



Office of the Director of  
**Telecommunications  
Regulation**

## INFORMATION MEMORANDUM

# FOUR LICENCES TO PROVIDE 3G SERVICES IN IRELAND

---

December 2001

### **Document No. ODTR 01/96**

Oifig an Stiúirthóra Rialála Teileachumarsáide  
Office of the Director of Telecommunications Regulation  
Abbey Court Irish Life Centre Lower Abbey Street, Dublin 1.  
*Telephone* +353-1-804 9600 *Fax* +353-1-804 9680  
*Web:* [www.odtr.ie](http://www.odtr.ie)

## List of Contents

<b>1.</b>	<b>INTRODUCTION</b>	<b>2</b>
<b>2.</b>	<b>THE MARKET FOR 3G SERVICES IN IRELAND</b>	<b>6</b>
<b>3.</b>	<b>OBJECTIVE OF THE COMPETITIONS</b>	<b>9</b>
<b>4.</b>	<b>LICENCE FRAMEWORK</b>	<b>11</b>
4.1	SPECTRUM ALLOCATION	11
4.2	LICENCE CONDITIONS	13
4.3	LICENCE FEES	14
4.3.1	<i>Administrative fee</i>	15
4.3.2	<i>Spectrum Access fee payments</i>	16
4.3.3	<i>Annual spectrum fees</i>	18
4.4	INFRASTRUCTURE SHARING	19
<b>5.</b>	<b>THE LICENSING PROCESS</b>	<b>22</b>
<b>6.</b>	<b>REQUEST FOR TENDER DOCUMENTS</b>	<b>26</b>
<b>7.</b>	<b>APPENDIX A: KEY INDICATORS OF THE IRISH ECONOMY AND MOBILE SECTOR</b>	<b>28</b>
<b>8.</b>	<b>APPENDIX B: REGULATORY AND LEGAL FRAMEWORK</b>	<b>31</b>
8.1	THE DIRECTOR OF TELECOMMUNICATIONS REGULATION	31
8.2	THE MINISTER FOR PUBLIC ENTERPRISE	31
8.3	RADIO FREQUENCY SPECTRUM	31
<b>9.</b>	<b>APPENDIX C: LEGISLATIVE BACKGROUND TO THE COMPETITIONS</b>	<b>33</b>

# CHAPTER 1

## INTRODUCTION

---

## 1. Introduction

The objective of this memorandum<sup>1</sup> is to provide information to all interested parties about the licensing process. It sets out the prospect for third generation (3G) mobile telecommunications in Ireland, the objective of the competitions, a description of the licences and the licensing process itself, and the proposed licensing framework, fees and time-scales.

Third generation mobile telecommunications, also referred to as the IMT-2000 family of standards, represents a new technology cycle in mobile telecommunications. 3G brings the potential of high speed Internet and associated services such as high quality audio, video, and graphics to people by way of mobile communications in addition to voice communications. The unique combination of mobility, voice communication and data rates up to 40 times or more those of existing mobile phones (2G or GSM) will enable the development of unique new services which promise to revolutionise human interaction and communication in both the private and business segments. The new services will combine or strengthen the efficiency, entertainment and relational aspects of mobile communications, e.g., through mobile office services, location based services or mobile video conferencing. The 3G operators who are able to successfully combine a high quality network with services that offer relevance for their customers have the potential to capture strong revenues from the market.

The European 3G licensing history started in Finland in 1999. Coinciding with strong speculation in telecommunications values, very high fee levels were paid in the British and German auctions during the spring and summer of 2000. In line with the decline in the telecoms markets and in the light of reviews of the capability of 3G, interest in the licensing processes declined during the latter part of 2000 and in 2001. This was partly caused by the general slow-down in the international economy, general fall in share prices and lower telecommunications company credit ratings. In addition, the technological uncertainty surrounding 3G grew as initial testing of the technology did not yield the expected potential of 2 Mbps but rather an initial speed between 64 and 384 kbps. However, despite the shakeout in the industry, there are indications that optimism is returning. In the latest 3G auction in Denmark in September 2001, there were a total of five bidders for four licences and with a price per capita almost equivalent to the present Irish tender.

The Irish economy is among the most vibrant and rapidly growing economies in Europe, which in 2000 led to an impressive growth in GDP of 11.5%. Growth in 2001 has been lower, but nevertheless is expected to be substantially greater than in other EU states. Inflationary pressures have eased very substantially in 2001, as have employment market pressures, indicators of a flexible response to the slowdown in

---

<sup>1</sup> This memorandum is for information purposes only and does not form part of any formal tender process. It is without prejudice to the legal position of the Director or her rights and duties under relevant legislation.

growth levels. The country has a young well-educated labour force, low unemployment and has been very successful in attracting high levels of inward investment particularly in the high-tech and pharmaceutical sectors. The attractive business climate with low corporate taxes has led large multi-nationals such as Intel, Microsoft, IBM and Ericsson to place some of their key operations in Ireland. The country is witnessing a strong development of competence and growth in these industries, which, for example, has led to the emergence of a successful domestic software industry.

