

Office of the Director of
**Telecommunications
Regulation**

LIBERALISATION IN THE IRISH TELECOMMUNICATIONS MARKET

ONE YEAR ON

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Introduction

On the 30th November 1998, the Director of Telecommunications Regulation awarded twenty-nine new telecommunications licences at a ceremony in the Berkeley Court, Dublin. Speaking about the nature of the licences the Regulator said, *“I believe that the type of regulation that has been developed will allow competition to work and will help encourage market entry. It will also herald a fast transition to an era where consumers are offered the best possible telecoms services at an affordable price”*. The following day, 1st December 1998, the Irish telecommunications market was fully liberalised

One year after liberalisation the number of licensees in the marketplace has doubled. Competition has been fierce, initially in the long-distance and international telephony sectors. As we near the end of 1999, there are signs that competition is also increasing in the supply of local telephone services.

Voice traffic has achieved growth of 18% during the year. The main contributor to this growth has been international traffic which increased by around 30%. Local and national traffic has experienced more moderate growth but nevertheless reached 18% and 11% respectively. In general, a direct correlation can be seen between growth in GDP and growth in telecommunications, with the latter growing at roughly twice the rate of GDP. The impressive increase in voice traffic in the Irish telecommunications sector mirrors the unprecedented growth levels in the Irish economy generally over the last year and augurs well for the sector in the future.

Given the impressive growth rate experienced in voice traffic during the year, the market size has increased overall. Indications are that the new entrants to the Irish marketplace have significantly grown their customer bases over the year. However this measure of market share can be somewhat misleading as the same customer can use different operators depending on what service is required. Revenue market shares of the major players reveal a slightly different story. Based on information collected by the ODTR from the operators for the year ended 31 March 1999, Eircom has a market share in the order of 96% which is similar to the market share held by that organisation in the previous year. However, it should be remembered that this figure relates to an early stage post liberalisation where most of the competition would have still been concentrated in the international market. The telecommunications market has experienced increased activity in terms of marketing campaigns and customer targeting in the latter half of this year. On this basis it would not be unreasonable to assume that Eircom's market share may now be somewhat less than this figure although it is unlikely to be significantly so.

The experience of the Irish market is similar to that elsewhere in Europe. New entrants to the market aim to establish a customer base in the higher value/volume ends of the market to establish credibility and ensure cash flow in the start up phase of the business. This is the stage the Irish market is in at present. As the market matures and these new operators become more established competition is likely to broaden across all of the different customer bases in the telecommunications market. The Irish market is beginning to see this happen with the ever increasing variety and sophistication of services being offered to all customers in the market place.

Market Overview

There are currently 40 General Telecommunications Licence¹ holders and 22 Basic Telecommunications Licence^{2 3} holders in the Irish market. To date, 24 of the 40 General licensees and 17 of the 22 Basic licensees have commenced operations. Four traditional cable/MMDS operators hold telecommunications licences (3 General and 1 Basic). One of these - Irish Multichannel - has started to provide a telecommunications service. However, all are in the process of, or intend to embark on programmes of network upgrade and improvement in order to commence telecommunications service provision in the near term.

¹ General licensees can provide all telecommunications services, including voice telephony. They can also apply for numbers from the national numbering plan.

² Basic licensees can provide all telecoms services, excluding voice telephony. They are not entitled to numbers from the national numbering plan.

³ Both licences are national and permit holders to build telecommunications infrastructure.

Both mobile licensees have experienced very substantial growth. Eircell and Esat Digifone have almost doubled their GSM customer base in the first nine months of the year. Eircell alone provides analogue services. Both operators have been awarded spectrum in the GSM 1800 bands, effective from 1 January 2000.

Competition is developing in a number of ways in the Irish fixed voice telephony market. As well as competing through the negotiation of interconnect agreements to the Eircom network, some of the larger operators are also investing heavily in the development of their own national and international networks. Such companies include Aurora, Cable & Wireless, Esat Telecom, MCI Worldcom and OCEAN⁴. A number of these companies are using the national backbone networks of other utility industries to develop telecommunications networks. For example, Ocean is using the ESB's existing microwave infrastructure to link major urban centres such as Cork, Shannon and Waterford with leased lines of up to 100Mbit/s. Esat Telecom is constructing a fibre optic backbone network along CIE's rail networks while Aurora intends to use existing gas networks to lay ducts, using Bord Gáis infrastructure.

The local loop remains a bottleneck and most new operators are relying on access to Eircom's local loop infrastructure to reach final customers. The proposed issue of FWPMA (Fixed Wireless Point to Multipoint Access) licences will facilitate competition as an alternative to copper in the local loop. Traditional cable/MMDS operators have high penetration rates at the local level and modification and upgrade of these networks should serve as the basis of an alternative telecommunications network, offering broadband services directly to customers in their respective areas, including public telephony, internet and value-added services. Investment in two-way transmission capability (instead of existing one-way transmission dedicated to television) as well as quality assurances are required before this can commence. In addition, local loop unbundling is important as a possible approach to achieving competition in telecommunications access and local services.

In public voice telephony, a number of operators have begun competing with Eircom. These companies have begun by targeting the relatively higher margin long distance and international call markets and Eircom has applied its most muscular tariff adjustments in these areas. Table 1 illustrates clearly that the international call market has the greatest level of competition but there is significant development in the local market. Competition in the long distance market is also developing strongly while the local market is a little slower with the continuing bottleneck at the local network level.

Public Voice	International		Long Distance		Local	
	<i>Bus.</i>	<i>Resid.</i>	<i>Bus.</i>	<i>Resid.</i>	<i>Bus.</i>	<i>Resid.</i>
Cable & Wireless	✓	✗	✓	✗	✓	✗
Eircom	✓	✓	✓	✓	✓	✓
Esat Telecom	✓	✓	✓	✓	✓	✓
GTS (ITL)	✓	✗	✓	✗	✓	✗
Interoute	✗	✓	✗	✓	✗	✓
MCI Worldcom	✓	✗	✓	✗	✓	✗
OCEAN	✓	✓	✓	✓	✓	✓*
SM Communications	✓	✓	✓	✓	✗	✗

⁴ See review of the major players and table of operators below.

Stentor	✓	✗	✗	✗	✗	✗
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*For directly connected customers only.

Table 1. Details of licensees operating in the market for public voice telephony. Sources include Fifth Implementation Report Questionnaire, 1999 and the ITU Telecommunications Indicators Questionnaire, 1999.

