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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

Strengthening the Internal Market for Mobile TV

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1. MOBILE TV: A NEW OPPORTUNITY FOR THE EU

Mobile TV refers to the transmission of audiovisual content to a mobile device¹. It has the potential to change profoundly the way in which consumers experience television and audiovisual services. It offers the possibility of viewing any content, any time, anywhere, and also provides for a new world of interactivity, where traditional and on-demand creative content consumption is supplemented by services tailored to the needs and tastes of each consumer. Mobile TV is at the crossroads of two powerful social trends, greater mobility and new forms of accessing media content. It therefore could become one of the next high-growth consumer technologies.

By bringing together personal **mobile communications**, one of the most dynamic of European markets, and **audiovisual content**, Mobile TV is at the frontier of high-value, innovative services. Estimates indicate that by 2011 this could be a market between €7 billion and €20 billion, reaching between 200 million and 500 million customers worldwide². It is an example of digital convergence, a concept at the heart of Commission's i2010 strategy for the Information Society. Digital convergence brings to Europe new business opportunities, new jobs and new consumer services, contributing to European competitiveness and welfare in line with the **renewed Lisbon Strategy for growth and jobs** and the actions adopted by the 2006 Spring European Council. The development of Mobile TV fits well with the objectives set out in the Commission's **Communication to the Lahti informal European Council** on an innovation-friendly, modern Europe³.

European equipment manufacturers as well as service providers play a prominent role in Mobile TV trials and commercial launches around the world. However, the introduction and take-up of Mobile TV services in the EU so far have been slow. **Competitors from Europe's main partners, most notably from Asia and the US, have made significant progress, and Europe risks losing its competitive edge in mobile services⁴** and missing a major opportunity for growth and innovation unless a sufficient momentum, coupled with the appropriate degree of coordination, is achieved across Europe.

This is why there is a **need to develop a blueprint for Europe**. Today, the Mobile TV market is still in a very early stage: 2006 was a key year in terms of pilots and

¹ There are several devices available for receiving mobile TV but the most common one is the mobile phone.

² See Impact Assessment for an overview of the market analyses.

³ Communication from the Commission to the European Council (Informal meeting in Lahti – Finland, 20 October 2006): An innovation-friendly, modern Europe - COM(2006) 589, 12.10.2006; OJ C 332, 30.12.2006, p. 42.

⁴ For instance, in spring 2007, there were over 4 million users in South Korea and over 7 million in Japan. This compares to a maximum of 500 000 customers in the EU.

announcements; in 2007 Italy, Finland, and to a lesser extent Germany and the UK, have commercial operations, and other nationwide launches are planned in Germany, France and Spain. But the take-up is very slow because of technological and regulatory uncertainties. 2008 is generally considered as a crucial year for Mobile TV take-up in the EU owing to important sports events, such as the European Football Championship and the Olympic Games, which will provide a unique opportunity for increasing consumers' awareness and their adoption of new services. Giving to European citizens the chance to access to these innovative services in 2008 and ensuring that European companies are part of this innovation are objectives of public interest that justify a proactive approach of the European Union.

The key to a successful take-up of these innovative services in the EU lies in creating a favourable environment that will enable operators and consumers to reap the benefits of the Internal Market and to achieve the necessary **economies of scale**.

Mobile TV transmission can take different forms, from live television to time-shifted or on-demand viewing. Transmission of Mobile TV services can take place over various networks including cellular mobile, terrestrial broadcast, satellite and Internet-based. A useful distinction to be made is that between unicast ("one to one") and broadcast ("one to many") mobile TV⁵. For the purposes of this Communication and the accompanying Impact Assessment "**Mobile TV**" refers to **broadcast terrestrial mobile TV services only**. The reason behind this choice is that the policy and regulatory framework for services over existing mobile communications networks are already in place and such services are well developed in the EU as part of commercial offerings of most 3G operators. In addition, only the broadcast mode is able to deliver the same content to a large number of users at the same time and is therefore key to achieve mass-market deployment of mobile TV services. Mobile satellite services (MSS) can also be an important platform for mobile TV applications. However, they face a different set of issues compared to mobile terrestrial services, which are being addressed through a separate Commission initiative⁶.