In recent years and especially since liberalisation three years ago, the Irish telecommunications sector has experienced impressive growth levels. Not only has the mobile penetration rate risen from only 29% in June 1999 to 75% by November 2001; the Irish Internet market similarly has experienced a significant expansion with more than one-third of the population having home Internet access at the end of October 2001. New entrants share of the market increased quickly after liberalisation and stands at 20% of the fixed line market. These figures indicate the vibrancy and continued activity in the Irish telecommunications market.

The Director of Telecommunications Regulation now launches two competitions for the award of a total of four licences to provide third generation mobile services in Ireland. The selection of the four successful Applicants<sup>2</sup> will be carried out by way of two open tenders using the comparative evaluation or “beauty contest” method. The licence framework is based on a *differentiation* model that provides a choice for the potential bidders who will be able to apply for the licence that best suits their market strategy. The four licences, one “A” licence and three “B” licences, differ in several regards, such as the coverage requirements, access conditions and the size and payment of the spectrum access fees. The two classes of licences, “A” and “B”, will be offered in two separate, yet parallel, competitions.

An important aspect of the differentiation model involves encouraging market entrance by Mobile Virtual Network Operators (MVNOs)<sup>3</sup>, as the Director considers that such organisations will increase the overall level of competition in the provision of mobile communication services. The Director has therefore decided to license 3G mobile services in a manner that will encourage new entrants in both the infrastructure and service markets.

---

<sup>2</sup> The term “Applicant” means a body corporate which has submitted an Application under these competitions.

<sup>3</sup> For the purpose of this document, an MVNO is defined as an organisation operating a physical network infrastructure comprising as a minimum a mobile switching centre, home location register and authentication centre (or 3G mobile equivalents), having its own unique mobile network code with distinct IMSI and E.164 number series (where applicable), and issuing its own branded SIM-cards (or 3G mobile equivalents), but without a mobile radio access network. This definition is consistent with the Director’s objective to promote competition at both the service and infrastructure level.

The duration of all four licences will be 20 years. It is expected that the highest ranked Applicants for the four licences will be announced by June 26<sup>th</sup> 2002.

It should be stressed that this memorandum is only indicative of the competition. Full details of the licensing process are contained in the tender documentation, which will be available from the Office of the Director of Telecommunications Regulation (ODTR) at the latest from December 31<sup>st</sup> 2001.



**CHAPTER 2**

**THE MARKET  
FOR 3G SERVICES IN IRELAND**

---

## 2. The market for 3G services in Ireland

The introduction of 3G provides a unique combination of broadband services and mobility, potentially enabling mobile phones to overtake PCs as the primary devices for Internet access within few years. The current levels of familiarity and usage of mobile phones and the Internet are key factors determining the market potential of 3G and the growth in data traffic.

In spite of the comparatively small size of its population, Ireland offers a promising prospect in this regard. Not only is Ireland amongst the most vibrant and rapidly growing economies in Europe; in particular, the Irish telecommunications market has demonstrated significant growth levels. Since the introduction of Irish mobile services, the penetration rate has maintained a strong upward trend, rising from 29% at the end of June 1999 to 75% by November 2001. Due to these impressive growth rates, mobile penetration now exceeds that of fixed lines, with mobile lines accounting for over 2.8 million of the 4.6 million telecom access paths.

SMS is highly popular in Ireland and there has been an impressive 150% increase in the number of SMS sent in the 12-month period from Q3 2000 to Q3 2001. The popularity of SMS is evident by the fact that, on average, a mobile subscriber sends 46 SMS messages each month.

With regard to the use of the Internet, the Irish market also demonstrates significant growth rates. A recent survey by the ODTR of SMEs showed that 88% are connected or in the process of connecting to the Internet, while the level of usage among large corporates is estimated at 96%. It is estimated that as of the end of October 2001, approximately one-third of the population had access to the Internet from home in Ireland, representing a 23% increase from January 2001.

Ireland's future Internet growth potential is illustrated by the fact that 47% of those in the 15-24 year age bracket have Internet access at home, also Ireland has the largest number of under 25's, as a proportion of its internet universe, in Europe.<sup>4</sup>

Taking an overall view of the Irish telecommunications sector, almost all segments of the market are experiencing increased demand. Based on figures from the operators for the first through the third quarter of 2001, the ODTR estimates that total revenues for the fixed, mobile and broadcasting markets are now worth €3.17 billion a year. This figure has increased by approximately 25% since September 2000. Expressed as a proportion of total national output, the telecom sector is now estimated to account for approximately 3.1% of the Irish GDP up 0.2% since September 2000.<sup>5</sup>

---

<sup>4</sup> Source: ODTR, June 2001

<sup>5</sup> Source: ODTR "The Irish Communications Market. Quarterly Review" December 2001.



