



Cognitive Radio Experimentation World



Project Deliverable D8.8.4 Promotion & dissemination report of IT/CMSF experiment

Contractual date of delivery:	31-03-2014
Actual date of delivery:	18-04-2014
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Lead beneficiary:	IT
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Workpackage:	WP8 – Promotion and Sustainability
Estimated person months:	1
Nature:	R
Dissemination level:	PU
Version	1.2

Abstract: This deliverable compiles all the promotion and dissemination activity accomplished by Open Call 2 CREW-TV project, within the scope of WP8. These activities include scientific presentations, general presentations and demonstrations.

Keywords: dissemination, presentations, publications, demonstrations, network testbeds, federation, wireless networks, cognitive radio, cognitive network

REVISION HISTORY

Version	Date	Author	Description
1.0	10/03/2014	Rogério Dionísio (IT)	Initial draft with first inputs
1.1	20/03/2014	Nicholas Kaminsk (TCD)	Review of Version 1.0
1.2	24/03/2014	Tomaz Solc (JSI)	Review of Version 1.0

Executive Summary

This deliverable presents an overview of the OC2 CREW-TV dissemination activities in year 1 of the project. Dissemination activities that are related to standardization or regulation are also included in this deliverable.

List of Acronyms and Abbreviations

CN	Cognitive Networking
CR	Cognitive Radio
CREW	Cognitive Radio Experimentation World
DoW	Description of Work
FIA	Future Internet Assembly
FIRE	Future Internet Research & Experimentation
FuNeMS	Future Network & Mobile Summit
ICT	Information and Communication Technologies
IEEE	Institute of Electrical and Electronics Engineers
ISM	Industrial Scientific Medical
OC2	(CREW) Open Call 2
OFDM	Orthogonal Frequency Division Multiplexing
RF	Radio Frequency
SDR	Software Defined Radio
USRP	Universal Software Radio Peripheral
VESNA	VErsatile platform for Sensor Network Applications
WSD	White Space Devices
WPx	(CREW) Work Package x

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1 Introduction

1.1 Scope

This document provides an overview of all WP8 promotion and dissemination activities during the first year of the open call 2 CREW-TV project. This document compiles all the publications and dissemination activities that were undertaken.

The content is offered in the same way as was done for the second year in D8.2 of the CREW project: scientific publications are mostly linked to a presentation, a poster, or a demonstration. These linked activities are mentioned only once under the “publication” category. Where applicable, it is indicated whether a presentation or demonstration was linked to this publication.

Dissemination activities that are related to standardization or regulation are also included in this deliverable.

1.2 Document purpose and intended audience

D8.8.4 is a public deliverable, primarily targeting the European Commission staff as a report of external activities towards dissemination and external reaching of the project. It can help in measuring the impact of the project on the scientific community.

Moreover, it can provide good insights for anyone interested in the CREW-TV project.

2 Scientific publications

- 1 Dionísio, R., Ribeiro, J., Marques, P. and Rodriguez, J., “Combination of a geo-location database access with infrastructure sensing in TV bands”, submitted to EURASIP journal on Wireless Communications and Networking, in February 2014, under review.

Publication under review

Abstract: This paper describes the implementation of a geo-location database assisted by a spectrum-monitoring network. This hybrid solution is a promising solution for the effective use of TV white spaces and for successful coexistence with digital TV broadcast signals, or dynamic incumbent systems, such as wireless microphones that are not registered in a database. Moreover, we explain the technical specifications of the sensing network and the geo-location database. With the use of communication protocols, we have tested and verified the ability of the geo-location database to automatically create protection areas around detected wireless microphone systems devices using real-time information from the sensing network.

3 Contributions to standardization fora

- 2 Dionísio, R., “CREW-TV - Experimental coexistence study in TV bands”, ETSI Reconfigurable Radio Systems (RRS) meeting #25, 06 March 2014 - Maisons-Alfort, France.