2. KEY FACTORS FOR SUCCESS

In 2006, the Commission launched a dialogue with stakeholders in order to identify and address the issues surrounding the emerging Mobile TV services. In particular, the Commission services facilitated the setting up of an industry umbrella group, the **European Mobile Broadcasting Council (EMBC)**, a forum which gathered together for the first time all main industry players concerned, including broadcasters, manufacturers, content providers and telecom operators. The EMBC issued industry recommendations in March 2007. Member States were also regularly consulted on specific issues in the context of institutional fora, including the Radio Spectrum Policy Group, the Radio Spectrum Committee and the Communications Committee⁷. The Commission will continue to consult stakeholders,

⁵ According to the EMBC, a Mobile Broadcast Service is a *service for simultaneous multimedia content distribution to many recipients (potentially) without knowing the recipient*.

⁶ The Commission, in cooperation with the Member States, has adopted Decision 2007/98/EC (OJ L 43, 15.2.2007 p. 32) reserving the 2 GHz frequency bands for MSS systems including Complementary Ground Components, paving the way for the possible deployment of mobile TV services in these bands. The Commission is also proposing to coordinate at EU level the authorisation procedure and the selection of operators, in order to properly address the cross-border nature of satellite systems.

⁷ Sub-committee on Authorisation.

including consumer organisations and will call on the industry to continue its work on interoperability, notably at transmission and service level.

As a result of this consultation **three main factors** have been identified as key to the successful introduction of Mobile TV:

- Technical aspects (standards/ interoperability);
- A regulatory environment conducive to innovation and investment;
- Ensuring quality spectrum for mobile TV services.

2.1. Technical aspects (standards/ interoperability)

Agreeing on a **common technical standard** for mobile TV would provide important advantages for European consumers and industry. It would give all actors in the mobile TV value chain - equipment manufacturers, application developers, broadcasters, content aggregators, mobile operators - certainty concerning technological decisions. Only a predictable environment can lead to investment in equipment production and development of services and thus help to achieve the economies of scale that are needed to launch the services. Availability of equipment and services and decreasing prices will stimulate demand, which in turn will **help to attain critical mass, ensuring the sustainability of the Mobile TV business cases**.

The universal success of GSM, which established Europe as the worldwide leader in mobile communications, demonstrates the benefits that can accrue when all players in the industry agree on the development of a new service over a common standard. Also in the field of broadcasting, agreement on common standards is widespread. Today, for each digital broadcasting platform in Europe, the transmission techniques are based on the corresponding standards of the DVB family⁸, which are also actively promoted by the European Commission in its relations with third countries and supported by European research Consensus over a common standard would facilitate the ability for a mobile receiver to work on any broadcast mobile TV network in Europe, spreading confidence to consumers. Mobile TV implementers will have less difficulty in making technology choices. The successful deployment of Mobile TV services in Japan, South Korea and the United States relies on a single standard.

Currently in Europe, there is a **risk of fragmentation in the Internal market** as there are several Mobile TV technologies for different platforms so that the benefits outlined above may not materialise. Among the trials and commercial launches based on terrestrial digital technologies⁹, **DVB-H**¹⁰ is used in most countries and widely considered as an open and

⁸ DVB-S and DVB-S2 for satellite broadcasting, DVB-C for cable and DVB-T for digital terrestrial.

⁹ Hybrid satellite/terrestrial systems are also developing to present an alternative to terrestrial-only systems, having the capacity of greater coverage than terrestrial-only systems. **DVB-SH** is such a system consisting of DVB-H adapted for S-band and the hybrid (satellite/terrestrial) operation concept.

