstrasse" for 150m (2 min.).



The C-PMSE project is co-funded by the German Federal Ministry of Economics and Technology (BMWi)