

**Bouygues Telecom response to the European Commission public
consultation “Transforming the digital dividend opportunity into
social benefits and economic growth in Europe”**

September 2009

Introduction

Bouygues Telecom welcomes this public consultation, and all initiatives that the Commission is launching in order to allow the European development of the digital dividend for mobile broadband services. The progress last years with the introduction of a new valuable band at 800MHz has been significant, however supplementary efforts are still needed in order to establish this band in Europe as 900MHz band is today. Bouygues Telecom has actively participated and contributed to the different CEPT and ITU groups related to the establishment of the 800MHz for mobile services, as well as to the definition of the technical conditions for operating this band.

Bouygues Telecom mobile, fixed, TV and Internet communications services

Created in 1994, Bouygues Telecom has over 9.7 million customers, including 7.3 million with contracts, and 8,650 employees. Bouygues Telecom is committed to being “the preferred brand of personal communication services” for both mobile and fixed phone service, as well as TV and Internet, thanks to a continuous focus on greater freedom and exemplary customer service.

After pioneering the talk-plan concept in France in 1996, followed by the Millennium (1999) and neo (2006) unlimited call plans, Bouygues Telecom ushered in a new era in 2008 with neo.2, the first plan with unlimited calls to all operators during a selected time slot. Bouygues Telecom also acquired its own fixed network in 2008 and became an Internet Service Provider (ISP), launching the Bbox broadband router.

In 2009, Bouygues Telecom invented the “all-in-one” solution with ideo, bringing customers the “best of all worlds”, with integrated mobile call plans and Bbox services for fixed telephone, television and Internet access.

Bouygues Telecom's mobile internet network combines 3G+ (75% of the population covered) and EDGE (over 94% of the population covered) technologies in order to provide customers with seamless coverage everywhere in France and very high speeds in the country's biggest cities.

Ranked No. 1 in Customer Relations in the mobile phone sector¹ for the third year running, Bouygues Telecom is committed to proactive, direct customer service. Customer relations centres, a distribution network of 590 Bouygues Telecom Club stores, and a website available 24/7 combine to ensure optimum customer service.

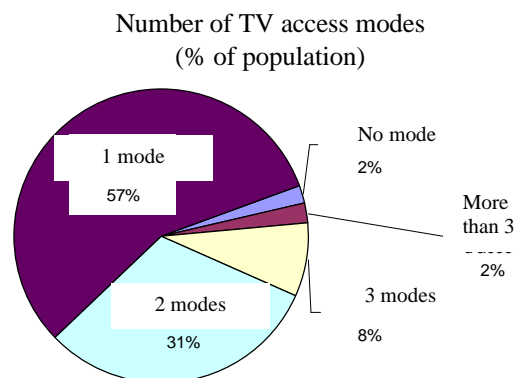
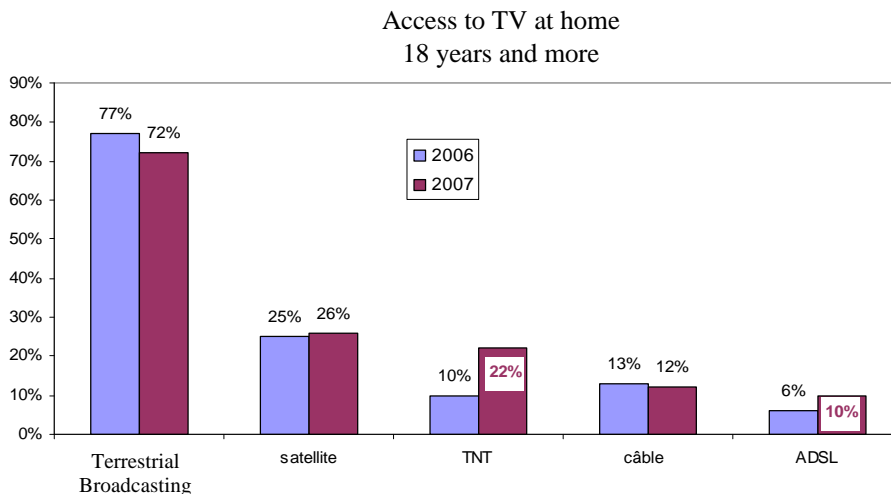
¹*BearingPoint-TNS Sofres Customer Relations Quality League Table (April 2009)*

1. Improving consumers' experience by ensuring high quality standards for digital television receivers

Bouygues Telecom agrees that the standards for digital television reception need to evolve in order to improve consumers' experience. However Bouygues Telecom does not see the link between this point and the use of terrestrial broadcasting transmission using the UHF band. Indeed, consumers are looking more and more to have outstanding quality, like HDTV, but they are also looking for having information (TV and Video On Demand included) whenever and wherever they wish.

