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Information Memorandum

- **Co-ordinated Auction of Spectrum
1785 – 1805 MHz**

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Important Notice

This Information Memorandum (“**Memorandum**”) has been jointly prepared by the Commission for Communications Regulation (“**ComReg**”) and the Office of Communications (“**Ofcom**”) and is published in connection with the award of licences in Ireland and Northern Ireland for the 1785 - 1805 MHz spectrum band (the “**Spectrum Band**”) by auction.

This Memorandum is available only on the ComReg and Ofcom websites:

<http://www.comreg.ie/fileupload/publications/ComReg06/65.pdf>; and

http://www.ofcom.org.uk/radiocomms/spectrumawards/liveawards/award_1785/im/

Recipients should note that the contents of the document on each web site should be identical in all respects. In the event of any discrepancy between different versions, the latest published version on ComReg’s and Ofcom’s respective web sites is definitive.

It should be noted that the Wireless Telegraphy Act 2006¹ will be in force in the United Kingdom when the Award Processes take place. Therefore the references in this document to the powers under which United Kingdom Award Process will take place are expressed in terms of the 2006 Act.

The Award Processes will be conducted in accordance with the procedures set out in this document and, in Northern Ireland, in accordance with the regulations made by Ofcom pursuant to powers under section 14 of the Wireless Telegraphy Act 2006. In the Memorandum ComReg has published its proposed draft regulations relating to the award of a licence to operate in the Spectrum Band in Ireland under the Wireless Telegraphy Act 1926 as amended.

The proposed draft regulations made by ComReg in relation to the licence for Ireland under the Wireless Telegraphy Act 1926 are referred to in the Memorandum as the “**Ireland Regulations**”. The Ireland Regulations are subject to review and approval by the Minister for Communications, Marine and Natural Resources. The Northern Ireland regulations to be made by Ofcom in respect of this award are referred to in this Memorandum as the “**NI Regulations**”. A copy of the Ireland Regulations can be found at Annex 2 and a copy of the NI Regulations can be found at Annex 5 of this Memorandum. The NI Regulations were also issued in draft for UK statutory consultation on 14 December 2006 and a copy of the Notice of Ofcom’s proposals to make regulations, including a copy of the draft NI Regulations is also available from the Ofcom website. Recipients of the Memorandum should note that only the Ireland Regulations and NI Regulations have statutory effect. Accordingly, in the event of any difference between the procedures set out in the Memorandum and in the respective Regulations, those in the Ireland Regulations and NI Regulations are definitive.

The Memorandum is for information purposes only. It is made available on the express understanding that it will be used for the sole purpose of assisting the recipient in deciding whether to proceed with a further investigation of possible participation in the Award Processes. The

¹**The Wireless Telegraphy Act 2006 was passed by Parliament on 25 October 2006. It received Royal Assent on 8 November 2006 and will come into force in the United Kingdom on 8 February 2007. The new Act replaces the Wireless Telegraphy Acts 1949, 1967 and 1998, the Marine etc Broadcasting (Offences) Act 1967, Part 6 of the Telecommunications Act 1984 and certain provisions of the Communications Act 2003.**

Memorandum is not intended to form any part of the basis of any investment decision or other evaluation or any decision to participate in the Award Processes, and should not be considered as a recommendation by ComReg or Ofcom or their advisers to any recipient of the Memorandum to participate in the Award Processes. Each recipient of the Memorandum must make an independent assessment of the potential value of a licence after making such investigation as it may deem necessary in order to determine whether to participate in the Award Processes. All information contained in the Memorandum is subject to updating and amendment.

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Recipients of the Memorandum are encouraged to register their e-mail addresses with ComReg and Ofcom so as to receive notifications of the publication of further information automatically, but it remains their responsibility to check the ComReg and Ofcom websites for updates. Registration of address should be made by following the registration procedure at the relevant page on the ComReg and Ofcom websites at:

<http://www.comreg.ie/registration/>; and

<http://www.ofcom.org.uk/static/subscribe/radiospectrum.htm>.

Shortly before the commencement of the Award Processes, the ComReg and Ofcom websites will carry information about the Award Processes.

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Section 1

Foreword

- 1.2 The co-ordinated award of spectrum at 1785 – 1805 MHz in Ireland and Northern Ireland marks a new milestone in co-operation between the Commission for Communications Regulation (ComReg) and the Office of Communications (Ofcom) in considering the development of spectrum use across the island of Ireland and the opportunity for new wireless services to emerge in both administrations.
- 1.3 As Member States of the European Union, Ireland and the UK share the same EU regulatory framework for electronic communications. The award of licences in Ireland and Northern Ireland will mark the creation of an innovative approach to securing optimal use of the radio spectrum for the benefit of citizens and consumers across the island of Ireland.
- 1.4 We wish to thank all those who took the time to respond to the consultation and to express our appreciation for the thoroughness of submissions.

Mike Byrne

Chairperson

Commission for Communications

Regulation

Ed Richards

Chief Executive

Office of Communications

Section 2

Executive Summary

The Memorandum

2.1 The Memorandum provides information for those parties considering bidding for the licence under the Wireless Telegraphy Act 1926 in Ireland (the “**Ireland Licence**”) and in respect of the award in Northern Ireland under the UK’s Wireless Telegraphy Act 2006 to establish or use stations for wireless telegraphy or install or use apparatus for wireless telegraphy in the Spectrum Band in Northern Ireland (the “**NI Licence**”). References in the Memorandum to the “Licences” should be read as references to both the Ireland Licence and the NI Licence.

2.2 In particular, in the Memorandum:

Section 3 describes the characteristics of the Spectrum Band, for which Licences are to be awarded, and the way in which they are packaged;

Section 4 summarises the principal technical terms and conditions of the Licences that will be issued following the completion of the Award Processes;

Section 5 deals with the Award Processes and provides an illustrative time line for the Award Processes in Ireland and Northern Ireland.

2.3 There are also nine annexes to this document. These annexes are:

Annex 1 - This annex deals with ComReg’s Award Process for the Ireland Licence;

Annex 2 - This annex provides a copy of the draft Ireland Regulations relating to the award of the Ireland Licence;

Annex 3 - The application forms needed for the award of the Ireland Licence by ComReg are set out in this annex;

Annex 4 – This annex deals with the Award Process in Northern Ireland;

Annex 5 – This annex includes a copy of the NI Regulations in the draft form published by Notice for comment by 19th January 2007;

Annex 6 – This annex sets out additional information relating to the Award Process in Northern Ireland;

Annex 7 – This annex sets out a copy of the draft NI Licence;

Annex 8 – This annex is a joint annex and provides a draft of the International Frequency Co-ordination Memorandum of Understanding between the UK and Ireland for the Spectrum Band in the event that a different licensee is awarded the licence in each territory, in which case it will be necessary to co-ordinate the frequency usage; and

Annex 9 – This annex is a glossary of the terminology used in the Memorandum.

Summary of rights, obligations and rules

- 2.4 The following table (Table 2.1) presents a summary of the packaging of the Spectrum Band for the Licences, the rights and obligations under the Licences to be issued, and the rules for the conduct of the Award Processes in Ireland and Northern Ireland.

Table 2.1 Summary of the packaging of the Spectrum Band, the rights and obligations under the Licences to be issued and the rules for the conduct of the Award Processes in Ireland and Northern Ireland

	Ireland	Northern Ireland
Spectrum Packaging and Licensing		
Usage restrictions	There are no application specific restrictions. The licences will be technology and application neutral ² .	
Number of licences	One in Ireland.	One in Northern Ireland.
Spectrum band	The Spectrum Band to be auctioned is 20 MHz from 1785 -1805 MHz and is un-paired.	
Transmission rights	Licensees will have the transmission rights set out in Section 4 as specified by the Licences. The transmission rights will include the right to use the Spectrum Band nationally for any technology and any application.	
	For stations that are installed and operated at a fixed location the limits shown in Figure 4.1 and tables 4.1 to 4.4 will apply. For all mobile stations the limits shown in Figure 4.2 and table 4.5 will apply.	
Interference to and from other spectrum users and coordination	The unwanted emission level must not exceed -126 dBm/100 kHz measured at a separation distance of 20 metres.	

² In the Republic of Ireland the use of this spectrum for certain applications may require compliance with other legislation. For example, legislation governing broadcasting etc.

	Ireland	Northern Ireland
	<p>The Licensees will be required to co-ordinate the use of the Spectrum Band with GSM 1800 base stations operating in the frequency band 1751.7 to 1781.5 MHz. The specific conditions relating to this co-ordination requirement are given in Section 4 of this Memorandum.</p>	
International co-ordination obligations	<p>ComReg and Ofcom will have a role in the process of international frequency co-ordination. The basis for frequency co-ordination is set out in a Memorandum of Understanding between Ireland and the UK, details of which are given in Annex 8.</p>	
Licence term	<p>The Ireland Licence will have a minimum term of 15 years and be reviewed 3 years before the end of the minimum term.</p>	<p>The NI Licence will have an indefinite duration, but will be terminable on not less than five years notice for spectrum management reasons. However, such notice will not be able to take effect during the first 15 years. The NI Licence may be terminated for other limited reasons, specified in the NI Licence, prior to the end of the 15 year term. In effect, the NI Licence will have a minimum term of 15 years in which Ofcom's revocation powers will be limited.</p>
Licence fees	<p>The Award Processes will determine the fees payable for each Licence in each jurisdiction. In Northern Ireland, if the Licensee continues to hold the licence beyond the minimum term of 15 years, there may be additional charges in line with UK policies for spectrum pricing at that time.</p>	

	Ireland	Northern Ireland
Spectrum trading	The Ireland Licence is not tradable at the time of the auction.	All rights and obligations arising under the NI Licence will be tradable from the date of award.
Publication of information	Site Viewer is a national database of GSM and 3G mobile masts in use throughout Ireland. ComReg has provided an on-line facility to allow the public to view details of the mobile phone base stations. ComReg invites the holder of the Ireland Licence, if they use one of the technologies covered by Site Viewer, to provide relevant information.	Sitefinder is a national database of mobile phone base stations which Ofcom administers on behalf of the UK Government. The UK Government invites the holder of the NI Licence, if they use one of the technologies covered by Sitefinder, to provide relevant information on a voluntary basis.
Award mechanisms and rules		
Basic auction format	A single round sealed bid auction format will be used for both Award Processes.	
Sequence for auctions	The Award Processes will commence on the same day. The auction in Ireland will be concluded first. The auction in Northern Ireland will follow.	
Determining the successful bidders	In each jurisdiction, the winning bid for each Licence will be the highest bid in that auction. In each auction, a tie between bidders shall be settled by a method of random selection.	
Payment terms	In each jurisdiction, winning bidders will be required to pay 100% of the Licence Fee before the Licence is issued.	
Deposits	In Ireland, bidders will be required to submit a cash deposit	In Northern Ireland, applicants will be required to submit a

	Ireland	Northern Ireland
	equal to 50% of the reserve price with their application.	cash deposit equal to 50% of the reserve price (Initial Deposit) with their application. Where an Applicant is qualified to bid and has not withdrawn from the Award process, it will be required to submit a further deposit equal to the difference between the Initial Deposit and the sum which it wishes to bid for the NI Licence (Bid Deposit). The Bid Deposit must be received by Ofcom on the same day that it receives the Sealed Bid for the NI Licence.
Pricing rule	In each jurisdiction the winning bidder will pay the <i>second highest price</i> bid for that Licence in the relevant Award Process.	
Transparency	There will be separate registration processes in Ireland and Northern Ireland. Participation in the auctions, and the identities of all those registered in both auctions will be made public on ComReg’s and Ofcom’s websites. ComReg and Ofcom will publish the identities of the winning bidders.	
Prohibitions on bidder association and collusion	There are specific rules listed in the Memorandum to prohibit collusion which is also prohibited under Irish, UK and European competition law.	
Reserve prices	There are two reserve prices set, one for the Ireland Licence and one for the NI Licence.	

	Ireland	Northern Ireland
	The reserve price for the Ireland Licence will be €150,000 (one hundred and fifty thousand euro)	The reserve price for the NI Licence will be £50,000 (fifty thousand pounds sterling)
Un-sold licences	If, after the auction, the Ireland Licence remains unsold, ComReg reserves the right to determine how to proceed in the light of circumstances at that time.	If, after the auction, the NI Licence remains unsold, Ofcom will determine how to proceed in the light of circumstances at that time.

Section 3

The Spectrum Band

- 3.1 The Spectrum Band is allocated in the International Telecommunication Union (the "ITU") Radio Regulations, Table of Frequency Allocations³ to fixed and mobile radiocommunication services on a primary basis⁴. Provision is also made for public correspondence transmissions from aircraft⁵. Ireland and the UK, as members of the ITU are bound to abide by the provisions of the Constitution and Convention and the Administrative Regulations in all telecommunication offices and stations established or operated by them which engage in international services or which are capable of causing harmful interference to radio services of other countries⁶. However, it is possible to offer services other than those to which the Spectrum Band is allocated⁷. Licensees who intend to offer services other than those to which the Spectrum Band is allocated may do so, but they shall not cause harmful interference to, and shall not claim protection from harmful interference caused by stations operating in accordance with the provisions of the Radio Regulations.
- 3.2 At a regional level and in Europe, the band is allocated by the Conference of European Posts and Telecommunication Administrations (the "CEPT") as two sub-bands. However, the CEPT allocations are not binding on Member States of the European Union. The band 1785 -1800 MHz is allocated to fixed and mobile services on a primary basis⁸ and the band 1800 –1805 MHz is allocated to fixed service on a secondary basis and to mobile services on a primary basis. The CEPT had allocated the band 1800 – 1805 MHz paired with the band 1670 – 1675 MHz across Europe for the pan-European Terrestrial Flight Telecommunications System ("TFTS"). The 1800 –1805 MHz band had, until recently, been the air-to-ground band for TFTS. However, TFTS failed as a commercial service and the European and CEPT spectrum and standards harmonisation measures for this have been withdrawn in Europe. Therefore there is an opportunity to award the band 1800 -1805 MHz for new services and some new licences have already been issued in some CEPT jurisdictions. The lower TFTS band 1670 -1675 MHz has already been allocated to Mobile Satellite Services and is not discussed further here. Progress in Europe over the future of the 1800 – 1805 MHz band is discussed in more detail below.

³ ITU Radio Regulations, Article 5 Frequency Allocations.

⁴ Definitions for fixed and mobile services are given in the ITU Radio Regulations, Article 1, provision numbers 1.20 and 1.24 respectively. A primary allocation has the status and meaning specified by the ITU Radio Regulations, Article 5, provision numbers 5.23 – 5.33.

⁵ Footnote No. 5.380 of the ITU Radio Regulations. This provision, was the international regulatory basis for the former Europe-wide system Terrestrial Flight Telecommunications System (TFTS).

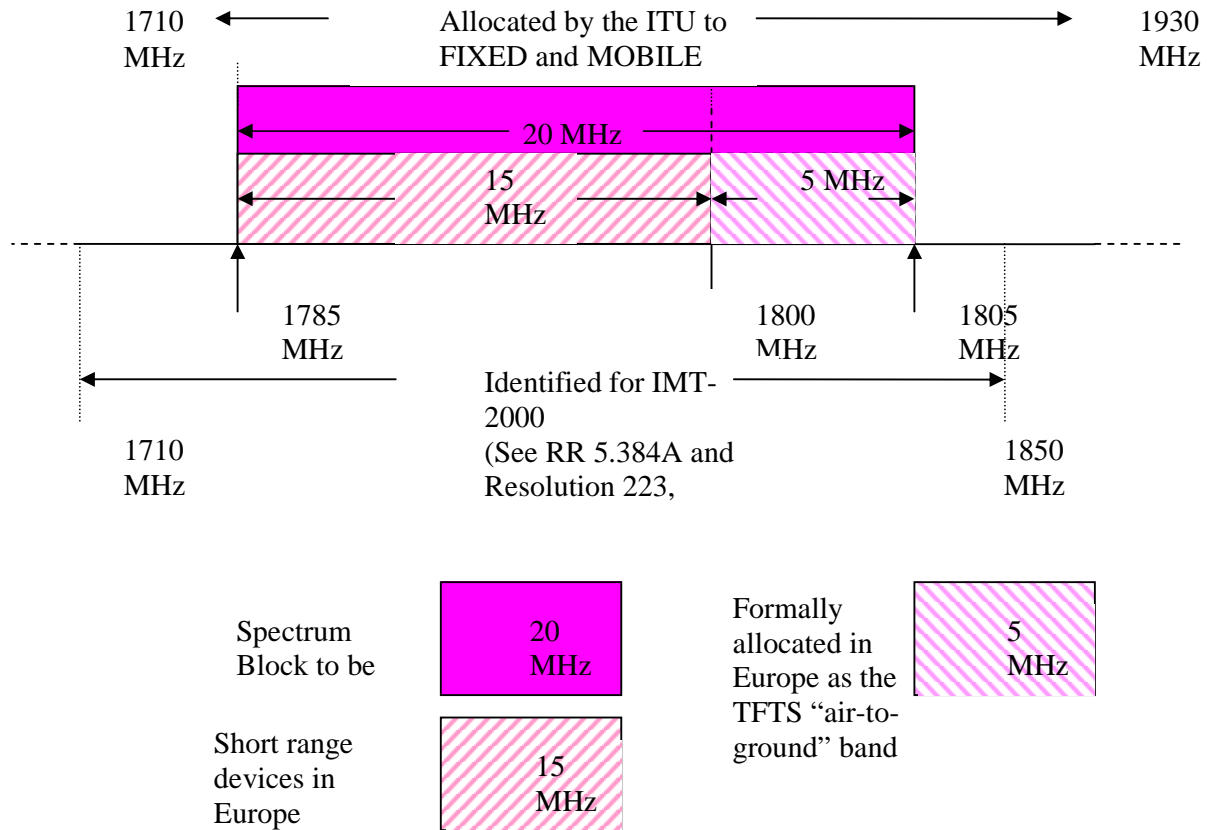
⁶ Constitution and Convention of the International Telecommunication Union, Execution of the Instruments of the Union, Article 6 (37),

⁷ ITU Radio Regulations, Assignment and use of frequencies, General rules, Article 4.4

⁸ Please refer to the European Table of Frequency Allocations and Utilisations Covering the Frequency range 9 kHz to 275 GHz at <http://www.ero.dk/doc98/official/pdf/ERCRep025.pdf>

3.3 Figure 3.1 below shows the Spectrum Band, the international allocations for 1710 - 1930 MHz, the band used by short range devices and national uses of the spectrum. In the UK, the paired bands 1781.7 – 1785 MHz and 1876.7 - 1880 MHz have recently been subject to an Ofcom award procedure. Details of this can be found at: <http://www.ofcom.org.uk/radiocomms/spectrumawards/>.

Figure 3.1 The Spectrum Band



Possible EU Measure

3.4 The band 1800 – 1805 MHz is under review by the Electronic Communications Committee (the “**ECC**”) of the CEPT. This matter was considered in Section 4 (paragraphs 4.4 to 4.6) of the Consultation Document. Paragraphs 3.5 to 3.10 of this Memorandum provide an update on the progress of the review by the ECC of the CEPT.

3.5 As a consequence of the review by the ECC, the European Commission (the “**Commission**”) has concluded⁹ that the upper TFTS band (1800 – 1805 MHz) would be considered as a candidate band for the so-called WAPECS¹⁰ concept. CEPT has been tasked¹¹ to consider this band in the context of the EC Mandate on WAPECS,

⁹ Document RSCOM06-73, Brussels 21 September 2006.

¹⁰ Wireless Access Policy for Electronic Communications Services.

