

# **Irish Communications Market**

# **Quarterly Key Data Report**

**Data as of Q4 2009** 

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# Corrigendum for the September 2009, Quarterly Key Data Report, ComReg Doc 09/101

- Meteor mobile subscriptions have been revised upwards for the period Q3 2009 (see page 50 onwards).
- Q3'09 data for Transaction Network Services were revised for this report in light of a late submission (see page 17 onwards).

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# **Summary**

Although internet and mobile subscriptions increased in Q4'09, communications revenues declined again this quarter. However, while fixed voice traffic decreased this quarter, mobile voice traffic grew strongly. This increase in voice traffic was not matched by an increase in mobile revenues suggesting that consumers may be benefiting from bigger bundles of mobile calls and data and discounted tariffs. Presented below is a tabular summary of this report.

Irish Quarterly Communications Market Data Q4 2009			
			Quarterly
	Q4′09	Q3′09	Change
Total Market Revenues	€973,504,825	€996,169,114	-2.3%
Fixed Line Revenues	€491,166,190	€505,278,258	-2.8%
Mobile Revenues	€434,726,132	€445,549,041	-2.4%
Broadcasting Revenues	€47,612,503	€45,341,816	+5.0%
Total Voice Traffic (Minutes)	4,584,077,424	4,521,691,558	+1.4%
Fixed Voice Traffic (Minutes)	1,966,305,490	1,988,770,088	-1.1%
Mobile Voice Traffic (Minutes)	2,617,771,934	2,532,921,700	+3.3%
Internet Subscriptions	1,571,039	1,517,449	+3.5%
Broadband Subscriptions	1,443,350	1,361,254	+6.0%
Narrowband Subscriptions	127,689	156,195	-18.3%
Mobile Subscriptions (inc.			
HSDPA)	5,302,345	5,223,162	+1.5%

- Overall electronic communications network and service revenues at the end
  of December 2009 were almost €974 million for the quarter. Industry
  revenues decreased by 2.3% this quarter, the sixth consecutive quarter in
  which overall revenues have declined. Total annual revenues for 2009 were
  approximately €4.03 billion compared to €4.51 billion in 2008; a drop of
  10.6%.
- Total voice traffic minutes increased by 1.4% this quarter to just above 4.58 billion minutes. Mobile minutes form the majority of voice minutes at 57.1%, with fixed minutes representing the remaining 42.9%. Mobile voice minutes grew by 3.3% this quarter, an increase of over 84 million voice minutes this quarter and an additional 118 million voice minutes since Q1'09 to reach over 2.6 billion voice minutes.

- This quarter, the growth of total internet subscriptions accelerated increasing to 1,571,039. This represents a growth rate of 3.5% since last quarter.
- Reductions in narrowband internet subscriptions continued this quarter, declining by 18.3% since Q3'09 and 46.2% since Q4'08. There are now a total of 127,689 narrowband subscriptions in Ireland as consumers migrate to broadband and away from slower dial-up technologies.
- Broadband subscriptions (fixed and mobile) continued to increase, accelerating this quarter to reach a total of 1,443,350. This is a 6% increase on Q3'09. The fixed broadband penetration rate reached 21.9% in Q4'09. The broadband per capita penetration rate (including mobile broadband) in Q4 2009 was 32.4%.
- Mobile broadband subscriptions (466,969) have been the biggest net broadband contributor since Q1'08, increasing by 13.4% in Q4'09 while fixed broadband subscriptions increased by 2.8% this quarter to 976,381.
- Mobile per capita penetration (including mobile broadband) was 118.9% in Q4 2009. Excluding mobile broadband subscriptions, the penetration rate was 108.4%.
- Mobile revenues decreased by 2.4% this quarter to just over €434.7 million.
- Social networks are discussed in the Emerging Trends section of this report.

# Notes to data:

- Aggregated SB-WLR Performance Statistics, as supplied by Eircom, are published in accordance with ComReg Decision Notice (07/61) Section 6.6 (vii) in the appendix.
- In this report Irish population estimates from the Central Statistics Office (CSO) of 4,459,300 for April 2009 are used for the period Q4 2009. Population data is used to calculate per capita mobile and broadband penetration in Ireland. A household number of 1,599,500 million (as of Q4 2008) from the CSO is also used. This household data is based on estimates from the Quarterly National Household Survey (QNHS) and is used for the first time in this report. ComReg intends to revise the household figure on an annual basis using data from the QNHS. Household data is used to calculate household TV penetration in Ireland.

- A number of external sources are used for international comparisons. These
  include the Yankee Group, Central Statistics Office, Informa Telecoms and
  Media, and Teligen.
- In most cases data has been rounded to one decimal place in this report.
- Q3 2009 submissions for Broadworks, EU Networks, Icarus, ICE Broadband, Rainbow Telecom, Smart Telecom, Verizon and Vodafone at home (Vodafone's fixed-line business) are used in this report. Therefore, while quarter on quarter comparisons are made in the report, definitive conclusions with regard to trends cannot be drawn and year on year comparisons are used to improve the reliability of the analysis.
- Further explanations and descriptions of data supplied in this report can be found in the accompanying explanatory memorandum 10/19a.
- Extracts of data used in this report can be downloaded at <u>www.comstat.ie</u>
- Data previously published may have been amended since publication. Any such amendments are noted in the corrigenda above.

# 1. Overall Market Data

Data presented in this report is based on questionnaires completed by authorised operators for the period from  $1^{st}$  October 2009 to  $31^{th}$  December 2009. The report is based on submissions from 61 active operators<sup>1</sup>.

#### 1.1 Number of Authorisations

Figure 1.1.1 - Total Number of Authorisations

Total Authorisations	March 2010
No. of fixed and wireless authorisations	368
No. of mobile telephony authorisations	7
No. of broadcasting authorisations (incl. Cable TV, MMDS, Deflectors)	87
Total Number	462

Before providing networks or services to third parties, operators are required to submit a notification to ComReg which is added to a central register of authorised operators. At the date of publication there were 462 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, and does not necessarily reflect the total number of commercially active organisations or entities currently operating in the market. The total includes a number of undertakings who are authorised to use licence-exempt spectrum for the provision of services.

<sup>1</sup> comReg uses a revenue threshold to determine which operators are to be included in this report. Q3 submissions for Broadworks, EU Networks, Icarus, ICE Broadband, Rainbow Telecom, Smart Telecom and Vodafone at Home were used this quarter.

# 1.2 Overall Electronic Communications Revenues<sup>2</sup>

Data presented in Figure 1.2.1 examines the proportion of industry revenue attributable to the provision of fixed line, mobile and cable broadcasting services.



Figure 1.2.1 - Fixed, Mobile & Broadcasting as a % of Total Revenues

Overall electronic communications network and service revenues at the end of December 2009 were almost €974 million for the quarter. Industry revenues decreased by 2.3% this quarter, the sixth consecutive quarter in which overall revenues have declined. Since Q4 2008 industry revenues, as reported to ComReg, have fallen by 12.2%. Total annual revenues for 2009 were approximately €4.03 billion compared to €4.51 billion in 2008; a drop of 10.6%.

While fixed and mobile sectors experienced a decline in revenues again this quarter, the broadcasting sector actually saw an increase in revenues. Fixed revenues decreased by 2.8%, the mobile industry saw revenues fall by 2.4%, while broadcasting revenues increased by 5%. It should be noted that broadcasting revenues are understated in this report, as Sky Ireland's satellite TV revenues are not included in the analysis. In addition broadcasting revenue data as collected by ComReg does not capture the full range of revenues received by broadcasting entities as ComReg does not regulate the entire broadcasting industry and content in particular.

<sup>2</sup> For further detail on terms and definitions see ComReg Document Number 10/19a Explanatory Memorandum to the Quarterly Key Data Report.

Fixed line revenues accounted for 50.4% of total revenues, a slight drop in its market share on the last quarter. The mobile industry's share of total revenues remained the same this quarter, while broadcasting revenue's market share increased to 4.9% in Q4 2009.

Figure 1.2.2 shows that over the last 6 years, changes in communications revenues have generally mirrored economic output. As the recession has deepened over the last year, both Gross National Product (GNP) and communications revenues have declined. Communications revenues account for approximately 3% of GNP, and this percentage share has been flat over the period of the chart's analysis.

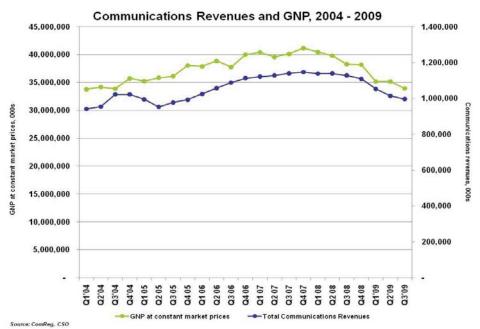
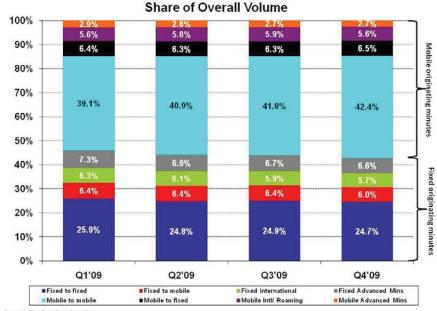


Figure 1.2.2 – Communications Revenues and GNP

## 1.3 Overall Call Volumes

Figure 1.3.1 - Share of Total Voice Call Volumes (Minutes)<sup>3</sup>



Source: Quarterly Key Data Questionnaire

Figure 1.3.1 profiles volumes of originating voice calls by call type on both fixed and mobile networks on a quarterly basis. Voice minutes for Q4 2009 totalled over 4.58 billion minutes. There were a total of 18.3 billion voice minutes in 2009; 8.1 billion of which were fixed voice and 10.2 billion of which were mobile voice. It should be noted that prior to Q1 2009 some mobile data minutes were included under mobile advanced minutes. As these volumes are not based on voice calls, they were removed in Q1 2009 as they had a downward impact on overall mobile voice traffic. Total voice minutes increased by 1.4% on the previous quarter when volumes were just over 4.52 billion minutes. Mobile originating voice minutes accounted for 57.1% of all voice minutes while traffic originating on a fixed line network accounted for 42.9% of all voice minutes. Figure 1.3.2 shows the total voice traffic in Ireland at the end of Q4 2009.

Figure 1.3.2 – Total Voice Traffic

	Q4'09 Mins	Q3'09 - Q4'09 Growth	Q1'09 - Q4'09 Growth
Fixed voice minutes	1,966,305,490	-1.1%	-8.8%
Mobile voice minutes	2,617,771,934	+3.3%	+4.7%
Total voice minutes	4,584,077,424	+1.4%	-10.4%

<sup>3</sup> Fixed advanced minutes include premium rate services minutes, freephone minutes, VoB minutes, payphone minutes, operator services minutes, national and international virtual private network minutes. Mobile advanced minutes include premium rate services minutes and other mobile minutes such as voicemail, DQ, call completion minutes etc.

# 1.4 Pricing Overview

This section examines Ireland's current and previous rankings based on a comparison of prices for specific consumer baskets in a number of EU countries. Data on PSTN<sup>4</sup> and mobile baskets 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:

- the construction of one or more baskets of telephone services (including variable (e.g. calls) and fixed (e.g. rental) charges);
- the pricing of those baskets; and
- the conversion of the individual currencies to standard units (i.e. US Dollars or Euros and Purchasing Power Parities (PPPs)).

Countries are then ranked based on PPPs, with the least expensive country ranked 1<sup>st</sup>. The charts presented in this section provide an overview of Ireland's ranking relative to 19 other EU member states (for which data is available) since the revision of the OECD baskets in February 2006. Individual pricing charts for each basket for November 2009 are analysed under the heading "Pricing Data" in the specific mobile and fixed sections of this document. Ireland's position is ranked in relation to other EU member states. Tariffs used in the fixed voice and broadband baskets are generally based on the incumbent operator's tariffs only. The mobile baskets are based on the 2 biggest operators in each market.

For further information on Teligen's methodology please see the accompanying memorandum ComReg 10/19a.

<sup>4</sup> PSTN refers to a public switched telephone network or copper telephony network, on which calls can be made. A PSTN line is more commonly known as a copper telephone line.

