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## **EU Digital Dividend proposals: European Commission wants airwaves freed-up by move to digital TV to work for swift recovery – Frequently Asked Questions**

### **What is the digital dividend?**

The "digital dividend" refers to the radio spectrum which becomes available as a result of the switchover of terrestrial TV transmission from analogue to digital technology which uses the spectrum more efficiently. Digital transmission allows the same television channels to be carried using five to six times less radio spectrum.

### **When will the spectrum freed by digital switchover become available in Europe?**

The digital dividend is already partially available as five countries in the EU (Finland, Germany, Luxemburg, the Netherlands and Sweden) have already switched-off analogue broadcasting and released the corresponding radio frequencies. However, even in these EU Member States, some of the frequencies are affected by interference from analogue broadcasting transmissions from neighbouring countries. These transmissions require high power signals that can travel over hundreds of kilometres. This means that the digital dividend can only be fully used when all EU countries switch off analogue broadcasting and move to digital in a coordinated way and following harmonised technical requirements. In view of the current economic downturn, it is also important to avoid any delay in achieving the complete switch-off of analogue broadcasting in Europe; the analogue switch-off should instead be accelerated.

### **How is spectrum managed? Is there some EU coordination?**

Radio spectrum knows no borders. While the management of radio spectrum in Europe remains a national competence, spectrum coordination at EU level is increasingly needed as most new wireless applications are mass market services which require economies of scale and the benefits of free circulation in the single market.

EU spectrum policy was introduced as a formal EU policy in 2002 with the adoption of the [Radio Spectrum Decision](#). This decision already provides mechanisms for some coordination and collaboration between Member States, including the possibility to adopt technical harmonisation measures at EU level ([IP/05/1199](#)).

### **What is the Commission proposing today on the digital dividend?**

Conscious of the need to balance EU harmonisation to secure the benefits of the Single Market with the need for flexibility at national level (due to local specificities and the legacy situation regarding broadcasting), the Commission is proposing three types of actions to coordinate the use of the digital dividend and maximise its potential social and economic impact.

### 1. Urgent actions:

- to **accelerate** the transition from analogue to digital terrestrial TV and free all radio frequencies used by analogue infrastructures by 1 January 2012 in the EU;
- to define, in the coming months, **common technical harmonisation conditions for the 790-862 MHz sub-band**, to allow Member States who wish to open up that sub-band for new uses, such as wireless broadband, to do so in a consistent way without fragmenting the single market. These harmonised conditions of use will be kept to the minimum to preserve technology and service flexibility for future users.

### 2. Strategic actions:

- to decide, following a debate with the European Parliament and Council, whether and when all Member States should open the 790-862 MHz sub-band for **uses other than high power broadcasting**;
- to adopt a **common EU position**, to be endorsed by the European Parliament and Council, in future international negotiations on the digital dividend;
- to consider requiring all Member States to apply a **minimum level of spectrum efficiency** for future uses of the digital dividend.

### 3. Actions addressing longer term issues:

- to allow further increases by using the "**white spaces**", i.e. the unused spectrum between two TV coverage zones;
- to ensure the **smooth migration to other spectrum bands** of existing applications operating in the same Ultra High Frequency spectrum as secondary uses, such as wireless microphones;
- to **facilitate research** in order to improve future equipment's capability to use the digital dividend spectrum.

### Why does the Commission think it's urgent to act on the digital dividend now?

There is a recurrent shortage of spectrum for new applications, especially of spectrum below 1 GHz which enables signal to travel relatively far and to penetrate buildings easily, allowing effective indoor use. The digital dividend is a once in a lifetime opportunity to free a significant amount of valuable spectrum for new applications.

Moreover, it is a timely stimulus to investments which could contribute to the EU's economic recovery. By failing to act now, the EU would miss out on the potential synergies and Member States might regulate this spectrum in dispersed way to the detriment of the internal market.

### Who will benefit from this new initiative?

European consumers will be the main beneficiaries. As a result of coordinated European decisions on the digital dividend, consumers should get better and cheaper access to wireless broadband services, enhanced TV broadcasting services, and a potentially wide range of new innovative wireless services, like 3G mobile phones.

European internet users in rural areas stand to gain from more choice in the way they connect to the internet. Most high-speed internet users today have an ADSL subscription that runs on cables, like a fixed phone connection. However, many remote or rural areas are not reached by the infrastructure in the ground that delivers broadband internet, and extending the network can be costly. This makes wireless broadband using the radio spectrum one of the best prospects for bridging the digital divide where 30% of the EU's rural population has not access to high-speed internet ([IP/09/343](#)).

Europe's technology industries will benefit from the availability, under harmonised conditions in the single market, of a substantial amount of "high quality" radio spectrum (over which signals travel far and penetrate building walls).

### **What kind of new services can use the new spectrum?**

Most new services will most likely develop in the broadcasting and wireless broadband domains. They should facilitate access to high-speed broadband services in rural areas, accelerate the take-up of mobile broadband by the population, and pave the way for more TV programmes and High Definition TV. Depending on national decisions, public services, such as for public protection or security services, might also benefit from the new broadband platforms.

### **What is the potential economic impact of a better European coordination of the digital dividend spectrum?**

The potential economic impact will depend on the actual demand for new services. A recent Commission study estimates the potential benefit of EU coordination of the digital dividend spectrum to be € 20 to 50 billion (over a 15 year period compared to EU countries acting alone). This estimate includes the value of unforeseeable new applications that could emerge in the future in this spectrum.

### **What are the next steps?**

The Commission will define the harmonised technical conditions for the use of the 790-862 MHz sub-band for new services. An agreement with Member States by early 2010 will allow Member States who wish to do so, to make the sub-band available for new services on a national basis, without delay, along harmonised technical parameters which will avoid the risk of fragmentation in the single market.

The Commission will also conduct a debate with the European Parliament and the Council on its proposed strategic actions in view of a political agreement in 2010. The other, longer term, development issues (see long term actions in list above) will be further discussed with industry and consumer representatives in order to define ways for concrete action.