



Orange response to RSPG public consultation on the

“Draft RSPG Opinion on a long-term strategy on the future use of the UHF band (470-790MHz) in the European Union”

2015/1/8

Orange welcomes the opportunity to provide comments on the Draft RSPG Opinion on the future use of the 470-790 MHz Band in the EU.

700 MHz

Concerning the 694-790 MHz band, **Orange supports most of RSPG recommendations**, in particular:

- An EU coordinated approach to define as early as possible:
 - the harmonized technical conditions for the use of the band by wireless broadband (WBB) services, which Orange considers as key to ensure interworking and economies of scale
 - two deadlines:
 - a common deadline to deliver national authorizations
 - another common deadline to make the band available for effective use by WBB services. Among the 2 dates under consideration, **Orange supports 2020 rather than 2022, and furthermore wishes that the national time windows to perform DTT 700 switch-over are as similar as possible across EU, in order to avoid transition plans as much as possible.** Orange view is that DTT Transition plans may delay the nation-wide availability of the band for WBB and cause extra costs to all stakeholders.
- RSPG recommendation to Member States, which Orange considers as fully consistent with above EU aims :
 - to develop and communicate to stakeholders and neighboring countries in due time, a framework for the migration of broadcasting services below the 700 MHz band.
 - to finalize cross border coordination not later than end of 2017, including if possible coordination with non-EU neighboring countries

Sub 700 MHz

Concerning the 470-694 MHz band, **Orange does not support the proposed type of flexibility consisting of giving each Member State the possibility to decide at national level the use of all or parts of sub 700 MHz Band by WBB in Downlink mode only or keep it**

for DTT exclusively. This would actually exclude any Europe wide Harmonization and exclude at a premature stage the option of a Duplex use of any part of the band.

As a matter of fact it seems too early for EU to give up on sub700 MHz with its general strategy to harmonize spectrum use at least at European level. This strategy actually applied successfully to 800 MHz band in the past, and is succeeding again with 700 MHz at the moment. The fact that the status of Terrestrial TV was different between countries was also a difficulty but EU overcame it and managed European harmonization of these two UHF sub-bands. **There is no evidence that EU harmonization of sub 700 MHz use, whatever the service, would be an impossible task in the proposed time scale.**

Although Pascal Lamy's report and RSPG draft opinion consider this target as non-relevant, Orange invites RSPG to keep the track of harmonization, without prejudging any band plan for the moment. One consequence of a harmonized approach would be that **the possibility of band plans including an up link could be kept in the list** (the main argument to oppose is related to cross border complexity for countries adopting different sub 700 MHz band use). This is one of the scenarios identified in CEPT/TG6 report (scenario 10), but now presented with low priority, because of the assumption of a need of "flexibility" for EU member states.

Orange would rather propose the following two-step approach:

- **step 1: co-primary allocation of 470-694 MHz band to Mobile at WRC15**, with the aim to enable Europe with a broader choice of services in this spectrum, to be decided later in step 2
- **step 2: European harmonization of 470-694 MHz (in 2020-2023 ?) for the most attractive services and most spectrum efficient technologies at this date**

DTT technology

- Concerning broadcasting technologies, Orange supports RSPG proposals to facilitate transition to more spectrum efficient technology (radio and coding), including those mandating the inclusion of such technologies in the TV receivers.
- Orange also supports RSPG proposals to take full account of the evolution of the 700 MHz band and include as early as possible appropriate radio receiver parameters in the process of specifying "harmonized standards" for TV receivers and ancillaries used in TV reception installation such as antenna mast amplifiers. This process was enabled by the inclusion of TV receivers in the scope of the "Radio Equipment Directive" RED adopted in April 2014 (2014/53/EU).
- Whereas these measures are anyway **necessary to ensure a clearer technical framework for DTT equipment, Orange draws RSPG attention on the fact they are not sufficient and other EC actions are required to anticipate the main coexistence issue in UHF band** as encountered between DTT reception and mobile transmitters in 800 MHz (and expected to be similar in 700 MHz if no action is taken). This major coexistence issue, as demonstrated at large scale in different countries including UK and France, is actually not

related to any unwanted emission from mobile transmitters, nor to any lack of selectivity from TV receivers. **This major issue is “simply” that most existing installed TV antenna mast amplifiers have been designed to amplify the whole historic TV UHF band (ie 470-862 MHz) and have not been “cleared from the band” 790-862 MHz during the 800 MHz switch-over process, which focused exclusively on the transmission part of the problem. To be complete, the 800 MHz switch-over process should have also addressed the reception part by reducing the mast amplifiers’ working band from 470-862 to 470-790 MHz (by modifying or replacing them), so that they do not unduly amplify the 800 MHz band now licensed for mobile services.** The consequence of this loophole in the 800 switch-over process is that when unduly amplifying LTE 800 transmission within licensed 800 MHz band, TV antenna mast amplifiers get “overloaded” in some situations of proximity between TV antenna and LTE antenna. And in these situations, filters have to be placed in front of the amplifiers to solve the issue. For the moment no rule prevents from selling on the market TV mast amplifiers including 800 MHz band, noting there is growing offer excluding this band.

- In conclusion on this coexistence issue, **Orange wishes EC takes the experience gained with 800 MHz into account in the next steps of the decision process related to 700 MHz and sub-700 MHz future use** and takes action on TV antenna mast amplifiers, possibly by promoting the implementation of a “switchable working bandwidth” feature, or any other technical option, **so that no loophole occurs during the switch-over processes in these bands.**
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