A number of other entrants are competing on the basis of calling cards such as Torc Telecom, Hibercall, Primus, Spirit and Swiftcall. They can be purchased in retail outlets for use in public payphones. Residential and business customers can also subscribe to pre-paid card services that enable them to make calls from their own phones using alternative operators.

Other companies are offering resale services. They bulk-buy minutes from larger operators and sell it on to other service providers and to end-users. This service is facilitated by a router, which is attached at the subscriber end and the company can sustain competitiveness by exploiting the volume discounts offered by Eircom and other larger operators. Resellers include Interoute, Swiftcall and Valuetel. The latter buys minutes from MCI Worldcom and resells it to the end-user.

A number of operators are also competing with Eircom in public network services, such as Esat Telecom, MCI WorldCom, OCEAN, Cable & Wireless, ITL and Interoute. Operators competing in the data communications and Internet access markets include Eircom, Cable & Wireless, NTL, Ocean, Stentor, Esat Telecom and MCI Worldcom. Data communications services include national and international leased lines⁵ and switched data services (packet switched services, frame relay services, ATM services etc.).

ITG has been competing with Eircom in the payphone market for some years and has been joined by ESAT Telecom. However, Eircom's coverage of the population is unlikely to be replicated, as the provision of this service is not a significant generator of revenue, and mobile and fixed phones are ever more widely available.

The dynamic growth of cellular mobile penetration by the two mobile operators, Eircell and Esat Digifone, is also likely to bring pressure to bear on the fixed market. This pressure is increasing as low entry-cost⁶ price packages are introduced.

The full list of licensees and their areas of activity is appended.

⁵ These are fixed point-to-point connections that are used for high volume voice, data or multimedia transmission. International leased lines are generally offered in conjunction with other international carriers.

⁶ Low entry-cost price packages are those that facilitate entry of the consumer into the mobile market, for example, low handset and connection fees.

Mergers and Acquisitions

In terms of M&A activity, telecommunications is one of the most dynamic industries. On a global scale, there are a number of discernible trends including:

- The emergence of super carriers with networks spanning the globe providing end-to-end services. This includes huge investment in undersea cable.
- The increasing value of M&A activity, for example, the proposed merger between MCI WorldCom and Sprint is potentially worth more than two and a half times Ireland's GDP.
- The increasing involvement of non-telecommunications based investors. For example, Bill Gates and Boeing have invested in Teledesic, the satellite low-earth orbit operation or "Internet in the Sky", as it is often referred. Dixon's of the UK, a high street retailer, has recently offered pay-as-you-go Internet access. In France, mobile handsets can be purchased in retail supermarkets.

All of these developments have significant implications for the Irish market. There is also significant activity on the domestic front:

- KPN and Telia have announced plans to sell their combined 35% shareholding in Eircom, following the EU approval of the merger between Telia and Telenor and KPN's plans to re-focus its business on Eastern Europe.
- NTL, a large UK operator has purchased Cablelink, and plans to upgrade its network to allow a rapid rollout of public telephony, Internet and other value-added services. This should provide significant new competition to Eircom, particularly in the Dublin region.
- Esat Telecom has recently acquired PostGEM and NASC Teoranta, two of Ireland's oldest and established Internet service providers. Esat Telecom also has a 49.5% stake in the country's second mobile operator, Esat Digifone.
- PHL and an associated company have signalled their intention to purchase CMI and Suir Nore Relays, thereby creating an almost national network for television delivery, to be linked with WLL licences for telecommunications, should these be awarded.

Review of Telecommunication Tariffs - November 1998/1999

Competition has had a significant impact on tariffs as is evidenced by the very substantial reductions made by Eircom in 1997/8 in the run-up to full liberalisation. This section compares movement in incumbent tariffs for 1998 and 1999 for the following range of telecommunications services, and for incumbent operators in different countries.

- National PSTN
- International PSTN
- National Leased Lines
- International Leased Lines

These tariff comparisons effectively rank Ireland against other countries with which we compete in relation to the cost of a basket of calls⁷. For the purpose of this review we examine Ireland's ranking prior to liberalisation and Ireland's current situation. It is important to note that the tables set out below for each year provide a 'snapshot' of Ireland's ranking vis a vis other countries at a particular point in time.

Overview

Eircom's tariffs for price capped services fell by about 9% in both 1997 and 1998 and the company is expected to exceed the price cap target of CPI - 6 in 1999. While tariffs for a range of telecommunications services in Ireland have been reduced over the last year, there have also been significant tariff reductions in other countries with which we compete. The various tariff baskets examined indicate that tariffs for certain services in Ireland have not fallen to a level that would lead to an improvement in Ireland's relative position to other countries. For instance, Ireland's position in the National Business, National Leased Lines, International Leased Lines and the International Residential markets has remained largely unchanged which indicates that although prices have fallen in Ireland, they have not been reduced to a level that would result in an improvement in our relative position.

In relation to services such as International Business, Ireland's position in the basket has improved while our position in relation to the National Residential Basket has deteriorated. Ireland's low ranking compared with other leading countries in the national residential market is primarily the result of new telecoms operators targeting the business sector.

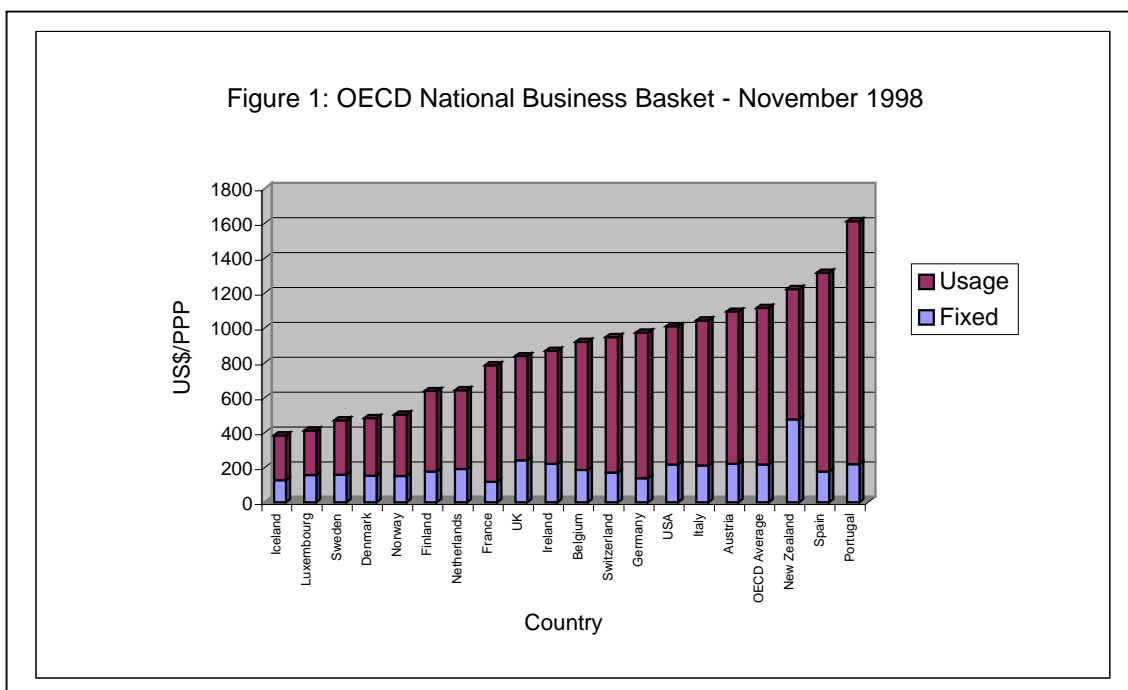
The ODTR has however been working on a number of initiatives designed to reduce prices further and introduce more competition, in particular a new price cap proposal for 2000 - 2002, leased line pricing and LRIC based RIO, all of which may be expected to have a substantial impact on telecoms pricing in Ireland.

