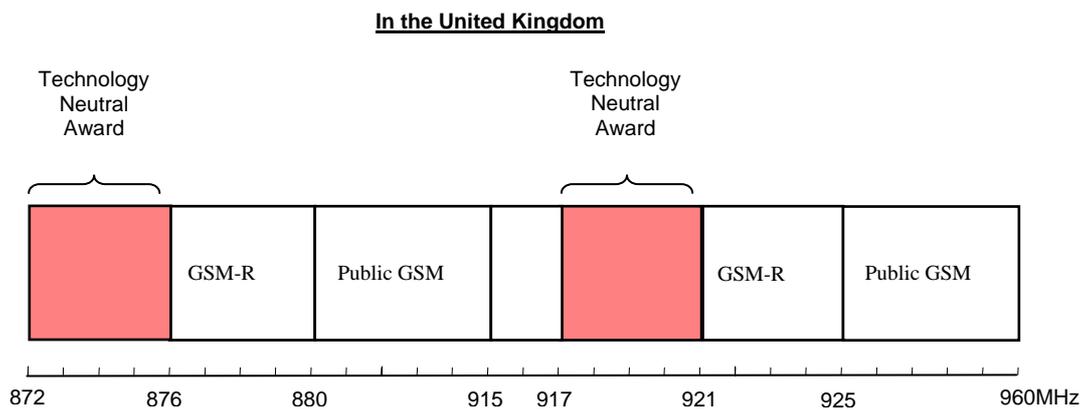
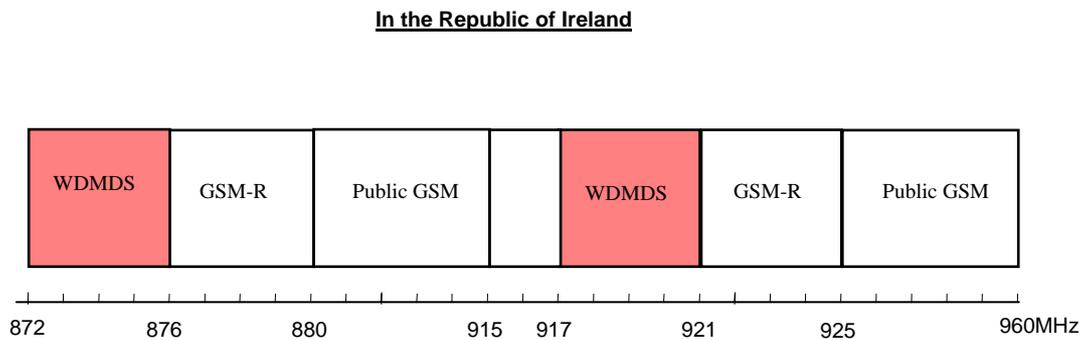




**MEMORANDUM OF UNDERSTANDING ON
FREQUENCY CO-ORDINATION BETWEEN
THE REPUBLIC OF IRELAND
AND
THE UNITED KINGDOM
IN THE FREQUENCY BANDS
872 TO 876 AND 917 TO 921 MHz**

1. INTRODUCTION

- 1.1. This Memorandum of Understanding (MoU) describes the procedures for the coordination of radio services between the Republic of Ireland (RoI) and the United Kingdom (UK) in the frequency bands 872-876 MHz and 917-921MHz.
- 1.2. The current use of the frequency band 872-876MHz and 917-921MHz in the RoI and the UK is shown in the diagram below.



WDMDS = Wideband Digital Mobile Data Services

GSM-R = GSM for railways

Public GSM = 900MHz GSM bands including the E-GSM bands.

- 1.3. In the UK the frequency bands 872-876 and 917-921MHz will be awarded on a technology neutral basis, according to¹.
- 1.4. In the RoI the frequency bands 872-876 and 917-921MHz are licensed for Wideband Digital Mobile Data services, according to ECC Decision (04)06. The use of Flash-OFDM technology is anticipated.
- 1.5. Ofcom is the Administration of the United Kingdom responsible for all relations with Ireland concerning this MoU.

