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The CTO

Directorate General Information Society and Media  
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European Commission  
B-1049 Brussels  
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Boulogne Billancourt, September 4, 2009,

**Subject: Digital Dividend Public Consultation "Transforming the digital dividend opportunity into social benefits and economic growth in Europe"**

Dear Sir or Madam,

In its public consultation, the European Commission is proposing a list of action lines that will be part of a EU roadmap aimed to optimize the social and economic value generated by the digital dividend in Europe. **TF1 agrees with most of the proposed action lines.**

In particular, two of those action lines are identified as "urgent": accelerating the analogue switch-off (including by reaffirming the deadline of January 1, 2012) and submitting a EC decision on the technical harmonization of the 790-862 MHz band. TF1 agrees with those two urgent action lines and reminds the Commission that the French law indicates November 30, 2011, as the deadline to complete the effective analogue switch-off. Even if it represents a complex process that will have to be realized at an intensive pace, TF1 reaffirms its will to reach this deadline particularly since the period of transition from analogue to digital television implies a double broadcasting and considerable extra costs for the company.

**However TF1 disagrees with one of the other proposed action lines: "Encouraging the deployment of Single Frequency Networks (SFNs) over Multiple Frequency Networks (MFNs)".** TF1 considers that one type of engineering should not be encouraged over the other one.

- First of all, TF1 reminds that **the priority is the success of the switch-over**. Without this latter, the digital dividend cannot be released. In this matter, for each digital transmitter that has to be deployed, broadcasters need frequencies that guarantee an optimal coverage i.e. at least the same as the analogue coverage. This condition can only be fulfilled by digital MFNs.
- **SFNs generate interferences** and potentially the loss of over 10 000 viewers per transmitter. Thus, SFNs represent for the broadcast channels **extra costs** (because of their specific engineering and equipments) **for lower coverage**. This loss of coverage could be hardly compensated by secondary transmitters that represent for the broadcast channels other extra costs that would not be needed with MFNs. Hereunder, two examples of problematic interferences generated by SFNs:
  - In the zone of Abbeville/Neufchâtel, 2 transmitters using SFN engineering are covering 600 000 inhabitants but generate interferences for 22 000 of them (3.7% of the covered population);
  - In the north of France, 8 transmitters of SMR6 are functioning using SFN. The generated interferences have been minimized to 1.8% of the covered population (4.5 millions inhabitants) i.e. 80 000 interfered inhabitants.



- On the contrary, MFNs do not create interferences and therefore are more efficient in terms of coverage.

TF1 considers that **SFNs should not be encouraged over MFNs** that are actually more efficient in terms of coverage. **SFNs should only be used when it is proved that there is no significant loss of coverage and in specific cases such as regions where frequencies are difficult to identify.**

- In France six national digital networks (broadcasting SD and HD channels) are already deployed and are still extending their coverage. A target of 13 digital television networks after the analogue switch-off is an option considered by the French regulation authority (11 to broadcast all terrestrial channels in HD and 2 for mobile television). This implies a new planning of the television frequencies and particularly the intensive use of SFNs. The consequence will be extra costs and the deterioration of the coverage quality of the existing networks in order to plan other networks that are yet hypothetical: a double SD/HD broadcasting seemed to be too expensive for low budget channels; no economic agreement has been found for the moment to launch the first mobile broadcast television network; pay TV on the digital terrestrial network is in difficulty (two pay channels gave back their licenses). Thus, TF1 recommends the deployment in France of 8 national digital television networks (as in the Geneva Plan 2006 modified by the introduction of the telecom sub-band).
- **TF1 refuses to pay extra costs and/or to reduce the coverage of its networks in order to free frequencies for hypothetical networks.**

In the specific case of French audiovisual deployments, TF1 considers that **the intensive use of SFNs** in order to plan hypothetical extra audiovisual networks **would deteriorate the coverage of the existing networks and compromise the success of the digital switch-over** and thus the effective release of the digital dividend. On the contrary, audiovisual broadcasters and regulators should focus on the coverage quality of the networks that are sure to be deployed and that are necessary to succeed to digital switch-over.

- TF1 fears that **historical television broadcasters will have to support substantial costs that will in the end benefit to other (audiovisual or telecom) actors. In particular, the costs generated by the liberation of the 790-862 MHz band for communication services should be supported by the telecom industry.** The EC could clarify the rules guaranteeing to the impacted broadcasters, the proper reimbursement by the actors who will benefit from the frequencies that will be released, in particular through the use of SFN engineering.

In conclusion, TF1 considers that **SFNs should not be encouraged over MFNs** for the deployment of DTT. However, if the regulator impose the use of SFNs to the existing networks in order to free frequencies permitting the deployment of new (audiovisual or telecom) networks, **a mechanism of financial compensation should be introduced** to pay back the extra costs (one shot but also recurrent costs) supported by the historical actors.

We hope that TF1 contribution will help the Commission in the definition of the European Roadmap on the digital dividend,

Yours faithfully,

Gilles MAUGARS  
Chief Technical Officer of TF1

Copy: Jean-Michel Hubert, President of CSN (French digital strategic committee)  
François Rancy, Director-General of ANFR (French national frequencies agency)  
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