⁷ The OECD has studied the usage pattern of telecommunications among member countries, and from these results produced a set of methodologies in the form of tariff baskets for making tariff comparisons. Teligen uses the OECD methodology and calculates various baskets for different countries. Data used to construct the above charts was sourced from Teligen's T-basket (November 1998/99).

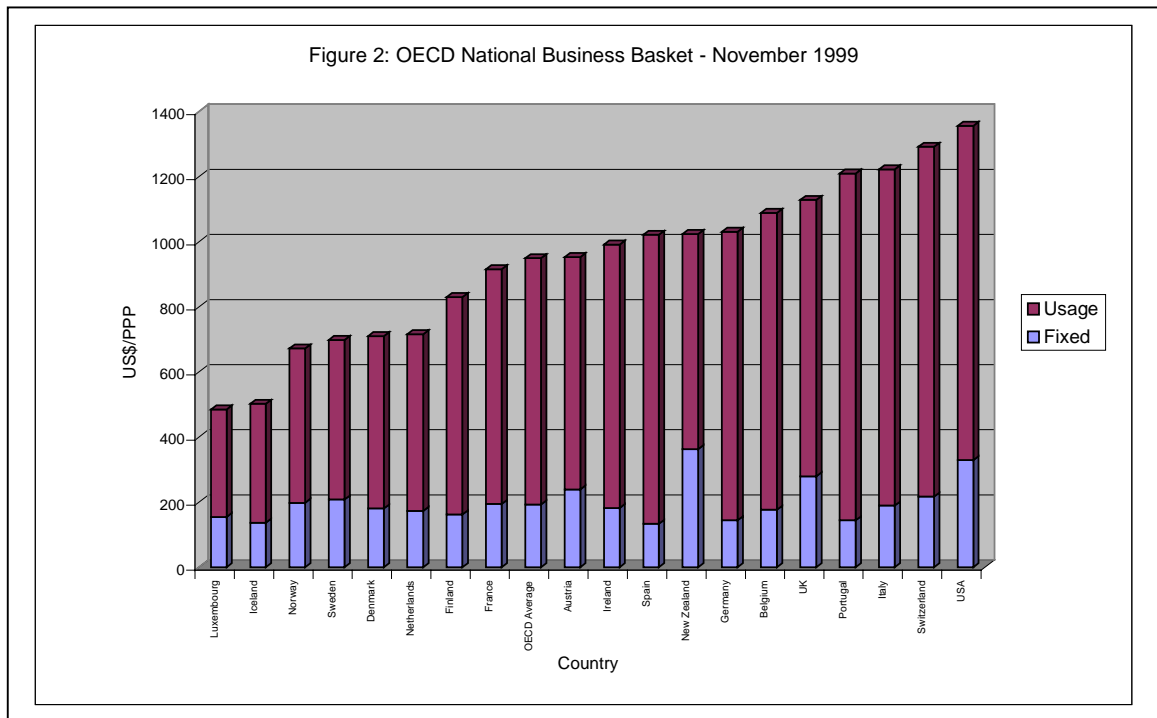
National Business Basket - November 1998 and 1999⁸

The 'National Business Basket' examines the average cost of national calls (includes local calls) for the business sector. Prior to 1 December, 1998 Ireland was ranked 10th among nineteen key countries in relation to the average cost of national business calls. As set out in Figure 1, Ireland was ranked better than the OECD average and southern European countries such as Spain and Portugal. In addition, we were also closely ranked to the UK, a key competitor location whose market has been liberalised for a considerable period of time. However, Ireland did not compare favourably to Nordic countries, such as Finland and Norway, whose telecommunications markets are considered highly sophisticated. Figure 2 sets out Ireland's current situation in relation to the cost of national calls for the business sector.

Ireland is still ranked 10th among nineteen key countries in relation to the average cost of national business calls. This indicates that although prices have fallen in Ireland, they have not been reduced to a level that would result in an improvement in our relative position. The most notable change is that of the UK which is currently ranked behind Ireland for the cost of a national basket of calls. In addition, the OECD average has improved considerably, largely as a result of significant tariff reductions in the different member countries.



⁸ The national PSTN basket is defined with a fixed charge basket based on installation and rental charges, and a usage charge basket based on a certain volume of calls, distributed over 14 different distances from 3 to 490 km, 6 different times of the day (4 in the week and 2 in the weekend), and with 3 different call durations depending on the hour and distance. This basket is constructed using each country incumbent's average call charges and excludes VAT. For the purpose of this document we focus largely on European countries, it is important to note however that the 'OECD Average' figure represents the average cost for the 29 OECD countries.



National Residential Basket - November 1998 and 1999⁹

The National Residential Basket examines the average cost of national calls (includes local calls) for the residential sector. Ireland was ranked 13th and 15th among nineteen leading countries in relation to the average cost of residential calls in 1998 and 1999 respectively. Although Ireland was ranked better than the OECD average, Ireland did not compare favourably to other key European countries in 1998 (Figure 3). Ireland continues to lag behind countries such as the UK and Finland, and has recently fallen behind other countries such as New Zealand and Belgium (Figure 4).

A comparison of the national tariffs for the business and residential sector in Ireland suggests that the impact of competition is far more evident in the business sector than the residential sector. This is primarily explained by the fact that new telecoms operators have initially targeted the lucrative business sector.

⁹ The residential basket has more calls in the weekend and evening than the business basket, and calls at these times are generally longer. The residential basket excludes VAT.