There is nowadays an evolution on TV viewers' behaviour: they want more flexibility and do not want any more to watch systematically a TV program on live. They appreciate to be able to stop a program and to watch it later, and even to watch it on different receivers, including portable receivers. This behaviour evolution is being followed by the services offered and the equipments, and the programs are more and more often available on Internet. This evolution is being radically reversed on the youngest generation: Internet is becoming the first point to access to information, even before the TV.

Different platforms for broadcasting content are being made available and this is creating a liberalisation of the usage. In France for example the share part of terrestrial broadcasting is decreasing face to others transmission modes. According to CREDOC, more than 40% people in France have more than one TV access; the success of triple play offers have considerably develop TV trough ADSL.



Source : CREDOC

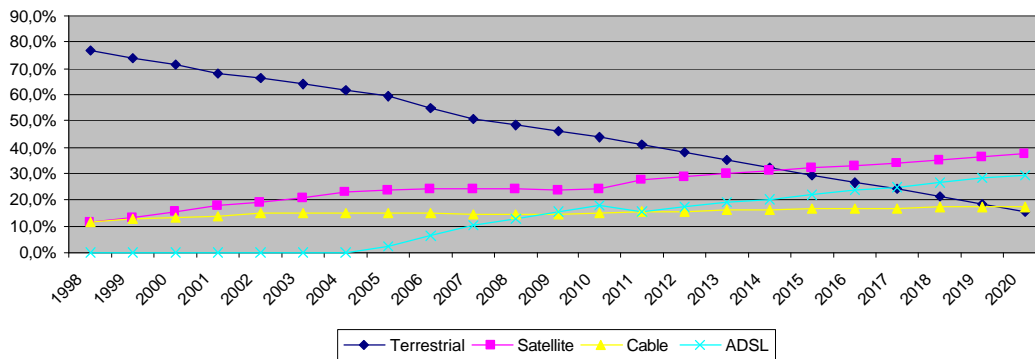


Figure 1 - Evolution of the share part of each TV reception network in France
Source: IDATE

a. Ensuring the availability of a compression standard on all DTT receivers sold after 1 January 2012 that is at least as efficient as H264/MPEG-4 AVC standard

Bouygues Telecom welcomes all initiatives that will contribute to use this valuable spectrum as efficient as possible.

b. Setting standards for the ability of digital TV receivers to resist interference

Historically, the UHF band was used exclusively for terrestrial broadcasting services for mass market. This situation made that there was no need to TV manufacturers to make any effort in the quality of the receivers face to out of band interferences. However, spectrum use has evolved; new systems have started to be introduced close to the broadcasting band. As all spectrum users do, TV manufacturers should do an effort in order to allow that spectrum is used in the most efficient way.

For this reason, Bouygues Telecom emphasizes the necessity of setting a real standard for TV receivers that manufacturers are obliged to respect. Today, this is not the case, and CENELEC standards are not always respected. Moreover, the level of immunity face to out of band interferences established by CENELEC is very low, so receivers are very sensible to any external source of interference, out of their band and also in their proper band.

Measurements of TV receivers' protection ratios and overloading thresholds submitted to ECC TG4 (included in ECC Report 138 under public consultation) have demonstrated the large variability of the receivers in the market. These protection ratios are supposed to be used by CEPT Administrations when they will establish spectrum sharing conditions between mobile and broadcasting at national level. It is not normal to use such protection ratios for establishing future sharing conditions, overall when they are so bad resistant to interferences. There is a need to do an effort on both sides, and it is essential for the value of 800MHz band to ensure a minimum quality of TV receivers for next generations.