¹Award of available spectrum: 872-876 MHz paired with 917-921 MHz. Ofcom. April 2006

- 1.6. The Commission for Communications Regulation is the Administration of the Republic of Ireland responsible for all relations with the UK concerning this MoU.
- 1.7. Accordingly, the Administrations of the UK and the RoI have agreed the following co-ordination procedures.
- 1.8. This MoU is based on the principles of the HCM Agreement ².
- 1.9. The co-ordination procedure, is based on the principle of equitable access to the spectrum resource

2. CRITERIA FOR COORDINATION

- 2.1. Within the frequency bands 872-876 and 917-921MHz, a station may be established without co-ordination, provided that the predicted power spectral density (PSD) produced by the station, at a height of 10m above ground at all locations beyond a line 15 km inside the border or coast line of the neighbouring country does not exceed 26dB μ V/m (equivalent to -140 dBW received by an isotropic antenna) in a bandwidth of 25 kHz.
- 2.2. In the case of time division duplex technology the interference power shall be the power, during the active part of the signal, in the stated bandwidth.

3. PREDICTION OF PROPAGATION

The field prediction method shall be according to the current version of Recommendation ITU-R P.1546 ³ which shall be applied as follows:

- 10% of the time and 50% of locations for land
- 10% of the time and 50% of locations for cold sea

Taking account of:

- Height of the receiver antenna set at 10 m above ground.
- Average terrain height for the base station in all main directions
- Type of terrain (e.g. land, sea, mixed path)
- Effective radiated field strength
- Antenna tilt and azimuth
- Terrain clearance angle.

² Agreement ... on the coordination of frequencies between 29.7MHz and 39.5GHz for the fixed and land mobile service (HCM Agreement) Vilnius 12 October 2005

³ Recommendation ITU-R P.1546, Method for point-to-area predictions for terrestrial services in the frequency range 30 MHz to 3 000 MHz

4. CO-ORDINATION PROCEDURE

- 4.1. The Administration of the ROI and the UK are committed to ensuring that the licensees covered by this Memorandum of Understanding, respect the limits for establishment of base stations without co-ordination, given in 2 above. However, there might be an occasional need to establish stations such that the PSD will exceed the limits given in 2 above. In such cases, each administration may seek co-ordination according to paragraph 5.
- 4.2. Receive stations in a neighbour country shall not claim protection from interference from transmit stations that operate such that the signal level in a neighbour country is less than the trigger level described in this MoU or are coordinated according to this MoU.

5. EXCHANGE OF INFORMATION

- 5.1. An MoU between the administrations of the ROI and the UK, which enables co-ordination between operators, subject to agreement of the Administrations, was signed on the 22 November 2000.⁴ This principle shall be extended to operators of systems for the frequency bands identified in this MOU.
- 5.2. In the event of interference the affected parties shall exchange information with a view to resolving the dispute by mutual agreement. A report of the interference and the details of the information exchanged shall be sent to both administrations. The Administrations of Ireland and the United Kingdom agree to facilitate the exchange of information between operators.
- 5.3. An Administration wishing to bring a station into service or wishing to modify the characteristics of a station, such that the signal exceeds a coordination threshold given in paragraph 2, must submit a request for co-ordination with the other Administration by way of notice.
- 5.4. Exchanges of information for coordination/notification purposes shall be in the format set out in the HCM agreement Appendix 2A (revised at Vilnius 2005).
- 5.5. The affected Administration shall evaluate the request for co-ordination and shall within 30 days notify the result of the evaluation to the Administration requesting co-ordination.
- 5.6. If in the course of the co-ordination procedure the affected Administration requires additional information, the Administration seeking co-ordination shall provide such information upon request.
- 5.7. An Administration not having responded within 30 days following communication of the reminder shall be deemed to have given its consent and the station may be brought into use with the characteristics given in the request for co-ordination.

⁴ Agreement between the administrations of United Kingdom/Ireland concerning the approval of planning arrangements between operators of mobile radio communication networks 22 November 2000

5.8. Transmit stations that are coordinated according to this MoU or operate such that the signal level in a neighbour country is less than the trigger level given in this MoU shall not be notified to the ITU.

6. REVIEW ARRANGEMENTS

The limits and prediction methods defined in this Memorandum of Understanding may be reviewed in the light of experience of operation of networks in both countries and future prediction developments.

7. TERMINATION OF THE MEMORANDUM OF UNDERSTANDING

Either Administration may withdraw from this Memorandum of Understanding subject to 6 months notice.

8. DATE OF ENTRY INTO FORCE

This Memorandum of Understanding shall enter into force on 1 July 2007.

Signed at London on 29 June 2007.

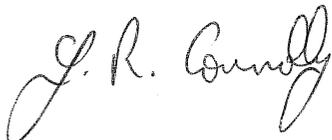
For the UNITED KINGDOM administration



P BURY

Signed at Dublin on 18 June 2007.

For the administration of the REPUBLIC OF IRELAND



J CONNOLLY