The level and growth of data communications can best be determined by looking at the number of leased lines and ISDN circuits.<sup>6</sup> Given their ability to carry large amounts of information and data, leased lines are becoming increasingly important for facilitating the growth and development of e-commerce. The total number of leased line circuits in Ireland has increased during 2000 to approximately 39,000 at the end of the September 2001 while ISDN access channels grew by 32% in the 12-month period to September 2001.

The ODTR estimates that the new entrants' share of the fixed line market now stands at 20%. In the mobile market, the operators' shares are Eircell-Vodafone 58%, DigifoneMMO2 40% and Meteor (commenced operations in February 2001) 2%. Arrangements for Mobile Number Portability (MNP) are being developed with a view to its introduction in the fourth quarter of 2002.

All in all, these figures document the vibrancy of the Irish telecommunications market, and the extensive market opportunities for future owners of 3G licences in Ireland.

---

<sup>6</sup> A leased line is a dedicated telecom line that has been leased for private use. By contrast with PSTN and ISDN lines, it is not a switched or dial-up line.

## **CHAPTER 3**

### **OBJECTIVE OF THE COMPETITIONS**

---

### 3. Objective of the Competitions

The overall objective of the two competitions is to generate the most competitive and robust mobile market structure possible so that the Irish consumers can benefit from competitive tariffs and the availability of advanced services.

The Director actively seeks to promote the development of competition by taking the following approach to the introduction of 3G mobile services in Ireland:

- Promotion of infrastructure competition by offering four 3G mobile licences, and also offering additional spectrum in the 900 MHz and/or 1800 MHz bands to a new market entrant(s) and additional 3G and 900 MHz spectrum to the “A” licence, under certain conditions, although foreseeing also the possibility of infrastructure sharing subject to certain conditions and
- Promotion of service competition by including as an evaluation criterion for one of the four 3G mobile licences with the provision of air interface access for Mobile Virtual Network Operators (MVNOs).
- To qualify for such access, an MVNO will be required to operate certain dedicated network elements and to have its own unique mobile network code, thus further enhancing service competition.

## CHAPTER 4

### LICENCE FRAMEWORK

---

## 4. Licence Framework

The Director undertook two rounds of public consultation on 3G, one initiated in April and one in July 2000.<sup>7</sup> Following this latter consultation and agreement on fees, the Director has decided to launch two competitions for a total of four 3G mobile licences, providing for entry of at least one additional network operator in the Irish mobile market. The competitions also make available further 900 MHz and 1800 MHz spectrum to successful new market entrants<sup>8</sup> as well as spectrum in the 900 MHz and 3G bands to the operator who obtains the “A” licence, subject to the latter offering MVNO access.

The consultations addressed the potential market structure for the delivery of 3G mobile services, noting that future market relationships are likely to be more complex than those in the current mobile market, with a greater focus on value added content and service providers.

In line with the above considerations and her desire to promote further competition in both 3G mobile infrastructure and services, the Director has included as an evaluation criterion for one of the four 3G mobile licences the provision of air interface access for MVNOs, on a “retail minus X” basis.<sup>9</sup>

Licensees will be granted the right to use 3G technology to provide telecommunications services to the public, in accordance with section 111 of the Postal and Telecommunications Services Act 1983, as amended, and in accordance with the Wireless Telegraphy Acts, 1926 to 1988 (see Appendix C for a more detailed description).

The term of the telecommunications service licence will be 20 years, while the Wireless Telegraphy licence will be subject to annual renewal in line with other licences issued under the Wireless Telegraphy Act 1926.

### 4.1 SPECTRUM ALLOCATION

Both the “A” and the “B” licences will be assigned equal amounts of core 3G spectrum, i.e. 2 x 15 MHz of paired spectrum plus 5 MHz of unpaired spectrum.

Furthermore, if the successful Applicant for the “A” licence offers MVNO pricing on a “retail minus X” basis (where 'X' is equal to or greater than zero), additional spectrum

---

<sup>7</sup> See documents ODTR/00/29, 00/48, 00/52 and 00/92 available on the web site of the ODTR: [www.odtr.ie](http://www.odtr.ie).

<sup>8</sup> A new market entrant here means an applicant which is not currently licensed to provide mobile telecommunications services and networks in Ireland and is not linked to any existing operator (a full definition of “new market entrant” is in the tender document).

<sup>9</sup> The Applicant is invited to provide binding commitments regarding the maximum price of MVNO Access based on a "Retail minus X" formula where the Applicant decides the size of the “X”. This commitment will earn the Applicant points in the evaluation if the size of “X” is zero or greater. A performance guarantee will be solicited to underwrite this binding commitment (see chapter 4.2).

will be made available on the basis of demonstrable need. This additional spectrum will comprise a further 5 MHz of unpaired 3G spectrum and up to 2 x 5.2 MHz of paired spectrum in the 900 MHz band, both on the basis of demonstrable need in order to support MVNOs.

