Commission for Communications Regulation

Irish Communications Market

Quarterly Key Data Report

September 2006

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1   Overall Market Data

Data presented in this report is based on returns from authorised operators for the period starting 1st April to 30th June 2006. The report is based on submissions from 58 operators, which represents almost all market activity.

1.1   Number of Authorisations

Figure 1.1.1 - Total Number of Authorisations

Total Authorisations	June 2006
No. of fixed and wireless authorisations	420
No. of mobile telephony authorisations	4
No. of broadcasting authorisations (incl. Cable TV, MMDS, Deflectors)	46
Total Number	470

Before providing networks or services to third parties, operators are required to submit a notification to ComReg for the purposes of compiling a register of such operators. At the date of publication of this report there were 470 authorised undertakings in Ireland. It should be noted that the list above refers to the number of general authorisations granted by ComReg under the European Framework for Authorisations. It does not reflect the total number of commercially active organisations or entities currently operating in the market.

1.2 Overall Electronic Communications Revenues[1]

Figure 1.2.1 – Fixed, Mobile & Broadcasting as a % of Total Revenues[2]

Share of Overall Market Value

Source: Quarterly Key Data Questionnaire
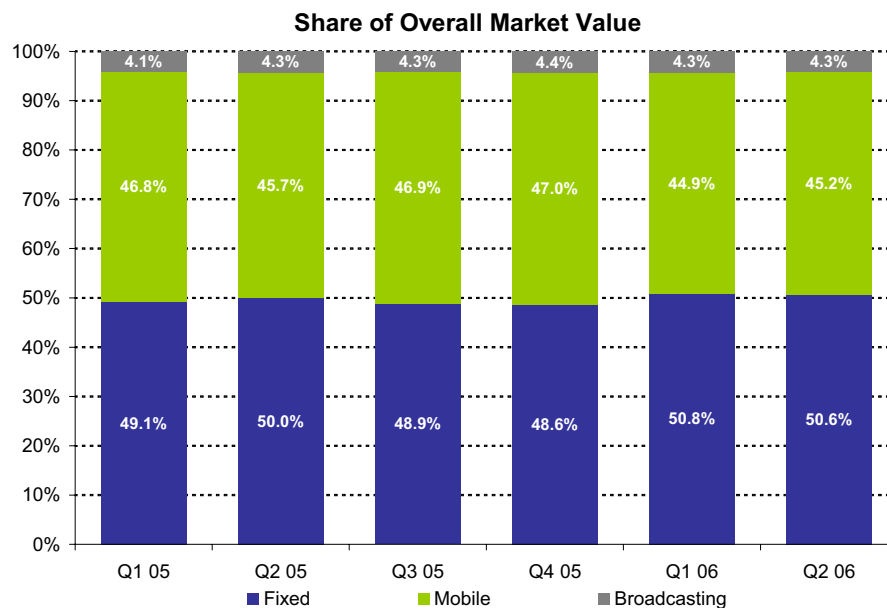
Overall electronic communications network and service revenues at the end of June 2006 were €1.06bn for the quarter, or approximately €4.2 billion per annum on an annualised basis.

On the 11th August 2006, ComReg issued an information notice[3] regarding the accuracy of mobile revenue data published in the Q1 2006 report. Following an internal review of mobile revenues carried out during July and August, ComReg discovered that there was a lack of consistency with regard to mobile revenues reported by the mobile network operators and that as a consequence, mobile revenues were overstated in some cases. ComReg worked with all parties involved to revise data submitted in previous periods- as a result of these revisions, corrected data for the period Q1 2005- Q2 2006 is presented in this report. Therefore mobile revenue data presented in quarterly reports prior to Q2 2006 should not be relied upon.

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[1] For further detail on terms and definitions see ComReg Document Number 06/52a Explanatory Memorandum to Quarterly Key Data Report.

[2] The following services are accounted for in the total revenues figure: **fixed** (interconnection, retail narrowband services, leased line & managed services including PPC revenue, broadband and other (including web-hosting, co-location services, directory publication & other services), **mobile** (connection, voice and data services, roaming) and **broadcasting** (including cable/MMDS broadcasting services, connection, rental and other charges).

[3] ComReg 06/36

In Q2 2006 fixed line revenues accounted for 50.6% of electronic communications revenues. The proportion of electronic communications industry revenue retained by the fixed sector is a result of growth in broadband revenues, and an improvement in the level of compliance by fixed line operators to the Quarterly Report data collection process. Mobile services revenue accounted for 45.2% of industry revenue this quarter. Broadcasting sector revenue represented 4.3% of total industry revenue in Q2 2006.[4]

1.3 Overall Call Volumes

Figure 1.3.1 - Share of Total Voice Call Volumes

Source: Quarterly Key Data Questionnaire
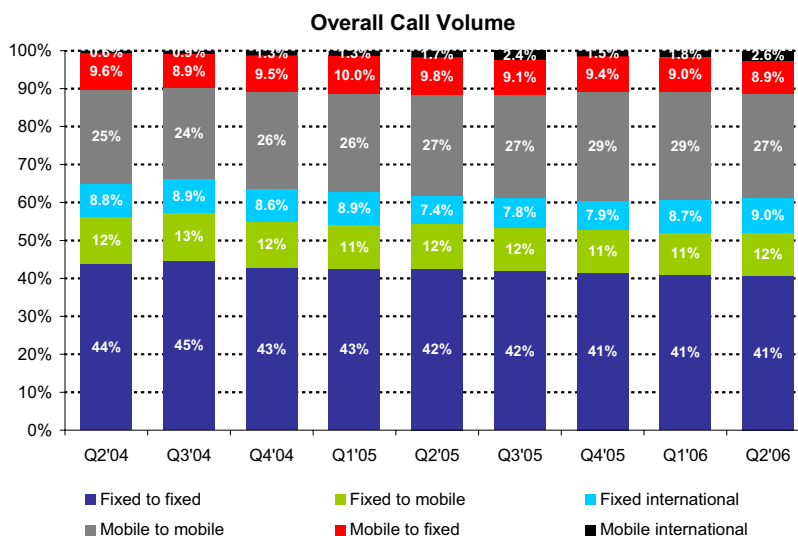
Figure 1.3.1 illustrates the contribution of specific categories of voice traffic to the total voice traffic for the quarter. Voice traffic in the categories noted above totalled nearly 3.6 billion minutes over both fixed and mobile networks in this quarter, a 4% decrease in voice traffic since last quarter. However there has been a 4% increase in voice traffic year-on-year[5]. There has been no movement in the fixed to fixed call volume element again this quarter, while the proportion of mobile to mobile call volumes has decreased by 2%. Traffic between fixed to mobile voice networks as a proportion of all traffic increased to 12% of traffic, while the volume of minutes from mobile phones to fixed lines has decreased marginally over the period of analysis.

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[4] Broadcasting revenues include only those submitted by authorised cable and MMDS operators in Ireland, and not revenues attributable to other satellite or terrestrial broadcasting operators as these operators are not authorised by ComReg

[5] Year on year comparisons compare the current quarter's results with the results from the same quarter in the previous year i.e. results from Q2 2006 are compared with results from Q2 2005

1.4 Pricing Overview

This section examines Ireland's current and previous rankings based on prices in various consumer baskets against other EU countries. Data on PSTN and mobile basket prices is provided to ComReg by Teligen who use an OECD-approved methodology to compare fixed (PSTN) and mobile tariffs. This format follows a basic three-step process consisting of: (i) the construction of one or more baskets of telephone services; (ii) the pricing of those baskets; and (iii) the conversion of the individual currencies to standard units (e.g. Euros or Purchasing Power Parities (PPPs)).

Only incumbent operators are covered in the fixed and broadband baskets while the two largest operators are covered in the mobile baskets.
The mobile baskets are for 2G or GSM services only.

Both the PSTN and mobile baskets were updated following a public workshop in Rome in July 2005. Changes made as a result of this workshop are in addition to any tariff changes, and have had a sizeable impact on results for all countries for the baskets from February 2006. Thus, the February and May results are not comparable with previous baskets. As there are only two quarters worth of data using the revised methodology, comparisons for the two quarters can be made on the individual Teligen charts in the fixed and mobile sections of this report. Each chart for May 2006 displays a number in brackets against each country which is their position in the February baskets. Comparative pricing charts in this section will be published in this section in Q3 2006.

The individual pricing charts for each basket for May 2006 are analysed under the heading "Pricing Data" in the specific mobile and fixed sections of this document. The DSL baskets presented in this report are commissioned separately by ComReg from Teligen and have not been subject to the changes outlined above. In previous reports, DSL basket data has been presented for one reporting period ahead of the other Teligen supplied price baskets. To ensure that all baskets relate to the same reporting period, ComReg has published the May 2006 DSL baskets again this quarter. An update will be publsiohed in next report to be published in December 2006.

For further information on Teligen's methodology please see the accompanying memorandum ComReg 06/52a.

2 Fixed Market Data

2.1 Total Fixed Line Revenues

2.1.1 Total Fixed Line Revenue

Total fixed line revenues are €535 million this quarter, an increase of 3% since last quarter. This growth is a result of increases in three of the fixed line revenue streams, but particularly as a result of reported increases in fixed interconnection revenues. While the revenue stream for broadband and other has decreased, this is due to decreases in revenues included in the "other" element (which includes services such as web hosting, co-location services and directory publishing services); broadband revenues have increased this quarter.

Figure 2.1.1 - Total Revenue Per Service

Fixed Line Revenues Q2 '04 - Q2 '06

Source: Quarterly Key Data Questionnaire
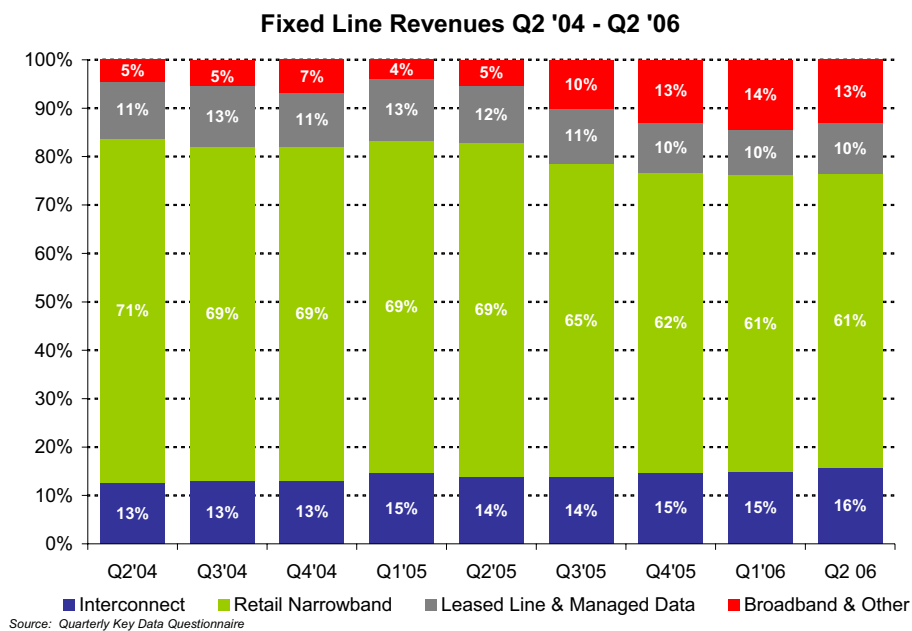
2.1.2   Authorised Operators' Share of Overall Fixed Line Revenues

Figure 2.1.2 illustrates the market shares of the incumbent and other authorised operators (OAOs) in each of the fixed line service categories in Figure 2.1.1. Market shares are presented grouped within a number of revenue streams where services are somewhat related to each other; however this classification does not reflect the specific markets identified in the recent market review process. *eircom* retains the largest share of the revenue market share in each of the revenue streams, however *eircom*'s overall fixed market share is down 2% from 76% in Q1 2006 to 74% this quarter.