Figure 3: OECD National Residential Basket - November 1998

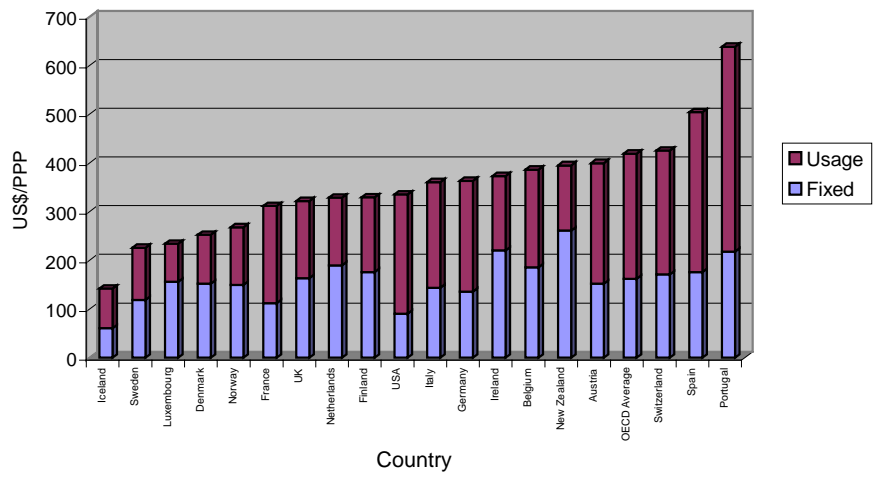
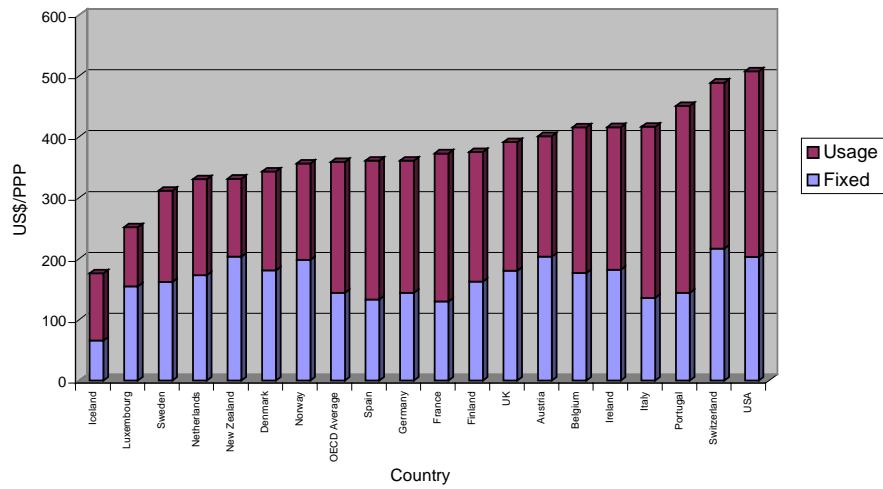
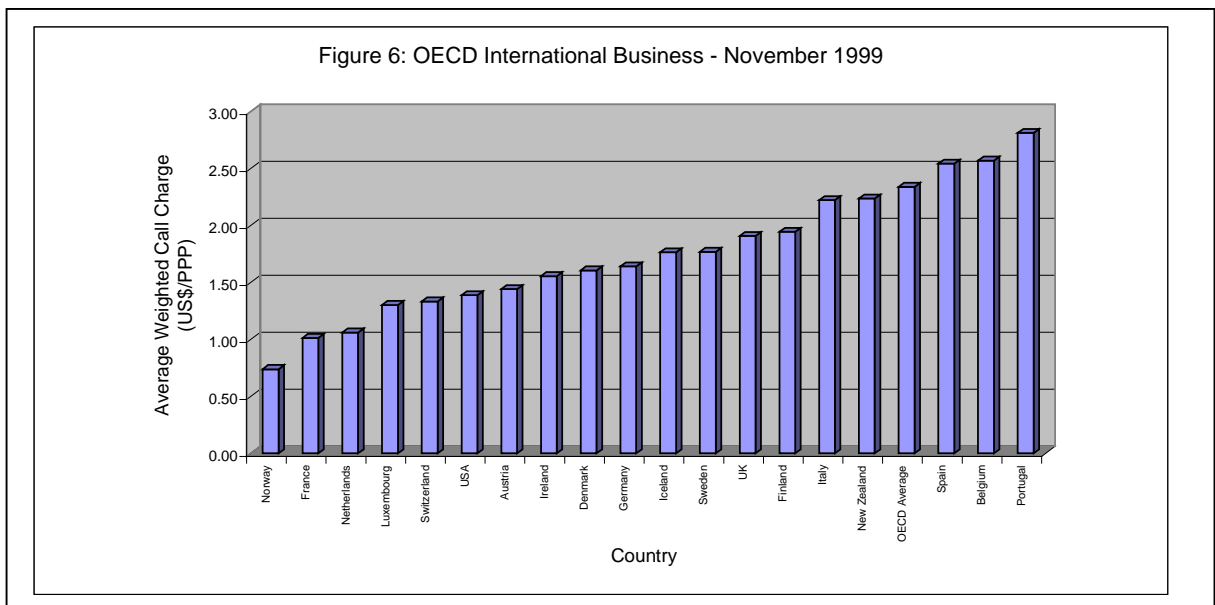
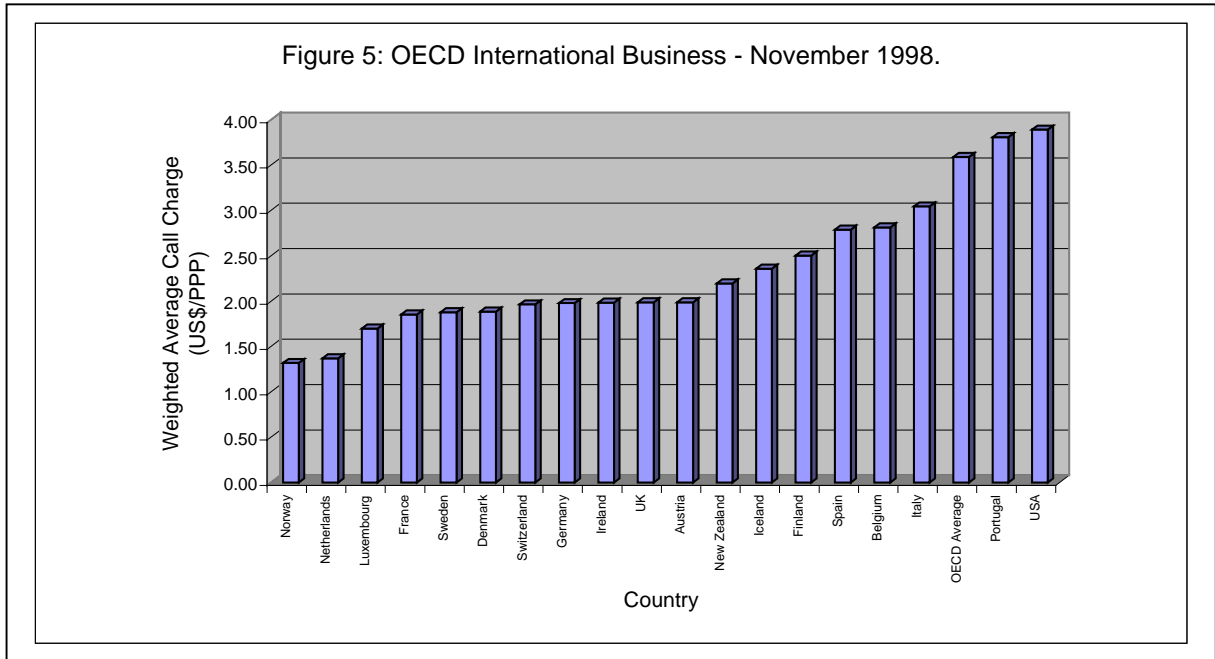