In order to achieve a fair level of competition with the incumbent operators, additional spectrum in the 900 MHz and 1800 MHz bands will also be made available, on the basis of demonstrable need, to successful Applicants who are new market entrants. In the case of a single new market entrant, this spectrum will comprise up to 2 x 7.2 MHz of spectrum in the 900 MHz band, and up to 2 x 6.0 MHz in the 1800 MHz band. In the case of more than one new market entrant, further spectrum in the 900 MHz and/or 1800 MHz bands will be made available as necessary to cater for individual operators' demonstrable needs.

All spectrum in the 900 MHz and 1800 MHz bands made available as a result of the 3G mobile licence tender will be subject to appropriate spectrum access fees, as specified in the tender document (see chapter 4.3 below).

Interested parties should note that, in the event that one or more of the Licences are not awarded, the spectrum relating to those Licence(s) may be subject to a re-tender and re-allocated by the Director.

The tables below summarise the core spectrum allocated to each class of licence in the two competitions.

Type of Licence	Band	Bandwidth of the Licence
"A"	1920-1935/2110-2125 MHz	2 x 15 MHz
	1915-1920 MHz	1 x 5 MHz

Table 1: Overview of core spectrum allotted to the "A" licence on offer

Type of Licence	Band	Bandwidth of the Licence
"B" <sub>1</sub>	1935-1950/2125-2140 MHz	2 x 15 MHz
	1900-1905 MHz	1 x 5 MHz
"B" <sub>2</sub>	1950-1965/2140-2155 MHz	2 x 15 MHz
	1905-1910 MHz	1 x 5 MHz
"B" <sub>3</sub>	1965-1980/2155-2170 MHz	2 x 15 MHz
	1910-1915 MHz	1 x 5 MHz

Table 2: Overview of core spectrum allotted to the "B" licences on offer

All spectrum packages must include any necessary inter-carrier and inter-operator guard band requirements. In the case of 3G mobile spectrum, these bands should be compatible with the minimum carrier spacing requirements specified in ERC Decision ERC/DEC(99)25.

The additional 900 MHz and/or 1800 MHz spectrum that may be awarded to the successful Applicant for the "A" licence and to new market entrants is shown in table 2 below:

Additional spectrum for	Band	Bandwidth of the additional spectrum
"A" licensee	900 MHz	2 x 5.2 MHz
	2020-2025 MHz	1 x 5 MHz
New entrant	900 MHz	2 x 7.2 MHz (in total)
	1800 MHz	2 x 6.0 MHz (up to four lots)

Table 3: Overview of additional spectrum

## 4.2 LICENCE CONDITIONS

3G mobile telecommunications service licences will be issued for a period of 20 years. The Wireless Telegraphy (WT) licences will continue to be renewable on an annual basis for the time being, although the Director reserves the right to review this arrangement from time to time as part of her broader spectrum management duties. Continued availability of existing spectrum assignments in the 900 MHz and 1800 MHz bands to mobile telecommunications licensees will be reviewed three years prior to licence expiry. Retention of such spectrum will be on a demonstrable need basis until the end date of the 3G licences.

Launch of commercial services no later than January 1<sup>st</sup> 2004 is a minimum requirement for obtaining any licence in the 3G competition.

The "A" licence involves minimum requirements of 53% demographic coverage by the end of December 2005 and 80% demographic coverage to be fulfilled by the end of December 2007. The class "B" licences involve minimum requirements of 33% demographic coverage to be fulfilled by the end of June 2006 and 53% demographic coverage by the end of June 2008.

All Applicants for either the "A" or "B" licences who are currently licensed to provide GSM services and networks in Ireland (or are connected to undertakings holding such a licence), will be required to agree, as a pre-condition to enter the competition, to an obligation to provide national roaming facilities onto their GSM network to all new market entrants who meet the minimum roll-out requirement to qualify for roaming as set out below. The national roaming obligation will apply for a period of five years from the date of the granting of the 3G licence to the new market entrant, by which time the Director considers that the new market entrant should have rolled out sufficient infrastructure or made appropriate sharing arrangements so as not to require the national roaming facility. The national roaming obligation will become effective only when the new market entrant has rolled out a 3G mobile radio access network infrastructure capable of serving at least 20% of the Irish population.

The minimum requirements with regard to coverage, speed of roll-out and national roaming are outlined in the table below.

Minimum Requirements	"A" Licence	"B" Licences
Coverage	80% demographic coverage.	53% demographic coverage.
Speed of Roll-Out	53% of the national population by the end of December 2005.  80% coverage by the end of December 2007.	33% demographic coverage by the end of June 2006.  53% demographic coverage by the end of June 2008.
National roaming	Acceptance of obligation to provide national roaming on existing 2G networks for new market entrant 3G licensees.	Acceptance of obligation to provide national roaming on existing 2G networks for new market entrant 3G licensees.

Table 4: Overview of licences and minimum requirements with regard to coverage, speed of roll-out and national roaming

In addition, minimum requirements with regard to the financial solidity and the coherence of the business plan will apply. And finally, to be considered in the competitions for both the "A" and the "B" licences, applicants must agree to pay a spectrum access fee, see 4.3 below.

