

# **Agreement regarding the updated frequency plan for digital sound broadcasting in the frequency band 174-230 MHz between the Administrations of the Slovak Republic and Austria**

## **Introduction**

This document constitutes the bilateral coordination agreement relating the updated frequency plan for digital sound broadcasting (DSB) in the frequency band 174-230 MHz (hereinafter “the VHF band”) between the Administrations of the Slovak Republic and Austria (hereinafter “the Agreement”).

## **Background**

The Administrations of the Slovak Republic and Austria have adopted decision that the VHF band will be used for digital sound broadcasting only. Subsequently, Administrations have conducted the conversion of the DTT layer into DAB layers (by splitting a DTT channel into four DAB blocks). These converted DAB layers, along with three DAB layers from GE06 digital Plan represent the basis of the updated frequency plan for digital sound broadcasting.

The intention during the negotiations, while preparing this Agreement, has been to find a common final planning solution enabling up to seven layers in each country, depending on chosen SFN sizes, network structure, assignment parameters etc.

## **Conclusion**

The Administrations of the Slovak Republic and Austria have successfully completed the bilateral frequency coordination activities in order to implement the relevant reorganisations of the frequency spectrum in the VHF band, related to

- achieving mutual compatibility of the spectrum resources to be used in the VHF band to the best knowledge considering all the planning recommendations, in particular the technical material from the ITU documentations (GE06 Agreement, ITU-R Recommendations).

## **Working method**

Starting point of the re-planning process in the VHF band was more difficult than in the case of the UHF band (re-planning of the 694-790 MHz frequency band according to the Decision (EU) 2017/899 of the European Parliament and the Council), because the original GE06 allotment Plan for the VHF band itself was not fully compatible, as it was not planned for HP/HT broadcasting networks. For that

reason and in order to establish the updated frequency plan for digital sound broadcasting according to the needs of the Administrations, planning principles for the VHF band were proposed prior to the coordination negotiations (most notably “4+3” plan approach, preservation of equitable access to the VHF band, definition of “2+2” principle and division of the layers into 2 categories: primary and secondary).

The necessity to divide the allotment plan into primary layers and secondary layers stemmed from the fact that in the course of coordination of the updated frequency plan for digital sound broadcasting it was not possible to achieve the agreement on seven layers for existing HP/HT networks with equivalent technical parameters for both Administrations.

In order to achieve the equitable access to the frequency spectrum in the VHF band, both Administrations have agreed that the updated allotment plan will consist of 4 primary layers and 3 secondary layers.

For the purposes of this Agreement, the terms primary layer and secondary layer are defined as follows:

#### ***Primary layer***

Primary layer offers the possibility to deploy the high-quality DSB nationwide network, which is based on the most significant (core) existing HP/HT transmitters. These core transmitters are agreed by other Administration with requested (or compromise, in certain cases) technical parameters. Transmitters corresponding to the primary layer have the right to claim high level of protection from harmful interference caused by transmitters of other Administration in order to achieve high coverage quality.

The co-block transmitters of an Administration on the same frequency blocks as of the primary transmitters of the other Administration are regarded as agreed on a non-interference and non-protection basis. It means that if unexpected interference occurs in the coverage area of the primary layer of one Administration, the other Administration should administrate the necessary changes in their networks to eliminate the produced harmful interference. If such unexpected interference cases between the two Administrations occur, both Administrations should exchange all necessary technical information and carefully examine the causes of the interference.

#### ***Secondary layer***

A secondary layer does not guarantee deployment of DSB nationwide network with the same quality parameters (in terms of coverage quality and interference-free environment) as in the case of the primary layer. Under favourable circumstances, core HP/HT transmitters may be employed in the secondary network; however, certain ERP reductions requested by other Administration (necessary for protection of its primary networks) have to be accepted. In interference sensitive cases, the secondary layer has to be deployed by means of different transmitter network topology, even without HP/HT transmitters.

Transmitters corresponding to the secondary layer have no right to claim high level of protection from harmful interference caused by transmitters of the other Administration corresponding to its primary layers.

In the case of secondary networks, Administrations have to allow higher level of interference to these networks and accept reduction of coverage area caused by the operation of primary networks of the other Administration.

Both Administrations submitted their requirements to various working groups (including other relevant Administrations, because of the domino effect in frequency planning), dealing with the re-planning of the VHF band or with implementation of the GE06 Plan for digital TV broadcasting.

The submission of the requirements has been followed by an analysis of the compatibility of the requirements by both Administrations. This analysis was the basis for the development of a common frequency plan containing the most feasible solution across frequency coordination area of the Administrations of the Slovak Republic and Austria. Hence, the development of the updated frequency plan for digital sound broadcasting has been an iterative process as:

- the modifications to the proposals have been evaluated taking into account national requirements,
- frequency coordination areas of neighbouring countries have been also taken into account.

## **Results of the activities**

With this Agreement, the Administrations of the Slovak Republic and Austria establish the updated frequency allotment- and assignment plan. Allotment plan (illustrated in ANNEX 1 and ANNEX 2) represents the areas and frequency block distribution for digital sound broadcasting in the VHF band and supersedes the existing GE06 allotment Plan. The meaning of the allotments in this respect does not include the reference planning network attributes, as defined in the GE06 Agreement.

The Agreement refers to the technical parameters of assignments, which are listed in ANNEX 3 and ANNEX 4 (assignment plan) and are attached in electronic notice files (ITU TerRaSys):

- "AUT\_DAB\_assignment\_plan\_247\_12-09-2022.txt" for the Administration of Austria
- "SVK\_DAB\_assignment\_plan\_174\_07-09-2022.txt" for the Administration of the Slovak Republic

With this Agreement, the assignments are bilaterally coordinated between the Administrations of the Slovak Republic and Austria in accordance with the Article 4 of the GE06 Agreement.

The agreed assignments contain only the most important existing broadcasting transmitters. In the course of the implementation of DAB networks additional transmitters, especially gap-fillers are expected to be deployed in the future.

## **Subsequent activities**

The current GE06 Plan will be updated by the Administrations in accordance with the Article 4 of the GE06 notification procedure based on this Agreement accordingly.

All future national deployments and refinements of the broadcasting networks in the VHF band, which may be necessary because of the needs of broadcasting network operators in order to develop their networks, will be done by both Administrations in accordance with the Article 4 of the GE06 Agreement.

## **Entry into force**

This Agreement will enter into force upon the signature of the paper version of this Agreement by the two Parties.

## **Language of the Agreement**

This Agreement is prepared in English in two originals. Each Administration holds one original.

Place: Bratislava

Date: \_\_\_\_\_

For the Administration of the Slovak Republic

Place: Vienna

Date: \_\_\_\_\_

For the Administration of Austria

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Milan Mizera

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