2. Increasing the size of the digital dividend through further spectrum efficiency gains

Bouygues Telecom agrees that there are several actions that could provide a more efficient use of the UHF band, and we encourage administrations to call for them in the interest of the European society. The three main points retained here below are on our view the most important and efficient one. However, we recall that digital TV is not limited only to terrestrial broadcasting, there are other ways to provide broadcasting service (by cable, satellite, ADSL, etc.). Impending convergence and society usages' evolution need to be taken into account for increasing the size of the digital dividend.

a. Promoting collaboration between Member States to share future broadcasting network deployment plans (e.g. migration to MPEG-4 or DVB-T2)

We welcome any initiative that could boost the implementation of more spectral efficiency standards, specially the proposed role that the Commission could play in such initiative.

b. Encouraging the deployment of Single Frequency Networks (SFNs)

We are aware that the broadcasting planning methodology using multiple frequencies networks (MFN) is historical, and the origins are analogue TV technology limitations. However, with the huge broadcasting technology progress, this limitation does not apply any more. DVB-T allows Single Frequency Networks, and now the only limitation is economical (either the number of TV channels per carrier are reduced or the number of TV emitters/repeaters is increased). These economical limitations depend also on the efforts that broadcasters make on planning and implementing their network. In Italy for example, the continuous search for having more and more channels motivate the investments on repeaters and planning efforts. Other countries have the entire spectrum available in order to implement a reduced number of TV channels; if the same fee is paid for having 1, 2 or 50 DVB-T channels they, there is no need to make any effort that imply supplementary costs.

A minimum spectrum fee could help to promote an efficient use of the UHF spectrum, but it should of course be evaluated depending on national situation.

The extension of the SFN usage should also take into account the national situation in order to avoid putting undue constraint. The extension of SFN is obviously facilitated if it is planned before any deployment.

c. Supporting research into “frequency agile” mobile communications systems

Bouygues Telecom supports of course any research for looking for new advanced systems that could increase the efficient use of spectrum. Moreover, investing in research is the best way to go forward during economic crisis of this level. Community research funding could be the best way to allow research into a harmonised manner. However, it is important to recall that the mobile industry has invested a lot since the first release of GSM profile in order to try to offer the most possible efficient technology, while answering to the needs of European citizens.

3. Making the 800MHz band available for low/medium power electronic communications networks, under harmonised technical conditions, following the principle of technology and service neutrality

We welcome the conclusions done by the Commission study; they are in line with the ARCEP study in France as well as another study done by a mobile alliance group constituted by Vodafone, Orange and Telefonica O2. These three studies have demonstrated the important value that could be created by using the digital dividend to wireless broadband services. However, there is another important point that has not been analysed: the value and the interest of using this band for mobile or nomadic use compared to fixed use. In fact, not all spectrum bands could be used for any kind of service or usage in the same way. On our opinion, this comparison would be very useful to demonstrate the importance to dedicate 800MHz band for mobile broadband services. It is well-known that the quality of the spectrum is not the same; lower frequency bands allow better propagation and building penetration, and are essential in order to offer enough reception level in mobility; upper frequency bands are good for fixed links for point to point or multipoint with very high data rate. Therefore, the 800MHz band would be more useful and valuable if it was for wireless broadband services in nomadic or mobile use.

The harmonisation of the 790-862MHz band at the largest scale is essential in order to guarantee the success of the 800MHz band. This harmonisation will be achieved via two main points: the use of a common band plan in a large number of countries (the entire Europe being a minimum level of harmonisation for manufacturers) and also the use of the same technology as wide as possible.

Bouygues Telecom thinks that a general principle of technology neutrality is against harmonisation. Technology neutrality joint to a minimum of harmonised technical conditions could counterbalance the uncertainties preventing harmonisation. We have well experimented this during the past years. We are not too much operators in Europe (and in the World) using the E-GSM band (880-890 MHz and 925-935MHz) and we encountered many obstacles to find equipments available, and still some problems are persisting. Not all manufacturers develop base stations in this band. Moreover, manufacturers do not develop all kind of base stations in this band. This is a clear consequence of a lack of harmonisation.

The harmonised technical conditions that we see as a minimum in order not to lose advantages of harmonisation are not only the Block Edge Mask or BEM, but also the definition of a unique frequency band plan. As CEPT has indicated in its draft ECC Decision under public consultation, there is a preferred frequency band plan using FDD duplex method. We think it is very important to retain a unique band plan at EU level for reducing as much as possible the uncertainties in this band. Mobile operators and manufacturers have clearly justified at CEPT why a unique FDD duplex method will be more beneficial than TDD or a mixed FDD/TDD option.

Bouygues Telecom supports CEPT work on the preferred frequency band plan and the technical conditions following the principle of technology neutrality, and hopes that these will be harmonised as soon as possible at EU level.

4. Adopting a common position on the potential use of the “white spaces” as part of a possible extension of the digital dividend

Bouygues Telecom agrees that “white spaces” could be a solution at first stage for those countries that look for an extension of the digital dividend. However, the kind of authorisations given is essential not to block possible extension of the digital dividend in a harmonised manner across Europe. If spectrum below 790MHz starts to be used by exempt-licences devices, it will not be possible to harmonise a future use for broadband mobile services.

