

Cognitive Radio in FP6 and FP7

Panel Session at European Wireless 2007, Paris

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Contents

- Lisbon Strategy and ICT Policy
- Spectrum Management and Technology
- Research on Cognitive Radio in FP6 and FP7

ICT: Information and Communication Technologies
FP: Framework Programme

Lisbon strategy, the i2010 initiative

- **The Lisbon European Council (3/2000) emphasized**

- the potential for growth, competitiveness and job creation of the **shift to a digital, knowledge-based economy**
- the importance of the access to an **inexpensive communications infrastructure** and a **wide range of services** for Europe's businesses and citizens

- **i2010 initiative**

- Objective: to ensure that Europe's citizens, businesses and governments make the **best use of ICTs** in order to
 - improve industrial competitiveness
 - support growth and the creation of jobs
 - help address key societal challenges

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SPORTVIEWS

Spectrum Policies and Radio Technologies Viable In Emerging Wireless Societies

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OK

SportViews Project

Workshops and conference

SportViews Partners

Editorial:

The future impact of new wireless technologies on spectrum usage

[More](#)

Focus:

Relations with main stakeholders

SportViews consortium collaborates with IST projects, NRAs and Industry stakeholders.

[More](#)

News:

22-06-2006

Sportviews June Workshop in Paris

First Sportviews Workshop: stimulate a dialogue between spectrum management specialists and European Union sponsored research projects

[More news](#)

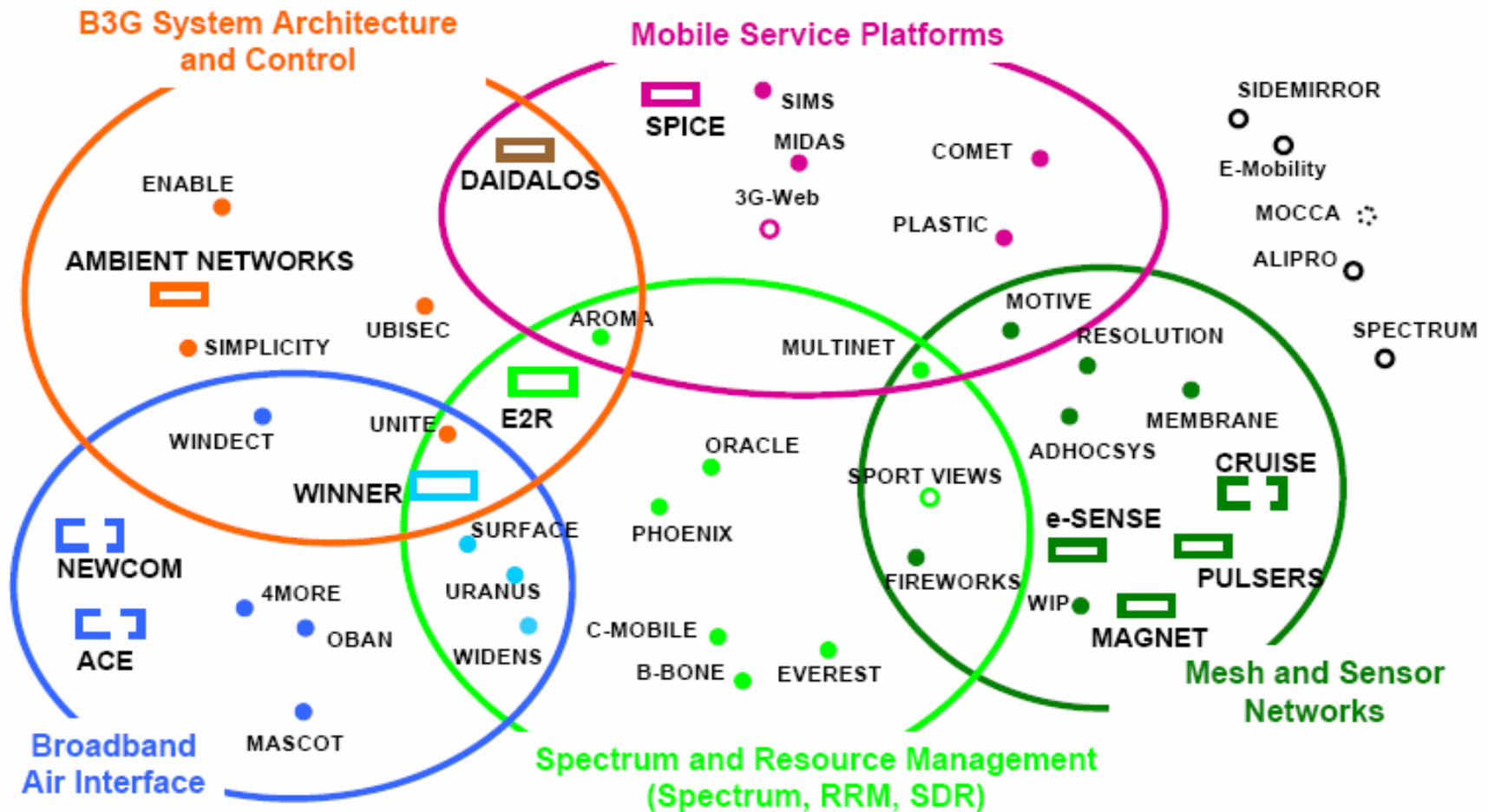
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Nine Spectrum management regimes