¹¹ “Mandate to CEPT to develop least restrictive technical conditions in frequency bands addressed in the context of WAPECS”, submitted to CEPT on 5 July 2006.

with the expectation by Member States that the harmonised nature of this band would be maintained, but allowing its flexible use at the same time.

- 3.6 The term WAPECS is used to signal a move away from the traditional method of identifying spectrum for specific technologies and/or services in favour of an approach that is, so far as possible, neutral between different technologies and services. However, this is subject to technical co-existence requirements which are tailored to the spectrum band and those adjacent to it.
- 3.7 Following discussions at a European level it is evident¹² that there is more support for a flexible approach to use of this band. As a consequence, the Commission urged Member States to ensure that any use of this band is in line with WAPECS principles. This desire to investigate flexible use of the band 1800 -1805 MHz is reflected by its inclusion in the recent Commission Mandate¹³ to CEPT on WAPECS.
- 3.8 Another option would be to exempt the spectrum from licensing which would remove the burden of paying licence fees from users, and reduce some administrative costs. However, the interference that is likely to result would severely restrict the quality and viability of services that could be provided. ComReg's and Ofcom's assessment is that the best option is to issue one licence for the Spectrum Band in each country (the Spectrum Band includes the band 1800 – 1805 MHz). ComReg and Ofcom have stated that issuing one licence in each country is preferable to issuing multiple licences because this will enable the Award Processes to proceed with maximum flexibility and technology and service neutrality (see Section 6 of the Consultation Document "Award of available spectrum: 1785 – 1805 MHz" published on 15 December, 2005).
- 3.9 ComReg and Ofcom believe that a further harmonisation measure at European level is not a pre-requisite for common services to develop. If spectrum is available on a flexible basis across Europe, market forces (including spectrum trading) can generate strong incentives for harmonisation where there are clear benefits to be gained. The use of market forces also allows greater flexibility in cases where there may not be strong benefits from harmonisation. It also avoids the losses in welfare which may arise because regulators generally are less efficient than markets (absent market failure) in allocating spectrum to its most valuable uses.
- 3.10 Interested parties should note that in the event of a future Commission Decision covering the band 1800 – 1805 MHz or any other spectrum band where changes are necessitated by EU legislation, ComReg and Ofcom may be required to change the terms and conditions of the Licences and these changes may impose restrictions on services and technologies.

Future assignments in the Spectrum Band

- 3.11 ComReg and Ofcom have no present plans to offer other wireless telegraphy licences for use of this Spectrum Band, or to extend use of the Spectrum Band by additional licence exemption measures. However, it is possible that ComReg and Ofcom may be required to take one or more of these steps in order to comply with international obligations that do not presently exist. In principle, ComReg and Ofcom may also use discretion to assign additional wireless telegraphy licences for use of

¹² DG INFSO/B4, **RSCOM06-73** Brussels, 21 September 2006 and Ofcom, Note of the Seventeenth Radio Spectrum Committee meeting held in Brussels on 4-5 October 2006.

¹³ Document RSCOM06-42, Brussels, 23 June 2006, DG INFSO/B4

the Spectrum Band either of the same character or of a different character to those described in the Memorandum. In considering any further assignments, ComReg and Ofcom would consult interested parties on its possible plans and would take fully into account the interests of Licensees in the Spectrum Band.

- 3.12 Similarly, if in the future there were reasons to consider allowing licence exempt use of the Spectrum Band in conjunction with use under the Licences, ComReg and Ofcom would consult interested parties on these plans, as part of their assessment of the case for such use. ComReg and Ofcom would take fully into account the interests of Licensees in the Spectrum Band.

Short range uses of the spectrum

- 3.13 The use of the 1785 - 1800 MHz band for low power, short range digital wireless microphones is provided on the basis of a recommendation adopted by the ECC¹⁴. This CEPT recommendation is not binding on the UK or Ireland. Although digital wireless microphone equipment capable of using the band has been slow to emerge, manufacturers treat such recommendations as a basis for standardising equipment and this may encourage the appearance of new devices in the market designed to be used in this part of the Spectrum Band. The award of technology and application neutral licences in Ireland and Northern Ireland will allow radio microphone and other short range device users to compete for the Licences or subsequently acquire access to the Spectrum Band (for example through spectrum trading in Northern Ireland). The potential for organisations to act as band managers (spectrum management organisations) has also been considered by Ofcom.
- 3.14 In response to a Mandate from the Commission, CEPT delivered a report¹⁵ on a strategy for harmonisation of short range devices. This Report considered the use of existing short range device bands such as 1785 -1800 MHz and the methods for providing spectrum for future short range device demand. One of the methods proposed for meeting this growing demand is to make the bands more generic so that both analogue and digital wireless microphones and other short range devices could use the spectrum. It also recommends that further consideration should be given to stronger harmonisation initiatives in the bands. This could have the effect of increasing short range device use in this band as these devices are designed for free circulation across the European Community.
- 3.15 In both Ireland and Northern Ireland the current use of the band by digital radio microphones and wireless audio devices on a licence exempt basis will be withdrawn prior to the award of the Licences dealt with by the Memorandum. The reasons for this are as follows:

it will allow licensed use of the Spectrum Band without having to co-exist with licence exempt use, i.e. in order to allow the proposals in this document to proceed;

it reflects the lack of development of digital radio microphones in the band; and

it does not prevent use of the frequencies for radio microphones in the future, on a licensed basis, if this turns out to be an efficient use of some or all of the spectrum.

¹⁴ Recommendation - ERC/REC 70-03 relating to the Use of Short Range Devices. Available on www.ero.dk

¹⁵ CEPT Report 005, Final Report by the ECC in response to the EC Mandate to CEPT on SRD Radio Spectrum Harmonisation, 12 November 2005.

Other uses of the spectrum in Great Britain

- 3.16 In Great Britain there is some military use of the spectrum that interested parties should be aware of. Further details are given in Annex 6, paragraph A6.9 of the Memorandum.

Section 4

Technical Terms and Conditions of the Licences in Ireland and Northern Ireland

Radio Equipment: technical conditions

- 4.1 This section sets out the technical terms and conditions that will be common to both the Ireland Licence and the NI Licence. These technical terms and conditions include the specification for unwanted emissions, the maximum power for stations that are installed and operated at a fixed location and mobile stations, and the national and international frequency co-ordination arrangements that will apply.
- 4.2 Following an extensive review of the proposals made by ComReg and Ofcom in the December Consultation and taking full account of the responses received, ComReg and Ofcom believe that different spectrum masks are required for stations that are operated from a fixed location (base stations) and those stations that are mobile. Frequency co-ordination arrangements will also be necessary. These co-ordination arrangements should give as much flexibility as possible to the Licensees of the Spectrum Band (the “Licensees”) and the current GSM licence holder in Northern Ireland in the band 1751.7 - 1781.5 MHz. Paragraphs 4.6 to 4.10 provide details of the co-ordination arrangements.

The spectrum masks

- 4.3 There are four spectrum masks for stations that are installed and operated at a fixed location (base stations) within the Spectrum Band. The Licensees must use the spectrum mask that is relevant to the distance separating a station that is installed and operated at a fixed location within the Spectrum Band and pre-existing GSM 1800 base stations operating in the band 1751.7 - 1781.5 MHz. These four spectrum masks are shown in Figure 4.1 below. The corresponding power limits are given in tables 4.1 to 4.4 below and these will be applied as follows:

when a station is installed and operated at a fixed location that is 200 metres from a pre-existing GSM 1800 base station operating in the band 1751.7 - 1781.5 MHz the power limits shown in table 4.1 will apply;

when a station is installed and operated at a fixed location that is between 200 and 300 metres from a pre-existing GSM 1800 base station operating in the band 1751.7 - 1781.5 MHz the power limits shown in table 4.1 will apply;

when a station is installed and operated at a fixed location that is between 300 and 500 metres from a pre-existing GSM 1800 base station operating in the band 1751.7 - 1781.5 MHz the power limits shown in table 4.2 will apply;

when a station is installed and operated at a fixed location that is between 500 and 750 metres from a pre-existing GSM 1800 base station operating in the band 1751.7 - 1781.5 MHz the power limits shown in table 4.3 will apply.

- 4.4 When a station is installed and operated at a fixed location that is at a distance greater than 750 metres from a pre-existing GSM 1800 base station operating in the band 1751.7 - 1781.5 MHz the power limits shown in table 4.4 will apply.

Figure 4.1 Spectrum masks and power limits (for stations installed and operated at fixed locations)

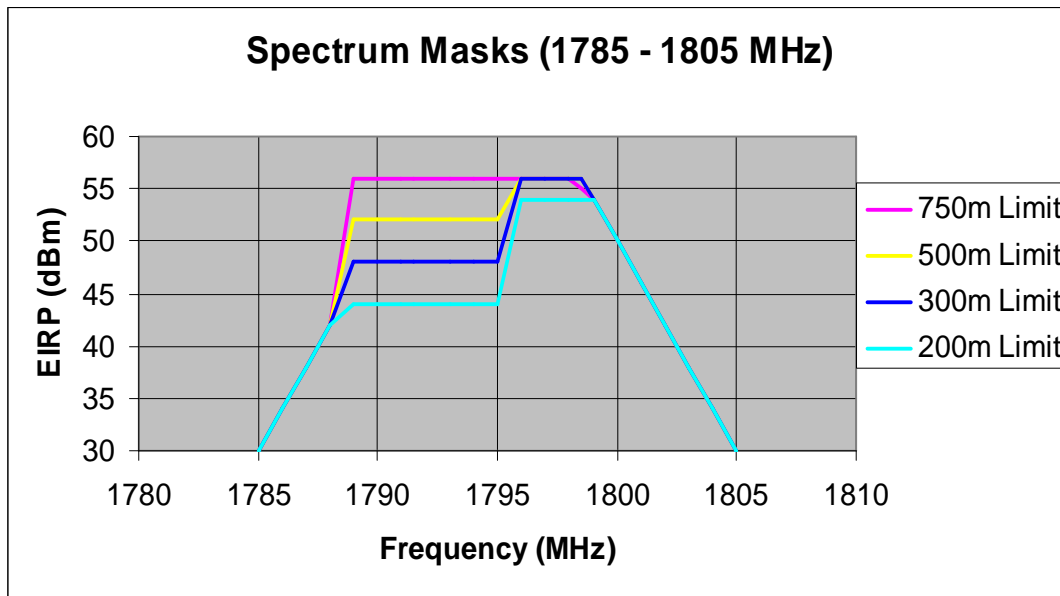


Table 4.1 Maximum EIRP for stations installed and operated at fixed locations at a separation distance of 200m

Frequency (MHz)	Maximum EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 – 1788	$30 + (4 * \Delta F1)$ Note 1
1788 – 1789	$42 + (2 * \Delta F2)$ Note 2
1789 – 1795	44
1795 – 1796	$44 + (10 * \Delta F3)$ Note 3
1796 – 1799	54
1799 – 1805	$54 - (4 * \Delta F4)$ Note 4
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 4: $\Delta F4$ is the positive offset in MHz to a maximum of 6MHz

Table 4.2 Maximum EIRP for stations installed and operated at fixed locations at a separation distance of 300m

Frequency (MHz)	Maximum EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 – 1788	$30 + (4 * \Delta F1)$ Note 1
1788 – 1789	$42 + (6 * \Delta F2)$ Note 2
1789 – 1795	48
1795 – 1796	$48 + (8 * \Delta F3)$ Note 3
1796 – 1798.5	56
1798.5 – 1799	$56 - (4 * \Delta F4)$ Note 4
1799 – 1805	$54 - (4 * \Delta F5)$ Note 5
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 4: $\Delta F4$ is the positive offset in MHz to a maximum of 0.5MHz

Note 5: $\Delta F5$ is the positive offset in MHz to a maximum of 6MHz

Table 4.3 Maximum EIRP for stations installed and operated at fixed locations at a separation distance of 500m

Frequency (MHz)	EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 - 1788	$30 + (4 * \Delta F1)$ Note 1
1788 - 1789	$42 + (10 * \Delta F2)$ Note 2
1789 - 1795	52
1795 - 1796	$52 + (8 * \Delta F3)$ Note 3
1796 – 1798.5	56
1798.5 – 1799	$56 - (4 * \Delta F4)$ Note 4
1799 - 1805	$54 - (4 * \Delta F5)$ Note 5
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 4: $\Delta F4$ is the positive offset in MHz to a maximum of 0.5MHz

Note 5: $\Delta F5$ is the positive offset in MHz to a maximum of 6MHz

Table 4.4 maximum EIRP for stations installed and operated at fixed locations at a separation distance of 750m

Frequency (MHz)	Maximum EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 – 1788	30 + (4*ΔF1) Note 1
1788 – 1789	42 + (14*ΔF2) Note 2
1789 – 1798	56
1798 – 1799	56 – ΔF3 Note 3
1799 – 1805	54 – (4*Δf) Note 4
1805	30
Above 1805	Unwanted Emission Level

Note 1: ΔF1 is the positive offset in MHz to a maximum of 3MHz

Note 2: ΔF2 is the positive offset in MHz to a maximum of 1MHz

Note 3: ΔF3 is the positive offset in MHz to a maximum of 1MHz

Note 4: ΔF5 is the positive offset in MHz to a maximum of 6MHz

4.5 For all mobile stations the limits given in table 4.5 below will apply. The spectrum mask and power limits for the Spectrum Band for mobile stations is given in Figure 4.2 below.

Table 4.5 Power limit on emissions from mobile terminals

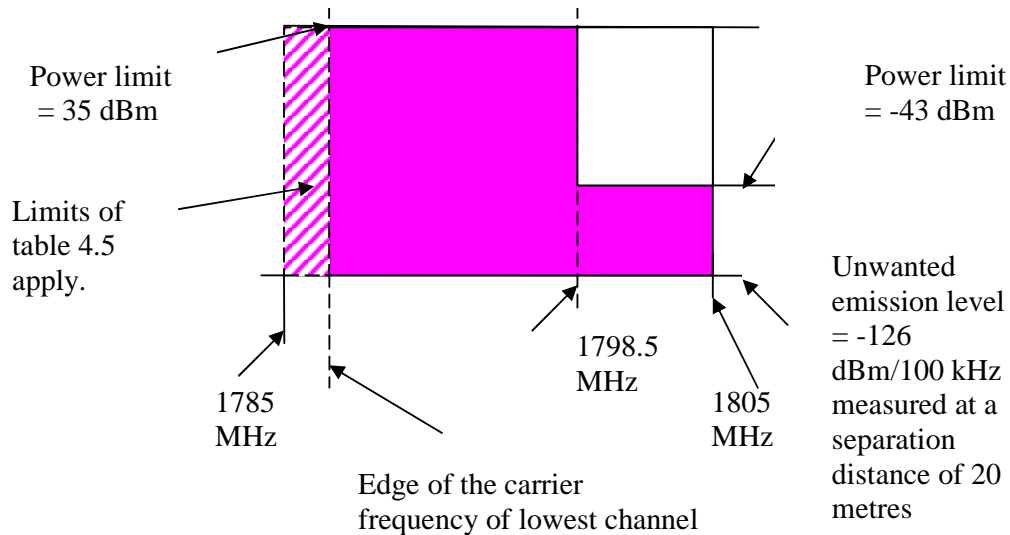
Frequency offset in kHz from the carrier (Note 1)	Upper EIRP limit (35dBm) (Notes 2 & 3)	Measurement Bandwidth (kHz)
100	+0.5	30
200	-30	30
250	-33	30
400	-60	30
600 - <1200	-62	-65
1200 - <1800	-65	-67
1800 - <6000	-67	100
6000	-80	100

Note 1: The lowest carrier centre frequency will be 1784.5MHz

Note 2: An in band power limit of -43dBm is assumed inside the spectrum band 1798.5 to 1805 MHz.

Note 3: The unwanted emission limit is -126 dBm/100kHz measured at a separation distance of 20 metres.

Figure 4.2 Spectrum mask and power limits (mobile stations)



- 4.6 The Licensees will not be permitted to operate a fixed station that is closer than 200 metres to a pre-existing GSM base station operated in the band 1751.7 - 1781.5 MHz by the current GSM licence holder in Northern Ireland unless it is successfully co-ordinated. For co-ordination to be successful, the parties concerned will need to exchange any and all relevant information. ComReg and Ofcom expect the costs resulting from co-ordination of stations in the Spectrum Band with pre-existing GSM base stations operated in the band 1751.7 - 1781.5 MHz by the current GSM licence holder in Northern Ireland to be borne by the relevant Licensee (either the Licensee in Ireland or the Licensee in Northern Ireland, whichever is appropriate).
- 4.7 The current GSM licence holder in Northern Ireland is able to deploy new stations and modify pre-existing GSM base stations under the terms of its licence. The obligations on the Licensee to co-ordinate with the GSM licence holder in Northern Ireland if the former does not respect the spectrum masks set out in tables 5.1 to 5.4 exists only in relation to GSM base stations that exist before the deployment of any given fixed station by the Licensee. It is therefore a matter for the GSM licence holder to seek co-ordination with the Licensee in relation to new or modified GSM base stations. ComReg's and Ofcom's preference is that the parties concerned find a satisfactory framework for managing any co-ordination of this kind that is required, and the costs that arise from this.
- 4.8 In general, licensees are required to operate radio equipment in compliance with such co-ordination and sharing procedures as may be considered necessary and notified by ComReg or Ofcom.

International frequency co-ordination

- 4.9 ComReg and Ofcom have agreed in principle to a memorandum of understanding for the Spectrum Band (the "MoU"), which will come into effect in the event that international co-ordination is required for the efficient use of the Spectrum Band. The draft MoU and procedure for coordination is set out in Annex 8 of the Memorandum.

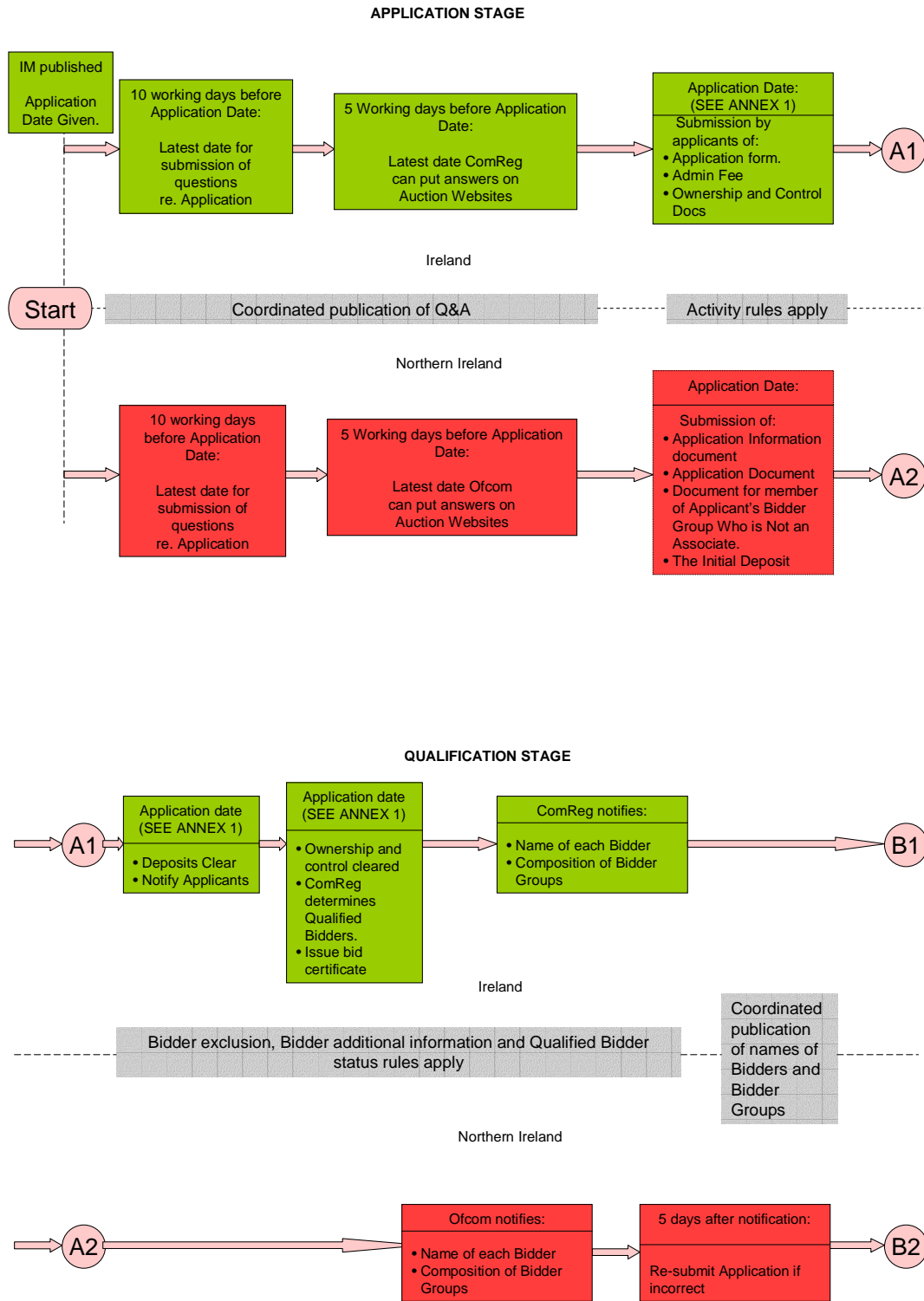
- 4.10 Details of the arrangements for international co-ordination are given in the Memorandum, Annex 8.