Figure 2.1.2 - Market Share of fixed line revenues

Fixed Line Revenues Q2 '06

Source: Quarterly Key Data Questionnaire
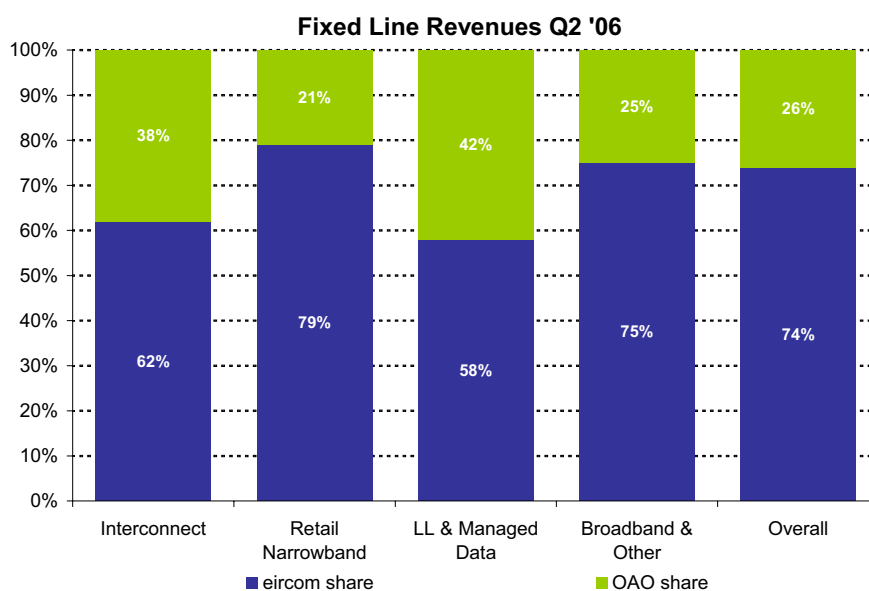
2.2 Fixed Line Access

2.2.1   Access Paths

Figure 2.2.1 presents the total number of narrowband fixed access paths (PSTN and ISDN) broken out by direct and indirect access[6] on an historical basis. There were over 2 million direct and indirect PSTN and ISDN access paths in the Irish market in Q2, 2006. Indirect paths represent 23% of all access paths in the market. While the number of indirect access paths increased again this quarter, the total number of access paths has decreased slightly.

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[6] Indirect access paths relate to telephone lines provided to customers by means of carrier pre-select only or wholesale line rental. Carrier pre-select allows the user to receive all or a portion of calls from one provider and line rental from another provider (usually eircom). Wholesale line rental (also known as single billing) allows the user to receive every aspect of telephone service, including all calls and line rental from one single supplier.

Figure 2.2.1 - Fixed Access Paths

Direct & Indirect Narrowband Access Paths
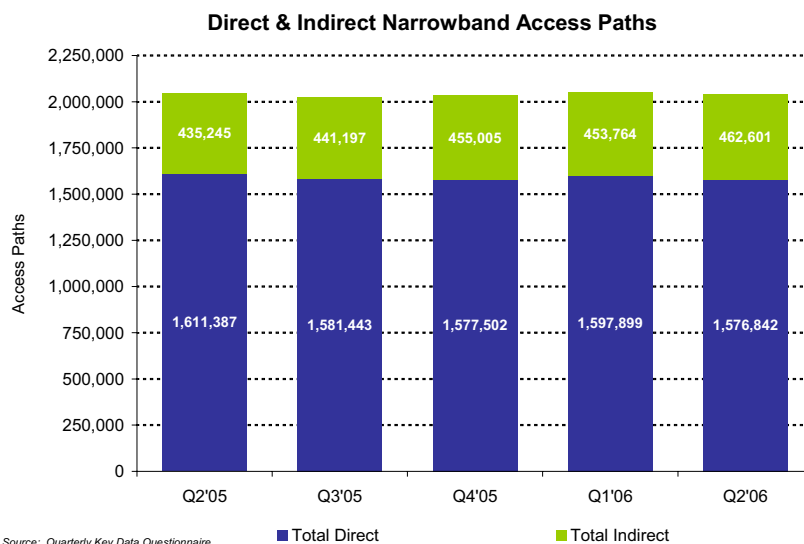
2.2.2   Indirect Access Lines

Figure 2.2.2 illustrates the overall number of PSTN and ISDN lines provided by means of either Carrier Pre-Selection (CPS) only or Wholesale Line Rental (WLR). In Q2 2006, around 397,000 lines classified as either CPS only or WLR, were provided by operators other than *eircom*, representing an increase of 2% on the previous quarter. Year-on-year growth in indirect access is 6%. There is evidence to suggest a migration from CPS-only lines to WLR, which enables OAOs to provide single billing for calls and line rental to consumers. There was a 15% increase in the number of WLR lines in Q2 2006, and these now account for nearly 61% of all indirect access lines, up from 54% in Q1 2006.

Figure 2.2.2 - Indirect Access Lines[7]

Carrier Pre-Select and Wholesale Line Rental
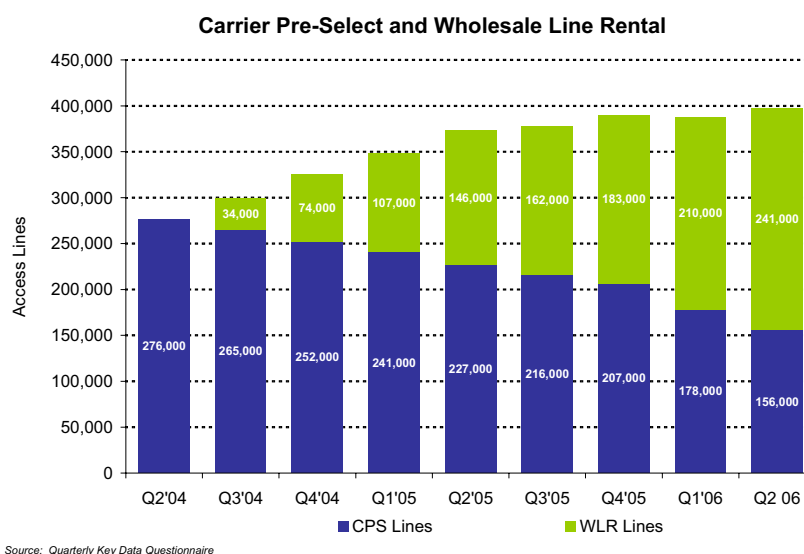
[7] Number of lines are rounded to the nearest thousand

In addition to OAO access by means of CPS and WLR, there are now almost 15,000 installed LLU lines, over which OAOs may offer a range of voice and internet services. This may have an impact on CPS and WLR access as some OAOs migrate customers to LLU as a means of offering differentiated services to customers.

2.3 Fixed Voice Call Volumes

Figure 2.3.1 below illustrates the development of fixed voice call volumes since Q2 2004. Fixed call traffic in Q2 2006 reached just under 2.6bn minutes, a slight decrease since last quarter. The overall decrease is mostly attributable to domestic calls. Other minutes, which include payphone minutes and advanced services minutes (e.g. premium rate services minutes, VPN minutes), and international minutes increased slightly this quarter.

Figure 2.3.1 – Fixed Voice Call Volume[8]

Call Volume by Type

Quarter	Domestic Minutes	International Outgoing Minutes	Mins to Mobile	Other Minutes
Q2 2006	57%	13%	16%	14%
Q1 2006	59%	12%	16%	13%
Q4 2005	62%	12%	17%	9%
Q3 2005	61%	11%	17%	11%
Q2 2005	61%	11%	17%	11%
Q1 2005	60%	13%	16%	11%
Q4 2004	60%	12%	17%	11%
Q3 2004	60%	12%	17%	11%
Q2 2004	60%	12%	17%	11%

■ Domestic Minutes   ■ International Outgoing Minutes   ■ Mins to Mobile   ■ Other Minutes

Source: Quarterly Key Data Questionnaire

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[8] Domestic Calls include local & national calls; other minutes include payphone volumes, and a range of ancillary fixed voice services categorised by operators.

2.4 Fixed Pricing Data

ComReg presents Teligen data using an OECD-approved methodology to examine relative costs of a number of specific baskets of national and international telecoms services for both residential and business users. The data presented includes all EU-25 countries for which data is available. Using the method approved by OECD member states, data is presented using USD($) and Pricing-Power Parities (PPPs) which provide an indication of the cost of telecoms in countries analysed in relation to the cost of all other products and services, and taking account of exchange rates differences.

The media statement issued by ComReg in June 2006[9] outlined that telecoms prices in Ireland have declined sharply in recent years. This statement was supported by data from the Central Statistics Office's (CSO's) Consumer Price Index (CPI) which illustrated that telecoms costs have made a negative contribution to inflation in the past year. However, line rental charges in Ireland are higher than in other EU countries reflecting the fact that it is costly to provide fixed line services with a dispersed population scattered around rural areas. Line rental, however, is only one element of the cost of using a phone service. When account is taken of the price of calls, the total cost of telephony compares favourably internationally, which shows that Irish consumers are doing well in comparison with other countries in terms of the overall phone costs they face.

2.4.1 PSTN Baskets

2.4.1.1 National Residential Basket

Figure 2.4.1.1 illustrates Ireland's ranking in the national residential basket, based on a basket of calls and fixed costs. This chart is based on a comparison of the cheapest package or bundle available for a specific customer usage profile, and in many cases will include a fixed charge bundled service. It should therefore be noted that the "fixed" element in this basket is not an indication of the cost of basic line rental. The Irish telecoms package analysed in this chart relates to the *eircom* Talktime Basic product. In February 2006 Ireland was ranked at 8th position, which was six places better than the EU average in terms of price for this basket.

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[9] ComReg PR300606

Figure 2.4.1.1 - OECD National Residential Basket –May 2006[10]

OECD National Residential Basket - May '06
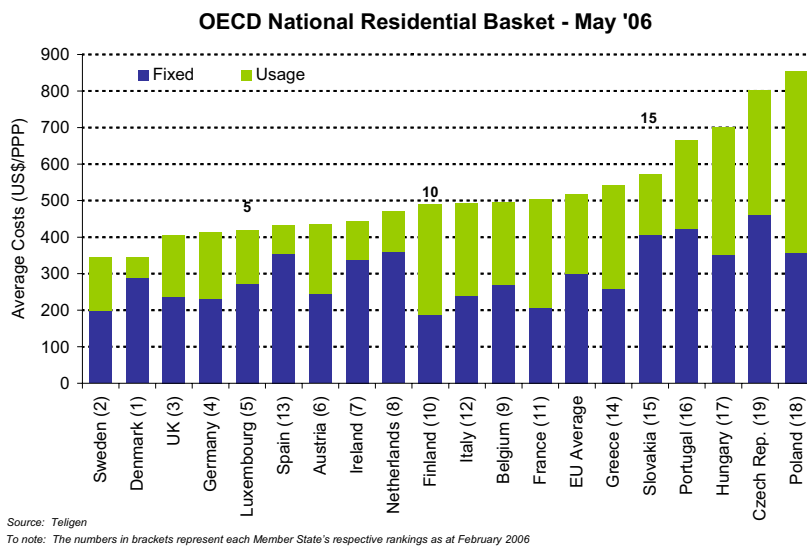
2.4.1.2 National Business Basket

As with the residential basket, this chart is based on comparison of the cheapest package or bundle available for a set number of voice calls, and in many cases will include a fixed charge bundled service. It should therefore be noted that the "fixed" element in this basket is not an indication of the cost of basic line rental. Ireland is placed in 6th position in the national business basket and is six places better than the EU average in terms of price.

Figure 2.4.1.2 - OECD National Business Basket – May 2006

OECD National Business Basket - May '06

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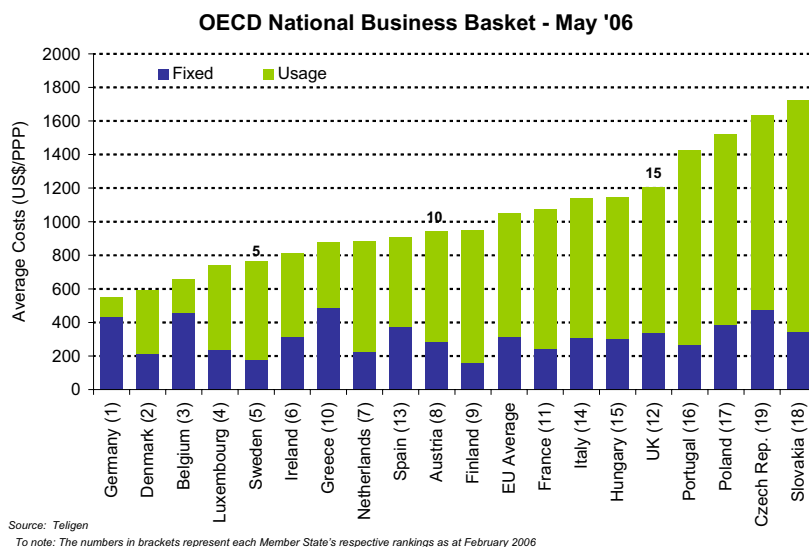
[10] Residential tariffs include VAT. VAT rates vary between member states.

2.4.1.3 International Residential Basket

Figure 2.4.1.3 shows that Ireland is now in 3rd position, and is seven places better than the EU average in terms of price.