All Applicants will be encouraged to make voluntary offerings concerning coverage and roll-out in excess of the minimum requirements concerning coverage and roll-out and other offerings such as site sharing and quality of service. Performance guarantees underwriting these offerings will form part of the evaluation as well as the promotion of competition.

All applicants for the "A" licence are invited to offer a voluntary binding commitment relating to the provision of access to the radio access part of their 3G mobile network and, where applicable, any 2G mobile radio access network in which the applicant has, or might in the future have, an ownership interest ("MVNO access"), priced on a "retail minus X" basis. This commitment will earn the Applicant points in the evaluation if the size of "X" is zero or greater. A performance guarantee will be solicited to underwrite this binding commitment.

### 4.3 LICENCE FEES

Applicants should note that there are a number of fees payable in respect of the Licences offered. These fees relate to both once off and recurring charges. In the case of the spectrum access fee, the charge will comprise an up-front payment and deferred payments in certain years. For the annual spectrum fees a discount structure will apply for the early years of the Licence.



The fees can be summarised as outlined below:

Type of Licence	Administrative fee	(3G) Spectrum access fee	Annual spectrum fee
"A"	Up to €2.6 m	€50.7 m (see 4.3.2)	€2.22 m

Table 5: Overview of licence fee for the "A" licence

Type of Licence	Administrative fee	(3G) Spectrum access fee	Annual spectrum fee
"B" <sub>1</sub>	Up to €2.6 m	€114.3 m (see 4.3.2)	€2.22 m
"B" <sub>2</sub>	Up to €2.6 m	€114.3 m (see 4.3.2)	€2.22 m
"B" <sub>3</sub>	Up to €2.6 m	€114.3 m (see 4.3.2)	€2.22 m

Table 6: Overview of licence fees for the "B" licences

### 4.3.1 Administrative fee

The total cost of running the two competitions for the "A" and the "B" licences is estimated at €5.2m which will be recovered from the successful Applicants.

Applicants offered an "A" or a "B" Licence will be liable to pay an administrative fee calculated as follows:

- Where less than three Licences are offered, the Administrative Fee will be set at €2.6m
- If more than two Licences are offered, the Administrative Fee will be reduced on a pro rata basis:

$$\text{Administrative fee} = \frac{\text{€ 5,200,000}}{\text{Number of licences offered}}$$

Accompanying its application, each Applicant must provide a valid bank draft for €2.6m as a deposit to cover the maximum amount of the administrative fee. The Director intends to cash the draft within five working days.

If an Applicant wants to submit an Application for both an "A" and a "B" licence only one deposit of €2.6 m will have to be made.

Only Applicants who have been offered a Licence shall be liable for the costs of the competition. In the event that an Applicant is not offered or awarded a Licence its deposit will be refunded.

Where the final calculation of the administrative fee results in a figure lower than the amount of the deposit provided the difference will be returned to Applicant.

Applicants will not be entitled to recover any interest earned.

#### **4.3.2 Spectrum Access fee payments**

A Spectrum Access Fee is required of the licensees, to be paid in accordance with the schedule set out below. The deferred structure takes account of the market conditions for mobile operators and the development period for 3G in Ireland.

The initial payment is due on the award of the licence. The deferred payments are due at the year-date for awarding the licences. Table 7 and 8 below contain an overview of the payable Spectrum Access Fee for the “A” and “B” licences. A bond is required for the annual payments falling due in years 1-5, to be provided by a bank, financial institution or equivalent. A detailed description of the payment scheme can be found in the tender documents.

	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	Total Fee
Fee (€m)	12.7	0	0	0	0	0	2.5	2.5	2.5	2.5	2.5	5.1	5.1	5.1	5.1	5.1	0	0	0	0	0	50.7

Table 7: Overview of set payable Spectrum Access Fee for a “A” licence

	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	Total Fee
Fee (€m)	44.4	0	0	0	3.8	3.8	3.8	3.8	3.8	3.8	7.6	7.6	7.6	7.6	7.6	8.9	0	0	0	0	0	114.3

Table 8: Overview of set payable Spectrum Access Fee for a “B” licence

In addition, all spectrum in the 900 MHz and/or 1800 MHz bands made available as a result of the 3G mobile licence tender will be subject to spectrum access fees comparable to those which apply to currently licensed spectrum in the 900 and 1800 MHz bands.

#### **4.3.3 Annual spectrum fees**

In respect of each 2 x 5 MHz in the 1920-1980 MHz and 2110-2170MHz bands, an annual fee of €634,870 will apply.

In respect of each 5 MHz in the unpaired 1900-1920 MHz and 2020-2025 MHz bands, an annual fee of €317,435 will apply.

