



## Mobile Television and EU-funded research

**Mobile television is a potentially very powerful stimulus for growth and jobs. Pilot trials in some Member States suggest that up to half of Europe's mobile phone subscribers, i.e. some 200 million people, may eventually be interested in using mobile TV.**

**The European Commission is supporting the development of mobile TV technology through a series of actions to promote international co-operation in research, development and standardisation for digital television. All in all, the Commission is funding research – directly or indirectly connected to mobile TV – amounting to some €40 million under the EU's 6<sup>th</sup> Research Framework Programme (2002- 2006).**

### **Prospects for European-wide mobile television markets**

Europe-wide mobile TV markets are set to develop for terminals, consumer devices and network equipment. Digital content is also expected to become increasingly "mobile" across regional and national borders. The proliferation of partnerships between content producers and the mobile industry is a clear indication of this trend.

Some specific applications are expected to drive the growth of Europe-wide markets: the football world cup 2006 in Germany is a typical example

of an application that attracts the interest of European customers. New video consumption patterns, reaching across national borders, will be facilitated by this technology. Mobility will naturally help a Europe-wide mobile television market to develop, as is already happening in linguistic zones straddling national borders.

### **The pioneer role of European research**

Through its Research Framework Programmes, the European Commission (EC) has contributed to the success of Digital Video Broadcasting (DVB) technologies in terms of research, development, cooperation and technical standardisation activities.

The European Commission's support for digital broadcasting standards started in the early 90s with research projects on audio and video compression and transmission technologies. Today, the results of these projects still find applications in a wide range of fields, from digital television transmissions to lightweight portable music players.

Some EU- funded research projects have also helped develop integrated and secure MPEG-2 delivery chains, as well as better algorithms for compressing large volumes of data, standardised within the Moving Picture Experts Group standard MPEG-4. MPEG-4 has now become a major contender for the deployment of High Definition Television (HDTV). Other projects have helped validate and develop DVB standards and interactive satellite, cable and terrestrial

broadcasting technologies, including the Multimedia Home Platform (MHP).

Since the early 90s, the Commission has been co-financing the complete development cycle of innovative television systems, from successful content and delivery digitisation through to interactivity, content management and protection, as well as, more recently, portability and mobility.

### **Building upon international research efforts**

As part of the 6th Framework Programme of EU-funded R&D (2002-2006), several DVB/MPEG-related projects are now addressing convergent services, which combine interactive digital broadcasting and cellular communication networks. In standardisation work carried out under the "MPEG 21" initiative, content protection and portability is also receiving increased attention through innovative research in the field of Digital Rights Management (DRM) and Scalable Video Coding.

Through co-operation with organisations from Latin America and Asia, these projects also help build industry-wide consensus, easing the adoption of worldwide standards.

The European Commission is now preparing for the next R&D Framework Programme (FP7) for 2007-2013. The first call for research project proposals should be launched by the end of 2006.

### **Broadcast to mobile – radio frequency allocation issues**

In the field of broadcasting to mobile devices, the DVB-H standard (for handsets) should become widely-used in Europe and worldwide. Its close relationship to the DVB-T (digital terrestrial) variant, and its ability to manage power efficient reception, even at high speed, makes DVB-H, together with Terrestrial - Digital Multimedia Broadcasting (T-DMB) technology, a strong contender for such applications. The European Telecommunication Standards Institute (ETSI) now recognises both technologies as European standards.

In Europe, several trials have already started with these two technologies. However, the availability of spectrum for further deployment of commercial networks and services remains a key issue. The switchover from analogue to digital TV, expected by 2012<sup>1</sup>, should free up some radio spectrum for promising new digital technology applications.

<sup>1</sup> EC Communication on Accelerating the transition from analogue to digital broadcasting (May 24, 2005):

In June 2005, Information Society and Media Commissioner Viviane Reding stressed the importance of co-ordinating radio spectrum policy EU-wide and published a Communication on the preparation of the Regional Radio Conference 2006 (RRC-06). This conference will address the planning of the analogue TV spectrum with a view to introducing digital technologies in these bands.

The Commission is also working with EU Member States through the "Radio Spectrum Policy Group" (RSPG) to define an EU-wide approach to the introduction of mobile TV systems and to the use of the "digital dividend", i.e. the ultra-high frequency (UHF) spectrum that will be released by the switchover from analogue to digital TV. The RSPG is expected to provide opinions on this to the Commission by early 2007. The key to the success of all these applications is the widespread take-up of technical standards that ensure the openness and interoperability of broadcasting systems.

### **Useful links:**

- EC Networked Audiovisual Systems IST website: [http://www.cordis.lu/ist/directorate\\_d/audiovisual/index.htm](http://www.cordis.lu/ist/directorate_d/audiovisual/index.htm)
- EC Policy Development and Regulatory Framework: [http://europa.eu.int/information\\_society/topics/ecom/index\\_en.htm](http://europa.eu.int/information_society/topics/ecom/index_en.htm)
- EC Radio Spectrum: [http://europa.eu.int/information\\_society/topics/radio\\_spectrum/index\\_en.htm](http://europa.eu.int/information_society/topics/radio_spectrum/index_en.htm)
- Digital Video Broadcasting: <http://www.dvb.org/>

### **For further information:**

Information Desk  
European Commission  
Information Society and Media DG  
Office: BU31 01/18 B-1049 Brussels

Email: [info-desk@cec.eu.int](mailto:info-desk@cec.eu.int)

Tel: +32 2 299 93 99

Fax: +32 2 299 94 99

[http://europa.eu/information\\_society](http://europa.eu/information_society)

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