## 1.4.1 PSTN Baskets

Figure 1.4.1.1 shows the movement in Ireland's position relative to 18 other EU countries in all PSTN baskets since November 2007, where the least expensive country based on the methodology is ranked  $1^{\rm st}$  and the most expensive is ranked  $19^{\rm th}$ . Ireland continues to remain less expensive than the average basket cost across three of the PSTN services analysed (national business, international residential and international business baskets). Ireland's position across all the baskets has remained unchanged this quarter.

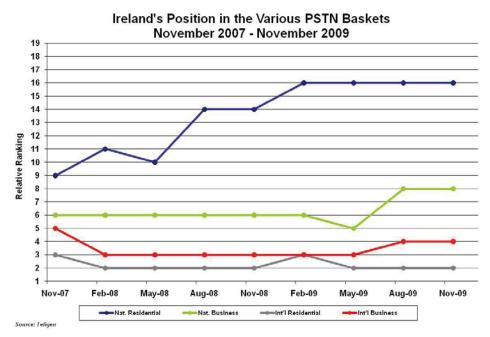


Figure 1.4.1.1 - Ireland's Position in the Various PSTN Baskets

## 1.4.2 Mobile Baskets

Figure 1.4.2.1 shows the movement in Ireland's position in all the mobile baskets since November 2007 relative to 18 other EU countries, where the least expensive country is ranked 1<sup>st</sup> and the most expensive country is ranked 19<sup>th</sup>. Ireland's position in the low user post-paid basket improved by one place, moving to 8<sup>th</sup> in November 2009, ranking Ireland one place better when compared to November 2007. As of November 2009 Ireland ranks in 8<sup>th</sup> position for the medium user basket, an improvement of two places since last quarter. Ireland's position improved by four places for the high user post-paid basket but slipped by two places in the pre-paid user basket, ranking 8<sup>th</sup> and 13<sup>th</sup> respectively.

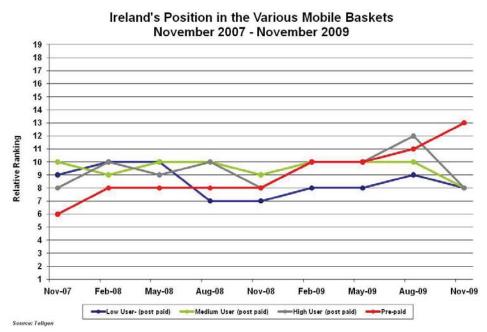


Figure 1.4.2.1 - Ireland's Position in the Various Mobile Baskets

Figure 1.4.2.2 shows the annual percentage change in the Consumer Price Index (CPI) and the communications sub-component since December 2007. The CSO weight communications as 3.34% of the total CPI. The cost of the basket of communications products (split into internet, mobile and fixed telephone components) has, in general, been below overall costs for the majority of the period and has been flat for the past year. As the recession has deepened, overall prices have declined, falling quicker than communications prices in the last number of months.

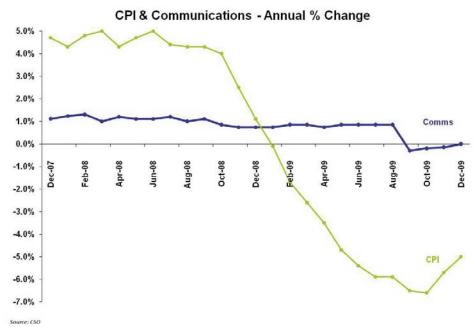


Figure 1.4.2.2 - Consumer Price Index and Communications Sub-Component

# 2. Fixed Market Data

## 2.1 Total Fixed Line Revenues

Figure 2.1.1 shows the profile of fixed line wholesale and retail revenues in Q4 2009. Total fixed line revenues at the end of December 2009 were just over €491 million. This is a 2.8% decrease on Q3 2009 revenues, which were just over €505 million. While retail broadband (up 0.01%), interconnect (up 4%) and leased lines, managed data and other advanced data services (up 1%) revenues all grew this quarter, only revenues from retail narrowband services (basic fixed voice services and dial-up internet) have declined. However the extent of this decline (6%) has led to the overall fall in fixed line revenues in Q4 2009.

This quarter the proportion of fixed line revenues attributable to leased lines, managed data and other advanced data services and interconnect revenues increased by 0.7 and 0.9 percentage points respectively. The proportion of retail narrowband revenues fell by 2.1 percentage points while the proportion of retail broadband grew by 0.4 percentage points.

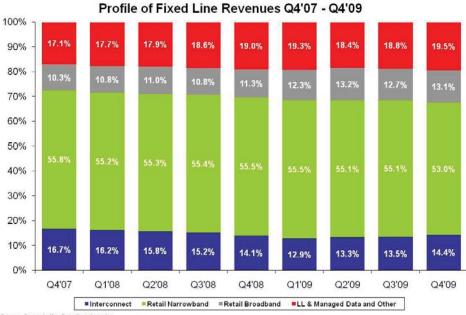


Figure 2.1.1 – Profile of Fixed Line Revenues

Source: Quarterly Key Data Questionnaire

# 2.1.1 Authorised Operators' Share of Overall Fixed Line Revenues

Figure 2.1.1.1, below, shows the market shares of the incumbent and other authorised operators (OAOs) in each of the fixed line service categories mentioned in figure 2.1.1. Market shares are grouped within a number of revenue categories to link related services and are based on both retail and wholesale revenues; this classification does not reflect the specific markets identified in ComReg's Market Analysis process.

This quarter Eircom made gains relative to OAOs in its market share of retail narrowband, retail broadband, and leased line, managed services and other revenues. Eircom lost some market share to OAOs in interconnect revenues, while overall Eircom's market share of revenues remained the same.

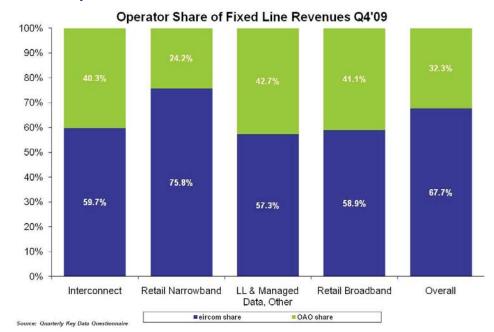


Figure 2.1.1.1 - Operator Share of Fixed Line Revenues<sup>5</sup>

 $<sup>5\ \</sup>mbox{Eircom's}$  retail broadband share includes DSL, FWA and Satellite revenues.

Eircom's overall share of fixed line market revenue has remained the same this quarter. However, when compared to its market share two years ago, this is a 1.3 percentage point decrease. Figure 2.1.1.2, below, shows Eircom's market share on a quarterly basis from Q4 2007 to Q4 2009.

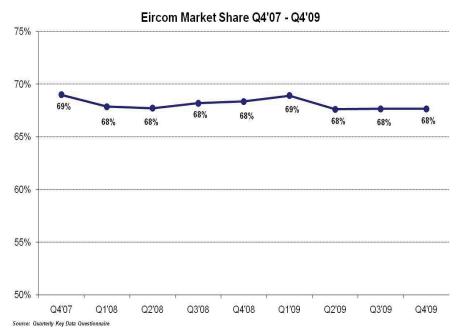


Figure 2.1.1.2 - Eircom's Market Share

## 2.2 Fixed Line Access Paths

#### 2.2.1 Access Paths

Figure 2.2.1.1 presents the total number of narrowband copper fixed access paths (PSTN and ISDN) broken out by direct and indirect access<sup>6</sup>. These paths are usually used for voice services and dial up internet access. There were just over 1.95 million direct and indirect PSTN and ISDN access paths in the Irish market in Q4 2009. This represents a decline of 5.1% since Q4 2008 and 0.6% since Q3 2009. This can be explained by a number of reasons including declines in the number of businesses, and household connections among other factors.

In Q4 2009, indirect access accounted for 23.7% of all access paths in the fixed market, up slightly from the previous quarter. While this chart shows the number of narrowband only access paths in Ireland, voice and data can also be supplied by other means such as broadband. Details on the broadband market in Ireland can be found in chapter 3 of this report.

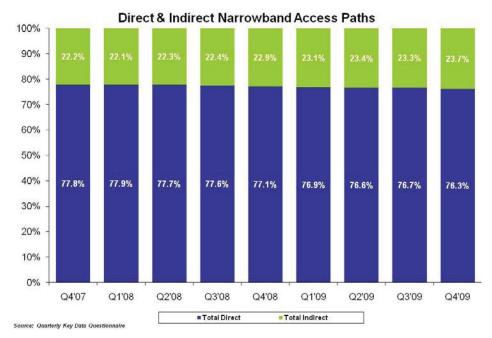


Figure 2.2.1.1 - Direct & Indirect Narrowband Fixed Access Paths

<sup>6</sup> 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.

#### 2.2.2 Indirect Access Paths

Figure 2.2.2.1 illustrates the overall number of PSTN and ISDN paths provided by means of either Carrier Pre-Selection (CPS) only or Wholesale Line Rental (WLR). In Q4 2009, there were 463,516 indirect access paths in Ireland. The number of indirect access paths increased by 1.5% between Q3 and Q4 2009; but fell by 1.4% in the year to Q4 2009.

This quarter there was an increase in WLR, after a decline in WLR numbers in the two previous quarters. The data indicates that OAOs continue to migrate their customer base to single-bill services, i.e. WLR rather than CPS (i.e. calls only) services to customers. WLR managed by OAOs now accounts for almost 85% of indirect access paths compared to almost 74% in Q4 2007. CPS share of indirect access paths has declined by almost 11 percentage points in the last two years.

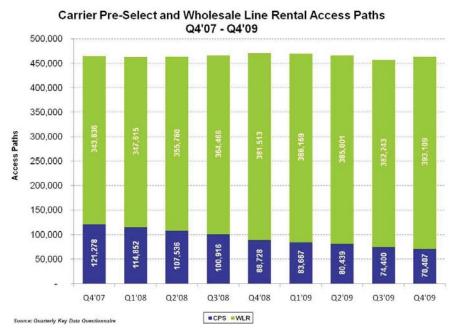


Figure 2.2.2.1 - Narrowband Indirect Access Paths

 $_7$  Access paths are not synonymous with access lines as for example in the case of ISDN paths, there may be more than 1 path provided via a single ISDN line.

# 2.2.3 Fixed Voice in Europe

Based on data from Informa Telecoms and Media, with the exception of France (which has seen a slight increase), all EU15 countries have experienced a decline in fixed voice household penetration between Q3'06 and Q3'09. Greece and Luxembourg experienced the biggest penetration decline over the two years of the analysis. As per figure 2.2.3.1, Ireland's fixed voice subscription household penetration declined by fourteen percentage points.

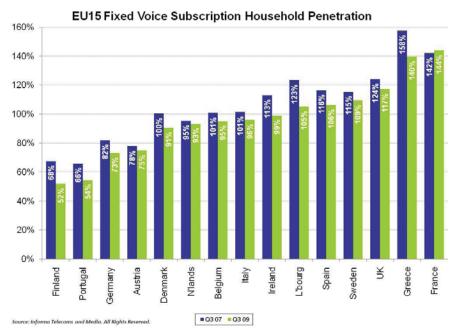


Figure 2.2.3.1- EU15 Fixed Voice Household Penetration

Figure 2.2.3.2 shows that the number of fixed (access paths) connections and house builds have declined particularly during the recession. This decline in fixed access paths could be attributed to a number of factors including declines in the number of business, and household connections.

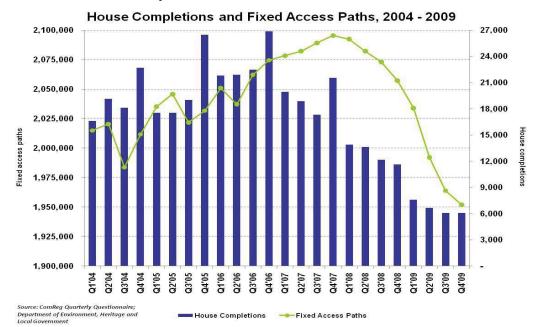


Figure 2.2.3.2 - House Completions and Fixed Access Paths

# 2.3 Fixed Voice Call Volumes

Fixed voice traffic in Q4 2009 was almost 1.97 billion minutes, which was a 1.1% decrease since Q3 2009 and a fall of 8.8% since Q4 2008. The volumes of all categories of minutes have fallen this quarter with the exception of domestic minutes which increased very slightly (by 0.2%). Voice over broadband (VoB) minutes grew by 18.2% in Q4 2009 and now account for approximately 3.4% of total fixed voice minutes up from 2.7% in Q3'09. ComReg data shows over 67 million managed VoB minutes for Q4 2009, suggesting that VoB is continuing to grow in popularity. However VoB minutes in this report represent managed VoB (for example by Eircom, and Blueface etc.) and do not include unmanaged VoB by providers such as Skype.