Frequency Allocation: Harmonisation Or Not	Technologies Standardisation or not STEP 2	Usage rights STEP 3	Spectrum Management Regime #
STEP 1			
Harmonised spectrum (no Service flexibility)	Standardisation (no techno flexibility)	Property rights/ Exclusive	1 Standard Command & Control
		Property rights/ w Easements	2 Eased Command & Control
		Collective use	3 Restricted Collective Use
Harmonised spectrum (no Service flexibility)	Techno flexibility NO Standardisation	Property rights Exclusive	4 Harmonised flexibility
		Property rights w.Easements	5 Harmonised flexibility Plus
		Collective Use	6 Standard Commons
Service flexibility) NO Harmonisation	Techno flexibility NO Standardisation	Property rights Exclusive	7 Property-based flexibility
		Property rights w.Easements	8 Privatised spectrum w. easements
		Collective Use	9 California Dream

FP6 Project Portfolio - Mobile



Instruments :

Integrated Project (IP)

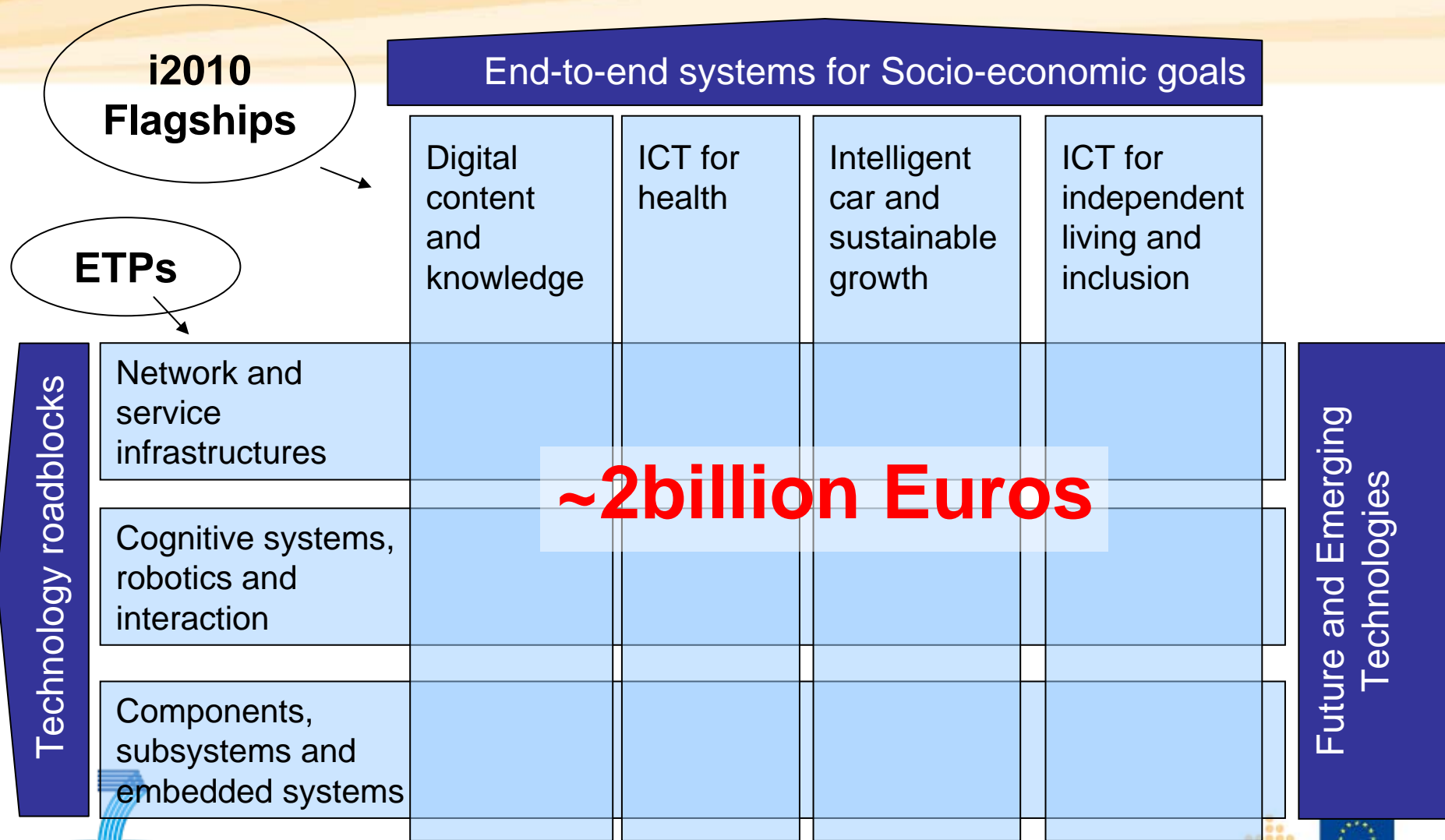
Network of Excellence (NoE)

● Specific Targeted Research Project (STREP)

○ Specific Support Action (SSA)

⊙ Coordination Action (CA)

FP7 ICT Work Programme 2007-2008



Objective 1.1 The Network of the Future

• **Ubiquitous Network Infrastructures and Architectures**

- Convergence and interoperability of heterogeneous network technologies
- Flexible and spectrum-efficient radio access
- High-speed end-to-end connectivity with optimised protocols and routing
- Context awareness
- Support of trillions of connected devices

• **Optimised Control, Management and Flexibility of the Future Network Infrastructure**

- Seamless end-to-end network and service composition and operation across multiple access technologies, operators and business domains
- Reconfigurability, self-organisation and -management
- Management in real-time of new forms of ad-hoc communications with intermittent connectivity requirements and time-varying network topology

• **Technologies and System Architectures for the Future Internet**

- Overcoming the expected long-term limitations of current Internet technology
- Scalability from a device, service attributes and application environments perspective
- Security and trusted domains
- New forms of routing and content delivery in a generalised mobile and wireless environment

Questions

- Where can Cognitive Radio work ?
- Open wireless vs. operator-driven ?
- Multi-mode vs. SDR/Re-configurability ?
- Limits of SDR (power, wideband antennas, etc.) ?
- Roadmap ?

More Information

- FP7 web site with **ICT WP 2007/2008 for download**
<http://cordis.europa.eu/fp7/ict>
- The IST Communication Technologies web site
<http://cordis.europa.eu/ist/ct>
- Our bi-monthly newsletter:
 - Distributed via email (by subscription - free of charge);
 - Contains info on all activities in the field including calls for proposals, conferences, publications, etc.)