

AGREEMENT

**Between the administrations of
Italy and Slovenia**

**on frequency planning and frequency usage in border areas for
terrestrial systems capable of providing electronic communication
services in the frequency bands**

791,0 – 821,0 MHz / 832,0 – 862,0 MHz

880,2 – 960,2 MHz

1427 – 1518 MHz

1715,0 – 1785,0 MHz / 1810,0 – 1880,0 MHz

1920,0 – 1980,0 MHz / 2110,0 – 2170,0 MHz

2570,0 – 2600,0 MHz TDD

2510,0 – 2570,0 MHz FDD / 2630,0 MHz – 2690,0 MHz

and future candidate bands for public mobile systems

694 – 790 MHz

3400 – 3800 MHz

Rome, 3.10.2018

1. Introduction

The frequency bands:

791,0 – 821,0 MHz / 832,0 – 862,0 MHz

880,2 – 960,2 MHz

1427– 1518 MHz

1715,0 – 1785,0 MHz / 1810,0 – 1880,0 MHz

1920,0 – 1980,0 MHz / 2110,0 – 2170,0 MHz

2570,0 – 2600,0 MHz TDD

2510,0 – 2570,0 MHz FDD / 2630,0 MHz – 2690,0 MHz

are designated for terrestrial systems capable of providing pan-European electronic communication services (hereafter referred to as “communication system”) according to:

- 2010/267/EU: Commission Decision of 6 May 2010 on harmonized technical conditions of use in the 790-862 MHz frequency band for terrestrial systems capable of providing electronic communications services in the European Union is mandatory for EU and EFTA countries
- 2011/251/EU: Commission Implementing Decision of 18 April 2011 amending Decision 2009/766/EC on the harmonisation of the 900 MHz and 1800 MHz frequency bands for terrestrial systems capable of providing pan-European electronic communications services in the Community
- 2018/661/EU: Commission Implementing Decision of 26 April 2018 amending Implementing Decision 2015/750/EU on the harmonisation of the 1452-1492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union as regards its extension in the harmonised 1427-1452 MHz and 1492-1517 MHz frequency bands)
- 2012/688/EU: Commission Implementing Decision of 5 November 2012 on the harmonisation of the frequency bands 1920 - 1980 MHz and 2110 - 2170 MHz for terrestrial systems capable of providing electronic communications services in the Union
- Decision No 128/1999/EC of the European Parliament and of the Council of 14 December 1998 on the coordinated introduction of a third-generation mobile and wireless communications system (UMTS) in the Community (for 1900 to 1920 MHz and from 2010 to 2025 MHz)

Future candidate bands for public mobile systems:

694 – 790 MHz

3400 – 3800 MHz

are designated for terrestrial systems capable of providing pan-European electronic communication services (hereafter referred to as “communication system”) according to:

- 2016/687/EU: Commission Implementing Decision 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

- 2014/276/EU: Commission Implementing Decision of 2 May 2014 on amending Decision 2008/411/EC on the harmonisation of the 3400 - 3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community

There are harmonization documents dealing with coexistence of different communication systems and frequency planning and frequency coordination for Land Mobile systems (CEPT recommendations).

These documents are dependent on radio technology and are regularly reviewed. But the development and roll-out of communication networks is a long-term process. For this reason administrations of Slovenia and Italy have decided to conclude this agreement technologically neutral in order to keep conditions of frequency utilization as stable as possible.

Both administrations are signatories of the agreement "HCM Agreement, 2014". Point 1.3.7 of the agreement lays down that frequencies specified in arrangements between operators may be used without prior co-ordination, on the condition that there is an existing agreement signed by the Administrations concerned authorizing such arrangements. These arrangements between operators may also include the use of the codes.

A copy of each bi- or multilateral agreement, if not confidential, should be sent in electronic form to the Managing Administration which will inform all other Administrations by placing it on the server.

This agreement concluded between concerned administrations specifies rules and field strength level in order to avoid harmful interference between stations of existing and planned communication systems. Operators of communication systems are encouraged to conclude arrangements in which they may agree techniques that can improve coverage and reduce harmful interference in the border areas with signals of communication systems.