Figure 4: OECD National Residential Basket - November 1999



International Business Basket - November 1998 and 1999¹⁰

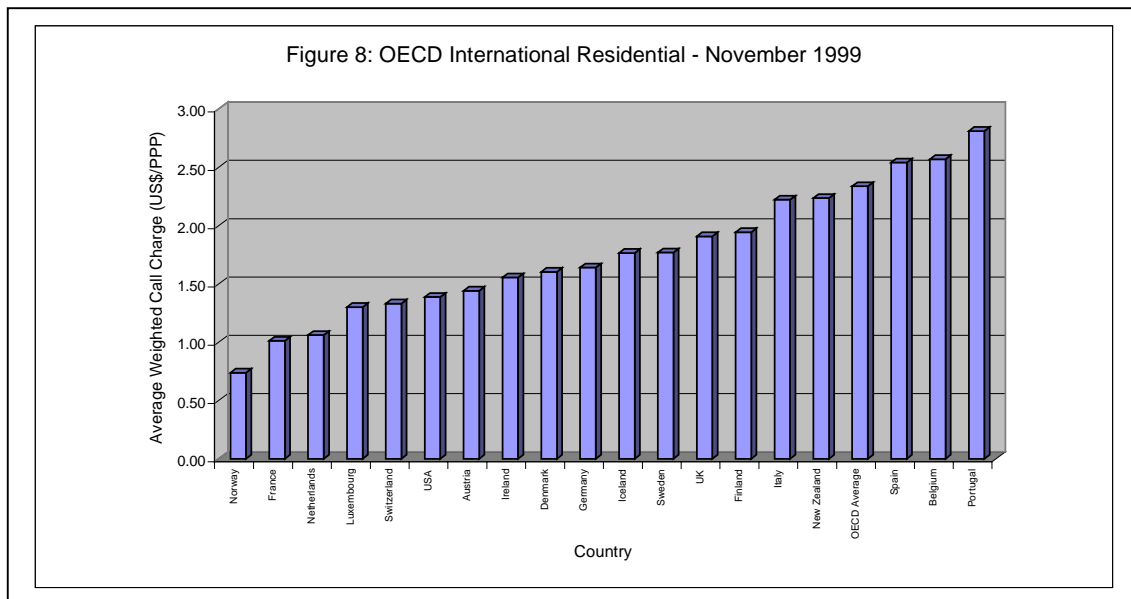
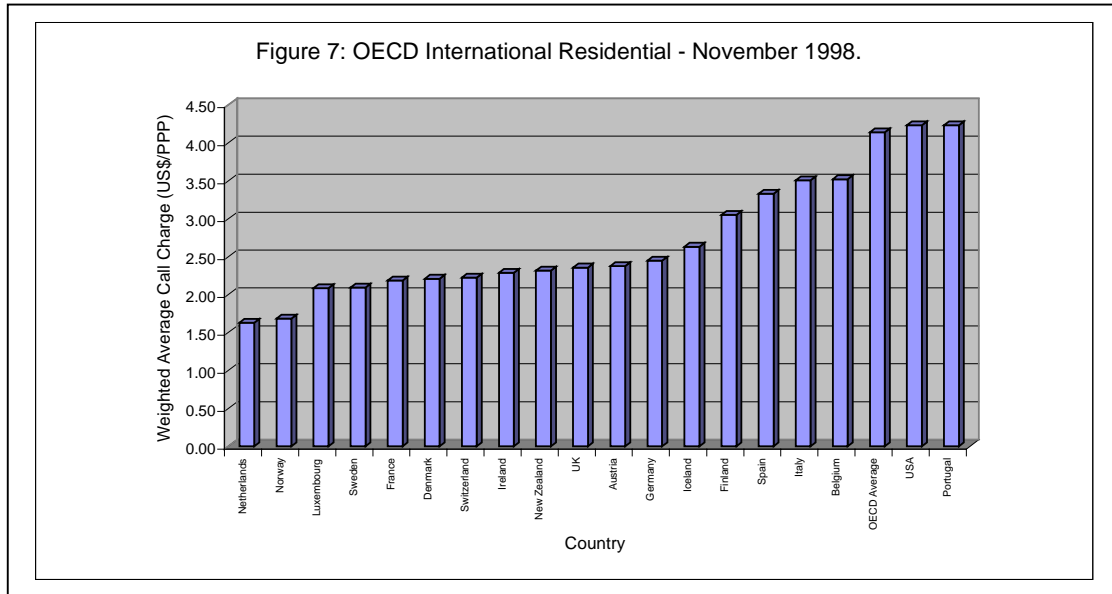
The International Business Basket sets out the average cost of international calls for business. Prior to 1 December 1998 Ireland was ranked 9th among leading countries in relation to the costs of international calls. Indeed, Ireland was as competitive as Germany, and ahead of countries such as Finland and the UK, albeit slightly (Figure 5). Ireland is currently ranked 8th among these leading countries and remains ahead of the UK and Finland, and is now ranked ahead of Germany (Figure 6). This indicates that prices have fallen in Ireland to the extent that they have improved our relative position.