International outgoing minutes fell by 1.7% this quarter and have declined by 12.2% since Q4 2008. Fixed to mobile minutes decreased by 5.6% this quarter and now represent 13.9% of all fixed voice minutes. Domestic minutes increased by approximately 0.22% in Q4 2009 but are down by 6.7% since the same period last year. Other/advanced minutes (which include VoB minutes and premium rate calls) have fallen by 1.4% this quarter and by 10.1% since Q4 2008. Changes in the volumes and

profile of fixed line traffic will continue to be monitored by ComReg for evidence of changes in fixed line usage, such as increased fixed-mobile substitution and voice over broadband substitution. Figures 2.3.1 and 2.3.2 illustrate trends in fixed voice call minutes since Q4 2007.

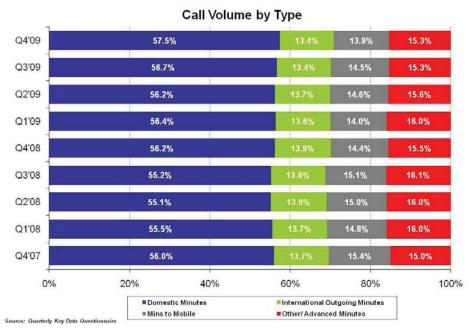
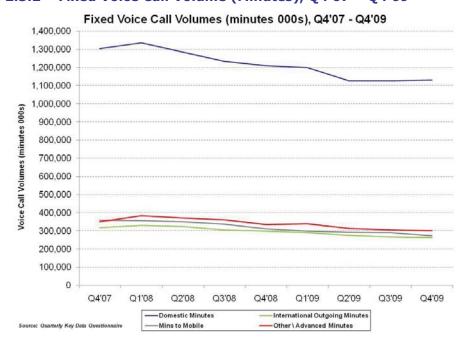


Figure 2.3.1 - Fixed Voice Call Volume (Minutes)<sup>8</sup>





<sup>8</sup> Domestic Calls include local & national calls. Advanced service and other minutes include minutes to premium rate numbers, freephone numbers, callsave, operator services, VoB minutes, VPN minutes, payphones and other services.

# 2.4 PSTN Pricing Data

ComReg uses independently-collated Teligen data using an OECD-approved methodology to examine the 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 countries for which data is available<sup>9</sup>. Using this methodology, data is presented using USD (\$) converted to Purchasing Power Parities (PPPs). The latter provides an indication of the cost of telecoms services in countries analysed in relation to the cost of all other products and services.

#### 2.4.1 OECD National Residential Basket

Figure 2.4.1.1 illustrates Ireland's ranking, alongside another 18 EU countries, in the national residential basket, based on a basket of calls and fixed costs for usage over a 12 month period. This chart is based on a comparison of the cheapest incumbent package available for a specific customer usage profile. In many cases this will be a bundled service which will include both line rental and a "bundle" of call minutes for a fixed monthly charge. It should therefore be noted that the "fixed" element in this basket is not an indication of the cost of basic line rental. In November 2009 Ireland ranked in 16<sup>th</sup> position, 6 places behind the average of the EU19 countries in terms of the most competitive pricing for this basket. Ireland's position for this basket remains unchanged since February 2009.

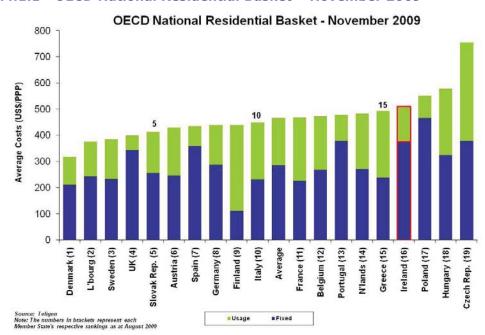


Figure 2.4.1.1 - OECD National Residential Basket - November 2009<sup>10</sup>

9 This will be determined by whether the EU country is also an OECD member.

## 2.4.2 OECD National Business Basket

As with the residential basket, the chart below is based on a comparison of the cheapest incumbent business package available for a set number of voice calls over a 12 month period, and also includes a fixed charge for access as part of a bundled service. It should be noted that the "fixed" element in this basket is not an indication of the cost of basic line rental. Ireland is approximately 11% cheaper than the EU19 average and remains in 8<sup>th</sup> position since August 2009.

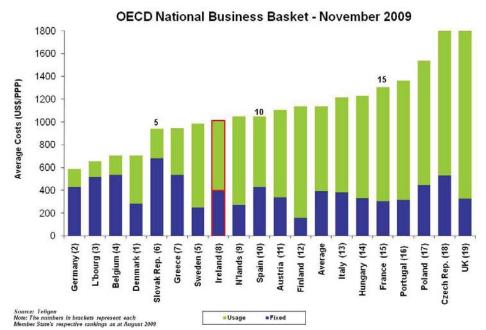


Figure 2.4.2.1 - OECD National Business Basket - November 2009

# 2.4.3 OECD International Residential Basket

Figure 2.4.3.1 ranks 19 EU countries based on the cost of residential three-minute peak international calls and five-minute off-peak international calls from one country to all other countries in the basket. The average cost for Ireland is approximately 50% cheaper than the EU19 average, and Ireland's position has remained unchanged since May 2009 in  $2^{nd}$  place.

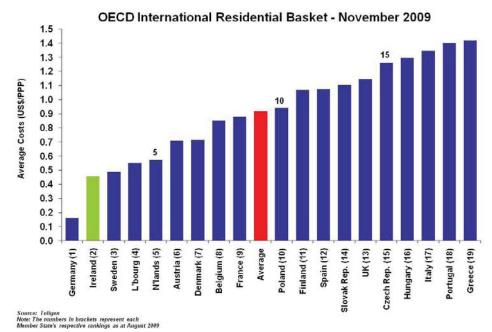


Figure 2.4.3.1 - OECD International Residential Basket - November 2009<sup>11</sup>

 $<sup>11\ \</sup>mbox{Residential}$  tariffs include VAT. VAT rates vary between member states.

## 2.4.4 OECD International Business Basket

As with the previous chart, figure 2.4.4.1 ranks 19 EU countries (including Ireland) based on the cost of business three-minute peak international calls and five-minute off-peak international calls from one country to all other countries in the basket. The average cost for Ireland is approximately 42% cheaper than the average of the EU19 countries and Ireland remains in 4<sup>th</sup> place since August 2009.

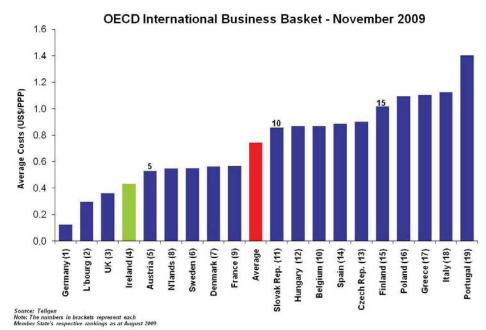


Figure 2.4.4.1- OECD International Business Basket - November 2009

# 3. Internet and Broadband

# 3.1 Total Internet Subscriptions

At the end of December 2009, there were approximately 1.57 million active internet subscriptions in Ireland. This is a 3.5% increase on the previous quarter and a 9.3% increase on December 2008. Narrowband subscriptions have continued their decline. Flat-rate narrowband subscriptions fell by 17.3% this quarter and metered narrowband subscriptions decreased by 18.4%. Narrowband now accounts for just 8.2% of all internet subscriptions in Ireland.

DLS, mobile and cable broadband subscriptions all grew in the final quarter of 2009. DSL subscriptions increased by 2.5% in Q4 2009 (up 8.2% since December 2008). Cable subscriptions grew by 9.7% in Q4 2009 (up 45.1% since December 2008). Mobile broadband subscriptions increased by 13.4% in Q4 2009 (up 51.2% since December 2008). In absolute terms, there was a net increase of 55,114 mobile broadband subscriptions, 17,375 DSL subscriptions, and 13,309 cable subscriptions. Subscriptions in the "Other Broadband" category declined by 3.2% in the final quarter of the year, down 12.4% since December 2008. FWA, fibre and satellite platforms all saw a net decrease in subscriptions. Figure 3.1.1 shows the total number of narrowband and broadband internet subscriptions in Ireland.

Figure 3.1.1 - Total Number of Active Internet Subscriptions

Subscription Type	Q4'09 Subs	Quarterly Growth Q3'09 - Q4'09	Year-on-Year Growth Q4'08 - Q4'09
Metered Narrowband	110,417	-18.4%	-45.9%
Flat Rate Narrowband	17,272	-17.3%	-48.1%
DSL Broadband <sup>12</sup>	714,016	+2.5%	+8.2%
Mobile Broadband	466,969	+13.4%	+51.2%
Cable Broadband	150,910	+9.7%	+45.1%
Other Broadband <sup>13</sup>	111,455	-3.2%	-12.4%
Total Internet Subscriptions	1,571,039	+3.5%	+9.3%

<sup>12</sup> DSL refers to a digital subscriber line, the means by which broadband speeds (i.e. in excess of 144k downstream) are delivered over the copper telecoms network.

 $<sup>13\</sup> Other\ Broadband\ includes\ fixed\ wireless\ access,\ fibre,\ satellite\ broadband\ connections.$ 

Figure 3.1.2 profiles internet subscriptions in Ireland using the classifications of subscription type outlined in Figure 3.1.1. Metered narrowband and flat-rate narrowband's combined market share of all internet subscriptions has fallen by almost nineteen percentage points between Q4 2007 and Q4 2009 (from 27% down to 8.2%).

Broadband subscriptions accounted for 91.8% of all internet subscriptions as of December 2009 compared to 89.7% at the end of September 2009. Figure 3.1.2 provides a profile for the periods Q4 2007 – Q4 2009. DSL subscriptions alone account for 45.4% of all internet subscriptions. Although the growth in DSL subscriptions has slowed over the last two years, its share of internet subscriptions has increased very slightly since Q4 2007. Mobile broadband subscriptions have grown significantly over the last two years and now account for almost one third of all internet subscriptions.

Narrowband Metered, Narrowband Flat-rate, DSL, Mobile and Other Broadband Subscriptions 100% 16.4% 16.1% 16.1% 16.2% 16.7% 16.7% 16.7% 90% 80% Percentage of Subscriptions 70% 60% 50% 45.7% 40% 45.9% 45.4% 30% 4.0% 3.3% 20% 3.1% 2.7% 2 3% 1.7% 10% 0% Q4'07 Q2'08 Q3'08 Q2'09 Q3'09 Q4'09 Q1'08 Q4'08 Q1'09 Other Broadband Mobile Broadband DSL Narrowband Flat Rate Narrowband Metered

Figure 3.1.2 - Profile of Active Internet Subscriptions

Source: Quarterly Key Data Questionnaire

Figure 3.1.3 shows the change in total internet subscriptions, narrowband subscriptions and broadband subscriptions since Q1 2003. The compounded growth rate  $^{14}$  for broadband since Q1 2003 is 21.7%, while in the last year the compounded growth rate for broadband subscriptions is 3.3%. Broadband subscriptions exceeded narrowband subscriptions for the first time in Q1'07. Since that point, narrowband subscriptions have declined by more than 70%. In the last 12 months narrowband subscriptions have declined by 36.3%.

**Total Internet Subscriptions** 1,700,000 1.571.039 1,600,000 1.500,000 1,400,000 1,300,000 1,443,350 1,200,000 1,100,000 1,000,000 900,000 800,000 700,000 500,000 1,100,000 655,920 649,952 400,000 300,000 200,000 100,000 127,689 5,968 9020 Q306 Total Broadband Source: Quarterly Key Data Questionnaire

Figure 3.1.3 - Total Internet Subscriptions

<sup>14</sup> The compounded quarterly growth rate is calculated by taking the nth root of the total percentage growth rate, where n is the number of periods being considered the compounded rate describes the steady growth over time, smoothing out fluctuations.