Figure 2.4.1.3 - OECD International Residential Basket – May 2006[11]

OECD International Residential Basket - May '06

Source: Teligen
To note: The numbers in brackets represent each Member State's respective rankings as at February 2006
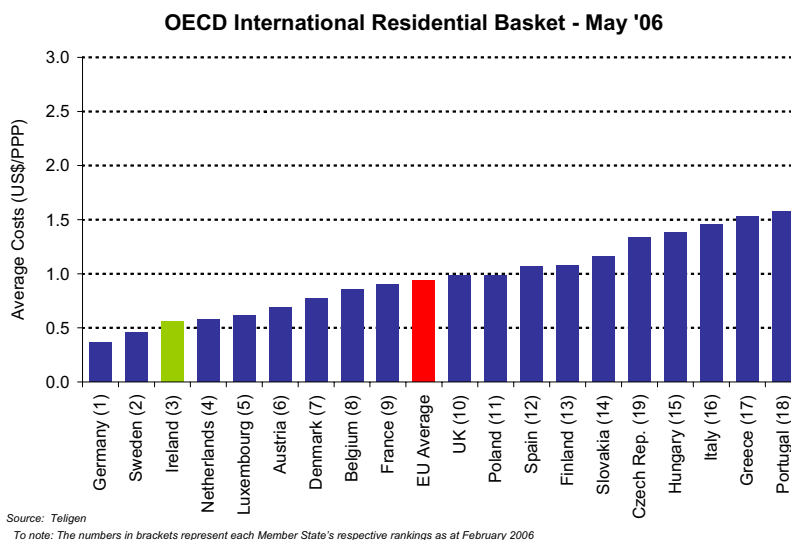
2.4.1.4 International Business Basket

Ireland is now in 3rd place among EU countries analysed in the international business basket, and is five places better than the EU average in terms of price.[12]

Figure 2.4.1.4 - OECD International Business Basket – May 2006

OECD International Business Basket - May '06

Source: Teligen
To note: The numbers in brackets represent each Member State's respective rankings as at February 2006

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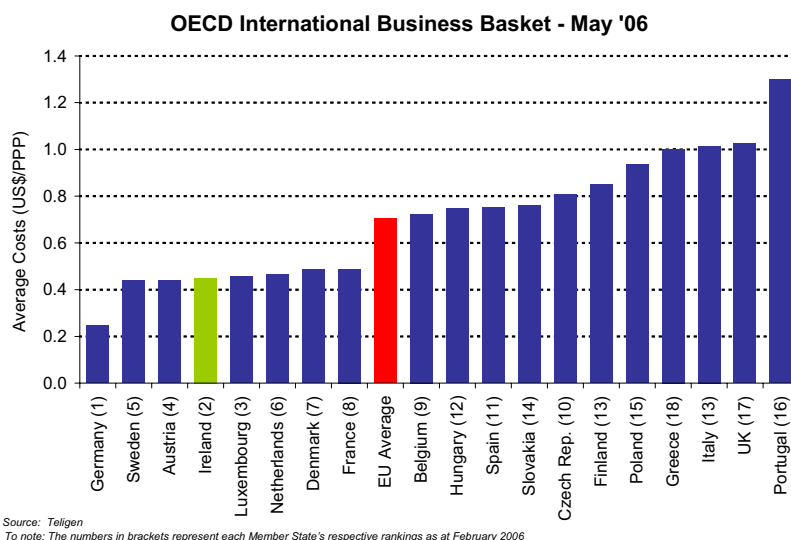
[11] Residential tariffs include VAT. VAT rates vary between member states.

[12] Changes to Ireland's rank in this basket can, in part, be attributed to the revised methodology Teligen used to compile the baskets. For further information on the revised methodology please see the Explanatory Memorandum accompanying this report ComReg 06/52a

2.5 Provision of Internet Services

Figure 2.5.1 shows the proportions of Internet subscribers on the PSTN/ISDN copper network using narrowband metered, narrowband flat-rate, or broadband DSL connections. In Q2, 2004 DSL connections represented under 8% of all internet connections over the copper network; by Q2 2006, DSL represented 32% of these connections.

Figure 2.5.1 – Number of Subscribers: Narrowband[13] Vs Broadband[14]

Narrowband Metered, Narrowband Flat-rate, DSL Subscriptions

Source: Quarterly Key Data Questionnaire
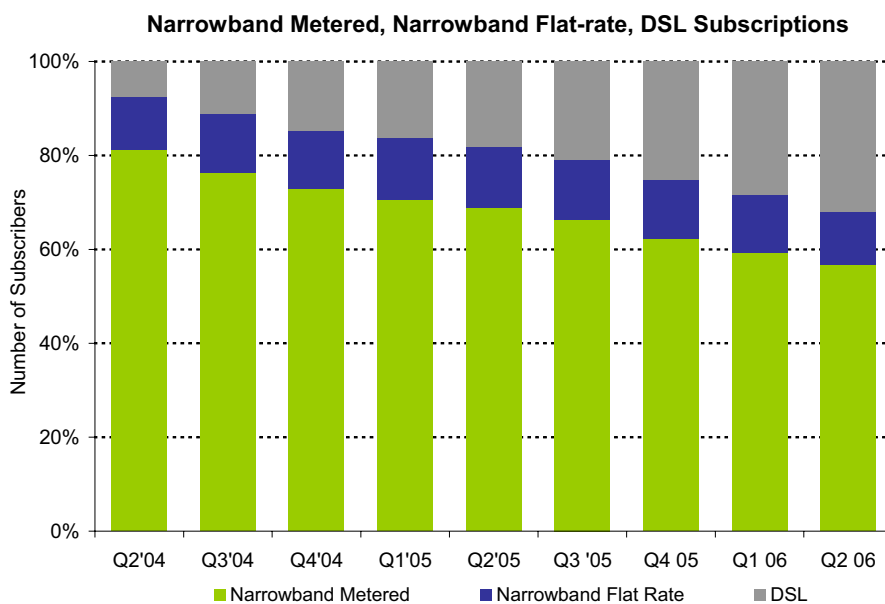
If other internet access technologies, such as cable, fixed wireless, fibre and satellite are included in the analysis, broadband subscriptions account for 39% of all internet subscriptions in the market; up from 35% in the previous 3 months and 22% year-on-year, suggesting ongoing migration from narrowband to broadband internet access. Narrowband subscribers continue to decline, both in absolute terms and as a proportion of all subscribers. The total number of metered narrowband subscribers is 487,000 having declined by 10% in the last 12 months while the total number of flat rate narrowband subscribers now stands at 96,000, having declined by 5% over the same period.

2.6 Provision of DSL Access

Figure 2.6.1 charts direct and indirect provision of DSL in the Irish telecoms market. Indirect DSL is provided by other authorised operators (OAOs) by means of *eircom*'s

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[13] This includes narrowband metered, and narrowband flat-rate products.

[14] This includes DSL subscriber numbers only.

wholesale bitstream products or fully unbundled loops. Wholesale Bitstream, which enables OAOs to resell *eircom*'s DSL service, now accounts for 24% of all DSL connections. A further 5% of DSL lines are provided by OAOs using local-loop unbundling (LLU). At the end of June 2006 there were almost 15,000 local loops unbundled, a 60% quarterly increase in unbundled lines. Ireland's proportion of unbundled lines as a percentage of DSL lines- currently at 5%- remains below the EU-25 average. The average number of LLU lines as a percentage of total DSL for the EU-25 as a whole was 18% in March 2006.[15]

Figure 2.6.1 - Provision of DSL Access

Provision of DSL Access

	Q2'04	Q3'04	Q4'04	Q1'05	Q2'05	Q3'05	Q4 05	Q1 06	Q2 06
Number of LLU lines	3%	2%	1%	1%	2%	2%	2%	4%	5%
Wholesale Bitstream lines	20%	23%	22%	24%	22%	22%	23%	23%	24%
eircom Retail DSL	78%	75%	77%	75%	76%	76%	75%	73%	71%
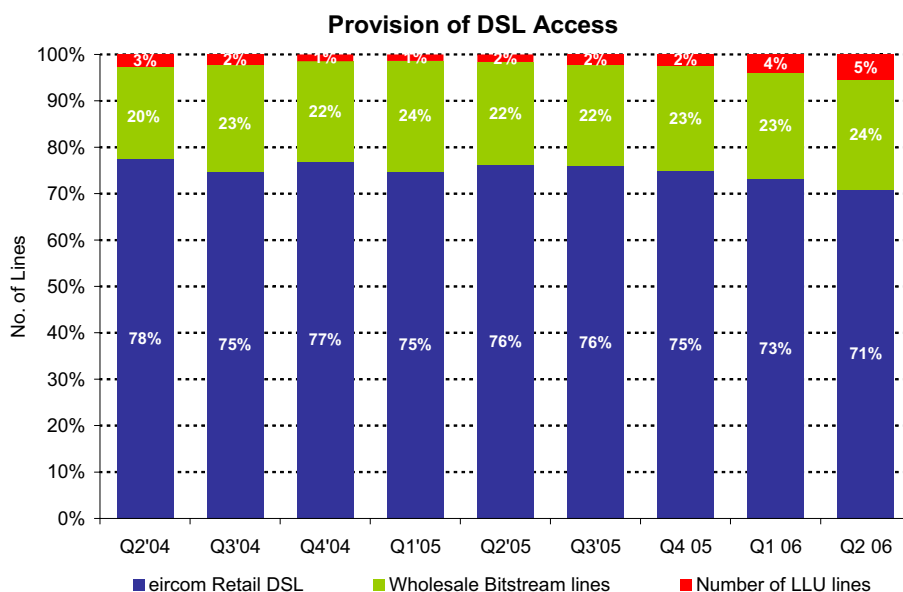
Source: Quarterly Key Data Questionnaire

2.7 Provision of Broadband Services

Figure 2.7.1 summarises the total number of broadband subscribers at the end of the quarter by access technology.

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[15] Comparative Data available at:
http://www.ectaportal.com/en/upload/File/Broadband%20Scorecards/Q106/FINAL%20BB%20Sc%20Q1%2006.xls

Figure 2.7.1 – Broadband Subscribers and growth rates by Platform

Platform	Q2 06 Subs	Quarterly Growth Q106- Q206	Year-on-Year Growth Q205- Q206
DSL	275,200	15%	92%
Cable	39,900	23%	167%
FWA	52,500	10%	192%
Other[16]	4,600	32%	196%
Total	372,200	15%	109%

DSL remains the largest broadband platform in terms of subscribers, accounting for 74% of all broadband subscriptions. Other platforms account for the remaining 26% of broadband connections. Figure 2.7.2 illustrates the growth in total broadband subscriptions in the Irish market since Q2 2004.

Figure 2.7.2 – Broadband Subscribers by Platform

Source: Quarterly Key Data Questionnaire
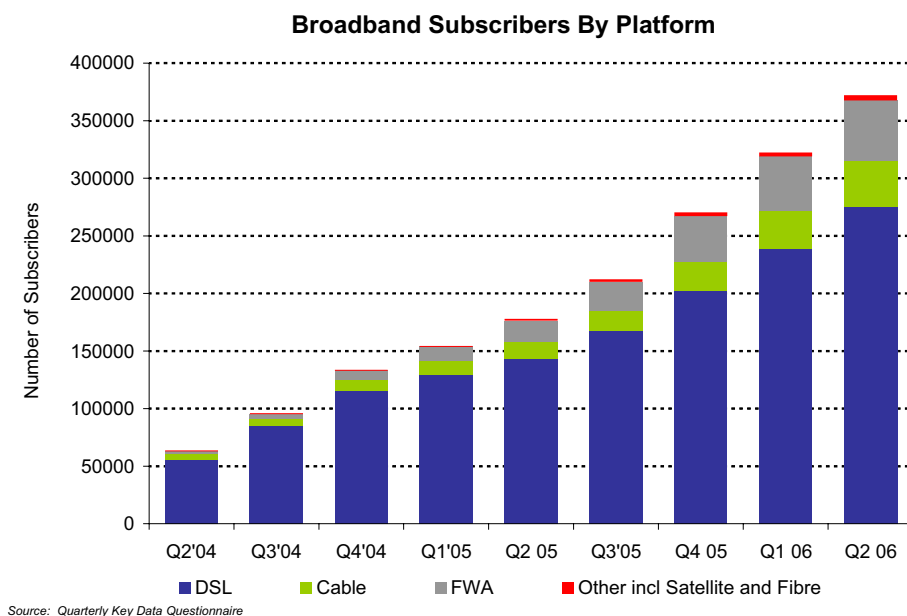
WiFi access at "hotspots" provides another means of broadband Internet access. ComReg is currently investigating the most effective and accurate way of quantifying the impact of WiFi technology on the broadband market. In addition to broadband subscriptions noted above, there are in excess of 1,800 WiFi access points in Ireland providing broadband access nationwide[17]. Broadband hotspots are typically public wireless access points where a

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[16] Other Broadband includes Satellite and Fibre to the Premises broadband subscriptions

[17] A wireless hotspot such as that in an airport can contain more than one access point.

computer, usually a laptop, can connect to the internet. They are most popularly found in Ireland in areas of airports, hotel lobbies and cafés and restaurants.