¹⁰ Digital Video Broadcast transmission to Handheld terminals, an ETSI standard based on DVB-T standards.

robust standard. The other trials and commercial launches are using **T-DMB**¹¹. Other technologies also start to be tested in Europe¹².

The Commission favours industry-led approaches with regard to the definition of standards and interoperability issues, especially in the case of fast moving technologies. In the case of mobile TV, the EMBC recognised the virtues of agreeing on a common standard which could deliver significant economies of scale within Europe. However, the EMBC did not propose a common standard. More efforts are therefore needed in this respect. Looking at the present situation, **DVB-H appears to be the strongest contender for future terrestrial Mobile TV deployment in Europe**. It is already the most widely-used standard in Europe and is also becoming popular worldwide. About 40 DVB-H pilot networks have been implemented for trials all over the world, including the USA and Asia. 25 out of these trials have been implemented in Europe. In the EU, trials have already taken place in 15 Member States, with Italy pioneering the commercial introduction of DVB-H services, now followed by Finland. France, Germany and Spain are also taking steps to open operational DVB-H networks in 2007.

There are **several reasons why market players have chosen DVB-H** in Europe. DVB-H is fully backwards compatible with DVB-T. This is of particular importance in the European landscape of transition to digital broadcasting, as DVB-T is used as terrestrial digital transmission everywhere in Europe. Moreover, in terms of know-how, network operators have experience in building and operating DVB-T networks. The majority of European, US and Asian manufacturers propose DVB-H equipment and systems solutions as DVB-H is a fully standardised system.

The Commission therefore considers that DVB-H will form the basis for the successful introduction and take-up of terrestrial Mobile TV services in the EU. It will encourage industry dialogue, so that a wide consensus over DVB-H implementations can be achieved. To promote this consensus the Commission intends to prepare the necessary steps to **add DVB-H to the List of standards**¹³ published in the *Official Journal of the European Union*¹⁴. Adding DVB-H to the List of standards would imply that Member States would be required to encourage the use of DVB-H for the provision of terrestrial Mobile TV services. The Commission calls upon industry to ensure that any outstanding issues regarding intellectual property rights related to DVB-H are settled without delay¹⁵. The Commission will continue

¹¹ Terrestrial Digital Multimedia Broadcasting, an ETSI standard based on T-DAB, including also **DAB-IP** (IP TV over DAB protocol). T-DMB was used in Germany to launch a service on the occasion of the Football World Cup 2006. DAB-IP is currently used in the UK.

¹² Notably MediaFLO (Media Forward Link Only).

¹³ Commission Decision 2007/176/EC of 11 December 2006 establishing a list of standards and/or specifications for electronic communications networks, services and associated facilities and services and replacing all previous versions (notified under document number C(2006) 6364), OJ L 86, 27.3.2007, p. 11.

¹⁴ Directive 2002/21/EC of 7 March 2002 on a common regulatory framework for electronic communications networks and services (OJ L 108, 24.4.2002, p. 23). The procedure referred to is described in Article 17(1), which foresees a consultation of the Member States and a further specific decision by the Commission, providing for such a publication.

¹⁵ In light of the successful experience of DVB-T, a patent pool has been created for DVB-H.

to monitor the situation in the EU and may come forward with proposals in mid 2008 including, if appropriate, steps to make an open standard mandatory¹⁶.

Furthermore, **interoperability remains an important objective**. Past experiences, notably in the field of interactive television, demonstrated that a common standard is not in itself sufficient to guarantee interoperability, especially for levels higher than the physical transport of the signal. Therefore, the Commission will encourage stakeholders to act together with a common aim of maximizing access of consumers to services, in particular by relying on open standards.