¹⁰ International PSTN zoned basket methodology is adopted to compare call charges from one country to all other countries. The output of the Zoned basket presents average call costs of 3-minute peak calls and 5 minutes off-peak calls from one country to all other countries in the basket. The call costs are average within the 3 zones (Europe, North America and Far East) and each Zone has been given a weight of 50% (home zone), 30% (close zone) and 20% (distant zone). The business basket excludes VAT, and takes 75% of the call cost from peak charges and 25% from off-peak charges.

International Residential Basket – November 1998 and 1999¹¹

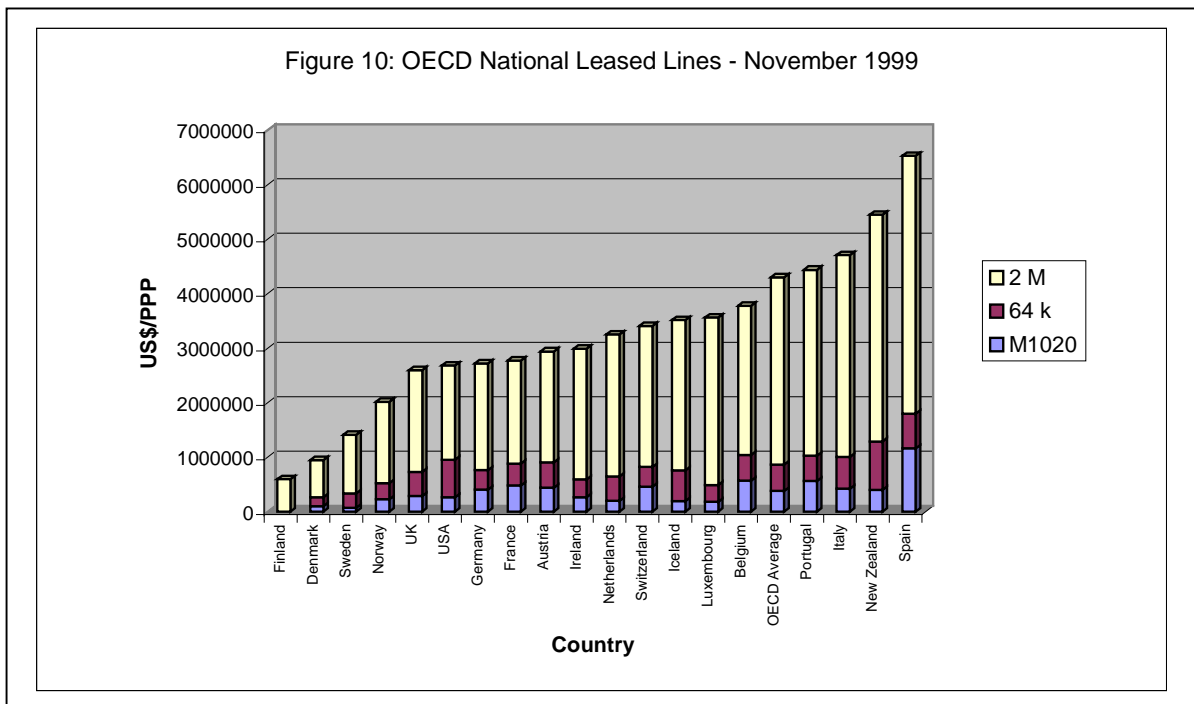
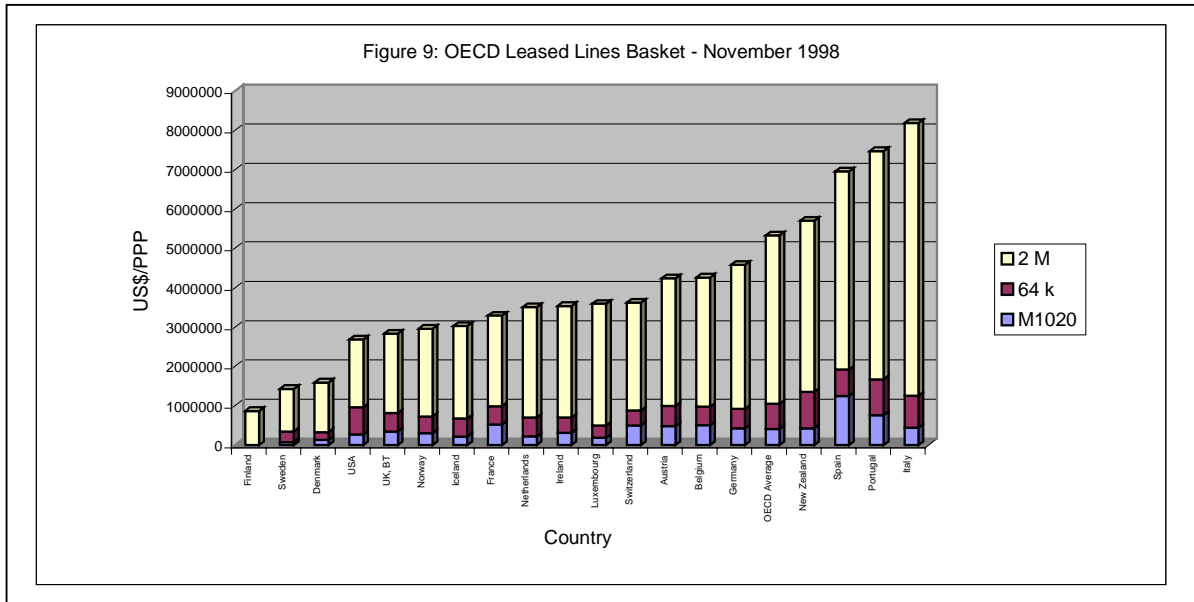
Figure 7 sets out the average cost of international calls for residential users prior to 1 December 1998. As such, Ireland was ranked 8th among leading countries in 1998 ahead of Germany, Finland and the UK (Figure 7). Ireland continues to remain in 8th position as result of price reductions to a level that maintains our position (Figure 8), in any case we are still ahead of the above countries in 1999.



¹¹ The residential basket excludes VAT, and had got 25% of call cost from peak charges and 75% from off-peak charges.