Figure 2.7.3 illustrates *eircom*'s share of total broadband subscriptions when examined alongside other authorised operators' (OAO) retail DSL lines and subscribers to other broadband access platforms. The figure indicates an increasing proportion of customers choosing an operator other than *eircom*, and alternative broadband platforms such as cable or wireless broadband. *eircom* now has just over 50% market share of the total broadband subscriptions.

Figure 2.7.3 – Market share of Total Broadband Market

Market Share of Total Broadband Market

Source: Quarterly Key Data

■ DSL retailed by eircom   ■ DSL retailed by OAOs   ■ Other Broadband Platforms
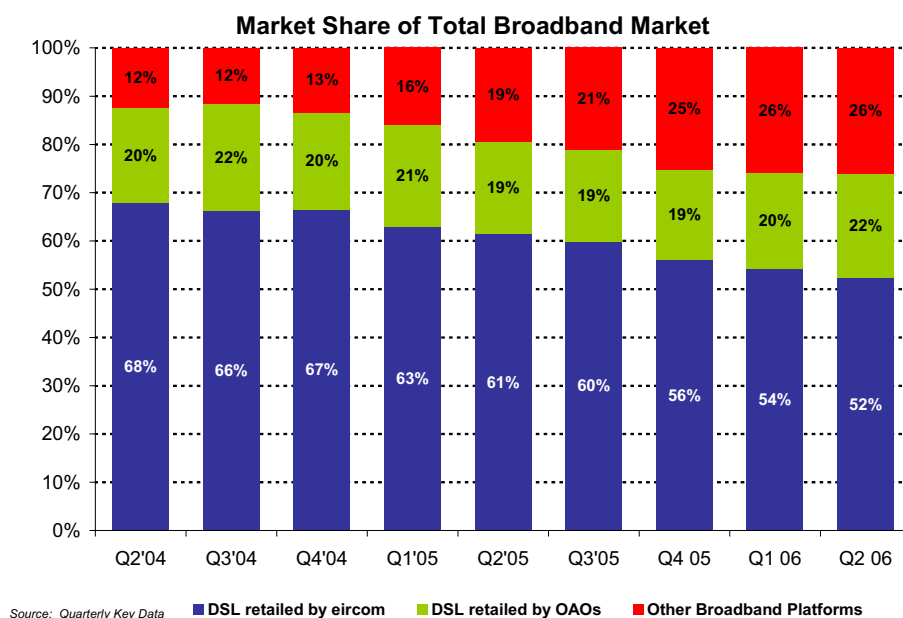
Figure 2.7.4 illustrates broadband penetration rates measured on a per capita basis by ECTA for Q1 2006[18]. In presenting broadband penetration benchmarks for European countries, ComReg uses both OECD and ECTA data publishing the most recent broadband benchmarking statistics publicly available at the time of publication. The ECTA scorecard calculated Ireland's broadband penetration at 8% in March, compared to an overall EU-25 average of 14%. ComReg estimates that broadband penetration in June 2006 was 8.8%[19].

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[18] http://www.ectaportal.com/en/upload/File/Broadband%20Scorecards/Q106/FINAL%20BB%20Sc%20Q1%2006.xls

[19] Penetration rate is calculated based on total broadband subscriber numbers for DSL, Cable, FWA, and other broadband as a percentage of total population of 4.235 million based on the 2006 Census; source: CSO.

Figure 2.7.4 – Broadband Penetration Rate

Broadband Penetration per capita (Q1 2006)
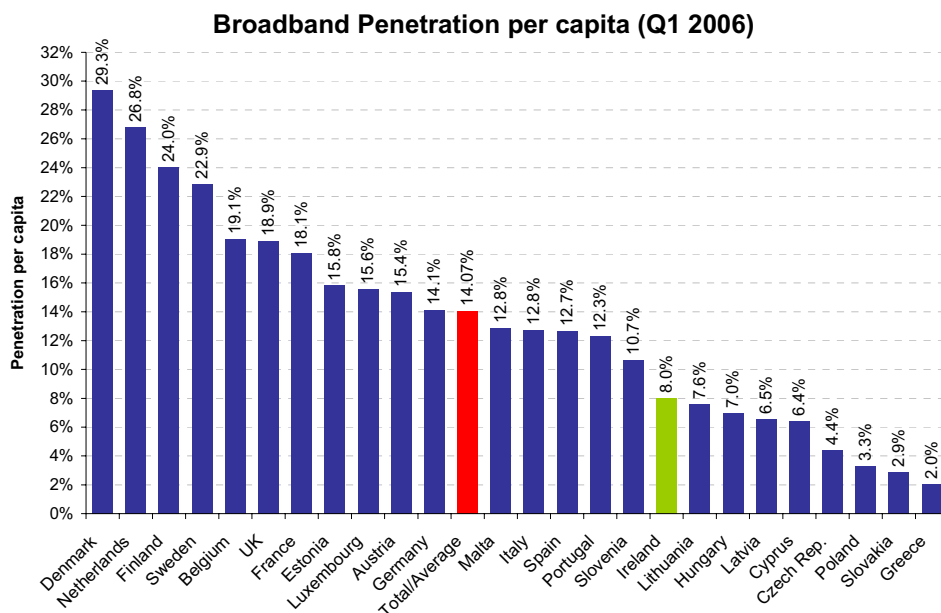
Source: ECTA Scorecard

2.8 ADSL Pricing Data[20]

The following two ADSL baskets should be examined together to provide a complete comparison of ADSL prices across the EU. More detailed information on how these baskets are constructed can be found in the Explanatory Memorandum accompanying this report. The charts printed in this report use the same data as previously published in the June Quarterly Report for the period Quarter 1, 2006. In previous reports, DSL basket data was based on more recent data than the fixed and mobile pricing baskets. To ensure that all baskets relate to the same time period, ComReg has published the May 2006 DSL baskets again this quarter.

Lowest Monthly Rental ADSL Basket (Normalised)[21]

Ireland remains ranked in 11th place in the normalised ADSL basket, and is one place better than the EU average in terms of price, among the 19 European nations monitored. The normalised basket ranks DSL services based on the best price *per Mbit/s*. For this reason this basket often more favourably ranks broadband products with very fast download speeds.

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[20] This section does not include ADSL tariff packages that are offered as special promotions. All tariffs are inclusive of VAT. VAT rates vary between Member States.

[21] The normalised (1Mbit/s) results show the cheapest offering in each country, per 1 Mbit/s of service. This method may favour countries offering higher speeds. Figures in boxes represent the upload/download speed (kb/s) of the service offered.

Figure 2.8.1 – Lowest Monthly Rental ADSL Basket (Normalised) – May '06

ADSL Lowest Monthly Normalised Results (VAT Inc) - May '06
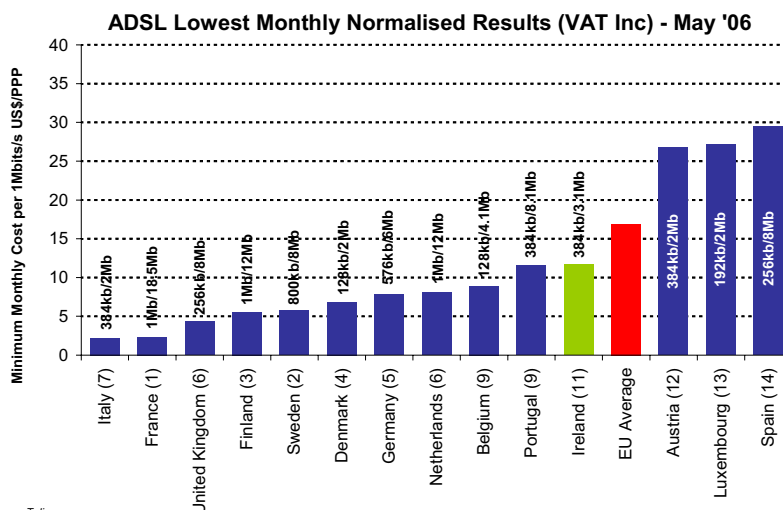
Source: Teligen
N.B. Greece has not yet been included in the graph. Price of comparable product is $95.26 for 256/1024 product
The numbers in brackets represent each Member State's respective rankings as at November 2005

Figure 2.8.2 – Lowest Monthly Rental ADSL Basket (Minimum) – May '06

ADSL Lowest Monthly Rental Minimum Results (VAT Inc) - May '06
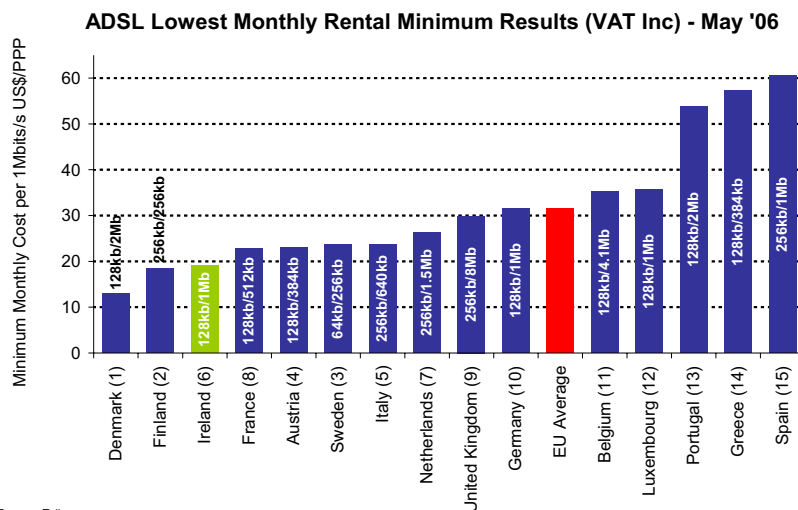
Source: Teligen
The numbers in brackets represent each Member State's respective rankings as at November 2005

Lowest Monthly Rental ADSL Basket (Minimum) [22]

Ireland is now ranked in 3rd place among EU-15 countries in the minimum ADSL basket, 8 places ahead of the EU average price for the basket and a 3 place improvement in ranking since the last analysis. This basket is based on the entry level, or lowest priced DSL package available on the market, rather than the speed of the connection.

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[22] The minimum results show the lowest monthly rental charge offered in each country. Figures in boxes represent the upload / download speed (kb/s) of the service offered.

3   Mobile Market Data

3.1   Number of Subscribers and Penetration Rate

3.1.1   Irish Mobile Penetration Rate

Figure 3.1.1 – Irish Mobile Penetration Rate
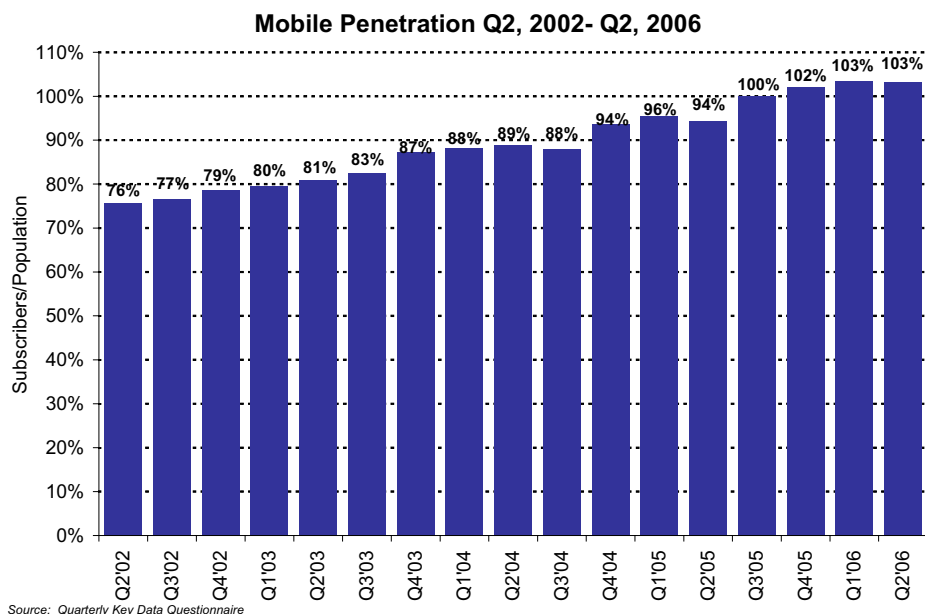
Mobile Penetration Q2, 2002- Q2, 2006

Source: Quarterly Key Data Questionnaire

There are 4.37 million 2G and 3G mobile subscribers in Ireland[23]. Figure 3.1.1 illustrates mobile penetration growth since the same period in 2002 and indicates a penetration rate of 103% in Q2, 2006[24]. Subscribers in this report are calculated based on the number of active SIM cards and it should be noted that some mobile users may have more than one active SIM card.