We think that exempt-licences in such band are a waste of resources and against promoting interests of societal benefits.

5. Ensuring the continuity and further development of wireless microphone applications and other secondary uses of UHF spectrum

We recognise that a “migration path” for current secondary users of the UHF band has to be found, however it is essential that the option retained is not preventing further developments at short or medium term in the UHF band. For us, a CEPT mandate is necessary in order to analyse different possibilities available and the minimum technical conditions needed not to create constraints on primary services in this band.

Wireless microphones or similar applications below 790MHz needs to be considered cautiously. If this kind of secondary services are allowed, additional constraints will appear for next steps after increasing the size of the digital dividend.

Another option is that this kind of secondary services operate in the duplex gap of the preferred band plan in 790-862MHz. However, if this is the case, it is important to ensure that these secondary services will not interfere in the usage of other primary services in the band.

6. More effective cross-border coordination with non-EU countries

Negotiations ongoing today with non-EU countries are being very hard. Bordering EU countries are most of them isolated face to some countries that have more intentions to block the usage of the 790-862MHz to mobile broadband services than to protect their own services. On our opinion this problem should be considered as a European problem. Such situation, as well as work ongoing on Agenda Item 1.17 to WRC-11, create too much uncertainties on countries located at the border of non-EU countries. Taking into account the low level of harmonisation of this band across the world, these uncertainties could have a big impact in the usage of the band. Not only in terms of timing (e.g. availability of equipments) but also in terms of deciding to dedicate this band for mobile broadband. Bordering countries could simply decide not to use 800MHz band for mobile broadband because of neighbouring countries’ negotiation.

We appreciate the proposal of the Commission to provide assistance in bilateral or multilateral negotiations, but we also expect that this assistance could also be provided in AI 1.17.

7. Addressing future challenges

Bouygues Telecom appreciates the proposal of the Commission for establishing such a mechanism. We agree that such relevant factors need to be constantly monitored in order to analyse the effects into the roadmap. We expect this mechanism will be done transparently and interacting with the relating parties.

8. Urgent Actions

a. Accelerating analogue switch-off by 2012

Bouygues Telecom agrees that ensuring the analogue switch-off by 2012 is an urgent action in the process to converge to the harmonisation of the digital dividend in Europe. We think this is crucial not to delay the availability of the 800MHz band for wireless broadband services; however we understand the challenge that this could be to some administrations in Europe. In this switch-off process, we suggest to the Commission to underline to Member States the importance of taking into account actions needed to release channels 61 to 69.

As not all countries are at the same stage in their switch-off process, we would recommend that Member States in a more advanced stage of this process exchange their experiences with the other Member States. This will allow those who are already in the first stage of the process to better prepare themselves to the difficulties they could encounter and do their switch-off process more efficient thanks to the advices given by other administrations.

b. Taking steps towards the opening of the 800MHz band for electronic communications services by adopting harmonised technical conditions of use in Europe

As we have indicated before, the harmonised technical conditions are crucial for the harmonisation of the band 790-862MHz, and hence for the success of developing mobile broadband services in this band. Bouygues Telecom welcomes the proposal of the Commission to adopt the CEPT harmonised technical conditions through an EC decision, we think this is the best way to move forward a general harmonisation of the band at EU level.

However, Bouygues Telecom insists on the importance of having the preferred band plan proposed by the CEPT as the unique frequency band plan retained joint to the Block Edge Mask in the harmonised technical conditions. This is also on our view essential to give a clear sign of harmonisation wish and will also boost the deployment of the equipments in the band.

Besides these two urgent actions, Bouygues Telecom proposes to the Commission an additional one:

c. *Contributing to stop to the European movement of taking down mobile base stations*

There is nowadays a movement very active in some European countries where actions of people (associations, neighbours of antenna masts, groups of parents)

make impossible the roll out of new antennas. Moreover, some authorised base stations are dismantled after recent court judgments in France. This situation is mainly due to the fear of potential EMF effects. If no action is taken, it seems to us that it will be impossible to roll out new radio technologies and new antennas in France. This is particularly true for the future usage of spectrum in 800 MHz band, at the expense of the *Economic Recovery Plan*.

On our view, an urgent action from Member States, and also from the Commission, is needed in the proposed roadmap to clarify and or eventually update the scientific evidences and the harmonised exposure limits.