As noted above, additional spectrum will be offered on the basis of demonstrable need for (a) MVNO access to the network covered by the “A” licence and (b) new entrant(s). If these licensees take up additional spectrum in the 900 and 1800 MHz bands, the licensee will pay a spectrum access fee as follows:

##### **Additional spectrum for the “A” Licence:**

- 2 x 5.2 MHz in the 900 MHz frequency band – €8.92 m;

If the “A” licence holder does not wish to take up the full spectrum allocation under this heading, the access fee will be set on a pro rata basis according to the amount of spectrum actually allocated.

##### **Additional spectrum for the new entrants:**

The total spectrum available for new entrants and the applicable fee is as follows

- 2 x 7.2 MHz in the 900 MHz frequency band – €12.35 m;
- 2 x 6.0 MHz in the 1800 MHz Frequency band – €3.97 m.

If there is a single new entrant which wishes to take up the full allocation, it will pay the whole of the amount above. If there is more than one new entrant or that the “A” licence holder or new entrant(s) do not wish to take up the full spectrum allocation under this heading, the access fee will be set on a pro rata basis according to the amount of spectrum actually allocated.

The following Annual Spectrum Fees will apply for spectrum in the 900 MHz and 1800 MHz bands:

- €25,395 in respect of each 200KHz duplex radio frequency channel in the 900 MHz frequency band;
- €12,697 in respect of each 200KHz duplex radio frequency channel for the first block of 24 channels in 1800 MHz frequency band;

- €19,046 in respect of each 200KHz duplex radio frequency channel for the second block of 24 channels in 1800 MHz frequency band.

After a period of not less than two years these annual spectrum fees will be subject to review and adjustment where appropriate.

#### 4.4 INFRASTRUCTURE SHARING

The Director is keen to encourage sharing of radio transmission sites for 3G mobile and other radiocommunication services wherever possible to ensure that innovative new services can be rolled out speedily and with a minimal environmental impact. Applicants are therefore invited to commit to provide access to radio transmission sites under the Applicant's control. Such a commitment, where it relates to at least one third of the Radio transmission sites under the Applicant's current or future control and is offered on a reasonable, transparent and non-discriminatory basis, will be included in the comparative evaluation process. Additional marks will be awarded for such commitments which relate to sites or support structures that are currently or may in the future be subject to planning permission, and to commitments relating to cost-oriented access conditions.

Applicants are furthermore being encouraged to commit to a draft Code of Practice relating to radio site and mast sharing and its development. Thus the Applicant's commitment to participate in a future Code of Practice concerning sharing of radio transmission sites is included in the evaluation model. The purpose of the Code of Practice will be to ensure that full consideration is given to the use of existing masts, buildings and other structures for the siting of new antennas as well as sharing of new sites and structures.

In meeting its roll-out and coverage targets, an operator may take into account shared infrastructure. However, in order to promote competition in infrastructure and services, operators must contribute a minimum level of infrastructure of their own. Infrastructure sharing, with the exception of site sharing, will only be permissible when each operator concerned has established a 3G mobile radio access network infrastructure capable of serving at least 20% of the Irish population. In other words, the operator must demonstrate that at least 20% demographic coverage is provided by infrastructure which is wholly under the control or ownership of that operator.

The ODTR will assess the compliance of operators in this respect before commercial implementation of any infrastructure sharing arrangements is permitted.

In assessing whether an infrastructure sharing agreement is permissible the ODTR would expect:

- Operators to maintain independent logical control of the network. In particular the operator should maintain independent logical control over important network elements, such as:
  - the Quality of Service settings for the operator's subscribers

- the traffic levels
  - the power supply to the network elements, e.g., there should be sufficient resilience in power supplies to maintain the network;
  - separation of the Operation and Maintenance centres
- 
- Operators should not enter infrastructure sharing agreements that prohibit an operator from adding their own network elements to their shared infrastructure network. For example an operator should have the ability to add a independently owned mast & antenna to their shared infrastructure network.
  - Operators should not enter infrastructure agreements which are designed to exclude third parties from access to facilities which they would otherwise use
  - Operators should not exchange any data beyond that technically necessary for infrastructure sharing to take place.
  - The shared use of frequencies is not permitted.

In considering any infrastructure sharing arrangement an operator should satisfy itself that it is in compliance with the current regulatory framework.



**CHAPTER 5**

**THE LICENSING PROCESS**

---

## 5. The Licensing Process

The competitions will be administered by the Director of Telecommunications Regulation, who will establish a Steering Group responsible for the evaluation of applications and management of the selection process. Andersen Management International of Copenhagen has been appointed to assist in the competitions.

For each competition a set of tender documentation is available. Each of the two tender documents is divided into two sections. The first section provides a detailed description of the process, and a description of the requirements regarding the structure of the applications. The second section contains appendices of supporting documentation, and a draft licence, which is to be filled in by the Applicant with regard to issues where the Director invites the Applicants to give binding commitments such as on quality of service, coverage, speed of roll-out, site sharing and MVNO access conditions, as well as financial performance guarantees. The draft licence allows Applicants to familiarise themselves with the framework conditions of the licence.