3.1.2   European Mobile Penetration Rates

Figure 3.1.2 illustrates national mobile penetration rates across the EU at the end of June, 2006. Mobile penetration in Ireland remains slightly below the EU average at 103%, slightly below Portugal and Finland. The average penetration presented in this graph is an unweighted average of penetration by country, and not weighted by population.   By removing the mobile penetration in Luxembourg, with its small population, and high mobile penetration from the analysis, average penetration among the remaining EU countries is 104%.

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[23] ComReg does not include a separate analysis of the 3G market in this report. In May 2006, Vodafone publicly announced having over 237,000 3G subscribers.

[24] Mobile penetration rate is based on a population estimate of 4.235 million based on the 2006 Census; source: CSO

Figure 3.1.2 – European Mobile Penetration Rates

European Mobile Penetration- end June 2006

Source: Baskerville Mobile Communications (includes 3G subscriptions)
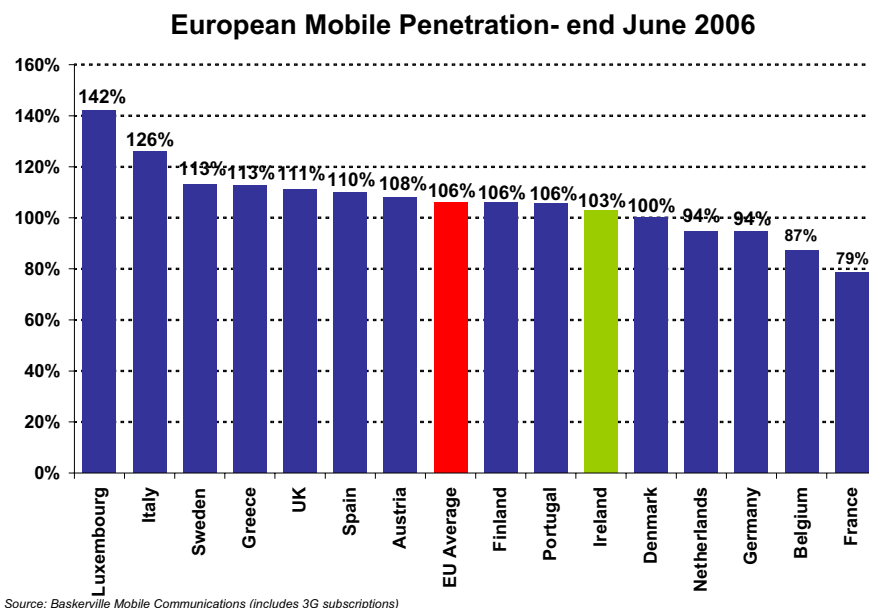
Figure 3.1.3 – Number of Subscribers (Pre-Paid/Post Paid)

Overall Pre-paid/Post-paid breakdown (Q1'05 - Q2'06)

Source: Quarterly Key Data Questionnaire
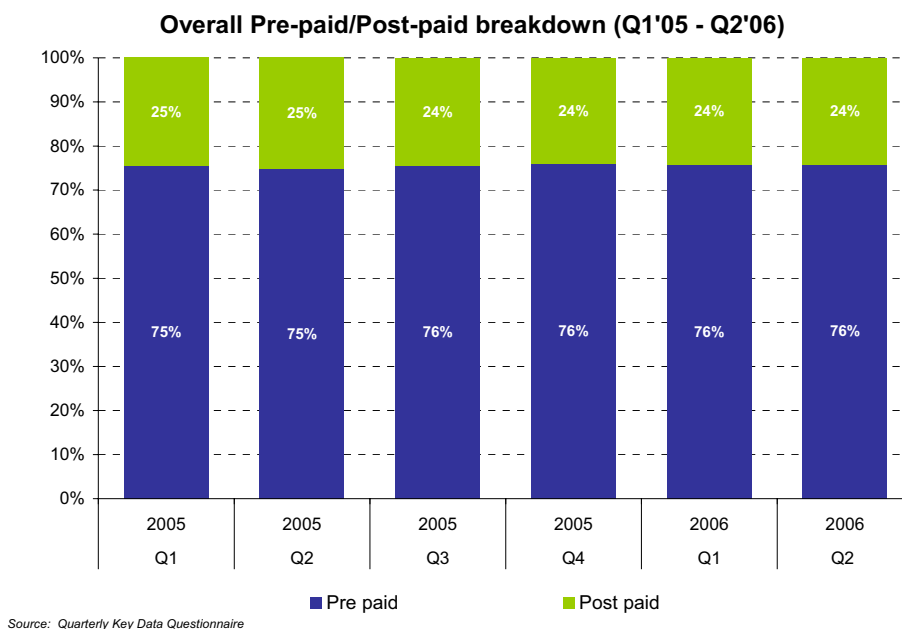
3.1.3 Subscribers Pre-Paid / Post-Paid Comparison

Figure 3.1.3 illustrates the breakdown of total mobile subscribers between pre-paid and post-paid subscriptions on both 2G and 3G networks. The proportion of pre-paid subscribers is 76%, the same as for the last four periods of analysis. Figure 3.1.4 shows the breakdown of customers for the three largest mobile operators in the market. Both Vodafone and O2's

split between post-paid and pre-paid subscribers has remained relatively stable since last quarter. The customer profile for each operator remains unchanged since the previous quarter. While Vodafone and O2 report 27% and 28% post-paid subscribers respectively, Meteor's subscriber profile remains largely in the pre-paid sector. In Q2 2006, 8% of its customer base used a post-paid service.
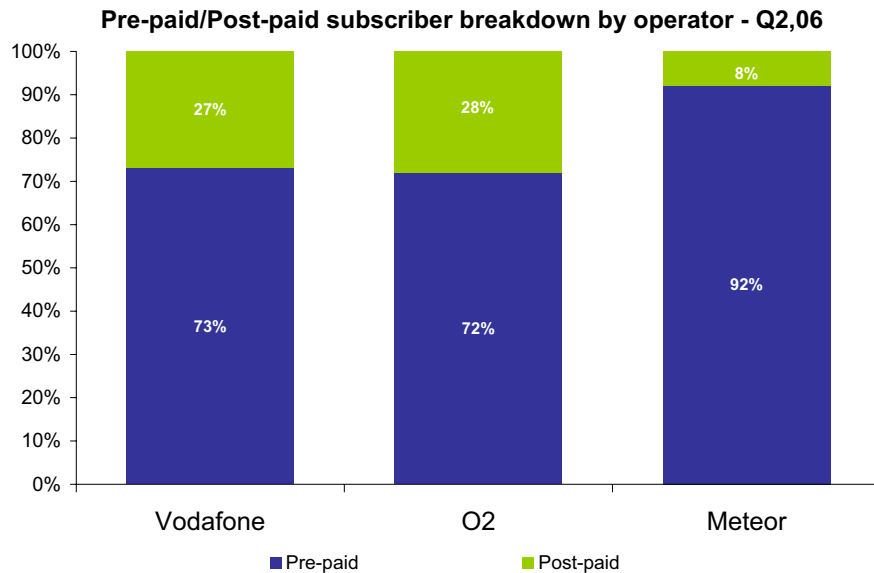
Figure 3.1.4 – Number of Subscribers (Pre-Paid/Post Paid) – by Operator

Pre-paid/Post-paid subscriber breakdown by operator - Q2,06

3.2 Market Shares

On 11th August 2006, ComReg issued an Information Notice regarding the accuracy of mobile revenue data published in the Q1 2006 report. An internal review of mobile revenues was carried out during July and August during which time ComReg discovered that there was a lack of consistency with regard to mobile revenues reported by the mobile network operators and that as a consequence, mobile revenues were overstated in some cases. ComReg worked with all parties involved to revise data submitted in previous periods- as a result of these revisions, corrected data for the period Q1 2005- Q2 2006 is presented in this report. Therefore mobile revenue data presented in quarterly reports prior to Q2 2006 should not be relied upon.

Market share data illustrated by subscription and by retail revenue is presented for the largest three operators in the mobile market at time of publication. In Q2 2006, Meteor market share by subscription now stands at 15.6%, the first time its customer base has exceeded 15%. However it should be noted that all mobile operators added subscribers in the period.

Meteor's market share in terms of revenue in this quarter is 10.8% which represents a 1.4% increase in market share this quarter based on revised calculations. O2 has increased its share of mobile revenue among the three largest operators in the period to 41.2%.

Figure 3.2.1 – Market Share – Number of Subscribers

Market Share by Subscription Q1 2005 - Q2 2006

	2005 Q1	2005 Q2	2005 Q3	2005 Q4	2006 Q1	2006 Q2
Meteor	9.8%	10.7%	11.5%	13.4%	14.6%	15.6%
O2	39.7%	39.9%	38.8%	38.0%	37.3%	36.6%
Vodafone	50.5%	49.4%	49.7%	48.6%	48.1%	47.8%

Source: Quarterly Key Data Questionnaire   ■ Vodafone   ■ O2   ■ Meteor
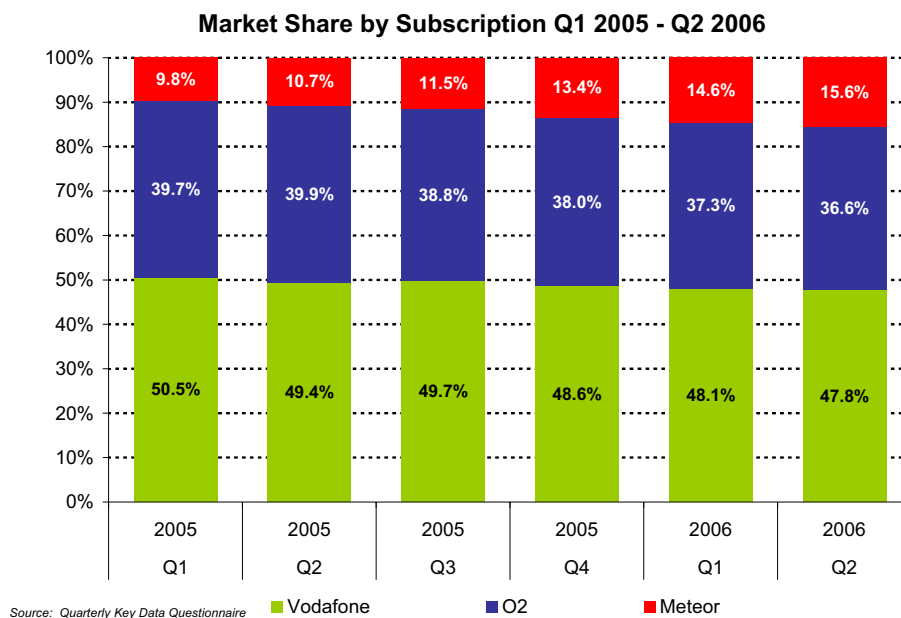
Figure 3.2.2 – Market Share – Revenue

Market Share by Revenue Q1 2005- Q2 2006

	2005 Q1	2005 Q2	2005 Q3	2005 Q4	2006 Q1	2006 Q2
Meteor	4.9%	6.1%	6.1%	8.2%	9.4%	10.8%
O2	45.7%	44.6%	44.6%	42.3%	40.2%	41.2%
Vodafone	49.4%	49.3%	49.3%	49.6%	50.3%	48.0%

Source: Quarterly Key Data Questionnaire   ■ Vodafone   ■ O2   ■ Meteor
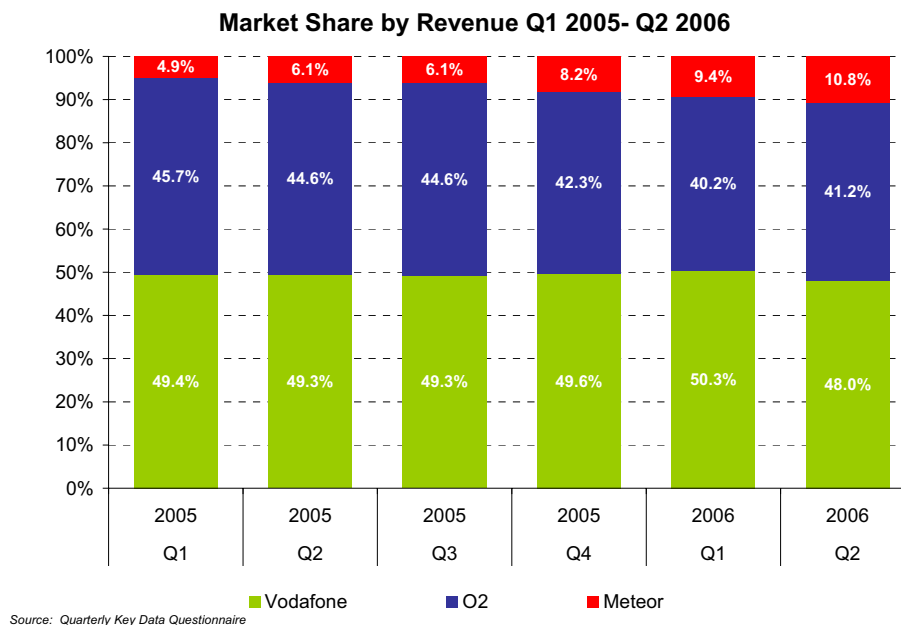
3.3 Competitive Activity in the Mobile Market

Figure 3.3.1 outlines the growth in the use of MNP (mobile number portability) in the Irish market since its launch in June 2003. Mobile number portability allows mobile subscribers to switch mobile operator while retaining their mobile number. A total of 614,500 people have switched their mobile operator while retaining their mobile number since MNP was launched, with 71,500 mobile subscribers switching mobile operator while retaining their mobile number in Q2 2006.