Figure 3.1.4 profiles only those internet subscriptions delivered over the copper telecoms network. It includes an analysis of metered, or pay-as-you-go, narrowband subscriptions, flat-rate narrowband subscriptions and DSL subscriptions. There were 841,705 active internet subscriptions over the copper telecoms network at the end of December 2009. This was a decrease of 11,131 (-1.31%) in the total number of copper-based subscriptions since Q3 2009. Since December 2008 internet subscriptions over the copper telecoms network have fallen by 6.22%, primarily due to the rapid decline in narrowband subscriptions.

DSL accounted for 84.8% of copper-based internet subscriptions in Q4 2009 compared to 81.7% in Q3 2009. Metered narrowband subscriptions accounted for 13.1% of internet subscriptions over copper compared to 15.9% in Q3 2009. Flat-rate narrowband internet subscriptions made up the remaining 2.1% of copper-based internet subscriptions compared to 2.4% in the previous quarter.

Narrowband Metered, Narrowband Flat-rate, DSL Subscriptions 100% 90% 80% Percentage of Subscriptions 70% 633.536 679,578 60% 687,870 696,641 714,016 50% 40% 48,247 42,002 30% 41,161 36,856 33,294 27,675 20% 24,811 20,878 17,272 10% 0% Q4'07 Q1'08 Q2'08 Q3'08 Q4'08 Q1'09 Q2'09 Q3'09 Q4'09 = DSL Narrowband Metered ■ Narrowband Flat Rate

Figure 3.1.4 - Profile of Copper Based Internet Subscriptions

Source: Quarterly Key Data Questionnalis

## 3.2 Provision of DSL Access

Figure 3.2.1 examines the provision of DSL access. DSL broadband services are provided to consumers by operators using three alternative methods of access. DSL may be provided directly to the consumer by Eircom using direct access to its network; this accounted for 68.7% of all DSL subscriptions in December 2009. Retail DSL may also be provided by alternative operators (OAOs) who use either wholesale bitstream, which enables OAOs to resell another operator's DSL service, or by offering DSL-based broadband using local-loop unbundling (LLU).

At the end of December 2009, 28.1% of all DSL lines were provided by OAOs using wholesale bitstream. In absolute terms there were 200,678 wholesale bitstream lines as of Q4 2009, an increase of 5.2% on the previous quarter and an increase of 10% since the end of 2008. The remaining 3.2% of DSL lines were provided to subscribers by OAOs using local-loop unbundling. At the end of December 2009 there were 22,903 local loops unbundled. Eircom's market share of retail DSL lines has declined by 0.3 percentage points over the last two years.

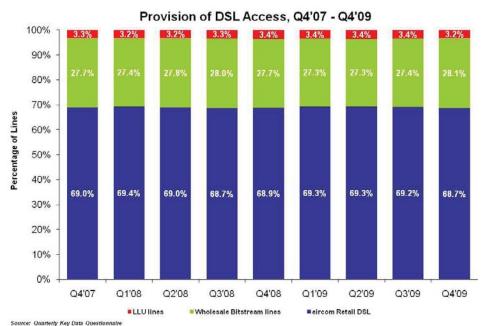


Figure 3.2.1 - Provision of DSL Access

Figure 3.2.2 shows the number of unbundled lines classified by shared and full<sup>15</sup> status. Between Q4 2007 and Q4 2009 the total number of LLU lines increased by 27.8%. However, full LLU growth has slowed over the last number of quarters (LLU lines are down 3% since Q3 2009). ComReg hopes that the number of total LLU lines will increase following it's recent decision<sup>16</sup> to reduce wholesale line share charges from €8.41 to €0.77 and the unbundled local loop and sub-loop unbundled price from €16.43 and €14.83 per month to €12.41 and €10.53 respectively.<sup>17</sup>

Fully unbundled lines accounted for 72% of total LLU lines in Q4 2009. The proportion of shared lines relative to the total number of LLU lines has continued to increase over the last two years, accounting for almost 28% of all LLU lines by Q4 2009.

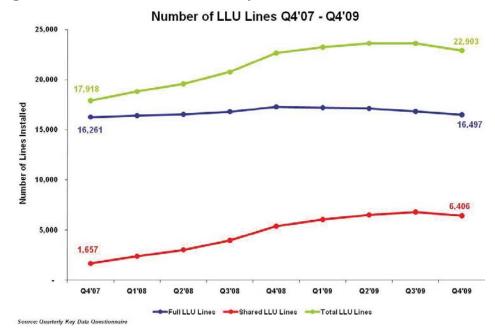


Figure 3.2.2 - Number of Local Loops Unbundled

<sup>15</sup> Full LLU and shared LLU are two ways a copper loop may be unbundled. While full LLU assigns the entire copper loop to the leasing operator, shared LLU enables other operators and the incumbent to share the same line. With shared access consumers can acquire voice and data services from an operator or alternatively data services alone while retaining the voice services of the incumbent.

<sup>16</sup> Decision D4/09 available at http://www.comreg.ie/\_fileupload/publications/ComReg0966.pdf

<sup>17</sup> Response to Consultations and Final Decision: Local Loop Unbundling (LLU) and Sub-Loop Unbundling (SLU) Maximum Monthly Rental Charges available at http://www.comreg.ie/\_fileupload/publications/ComReg1010.pdf

## 3.3 Provision of Broadband Services

Figure 3.3.1 summarises the total number of broadband subscriptions at the end of the quarter by access technology. High Speed Downlink / Uplink Packet Access (HSDPA/HSUPA) provides mobile broadband access to a large number of Irish consumers. In order to fully reflect the range of broadband services available to customers in Ireland, ComReg began to include this data in its overview of the market in the Q2 2007<sup>18</sup> report.

At the end of December 2009, there were 1,443,350 broadband subscriptions in Ireland. This represents a growth rate of 6% in the number of subscriptions for this quarter and 20.3% growth since Q4 2008. FWA subscriptions continued to decline since peaking in Q1'08, falling by 3.4% in Q4 2009 (down 13.2% year-on-year). Mobile broadband showed the strongest growth this quarter (up 13.4%), followed by cable (up 9.7%).

Figure 3.3.1 – Broadband Subscriptions<sup>19</sup> and Growth Rates by Platform

Platform	Q4'09 Subs	Quarterly Growth Q3'09-Q4'09	Year-on-Year Growth Q4'08-Q4'09
DSL	714,016	+2.5%	+8.2%
Cable	150,910	+9.7%	+45.1%
FWA	102,894	-3.4%	-13.2%
Other <sup>20</sup>	8,561	-0.9%	-1.5%
Sub-Total	976,381	+2.8%	+9.6%
Mobile Broadband	466,969	+13.4%	+51.2%
Total	1,443,350	+6.0%	+20.3%

 $<sup>18\ \</sup>mbox{In Q2}$  2007 an estimate of 45,000 mobile broadband subscriptions was used.

<sup>19</sup> ComReg notes that the data provided in this section relates to active subscriptions reported by operators. It takes into account multiple active subscriptions to broadband offerings by individual subscribers.

<sup>20</sup> Other Broadband includes Satellite and Optical Fibre broadband subscriptions.

DSL remains the largest broadband access platform in terms of subscriptions. However its market share has fallen below 50% for the first time and as of Q4 2009 DSL accounts for 49.5% of all broadband subscriptions, a slight decrease from Q3 2009 (51.2%). Of the remaining 50.5% of broadband connections, mobile broadband accounts for 32.4%, cable has 10.5% of the market and FWA accounts for 7.1% of broadband subscriptions. Satellite and fibre broadband subscriptions account for 0.5% of the market. Figure 3.3.2 illustrates the split by type of broadband subscriptions in the Irish market since Q4 2007.

Broadband Subscriptions By Platform, Q4'07 - Q4'09 1,500,000 1,400,000 1,300,000 1,200,000 1,100,000 <u>8</u> 1,000,000 **Number of Subscripti** 900,000 116,461 800,000 8,454 121,84 700,000 600,000 500,000 400,000 714,016 696,641 679,578 687,870 660,025 633,536 611,594 300,000 586,989 549,594 200,000 100,000 Q4'07 Q1'08 Q2'08 Q3'08 Q4'08 Q1'09 Q2'09 Q3'09 Q4'09 Other incl Satellite and Fibre Source: Quarterly Key Data Question

Figure 3.3.2 - Broadband Subscriptions by Platform

Figure 3.3.3 shows the number of broadband net additions by platform for each quarter since Q4 2007. Although DSL remains the main means of broadband access to the internet, mobile broadband, a relatively newer broadband platform has been the largest contributor to new broadband growth in each quarter since Q1 2008. In total, there were 82,096 net additions to broadband this quarter, compared to 54,748 in Q3 2009. Q4 2009 saw the largest increase in broadband subscriptions over the last seven quarters (since the onset of the global recession).

Mobile broadband grew by 55,114 customers in Q4 2009, a 33% increase on the number of mobile broadband additions since the last quarter reflecting net additions more in line with Q1 2008. DSL added 17,375 subscriptions in Q4 2009, almost doubling the number of additions in Q3 2009. However, since Q4 2007, net quarterly DSL additions have declined by 59.1%.

Net additions to cable continued to increase this quarter reaching 13,309. FWA subscriptions declined by 3,625 in Q4 2009, while subscriptions in the "Other Broadband" category fell slightly this quarter by 77 subscriptions. As take up of broadband increases it is to be expected that net additions level off over time.

Figure 3.3.3 - Quarterly Broadband Net Additions

Broadband Net Additions Q4'07 - Q4'09

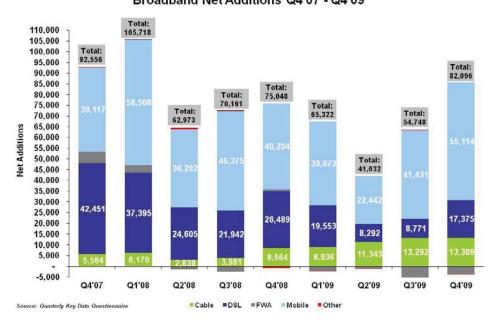


Figure 3.3.4 provides an estimate of the proportion of business and residential subscriptions to DSL, cable, fixed wireless, mobile broadband, fibre and satellite broadband services. At the end of December 2009, 81.5% of broadband subscriptions on all platforms were classed as residential broadband subscriptions, compared to 78.4% in Q4 2008. The platform with the highest percentage of residential subscriptions is cable broadband, while the satellite and fibre subscriptions (classified as "Other") have the highest percentage split of business customers.

Over the last two years, mobile broadband has seen a significant shift in its subscription type ratio. In Q4 2007 63.5% of all mobile broadband subscriptions were residential, while in Q4 2009 the residential market share of mobile broadband subscriptions was 81.2%.

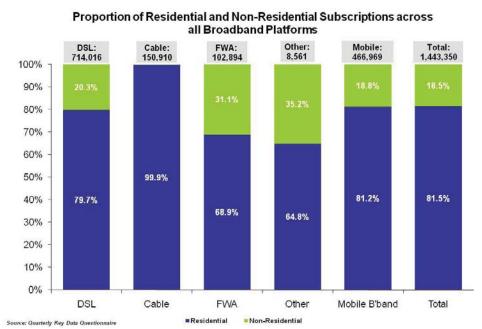


Figure 3.3.4 - Broadband Subscriptions by Subscription Type

Figure 3.3.5 illustrates the breakdown of broadband subscriptions by contracted speed across all broadband platforms. The trend of customers moving to higher speeds has continued in Q4 2009 with speeds of 2Mbps and upwards increasing at the expense of 144Kps to 1.99Mbps speeds. The data suggest that both residential and business users are more likely to subscribe to packages of between 2Mbps - 10Mbps. Many larger firms access their broadband services over leased lines. Leased lines are not included in these charts. Leased line speeds can range up to speeds in excess of 1 gigabyte per second.

