



B21C



(Broadcast for the 21st Century)

The future of Broadcast

34 partners from:

- > 8 European Countries
- > 8 Industrial Companies
- > 9 Network Operators
- > 5 SME's
- > 10 Universities
- > 2 Research Institute

A Task Force for DVB



- Pedestrian Channel Validation
- Gap-Fillers studies
- SFN Planning



- Laboratory tests
- Channel modelisation
- Network Planning
- Field Trials



- Standardisation
- Simulation
- Prototyping





Key Project Achievements

DVB[®] H

Service Signalling Robustness:

- Strategy for improvement,
- Prototyping,
- Laboratory & Field verification,

Frequency handover optimisation:

- Prototyping,
- Laboratory & Field verification.

Pedestrian Channel Models:

- Laboratory & Field verification of the Pedestrian Indoor (PI) and Pedestrian Outdoor (PO) (established by the CELTIC-WING TV project).

«Small Gap Filler» suitable for DVB-H services:

- Contribution to Technical Specifications,
- Interoperability & Performance evaluation of early bird prototypes,
- ETSI standardisation in progress.

DVB[®] SH

Performance Evaluation in Laboratory:

- Automatic Test Bed design,
- Exhaustive test of Transmission modes,
- Prototype receiver interoperability,
- Network planning exercises for Barcelona & Torino field trials.

Performance evaluation on the field:

- 2008: large campaign in Barcelona using Low Power transmission sites,
- 2009: large campaign in Torino using High Power transmission sites,

«DVB Mobile Calculator»:

- Elaboration of a software tool summarising measurements of Mobile Performances for DVB-T / DVB-H & DVB-SH technologies.

DVB[®] T2

Major Contributions to the T2 standardisation:

- Among the 30 responses to the DVB's call for Technologies, 17 emanated from B21C partners,
- Several B21C proposals incorporated in the T2 standard (ETSI EN 302 755 - 2009/07) including:
 - «BNT» architecture,
 - Rotated Constellation,
 - Time Frequency Slicing,
 - Preamble definition.

Comprehensive studies on advanced techniques:

- MIMO suitable for DVB-T2, DVB-NGH
- BICM concept,

Major contributions to the T2 implementations guidelines.

Prototyping of T2 modulator & demodulator.

Broadcast Capacity Evaluator demonstration.