Figure 3.3.1 – Mobile Numbers Ported

Source: Quarterly Key Data Questionnaire
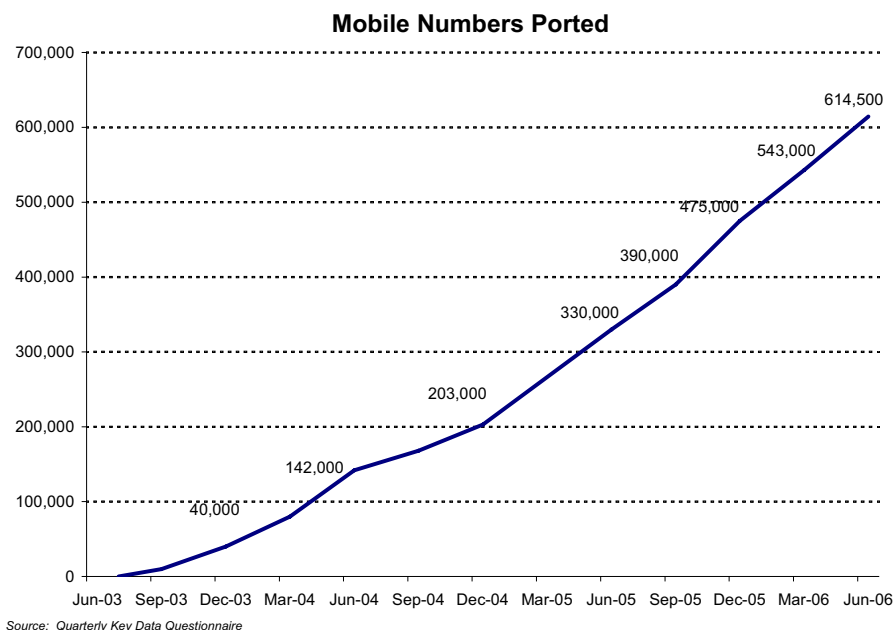
3.4 Mobile Volumes

Figure 3.4.1 illustrates the growth in voice minutes, SMS, and MMS (Multimedia Messaging Service) messages sent since Q1 2005. Mobile voice traffic totalled in excess of 1.7 billion minutes in the quarter, a 10% increase in the quarter, and a 23% increase in voice volumes year-on-year. SMS messaging in the quarter continued to grow in popularity, with almost 1.5 billion messages sent in Q2 2006, which is an average of 114 SMS messages per subscription per month.
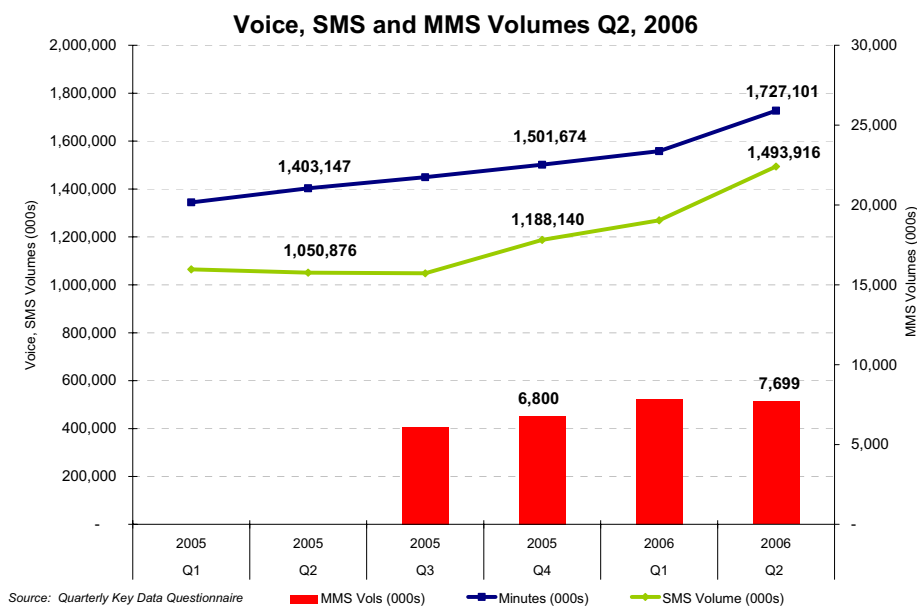
Figure 3.4.1 – SMS, MMS and Call Minutes

The number of MMS messages sent in the quarter remains relatively small when compared to voice and SMS volumes. There were almost 7.7 million MMS messages sent during the quarter.

3.5 Mobile Revenues

3.5.1 Mobile Revenues by Voice and Data

Mobile retail revenue for the quarter was €477 million, a 4% increase on the previous quarter based on revised revenue calculations for the market. The revised figure for mobile retail revenues in Q1 2006 is almost €460 million and not as stated in document 06/28.

Figure 3.5.1 outlines the percentage of mobile revenues attributable to data revenues in the Irish market. Ireland has retained its position as having the 2nd highest level of data

revenues as a percentage of total mobile revenues, at 21%, the same proportion of mobile revenues attributable to data as the previous quarter.

Figure 3.5.1 - Data Revenues as % of Total Revenue[25]

Data Revenues as a % of Total Mobile Revenues Q2, 2006
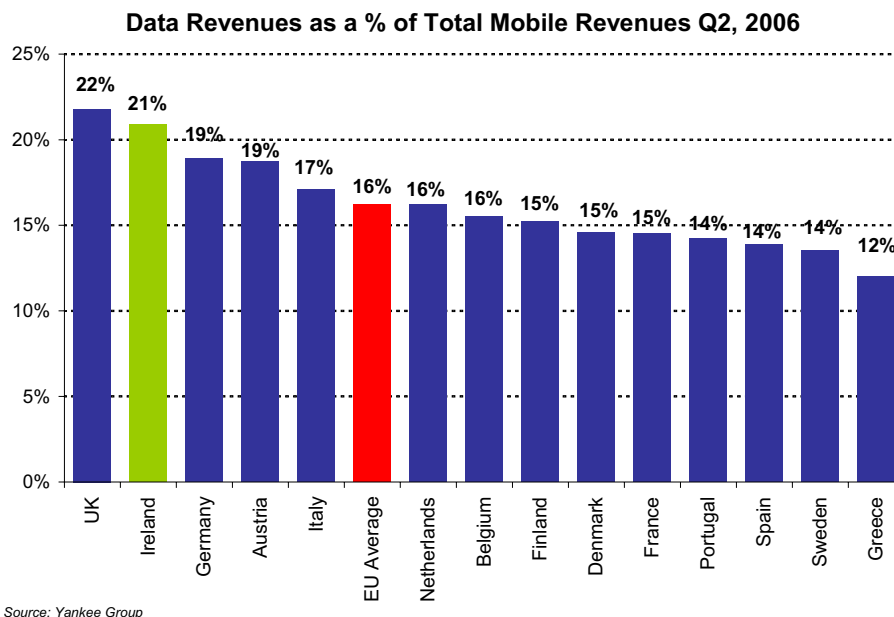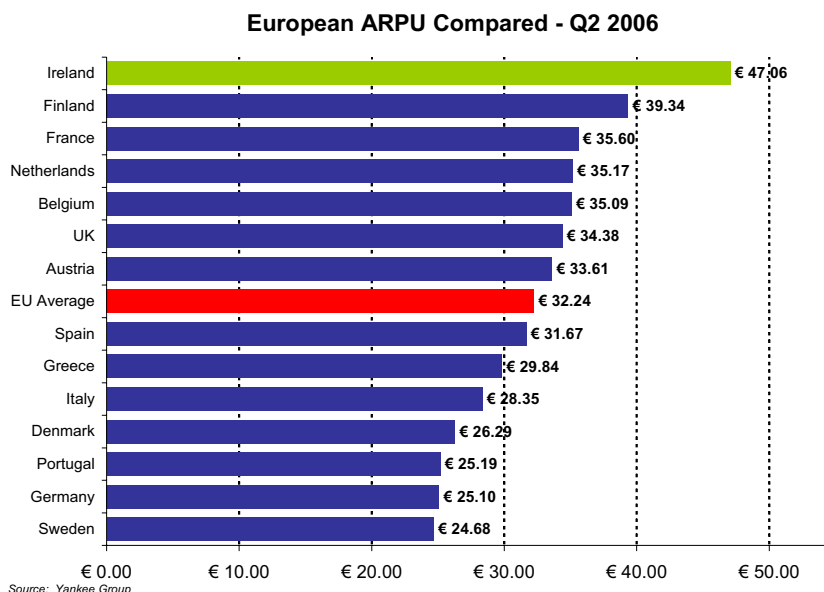

Source: Yankee Group

Figure 3.5.2 compares ARPU (average revenue per user) across several EU countries. Average revenue per user is an indication of average monthly spend by mobile subscribers in each country. ARPU will be affected by price, but also levels of usage among mobile subscribers in each country. Mobile ARPU in Ireland is estimated at €47.06 per month in Q2 2006, having fallen slightly for the 2nd consecutive quarter. Mobile ARPU in Ireland remains the highest among the EU member states monitored, and substantially higher than the EU average of €32.24[26]. Average ARPU across EU countries analysed has increased by €1.57 in this quarter.

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[25] Note that the graph relates to EU-15 countries except Luxembourg where no data was available.

[26] As far as possible, ARPU figures are obtained directly from operators. Where unavailable, ARPU is calculated by dividing annual service revenues by the mid-term installed base (the sum of the opening and closing customer bases for the period divided by two). Once the Yankee Group has obtained or calculated all individual ARPU figures, they are applied to each operator's mid-term user base to obtain service revenues by operator, which are then combined to obtain a country total. This total revenue figure is then divided by total mid-term users to derive country-level ARPU. Note that the graph relates to EU-15 countries except Luxembourg where no data was available.

Figure 3.5.2 - European ARPU Compared – Q2 2006

European ARPU Compared - Q2 2006

Country	ARPU
Ireland	€ 47.06
Finland	€ 39.34
France	€ 35.60
Netherlands	€ 35.17
Belgium	€ 35.09
UK	€ 34.38
Austria	€ 33.61
EU Average	€ 32.24
Spain	€ 31.67
Greece	€ 29.84
Italy	€ 28.35
Denmark	€ 26.29
Portugal	€ 25.19
Germany	€ 25.10
Sweden	€ 24.68

Source: Yankee Group
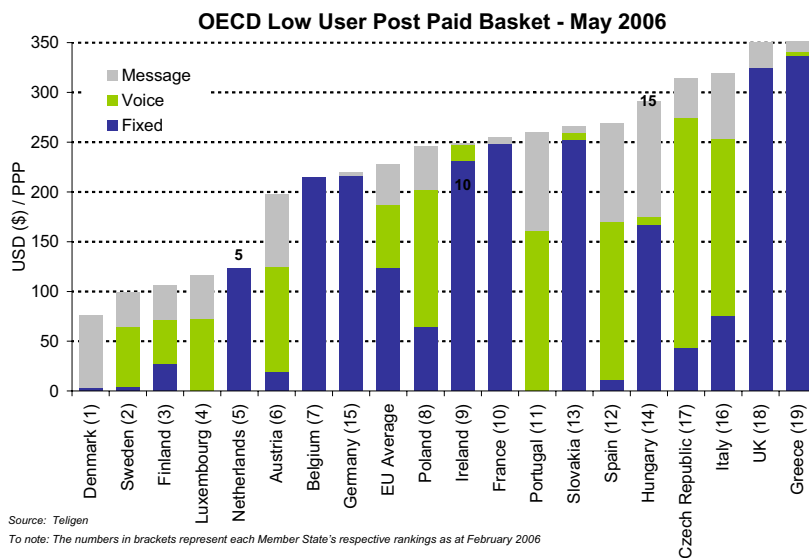
3.6 Mobile Pricing Data[27]

The Teligen mobile baskets presented in this Quarterly Report are based on an OECD-approved methodology based on specific usage levels for low, medium and high contract users of mobile services as well as a pre-paid basket. The OECD methodology uses PPPs (Purchasing Power Parities) to reflect the real cost of mobile services compared to all other prices within a country. While all mobile post-paid tariff baskets presented in the Teligen baskets are currently based on typical 2G services as approved by the OECD, ComReg recognises that there may be other more competitive packages available with 3G handsets.