It will be open to all Applicants to submit applications for either or both the “A” licence and the “B” licences. However, each Applicant may take up only one licence, and the Applicants will therefore be required to prioritise *ex ante* their licence applications. The Applicant must submit a separate application for each licence as well as state a preference for either “A” or “B” in a separate cover letter to accompany the applications.

The Director believes that the best method of allocating the licences is to compare the merits of competing bids, so as to evaluate applicants on criteria such as promotion of competition, quality of service, network roll-out targets etc. The Director will make her choice based on a comparative analysis of the bids. If there are factors which in the opinion of the Director prevent a full and informed comparison, such as a lack of suitable applications, or similarities in applications which cannot be explained as coincidence, the Director reserves the right to cancel the competition(s). If there is evidence of collusion, the Director reserves the right to pass this on to the appropriate authorities and take whatever procedural steps are necessary as a consequence. Interested parties should note that if a licence on offer in these competitions is not awarded, the spectrum relating to that licence may be re-issued by the Director.

Only Applicants who meet the formal and minimum requirements specified in the tender document will be able to proceed to the comparative evaluation stage. In this comparative evaluation or “beauty contest” method, the applications, which are awarded the highest marks, will be ranked at the top of each category.

During the competition, applications will be subjected to a comparative evaluation on the basis of pre-determined evaluation criteria, dimension and weightings as outlined below:



"A" licence	
Dimension	Weight
MVNO access	20%
Coverage, speed of roll-out and site sharing	20%
Quality of service	20%
Promotion of competition	10%
Performance guarantees	30%

Table 5: Evaluation Dimensions and weightings ("A" licence)

"B" licences	
Dimension	Weight
Coverage, speed of roll-out and site sharing	30%
Quality of service	20%
Promotion of competition	20%
Performance guarantees	30%

Table 6: Evaluation Dimensions and weightings ("B" licences)

The evaluation will be in accordance with the dimensions outlined and weighted in the tables above.

In drawing up the list of Applicants to be offered licences, the Director will apply the following rules in the following order:

1. The applications will be considered in descending order of merit, beginning with applications for the "A" licence.
2. The highest-ranked applicant for the "A" licence will be offered that licence (even if the same applicant scored higher marks in an application for a "B" licence).
3. If there are two Applicants for the same licence who have identical marks, the Director will take account of any preferences (for "A" or "B" licences) expressed by the Applicants and if possible award the "A" licence to the Applicant who expressed a preference for that licence.

For more detailed information regarding the evaluation of applications reference is made to the tender documentation.

Following the launch of competition, a question and answer phase will take place. Written questions will be permitted from purchasers of the tender documents until March 1<sup>st</sup> 2002 at 14.00 hrs (local time).

The closing date for receipt of applications will be March 27<sup>th</sup> 2002 at 12.00 hrs (local time). The timetable below sets out the key events:

<b>Event</b>	<b>Date</b>
<b>Launch of Competition</b>	<b>December 18<sup>th</sup> 2001</b>
<b>Deadline for submission of Questions</b>	<b>March 1<sup>st</sup> 2002 at 14.00 hrs (local time)</b>
<b>Deadline for submission of tenders</b>	<b>March 27<sup>th</sup> 2002 at 12.00 hrs (local time)</b>
<b>Analysis of tenders</b>	<b>March 28<sup>th</sup> – June 25<sup>th</sup> 2002</b>
<b>Announcement of results</b>	<b>June 26<sup>th</sup> 2002</b>

*Table 7: Time schedule for Tender Process*

The Director reserves the right to alter the above dates.

## CHAPTER 6

### REQUEST FOR TENDER DOCUMENTS

---

## 6. Request for Tender Documents

Requests for the two tender documents should be accompanied by a non-refundable bank draft for €20,000 made payable to the Office of the Director of Telecommunications Regulation.

All requests should be addressed to:

Office of the Director of Telecommunications Regulation  
Abbey Court, Irish Life Centre  
Lower Abbey Street  
Dublin 1  
IRELAND

ATT: Ms. Sinéad Devey

Phone +353 (01) 804 9621; Fax +353 (01) 804 9671

E-mail: [deveys@odtr.ie](mailto:deveys@odtr.ie)

**CHAPTER 7**

**APPENDIX A:  
KEY INDICATORS OF THE IRISH ECONOMY  
AND MOBILE SECTOR**

---

## 7. Appendix A: Key Indicators of The Irish Economy and Mobile Sector

Key Indicators of the Irish Economy	
Size of country	70,280 Km <sup>2</sup>
Size of population <sup>10</sup>	3.8 M.
Irish GDP (2000)	103 b Euro
GDP per inhabitant (2000)	27,218 Euro
Growth in GDP at constant market prices (2000)	11.5 %
Seasonally adjusted unemployment rate (2000)	4.1 %
Rate of inflation (Consumer price index) (Nov '01)	3.8 %
Exchequer surplus (2002 post budget estimate)	170 m Euro
Corporate tax rate <sup>11</sup>	20 %

Table 1: Key Indicators of the Irish Economy 2000

---

<sup>10</sup> Estimated by the Central Statistics Office Ireland, June 2001.