Figure 3.3.5 – Broadband Subscriptions by Contracted Download Speeds and Subscription Type

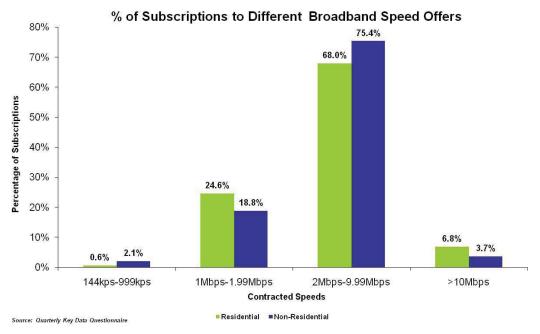


Figure 3.3.6 charts the shifting patterns in broadband subscriptions by contracted downloaded speeds. Since Q1 2008 subscriptions in the slower speed categories, 144kps-999kps and 1Mbps-1.99Mbps, have declined significantly. The percentage of subscriptions in the 1Mbps-1.99Mbps category has almost halved.

In the same period, subscriptions in the higher speed categories, 2Mbps-9.99Mbps and >10Mbps, have increased significantly. Almost 70% of all broadband subscriptions are now in the 2Mbps-9.99Mbps category, while just over 6% of all broadband subscriptions are in the >10Mbps category as of Q4 2009.

Total Broadband Subscriptions by Speed, Q1'08 - Q4'09 80% 69.7% 70% 60% 52.4% 50% 43.4% 40% 30% 23.3% 20% 10% 6.1% 3.9% 0.9% 0.3% 0% Q2'08 Q4'08 Q1'09 Q2'09 Q3'09 Q4'09 144kps-999kps -1Mbps-1.99Mbps 2Mbps-9.99Mbps

Figure 3.3.6 – Broadband Subscriptions by Contracted Download Speeds

Source: Quarterly Key Data Questionnaire

Figure 3.3.7 illustrates Eircom's market share of total broadband subscriptions (excluding mobile broadband subscriptions) when compared to other authorised operators' (OAO) share of overall broadband subscriptions, including DSL and alternative access technologies (which includes cable, FWA, satellite, and fibre broadband subscriptions). This quarter Eircom's market share was 50.3% for retail broadband subscriptions, which is similar to Eircom's share in Q4'07 (50.1%).

The remaining 49.7% share of subscriptions was held by operators on alternative broadband platforms which include cable broadband, fixed wireless, fibre, and satellite broadband subscriptions. A further breakdown of alternative broadband operators' market shares is not displayed this quarter given recent operator alliances and ownership changes. ComReg hopes to provide more detailed analysis of market share data in future reports.

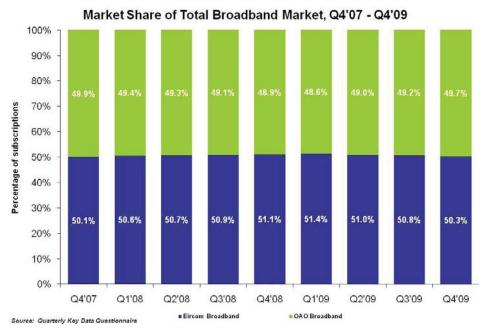


Figure 3.3.7 - Market Share of Total Broadband Market

#### 3.4 Broadband Penetration

In presenting broadband penetration benchmarks for European countries, ComReg uses the OECD, the European Competitive Telecoms Association (ECTA) or European Commission data where possible. ComReg will endeavour to publish this data on a quarterly basis as detailed in Figure 3.4.1. The data presented is based on the most recently published statistics at the time of publication.

Figure 3.4.1 - Broadband Data Sources

Source	Publish Date	Data Period as of	Included in ComReg Quarterly Report
ECTA	September 2010	March 2010	Q2′10
OECD	October 2010	June 2010	Q3′10
ECTA	March 2011	December 2010	Q4′10

The total number of broadband subscriptions in Ireland for Q4 2009 was 1,443,350. The broadband per capita penetration rate (including mobile broadband) in Q4 2009 was 32.4% compared to 30.5% in the last quarter. When mobile broadband is excluded, the penetration rate is 21.9%. These figures are based on a population of 4,459,300 from Central Statistics Office (CSO) data.<sup>21</sup> It should be noted that a broadband subscriber may have both a fixed and mobile broadband subscription and therefore, a broadband penetration rate based on both mobile and fixed subscriptions may overestimate the penetration rate through double counting of subscriptions.

Using only fixed broadband subscriptions, the broadband household penetration rate (there are 1,599,500 households in Ireland using CSO data) as of Q4 2009 is 61%, up slightly from 59.4% in Q3 2009.

Figure 3.4.2 provides an international comparison of household broadband penetration rates for EU27 countries as of Q3 2009. Based on this data from Informa (which uses a household figure of approximately 1.49 million), Ireland's household broadband penetration rate is 57.9%, just above the EU27 average of 55.5%. According to Informa's data, Ireland has experienced an increase of 28 percentage points between Q3 2006 and Q3 2009.

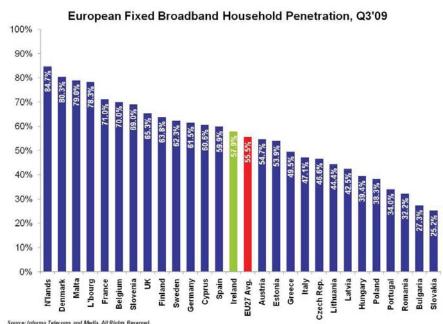


Figure 3.4.2 – European Broadband Household Penetration

Figure 3.4.3 illustrates fixed per capita penetration rates for EU27 countries as of Q3 2009 according to Informa data. Ireland's fixed penetration rate (21.9%) is below the EU27 average of 23.6%.

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Figure 3.4.3 – European Broadband Population Penetration

Source: Informa Telecoms and Media. All Rights Reserved.

#### 3.5 WiFi Broadband Access

ComReg provides data on the provision of public and private broadband services over WiFi as such access provides an alternative means of internet access for those users without internet access at home and/or a supplementary means of access for users who are away from their home or office. In addition new and more advanced devices such as the iPhone, as well as increased usage of mobile broadband dongles while consumers are on the move appear to be driving increased usage of WiFi hotspots. ComReg presents data on the WiFi market based on the number of WiFi hotspots and access points located nationally. Internet hotspots are typically public wireless access points where a computer, usually a laptop, or other portable device such as an iPhone can connect to the internet. A WiFi hotspot can be made up of one or more WiFi access points<sup>22</sup>.

WiFi hotspots tend to be found in airports, hotel lobbies and cafés and restaurants. In most cases, the user pays for high-speed internet access at an access point, based either on a vouchered payment for a specific amount of time online or a recurring monthly subscription. There are a number of providers of these services in Ireland including Bitbuzz, Eircom and BT Ireland.

While the number of WiFi hotspots has decreased by 5% since Q4 2008, the number of WiFi access points has increased by 8% over the same period. In Q4 2009 there were just over 20 million WiFi minutes of use in Ireland, a decrease of 3.4% from the previous quarter. This suggests that declines in businesses during the recession such as cafes and hotels have lead to a fall in hotspots while access points are increasing at certain locations.

Figure 3.5.1 - WiFi Hotspots, Access Points and Minutes of Use

	Q4 2009	Q3'09-Q4'09	Q4'08-Q4'09
		Growth	Growth
WiFi Hotspots	1,357	+11.6%	-5.0%
<b>WiFi Access Points</b>	3,561	+6.8%	+8.0%
WiFi Minutes of Use	20,327,785	-3.4%	+0.1%

<sup>22</sup> Hotspots are typically public locations at which broadband internet access can be obtained. At these hotspots, users with a computer (usually a laptop) can wirelessly connect to the internet either for free or on payment of a fee. Typical locations for such hotspots include cafes and restaurants, hotels and airports. In general terms, more than one access point can be found at a hotspot.

# **3.6 ADSL Pricing Data**<sup>23</sup>

In this report broadband tariff baskets have been supplied by Teligen using their T-Connect product. In order to ensure that services can be adequately compared, the benchmarking model prices a range of DSL and cable services based on defined usage of 30 hours per month, with each session assumed to last for 30 minutes for residential consumers and 100 hours per month, 60 minute average session for business consumers.

While broadband is an always-on product, the assumption of an average user profile ensures that packages are comparable across countries. It further assumes a download usage of 5 Gigabytes every month for each service for residential consumers and 20 Gigabytes every month for business consumers. Upload and download speeds (based on contracted speeds) are also analysed.

The data presented in the following charts illustrates the cheapest product available in each country from the two biggest fixed line DSL operators (by market share i.e. Eircom and Vodafone at Home) $^{24}$  under these usage assumptions and the incumbent for cable offerings (i.e. UPC for Ireland). These packages are based on advertised download speeds. The charts below represent speed categories of 1-4 Mbps in the residential market, all residential speeds and 4-10 Mbps in the business market. More specific details on the upload and download speeds for each of the analysed products are included in the chart.

The speed categories were chosen for these operators across all benchmarked countries to ensure that a meaningful comparison can be made between packages in terms of contracted speeds offered. Operators' broadband packages are compared on the assumption that their products should be available nationally.

Further information on the composition of the broadband basket can be found in the Explanatory Memorandum which accompanies this report<sup>25</sup>.

<sup>23</sup> This section does not include broadband tariff packages that are offered as special promotions. All residential tariffs are inclusive of VAT but all business tariffs are exclusive of VAT. VAT rates vary between Member States.

<sup>24</sup> It should be noted that the majority of BT Ireland's DSL customers were transferred to Vodafone Ireland in September 2009.

<sup>25</sup> ComReg Document 10/19a

The lowest monthly residential DSL & cable baskets for the 1-4 Mbps speed category are charted in figure 3.6.1. Ireland ranks in  $13^{th}$  place among this group of 24 European countries. Ireland is two places ahead of, and 11% cheaper than, the European average. The pricing for Ireland is based on UPC's Broadband Value package.

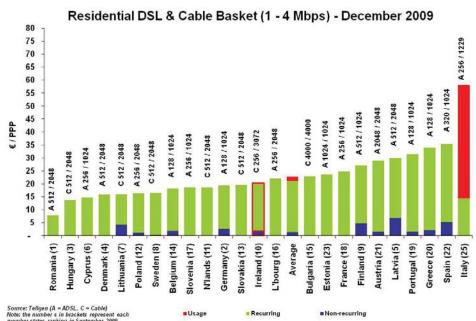


Figure 3.6.1 - Lowest Monthly Rental Residential DSL & Cable Basket (1-4 Mbps)

The lowest monthly residential DSL & cable baskets for all speeds are charted in figure 3.6.2. Ireland ranks in 18<sup>th</sup> place in this group of 27 European countries, above the European average, and 7% more expensive than the European average. The pricing for Ireland is based on UPC's Broadband Value package.

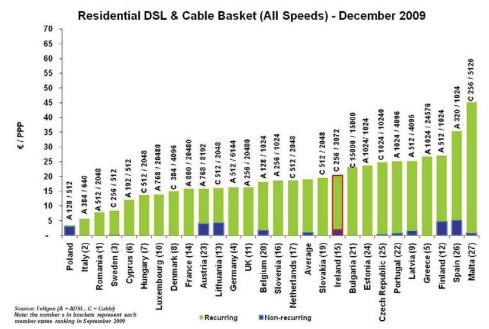


Figure 3.6.2 - Lowest Monthly Rental Residential DSL & Cable Basket (All Speeds)

The lowest monthly business DSL and cable basket for the 4-10 Mbps speed category is charted in figure 3.6.3. Ireland ranks in  $11^{th}$  place when the results for this group of 25 European countries are compared. Ireland is nine places ahead of, and 35% cheaper than, the European average. The pricing for Ireland is based on Vodafone's Business 8Mb package over DSL.