2.2. A regulatory environment conducive to innovation and investment in Mobile TV

National approaches to the authorisation of Mobile TV services vary considerably. In many Member States, Mobile TV is subject to the general regime applying to broadcasting. In some others, there are no specific rules, or the regulatory framework for these new services is still being debated. So far, there is little experience with broadcasting services using exclusively mobile transmission (i.e. not having a "traditional" broadcasting programme licence under media law). This situation generates a high degree of **regulatory uncertainty** and in some cases a **legal vacuum** which affects negatively potential Mobile TV operators in the Internal market.

The take-up of Mobile TV needs a transparent and **light-touch regulatory environment**. Whilst it is clear that the licensing decision remains a national prerogative, industry expects a clarification of the prevailing licensing framework, and seeks to obtain a reasonable level of certainty on the matter, especially when launching Mobile TV services in different Member States.

Authorisation regimes for Mobile TV services must take into account the needs of the Internal Market, and the aim should be to strive for a **level playing field** allowing the various actors to compete under similar conditions. Consistency of regulatory approaches across the EU is needed in order to clarify applicable regulation and create a regulatory environment conducive to investment and innovation. The Commission considers that Mobile TV is a nascent service and inappropriate obligations should not be imposed. For example, must-carry obligations are not permitted for a nascent service¹⁷, and other traditional broadcast obligations may not be appropriate for Mobile TV. Member States are invited to identify and remove any such regulatory obstacles. Moreover, Member States should not prohibit infrastructure sharing¹⁸ and shall encourage co-location when this is needed to facilitate

¹⁶ As foreseen under Article 17(3) of Directive 2002/21/EC. This would imply publishing a notice in the Official Journal and inviting public comment by all parties concerned. Any Commission proposal pursuant to Article 17(3) would be accompanied by a detailed impact assessment.

¹⁷ Article 31 of the Universal Service Directive 2002/22/EC (OJ L 108, 24.4.2002, p. 51) allows must-carry obligations to be imposed only on networks where a significant number of users use those networks as their principal means of receiving radio and TV broadcasts.

¹⁸ Such agreements have been in place in some markets in the context of GSM and/or UMTS infrastructure and exempted by the Commission under the EU Competition rules. E.g. Commission Decision of 16 July 2003 (Case COMP/38.369: T-Mobile Deutschland/O2 Germany: Network Sharing Rahmenvertrag - OJ L 75, 12.3.2004, p. 32) and Judgment of the CFI of 2 May 2006 (Case T-328/03).

network deployment and impose it where necessary to address possible environmental concerns¹⁹.

In the field of regulation and authorisation regimes, the Commission will promote contacts between Member States with a view to exchanging information and identifying best practice. The **Commission will provide guidance** on regulatory issues including through guidelines and recommendations as appropriate.

2.3. Ensuring quality spectrum for Mobile TV services

A key factor influencing the successful deployment of Mobile TV is access to radio spectrum. Spectrum is a key enabler for Mobile TV services, affecting interoperability, consumer friendliness, and costs for the operators. There is a need for the Member States and the European Commission to reflect together in order to agree a spectrum policy that responds to the high level of coordination desired by consumers and industry. There is broad consensus among Member States on the benefits which could be achieved through such a pan-European approach.

Taking into account the diversity of spectrum needs, a key challenge at this stage of the innovation cycle is to ensure that the required types of radio spectrum resources can be made available without delay in as many European regions as possible. It is therefore essential that Member States ensure that spectrum for Mobile TV is made available in suitable bands without delay.

An important element to take into consideration is the transition to digital TV in Europe, which is already well advanced in certain Member States, and the turn-off of analogue TV by 2012²⁰. This process is releasing large amounts of valuable spectrum (the so-called **digital dividend**). A coordinated approach to the attribution of this spectrum at European level is essential to reap the benefits of switchover and to allow for new, innovative services to be deployed across the Union. Mobile TV is one of the key candidate services to benefit from the digital dividend²¹. Obviously, other bands are also to be considered, as well as issues of timing and practicability. It will also be necessary to reflect on **cross-border requirements**.

