

Questionnaire on cross-border coordination issues regarding 700 MHz spectrum clearance and migration of broadcasting service below 694 MHz

6th release of the questionnaire

Background

The 694-790 MHz frequency band ('700 MHz band') has been technically harmonised in Europe through an EU implementing decision¹ pursuant to the Spectrum Decision. A Decision² of the European Parliament and of the Council has defined a timetable to make available the 700 MHz band in Europe for wireless broadband electronic communications services ('ECS').

The Good Offices programme of the RSPG is focusing on 700 MHz band re-planning and clearance, particularly to identify at an early stage where there are potential issues of cross-border co-ordination.

A questionnaire issued first in November 2016, second in February 2017, third in July 2017, fourth in December 2017 and fifth in February 2018 enabled to get information from all EU countries as well as from countries outside EU but bordering EU, about:

- current status of national roadmap for clearance and details of the plan at a high level,
- up-to-date information on bilateral/multilateral negotiations with regard to re-planning of broadcasting frequencies below 694 MHz.

The responses have been published on the RSPG website (<http://rspg-spectrum.eu/2017/02/responses-to-the-questionnaire-on-cross-border-coordination-regarding-700-mhz/>).

Some results of the questionnaire have been summarized in the attached document. **You are invited to check this information and correct any error or ambiguity.**

The deadline for cross-border agreement between EU countries was 31st December 2017. At this date, all cross-border agreement between EU countries were signed except around Belgium.

The questionnaire is reissued for response before 31st August 2018.

You are invited:

- To pay attention, in relation with Question 1, to the **obligation, in accordance with the article 5.1 of the 700 MHz decision, to draw up a national roadmap before 30th June 2018 and to provide a weblink to this roadmap**

¹ Commission Implementing Decision (EU) 2016/687 of 28 April 2016 on the harmonisation of the 694-790 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services and for flexible national use in the Union

² Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union

- To specify clearly the expected target date for the end of migration of television below 694 MHz
- To provide any additional relevant information on the expected target date for the end of migration in neighbouring countries outside EU
- To consider transition plans facilitating the migration of television below 694 MHz and the deployment of 700 MHz for mobile in case there are diverging dates of migration with some of your neighbours (see question 10). For example, one may consider the transitional use of TV Channels in the 700MHz band by the country where migration to mobile is occurring later than their neighbor. Such transitional use could occur outside the 2x30 MHz or preferentially in the terminal receive band rather than in the base station receive band.

You are invited to highlight the changes to the responses, compared to 4th release, through relevant means (ie, revision mark or highlighting the modified text) in order to simplify the treatment of the responses.

Questions

1. What is the status of developing a national roadmap (in accordance with article 5.1 of the 700 MHz decision setting a deadline to 30th June 2018 for drawing up a "national roadmap"):
 1. Agreed
 2. At the final stage of adoption
 3. Under development
 4. Under preliminary discussion
 5. Not started

Please, provide the weblink towards this roadmap

2. What is the expected or agreed timetable for the migration of television below 694 MHz and for the awards of the 700 MHz band?
 - a. Date of starting the migration :
 - b. Date of the end of migration :
 - c. date of the awards of the 700 MHz band :
3. Do you expect the 700 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services to be available by the date specified in the European Parliament and Council decision on the 700 MHz band? If not, please, explain.
4. What is the total number of DVB-T/T2 multiplexes in operation / licensed ? What are the expiration dates of current DVB-T/T2 licences?

5. What DTT transmission technology and video coding standard are used in your country and do you expect an evolution of the DTT platform in order to allow the release of the 700 MHz band? If yes, do you expect:
- an evolution of the technology (transmission and/or video coding standard)?
 - an evolution in the total number of programs and in the number of programs/ per mux ?
 - HD or UHD transmissions in future DTT platforms? Changing coverage of population/territory ?
 - an evolution in coverage by single SFN (e.g. SFN extension or SFNs merging)?

Explain the reasons for modifications, i.e. how does it help 700 MHz band clearance, and describe the transition period (time period, simulcast, part of the spectrum used...).