Section 5

The Award Processes

- 5.1 Figure 5.1 sets out an illustrative time line for the Award Processes in both Ireland and Northern Ireland. While the awards have to run separately in the two jurisdictions, the process gives an opportunity for one party to win both licences (one in Ireland and one in Northern Ireland) and offer a viable trans-border electronic communications service.
- 5.2 The Award Process for Ireland will be conducted in accordance with the Award Process detailed in Annex 1 of the Memorandum.
- 5.3 The Award Process for Northern Ireland will be conducted in accordance with the NI Regulations. A copy of the proposed NI Regulations in the draft form published by Notice for comment on 14th December 2006 is provided at Annex 5 of the Memorandum. Anyone wishing to comment on the draft NI Regulations should review the Notice of Ofcom's proposal to make regulations in connection with the award of spectrum 1785 – 1805 MHz. The final form of the NI Regulations will be placed on the Ofcom website once they are made and they will be published by Her Majesty's Stationery Office and made available at www.opsi.gov.uk.
- 5.4 Anyone making or considering making an application in accordance with the Award Process for the Ireland Licence described in Annex 1 of the Memorandum should read and understand the rules of the Award Process as set out in Annex 1. Anyone making or considering making an application in accordance with the Award Process for the NI Licence described in Annex 4 of this Memorandum should read and understand the rules of the Award Process as set out in the NI Regulations in Annex 5.
- 5.5 If there is any discrepancy between the description of the Award Process for NI Regulations contained in the Memorandum and the NI Regulations, the NI Regulations will prevail. Ofcom will consider all representations made in response to the Notice and, if necessary, change its proposals and the content of the proposed NI Regulations. The NI Regulations as enacted may, therefore, differ from the draft provided at Annex 5 and described below.
- 5.6 In outline, the Award Processes will commence at the same time with the Application Stage. A Qualification Stage will follow the Application Stage and this will be followed by the Auction Stage for the Ireland Licence. When the winning bidder for the Ireland Licence has been determined and its details are announced, Ofcom will commence the Auction Stage for the NI Licence. Both Award Processes end with the grant of licences.

Figure 5.1 Illustrative time lines for the Award Processes



QUALIFICATION STAGE



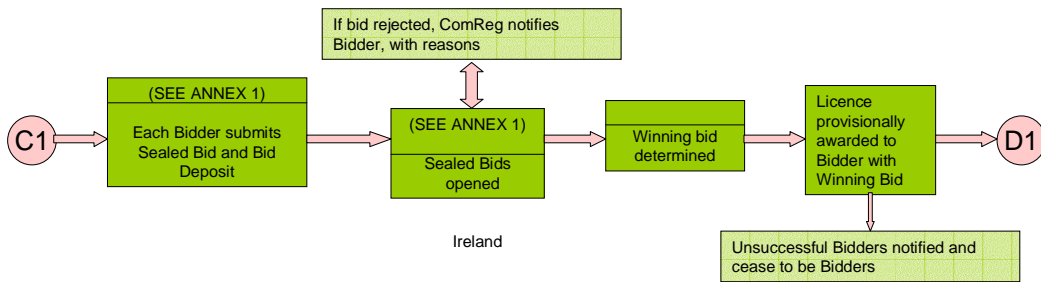
Ireland

Notify the qualified bidders of the date of the auctions in Ireland & Northern Ireland

Northern Ireland



AUCTION STAGE

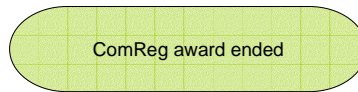
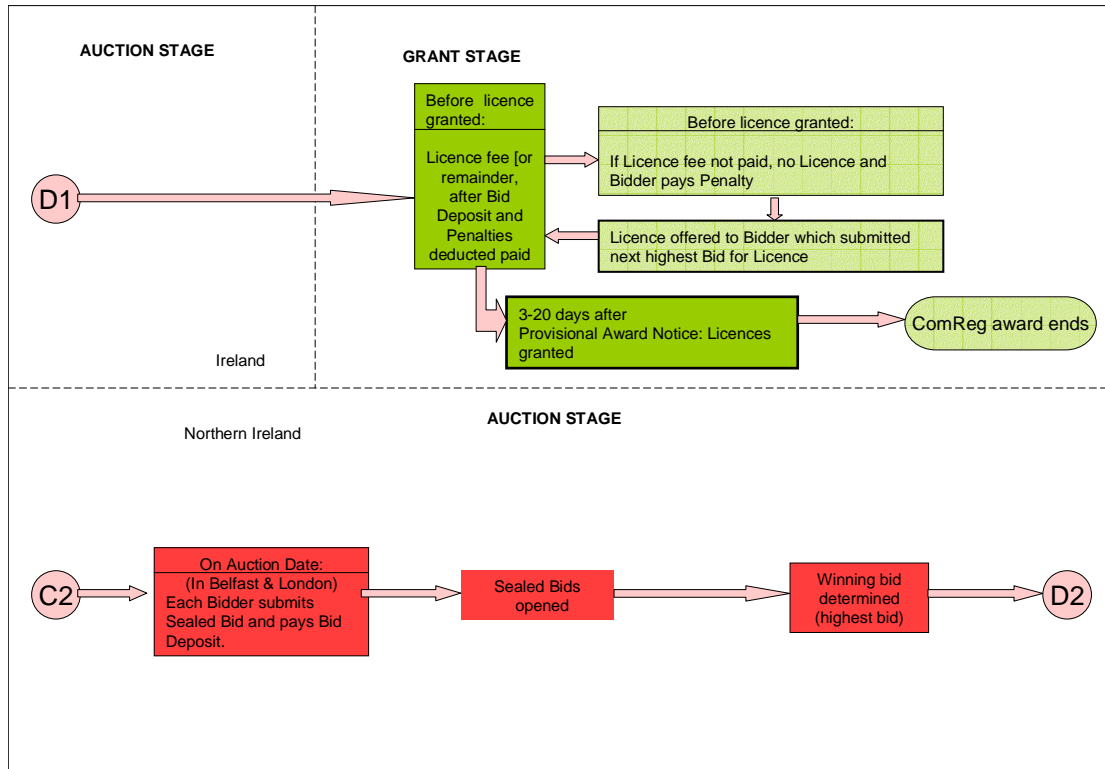


Ireland

QUALIFICATION STAGE

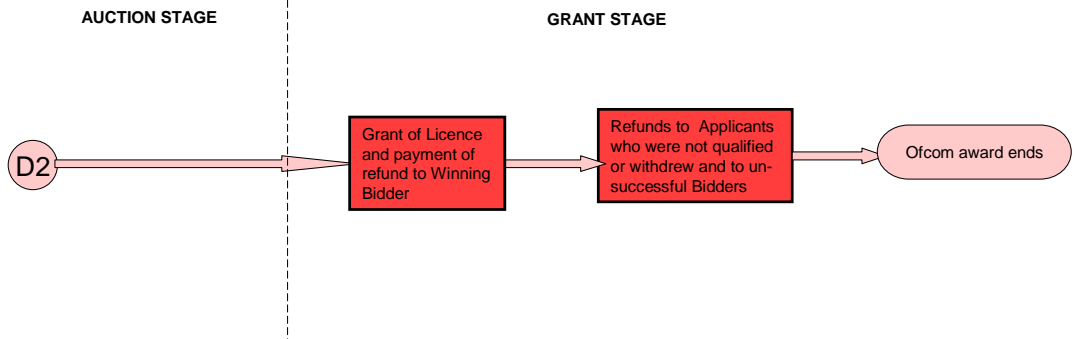
Northern Ireland





Ireland

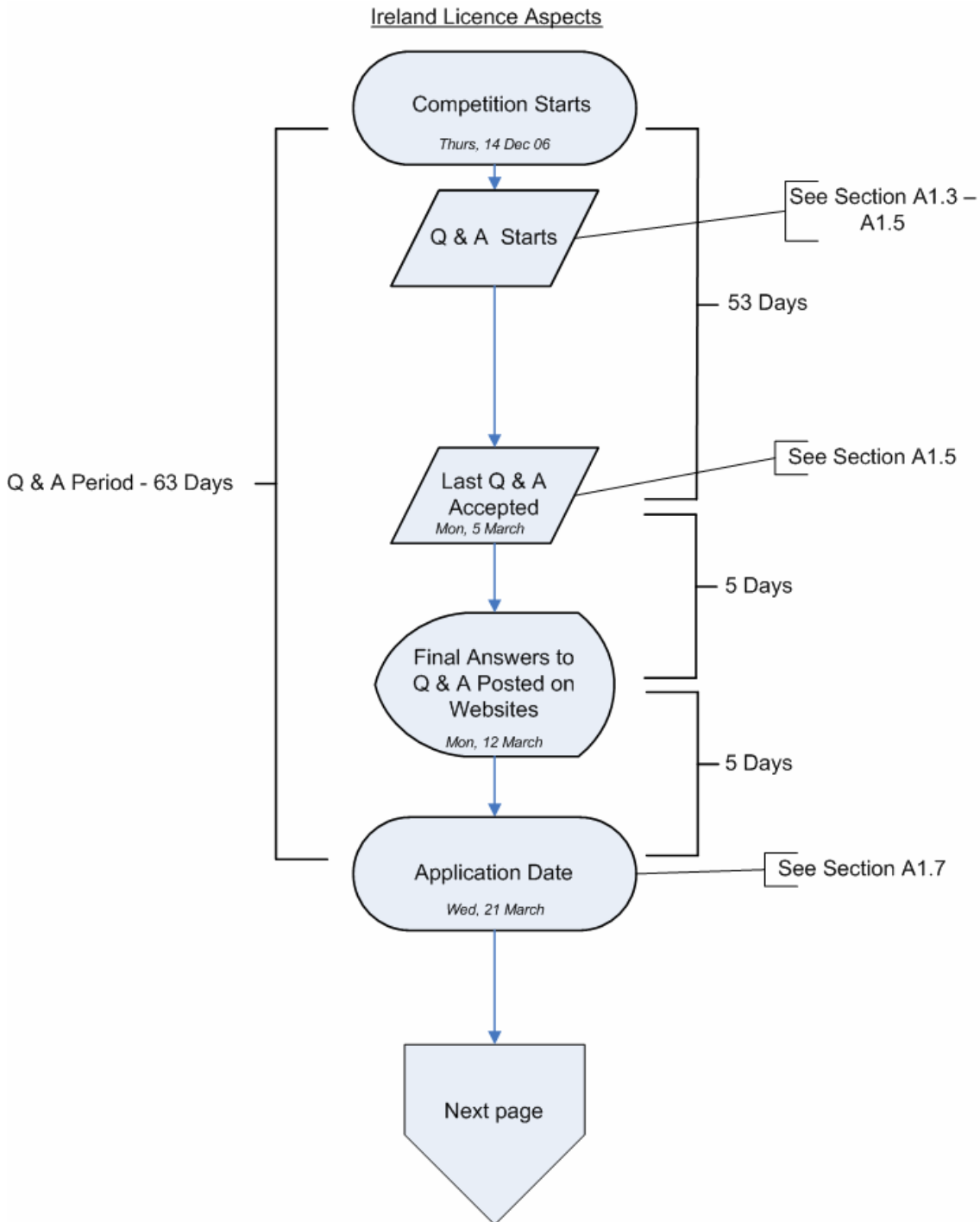
Northern Ireland

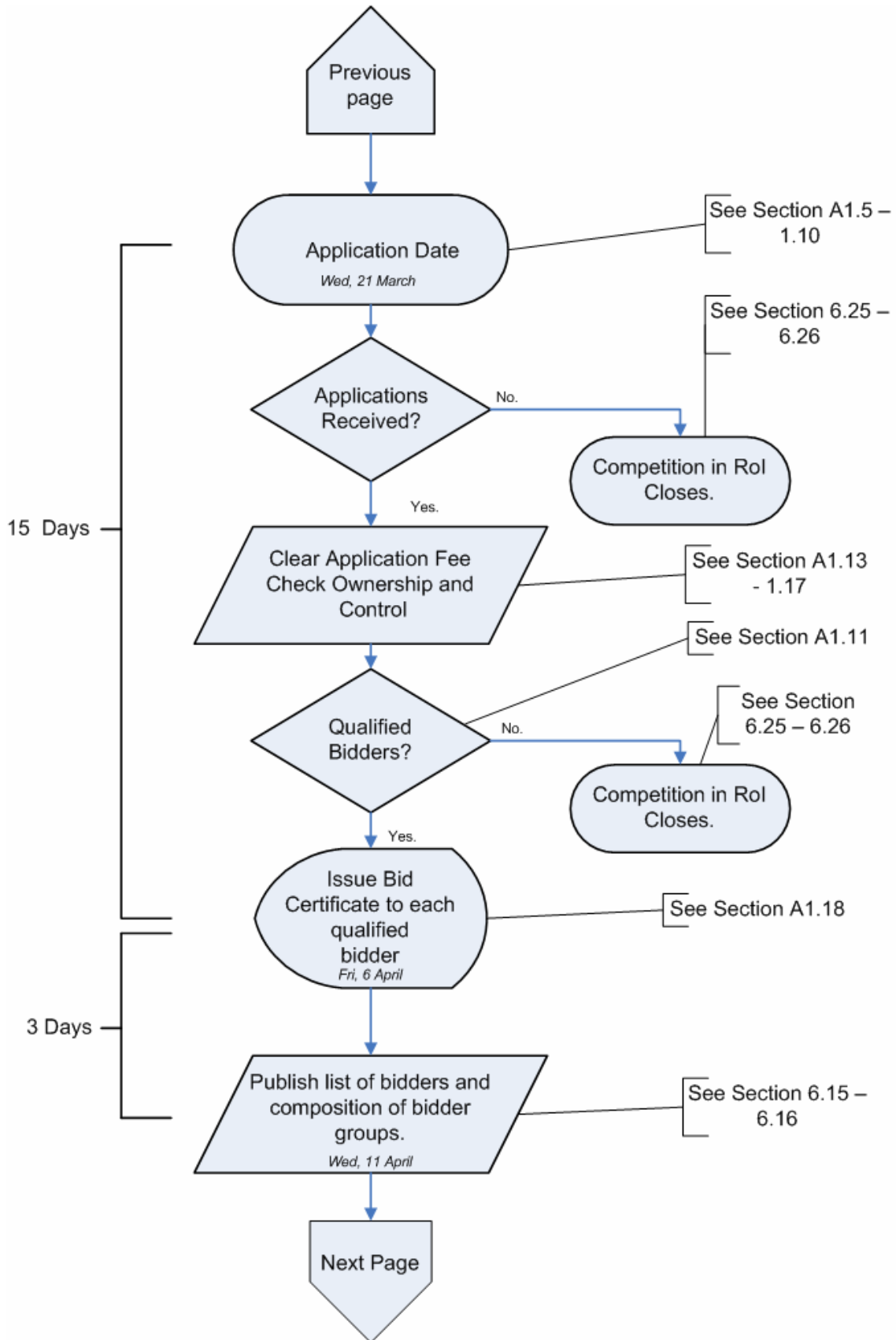


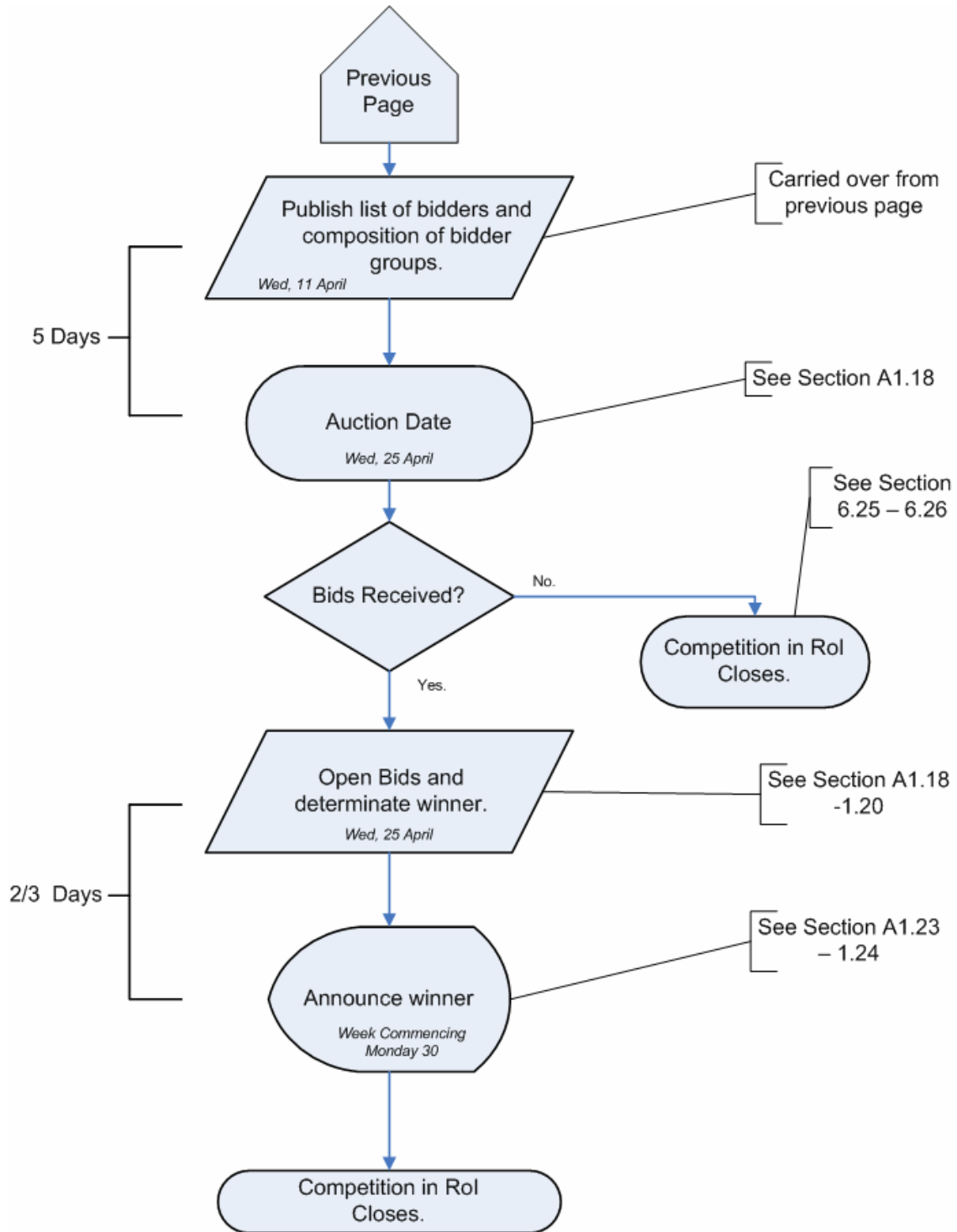
Annex 1

Award Process (Ireland)

Flowchart of the process showing indicative dates and number of days between key events.