Spectrum in the UHF band (470-862 MHz) is considered the most suitable spectrum for mobile multimedia services due to its technical characteristics. It also provides advantages due to the compatibility of DVB-H with DVB-T. However, use of this spectrum is constrained by the diverging national policies regarding the digital dividend and by a lack of EU coordination. The Commission urges the Member States to make part of the UHF spectrum available for Mobile TV services as it is freed. The Commission's services have asked the Member States to assess the feasibility of earmarking a **sub-band for mobile TV** within the digital dividend. A **Commission Communication on the Digital Dividend**, planned for the end of 2007, will set out the Commission strategy for the use of the spectrum freed by the switch-off, in particular in the UHF Band.

¹⁹ In line with Article 12 of the Directive 2002/21/EC (Framework Directive).

²⁰ This target date is supported by the Council; however, some Member States foresee a later date for switch-off.

²¹ As acknowledged during the informal meeting of Telecommunication Ministers of the EU organised by the Finnish Presidency in Brussels on 10 December 2006.

In addition, the Commission is already working with the Member States to ensure that at least **some harmonised frequencies are made available** to allow Mobile TV services to get started. The so called **L-band** (1452-1492 MHz), currently used in some Member States for digital radio based on DAB²², can constitute a fall-back solution in several markets where there is no other spectrum available. The Commission has made proposals to open up the use of this band in order to accommodate a wider range of technologies, including mobile multimedia services.

3. AN INTEGRATED POLICY FOR MOBILE TV

This Communication focuses on issues related to the EU regulatory framework for e-Communications (technology, authorisation regimes and spectrum policy). However, successful deployment and take up of Mobile TV depends crucially on other elements such as **content availability**. The proposed new directive on audiovisual media services is expected to create a modernised framework also for Mobile TV content, whether broadcast or on-demand.

Another key challenge is to offer premium Mobile TV content on a flexible basis that transcends platforms and borders, while ensuring a proper remuneration of right holders. Allowing the enjoyment of Mobile TV anytime, anywhere and on any device requires an approach and policy to **copyright**, which might include notably pan-European rights licensing.

A Commission Communication on **content on-line**, to be adopted in the course of 2007 and addressing some of these issues will also be of relevance for Mobile TV.

4. NEXT STEPS

Mobile TV is a new promising convergent platform and has the potential to play an important role by combining the telecommunications and the audiovisual worlds. Convergence lies at the heart of the i2010 initiative, bringing to Europe new business opportunities, new jobs and new consumer services, thereby contributing to European competitiveness and welfare. The successful introduction and take-up of Mobile TV in the EU needs the support and active cooperation of all stakeholders. The main actions required are summarised hereafter.

Member States are called upon to:

- facilitate the deployment of Mobile TV taking into account the need to ensure maximum interoperability. This would include encouraging the implementation of DVB-H in their territory;
- set in place a favourable regulatory environment for the provision of Mobile TV services and coordinate with each other in order to exchange best practice in authorisation regimes;
- make available spectrum for mobile broadcasting as quickly as possible, including in the UHF band as it becomes available.

²² Digital Audio Broadcasting. DAB is an important technology for digital radio.

Industry is invited to:

- work towards achieving maximum interoperability, in particular by promoting consensus around a common open standard (DVB-H);
- contribute to the successful take-up in Europe of Mobile TV, through sustained dialogue and cooperation as appropriate.

The Commission will:

- promote consensus around a common open standard. Specific actions would include the encouragement of industry dialogue and prepare the inclusion of DVB-H in the official list of standards of the EU;
- monitor the implementation of the previous step by the Member States and may come forward with proposals in mid 2008 including, if necessary and appropriate, steps to make an open standard mandatory;
- provide guidance for a coherent framework for authorisation regimes across the EU, identify best practices in the EU and promote their adoption by the Member States;
- identify an EU strategy for the "digital dividend" (UHF band) which would include the provision of spectrum for mobile broadcasting services.