National Leased Lines – November 1998 & 1999¹²

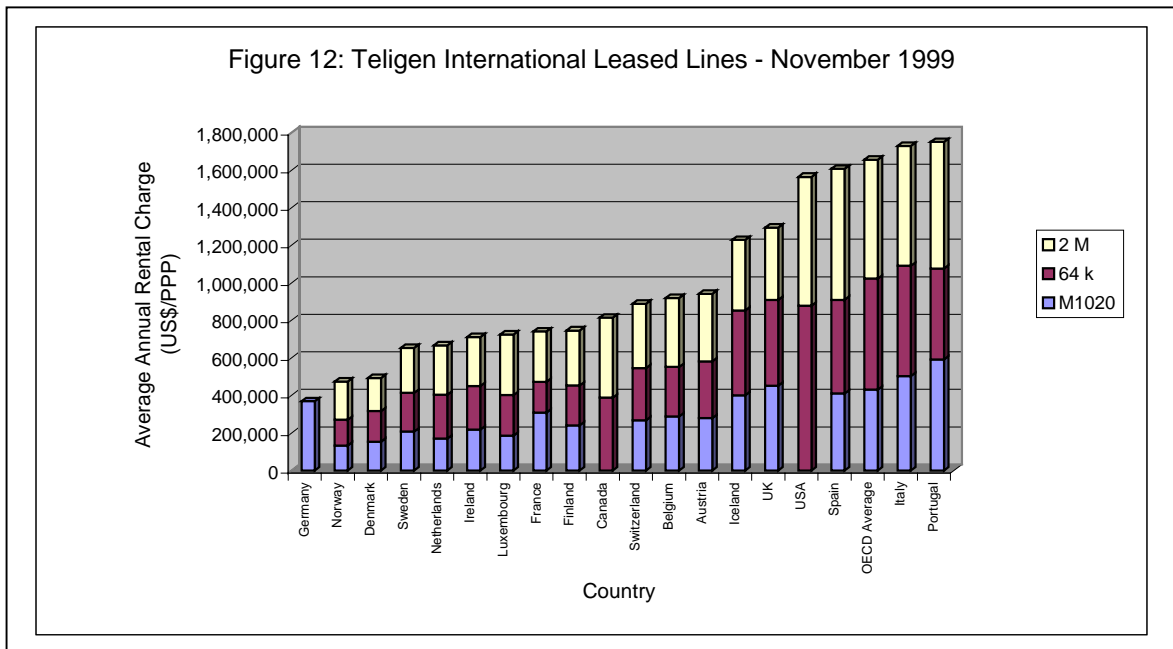
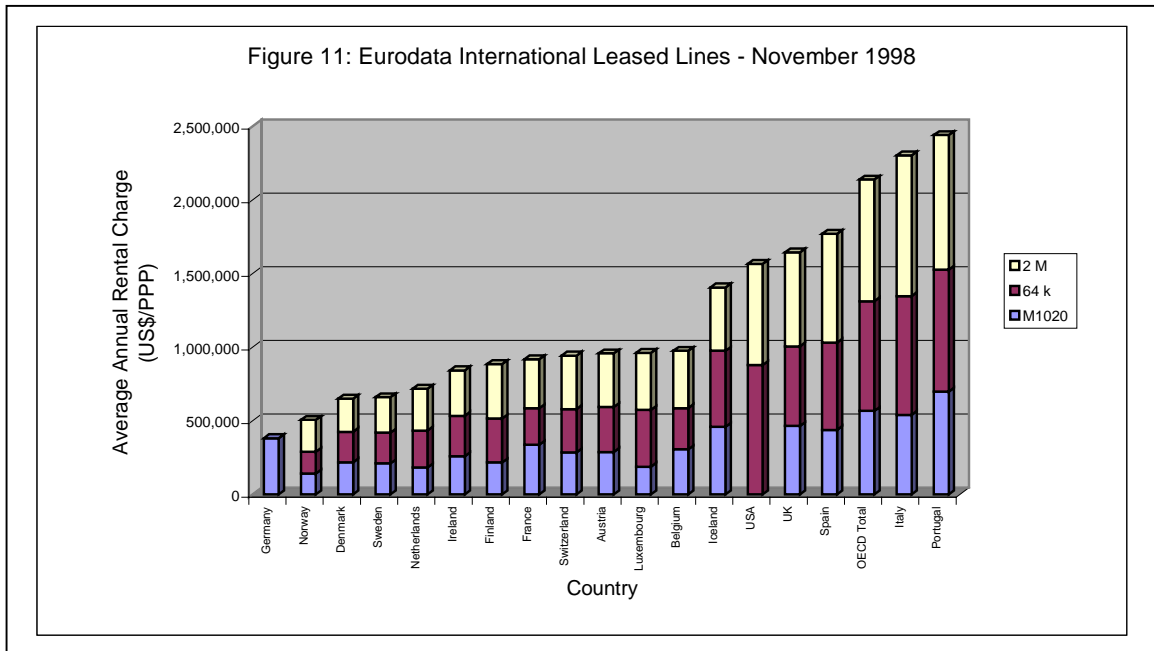
Using the OECD methodology, figure 9 sets out the cost of various national leased lines prior to 1 December 1998. Ireland was ranked 10th in 1998 in relation to the cost of national leased lines. Although Ireland remained well below the OECD average, Ireland was more expensive than the UK, Finland and France. Ireland continues to be more expensive than these countries, indeed its ranking has remained unchanged in 1999.



¹² The Leased lines basket is based on 100 circuits distributed over 5 distances from 2 to 200 km. The total basket for all qualities is shown above. The leased line basket will only take the annual rental charges into account because of the difficulties in defining a comprehensive, compatible list of installation charges.

International Leased Line Basket – November 1998 & 1999¹³

Using a methodology developed by Teligen, figure 11 sets out the cost of various international leased lines prior to 1 December 1998. Ireland was ranked 6th in relation to the cost of international leased lines and was less expensive than the UK, Finland and France. This situation has not varied and the cost of leased lines in Ireland remains below these countries (Figure 12) for 1999.



¹³ Teligen has developed an International Leased Line basket. This is based on half-circuit prices from each country to all other OECD countries. The prices are weighted according to traffic volumes (see above) on each route, to produce an average price from each country. The basket consists of 20 M.1020 and 20 64 kbit/s circuits, and 2 2Mbit/s circuits. As some carriers either do not offer, or do not publish prices, for all of these circuits and destinations, the basket cannot be complete for all countries.

How will the Market Develop -

In November 1999, against a turbulent and ever-changing background, it takes considerable courage to predict the development of the market in the future. The ODTR asked all of the general and basic licensees to give us their vision of the future - and a short synopsis on how they see the market developing. These are the companies who will deliver telecommunications services to the Irish consumer, business and residential and so their plans are the most telling indicator of the future.