Presentation; no abstract available

- 3 Marques, P., “CREW Open Call 3”, ETSI Reconfigurable Radio Systems (RRS) meeting #24, 13 Sep. 2013 – Santa Clara, CA, USA

Presentation; no abstract available

4 Other presentations

Some of the presentations below are presentations on invitation, not linked to any peer-reviewed publication. Nevertheless, these presentations contributed to the dissemination of the CREW project and are therefore important to list.

Still other presentations below are a result of a peer-reviewed extended abstract (without “official” publication).

- 4 Dionísio, R., “ A description of CREW testbeds and CREW-TV project”, Workshop on *Dynamic Spectrum Sharing: The Future of Wi-Fi & the Internet of Things*, Berlin, Germany, April 2013.

Presentation; no abstract available

- 5 Dionísio, R., “Implementation of a Communication Protocol between a Geo-location Database and TV White Space Devices”, *The 4th Workshop of COST Action IC0902 Cognitive Radio and Networking for Cooperative Coexistence of Heterogeneous Wireless Networks*, Rome, Italy, October 2013.

Presentation

Abstract: The purpose of this paper is to describe the implementation of a reliable and secure communication protocol for white space devices (WSDs) to access geo-location database services over the Internet. The document also presents the proposed solution, followed by a description of the protocol requirements and implementation using a web-based environment.

5 Demonstrations & posters

The “scientific publication” section of this document already indicated that several demonstrations were given as a result of the acceptance of a peer-reviewed publication. In this section, additional CREW posters and demonstrations –those that are not attached to peer-reviewed publications– are listed:

- 6 Dionisio, R., “Experimental coexistence study in TV bands (CREW-TV)” *Hands-on-FIRE! Demo session* organized at the *Future Internet Assembly (FIA)* in Dublin, Ireland, May 2013.

½ **poster**; no abstract available

- 7 Dionisio, R. , “Experimental coexistence study in TV bands (CREW-TV)”, *Future Network & Mobile Summit 2013*, Lisbon, Portugal, July 2013.

½ **poster**; no abstract available

- 8 Dionisio, R., “Experimental coexistence study in TV bands (CREW-TV)”, *Conference on Spectrum Management*, Lisbon, Portugal, 19-20 September 2013.

Demo and Poster; no abstract available

Dionisio, R., “Experimental coexistence study in TV bands (CREW-TV)”, *ICT-2013 Conference*, Vilnius, Lithuania, 6-8 November 2013. (**Best Demo Award for CREW project in Cluster 4**)

Demo and Poster; no abstract available

6 Workshops & Tutorials

The tutorials below were given during the Workshop on ‘Cognitive Radio’, which was organized by the Portuguese Regulator ANACOM in Lisbon on September 19-20, 2013. While the tutorials were primarily intended to familiarize the European spectrum regulators with the CREW testbeds, the workshop was open to all providing a broader audience.

Other workshops and tutorials:

- 9 Dionisio, R., Fortuna, C., “CREW-TV Experiment at Log-a-TEC”, *Workshop on Cognitive Radio*, Lisbon, Portugal, 19-20 September 2013.

Tutorial

Abstract: This presentation will overview all the components of the LOG-a-TEC outdoor testbed for cognitive radio experimentation and then will focus on the functionality provided with respect to TV white spaces. This includes the location and topology of the testbed, the hardware components and software infrastructure that operate the facility. The last part will provide example experiments that can be performed on LOG-a-TEC emphasizing the ones that have already been done.

7 Further Promotion and Dissemination

CREW-TV members are already preparing new publications, presentations and demonstrations. Experimental trials and coexistence analysis will be completed by the end of March, in the city of Logatec – Slovenia. Moreover, we will have news demonstrations during the FIA event in Athens, Greece (March 2014), and for the EUCNC conference in Bologna, Italy (June 2014).

8 Conclusion

From the list of events and publications above, it can be seen that CREW-TV project has actively contributed to the dissemination of the activities of the CREW federation, particularly CREW-TV activities during the last year.