Applying For A Licence

A1.1 Any legal entity, by which is meant a company, partnership or other legal person, can submit an application to take part in the Award Process. There are no restrictions on the applicant's country of domicile.

Bidder Association Rules

A1.2 Connected persons of an applicant or applicant group may not be connected persons of another applicant or applicant group as defined in Part 2 of the application form (Annex 3). Applicants which are found to have such relationships will not be approved to participate in the auction.

Questions

A1.3 Any interested parties may submit questions in writing concerning the licensing process. All questions received in due time (see below) will be replied to on an ongoing basis and as far as possible within 5 working days. All questions and answers will be made available by ComReg in writing to all parties. ComReg will not disclose the identity of the party posing a question, except where it may be legally obliged to do so. All questions and answers will be published on the ComReg/Auction website.

A1.4 Questions shall be marked for the attention of Mr. Conor Conran and shall be clearly labelled "QUESTIONS: ALL ISLAND WIRELESS LICENCE PROCESS". Questions addressed in any other way will not be answered. Questions forwarded by letter, e-mail or fax will be accepted.

A1.5 All questions should be sent to:

**Commission for Communications Regulation,
Abbey Court, Irish Life Centre
Lower Abbey Street
Dublin 1
IRELAND
ATTN: Mr. Conor Conran**

**Phone +353 (01) 804 9725; Fax +353 (01) 804 9671
E-mail: conor.conran@comreg.ie**

The latest time for receipt of questions is **14.00 hours (local time) 10 working days before the application date**. Questions received after this time will not be answered.

Submitting an Application

A1.6 ComReg is subject to Irish and EU rules on treatment and handling of confidential information.

A1.7 In order to take part in the Award Process, applicants must submit a completed application form between 10:00am and 14:00pm on the application date. The application date is set for 21 March 2007. ComReg retains the power to change this to a later date and in the event that the date is changed, ComReg will publish the new date on the ComReg Web-Site as soon as is possible (and at least 72 hours in advance).

A1.8 Applications delivered earlier or later than the times specified on the application date will not be accepted. An application will consist of two parts:

- a completed application form together with the information and documents specified in Part 1 and Part 2; and
- bank drafts for the application fee and deposit amount.

A1.9 An applicant is only permitted to submit one application.

A1.10 All parts of the application form must be completed by the applicant. Failure to complete any of Parts 1 and 2 of the application form may result in expulsion from the Award Process and forfeit of both the application fee and deposit. In order to facilitate the vetting of applications applicants are required to provide 2 copies of Parts 1 and 2 of the application form.

A1.11 Applications are to be submitted to:

**Commission for Communications Regulation,
Abbey Court, Irish Life Centre
Lower Abbey Street
Dublin 1
IRELAND
ATTN: Mr. Conor Conran
Phone number for enquiries: +353 (0)1 804 9725**

Approval of applications

A1.12 All applications will be subject to an approval procedure. As part of the approval procedure, ComReg may require further information from applicants in addition to that provided in their application. Any such additional information must be submitted to ComReg within 5 working days from the date of the request. ComReg will inform each applicant, in writing, whether or not its application has been accepted within 10 days of the date on which the application is received, and will issue qualified bidders with a bidding certificate.

Changes and Corrections to the application

A1.13 If any errors or omissions arise in the application form, applicants will be contacted and given 48 hours to correct the error or omission without suffering any penalty. If following a request from ComReg to correct or amend an application, there are still errors in the application, the application will not be accepted into the licensing process and the applicant will forfeit both the application fee and the deposit.

Application Fee and Deposit

Application Fee

A1.14 As part of the application, the applicant must pay an application fee in cleared funds of €20,000. This payment is only acceptable in the form of a bank draft and no other forms of payment will be accepted. This fee covers the cost of conducting the licensing process and will only apply to successful applicants.

Deposit Amount

A1.15 On the application date the applicant must pay a deposit in cleared funds of €75,000 (50% of the reserve price). This payment is only acceptable in the form of a bank draft and no other forms of payment will be accepted. This deposit will be used in part payment for the licence price.

Application Fee and Deposit interest

A1.16 Applicants will not be entitled to recover any interest earned.

Refund of Application Fee and Deposit

A1.17 The application fee and deposit will be refunded to an applicant where the applicant has not been awarded the licence and has not defaulted under the rules of the Award Process.

A1.18 Applicants are required to provide details of the bank account to which such amounts should be refunded by electronic bank transfer, as part of their application. Refund of the application fee and deposit will only be via electronic bank transfer.

Bidding Certificate

A1.19 Bids may only be made using the bidding certificate issued to each successful applicant.

A1.20 A successful applicant means a person, company or other legal entity which has lodged a properly and fully completed application form with ComReg, within the set time limits and on the designated application date, together with the full application fee in the form of bank draft, which has otherwise fully complied with the terms and conditions of entry, to ComReg's satisfaction.

A1.21 Each applicant must submit its sealed bid by 5pm on the auction date. The sealed bids will be opened, and the winning bid determined, within 5 working days of the auction date. On the bidding certificate bids must be expressed in Euros with a maximum of two decimal places. Applicants are encouraged to submit bid amounts to two decimal places in order to reduce the possibility of tied bids. The amount of the bid must be a minimum amount of € 150,000. Successful bids may not be withdrawn or amended for a period of up to 3 months from the application date. A successful applicant will be released from its bid if ComReg rejects its application, or if said applicant is not awarded the Ireland Licence.

A1.22 Where two or more bids are identical in value, ComReg shall select the winning bid by draw.

A1.23 Once all applicants have been notified of whether their applications have been accepted or rejected, ComReg shall open the envelopes that contain the bidding forms submitted by accepted applicants. Envelopes from applicants who are rejected will be returned unopened.

Rules on Applicant behaviour

A1.24 An applicant should, until the issue of the Ireland Licence refrain from

- disclosing confidential information¹⁶;
- entering into agreements with other applicants;
- undertaking any action that might adversely affect the auction prior to and after the application is lodged and until the date of the issue of the Ireland Licence.

A1.25 As part of the application, each applicant will be required to certify that it will abide by the rules of entry, as set out in this section. If at any point it becomes apparent that a successful applicant has failed to comply with said rules, the applicant will be excluded from the auction and will forfeit both the deposit and the application fee. In certain circumstances and following a full and proper investigation and hearing, ComReg may also revoke the Ireland Licence after it has been awarded, where the winning applicant is found to have breached one or more of the said rules of entry..

Completion of the Award Processes

A1.26 Once the winner of the Ireland Licence has been identified, ComReg will inform each successful applicant in writing as to whether it has been awarded the Ireland Licence. The winning applicant will also be informed of the licence fee that is payable, and will be further notified that said fee must be paid in full within 5 days of the date of notification. ComReg may extend this 5 day time limit to allow the winning applicant to pay the full licence fee obligations. If the winning applicant declines to accept the Ireland Licence offered it will forfeit both the application fee and deposit fees.

A1.27 Once the Ireland Licence has been issued to the winning applicant ComReg will make a public announcement stating:

- the number of applications received
- the name of the winning applicant
- the price paid for the Ireland Licence

A1.28 After the Ireland Licence is awarded the Licensee may not sell, transfer or otherwise assign the Ireland Licence or any of the powers, rights, duties or functions conferred by it, without the consent of ComReg. A moratorium period of 2 years will apply to Licence transfer requests, during which ComReg will only consider licence transfers in response to Licensee liquidation or bankruptcy civil proceedings. This is intended to mitigate against speculation in the Award Process.

¹⁶ Confidential information refers to information concerning an applicant's application or a part thereof that, if it were to be made available to other bidders, may affect the amount that they would bid. Such information would include (but is not limited to) any information regarding the applicants strategy such as its business case and the contents of its application and bidding form.

Annex 2

Draft Regulations (Ireland)

A2.1 These draft Ireland Regulations are subject to review and approval by the Minister for Communications, Marine and Natural Resources.

STATUTORY INSTRUMENT

S. I. No. NNN of 2006

Wireless Telegraphy (1785 - 1805 MHz Wireless Access Services) Regulations, 2006.

Published by the Stationery Office
Dublin

To be purchased through any Bookseller or directly from the Government Publications
Sales Office, Sun Alliance House, Molesworth Street, Dublin 2.

Or by mail order from
Government Publications, Postal Trade Section,
51 St. Stephen's Green, Dublin 2

(Tel: 01 6476834/35/36/37; Fax 01 6476843)

Or through any bookseller

(Prn. LN / NNNN)

Price €0.00

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 6(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926), transferred to the Commission for Communications Regulation by section 9(1) of the Communications Regulation Act 2002 (No. 20 of 2002) and with the consent of the Minister for Communications, Marine and Natural Resources, pursuant to section 37 of the Communications Regulation Act 2002 hereby makes the following Regulations

Citation and Commencement

1. (1) These Regulations may be cited as the Wireless Telegraphy (1785 – 1805 MHz Wireless Access Policy for Electronic Communications Services) Regulations, 2006.

(2) These Regulations come into force on 1st day of June, 2007

Interpretation

2. (1) In these Regulations –

“Act of 1926” means the Wireless Telegraphy Act, 1926 (No. 45 of 1926);

“Act of 1972” means the Wireless Telegraphy Act, 1972 (No. 5 of 1972)

“Act of 2002” means the Communications Regulation Act 2002 (No. 20 of 2002);

“Apparatus” means apparatus for wireless telegraphy operating in the band 1785 MHz to 1805 MHz frequency bands for the purpose of the provision of Wireless Access Policy for Electronic Communications Services and, in relation to licences issued under section 5 of the Act of 1926, means apparatus to which such licences relate;

“Authorisation Regulations” means the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2003 (S.I. No. 306 of 2003);

“Commission” means the Commission for Communications Regulation established under the Act of 2002;

“Wireless Access Policy for Electronic Communications Services” means a digital service providing wireless access for the provision of electronic communications services;

“Electronic communications service” means a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on

electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting but excludes-

- (a) a service providing or exercising editorial control over, content transmitted using electronic communications networks and services, and
- (b) an information society service, as defined in Article 1 of Directive 98/34/EC, which does not consist wholly or mainly in the conveyance of signals on electronic communications networks;

“harmful interference” means interference which endangers the functioning of a radionavigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts any lawfully operating radiocommunications service;

“Licence” means a Licence granted under section 5 of the Act of 1926 for apparatus for wireless telegraphy of a particular class or description for the provision of an electronic communications network or service;

“Licensee” means the holder of a Licence.

- (2) In these Regulations unless the contrary intention appears:
 - (a) a reference to regulation or schedule is a reference to a regulation or schedule of these Regulations;
 - (b) a reference to a paragraph or subparagraph is a reference to a paragraph or subparagraph of the provision in which the reference occurs.
 - (c) a reference to an enactment or regulation shall be construed as a reference to the enactment or regulation as amended or extended by or under any subsequent enactment or regulation;
- (3) The Interpretation Act 2005 applies to these Regulations.

Application for Licence and Form of Licence

- 3. (1) An application for a Licence shall be made to the Commission and shall be in writing and in such form as may be determined by the Commission.

(2) A person who makes an application under paragraph (1) shall furnish to the Commission such information as the Commission may reasonably require for the purposes of its functions under these Regulations and the Authorisation Regulations and if the person, without reasonable cause, fails to comply with this paragraph, the Commission may refuse to grant a Licence to the person.

(3) The Commission will grant a Licence in accordance with the relevant provisions of the Authorisation Regulations.

(4) A Licence shall be in the form set out in the Schedule or such other form as the Commission may from time to time determine.

Licences to which these Regulations apply

4. (1) These Regulations apply to Licences to keep, have possession of, install, maintain, work and use Apparatus having the characteristics set out in Part 2 of the Licence.

(2) A Licence does not grant to the Licensee any right, interest or entitlement, other than the right to keep, have possession of, install, maintain, work and use Apparatus having the characteristics set out in Part 2 of the Licence.

Licensee to satisfy all legal requirements

5. Nothing in these Regulations shall absolve a Licensee from any requirement in law to obtain any approvals, consents, licences, permissions and authorities as may be necessary for the provision of the Wireless Access Policy for Electronic Communications Services and for the exercise of his or her rights or the discharge of obligations under the Licence. The Licensee is responsible for all costs, expenses and other commitments (financial and non financial) in respect of the Licence and the provision of the Wireless Access Policy for Electronic Communications Services and the Commission shall bear no responsibility for such costs, expenses or commitments.

Duration and Renewal

6. (1) A Licence unless it has been revoked, shall remain in force for a period of fifteen years from the date on which it is granted and unless renewed it shall expire.

(2) A Licence may be granted or renewed from time to time by the Commission under paragraph (4).

(3) the granting or renewal of a Licence shall not be construed as warranting that the Licence shall be renewed at any time in the future.

(4) Notwithstanding paragraph (1), a Licence shall not be renewed on the 15th anniversary after the first grant of the Licence and shall then expire.

(5) On application by or on behalf of a Licensee to the Commission prior to the expiration of his or her Licence, the Commission may, by notice in writing given to the Licensee or sent to the Licensee at the address of the Licensee specified in the Licence or notified to the Commission by the Licensee in accordance with the Licence, renew the Licence for a specified period to commence immediately upon the expiration of the last previous period in which the Licence was in force.

Licence Fees

7. (1) A Licence will be awarded following an auction to the highest bidder or bidders, subject to such reserve fee as may be set by the Commission.

(2) Licence fees are payable to the Commission and shall not be refundable in any circumstances.

Conditions of Licences

8. It shall be a condition of a Licence that:
 - (1) a Licensee shall comply with these Regulations and with the provisions of Part 2 of the Licence;

- (2) a Licensee shall pay the Licence fee in full, in accordance with Regulation 7;
- (3) a the Licensee will ensure that non-ionising radiation emissions from each radio installation which it operates under its Licence(s) are within the limits set by the International Commission for Non-Ionising Radiation Protection (“ICNIRP”) and will ensure that it complies with any radiation emission standards set by ICNIRP, the European Committee for Electrotechnical Standards, or specified by national and EC law;
- (4) a licensee will ensure that Apparatus under its Licence is not installed or operated at a location or in a manner such as to be the cause of the aggregate non-ionising radiation emissions which exceed the limits set by ICNIRP, and will ensure that it complies with any radiation emission standards set by ICNIRP, the European Committee for Electrotechnical Standards or specified by national and EC law;
- (5) if the address a Licensee changes, the Licensee shall, as soon as possible, notify the Commission in writing of the change;
- (6) a Licensee shall comply with any special conditions imposed under section 8 of the Act of 1972 and subject to which this Licence is deemed by subsection (3) of that section to be issued;
- (7) a Licensee may not, without the consent of the Commission (which shall not be unreasonably withheld subject to any moratorium period) assign the Licence or any of the powers, duties or functions conferred by it or otherwise transfer any of the rights or obligations conferred by it;
- (8) a Licensee shall comply with obligations under relevant international agreements relating to the use of Apparatus or the frequencies to which such Apparatus is assigned;
- (9) a Licensee shall ensure that the use of the Apparatus and provision of the “Wireless Access Policy for Electronic Communication Services” does not cause harmful interference.

SCHEDULE

Part One

WIRELESS TELEGRAPHY ACT, 1926

Section 5

1785 – 1805 MHz Wireless Access Services Licence

Licence No.

_____ Fee _____

Licensee _____

Postal Address in full _____

The Commission, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act, 1926 (No. 45 of 1926) and Section 9(1) of the Communications Regulation Act, 2002 (No. 20 of 2002) grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use apparatus as specified in Part 2 of this Licence subject to the Licensee observing the conditions contained in Regulation 8 of the Wireless Telegraphy (1785 - 1805 MHz Wireless Access Policy for Electronic Communications Services) Regulations, 2006 (S.I. No. NNN of 2006)

Date + Stamp

From _____ to _____

Signed _____

For and on behalf of the Commission for Communications Regulation

Part Two

Statement of authorised Apparatus

To include:

Description of Apparatus

Places at which the Licensee is authorised to keep and have possession of the Apparatus.

Technical restrictions

Details of spectrum

Rollout plan

Given under the official seal of the Commission for Communications Regulation, this nth day
of mnth, 2007

For and on behalf of the Commission for Communications Regulation

The Minister for Communications, Marine and Natural Resources consents to the making of the foregoing Regulations.

GIVEN under the Official Seal of the Minister for Communications, Marine and Natural
Resources this nth day of mnth, 2007

Noel Dempsey T.D.

Minister for Communications, Marine and Natural Resources

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations provide for the issue of Licences for apparatus for wireless telegraphy used solely for the provision of Wireless Access Policy for Electronic Communications Services in the frequency bands 1785 - 1805 MHz, for the regulation of such apparatus and for the payment of fees by persons granted Licences for that purpose.

Annex 3

Application Form (Ireland)

**APPLICATION FOR 1785 – 1805 MHz WIRELESS ACCESS PLATFORM
ELECTRONIC COMMUNICATION SERVICES (WAPECS) LICENCE**

PART 1

GENERAL INFORMATION

APPLICANT DETAILS

Name and address of Applicant:

Company Name: _____

Contact Person: _____

PO Box (if any): _____

Address: _____

Postal Code: _____

Telephone: _____

Fax: _____

E- Mail: _____

The Signatory, if not the Applicant, must be authorised to sign on behalf of the Applicant.
The named contact person may be other than the Signatory.

PART 2

The Applicant shall provide 2 copies of the following.

Ownership and equity capital

A description of the ownership and commercial relationships of the Applicant, including the size, composition and distribution of legal entities and (where relevant) individuals, of the respective ownership interests, including Group structures, shall be provided.

The Applicant shall provide:

- a) The name, registered office, corporate form and a general description of the Applicant.
- b) A description of any Participants and of the organisational and capital-related interaction between the Applicant and any Participants.(by this is meant, for example, information on the cross-over of staff and of persons at management level and board level as well as technology sharing and in terms of capital-interaction, loans, financial guarantees and credits (non-exhaustive list)).
- c) A complete description of the ownership structure of the Applicant, including the amount of the equity capital, and its composition and distribution among the owners. In the case of an entity to be formed, similar details of the intended owners should be provided.
- d) A description, in writing, of any relevant joint venture agreement, shareholder agreement and/or similar agreements including, as a minimum, a description of responsibilities, liabilities, voting rights and the transferability of ownership agreed or to be agreed. If the controlling interest differs or can differ from the position appearing in the capital ownership structure, this shall also be described.
- e) A description of any agreements in connection with any project connected to this Application, concerning the Applicant's or the Applicant's owners' future ownership of company shares, share options, pre-emptive share rights, or plans for reserved capital holdings..
- f) A description of all undertakings connected to the Applicant, or to the owners of the Applicant, and a description of any financial interests held by the Applicant, or by the owners of the Applicant in existing Licensees or in other Applicants..