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[27] The 'Fixed' component of price refers to the standard charges imposed by operators, regardless of the amount of calls made (i.e. connection and rental). T-basket calculation of this figure is made up of: Installation Charge/5 + Rental charge for 1 year. The 'Voice' component of price refers to the charges imposed by operators, arising from the number of voice calls made by the user, while "Message" refers to the charges imposed by operators, arising from the number of SMS and MMS messages sent by the user.

3.6.1 Low User Post Paid Mobile Basket[28]

Ireland is now ranked 10th out of the 19 EU countries analysed; Ireland was previously ranked 9th in this basket in the last quarter, and is two places behind the EU average price for this basket.

Figure 3.6.1 - OECD Low User Post Paid Mobile Basket – May 2006

OECD Low User Post Paid Basket - May 2006

Source: Teligen

To note: The numbers in brackets represent each Member State's respective rankings as at February 2006

3.6.2 Medium User Post Paid Mobile Basket

Ireland's position in this basket is ranked 8th among the 19 EU countries monitored. Ireland ranks two places behind the EU average.

Figure 3.6.2 - OECD Medium User Post Paid Mobile Basket – May 2006

OECD Medium User Post Paid Basket - May 2006

Source: Teligen

To note: The numbers in brackets represent each Member State's respective rankings as at February 2006
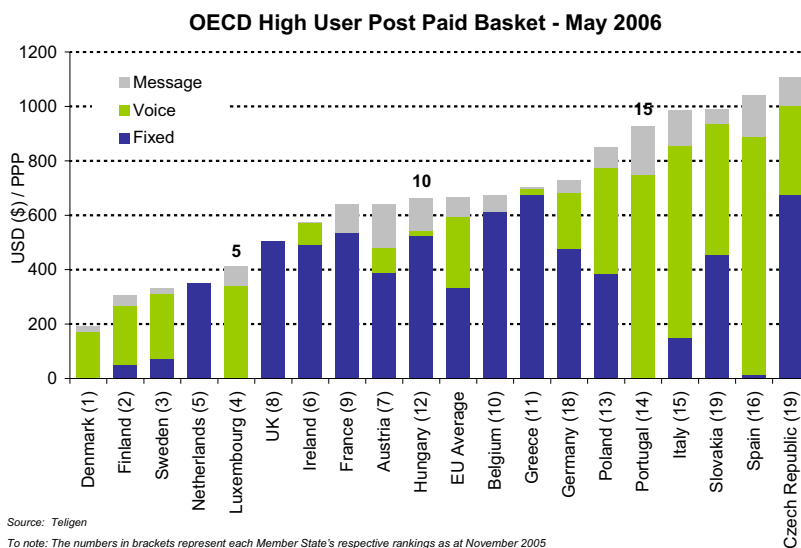
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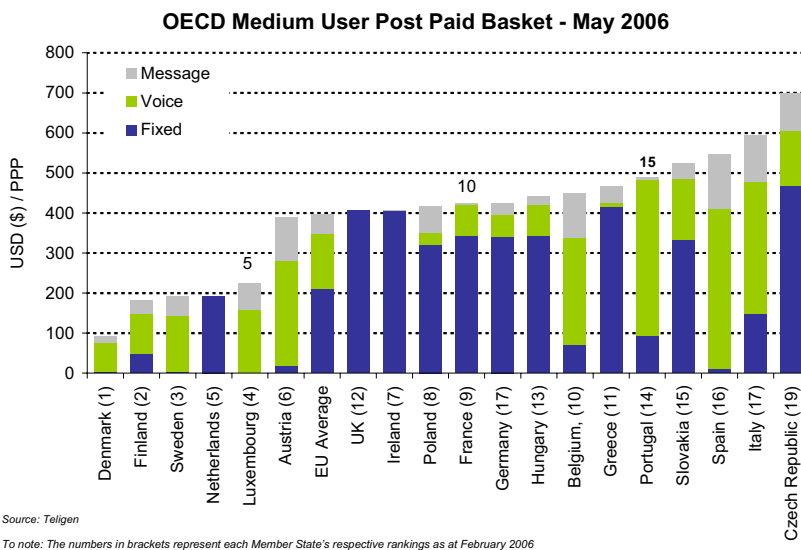
[28] All tariffs are inclusive of VAT, rates will vary between Member States

3.6.3 High User Post Paid Mobile Basket

Ranked 7th, Ireland's position in the high user basket is 4 places better than the EU average in terms of price.
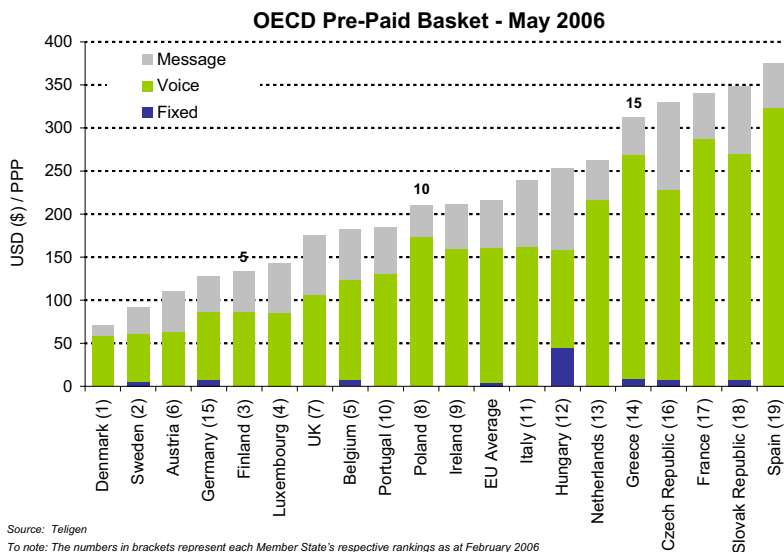
Figure 3.6.3 - OECD High User Post Paid Mobile Basket – May 2006

Source: Teligen
To note: The numbers in brackets represent each Member State's respective rankings as at November 2005

3.6.4 Pre-Paid Mobile Basket[29]

Ireland is ranked at 11th place in the pre-paid basket, and is one place better than the EU average in terms of price among the 19 EU countries analysed.

Figure 3.6.4 - OECD Pre-Paid Mobile Basket – May 2006

Source: Teligen
To note: The numbers in brackets represent each Member State's respective rankings as at February 2006

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[29] The OECD has found that there is little difference between the average pre-paid usage and low-user post-paid usage. Thus, the pre-paid and low user post paid baskets are based on the same usage assumptions.

4   Broadcasting

4.1   Cable/MMDS & Satellite

The broadcasting analysis provided in this report uses broadcasting operator data in conjunction with CSO estimates of the total number of TV households in Ireland. This is particularly relevant in deriving the number of households[30] who only use a free-to-air television service.

At the end of June 2006, there were approximately 570,000 subscribers to cable/MMDS television services in Ireland. The cable/MMDS market continues to experience a migration from analogue to digital subscriptions, with digital subscribers now representing 44% of cable/MMDS subscribers. At the 30th June 2006 BSkyB reported 427,000 Irish subscribers, a 5% increase in subscriptions for the quarter, and a 18% increase in subscriptions year-on-year[31]. The total number of pay TV subscribers in Ireland (cable/MMDS and satellite) is almost 997,000 – 68% of all pay-TV subscribers now subscribe to digital TV.

Figure 4.1.1 - Take Up of Broadcasting Services

Broadcasting Market Breakdown Q2'06
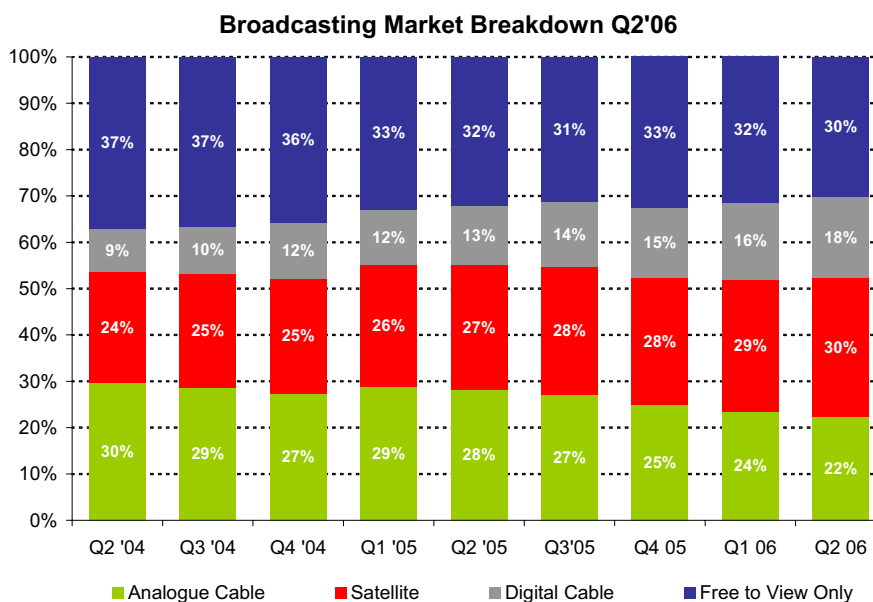
Source: Quarterly Key Data Questionnaire, BSkyB

At the end of the first quarter of 2006, there were approximately 678,000 digital TV subscribers which include cable/MMDS and satellite customers. Digital households now

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[30] Up to Q3'05, ComReg estimate of the number of TV households was 1.35 million based on CSO data. The Information Society and Telecommunications report, published by the CSO in February 2006, suggested the total number of households with a television in 2005 was 1.43 million. Therefore, since Q4 2005, ComReg's analysis of the total market breakdown and penetration data for the broadcasting market is now based on this new estimate.

[31] This is based on public announcements by Sky

represent approximately 48% of all households with a television, up 3% on the previous quarter.[32]

Figure 4.1.2 - Pay TV Market (Analogue and Digital)

PayTV Market (Analogue and Digital) Q2'06

Source: Quarterly Key Data Questionnaire, BSkyB   ■ % Analogue (of PayTV)   ■ % Digital (of PayTV)
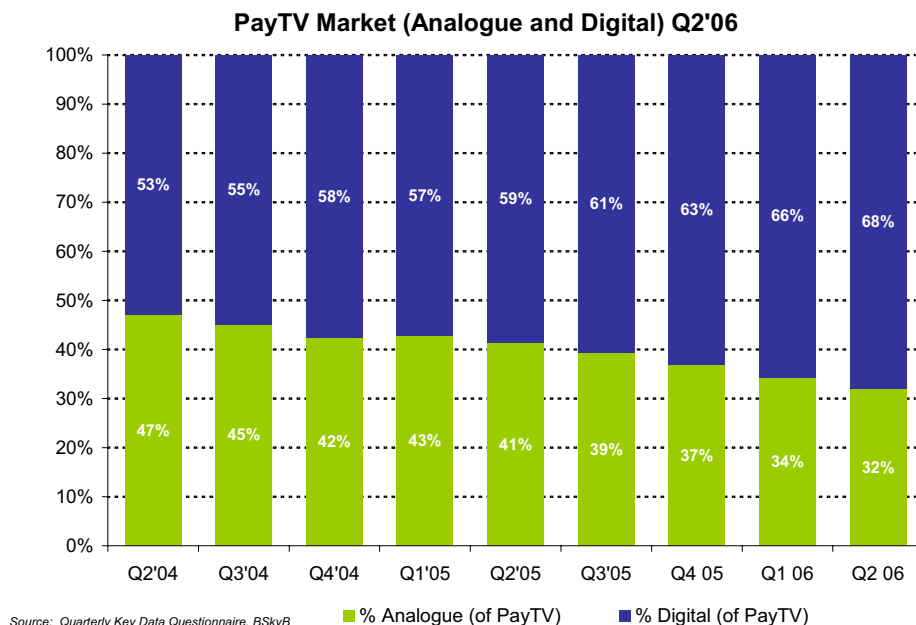
Figure 4.1.2 examines the pay TV market in Ireland, and shows continued steady migration from analogue to digital services among pay TV customers. Ireland, along with the UK, has a particularly high proportion of digital TV viewers compared to other EU countries. This is partly due to the high penetration of digital cable and satellite services in Ireland. The Freeview digital TV service, in addition to a strong cable and satellite market, are key factors in the strong penetration of digital TV within the UK market. The Department of Communications, Marine and Natural Resources is currently running trials of Digital Terrestrial Television (DTT) in Ireland. Figure 4.1.3 examines the penetration of digital TV among TV households among EU-25 countries. Please note that the data for chart 4.1.3 is from December 2005, while the ComReg data for digital households is for Q2 2006. This accounts for the discrepancy between the penetration rate reported by ComReg and that used in the European Audiovisual Observatory chart for digital TV in Ireland.

