Digital broadcasting applied to in car safety and deployment of FO in Catalonia

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Agenda

• What is DAB?
• DAB possibilities
• DRM
• FO deployment in Catalan roads
What is DAB? (1)

• DAB stands for Digital Audio Broadcasting
• It’s the natural transition to digital of FM transmissions
• As it is a digitized media, it can broadcast audio programs, text and graphic information and applications to the receivers
What is DAB? (2)

• DAB is the standard adopted in the EU, Australia and some parts of Asia (Korea, Indonesia, ...)

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What is DAB? (3)

- In South Korea, it has been adopted under the name DMB (Digital Media Broadcasting)
  - It includes the broadcasting of video services to handheld devices
Asociated services (1)

• DAB can send EPG (Electronic Program Guides):
  – Selection of the desired program before it starts. Then the receiver tunes into it whenever it begins (even though it begins later than the scheduled time)
Associated services (2)

• DAB can serve traffic information to the receivers:
  – Via text information which scrolls on the receiver’s display
  – Via HTML (text and graphics)
  – Via TPEG (location of traffic events or local information over a map)

• Traffic information has a lot to do in safety driving connected with a GPS receiver:
  – Integrated receiver
  – Handheld device connected via Bluetooth
Associated services (3)

– Traffic information
Associated services (4)

– Local information
DAB in numbers

- A research driven by WorldDAB forum on the Birmingham Motor Show (May/June 2004) concluded:
  - 72% people (over 2400) who answered a questionnaire would pay from 75 to 300 EUR for DAB in-car
What is DRM? (1)

• DRM stands for Digital Radio Mondiale
• It’s the digitation of the SW, MW and LW bands, the so called AM
• It can provide large coverage areas with only one transmitter (i.e. an entire region, country or continent)
What is DRM? (2)

• It can transmit also data (text, HTML or images), but has less bandwidth than DAB
  – Both technologies are complementary
  – WorldDAB and DRM have an agreement to work together
Deployment of FO in Catalan roads

• The Government of Catalonia is leading a project by which every time a road is being constructed or renewed, FO is extended.

• It exists the project to prepare the roads for future road-to-car signaling systems.

• Any help regarding that is welcomed!
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For more reference

• http://www.gencat.net/stsi/dab
• http://www.gencat.net/stsi/ba
• http://www.worlddab.org
• http://www.drm.org