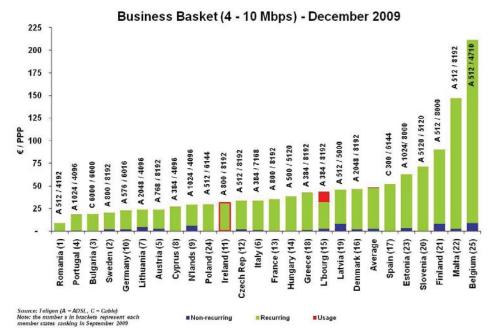


Figure 3.6.3 - Lowest Monthly Business DSL and Cable Basket (4-10Mbps)

#### 4. Mobile Market Data

### 4.1 Number of Subscriptions and Penetration Rate

At the end of December 2009 there were 5,302,345 mobile subscriptions in Ireland. It should be noted that Tesco mobile subscription data has been removed from Q3 and Q4 2009 as it is commercially sensitive. Mobile broadband subscriptions are included in this figure. If mobile broadband subscriptions (466,969 this quarter compared to 411,855 in Q3 2009) are excluded, the total number of mobile subscriptions in Ireland was 4,835,376. Mobile subscriptions including mobile broadband increased by 1.5% this quarter (1.0% decrease year on year) and mobile subscriptions excluding mobile broadband grew by just 0.5% this quarter (4.2% decrease year on year). Please note that mobile subscriptions in Q4 2009 and previous quarters are not strictly comparable as the definition of mobile subscriptions has been amended for the period Q2 2009. <sup>26</sup> A historical plot is provided below in Figure 4.1.1.

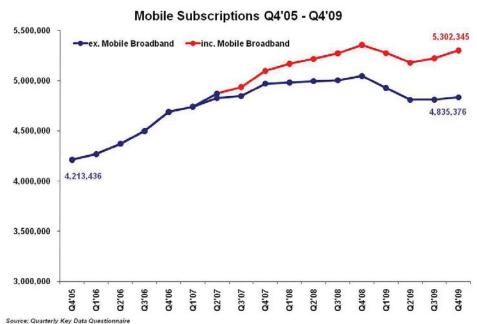


Figure 4.1.1 – Mobile Subscriptions

26 The mobile pre-paid subscription deifntion was amended to include active SIMs only on the basis of subscription to a pre-paid tariff plan and/or whether an event was made that decrements a subscriber's balance in the previous 90 days.

Figure 4.1.2 illustrates the growth in mobile penetration since Q4 2005 and shows that at the end of December 2009, mobile penetration, based on a population of 4,459,300 (using a CSO April 2009 estimate), was 118.9% including mobile broadband and 108.4% excluding mobile broadband. Mobile penetration is recognised as the standard metric internationally to measure the adoption of mobile services, and is calculated based on the number of active SIM cards per 100 of the population.

Given that some mobile users may have used more than one active SIM card during the period, there is likely to be some over-estimation of actual individual mobile penetration using this metric. ComReg's calculation of mobile subscriptions includes active SIMs bundled with mobile broadband datacards and USB modems for internet access via laptops/PCs as well as SIM cards used in mobile phones for voice and data services.

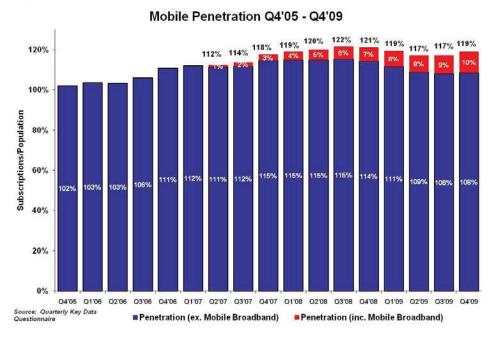


Figure 4.1.2 - Irish Mobile Penetration Rate

Figure 4.1.3 illustrates the estimated national mobile penetration rates across sixteen European countries, including Ireland, as of December 2009. Ireland (118.9%) is behind the EU average of 126.2%.<sup>27</sup> Greece, Portugal and Italy continue to remain the three European countries with the highest mobile penetration while France, according to Yankee Group data, remains below all other countries benchmarked with a 93.1% penetration rate.<sup>28</sup> There has been an increase of less than 1% in the penetration rate among the average of this group of countries since last quarter, indicating market saturation.

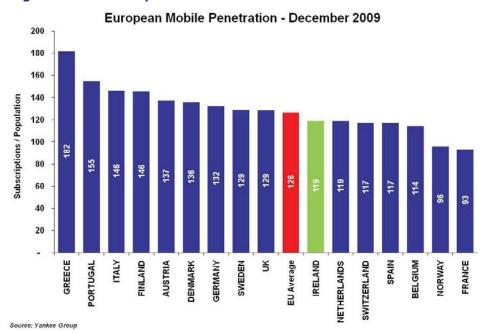


Figure 4.1.3 – European Mobile Penetration Rates

<sup>27</sup> Irish data sourced from ComReg includes mobile broadband subscriptions. Not all countries in this chart may include mobile broadband subscriptions

<sup>28</sup> The penetration rate for Greece may be inflated due to a high level of inactive pre-paid subscriptions reported in the market.

### 4.2 The Profile of Mobile Subscriptions in Ireland

Mobile users pay for their mobile service by either purchasing pre-paid credit, or by receiving a monthly bill from their mobile operator, described in this report as a post-paid payment option. Figure 4.2.1 illustrates the mobile subscription base (including HSDPA) in Ireland classified by the proportion of pre-paid and post-paid subscriptions on both 2G and 3G networks at the end of December 2009<sup>29</sup>.

There has been a continual shift towards post-paid subscriptions from pre-paid over the last two years, driven primarily by take-up of mobile broadband subscriptions. At the end of December 2009 32.5% of subscriptions were post-paid compared to 25.7% in December 2007.

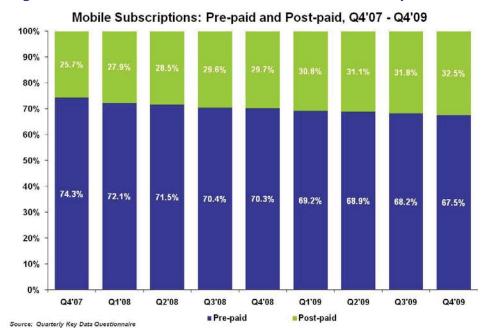


Figure 4.2.1 - Profile of Pre-Paid and Post-Paid Subscriptions

29 Mobile broadband subscriptions (HSDPA) are included only from Q1 2008 in this chart.

ComReg 10/19

Figure 4.2.2 shows the proportion of post-paid and pre-paid mobile subscriptions for 17 EU countries, as of December 2009. According to data supplied by Informa, Ireland had the fifth highest proportion of pre-paid subscriptions among the 17 countries by December 2009. 31.5% of all mobile subscriptions in Ireland were post-paid compared to an average of 48.8%. Finland has a very high proportion of post-paid subscriptions at over 95% in contrast to Malta which has the lowest proportion of post-paid subscriptions (15.5%) among the 17 countries.

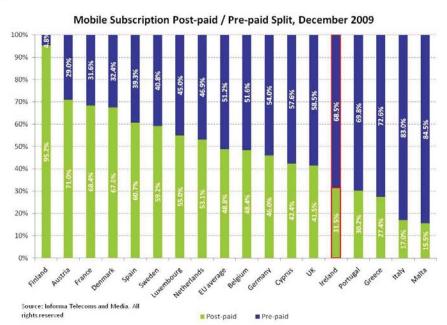


Figure 4.2.2 – EU Pre-paid and Post-paid Split, December 2009

Figure 4.2.3 shows the pre-paid and post-paid subscription profile for each of the mobile operators in the Irish market (mobile broadband subscriptions are included). As of Q4 2009, 66.5% of Vodafone's subscriptions are pre-paid. O2 has 59.6% pre-paid subscriptions, while Meteor has 85.7% pre-paid subscriptions. 3's subscription base is 58.6% pre-paid and 41.4% post-paid. Tesco Mobile's entire subscription base is pre-paid. In absolute numbers of subscriptions, O2 has the largest number of post-paid subscriptions, followed by Vodafone, 3, Meteor.

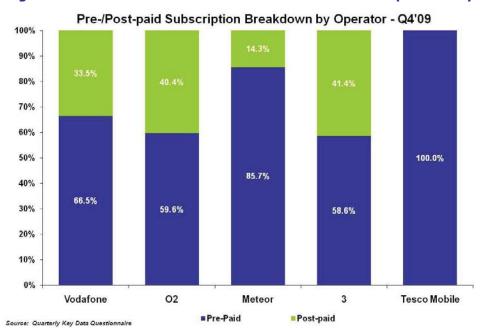


Figure 4.2.3 - Profile of Pre-Paid and Post-Paid Subscriptions - by Operator

Figure 4.2.4 shows the split between pre-paid and post-paid in terms of mobile broadband subscriptions for Q3 and Q4 2009. Vodafone, O2, Meteor and 3 all offer mobile broadband packages. Just over 83% of all mobile broadband subscriptions were post-paid as at the end of December 2009 compared to 87% the previous quarter. This reflects increases in mobile broadband pre-paid subscriptions across all mobile broadband operators.

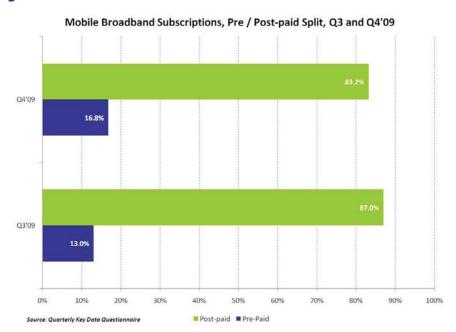


Figure 4.2.4 - Profile of Pre-Paid and Post-Paid Mobile Broadband Subscriptions

Figure 4.2.5 shows the proportion of 2G and 3G mobile subscriptions<sup>30</sup> among 17 EU countries in December 2009.  $^{31}$  According to Informa data, 30% of Ireland's mobile subscriptions are 3G. This is in line with the EU17 average of 30.1%. Finland, with 71.8%, has the largest proportion of 3G-based subscriptions while Cyprus has the lowest proportion (4.5%).

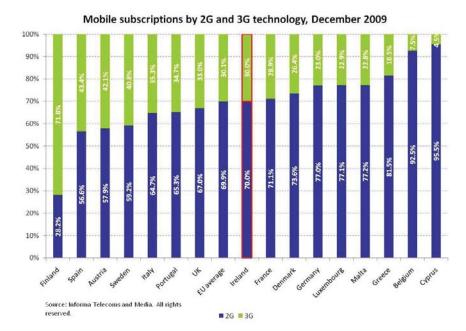


Figure 4.2.5 - Mobile subscriptions by 2G and 3G technology, December 2009

<sup>30</sup> Based on active SIM connections. Where there are CDMA operators it refers to active SIM cards and then active devices with active subscriptions as CDMA operators do not use SII cards

 $<sup>31\</sup> _{2G}$  refers to GSM, and 3G refers to CDMA and W-CDMA technology.

#### 4.3 Mobile Volumes

Figure 4.3.1 illustrates the growth in voice minutes, SMS, and MMS (Multimedia Messaging Service) messages sent over mobile networks since Q4 2007. Total retail mobile voice traffic totalled over 2.61 billion minutes in Q4 2009, an increase of 3.3% on the previous quarter and an increase of 4.7% since Q1 2009. It should be noted that prior to Q1 2009 some mobile data minutes were included under mobile advanced minutes. As these volumes are not based on voice calls, they were stripped out in Q1 2009 and therefore, have a downward impact on overall mobile voice traffic. The total number of SMS messages sent by mobile users in Ireland totalled over 3 billion in Q4 2009, up 7.2% on the previous quarter and 10.5% since Q4 2008.

If the total volume of text messages is averaged over all active subscriptions, an average of 193 SMS messages was sent per subscription per month in Q4 2009, compared with 183 in the same period last year. The number of multimedia messages (MMS) sent declined for the third quarter in a row by 8.5%. There were just over 12.5 million MMS messages sent during Q4 2009.