The existing GSM communication systems have been developed on the principle of exclusive use of preferential frequencies. New wideband systems share the same frequencies. This situation can result in incompatibility of both systems. Proper technical and economically acceptable solutions depend on operated technology and network configuration. Therefore operators are encouraged to deal with compatibility issue and to include proper provisions into their arrangements.

In the light of the above considerations, the administrations agree that the operators lay down in their agreement:

- cross border interference resolution under which they agree on:
 - o the procedure for informing and the procedure for resolving documented interference;
 - o the procedure and scope for exchange of information regarding interfering base stations;
- on the use of NCC / PSC / PCI codes.

The administrations of Italy and Slovenia have agreed on the following principles, technical provisions and administrative provisions.

2. Technical provisions

2.1. Frequency bands already in use

For all frequency bands the field strength calculation the latest version of the HCM Agreement tool shall be used. Time probability in all calculations is 10%.

800 MHz band

The 800 MHz band shall be used for duplex operation. Base stations shall transmit in the band 791 - 821 MHz (downlink), mobile stations shall transmit in band 832 – 862 MHz (uplink).

Base stations of wideband digital communication systems may be operated in the 800 MHz band if the produced field strength is in accordance with ECC REC(11)04-Annex1.

The division of preferential codes shall be in accordance with Annex 5 to ECC REC(11)04. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 6 to ECC REC(11)04.

900 MHz band

The 900 MHz band shall be used for duplex operation. Base stations shall transmit in the band 925 – 960 MHz (downlink), mobile stations shall transmit in band 880 – 915 MHz (uplink).

Base stations of wideband digital communication systems may be operated in the 900 MHz band if the produced field strength is in accordance with ECC REC(08)02-Annex1.

The division of preferential codes UMTS (UTRA FDD) shall be in accordance with Annex 3 to ECC REC(08)02. The division of preferential physical-layer cell identities (PCI) for LTE shall be in accordance with Annex 5 to ECC REC(08)02. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 6 to ECC REC(08)02.

1400 MHz band

The 1400 MHz band shall be used for duplex operation for supplementary down link. Base stations shall transmit in the band 1427 - 1518 MHz (downlink).

Incumbent systems in the 1400 MHz band have to be protected

Base stations of wideband digital communication systems may be operated in the 1400 MHz band if the produced field strength is in accordance with ECC REC(15)01 - Annex1, A1.2.

The division of preferential codes shall be in accordance with Annex 4 to ECC REC(15)01. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 5 to ECC REC(15)01.

1800 MHz band

The 1800 MHz band shall be used for duplex operation. Base stations shall transmit in the band 1805 – 1880 MHz (downlink), mobile base stations shall transmit in band 1710 – 1785 MHz (uplink).

Base stations of wideband digital communication systems may be operated in the 1800 MHz band if the produced field strength is in accordance with ECC REC(08)02-Annex1.

The division of preferential codes UMTS (UTRA FDD) shall be in accordance with Annex 3 to ECC REC(08)02. The division of preferential physical-layer cell identities (PCI) for LTE shall be in accordance with Annex 5 to ECC REC(08)02. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 6 to ECC REC(08)02.

2100 MHz band

The 2100 MHz band shall be used for duplex operation. Base stations shall transmit in the band 2110 to 2170 MHz (downlink), mobile base stations shall transmit in band 1920 to 1980 MHz (uplink).

Base stations of wideband digital communication systems may be operated in the 2100 MHz band if the produced field strength is in accordance with ERC/REC/(01)01 - Annex1.

The division of preferential codes shall be in accordance with Annex 4 to ERC/REC/(01)01.

2600 MHz band

The 2600 MHz band shall be used for duplex operation. Base stations shall transmit in the band 2630 MHz - 2690 MHz (downlink), mobile stations shall transmit in band 2500 MHz - 2570 MHz (uplink).

Unpaired blocks between 2570 MHz and 2600 MHz can be used as TDD or FDD supplementary downlink.

Base stations of wideband digital communication systems may be operated in the 2600 MHz band if the produced field strength is in accordance with ECC REC(11)05-Annex1.

The division of preferential codes shall be in accordance with Annex 5 to ECC REC(11)05. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 6 to ECC REC(11)05.