Applicant's third-party agreements

The Applicant shall provide a description of any agreements or other co-operation arrangements with third parties agreed or to be agreed between the Applicant and any Participants within the field of telecommunications to the extent that such agreements, etc. have a bearing on the implementation of the investment plan.

Bankruptcy

The Applicant shall provide a declaration, signed by the Applicant or at least one of the applicant's authorised representatives, that the Applicant: is not in suspension of payments, liquidation, or bankruptcy or winding up proceedings and, where a body corporate, that the Applicant is duly established under the legislation governing the country in which the Applicant's registered office is situated; and is not, nor is expected to be involved in any disputes which may in any material or adverse way affect compliance with the Licence.

Applicants Bank Details

The applicant shall provide details of the bank account to which any monies will be returned by ComReg in the event of failure to secure a Licence.

Interpretation

For the purposes of this Memorandum of Information a "person" means an individual, a body corporate or an unincorporated body of persons.

A person shall be deemed to control a body corporate if –

- a) he or she has a controlling interest in the body corporate; or
- b) he or she has a controlling interest in a body corporate which has a controlling interest in the body corporate; or
- c) he or she does not have a controlling interest in the body corporate, or in any body corporate with a controlling interest in the body corporate, but it is reasonable, having regard to all the circumstances, to expect that he or she will be able, by whatever means and whether directly or indirectly, to direct the affairs of the body corporate in accordance with his or her wishes.

For this purpose, a person has a controlling interest in a body corporate if he or she holds, or is beneficially entitled to, 25% or more of the equity share capital in the body corporate, or possesses 25% or more of the voting power in it and a person shall be deemed to control a body corporate where that person controls another person which controls that body corporate.

DECLARATION BY THE APPLICANT

I accept that ComReg may publish information relating to licensed radio systems and that certain information relating to any licence issued pursuant to this application may be contained in any such publication.

I agree to comply fully with all the terms and conditions of the licensing procedure as outlined in the Information Memorandum [Insert Doc Number].

I agree to comply fully with all the terms and conditions of the licence, if granted, in accordance with the Wireless Telegraphy (1785 - 1805 MHz Wireless Access Platform for Electronic Communications Services) Regulations, 2006.

I accept that a licence does not confer any rights of ownership of the frequency spectrum. It allows the assigned frequency channel to be used during the term of the licence in accordance with the conditions of the licence.

I certify that all information provided on this form, including all documentation attached, is true and accurate.

Signature of Applicant: _____

On behalf of (Company): _____

Name in Block Letters: _____

Date: _____

(If applicant is part of a company, please state position held):

Schedule of Fees to accompany any application:

Fee	Amount
Application fee	€20,000
Deposit	€75,000

All monies will be returned to unsuccessful applicants unless forfeited.

Payment can only be made via a bank draft made payable to the Commission for Communications Regulation. Personal cheques, company cheques and cash will not be accepted as payment.

Annex 4

Award Process (Northern Ireland)

Draft Auction Regulations

Announcement of the Application Day

- A4.1 The Award Process will be conducted in accordance with the NI Regulations which set out the auction procedure in detail. A copy of the proposed NI Regulations in the draft form published by Notice for comment by 19 January 2007 is provided in Annex 5 of the Memorandum. Anyone wishing to comment on the draft should review the Notice of Ofcom's proposal to make regulations in connection with the award of the Spectrum Band. Anyone making or considering making an application in accordance with the procedure described below should read and understand the rules of the Award Process as set out in the NI Regulations. If there is any discrepancy between the description of the NI Regulations contained in the Memorandum and the NI Regulations, the NI Regulations will prevail. Ofcom will have to consider all representations made in response to the Notice and, if necessary, change its proposals and the content of the proposed NI Regulations. The NI Regulations as enacted may, therefore, differ from the draft provided at Annex 5 and described below.
- A4.2 The Award Process may only begin after the NI Regulations have come into force. After considering all representations made in response to the Notice, the NI Regulations will be made (signed on behalf of Ofcom) and published by and available for purchase from Her Majesty's Stationery Office. Copies of the NI Regulations will also be available for download from www.opsi.gov.uk. The NI Regulations will state the date when they will come into force, which is likely to be around three weeks after the date the NI Regulations are made.
- A4.3 Ofcom anticipates that the Application Day will be a minimum of five Business Days after the date the NI Regulations come into force. On or shortly after the date the NI Regulations come into force, Ofcom will confirm the Application Day on the Ofcom website.

Question and Answers before the Application Day

- A4.4 Any party interested in participating in the Award Process may submit questions in writing to Ofcom in relation to any aspect of the Award Process. It is Ofcom's intention to consider questions jointly with ComReg. Questions should be submitted at least ten Business Days before the Application Day and Ofcom will aim to respond to all questions at least five Business Days before the Application Day.
- A4.5 Ofcom's normal manner of responding to a question will be to respond to the person who asked the question by email. Ofcom will then consider whether to publish a copy of the question and of any response, in whole or in part, on the Ofcom website. However, in doing so, Ofcom will not normally identify the person who has asked the question without their consent. Any person not wishing any part of its question to be published, should clearly mark the relevant part(s) "Confidential" and Ofcom will take this into account in deciding whether and what to publish.

Application Stage

- A4.6 The application stage is set out at Part 2 of the NI Regulations. Applicants are not required to pass a technical test, or to provide details of the services they intend to offer. Only bodies corporate may apply but they need not be incorporated in the UK.
- A4.7 The “Application Documentation” consists of:
- the Application Information document (NI Regulations, Schedule 1);
 - the Application Document (NI Regulations, Schedule 2); and
 - the Document for Member of Applicant’s Bidder Group who is not an Associate (NI Regulations, Schedule 3).
- A4.8 The Application Documentation must be submitted to Ofcom at Riverside House, 2a Southwark Bridge Road, London, SE1 9HA or Landmark House, The Gasworks, Ormeau Road, Belfast BT7 2JD in a sealed envelope on the day notified on the Ofcom website for receipt of Application Documentation (the “Application Day”). Ofcom expects that the period for delivery of Application Documentation will be between 10 a.m. and 5 p.m. on the Application Day.
- A4.9 Applicants must also pay an Initial Deposit of £25,000 (paid by way of a same day electronic transfer) which must be received by Ofcom on or before the Application Day.
- A4.10 In exceptional circumstances, Ofcom may be required to change the day, time or place for delivery of the Application Documentation for the payment of the Initial Deposit. Ofcom will take all reasonable steps to inform interested parties of any change.
- A4.11 The Application Information document must include details of the Applicant's authorised persons, its directors (or members of its managing body) and information relating to its qualification to bid. It must be accompanied by the Application Document containing certain representations and warranties and the Document for Membership of Applicant’s Bidder Group who is not an Associate, which contains certain representations and warranties which relate to each member of its Bidder Group who is not an Associate. Ofcom intends to make proforma copies of all documents relating to the Award Process available for downloading from the Ofcom website.
- A4.12 The Application Documentation, must be signed by at least two individuals who are authorised to bind the Applicant for all purposes in relation to the Award Process and who are listed as authorised persons on the Application Information document. The Document for Membership of Applicant’s Bidder Group who is not an Associate must also be signed by the relevant person becoming a member of the Bidder Group. Applicants (and relevant members of their Bidder Groups) should note that they are making legally enforceable representations and warranties to Ofcom in these documents.
- A4.13 A Bidder Group is defined in the NI Regulations as the Applicant, any Associate of the Applicant and each other person in respect of whom the Applicant has submitted a Document for Membership of Applicant’s Bidder Group who is not an Associate.

- A4.14 An Associate is defined as any person who has a Material Interest in the Applicant. In summary, this includes any person who holds (whether directly or indirectly) 25% or more of the votes entitled to be cast at a general meeting of the Applicant, any person who holds shares in the Applicant and whose consent is required for the conduct of any business of the Applicant or any person who has the right to appoint or remove a majority of the board of directors of the Applicant. Interested parties must refer to the NI Regulations for the actual definitions of Associate and Material Interest.
- A4.15 The Application Document requires the Applicant to represent and warrant that:
- its authorised persons have read the NI Regulations, the Licence and the Wireless Telegraphy Act 2006;
 - it is legally capable of both bidding in the Award Process and having a licence issued to it;
 - the information provided in support of its application is true, accurate and complete in all material respects; and
 - it is aware of the provisions in the NI Regulations relating to disclosing and obtaining Confidential Information.
- A4.16 The Document for Membership of Applicant's Bidder Group who is not an Associate requires the Applicant to represent and warrant that the person becoming a member of its Bidder Group is not also a member of any other Bidder Group. The Applicant must also notify Ofcom immediately if it becomes aware that the person has ever been or becomes a member of any other Bidder Group or a subsidiary of any member of any other Bidder Group or the person has ever obtained or obtains Confidential Information relating to another Applicant or Bidder.
- A4.17 On the same form, the person becoming the member of the Bidder Group must represent and warrant that it consents to be a member of the Bidder Group, that it is not a member of any other Bidder Group and that it is aware of the provisions concerning disclosure of Confidential Information (see further the Activity Rules described below). It must also notify Ofcom and the relevant Applicant immediately if it has ever been or becomes a member of any other Bidder Group or a subsidiary of a member of any other Bidder Group or if it has ever received or ever receives Confidential Information relating to another Applicant.
- A4.18 Under the provisions in the NI Regulations relating to disclosing and obtaining Confidential Information, if a member of the Bidder Group, or any other person to whom its Confidential Information has been disclosed, discloses Confidential Information outside the Bidder Group (other than to Ofcom, to a financier of its bid or to someone who is considering participating in the Bidder Group), this may lead to an Applicant not being qualified to bid, or to a qualified Bidder being excluded from the Award Process and forfeiting its deposit. In connection with this, each Applicant is also required to give Ofcom details on its Application Information document of all such disclosures of Confidential Information outside its Bidder Group. An Applicant or Bidder may wish to consider making any intended recipient of its Confidential Information a member of its Bidder Group by submitting a Document for Membership of Applicant's Bidder Group who is not an Associate in respect of that recipient, before disclosing the Confidential Information. In such circumstances, any disclosure would then be to a person within its Bidder Group.

- A4.19 Ofcom retains a discretion as to whether an Applicant should qualify to bid, and whether a Bidder should be excluded or forfeit its deposit. Potential Applicants, Applicants and Bidders should therefore take considerable care in relation to commercial discussions with parties outside their Bidder Groups. Depending on the content and character of the commercial discussions, it is possible that they could involve the exchange of Confidential Information, and that this will lead to a failure to qualify, or to forfeiture of deposits and possibly also exclusion from the Award Process. Potential Applicants, Applicants and Bidders will need to take their own advice in this regard. In exercising its discretion, Ofcom will be particularly concerned with whether the disclosure of Confidential Information is part of collusive behaviour or would materially affect the outcome of the Award Process. It is not, however, Ofcom's intention to either preclude parties from participating in the Award Process, nor require parties to be in the same Bidder Group, where they have simply sought to negotiate access to an existing network through, for example, wholesale reseller or roaming arrangements.
- A4.20 The Activity Rules contained at Part 6 of the NI Regulations and described at paragraphs A4.51 to A4.53 below apply to Applicants determined by Ofcom as qualified to bid and to Bidders.
- A4.21 Subject to the Activity Rules, an Applicant may add or remove one or more Associates to or from its Bidder Group subsequent to the Application Day, provided such changes are notified to Ofcom and accompanied by a revised Application Information document and Application Document. It may also add a person who is not an Associate to its Bidder Group provided it submits a Document for Membership of Applicant's Bidder Group who is not an Associate.
- A4.22 Applicants should note that the NI Regulations have the effect of prohibiting any member of one Bidder Group from also being a member of another Bidder Group.
- A4.23 Ofcom will return Initial Deposits (without any interest having accrued) to Applicants who do not qualify to bid in the Award Process on completion of the Award Process, unless the Initial Deposit has been forfeited in accordance with the NI Regulations.

Qualification Stage

- A4.24 The qualification stage is described in detail at Part 3 of the NI Regulations. Following the Application Day, Ofcom will notify each Applicant of the names of each other Applicant. Ofcom expects to do this within two Business Days of the Application Day. This notification will also set a date by which Applicants must notify Ofcom whether any members of their Bidder Group are also members of another Applicant. In such cases, Applicants must also notify the other Applicant(s) concerned. Ofcom expects that Applicants will have two Business Days to complete this exercise.
- A4.25 Where Ofcom has determined that any such common memberships arise, Ofcom will notify the Applicants concerned and specify a date by which all the common memberships must be resolved (i.e. by which one of the Applicants concerned must withdraw from the Award Process).
- A4.26 Ofcom expects that Applicants will have five Business Days to resolve any such common memberships.
- A4.27 Ofcom expects that it will record the details of the Bidder Groups of each Applicant (for the purposes of determining which Applicants have qualified) the next Business

Day after expiry of this five Business Day period (i.e. eleven Business Days after the Application Day). Where no common memberships are identified either by Ofcom or by any Applicant, Ofcom expects to record the details of the Bidder Groups of each Applicant the next Business Day after expiry of the period set out in the notification.

A4.28 The next step in the qualification process is for Ofcom to determine which Applicants qualify to bid in the auction.

A4.29 An Applicant may not qualify to bid in the auction if a member of its Bidder Group is also a member of another Bidder Group. If a common membership has not been resolved, neither Applicant may qualify.

A4.30 In addition, in making its determination of whether an Applicant should qualify to bid in the auction, Ofcom will take into account whether:

- the grant of the NI Licence to that Applicant would be prejudicial to the interests of national security;
- the Applicant is a fit and proper person to hold the NI Licence;
- the Applicant has submitted false or misleading information to Ofcom;
- the Applicant or any member of its Bidder Group has colluded or attempted to collude or is colluding or attempting to collude with any other person to distort the outcome of the Award Process, or has acted or is acting to distort the outcome of the Award Process;
- the Applicant or any member of its Bidder Group, or any person to whom Confidential Information has been disclosed, has disclosed, or is disclosing or attempting to disclose or has incited or is inciting another person to disclose Confidential Information to anyone other than to a member of its Bidder Group, Ofcom, a provider of finance (where the disclosure was for the purpose of raising finance for the application), or a person considering whether to join the Bidder Group of the Applicant;
- the Applicant or any member of its Bidder Group has received or is obtaining or attempting to obtain Confidential Information relating to another Applicant;
- the Applicant or any member of its Bidder Group is receiving or attempting to receive services in relation to the Award Process from anyone who has provided or is providing services to Ofcom in relation to the Award Process; or
- any member, director or employee of a member of the Applicant's Bidder Group who is also a director or employee of a member of another Applicant's Bidder Group is taking part in the preparation of both Applicants for participation in the Award Process or receiving Confidential Information relating to both Bidder Groups.
- Applicants should note in particular the rules in relation to the disclosure of Confidential Information.

A4.31 Ofcom may also request additional information or documentation from an Applicant during the qualification stage.

A4.32 Ofcom expects to determine which Applicants have qualified to bid in the auction within two Business Days after recording details of the Bidder Groups. Ofcom will notify each Applicant of whether it has qualified to bid in the auction including the reasons why an Applicant has not qualified. Ofcom will publish on the Ofcom website the names of those Applicants who have qualified to bid in the auction.

A4.33 Ofcom will also notify each Applicant of the Last Day for Withdrawal (the last day on which Applicants who have qualified to bid in the auction may withdraw their application without forfeiting their Initial Deposit) and publish the Last Day for Withdrawal on the Ofcom Website. If an Applicant who has qualified to bid wishes to withdraw from the Award Process, it must send Ofcom a notice to this effect (signed by at least two of its authorised persons). On the next Business Day after the Last Day for Withdrawal, Ofcom expects to publish the names of all Bidders (i.e. Applicants qualified to participate in the auction who have not withdrawn) on the Ofcom website and announce the procedure it will follow for the award of the NI Licence (which shall be dependent on the number of Bidders).

If there is only one Bidder

A4.34 If there is only one Bidder, there will be no auction, and Ofcom will follow the procedure set out at Part 4 of the NI Regulations by giving the Bidder notice of the day by which that Bidder must pay the fee of £50,000 for the NI Licence into Ofcom's bank account.

A4.35 After Ofcom receives the Licence Fee for the NI Licence, Ofcom will grant the Bidder the NI Licence.

If there is more than one Bidder

Auction Stage

A4.36 Ofcom will send each Bidder a notice of

- the Auction Day;
- the period for delivery of Sealed Bids on the Auction Day (Ofcom expects this period to start at 9 a.m. and conclude at 5.30 p.m.);
- the identity of all other Bidders; and
- a password which must be specified on the Bidding Document.

A4.37 Ofcom expects that the Auction Day will be at least five Business Days after the notification to Bidders. Ofcom will also publish the Auction Day and identity of all Bidders on the Ofcom website.

A4.38 The auction will comprise a single round sealed bid, taking place on the Auction Day. Bidders must submit to Ofcom a Bidding Document in the form provided at Schedule 4 of the NI Regulations, signed by at least two authorised persons, a document in the form set out in Schedule 5 of the NI Regulations, completed in respect of the Bidder and signed on its behalf by at least two authorised persons and a Bid Deposit.

A4.39 The Bid Deposit must be equal to the bid specified by the Bidder for the NI Licence in the Bidding Document. Where the Bidder has not forfeited its Initial Deposit, the Initial Deposit may be offset against this amount (i.e. the Bidder must submit a sum

equal to the bid specified by it for the NI Licence, less £25,000). The total amount on deposit with Ofcom after payment of this sum will constitute the Bid Deposit.

- A4.40 Any Bidder who is unsuccessful in the Award Process will have its Bid Deposit returned (without any interest having accrued) on completion of the Award Process, unless the Bid Deposit has been forfeited in accordance with the NI Regulations (for example where the Bidder does not submit a Valid Bid).
- A4.41 Each Sealed Bid must be submitted to Ofcom at Riverside House, 2a Southwark Bridge Road, London SE1 9HA or Landmark House, The Gasworks, Ormeau Road, Belfast BT7 2JD during the period on the Auction Day specified by Ofcom. The Sealed Bid must be sealed in a non-transparent envelope and placed in the box marked for submission of Sealed Bids. The Bid Deposit must be received by Ofcom on the Auction Day, but may be received at any time on that day.
- A4.42 In exceptional circumstances, it may be necessary for Ofcom to change the date, time or place for delivery of Sealed Bids or the payment of the Bid Deposit. Ofcom will take all reasonable steps to inform the Bidders of any change.
- A4.43 Following expiry of the time specified for submission of the Sealed Bids, Ofcom will open only those Sealed Bids which were submitted in accordance with the NI Regulations. Ofcom expects that Sealed Bids will be opened on the next Business Day after the Auction Day. Where a Sealed Bid is incomplete or defective, but Ofcom can unambiguously identify the Bidder and ascertain the intention of the Bidder, Ofcom will ask the Bidder concerned to confirm that Ofcom's understanding of the identity or intention is correct. Where the Bidder confirms Ofcom's understanding in relation to its Bid, that Bidder's Sealed Bid will be accepted on the basis of that understanding. Where a Bidder does not confirm Ofcom's understanding in relation to its Bid, that Bidder's Sealed Bid will be rejected in its entirety.
- A4.44 Ofcom will then consider all remaining Sealed Bids and will reject entirely each Sealed Bid which has not been completed in accordance with the NI Regulations, including where:
- the Sealed Bid was not submitted by a Bidder;
 - the Sealed Bid was not submitted during the period for delivery of Sealed Bids or at the place specified by Ofcom for delivery of Sealed Bids;
 - the Bidder has submitted more than one Sealed Bid; or
 - the Bid Deposit has not been received by Ofcom on the Auction Day.
- A4.45 Ofcom will notify any Bidder whose Sealed Bid has been rejected in accordance with the NI Regulations, giving reasons for that rejection. Ofcom will also notify any Bidder in respect of whom no Sealed Bid was received in compliance with the delivery requirements. Ofcom expects to do this on the next Business Day after opening the Sealed Bids (i.e. within two Business Days after the Auction Day).
- A4.46 Sealed Bids which are not rejected by Ofcom are "Valid Bids" for the purposes of determining the Winning Bids. Any Bidder who does not submit a Valid Bid in the auction will forfeit its Initial Deposit (and Bid Deposit where one has been paid) and will be excluded from the auction.

