

# **AGREEMENT**

**between the administrations of**

**Belgium, France, Germany, Luxembourg,  
the Netherlands and Switzerland**

**on frequency usage and frequency coordination in  
border areas for broadband public protection and  
disaster relief (BB-PPDR) in the frequency bands  
698-703 / 753-758 MHz and 733-736 / 788-791 MHz**

**by correspondence, March 2019**

## 1. Introduction

The frequency bands 698-703 / 753-758 MHz and 733-736 / 788-791 MHz shall be designated subject to national decisions and choice for PPDR

- for Belgium, France, Germany, Luxembourg and The Netherlands according to the 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.
- for Switzerland according to the national frequency allocation plan as approved by the Federal Council<sup>1</sup>.

The administrations of Belgium, France, Germany, Luxembourg, The Netherlands and Switzerland have agreed on the following frequency usage and cross-border frequency coordination procedures.

## 2. Principles of frequency usage and frequency coordination in border areas

The concept of equal access probability is a frequency planning principle enabling equitable coverage for two or more networks using the same frequency band with the same or different digital technologies in geographically adjacent areas without coordination. Operation of stations in the respective border area exceeding the specified field strength values after performing traditional frequency coordination would disturb the balance in the respective area and is therefore not desirable.

Furthermore this agreement is based on the principles of frequency usage and frequency coordination according to Recommendation ECC/REC(16)03 (see [www.erodocdb.dk](http://www.erodocdb.dk)).

The field strength values refer to the mean field strength of each cell produced by the base station and are defined inside a reference frequency block of 5 MHz.

In cases of other frequency block sizes  $10 \times \log_{10}$  (frequency block size / 5 MHz) should be added to the field strength values.

## 3. Technical provisions

3.1 The FDD (frequency division duplex) mode of operation is considered with the following arrangement: The duplex spacing shall be 55 MHz with base station transmission (downlink) located in the upper part of the two sub-bands (753-758 MHz and 788-791 MHz) and terminal station transmission (uplink) located in the lower part of the two sub-bands (698-703 MHz and 733-736 MHz).

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<sup>1</sup> The sub-band 698-703 / 753-758 MHz should be approved later.

3.2 Base stations in border areas may be operated without coordination with the neighbouring country if the produced field strength at a height of 3 m above ground does not exceed the following values:

a) Usage of preferential PCI<sup>2</sup>:

59 dB $\mu$ V/m/5 MHz at the border line

41 dB $\mu$ V/m/5 MHz at a distance of 6 km beyond the border

b) Usage of non-preferential PCI:

41 dB $\mu$ V/m/5 MHz at the border line

3.3 In order to improve performance between LTE systems deployed in border areas the administration shall encourage operators to apply PCI coordination and arrange other radio parameters in accordance with the relevant annexes of ECC/REC(16)03 especially in the case where centre frequencies of LTE signals in border areas are aligned.

3.4 If centre frequencies of LTE signals are not aligned, mobile operators can use the field strength values of 3.2.a) for all PCI.

#### **4. Operators arrangements**

The conclusion of arrangements between operators shall be allowed to the extent possible, according to the provisions laid down in the "Agreement between the administrations of Belgium, France, Germany, Luxembourg, The Netherlands and Switzerland concerning the approval of arrangements between operators of terrestrial systems capable of providing electronic communications services" done at Brussels on 11<sup>th</sup> October 2011.

#### **5. Prediction of propagation**

For field strength calculations the tool of the latest version of the HCM-Agreement shall be applied. Time probability for all calculations is 10 %.

#### **6. Revision of the agreement**

This agreement may be modified at a request of any of the signatory administrations where such a modification becomes necessary in the light of administrative, regulatory or technical development.

#### **7. Withdrawal from the agreement**

Any signatory administration may withdraw from this agreement subject to six months' notice.

#### **8. Language of the agreement**

This agreement has been concluded in English language.

One original version of this agreement is handed over to each signatory administration.

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<sup>2</sup> As defined in ECC/REC(16)03.

## **9. Date of entry into force**

The date of entry into force of this agreement is subject to individual confirmations for the whole or parts of the band sent to the signing administrations of this agreement.

The application of this agreement is valid between the administrations which both have confirmed the date of entry into force.

Administrations may need to conclude bilateral agreements, additional or transitional, to ensure the compatibility between mobile and other radiocommunication services.

Until the entry into force of this agreement for the concerned administrations all stations of terrestrial systems capable of providing wireless broadband electronic communications services producing field strength (ITU-R P.1546: 50% of locations and 1% of time) at a height of 10 m above ground exceeding the value of 25 dB $\mu$ V/m/8 MHz in the service area of Digital Terrestrial Television coordinated allotments and/or assignments of the neighbouring country, shall be coordinated with the concerned administration.

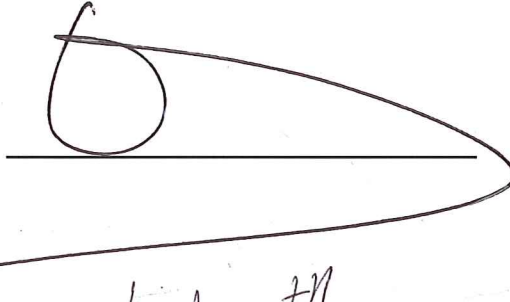
## 10. Signature of the agreement

Done by correspondence March 2019

For BELGIUM

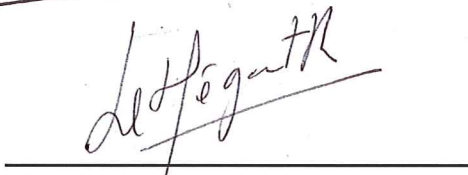
Belgian Institute for Postal  
services and Telecommunications

On behalf of the BIPT Council  
Michael Vandroogenbroek



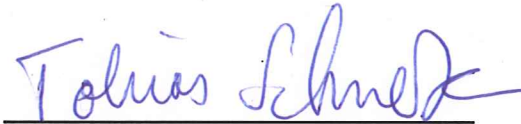
For FRANCE

Agence Nationale des Fréquences  
Raphaël Le Hégarat



For GERMANY

Federal Network Agency  
Tobias Schnetzler



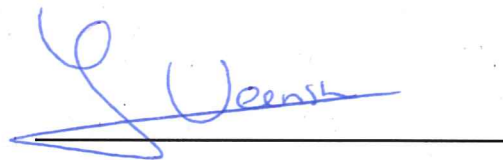
For LUXEMBOURG

For the Institut Luxembourgeois  
de Régulation  
Jean Gompelmann



For THE NETHERLANDS

Agentschap Telecom  
Yvonne Veenstra



For SWITZERLAND

Federal Office of Communications  
Konrad Vonlanthen