2.2 Candidate frequency bands

700 MHz band

The 700 MHz band shall be used for duplex operation. Base stations shall transmit in the band 758-788 MHz (downlink), mobile stations shall transmit in band 703 – 733 MHz (uplink).

The 733-758 MHz band may be used according to the relevant EC/CEPT regulation, as a national option.

Base stations of wideband digital communication systems may be operated in the 700 MHz band if the produced field strength is in accordance with ECC REC(15)01 - Annex1, A1.1.

The division of preferential codes shall be in accordance with Annex 4 to ECC REC(15)01. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 5 to ECC REC(15)01.

3400 - 3800 MHz band

Base stations of wideband digital communication systems may be operated in the 3400 - 3800 MHz band if the produced field strength is in accordance with ECC REC(15)01 - Annex1, A1.3.

The division of preferential codes shall be in accordance with Annex 4 to ECC REC(15)01. Guidance on the consideration of LTE radio parameters for use in bilateral and multilateral agreements is given in Annex 5 to ECC REC(15)01.

2.3 Other future IMT frequency bands

For all other future IMT frequency bands for which no special agreement has been reached between Italy and Slovenia regarding the decrease in maximum field strength values at the border line admissible values for maximum field strength and PCI codes shall be used as laid down in relevant ECC recommendations.

2.4 Allotment of preferential codes

The division of NCC/PSC/PCI codes shall be in accordance with:

NCC code – ETSI TS 123 003 (Slovenia is legal successor to the code allocated to Yugoslavia)

PCI code – in the case of IMT/LTE it is requested to share the preferential physical-layer cell identities (PCI) accordance to relevant ECC Recommendations (see Annex 1).

3. Operators arrangements

Arrangements between operators may be concluded with the aim to enhance the efficient use of spectrum, the coverage and to reduce interference in the border areas. Such arrangements shall respect:

- Field strength levels and PCI codes (for UMTS/LTE) given by relevant harmonization documents for frequency bands:

Band	Recommendation Field strength levels PCI
800 MHz:	ECC REC(11)04 – Annex 1, Annex 5, Annex 6
900 MHz:	ECC REC(08)02 – Annex 1, Annex 3, Annex 5, Annex 6
1400 MHz:	ECC REC(15)01 – Annex 1_A1.2, Annex 4, Annex 5
1800 MHz:	ECC REC(08)02 – Annex 1, Annex 3, Annex 5, Annex 6

2600 MHz: ECC REC(11)05 – Annex 1, Annex 5, Annex 6

and future candidate bands for public mobile systems in frequency bands:

Band	Recommendation Field strength levels PCI
700 MHz:	ECC REC(15)01 – Annex 1_A1.1, Annex 4, Annex 5
3400 - 3800 MHz:	ECC REC(15)01 – Annex 1_A1.3, Annex 4, Annex 5

- protection of users of communication networks from non-wanted international roaming,
- obligation to specify if the arrangement / agreed provisions are applied to individual sites or to the whole border.

For future candidate bands for public mobile systems operators' agreements shall be concluded only when both administrations assign the band concerned.

For all other frequency bands agreed in this agreement for which no special agreement has been reached in arrangements between the operators regarding maximum field strength values at a certain distance from the border line admissible values for maximum field strength and the distance inside the neighboring country shall be used as laid down in relevant ECC recommendations for an individual frequency band. For these bands for as well public mobile systems operators' agreements shall be concluded only when both administrations assign the band concerned.

4. 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. Modification of the agreement shall be done by an amendment signed by both administrations concerned.

5. Withdrawal from the agreement

Any administration may withdraw from this agreement by the end of a calendar month by giving notice of its intention at least six months in advance.

6. Language of the agreement

This agreement has been concluded in English language.

7. Date of entry into force

The date of entry into force is 31 October 2018.

8. Signature

This agreement exists in 2 equally authentic copies signed by both parties.

For Italy

Ministero dello Sviluppo Economico,
Direzione generale per la pianificazione
e la gestione dello spettro radioelettrico

Dott.ssa Eva Spina,
Dirigente generale



2.10.2018

(signature, date)

For Slovenia

AKOS
Mag. Tanja Muha,
Direktorica



24.9.2018

(signature, date)

Annex 1