“The vision of **Aurora** will be to become a significant and proactive telecommunications operators in Ireland. The mission of Aurora will be: to be the first choice of targeted customers, recognised as providing IP services which address their needs, at quality and prices which are attractive; to have a clear focus on offering Irish customers leading edge products both on traditional telecommunication platforms and IP (Internet Protocol) based technologies; readily implement an IP infrastructure; implementation of broadband fibre access for all customers; to contribute business growth and increased profitability to the owners; to be a cost effective distributor of telecommunications services in Ireland.”

“In line with developments Europe wide **Eircell**, is preparing for the explosion of data services that is about to occur in the mobile market. In anticipation of this Eircell has introduced SMS for its prepaid customers and announced the availability of Internet based information via WAP for post paid customers. For the coming year, the company intends to support the development of this area of the business, particularly the area of mobile e-commerce where it is leading the way with innovative developments like mobile visa cash which is being trialed in the Information Age town of Ennis.”

“The regulatory environment in Ireland has continued to evolve at a rapid pace since the full liberalisation of the market on 1 December 1998. As the market leader, **eircom** has made a significant contribution to the liberalisation process and has helped to put in place the necessary arrangements for the smooth transition to a multi-player marketplace. During the past year, eircom has also moved from being a semi-state company to a plc listed on the Irish, London and New York stock exchanges. In September the company's name was changed to eircom, highlighting to the marketplace the shift which has taken place within the business, from a telephone company to a communications company, with rapidly expanding mobile and Internet businesses. The introduction of full competition has seen new operators enter the marketplace, bringing new challenges to eircom in our fixed line telephone business. The company will continue to address these challenges to ensure eircom maintains its position as Ireland's leading communications supplier. This will include a strong focus on new ways to grow our business, improve productivity levels and enhance the range of products and services to customers.”

“**Esat Digifone** achieved over 460,000 customers in its first 2½ years in business and is Europe's fastest growing mobile operator. As telecom trends continue to go mobile, Digifone leads the way in bringing innovative tariffing and services to the rapidly changing market. An innovator, Digifone will continue to listen to our customers and provide value for money, as the mobile Internet becomes a reality.”

“**Global TeleSystems (GTS)** is the most extensive network and service operator across Europe today, serving businesses and carriers in 20 European countries with a range of borderless broadband, Internet/IP and voice services. In Ireland, GTS has effectively been competing in the business telecommunications market since the early 1990's. Post-deregulation our focus will remain firmly on the business sector and we will continue to enjoy strong revenue growth by introducing a series of advanced VAS and IP products, which build on the strengths of our European network and global alliances. GTS perceives one of the key market drivers of the future to be a continued strong growth in demand for additional bandwidth to meet the IP and data requirements of the business sector. As the leading broadband network supplier across Europe GTS is ideally positioned to take full advantage of this growing market. We look forward to expanding GTS Trans-European Network (TEN) connectivity in Ireland and building a significant market presence here in the new millennium.”

“**Icarus e-Com**, has positioned itself as the e-commerce facilitator for the supply chain sectors. In brief, our proposal will be to establish a "virtual business community" using the Icarus e-Com infrastructure to add value to the supply chain between manufacturers and their distribution partners. To achieve this goal Icarus e-Com will make our project management, business analysis skills and e-commerce experience available.”

“Since **Interoute** was awarded the first general telecommunications licence last December we have worked to deliver real deregulatory pricing to the consumer. Using the Spirit brand we have introduced a pay by bill and prepaid residential service, which we believe offer the very best value to the home phone user. We believe that data is an important element of Irish communications and we are currently developing Internet based and corporate products to complement our existing residential voice services. Interoute is also building Europe's largest pan - European network, I-21, which will revolutionize the cost of calls for our business, residential, and carrier customers.”

“**Irish Multichannel** entered the liberalised telecommunications market in June 1999. Our telephony product has been well received in the marketplace. We expect to be in a position to offer our customers service by means of carrier pre-selection during 1999. Irish Multichannel will be building its own wired and wireless telephone infrastructure over the coming months, allowing us to offer voice and data service to businesses, this will include the provision of non-geographic numbers, non geographic and geographic number portability. Irish Multichannel will launch its digital television service early in 1999, this service will soon bring up to 60 television channels, near video on demand, home shopping and banking, together with TV based email, high speed internet and interactive services to Irish Multichannel customers as the service is rolled out throughout our licensed service areas.”

“Since full liberalisation on 1 Dec 1998 the ODTR has maintained the pace with a series of regulatory initiatives that have set out to tackle what **MCI WorldCom** considers are three of the main obstacles to full competition in Ireland: (1) Local Access: By issuing Wireless in the Local Loop licences in September 1999 and consulting on unbundling Eircom's local fixed network during the year, the ODTR has made progress on a key bottleneck preventing OLOs from having direct access to customers. (2) Carrier Pre-Selection and Number Portability: The introduction of these services on 1 January 2000 will increase competition by facilitating customers in switching operators. (3) Monitoring Eircom's charges: With its 1999 RIO Decision Notice (now under appeal) and Price Cap proposals, together with its requirement that Eircom publish cost separated accounts, the ODTR has ensured reasonable retail and wholesale costs while preventing unlawful cross-subsidisation by the incumbent. MCI WorldCom welcomes the initiatives taken to date and looks forward to working with the ODTR in bringing about full competition in Ireland.”

“**ntl** has invested considerably in Ireland as a result of liberalisation in the telecommunications market. A significant step was taken when ntl purchased Cablelink in July '99 for £535m. It now intends to build a broadband digital network costing over £300m to meet the needs of consumers and businesses

to provide new services such as telephony, high speed internet, digital television and interactive services. In addition, a huge recruitment drive is underway to double the workforce in Cablelink within the next twelve months. This expansion will create new job opportunities for those who want to be part of this dynamic company and who share in our vision to be the complete communication's company.”

“**SM Communications Ltd, t/a Worldlink**, headed up by Danny Murray and Bill Sunner, is a telecommunications company standing on its own two feet and competing against of the telecommunications and media world. Operating on slim margins it is managing to cut out a niche for itself mainly in the residential prepayment market. With its success in the lower end of the market SM Communications now intend to venture into the business end and are confident of winning some worthwhile accounts.”

“**Stentor** sees the current voice market becoming even more competitive and within the next three to four years reducing to a extremely low margin, high volume sector. The company is firmly placing its future growth strategy on three new key markets: e-commerce; Managed IP services; and Web enablement of corporate customers. The objective of the E-commerce strategy is to become the e-commerce market leader in consumer to consumer and business to consumer market places. The objective of the IP service strategy is to seek out and fully exploit managed corporate IP market niches. The objective of the focus on the web enablement of corporate customers is to become the market leader in the offering of fully intelligent network solutions to large international corporate customers, especially call centres.”