A4.47 Ofcom will then determine the Winning Bid and the identity of the Winning Bidder.

The Licence Fee

A4.48 The Winning Bid shall be the highest Valid Bid for the NI Licence. If there is a tie, Ofcom will determine the Winning Bid by a process of random selection. The Licence Fee shall be the sum equal to the amount of the highest Valid Bid that was not the Winning Bid or £50,000, which ever is the greater.

Completion of the Award Process

A4.49 After identifying the Winning Bid, Ofcom will grant the NI Licence and refund the Winning Bidder with the difference (if any) between its Bid Deposit and the Licence Fee for the NI Licence awarded. Ofcom may, in such cases as it thinks fit, refund, in whole or in part, sums which have been paid to them in accordance with any provision of the NI Licence. Ofcom will then complete the Award Process by:

- publishing on the Ofcom website the details of all Valid Bids, the identity of all Bidders, the identity of the Licensee and the Licence Fee paid; and
- refunding Bid Deposits to any unsuccessful Bidders and Initial Deposits to any Applicants who did not qualify to bid in the auction or who withdrew before the Last Day for Withdrawal (unless such Initial Deposits or Bid Deposits have been forfeited in accordance with the NI Regulations).

A4.50 Ofcom expects that the Award Process will be completed within five Business Days after the Auction Day.

Activity Rules

A4.51 The Activity Rules which apply to all Applicants and Bidders are set out in Part 6 of the NI Regulations. Any breach of the Activity Rules which would materially affect the outcome of the Award Process may result in a Bidder or Applicant forfeiting their Initial Deposit (or Bid Deposit where one has been paid) and may also result in that Bidder or Applicant being excluded from the Award Process by Ofcom giving that Bidder or Applicant written notice. If a Bidder has been issued the NI Licence and is later found to have breached the Activity Rules, the Licence may be revoked under the terms of the NI Licence itself. The Activity Rules apply to all Bidders and all Applicants who have qualified to bid and they continue to apply until the NI Licence has been awarded pursuant to the Award Process.

A4.52 Regulation 27 of the NI Regulations sets out the details of the events which may lead to exclusion from the Award Process and/or to an Initial Deposit or Bid Deposit being forfeited. These include, where:

- an Applicant or Bidder has submitted false or misleading information to Ofcom;
- an Applicant or Bidder or any member of its Bidder Group is colluding or attempting to collude with any other person to distort the outcome of the Award Process, or is acting in a way which is likely to distort the outcome of the Award Process;
- the Applicant or Bidder or any member of its Bidder Group, or any person to whom Confidential Information has been disclosed, is disclosing, attempting to disclose or inciting another person to disclose Confidential Information to anyone

other than to a member of its Bidder Group, Ofcom, a provider of finance (where the disclosure was for the purpose of raising finance for the bid) or to a person considering whether to join the Bidder Group of the Applicant or Bidder;

- the Applicant or Bidder or any member of its Bidder Group is obtaining or attempting to obtain Confidential Information in relation to any other Applicant or Bidder;
- the Applicant or Bidder or any member of its Bidder Group is receiving or attempting to receive services in relation to the Award Process from any person who has provided or is providing services to Ofcom in relation to the Award Process;
- any member, director or employee of a member of the Applicant's or Bidder's Bidder Group, who is also a director or employee of a member of another Bidder Group, is taking part in the preparation of both Bidder Groups for participation in the Award Process or is receiving Confidential Information relating to both Bidder Groups;
- a member of an Applicant's or Bidder's Bidder Group is or becomes a member of another Bidder Group; and
- a change is occurring in the membership of an Applicant's or Bidder's Bidder Group subsequent to the Application Day except where a person ceases to be a member of the Bidder Group or a person has been added to the Bidder Group in accordance with the NI Regulations and provided that the addition will not result in a member of one Applicant or Bidder's Bidder Group also being a member of another Bidder Group.

A4.53 Where any changes occur to the membership of an Applicant or Bidder's Bidder Group, that Applicant or Bidder must notify Ofcom as soon as practicable by submitting a revised Application Information document and Application Document, or Document for member of Applicant's Bidder group who is not an Associate as appropriate. Ofcom expects to receive such information within two Business Days of the change occurring.

Miscellaneous

A4.54 Part 7 of the NI Regulations sets out other miscellaneous provisions relating to the Award Process, including a general power for Ofcom to exclude an Applicant or Bidder where in Ofcom's opinion the grant of the NI Licence to that Applicant or Bidder would be prejudicial to the interests of national security or where the Applicant or Bidder is not a fit and proper person to hold the NI Licence.

A4.55 Finally, Ofcom also has a general discretion to refund any sums paid to it under the NI Regulations as it thinks fit.

Annex 5

Draft Northern Ireland Regulations

Annex 6

Additional Information (Northern Ireland)

Ofcom's approach to the regulation of the radio spectrum

A6.1 Ofcom licences use of most of the civil radio spectrum in the UK, with the aim of securing the optimal use of spectrum and meeting Ofcom's other statutory duties. Ofcom also represents the UK internationally on spectrum matters. Ofcom administers spectrum use in the UK by licensing or by exemption from the requirement to hold a licence in section 8 of the Wireless Telegraphy Act 2006. Ofcom's general approach to spectrum management has been set out in a number of documents published by Ofcom over the past few years, including:

- the Spectrum Framework Review Consultation Document published in November 2004 and Statement published in June 2005 ("**SFR Statement**")¹⁷;
- the Spectrum Trading consultation document published in November 2003 ("**Trading Consultation Document**") and Statement published in August 2004 ("**Trading Statement**")¹⁸; and
- the Spectrum Liberalisation consultation document published in September 2004 ("**Liberalisation Consultation Document**") and Statement published in January 2005 ("**Liberalisation Statement**")¹⁹. The approach is also summarised in the SFR:IP consultation document (section 3), and in the SFR:IP Interim Statement of 28 July 2005²⁰.

A6.2 Ofcom has powers under the Wireless Telegraphy Act 2006 to grant licences for wireless telegraphy, and to do so by means of an auction. Ofcom's duties in relation to the award of licences are also set out in the Wireless Telegraphy Act 2006 and are derived from the requirements of European Union legislation.

A6.3 The award of the NI Licence outlined in this Memorandum forms part of a wider programme of awards which was proposed in the SFR:IP. Ofcom's general approach to the awards in this programme is outlined in the SFR:IP (see section 4 in particular) and the Interim Statement on the SFR:IP published on 28 July 2005 (see section 3 in particular). The Ofcom Spectrum Awards website²¹ contains information and updates on the programme of awards.

Other spectrum awards

A6.4 Ofcom has a duty to secure the optimal use of the radio spectrum. A key part of achieving this is the release of available spectrum to the market, generally by means of an auction. The spectrum awards programme is the process through which Ofcom puts such spectrum into the market.

¹⁷ Available at <http://www.ofcom.org.uk/consult/condocs/sfr/>

¹⁸ Available at http://www.ofcom.org.uk/consult/condocs/spec_trad/

¹⁹ Available at <http://www.ofcom.org.uk/consult/condocs/liberalisation/>

²⁰ Available at <http://www.ofcom.org.uk/consult/condocs/sfr:ip/>

²¹ Available at <http://www.ofcom.org.uk/radiocomms/spectrumawards/>

- A6.5 Ofcom expects to publish more detailed documents with specific plans for each award as the spectrum awards programme advances. The latest information on Ofcom's programme of spectrum awards is given on the Ofcom spectrum awards website²²: (<http://www.ofcom.org.uk/radiocomms/spectrumawards>)
- A6.6 Ofcom's programme of spectrum awards is subject to change from time to time, as are other aspects of spectrum policy and regulations.

Other services

- A6.7 Any party considering participating in this Award Process must make its own independent assessment of the competition that its services using the Spectrum Band will face from existing and future services, and the implications of this competition for the potential value of the NI Licence.
- A6.8 It should be noted that other authorisations of spectrum use may permit the provision of services that could compete with those that may be offered using the Spectrum Band. Ofcom is not, as a function of this Award Process, placing any limitation on its scope for authorising others to use spectrum to offer such services. Such authorisation may occur, for example, by way of the grant of new licences, decisions as to the variation of existing licences, or decisions as to exemptions from licensing. As set out in the SFR and elsewhere, Ofcom's general policy is to move towards authorising the use of spectrum on a technology and application neutral basis, which provides much greater flexibility for the use of spectrum to respond to demand and to be economically efficient.

Other uses of the spectrum in the UK

- A6.9 In Great Britain, there is some military use of the spectrum of which interested parties should be aware. In accordance with the UK Frequency Allocation Table, the Ministry of Defence ("**MoD**") operates transmitting earth stations at one or more of the following sites: Menwith Hill (Yorkshire), Oakhanger (Hampshire) and Colerne (Wiltshire) throughout the Spectrum Band and adjacent bands. Commercial operations in this band will have to accept any interference caused by these earth stations.

Spectrum Quality Benchmark (SQB)

- A6.10 The term spectrum quality benchmark ("**SQB**") is used by Ofcom to denote the level of spectrum quality on which technical planning and co-ordination processes and criteria are based. These are usually captured within the Technical Frequency Assignment Criteria ("**TFAC**") or alternatively as in co-ordination guidelines. A discussion of SQBs can be found at:
<http://www.ofcom.org.uk/radiocomms/ifi/trading/libguide/section4>
- A6.11 The SQBs constitute guidance, not a guarantee, for licensees about the levels of interference that Ofcom expects are likely to be encountered from other licensed services. There is no guarantee for users that interference will not exceed the level implied by the SQB. It should be noted that technical predictions are not completely reliable. However, Ofcom will continue to investigate and resolve interference complaints, and it may intervene where this is judged appropriate to restore quality to the SQB.

²² <http://www.ofcom.org.uk/radiocomms/spectrumawards/>

A6.12 The development of SQBs to date has considered key interference mechanisms and other technologies and systems deployed in adjacent spectrum.

Key interference mechanisms

A6.13 An SQB for the Spectrum Band will be developed after the Spectrum Award, when the character of the systems planned by the NI Licensee are known, and will take into account a number of key interference mechanisms relating to the use of the adjacent and near adjacent spectrum bands including:

- spurious emissions;
- receiver blocking;
- receiver interference performance;
- out of band emissions (including transients in some cases); and
- inter-modulation products.

Site clearance in Northern Ireland

A6.14 It will generally be a requirement of licences granted under the Wireless Telegraphy Act 2006 that radio transmitters considered to have significant potential to interfere with essential or safety of life systems, including aircraft, are assessed prior to installation and before they can be brought into use. This assessment is performed against the UK's Radio Site Clearance procedure based on location and technical information provided by the Site Clearance applicant. Details of the UK's Site Clearance procedure can be found in document OFW 191 at: <http://www.ofcom.org.uk/radiocomms/ifi/tech/ofw191.pdf>.

A6.15 In Northern Ireland the UK's Site Clearance procedure will apply. A valid site clearance certificate, issued by Ofcom will be required for all Radio Equipment except stations which radiate not more than 17dBW ERP and where the highest part of the station, including antenna systems, is less than 30 metres above ground level and where the station, including the antenna systems, does not increase the height of an existing (site cleared) structure by 5 metres or more. For example, a 10 dBW transmitter at 45m above the ground would require clearance, as would a 24 dBW transmitter at 4m.

A6.16 Relaxations of the thresholds for Site Clearance have been negotiated for particular station characteristics where these demonstrably reduce the risk of interference, for example a raised power threshold is applied in some bands for certain high gain antennas with narrow beam widths. Ofcom has also developed automated clearance tools for systems where the concerns arising from interference relate to well- defined interactions, for example lower-power satellite terminals deployed around airfields.

Register of licences

A6.17 As set out in Ofcom's Statement on Spectrum Trading (6th August 2004)²³, in order to support spectrum trading and efficient spectrum management, Ofcom will publish

1.1 ²³ http://www.ofcom.org.uk/consult/condocs/spec_trad/statement/sts.pdf. The Trading Regulations are published by OPSI and available at www.opsi.gov.uk.

as much relevant information as it can about radio licences. In so doing Ofcom will address concerns raised by respondents to that or any future consultation on issues of security and commercial sensitivity.

A6.18 In December 2004 Ofcom made the Wireless Telegraphy (Register) Regulation 2004, which enabled Ofcom to establish a register of relevant information. Section 170 of the Communications Act 2003 makes a provision for Ofcom to establish such a register. The regulations currently extend only to those licences which are currently tradable and have been realised in the form of an on-line database which is available at the Ofcom website.

A6.19 Ofcom will extend the scope of this register to include the NI Licence which is the subject of this proposed award. Currently the register of licences provides basic information about licensees such as names, contact details, class of licence, the band(s) of frequencies and where relevant the geographical area of operation. It does not provide precise details about individual transmitters. However, in time Ofcom may propose widening the scope of the information published in the register of licences. Ofcom would expect to consult on any proposals in this respect.

Ofcom's Sitefinder database

A6.20 Sitefinder is the UK's national database of mobile phone base stations. It was established in response to one of the recommendations of the group of independent experts led by Sir William Stewart which investigated possible hazards posed by mobile phone technologies on behalf of the Government and which reported in May 2000. The group recommended that reliable and openly available information about the location and operating characteristics of all base stations should be provided by Government Ofcom manages Sitefinder.

A6.21 The database provides information on all operational GSM, UMTS and TETRA base stations in England, Scotland, Wales and Northern Ireland. Indoor sites in public places such as airports, shopping centres and railway stations are included. The database is provided in the form of an internet website (<http://www.sitefinder.radio.gov.uk/>) utilising a map driven interface which allows users to see graphically the position of base stations nearest to any location of interest. A summary of the technical details of each base station can be obtained by clicking on the base station's icon on the map.

A6.22 Sitefinder relies on operators voluntarily providing Ofcom with detailed information about each of their sites on a regular basis (currently this is approximately every quarter). The type of information supplied includes:

- the transmit power (dBW); location (in the form of a 10 digit NGR and a postcode);
- location (in the form of a 10 digit national grid reference and a postcode);
- height of the antenna above ground level (m);
- the frequency band of operation; and
- the technology deployed.

- A6.23 Ofcom has asked the Government for its views on the relevance of Sitefinder to a potential licensee. The Government has advised that it continues to view Sitefinder as an important resource for consumers and helps to inform the public.
- A6.24 The Government has also advised that it considers that any holder of the NI Licence in the Spectrum Band who uses one of the technologies currently covered by Sitefinder should be invited to participate voluntarily in the database.
- A6.25 Consistent with this advice, it is therefore Ofcom's intention to invite the holder of the NI Licence to participate on a voluntary basis in providing information about its base stations for inclusion on Sitefinder where it uses one of the technologies currently covered by Sitefinder.

Non-operational licences

A6.26 Ofcom issues two classes of short-term non-operational licences:

- non-operational temporary use – licensed for up to 6 months; and
- non-operational development – licensed for 12 months.

A6.27 These licences enable activities such as the trialling of services and the testing and development of equipment in a range of frequency bands. Such licences are issued through a co-ordination and clearance procedure involving other licensed users of the frequency bands in question and under the condition that they cannot claim protection from interference from other licensees nor are they allowed to cause interference to other licensees. Non-operational licences are not automatically renewed at the end of their term. At the time of award, there may be a number of non-operational licences in force in the Spectrum Band being awarded.

Health and other issues

- A6.28 Any party considering participating in the Award Process must make its own assessment of the relevant health, planning and other issues which are relevant to its business. The following paragraphs may provide some high level guidance but should not be regarded as a comprehensive or definitive list and may not be relied upon.
- A6.29 Operators of radio equipment must comply with all relevant health legislation. Such legislation includes but is not limited to UK legislation such as the Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999²⁴, and European legislation such as the Directive on the health and safety of workers exposed to risks arising from physical agents (EMFs)²⁵ the R&TTE Directive and the Low Voltage Directive²⁶ (which have both been implemented by Regulations in the UK²⁷). They should also be aware of the recommendations of a number of UK

²⁴ Statutory Instrument 1999 No. 3242

²⁵ Directive 2004/40/EC

²⁶ Council Directive of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits - 73/23/EEC)

²⁷ The R&TTE Regulations are in Statutory Instrument 2000 No. 730 and the Low Voltage Directive Regulations are in Statutory Instrument 1994 No. 3260

Government-sponsored studies into the health effects of mobile phones, such as the Stewart Report²⁸.

- A6.30 The R&TTE Directive requires manufacturers to make declarations that their radio and telecommunications terminal equipment conforms to the essential requirements of the Directive; all products within the scope of the R&TTE Directive and the Low Voltage Directive which are placed on the UK market must show "CE" marks. The European Commission's "Blue Guide" (Guide to the Implementation of Directives Based on the New Approach and Global Approach) lists other Directives which require CE marking of products and equipment. It is available from the Commission's website²⁹.
- A6.31 Operators of radio equipment should also pay specific regard to guidelines issued by the Health Protection Agency on exposures from mobile phone and base stations³⁰, and any other guidelines approved by the Department of Health in relation to health and safety aspects of exposure to electromagnetic fields.

Infrastructure sharing and planning

- A6.32 The Government strongly encourages network operators to share masts and/or sites where possible, subject to any inter-operator radio co-existence issues, in order to minimise the environmental impact of networks. Planning authorities require operators to provide evidence that they have carefully considered the use of existing masts, buildings and other structures before seeking to erect any new telecommunications mast.
- A6.33 Operators of radio equipment must comply with all relevant planning laws. Such laws may include, without limitation, Town and Country Planning Orders, as well as the planning and development requirements set by the Department for Communities and Local Government (the "DCLG") and local planning authorities. The DCLG has produced specific guidance on the planning of mobile phone base stations³¹. The relevant authorities in Scotland, Wales and Northern Ireland have also developed planning policies, which apply in those regions, for telecommunications network equipment.
- A6.34 The Electronic Communications Code (the "Code") is set out at schedule 2 to the Telecommunications Act 1984 as amended by schedule 3 to the Communications Act 2003. The Code sets out various rights of Code operators and these include the ability to install their infrastructure on public highways without needing a specific licence to do so under the New Road and Street Works Act 1991 and it also exempts them from certain aspects of the Town and Country Planning regime in the form of Permitted Development (see Planning (General Development) (Amendment) Order (Northern Ireland) 2003 SR No 98. Part 24 of the Town and Country Planning, England and Wales (General Permitted Development) Order 1995. SI 1995/418 as amended. Town and Country Planning (General Permitted Development) (Scotland) Amendment (No.2) Order 2001 SSI 2001/266).

²⁸ The Independent Expert Group on Mobile Phones' Report (The Stewart Report), Mobile Phones and Health, issued 11.05.00 and available at <http://www.iegmp.org.uk>

²⁹ <http://ec.europa.eu>.

³⁰ Available at <http://www.hpa.org.uk>.