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[32] Figure is based on CSO estimate of 1.43 million households with a television.

Figure 4.1.3: Digital TV Penetration by Household Across EU-25 Countries in 2005

Comparative Digital TV Penetration

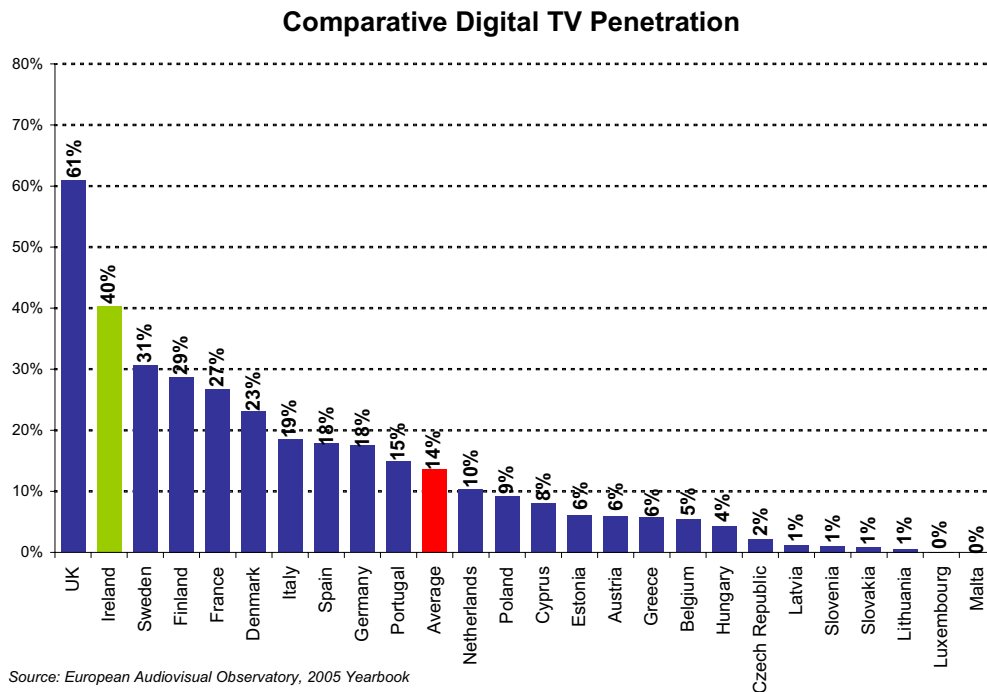Source: European Audiovisual Observatory, 2005 Yearbook

Figure 4.1.4 examines the profile of the digital TV market, illustrating subscription to digital TV using either satellite or cable services. Digital cable offerings account for 37% of digital TV subscriptions.

Figure 4.1.4 - Digital TV (Cable and Satellite Breakdown)

Digital TV (Cable and Satellite Breakdown) Q2'06

Source: Quarterly Key Data Questionnaire, BSkyB   ■ Sky (% Digital Subs)   ■ Cable/MMDS (% of Digital Subs)
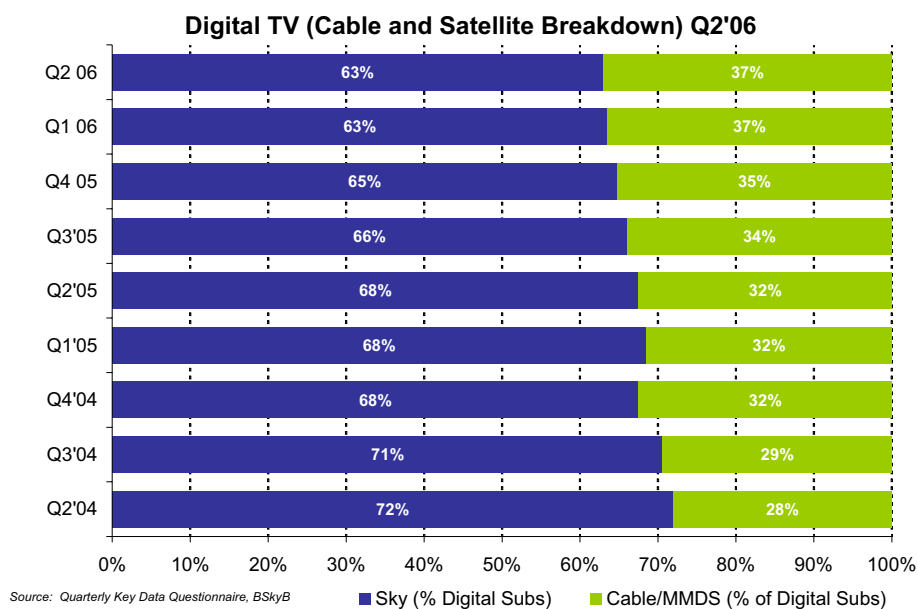
5   Emerging Trends- TV over Mobile

5.1   What is TV over Mobile?

Since the introduction of mobile communications, mobile phone technology has evolved to incorporate the ability to provide services such as text messaging, multimedia messaging, web browsing and downloading music, in addition to its primary function of delivering voice telephony on the move. One of the current mobile services in the industry spotlight is the delivery of TV and video to mobile devices. This represents a convergence between the mobile and broadcasting industries, and is likely to result in changes in technologies used and services offered by both industries.

Mobile TV services are being introduced by mobile operators using 3G networks (MBMS), and transmission technologies such as Digital Video Broadcasting over Handheld (DVB-H), Terrestrial – Digital Multimedia Broadcasting (T-DMB), Satellite – Digital Multimedia Broadcasting (S-DMB), DMB-T (China), DMB-H (China), and Integrated Services Digital Broadcasting (ISDB-T). Such technologies are currently being trialled by a number of operators in different countries in Europe.

5.2   How is the service delivered?

In the case of mobile operators, programmes are streamed over their 3G networks. The nature of a 3G network is point to point, meaning that a signal is passed between a single sender and a single receiver. This results in the same piece of content being retransmitted over the network every time a different user wants to view it, using up a certain amount of bandwidth along the way. The limits on available bandwidth on 3G networks mean that there may be problems with congestion if too many people are downloading content at the same time.

However, new technologies are being developed that could provide more capacity over existing 3G spectrum so that mobile carriers do not have to rely on separate networks to carry live TV programming.

The general consensus though is that 3G streaming is the precursor to a dedicated mobile-TV broadcast network using transmission technologies such as Digital Video Broadcasting for Handheld (DVB-H) which would be used for transmitting broadcasts over terrestrial broadcast networks to a mobile device such as a mobile phone. A number of competing standards are emerging, for example there are T-DMB deployments in Korea, and 3 Italia and TIM TV have launched DVB-H services in Italy. DVB-H technology is based on the existing digital terrestrial television system (DVB-

T), but optimized for battery handheld devices. This method would mean that the video clip or programme is transmitted over the network only once to many users at the same time, i.e. point to multi-point. Handsets used to receive broadcasts via DVB-H are likely to be TV-enabled mobile phones; some models of this type of phone already exist from handset manufacturers, e.g. Nokia, Samsung and LG.

Point to Point   **Point to Multi-Point**
                                              (Broadcast)
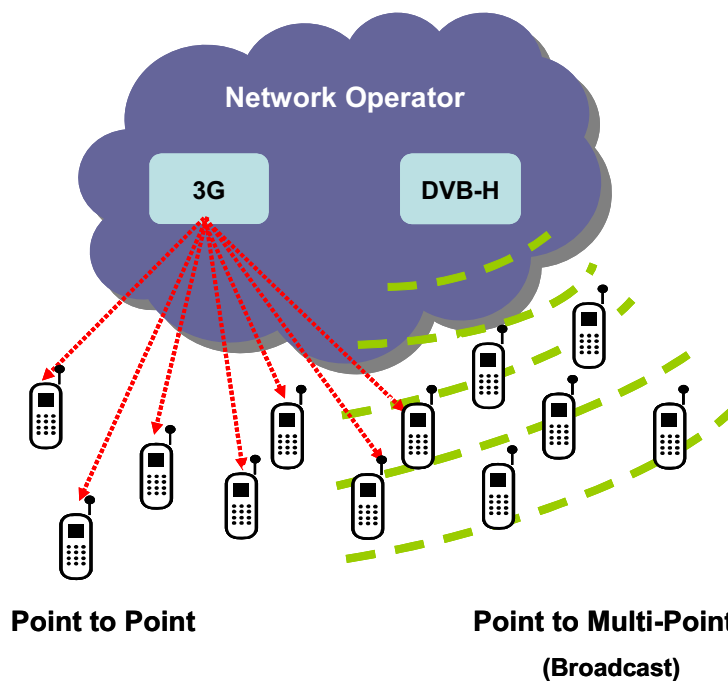
5.3 What will be broadcast and what will it look like?

The format of programmes over mobile TV is unlikely to be that of traditional TV programmes, as various research reports and end-user surveys[33] have suggested that shorter programmes designed specifically for mobile phones work best, or would complement "real" TV programmes. The limited screen size available on mobile phones is also a barrier to viewing lengthy programmes. Due to these requirements, a new industry of mobile TV content creators and aggregators is emerging.

Trials by operators such as O2 in the UK have also indicated that Mobile TV is most likely to be used in short bursts, for example, when waiting for an appointment, while commuting, or as a user's personal TV in the home. In terms of content, sports content, news and entertainment have been popular in trials to date.

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[33] For example a consumer pilot project run in Helsinki, Finland, March-June 2005

5.4 The Devices

While the mobile phone will be used as a TV, it is important that the TV application does not hinder the functions of the device as a phone. Another must for the device is interactivity, giving the user the ability to use the phone as a channel for voting e.g. for reality TV shows, or linking to websites. Further user issues that need to be taken into account are enhancing battery performance for handsets and ensuring reliable mobile TV reception.

5.5 Mobile TV in Ireland and Europe

In June 2006, Sky and Vodafone teamed up to offer the first Mobile TV service in Ireland. The service, called Sky Mobile TV, provides a variety of mobile channels to Vodafone 3G pay monthly and pay as you go subscribers, in areas where 3G coverage is available. The packs on offer provide a combination of different Sky channels, such as MTV, Sky One and the Discovery Channel. Some of these channels will be broadcast as live programmes, whereas others will show programming which has been customised for mobile devices.

In 2005 a number of trials of DVB-H were run, for example a pilot project was carried out in Germany during the 2006 FIFA World Cup by E-Plus, O2, T-Mobile and Vodafone. The four network operators ran the trial for three months on about 1000 test devices, and results found that users were impressed by the picture quality, good reception and the extensive range of programmes on offer.

O2 in the UK trialled mobile TV using the DVB-H standard in Oxford among 375 users, and found that users spent an average of 4 hours a day watching TV over their mobiles. By the end of the trial, 37% of usage was recorded during the daily commute, with peak viewing in the mornings and early evenings, and with home usage at 32%. Eighty five percent of users were satisfied with the service provided, while 72% indicated that they would take up the service within 12 months of the service launching.

DVB-H trials are also going to take place in Ireland in the near future. In early September O2 Ireland acquired a licence from ComReg to trial broadcast TV over mobile phones using DVB-H technology. The trial will be conducted in partnership with Arqiva and is expected to commence towards the end of 2006. This week 3 Ireland also announced that it will trial live broadcast TV over mobile after having been awarded a DVB-H trial licence by ComReg.

5.6 The Future

One of the biggest issues facing the mobile TV industry is the availability of suitable spectrum, and key decisions regarding spectrum allocation need to be made by regulators to ensure the widespread availability and take-up of this service.

In its response to consultation to regional DVB in the UHF band[34], ComReg stated that it will monitor developments in other countries and the progress of trials of mobile applications both here and abroad before committing to any specific regulatory regime. This approach will give potential providers of DVB mobile services more clarity on the regulatory regime that will be in place, which will in turn assist them to make decisions in relation to their own continued interest in the provision of mobile television broadcasting services in Ireland. ComReg will publish a more detailed briefing note on TV over mobile as part of its forward looking programme briefing note series before the end of the year.

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[34] ComReg 06/48