<sup>11</sup> 16% from January 1<sup>st</sup> 2002, 12,5% from January 1<sup>st</sup> 2003 and subsequent years.

<b>Key Indicators of the Irish Mobile Sector</b>	
<b>Mobile subscribers (Nov. 2001)</b>	2.8 m
<b>Share of post-paid subscribers (Nov. 2001)</b>	Approximately 33 %
<b>Mobile penetration rate (Nov. 2001)</b>	75 %
<b>Total SMS traffic (3Q 2001)</b>	385 m per quarter
<b>Average SMS traffic pr. subscriber</b>	46/month
<b>ARPU<sup>12</sup></b>	€38/month
<b>Market shares of existing operators as of November 2001</b>	Eircell Vodafone (58%), Digifone (40%) and Meteor (2%)
<b>Date of service launch of 2G operators</b>	Eircell Vodafone (1985), Digifone (March 1997) and Meteor (February-2001)
<b>Number employees within sector in 2000</b>	Approximately 2,477

Table 2: Key Indicators of the Irish Mobile Sector.

---

<sup>12</sup> Merrill Lynch, Estimate for the six months to September 2001.



**CHAPTER 8**

**APPENDIX B:  
REGULATORY AND LEGAL FRAMEWORK**

---



## **8. Appendix B: Regulatory and Legal Framework**

### **8.1 THE DIRECTOR OF TELECOMMUNICATIONS REGULATION**

The regulation of the telecommunications sector in Ireland is carried out by the Director of Telecommunications Regulation, an office established under the Telecommunications (Miscellaneous Provisions) Act, 1996. The Director of Telecommunications Regulation is independent in the exercise of her functions. The Director has responsibility for the exercise of powers under various national telecommunications and broadcasting legislation. The Director also performs the role of national regulatory authority as provided for in EC telecommunications and associated legislation.

### **8.2 THE MINISTER FOR PUBLIC ENTERPRISE**

The Director is responsible for issuing licences such as the ones described in this document, but the Minister for Public Enterprise must give her consent to regulations which define the contents of licences under the Wireless Telegraphy Act 1926.

### **8.3 RADIO FREQUENCY SPECTRUM**

The use of radio frequency spectrum in Ireland is primarily governed by the Wireless Telegraphy Acts, 1926 to 1988. The Director may issue licences under this legislation allowing persons to use equipment utilising radio spectrum in Ireland. The Director has overall responsibility for managing radio spectrum in Ireland. Operators will be expected to use the spectrum in an efficient manner.

**CHAPTER 9**

**APPENDIX C:  
LEGISLATIVE BACKGROUND TO THE  
COMPETITIONS**

---

## 9. Appendix C: Legislative Background to the Competitions

3G mobile licences will be awarded by the Director under the Postal and Telecommunications Services Act, 1983 (as amended) and the Wireless Telegraphy Acts, 1926 – 1988. The Licensee will be granted the right to use 3G mobile technology based on the IMT-2000 family of standards to offer telecommunications services to the public, for the duration of the licence. The offering of the licences is in accordance with EC Decision 128/1999/EC,<sup>13</sup>.

Successful applicants will require two types of licence, namely:

- A Telecommunications Licence<sup>14</sup> issued in accordance with section 111 of the Postal and Telecommunications Services Act, 1983, as amended, and
- A Wireless Telegraphy Licence issued in accordance with regulations to be made under the Wireless Telegraphy Acts, 1926 to 1988. The Director will make these Regulations which will also require the consent of the Minister for Public Enterprise.

The competitions are designed to ensure that licences are awarded according to objective, transparent, non-discriminatory and proportionate selection criteria, giving due weight to the need to facilitate the development of competition and to maximise benefits for users in accordance with the provisions of the European Communities (Telecommunications Licences) Regulations 1998 (SI no. 96 of 1998), which transposed into Irish law European Parliament and Council Directive 97/13/EC.<sup>15</sup>

The combined Licences will entitle the holder(s) to provide 3G mobile services to the public subject to certain conditions and obligations.

As required under section 111 of the Postal and Telecommunications Services Act, 1983, the Director has also sought and obtained the consent of the Minister for Finance for the licence fee.

The Director has also consulted with the Minister for Public Enterprise with regard to public service requirements, as provided for in the Telecommunications (Miscellaneous Provisions) Act, 1996.

The European Commission has also been advised of the Director's proposals and account has been taken of its views.

---

<sup>13</sup> Decision of the European Parliament and Council of 14<sup>th</sup> December 1998, on the co-ordination of a 3<sup>rd</sup> generation mobile and wireless communications system in the Community.

<sup>14</sup> The licence is subject to amendment in the light of, in particular, changes in the EU Directives setting the framework for communications liberalisation.

<sup>15</sup> Decision of the European Parliament and Council of 10<sup>th</sup> April 1997, on a common framework for general authorisations and individual licences in the field of telecommunications services.