³¹ Available at <http://www.communities.gov.uk>

A6.35 Ofcom is permitted to grant Code powers under section 106 of the Communications Act 2003 to any applicant for the purposes of the provision by them of an electronic communications network or for the purposes of the provision by them of a system of conduits which would be made available for use by providers of electronic communications networks. Applicants seeking Code powers are required to provide Ofcom with details in relation to their application and these are set out in the statement entitled The Granting of the Electronic Communications Code (see <http://www.ofcom.org.uk/telecoms/ioi/ecc/ecc.pdf>).

Other regulation of the provision of electronic communication services and networks

A6.36 It is the responsibility of the Licensee who is considering using the Spectrum Band to provide electronic communications services to familiarise themselves with any relevant regulation. The same is also true of all other aspects of regulation, such as broadcasting regulation and competition law. It should be noted that all aspects of regulation are subject to change from time to time, including (without limitation) the relevant legislative framework, and the nature of regulation within any given legislative framework. In particular the Licensee should note that there are General Conditions of Entitlement with which they may need to comply; the existence of regulation in relation to the provision of voice call termination on each 2G network operated by a mobile network operator; and that if the Licensee wishes to purchase access and interconnection from operators of existing networks in markets where those operators are not subject to Significant Market Power conditions requiring the provision of access, Ofcom's expectation is that these services should be negotiated commercially.

Electronic Communication Services and Networks

A6.37 The Commission, through the Information Society Directorate-General, launched its first review of the legal instruments that make up the current framework applicable to Electronic Communications and Services with a "Call for Input" at the end of November 2005. This was followed by a Communication from the Commission on the Review, including an accompanying Staff Working Document and Impact Assessment, published in June 2006. The relevant Directives include the Framework Directive (2002/21/EC), the Access and Interconnection Directive (2002/19/EC), the Authorisation Directive (2002/20/EC), the Universal Service Directive (2002/22/EC), the Privacy and Electronic Communications Directive (2002/58/EC), the relevant Competition Directive (2002/77/EC) and the Radio Spectrum Decision (676/2002/EC) (all as amended). The review could lead to regulatory proposals from 2007 onwards, which could come into force some time thereafter. The proposals could result in changes to legislation applicable in the UK. Further information can be obtained from the European Commission and their website at: www.europa.eu.int/information_society/activities/index_en.htm.

General Conditions of Entitlement

A6.38 All providers of ECS and ECN in the UK are covered by the General Conditions of Entitlement. Out of 21 conditions, some apply to particular categories of ECS or ECN providers, mainly depending on whether they provide public services or networks and whether they provide publicly available telephone services or public telephone networks.

A6.39 It is the responsibility of any undertaking involved in the provision of ECS or ECN to identify which conditions apply to them and to ensure that they comply with those

conditions. Further information can be found at http://www.ofcom.org.uk/telecoms/ioi/g_a_regime/gce/gcoe/?a=87101 and the General Conditions of Entitlement can be found at http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/cond_final0703.pdf. It should be noted that from time to time Ofcom consults on changing the General Conditions of Entitlement and such proposals can usually be found on the Ofcom website.

Network identification codes and number resources

- A6.40 Ofcom allocates mobile telephone service numbers and mobile network codes (“**MNCs**”) to those who control mobile communications networks and who, in the case of mobile telephone service numbers, need public numbering for their customers.
- A6.41 MNCs are allocated individually in accordance with the National Telephone Numbering Plan (the “**Plan**”)³² and ITU-T Recommendation E.212³³. Mobile telephone service numbers are allocated in units of 100,000 numbers for services in accordance with the Plan and ITU-T Recommendations E.212 and E.164. Definitions of these numbers and related services are set out in the Plan published by Ofcom from time to time.
- A6.42 Ofcom would expect to allocate MNCs only to public electronic communication network (“**PECN**”) providers. Those operating private networks in conjunction with PECNs will not require their own independent mobile network identity. Their individuality can be demonstrated, where necessary, by location area codes.

Numbering

- A6.43 Ofcom is responsible for administering telephone numbers under sections 56 to 63 of the Communications Act 2003. Numbers are allocated in accordance with the Plan in blocks of 1,000, 10,000, or 100,000 depending on their type and according to network routing requirements (e.g. mobile numbers are allocated in blocks of 100,000 numbers whilst geographic numbers are allocated in units of 1,000 or 10,000 numbers according to conservation criteria). As communications providers run out of available numbers (i.e. when all the numbers are assigned to customers or are otherwise ‘in use’) from the block(s) allocated to them, they may apply to Ofcom for more.
- A6.44 Ofcom is mindful of the need to ensure that best use is made of telephone numbers. Taking account of the unit of allocation for mobile telephone service numbers (i.e. 100,000 numbers), Ofcom considers that allocations to private networks, operating in conjunction with mobile PECNs, are likely to be significantly under-utilised. Accordingly, other than where there is demonstrable high demand, it is anticipated that allocation for such providers will normally be on the basis of sub-allocation from the relevant mobile PECN rather than from Ofcom directly.
- A6.45 Consistent with the provisions of section 58 of the Communications Act 2003, Ofcom may charge applicants in respect of the allocation to them of telephone numbers. Ofcom published a consultation document on 23 February, entitled “Telephone

³² " See <http://www.ofcom.org.uk/telecoms/ioi/numbers/100806.pdf>

³³ Further information may be obtained from the ITU and the relevant webpage is <http://www.itu.int/ITU-T/inr/>

Numbering – Safeguarding the future of numbers³⁴ which included proposals to promote more efficient utilisation of numbering through charging. Ofcom is still considering the options for charging for numbers and will consult on further proposals in due course.

Competition in communications markets

A6.46 In addition to its sectoral powers conferred by the Communications Act 2003, Ofcom can also act in relation to activities connected with communications matters under Chapter I of the Competition Act 1998 and Article 81 of the EC Treaty, to address agreements preventing, restricting or distorting competition, under Chapter II of the Competition Act 1998 and Article 82 of the EC Treaty to address abuse of a dominant position, and under the Enterprise Act 2002, where it has reasonable grounds for suspecting that any feature of a market prevents, restricts or distorts competition.

A6.47 Further information about how Ofcom has used these powers can be found on the Ofcom website, in particular at:
http://www.ofcom.org.uk/bulletins/comp_bull_index/ and
<http://www.ofcom.org.uk/bulletins/crt/>.

Tax

A6.48 Any party considering participation in the Award Process must take its own advice on the tax consequences of being awarded the NI Licence.

A6.49 Payments for Wireless Telegraphy Act licence fees are not subject to VAT. However, the question of whether VAT should be payable is presently the subject of litigation heard by the European Court of Justice on 7 February, 2006 in cases referred by the United Kingdom VAT and Duties Tribunal and by an Austrian Court. The Opinion of Advocate General Kokott was published on 7 September 2006³⁵ and the judgement is expected later this year or in 2007.

A6.50 If the outcome of these cases, or other cases relating to the applicability of VAT to such fees determines that payments for Wireless Telegraphy Act licence fees are subject to VAT then HM Revenue and Customs consider that the Licence Fee paid by the Licensee will be subject to VAT. This will be in addition to the Licence Fee determined in the Award Process according to the NI Regulations.

³⁴ See <http://www.ofcom.org.uk/consult/condocs/numberingreview/numbering.pdf>

³⁵ For the press release see:

<http://curia.europa.eu/en/actu/communiqués/cp06/aff/cp060069en.pdf>

.For the Opinion on case C-284/04 see:

<http://curia.eu.int/jurisp/cgi-bin/form.pl?lang=EN&Submit=recherche&numaff=C-284/04>

For the Opinion on case C-369/04 see:

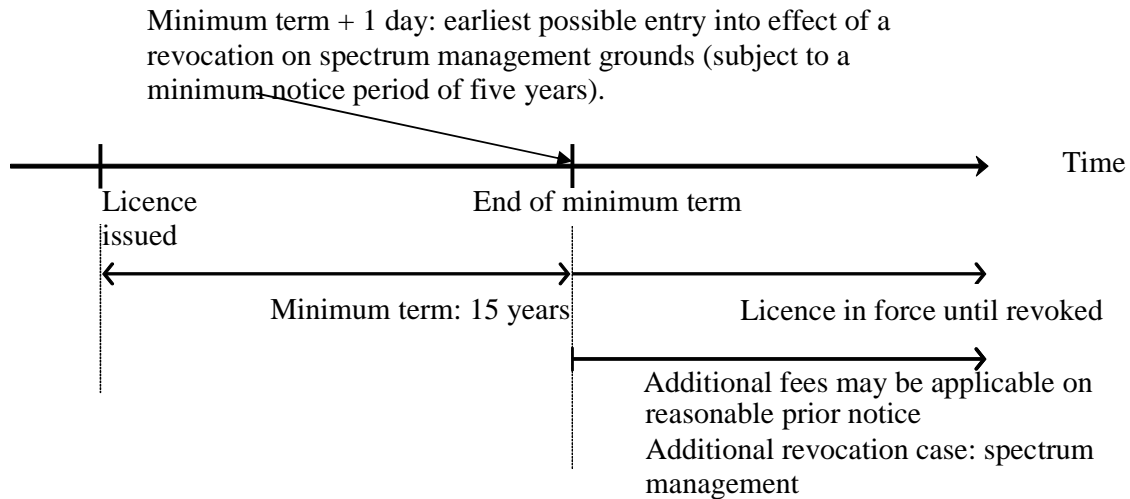
<http://curia.eu.int/jurisp/cgi-bin/form.pl?lang=EN&Submit=recherche&numaff=C-369/04>

Licensing Conditions

Term, revocation and variation

A6.51 The NI Licence will have an indefinite duration, but will be terminable on not less than five years notice for spectrum management reasons. However, such notice will not be able to take effect during the first 15 years. The NI Licence may be terminated for other limited reasons, specified in the NI Licence, prior to the end of the 15 year term. In effect, the NI Licence will have a minimum term of 15 years in which Ofcom's revocation powers will be limited. The licence term is illustrated in figure A6.1 below.

Figure A6.1 The Licence term



A6.52 During the minimum term of 15 years the NI Licence may only be revoked for the following reasons:

- with the consent of the Licensee;
- for non-payment or late payment of the relevant licence fee;
- if there has been a breach of any of the terms of the NI Licence;
- if the Licensee has not complied with any requirement of any relevant trading regulations;
- in accordance with paragraph 8(5) of Schedule 1 to the Wireless Telegraphy Act 2006. That paragraph provides that notwithstanding any terms or provisions in a Wireless Telegraphy Act licence which restrict the exercise by Ofcom of its power to revoke licences, Ofcom may at any time, by notice in writing, revoke or vary licence terms if it appears to be requisite or necessary or expedient to do so in the interests of national security, or for the purposes of complying with an international obligation of the UK; and
- if the Licensee has not complied with the NI Regulations.

After the minimum term

- A6.53 Once the minimum term has expired, the NI Licence will remain in force and continue to be held by the Licensee indefinitely, subject to Ofcom's powers to revoke or vary the NI Licence.
- A6.54 After the minimum term, in addition to the reasons for mentioned at A6.52 above, Ofcom may revoke the NI Licence for reasons related to the management of the radio spectrum.
- A6.55 It is important to note that after the expiry of the period of the minimum term it is possible that Ofcom may apply an annual licence fee. Whether or not a fee is charged will depend on Ofcom's general approach to fees for the use of spectrum at that time and how that general approach relates to the NI Licence. Such fees could be set at a level to recover a share of the costs of regulation; they may alternatively be based on Administrative Incentive Pricing ("AIP") if this is appropriate in the context of Ofcom's statutory duties. AIP presently plays an important role as an incentive for efficient spectrum management in the UK and Ofcom has stated that it expects to continue applying AIP to complement spectrum trading in order to promote efficient use of the spectrum.
- A6.56 It is not considered necessary or appropriate to specify now the level of the annual licence fees in Northern Ireland, if any, as may be applied to the Spectrum Band after the end of the minimum term. Ofcom would expect to bring forward proposals on this matter to a timescale that gave the Licensee reasonable notice of any relevant fees before they became payable.
- A6.57 Ofcom would expect to give prior notice at the time of any specific proposal to use the power of revocation, or the charging of fees, and to consult as appropriate.

Spectrum trading

- A6.58 Spectrum trading allows holders of Wireless Telegraphy Act licences to transfer some or all of their rights and associated obligations under those licences, to others, under various types of transfer. From the outset the NI Licence will be tradable.
- A6.59 Different types of transfer are allowed by the regulations made by Ofcom, under the Wireless Telegraphy Act 2006, which permit spectrum trading. The current regulations are the Wireless Telegraphy (Spectrum Trading) Regulations 2004 and allow for:
- transfers of all or only certain parts of the rights and associated obligations under a licence - i.e. 'total' or 'partial' transfers; and
 - transfers such that the acquirer of the rights and associated obligations holds them to the exclusion of the original holder, or concurrently with them - i.e. 'outright' or 'concurrent' transfers.
- A6.60 Ofcom's policy statement on spectrum trading can be found at: http://www.ofcom.org.uk/consult/condocs/spec_trad/statement/sts.pdf. The Trading Regulations are published by OPSI and available at www.opsi.gov.uk.
- A6.61 Ofcom will amend the existing regulations prior to award of this Spectrum Band, to extend trading to the NI Licence. The details of this amendment are set out in the Notice. In due course, subject to the outcome of the consultation, the regulations will

be made (signed on behalf of Ofcom) and published by and available for purchase from Her Majesty's Stationery Office. Copies of the regulations will also be available for download from www.opsi.gov.uk. The regulations will state the date when they will come into force, which is likely to be around one month after the date the regulations are made.

Liberalised use of the Spectrum Band

- A6.62 In January 2005, Ofcom published a statement on spectrum liberalisation, (the "**Liberalisation Statement**") describing changes in the way licensees of particular licence classes can use the spectrum. These changes are being implemented in stages to facilitate the optimal use of the spectrum. The full statement and associated documents can be found at:
<http://www.ofcom.org.uk/consult/condocs/liberalisation/> and
<http://www.ofcom.org.uk/radiocomms/ifi/trading/libguide/>.
- A6.63 The spectrum liberalisation process described in the Liberalisation Statement includes changes to three licensing sectors in 2005 – Business Radio, Fixed Wireless Access and Fixed Links – and the use of two mechanisms for liberalisation of spectrum use – through individual licence variation, following a request by a licensee, or through a generic licence change applied by Ofcom. The NI Licence will bear conditions similar in principle, in terms of technology neutrality and possible change of use, to those that Ofcom aims to introduce in time, through a generic change to existing licences in a given class or sector.
- A6.64 The Licensee will be free to deploy the technologies of its choice and change its use of the spectrum or these technologies within the spectrum mask, without requiring Ofcom's approval.
- A6.65 Any change by the Licensee that would depart from its licence conditions (e.g. power level and out-of-block emission mask) will be subject to prior approval by Ofcom. The same will apply to any change by the licensees in adjacent bands that would depart from the conditions in those licences. Ofcom will consider any requests for change on their merits at the time.

Annex 7

The Draft Licence (Northern Ireland)

Ofcom's draft Licence

Wireless Telegraphy Act 2006

Office of Communications (Ofcom)

**LICENCE FOR THE USE OF THE SPECTRUM BAND 1785 – 1805 MHz
(Northern Ireland)**

Licence no. **[Insert Licence Number]**

Date of issue: **[Insert Date]**

1. The Office of Communications (Ofcom) grants this licence to

[Insert Licensee's Name and Company Registration Number (if a company)]

("the Licensee")

[Insert Registered Company Address]

XXXXXXXXXXXX

XXXXXXXXXXXX

XXXXXXXXXXXX

XXXXXXXXXXXX

to establish, install and use radio transmitting and receiving stations and/or radio apparatus as described in the schedule(s) (herein after together called "the Radio Equipment") subject to the terms, set out below.

Licence Term

2. This Licence shall continue in force unless surrendered by the Licensee or revoked by Ofcom in accordance with paragraph 3 below.

Licence Revocation

3. Pursuant to paragraph 8 of Schedule 1 to the Wireless Telegraphy Act 2006 ("the Act") Ofcom may not revoke this Licence under paragraph 6 of Schedule 1 to the Act except:

- a. at the request of, or with the consent of, the Licensee;
 - b. in accordance with paragraphs 8 to 10 of this licence;
 - c. if there has been a breach of a term of the Licence;
 - d. if, in connection with the transfer or proposed transfer of rights and obligations arising by virtue of the Licence, there has been a breach of any provision of regulations made by Ofcom under the powers conferred by section 30(1) and (3) of the Act³⁶ ;
 - e. if the Licensee has been found to the reasonable satisfaction of Ofcom to have been involved in any act, or omission of any act, constituting a material breach of the Wireless Telegraphy (Licence Award) Regulations 2007 (the "Regulations");
 - f. in accordance with paragraph 8(5) of Schedule 1 to the Act;
 - g. if it appears to Ofcom to be necessary or expedient to revoke the Licence for the purposes of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Act or section 5 of the Communications Act 2003; or
 - h. for reasons related to the management of the radio spectrum, provided that in such case:
 - i. the power to revoke may only be exercised after at least five (5) year's notice is given in writing to the Licensee; and
 - ii. such notice must expire after fifteen (15) years from the date of issue of this Licence.
4. Ofcom may only revoke or vary this Licence by notification in writing to the Licensee and in accordance with paragraphs 6 and 7 of Schedule 1 to the Act.

Changes

5. This Licence is not transferable. The transfer of rights and obligations arising by virtue of this Licence may however be authorised in accordance with regulations made by Ofcom under powers conferred by section 30(1) and (3) of the Act.
6. The Licensee must give prior notice to Ofcom in writing of any proposed change to the Licensee's name and address from that recorded in the Licence.

Fees

7. The licence fee in respect of this Licence is **£xxxxxx**, which for the avoidance of doubt is exclusive of any VAT which may ultimately be payable.

³⁶ These are regulations on spectrum trading.

8. On or after the expiry of fifteen (15) years from the date of issue of this Licence the Licensee shall pay to Ofcom such sum(s) as may be provided for in regulations made by Ofcom under sections 12 and 13(2) of the Act, failing which Ofcom may revoke this Licence.
9. The Licensee shall also pay interest to Ofcom on any amount which is due under the terms of this Licence or provided for in any regulations made by Ofcom under sections 12 and 13(2) of the Act from the date such amount falls due until the date of payment, calculated with reference to the Bank of England base rate from time to time. In accordance with section 15 of the Act any such amount and any such interest is recoverable by Ofcom.
10. If the Licence is surrendered or revoked, no refund, whether in whole or in part of any amount which is due under the terms of this Licence or provided for in any regulations made by Ofcom under sections 12 and 13(2) of the Act will be made, except at the absolute discretion of Ofcom in accordance with regulation 31 of the Regulations.

Radio Equipment Use

11. The Licensee must ensure that the Radio Equipment is established, installed and used only in accordance with the provisions specified in Schedule 1 of this licence. Any proposal to amend any detail specified in Schedule 1 of this Licence must be agreed with Ofcom in advance and implemented only after this Licence has been varied or reissued accordingly.
12. The Licensee must ensure that the Radio Equipment is operated in compliance with the terms of this Licence and is used only by persons who have been authorised in writing by the Licensee to do so and that such persons are made aware of, and of the requirement to comply with, the terms of this Licence.

Access and Inspection

13. The Licensee shall permit a person authorised by Ofcom:
 - a. to have access to the Radio Equipment; and
 - b. to inspect this Licence and to inspect examine and test the Radio Equipment,at any and all reasonable times or, when in the opinion of that person an urgent situation exists, at any time to ensure the Radio Equipment is being used in accordance with the terms of this Licence.