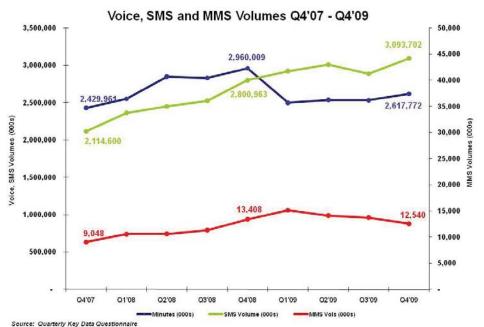


Figure 4.3.1 - SMS, MMS and Call Minute Volumes

#### 4.4 Mobile Revenues

Figure 4.4.1 shows that mobile retail revenues for the quarter were almost €435 million, a drop of 2.4% since Q2 2009 and down 15.8% since the same period last year. This fall can be explained in part due to amendments by ComReg to the mobile revenue definitions, in particular the definition of handset sales revenues, as well as the downturn in the global economy. The definition for handset sale revenues was changed in Q2 2009 from a gross revenue to a net revenue basis, that is handset and device discounts and subsidies are now excluded from the revenue calculation. Data revenues<sup>32</sup> were over €106 million in Q4 2009 (up 1% since the last quarter) with the remaining €328 million (down 3.5% since Q3 2009) comprised of voice and other revenues.<sup>33</sup>

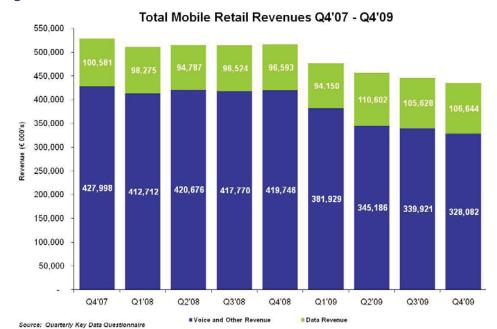


Figure 4.4.1 - Total Mobile Retail Revenues

<sup>32</sup> Messaging revenues (SMS and MMS) and mobile broadband and mobile internet services revenues.

<sup>33</sup> Please note that since Q2'09 the voice and other category revenues includes voice call revenues and net handset sales revenues, connection and rental charges, premium rate SMS and MMS revenues, roaming SMS, MMS and data revenues. Handset sales revenues prior to Q2'09 were reported on a gross revenue basis.

Figure 4.4.2 outlines the percentage of mobile revenues attributable to all data revenues in the Irish market compared to fifteen other European countries. This benchmarking data is calculated independently by the Yankee Group, and includes data revenues not only from SMS and MMS messaging, but also data revenues from GPRS data services and 3G/mobile broadband data services.

Ireland ranks eighth (same as last quarter) in comparison to other European countries in terms of the level of mobile data revenues as a percentage of overall mobile revenues. Almost all countries, including Ireland, saw data revenues' percentage of total revenues increase this quarter. In Q4 2009, 26.4% (compared to 25.2% in the previous quarter) of total mobile revenues was contributed by data revenues in Ireland, according to the Yankee Group data.

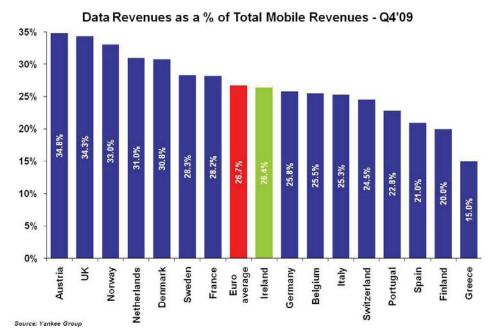


Figure 4.4.2 - Data Revenues as % of Total Mobile Revenue

Figure 4.4.3 compares ARPU (average revenue per user) per month across sixteen European countries  $^{34}$ , including Ireland. Average revenue per user is an indication of average monthly revenue generated by mobile subscriptions in each country. While overall retail mobile revenues obtained from operators include handset sales revenues, the ARPU figures in this report do not incorporate handset sales revenues. Mobile ARPU in Ireland is estimated at  $\le 37.2$  per month. The EU average ARPU is  $\le 22.7$  according to Yankee Group data down 6.5% on Q3'09 and 11.8% on Q4'08.

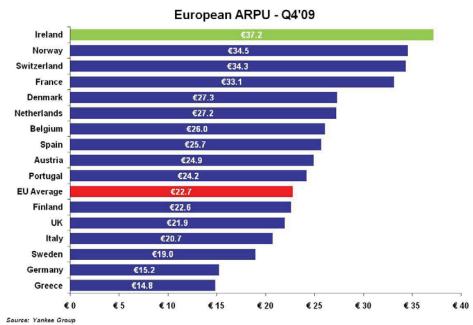


Figure 4.4.3 – European Comparison of ARPU

<sup>34</sup> 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 includes all EU-15 countries except Luxembourg where no data was available.

### 4.5 Average Minutes of Use

Mobile monthly ARPU is a function of both the price of mobile services and the level of usage of mobile services. The most frequently used metric to determine levels of mobile telephony usage is monthly minutes of use. ComReg has collected monthly minutes of use data from all operators in the Irish market since Q1 2007. Further information on the definition and calculation of average minutes of use by ComReg is detailed in the explanatory memorandum which accompanies this report.<sup>35</sup>

The average minutes of use in Ireland for Q4 2009 were 231 minutes per month, a 2.4% increase on usage since the previous quarter. While Ireland has experienced the strongest growth this quarter Spain has experienced the biggest decline this quarter (-1.6%).

Figure 4.5.1 - Minutes of Use

Country	MoU Q4'09	MoU Q3'09	Quarterly Change Q3'09 – Q4'09
France	249.4	251.3	-0.7%
Ireland	231.0	225.7	2.4%
UK	177.7	177.7	0.0%
Spain	157.0	159.6	-1.6%
Italy	136.5	136.8	-0.2%
Portugal	124.8	124.3	0.4%
Germany	105.8	104.4	1.4%

<sup>35</sup> ComReg Document 10/19a

Figure 4.5.2 plots the annual percentage change in Average Revenue per User (ARPU) against Minutes of Use (MOU) for the seven countries listed in figure  $4.5.1^{36}$ . All countries have experienced a decline in ARPU over the last year in more difficult operating conditions. According to Yankee Group data, Ireland experienced the biggest declines in ARPU and MOU (-9.1% and -4%) among these countries.

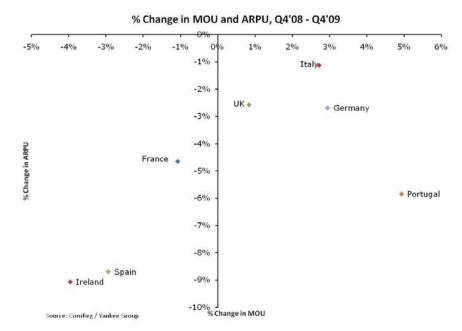


Figure 4.5.2 – Annual Change in European ARPU and MOU

36 Data was only available for Ireland, France, Spain, UK, Germany, Italy, and Portugal.

#### 4.6 Competition in the Mobile Market

Figures 4.6.1 and 4.6.2 outline mobile market shares based on the number of active subscriptions reported by each operator. Figure 4.6.1 includes mobile broadband since Q3 2007 while figure 4.6.2 excludes mobile broadband. It should be noted that while 3's market share is presented as a percentage of all market subscriptions in Ireland, 3 operates only in the 3G sector. While Tesco Mobile is not included in figures 4.6.1 and 4.6.2, as of Q3 2009, Eircom Mobile subscriptions are now being reported within Meteor's data. Vodafone's market share, (38.5% if mobile broadband is included and 39.6% if mobile broadband is excluded), has declined quarter on quarter over the last two years including and excluding mobile broadband. However changes to the definitions of active mobile subscriptions in Q2 2009 accounted for a large part of Vodafone's decline. O2's market shares (32.3% if mobile broadband is included and 32.8% if mobile broadband is excluded), saw a slight decrease this quarter. Meteor accounts for 20.5% of the total active mobile subscription base in Ireland including mobile broadband and 21.8% excluding mobile broadband. 3 has a market share of 8.7% including mobile broadband and 5.8% excluding mobile broadband. Meteor and 3 now account for 29.2% of the market including mobile broadband and 27.6% excluding mobile broadband.

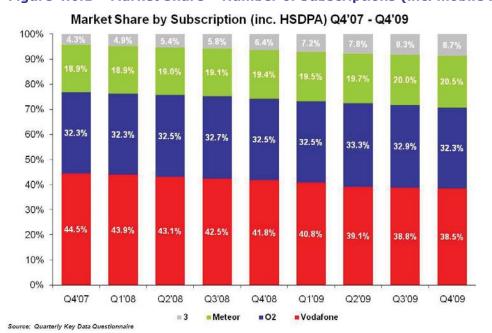


Figure 4.6.1 – Market Share – Number of Subscriptions (inc. mobile broadband)

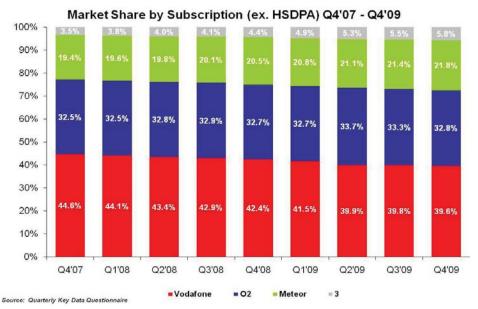


Figure 4.6.2 - Market Share - Number of Subscriptions (ex. mobile broadband)

Figure 4.6.3 shows the Herfindahl-Hirschmann Index (HHI) for the mobile market in 17 EU countries based on mobile subscription market shares in December 2009. The HHI is a measure of market concentration which takes into account the relative size and distribution of firms in the market. The HHI increases as the number of firms in the market decreases and the difference in size between those firms increases. Using Informa market share data, Finland has the most concentrated market among the 17 countries while the UK has the lowest concentration. Ireland has the sixth lowest concentrated market and has a less concentrated market than the average.

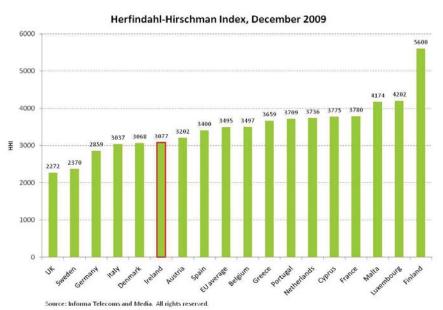


Figure 4.6.3 - European Mobile Operators' HHI, December 2009

Figure 4.6.4 provides an analysis of market shares by revenue for mobile operators in the Irish market. Tesco Mobile is not included in this chart while Eircom Mobile data is now reported within Meteor. Vodafone and Meteors' market shares increased slightly once again this quarter to 43.3% and 19% respectively, while O2 and 3s' market shares declined by 1.1 and 0.1 percentage points to 33.8% and 3.9% respectively.

Market Share by Revenue Q4'07 - Q4'09 100% 90% 80% 70% 36.2% 37.8% 37.0% 36.9% 36.9% 60% 35.5% 34.9% 33.8% 50% 40% 30% 43.2% 42.6% 42.6% 42.6% 43.3% 20% 10% 0% Q2'08 Q4'08 Q1'09 Q4'07 Q3'08 Q2'09 Q3'09 Q4'09 Q1'08

**02** 

Meteor

■ Vodafone

Figure 4.6.4 - Revenue Market Share

Source: Quarterly Key Data Questionnaire

### 4.7 Switching in the Mobile Market

Figure 4.7.1 illustrates the cumulative total of mobile numbers ported between Irish mobile operators since the launch of Mobile Number Portability (MNP) in June 2003. MNP allows consumers to switch mobile operator while retaining their mobile number.

Just over 1.84 million numbers have been ported since June 2003, an increase of 5.3% since Q3 2009 and an increase of 24% since the same quarter last year. In the quarter to December 2009 92,207 numbers were ported between operators (357,453 numbers in the 12 months to December 2009). Over the last 12 months an average of 89,363 numbers has been ported each quarter.

**Mobile Numbers Ported December 2009** 2,000,000 110,000 1.844.422 100,000 1,800,000 90,000 1,600,000 80,000 1,400,000 70,000 1,200,000 **Quarterly Ports** 60,000 1,000,000 50,000 800,000 40,000 600,000 30,000 400,000 20,000 200,000 10,000

Figure 4.7.1 - Cumulative Mobile Numbers Ported

Source: Quarterly Key Data Questionnaire

# 4.8 Mobile Pricing Data<sup>37</sup>

The Teligen mobile baskets presented in this Quarterly Report are based on an OECD-approved methodology using assumptions around specific usage levels for low, medium and high contract and pre-paid subscription packages. They are calculated and analysed independently by Teligen, using an OECD methodology which includes PPPs (Purchasing Power Parities) to reflect the real cost of mobile services compared to all other costs 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 services.<sup>38</sup> It should be noted that this data is based only on the two biggest providers in each market so cheaper packages may be available from other operators in each market.

