WALTER Project





Wireless ALliances for Testing, Experiment and Research

Abstract

Very and Ultra high speed radio platforms are key developing technologies for emerging applications but raise issues of efficient radio spectrum management and interoperability of technologies, from radio to media access control levels. Among these radio platforms, Ultra Wide Band (UWB) is a very promising technology for the broadband transmission of data using spectrum efficient and flexible radio techniques. Initiatives such as the WiMedia Alliance have developed concepts to use UWB as a standard radio platform allowing transport of upper level protocols such as the wireless USB (WUSB), wireless Firewire and the next generation of Bluetooth

The European Telecommunications Standards Institute (ETSI) is producing harmonised standards to foster UWB adoption in Europe but Europe is still late compared to USA and others. If not corrected, such a situation could hinder the European innovation potential to develop new applications and services based on this extremely high capacity networks.

To pursue the needed European standardisation and regulation efforts, while reinforcing the European leadership in the field of wireless networks, a new range of UWB testbed has to be developed.

The WALTER project will address this need and overcoming the associated technological issues of measuring ultra-high frequency signals; will develop a pan-European interconnected testbed. This testbed will make use of the strong European expertise in conformance and interoperability testing. Based on a deep needs analysis and specifications definition, it will be flexible enough to address both from short-term needs (industry and regulators) to long-term needs (research communities), while allowing testing of mitigation techniques.

The deployment of this testbed will be supported by dissemination activities and liaison with international stakeholders. The organisation of two interoperability events, will allow a large operational spreading of project outcomes. In the short term, the WALTER project will be the cornerstone to the European industry competitiveness in wide band radio technology while putting Europe ahead in the definition and development of the future networks and services.

Call FP7 ICT-2007.1.1: "The network of the future"

Duration: 24 months

Instrument STREP

Total Budget 3.2 *M*€

EC contribution 2.2 M€

Consortium

☑ Inno AG (DE)
☑ ETSI (FR)
☑ Copsey Ltd (UK)
☑ AT4Wireless (SP)
☑ STMicroelectronics (FR)
☑ JRC IPSC ISPRA (IT)
☑ Wisair (IL)
☑ TMC (CN)

"The Wireless broadband test bed for the future technologies"





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Objectives

- To support convergence and interoperability of broadband wireless networks
- To support flexible and spectrum efficient radio access
- To support establishment of global standards while addressing complex user requirements
- To reinforce European industrial leadership in wireless networks

Expected impacts

- Contribute to the establishment of a worldwide acceptance of European standards for UWB technologies
- Give the tools aimed at ensuring that newly developed UWB technologies do not compromise persons and goods protection
- Contribute to interoperability of UWB technologies and convergence of high capacity based services
- Give the European industry a competitive advantage while opening the door to new innovations in the field of internet technologies based on ubiquitous networks.





"The WALTER project will develop a pan-European broadband wireless testbed, covering the emerging needs of the research, the industry and the regulators"