Modification, Restriction and Closedown

14. A person authorised by Ofcom may require any of the radio stations or radio apparatus that comprise the Radio Equipment, to be modified or restricted in use, or temporarily or permanently closed down immediately if in the opinion of the person authorised by Ofcom:

- a. a breach of this Licence has occurred; and/or
 - b. the use of the Radio Equipment is causing or contributing to undue interference to the use of other authorised radio equipment.
15. Ofcom may require any of the radio stations or radio apparatus that comprise the Radio Equipment to be modified or restricted in use, or temporarily closed down either immediately or on the expiry of such period as may be specified in the event of a national or local state of emergency being declared. Ofcom may only exercise this power after a written notice is served on the Licensee or a general notice applicable to holders of a named class of Licence is published.

Geographical Boundaries

16. This Licence authorises the Licensee to establish, install and use the Radio Equipment only in Northern Ireland.

Interpretation

17. In this Licence:
- a. the establishment, installation and use of the Radio Equipment shall be interpreted as establishment and use of stations and installation and use of apparatus for wireless telegraphy as specified in section 8 of the Act;
 - b. the expression "undue interference" shall have the meaning given by section 115 of the Act.
18. The schedule to this Licence form part of this Licence together with any subsequent schedule(s) which Ofcom may issue as a variation to this Licence at a later date.
19. The Interpretation Act 1978 shall apply to the Licence as it applies to an Act of Parliament.

Issued by Ofcom

Signed by

For the Office of Communications

SCHEDULE 1 TO LICENCE NUMBER: [Insert Licence Number]

Schedule Date: [DATE]

Licence Category: **Licence for the Use of the Spectrum Band 1785 – 1805 MHz
(Northern Ireland)**

1. Description of Radio Equipment Licensed

In this Licence, the Radio Equipment means any station or apparatus that transmits in accordance with the requirements of paragraphs 7, 8, 9 and 10 of this schedule.

2. Interface Requirements for the Radio Equipment

Use of the Radio Equipment shall be in accordance with any relevant Interface Requirements:

Interface Requirements are published by Ofcom in accordance with Article 4.1 of Directive 1995/5/EC of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment (RTTE) and the mutual recognition of their conformity.

3. Special Conditions relating to the Operation of the Radio Equipment

- (a) During the period that this Licence remains in force and for 6 months thereafter, unless consent has otherwise been given by Ofcom, the Licensee shall compile and maintain accurate written records of:
 - (i) The following details relating to the Radio Equipment:
 - a) postal address;
 - b) National Grid Reference, (to 100 Metres resolution);
 - c) antenna height (above ground level) and type;
 - d) radio frequencies used by the Radio Equipment;
 - (ii) a statement of the number of subscribing customers;and the Licensee must produce these records if requested by a person authorised by Ofcom.
- (b) The Licensee shall inform Ofcom of the address of the premises at which this Licence and the information detailed at sub-paragraph 3(a) above shall be kept.
- (c) The Licensee must submit to Ofcom copies of the records detailed in sub-paragraph 3 (a) above at such intervals as Ofcom shall notify to the Licensee.

- (d) The Licensee must also submit to Ofcom in such manner and at such times, all information relating to the establishment, installation or use of the Radio Equipment, whether stored in hard copy or electronic form, as reasonably requested for the purposes of verifying compliance with this Licence or for statistical purposes.

4. Site Clearance Requirements

- (a) Except where specified in sub-paragraph 4(b), the Licensee must obtain from Ofcom a valid site clearance certificate prior to establishing, installing or using the Radio Equipment:
- (b) Sub-paragraph 4(a) does not apply to:
 - (i) base transceiver stations incorporating transmitters radiating not more than 17dBW ERP; and/or
 - (ii) aerial systems, which do not extend beyond thirty (30) metres above ground level, or which do not increase the height of an existing building by more than five (5) metres (whichever is the higher).

5. Co-ordination

The Radio Equipment shall be operated in compliance with such co-ordination procedures as may be necessary and notified to the Licensee by Ofcom.

6. Frequencies of Operation

The Radio Equipment may only operate in the following frequency band:

1785 – 1805 MHz

7. Maximum Permissible EIRP (stations installed and operated at fixed locations)

Stations may only be installed and operated within the following limits, according to the distance separating that station from a pre-existing GSM1800 base station operating in the band 1751.7 – 1781.5MHz, except where prior co-ordination of that station has been given.

For stations installed and operated at fixed locations at a separation distance of 200m and for stations installed and operated at fixed locations at a separation distance from 200m to 300m the maximum EIRP shall be:

Frequency (MHz)	EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 - 1788	$30 + (4 * \Delta F1)$ Note 1
1788 - 1789	$42 + (2 * \Delta F2)$ Note 2
1789 - 1795	44
1795 - 1796	$44 + (10 * \Delta F3)$ Note 3
1796 - 1799	54
1799 - 1805	$54 - (4 * \Delta F4)$ Note 4
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 4: $\Delta F4$ is the positive offset in MHz to a maximum of 6MHz

For stations installed and operated at fixed locations at a separation distance from 300m to 500m the maximum EIRP shall be:

Frequency (MHz)	EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 - 1788	$30 + (4 * \Delta F1)$ Note 1
1788 - 1789	$42 + (6 * \Delta F2)$ Note 2
1789 - 1795	48
1795 - 1796	$48 + (8 * \Delta F3)$ Note 3
1796 – 1798.5	56
1798.5 – 1799	$56 - (4 * \Delta F4)$ Note 4
1799 - 1805	$54 - (4 * \Delta F5)$ Note 5
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 4: $\Delta F4$ is the positive offset in MHz to a maximum of 0.5MHz

Note 5: $\Delta F5$ is the positive offset in MHz to a maximum of 6MHz

For stations installed and operated at fixed locations at a separation distance from 500m to 750m the maximum EIRP shall be:

Frequency (MHz)	EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 - 1788	$30 + (4*\Delta F1)$ Note 1
1788 - 1789	$42 + (10*\Delta F2)$ Note 2
1789 - 1795	52
1795 - 1796	$52 + (8*\Delta F3)$ Note 3
1796 – 1798.5	56
1798.5 – 1799	$56 - (4*\Delta F4)$ Note 4
1799 - 1805	$54 - (4*\Delta F5)$ Note 5
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 4: $\Delta F4$ is the positive offset in MHz to a maximum of 0.5MHz

Note 5: $\Delta F5$ is the positive offset in MHz to a maximum of 6MHz

For stations installed and operated at fixed locations at a separation distance of 750m or greater the maximum EIRP shall be:

Frequency (MHz)	EIRP (dBm)
Below 1785	Unwanted Emission Level
1785	30
1785 - 1788	$30 + (4*\Delta F1)$ Note 1
1788 - 1789	$42 + (14*\Delta F2)$ Note 2
1789 - 1798	56
1798 – 1799	$56 - \Delta F3$ Note 3
1799 - 1805	$54 - (4*\Delta F4)$ Note 4
1805	30
Above 1805	Unwanted Emission Level

Note 1: $\Delta F1$ is the positive offset in MHz to a maximum of 3MHz

Note 2: $\Delta F2$ is the positive offset in MHz to a maximum of 1MHz

Note 3: $\Delta F3$ is the positive offset in MHz to a maximum of 1MHz

Note 5: $\Delta F4$ is the positive offset in MHz to a maximum of 6MHz

8. Maximum Permissible EIRP (mobile stations)

The maximum EIRP shall be:

In band EIRP limit for mobile stations		
Frequency offset in kHz from the carrier (Note 1)	Upper EIRP limit (35dBm) (Notes 2 & 3)	Measurement Bandwidth(kHz)
100	+0.5	30
200	-30	30
250	-33	30
400	-60	30
600 - <1200	-62	-65
1200 - <1800	-65	-67
1800 - <6000	-67	100
6000	-80	100

Note 1: The lowest carrier centre frequency will be 1784.5MHz

Note 2: An in band power limit of -43dBm is assumed inside the spectrum band 1798.5 to 1805 MHz.

Note 3: The unwanted emission limit is assumed to be -126 dBm/100kHz measured at a separation distance of 20 meters

9. Permissible Out-of-Block Emissions

Unwanted emissions outside the Spectrum Band (Out-of-Block Emissions) from the Radio Equipment must not exceed -126 dBm/100 kHz measured at a separation distance of 20 metres.

10. Interpretation of terms in this Schedule

In this Schedule:

- (a) "EIRP" means the equivalent isotropically radiated power. This is the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (absolute or isotropic gain);
- (b) "ERP" means the effective radiated power. This is the power fed to the antenna multiplied by the maximum gain of the antenna with respect to a half-wave dipole.
- (c) "dBm" means the power level in decibels (logarithmic scale) referenced against 1 milli Watt (i.e. a value of 0 dBm is 1 mW);
- (d) "dBW" means the power level in decibels (logarithmic scale) referenced against 1 Watt. (i.e. a value of 0 dBw is 1 W);
- (e) "Out-of-block emissions" means radio frequency emissions generated by the Radio Equipment and radiated into the frequency bands adjacent (in terms of frequency) to the licensee's permitted frequencies of operation;
- (f) "Base station" means a radio transmitter with or without a receiver installed to provide a communications service, typically used in mobile or broadcasting radio systems.

Annex 8

International Frequency Co-ordination

A8.1 ComReg and Ofcom have agreed in principle to the procedure set out below in the form of a memorandum of understanding for the Spectrum Band (the “**MoU**”), which will come into effect in the event that international co-ordination is required for the efficient use of the Spectrum Band. The procedure set out below is still under development by ComReg and Ofcom and, as a consequence, some elements of the MoU are incomplete.

Procedure for international co-ordination

A8.2 ComReg and Ofcom have developed this co-ordination procedure on the principle of securing the efficient use of the radio spectrum.

A8.3 A station may be established without co-ordination provided that the predicted total field strength produced by the station does not exceed the co-ordination threshold level for the percentage of time and locations given in the MoU.

A8.4 ComReg and Ofcom are committed to ensuring that, as far as possible, stations covered by this MoU do not exceed the co-ordination threshold given in the MoU. When stations are planned that will exceed the co-ordination threshold, either Administration may seek co-ordination according to the procedure described in the MoU.

Co-ordination threshold level

A8.5 The co-ordination threshold is yet to be determined by ComReg and Ofcom.

Prediction of propagation

A8.6 The field strength prediction method shall be Recommendation ITU-R P.1546³⁷ 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.

A8.7 Taking account of inter alia

- Height of a mobile receiver antenna set at 10m above ground level;
- Average terrain height for a base station in all main directions;
- Type of terrain (e.g. land, sea, mixed path);
- Equivalent isotropic radiated power and field strength;

³⁷ Recommendation ITU-R P.1546, Method for point-to-area predictions for terrestrial services in the frequency range 30 MHz to 3 000 MHz

- Antenna tilt and azimuth; and
- Terrain clearance angle.

Exchange of information

A8.8 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. ComReg and Ofcom agree to facilitate the exchange of information between operators.

A8.9 The administration wishing to bring a station into service or wishing to modify the characteristics of a station must submit a request for co-ordination with the other administration by way of notice. As a minimum, the following characteristics should be forwarded:

- Frequency in MHz;
- Name of the transmitting station;
- Country of location of the transmitting station;
- Geographical co-ordinates;
- Effective antenna height above ground level;
- Antenna polarisation;
- Antenna azimuth;
- Antenna tilt;
- Directivity of antenna(s);
- Equivalent isotropic radiate power;
- Expected coverage zone; and
- Date of entry into service.

A8.10 The affected administration shall evaluate the request for co-ordination and shall within 60 days notify the result of the evaluation to the administration requesting co-ordination.

A8.11 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.

A8.12 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.

Annex 9

Glossary

Activity Rules

In relation to the Award Process for Northern Ireland only, the rules provided for at Part 6 of the NI Regulations.

Administration

The Commission for Communications Regulation for Ireland and the Office of Communications for the UK.

Applicant

In relation to the Award Process for Northern Ireland only, A person who has submitted Application Documentation.

Application Documentation

In relation to the Award Process for Northern Ireland only, the documentation set out in the paragraph A4.7.

Associate

In relation to the Award Process for Northern Ireland only, any person who has a Material Interest in a Bidder or Applicant.

Auction Day

In relation to the Award Process for Northern Ireland only, the date and times on that date for receipt of Sealed Bids.

Award Processes

In relation to Northern Ireland, the procedure set out in the NI Regulations for the award and issue of the NI Licence and in relation to Ireland, the procedure set out in this Memorandum and the Ireland Regulations for the issue of the Ireland Licence.

Band

A defined range of frequencies that may be allocated for a particular radio service, or shared between radio services.

Bid Deposit

In relation to the Award Process for Northern Ireland only, the deposit to be paid in addition to the Initial deposit on submission of a sealed Bid as specified at Regulation 18 of the NI Regulations.

Bidder

A person who has submitted an Application Form and who either ComReg or Ofcom, as the case may be, have determined is qualified to participate in the relevant Award Process and who, in relation to the Award Process in Northern Ireland only, has not withdrawn on or before the Last Day for Withdrawal.

Bidder Group

In relation to the Award Process for Northern Ireland only, an Applicant or Bidder and each Associate and other person in respect of whom the Applicant has submitted a document in the form set out in Schedule 3 of the NI Regulations.

Information Notice: Order Handling Charges for 2005/06 and Number Translation Code Rates for 2004/05, 2005/06 and 2006/07

Bidding Document

In relation to the Award process for Northern Ireland only, a document in the form set out in Schedule 4 of the NI Regulations completed by the Bidder and signed on its behalf by two authorised persons and bearing that Bidder's password.

Business Day

In relation to the Award Process for Northern Ireland only, a day (other than Saturday or Sunday) on which banks are generally open in London for normal business.

CEPT

Conference of European Postal and Telecommunications administrations, comprising over 40 European administrations.

Confidential Information

In relation to the Award Process for Northern Ireland only, with respect to any Applicant or Bidder, any information which is not in the public domain and which, if it were made public or disclosed to another Applicant (or potential Applicant) or Bidder or their Bidder Groups, would be likely to affect the decisions that such other Applicant (or potential Applicant) or Bidder may make in relation to the Award Process.

dB

Decibel.

dBm

Decibels above one milliwatt: a logarithmic representation of radio frequency power with respect to one milliwatt.

dBW

Decibels above one Watt: a logarithmic representation of radio frequency power with respect to one Watt.

DCS 1800

Digital Cellular System; term used to describe GSM implementation in frequencies around 1800 MHz. GSM was initially implemented in the 900 MHz band. DCS 1800 is now more commonly known as GSM 1800. See GSM.

DECT

Digital Enhanced Cordless Telecommunications: an access technology used in private cordless telephone equipment.

ECC

Electronic Communications Committee: a committee that reports to CEPT.

ECN

In relation to the Award Process for Northern Ireland only, an electronic communications network, as defined in section 32 of the Communications Act 2003.

ECS

In relation to the Award Process for Northern Ireland only, an electronic communications service as defined in section 32 of the Communications Act 2003.

EIRP

Equivalent Isotropically Radiated Power: a theoretical measure of the power radiated by a transmitter/antenna - defined as the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

ERP

Effective Radiated Power: a theoretical measure of the power radiated by a transmitter/antenna - defined as the product of the power supplied to the antenna and its gain relative to a halfwave dipole in a given direction.

ETSI

European Telecommunications Standards Institute; a European based industry group that addresses equipment standards for telecommunications equipment.

GHz

Gigahertz: a unit of frequency equal to 1000 million (1×10^9) Hz or cycles per second.

GSM

Global System for Mobile communications; a 2G mobile phone technology. This is the technology behind the vast majority of 2G mobile phones used across Europe and is used by approximately 80% of 2G operators worldwide. Also sometimes referred to under its original meaning of "Groupe Spécial Mobile".

HC-SDMA

High Capacity Spatial Division Multiplex. Radio interface standard for wireless wideband access. The HC-SDMA interface provides wide-area broadband wireless IP data-connectivity for fixed, portable and mobile computing devices and appliances.

Initial Deposit

In relation to the Award Process for Northern Ireland only, a sum of £25,000 to be paid on the application of the NI Licence.

ITU

International Telecommunication Union: an international organisation within the United Nations System where governments and the private sector coordinate, discuss and agree the logistics of global telecom networks and services.

Information Notice: Order Handling Charges for 2005/06 and Number Translation Code Rates for 2004/05, 2005/06 and 2006/07

kHz

Kilohertz: a unit of frequency, equal to 1000 (1×10^3) Hz or cycles per second.

Last Day for Withdrawal

In relation to the Award Process for Northern Ireland only, the date specified by Ofcom in accordance with regulation 9 of the NI Regulations.

Licence Fee

The fee payable for the Ireland Licence or the NI Licence, as the case may be.

Licensee

In relation to the Award Process for Ireland only, the holder of the Ireland Licence and, in relation to Northern Ireland, the holder of the NI Licence.

Material Interest

In relation to the Award Process for Northern Ireland only, any interest as defined in the NI Regulations), whether held directly or indirectly, in more than twenty-five per cent of the votes entitled to be cast at a general meeting of a Bidder or Applicant, any other interest in shares held by a person whose consent is required for the conduct of the Bidder or Applicant's business, or the right to appoint or remove a majority of the board of directors of a Bidder or Applicant.

MHz

Megahertz: a unit of frequency equal to 1,000,000 (1×10^6) Hz or cycles per second.

Ofcom website

The website maintained by Ofcom at www.ofcom.org.uk.

Out-of-block emissions

Emissions cause by use of the spectrum covered by a particular licence that fall immediately outside the spectrum block covered by that licence.

Radio Equipment

In relation to the Award Process for Ireland only, radio equipment the establishment, installation and use of which is authorised by a Wireless Telegraphy Licence.

R&TTE Directive

The Radio and Telecommunications Terminal Equipment Directive (Directive 1999/5/EC)

Sealed Bid

In relation to the Award Process for Northern Ireland only, the completed bid documentation submitted to Ofcom in accordance with the requirements of regulation 17 of the NI regulations.

Information Notice: Order Handling Charges for 2005/06 and Number Translation Code Rates for 2004/05, 2005/06 and 2006/07

Spectrum Framework Review: Implementation Plan (SFR:IP)

Ofcom consultation published in January 2005 by Ofcom on the release of spectrum in 2005 – 08, and on extending spectrum liberalisation and trading to mobile services.

Also the Interim Statement on the SFR:IP published in July 2005.

Spectrum Framework Review (SFR)

Ofcom consultation published in November 2004 and resulting statement published in June 2005 by Ofcom on how spectrum will be managed in the future.

TETRA

Terrestrial Enhanced Trunked Radio Access: An ETSI standard for digital mobile radio utilised by fleets of vehicles such as emergency services, courier companies etc.

UMTS

Universal Mobile Telecommunications System: a 3G mobile phone standard built on W-CDMA technology. See W-CDMA. One of the IMT-2000 family of standards. This is the standard being deployed by the vast majority of European mobile phone operators to offer 3G services.

UTRA TDD

Universal Mobile Telecommunications System (UMTS) Terrestrial Radio Access Time Division Duplex. Term used for the UMTS radio interface.

Valid Bid

In relation to the Award Process for Northern Ireland only, a Sealed Bid which has not been rejected by Ofcom in accordance with the NI Regulations.

Winning Bid

In relation to the Award Process for Northern Ireland only, the Valid Bid which determines the identity of the Winning Bidder.

Winning Bidder

In relation to the Award Process for Northern Ireland only, the Bidder who submits the Winning Bid.

WiMAX

Worldwide interoperability for Microwave Access. A certification mark for products that pass conformity and interoperability tests for the IEEE 802.16 standards.