6. What are, in high-level description, your objectives for cross-border coordination in terms of planning principles for the band 470-694 MHz:
- number of nationwide MUX/ number of local/regional MUX,
 - type of transmission / coding,
 - MFN, SFN or mixed SFN/MFN,
 - % population/territory coverage,
 - reception mode (fixed reception, portable, mobile),
 - assignment/allotment coordination and reference network,
 - others?

Please use the Table 1 to describe the objectives and provide additional elements as necessary. Table 1 can be completed with additional text, ie to cover “others”.

TABLE 1

	% of population /territory coverage, No of stations	type of reception mode (fixed, portable, mobile)	Assignment/ Allotment coordination and reference network	MFN, SFN or mixed SFN/MFN	Type of transmission / coding
Nationwide MUX 1	90%/85%	Fixed	Assignment	Mixed	DVB-T2 (256 QAM, 32K) / MPEG-4
Nationwide MUX 2	93%/-	Mob	Allotment (RN 1)	MFN	DVB-T2 (256 QAM, 32K) / MPEG-4
Nationwide MUX 3	-/80%	Portable	Allotment (RN 2)	SFN	DVB-T2 (256 QAM, 32K) / HEVC
Regional/ Local MUXs	45 stations	Fixed	Assignment	MFN	DVB-T2 (256 QAM, 32K) / HEVC
...

7. For each country (EU and non-EU) with which coordination is necessary (please, provide names of country), what is the current coordination status for the clearance of the 700 MHz band:
- Not yet initiated
 - Coordination request but no response
 - Discussion on general principles
 - Discussion on the new plan
 - New plan generally agreed but further discussion on technical characteristics of transmitters
 - Coordination completed
 - Signed agreement

In addition, specify if the negotiation with this neighbour is covered by a regional cluster (WEDDIP, NEDDIF, SEDDIF, ...)

TABLE 2

[Name of your country]		
Name of country	Status of coordination	Regional cluster
United Kingdom	e)	WEDDIP
France	f)	WEDDIP
...		

8. Is there any cross-border difficulty which may prevent your country to sign cross-border agreements before the end of 2017
- In the case of an EU neighbour: does your county plan to submit a request to the 'good offices' group?
 - In the case of a non-EU neighbour: give the expected date for an effective agreement and indicate any need for EU-level assistance.
9. In case you did not sign the necessary cross-border agreement with an EU country, could you specify:
- The reasons why it has not been signed before 31st December 2017?
 - If relevant, the detailed technical elements which have prevented reaching agreement?
 - The information about next bilateral meetings and any planned date for signature of the cross-border agreement?
10. Did you identify any significant timing discrepancy for allowing the use of the 700 MHz band for mobile with neighbouring countries which could create issues of interference from DTT to Mobile networks? Did you discuss with this neighbouring countries transition plan to alleviate this interference?
11. Could you provide any further information on the implementation of the 700 MHz band such as which 700 MHz national options (outside the 2x30 MHz) would be implemented and whether compensation mechanisms will be used to migration broadcasting below 694 MHz?

**ANNEX 1 : Inconsistency cases which are not considered as problematic in
the answers of the 4th questionnaire**

Involved countries	Status	Comment
Spain – UK	Signed – Not mentioned	Coordination is not considered as an issue given the geographical separation
Germany – Latvia	Not mentioned – Completed	Coordination is not considered as an issue given the geographical separation
Germany – Norway	Not mentioned – Signed	Coordination is not considered as an issue given the geographical separation
Cyprus – Greece	Signed – Not mentioned	No update from Greece – probably signed
Denmark – The Netherlands	Principles - Signed	To be clarified
UK – Luxembourg	Not mentioned - completed	No bilateral agreement needed according to the WEDDIP agreement
Greece – Croatia	Not mentioned - Signed	No bilateral agreement needed according to the SEDDIF agreement
Greece – Malta	not initiated - Not mentioned	Coordination is not considered as an issue given the geographical separation
Croatia – Romania	Signed - Not mentioned	No bilateral agreement needed according to the SEDDIF agreement
Hungary – Poland	Signed - Not mentioned	No mention from Poland – probably signed
Ireland - Luxembourg	Not mentioned - Completed	No bilateral agreement needed according to the WEDDIP agreement
Luxembourg - Netherlands	Completed - Signed	To be clarified
Romania - Slovakia	Not mentioned - Completed	Coordination is not considered as an issue given the geographical separation