



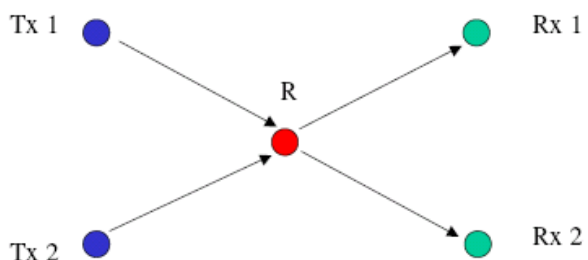
CROWN –Cognitive Radio Oriented Wireless Networks

Program/Call Reference, Strategic Priority, Grant Agreement Number, Project Type

FP7/FET-Open Scheme (Work Programme ICT-2007.8.0 FET Open, Call FP7-ICT-2007C, Batch 4):

Grant agreement no: 233843, STREP

Project Objectives



The fundamental objective of the CROWN project is to address some important challenges of cognitive radio (CR) networks that prevent them from wide adoption, as well as to expand the CR concept to include useful novel cognitive radio paradigms and solutions.

The specific objectives of the project are listed below:

- The theoretical analysis of spectral efficiency in Cognitive Radio networks
- The development of “distributed ambient interference sensing” techniques
- The development of “spatially & spectrally aware” CR transmission techniques
- The development of a new CR hardware / software communication platform

Project Starting Date and Duration / Total Cost – Total EU Contribution

1/5/2009, 36 months / 3,362,941 € - 2,201,472 €

AIT's Role / Principal Investigator

Project Technical Coordinator / Prof. Constantinos B. Papadias (papadias@ait.edu.gr)

AIT's Main Work Item

Beyond the project's technical coordination, AIT is heavily involved in several work package tasks, most notably tackling: the definition of CR scenarios; the information theoretical analysis of the considered CR configurations; the development of multi-antenna cognitive communication techniques; the development of spectrum and interference management techniques (leading the corresponding WP) and the over-the-air demonstration of smart-antenna enabled CR communication.

Partners

	Partner Name	Role	Funding
1	Queen's University Belfast	Project Coordination, Information Theory	498,945 €
2	AIT	Technical Coordination, Cognitive Transmission	413,000 €
3	Institut EURECOM	Cognitive Reception	307,220 €
4	Darmstadt Univ. of	Signal Processing and Resource	307,677 €



	Technology	Allocation	
5	Infineon Technologies France	Real time signal processing leadership	331,400 €
6	QinetiQ	Spectrum Management	343,230 €
Total			2,201,472 €