# 4.8.1 Low User Post Paid Mobile Basket<sup>39</sup>

Ireland has improved by one place and ranks  $8^{th}$  out of the 19 European countries benchmarked for the low user post-paid basket. Ireland is now one place ahead of the EU19 average for this basket, and is 1.2% cheaper than the EU average. The Irish package used this quarter is O2's "Clear 50".

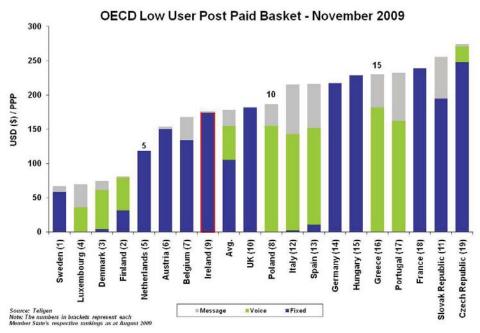


Figure 4.8.1.1 - OECD Low User Post Paid Mobile Basket

<sup>37</sup> 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). Teligen's 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.

<sup>38</sup> It should be noted that most packages offering 3G services cover both 2G and 3G services. Data services (3G) and video calls are now included in the calculation of these packages.

<sup>39</sup> All tariffs are inclusive of VAT, rates will vary between Member States

### 4.8.2 Medium User Post Paid Mobile Basket

Ireland has improved by 2 places this quarter moving from 10<sup>th</sup> to 8<sup>th</sup> place in the medium user post paid mobile basket. The package used for Ireland this quarter is Vodafone's "Simply 30 day SIM only". Ireland ranks one place ahead of the EU19 average, and is approximately 20% less expensive than the average.

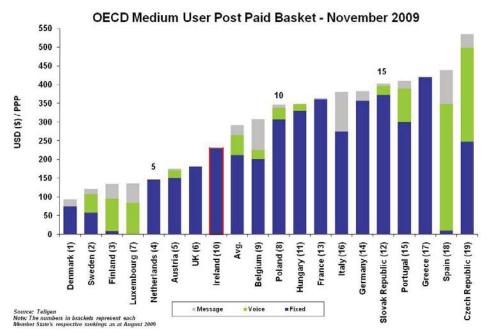


Figure 4.8.2.1 - OECD Medium User Post Paid Mobile Basket

# 4.8.3 High User Post Paid Mobile Basket

In the High-User Post-Paid basket, Ireland ranks in 8<sup>th</sup> place among the 19 European countries, an improvement of four places since last quarter. The Irish package represented in the basket this quarter is Vodafone's "Simply 30 day SIM only". Ireland is approximately 35% less expensive than the average of the 19 countries benchmarked.

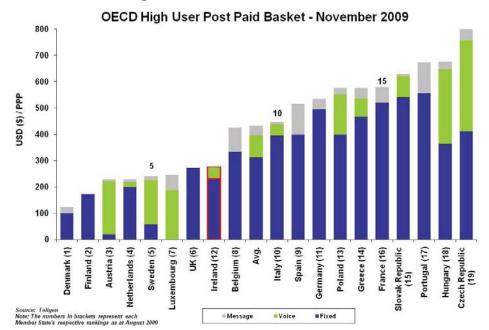


Figure 4.8.3.1 - OECD High User Post Paid Mobile Basket

### 4.8.4 Pre-Paid Mobile Basket<sup>40</sup>

For the pre-paid mobile basket, Ireland has fallen to 13<sup>th</sup> position among the EU19 countries in this quarter's rankings. The package used for Ireland in this basket is Vodafone's "Advantage". Among the 19 European countries charted, Denmark, Finland and Sweden remain the three countries with the cheapest pre-paid offering. The cost of this basket in Ireland is approximately 16% more expensive than the average.

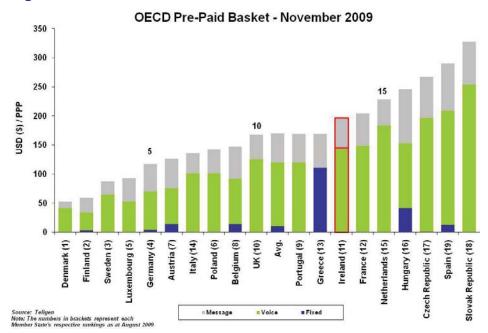


Figure 4.8.4.1 - OECD Pre-Paid Mobile Basket

<sup>40</sup> 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.

## 5. Broadcasting

### 5.1 Overall Broadcasting Market

This quarter data from the Nielsen TV Audience Measurement Establishment Survey is used for the broadcasting analysis in this report and ComReg intends to use this data in future reports to provide a comprehensive view of TV transmission in Ireland. <sup>41</sup> The survey indicates that there are approximately 1,580,000 TV homes in Ireland which represents a 97% penetration rate of all households using the CSO's Quarterly National Household Survey of 1,627,000 households in Q2 2009.

Figure 5.1.1 shows total TV homes by reception type between May 2009 and January 2010. Homes which receive terrestrial TV channels only have declined by almost 10% between May 2009 and January 2010. While multi terrestrial TV homes and analogue cable/satellite TV homes declined over the period, multi total TV homes increased by 1.6% due to increases in digital cable/satellite TV homes.<sup>42</sup>

Figure 5.1.1 - TV Homes by Reception Type

	January 2010	May 2009	January2010 as	% Change
			a % of Total TV	May 09 – Jan 10
			Homes	
Reception	(000s)	(000s)		
Irish Terrestrial	202	224	12.8%	-9.8%
Multi Total	1378	1356	87.2%	+1.6%
Multi Terrestrial	150	183	9.5%	-18.0%
Cable/Sat	248	275	15.7%	-9.8%
Analogue				
Cable/Sat Digital	980	898	62.0%	+9.1%
Total Cable/Sat	1228	1173	77.7%	+4.7%
Total TV Homes	1580	1580		

**RECEPTION:** This is determined by the channels the home receives.

**Multi Total:** Made up of Multi Terrestrial homes plus Cable/Satellite homes and is therefore any home which receives more than just the four Irish terrestrial channels (RTÉ1, RTÉ2, TV3, TG4).

Irish Terrestrial Homes which only receive the four Irish terrestrial channels (RTÉ1, RTÉ2, TV3, TG4).

**Multi Terrestrial:** Homes which receive at least one of the UK channels (BBC, UTV, Channel 4, HTV, S4C, Channel 5), but do not receive any Cable/Satellite channels.

**Cable/Satellite:** Homes which receive any Cable/Satellite channels (Sky One, Sky News, Sports channels, MTV, E4, Movie channels, etc.).

Digital: Have digital reception either via dish or cable service.

Source: Nielsen TV Audience Measurement Establishment Survey on behalf of TAM Ireland

<sup>41</sup> The Establishment Survey is a TV audience measurement survey produced by AGB Nielsen Media Research (fieldwork is carried out by Amárach Research) on behalf of Television Audience Measurement Ireland Ltd (a TV ratings body). The data used in this report summarises the results of the Establishment Survey (using face to face interviews) conducted during the months of January 2009, May 2009 and Septemebr 2009. The data used therefore is based on a combination of 3 surveys (with a total sample size of 4,459), one carried out on each date mentioned above. The Establishment Survey covers areas such as ownership of TV related equipment, method of TV reception and demographcis of TV household individuals such as age etc.

<sup>42</sup> MMDS (Multichannel Multipoint Distribution Service) is included under cable/satellite. MMDS is a wireless telecommunications technology, used as an alternative method of cable television programming reception. MMDS is usually used in sparsely populated rural areas, where laying cables is not economically viable.

Figure 5.1.2 charts TV homes by reception method<sup>43</sup> from May 2009 to January 2010. While cable/satellite reception methods have been increasing over the period, aerial reception methods have been declining. Digital TV reception has increased by five percentage points between May 2009 and January 2010.

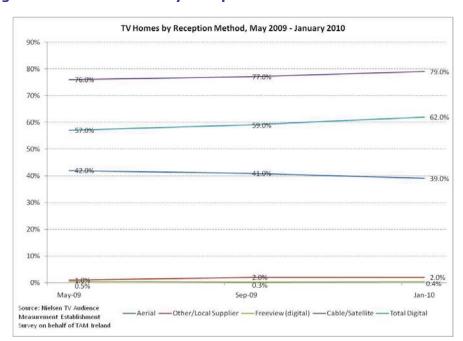


Figure 5.1.2 - TV Homes by Reception Method

<sup>43</sup> This is determined by the method by which the homes receive their channels. Each home can have more than one method of reception. e.g. aerial and cable or digital satellite, digital satellite and cable, etc. The question is asked for their main and up to 9 TV sets. For this reason, the total for the reception methods adds up to more than 100%.

Figure 5.1.3 shows that the total number of TV homes declined between November 2009 and January 2010 in line with declines in the number of total household numbers. Despite this, the number of digital TV homes has continued to increase over the period.

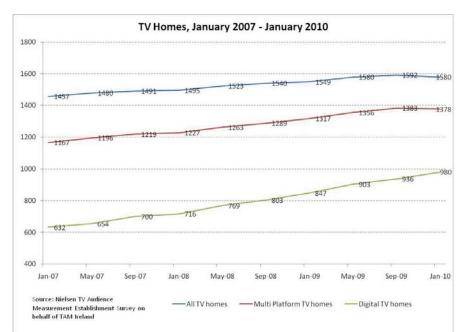


Figure 5.1.3 - TV Homes January 2007 - January 2010

Figure 5.1.4 shows TV homes by DVD, broadband access, game console and PVR $^{44}$  ownership between May 2008 and January 2010. DVD and games console ownership has remained relatively steady over the period while broadband access and PVR ownership have been increasing over the period.

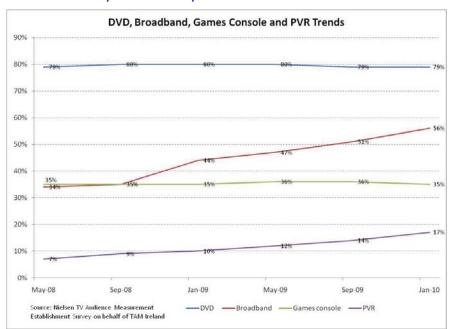


Figure 5.1.4 - DVD, Broadband, Games Console and PVR Trends

<sup>44</sup> A PVR is an electronic device used to record media digitally. The PVR is also known as the digital video recorder or DVR. A PVR records and plays back television programmes, but, unlike the VCR, it stores the programs in digital rather than analogue format, for example, SKY+Box, or NTL Digital Video Recorder.

## 5.2 International Television Data

Figure 5.2.1 shows the penetration of digital TV households across the EU17 countries based on data from the European Audiovisual Observatory who use a TV household number of 1.546 million for Ireland. Ireland has a digital TV penetration rate of 58% just behind the 17 EU country average of 59%. Finland and Luxembourg are both among the most advanced countries in Europe for digital TV. In Finland the digital transition began in September 2007 with the switch off of analogue terrestrial transmission followed by the conversion of cable networks in 2008. In Luxembourg, TV services are mostly privately provided with the digitisation of cable networks in 2006 representing the main element of digital switchover.

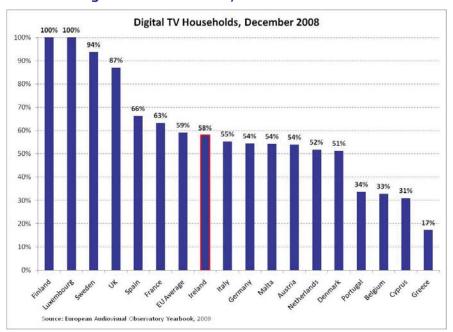


Figure 5.2.1 - Digital TV Households, December 2008

#### 6. Online Social Networks: The Ins and Outs

#### 6.1 What is an Online Social Network?

An online social network service can loosely be described as a service which provides an internet user with the platform to build, develop and maintain social relationships. The user is represented by a user profile and may be provided with ancillary services such as voice and instant messaging by the social network service. Some social network websites focus on particular interests while others are more generalist in nature.

Figure 6.1.1 – Online Social Networks<sup>45</sup>



## 6.2 Where do Online Social Network's Origin's Lie?

There were early efforts to support social network type services through the PC such as bulletin board services which allowed users to communicate through a system where they could access and download files and post messages to other users. Many were interest-specific and given relatively high charges for internet calls, many were local affairs confined to specific geographic locations. It was not until the 1990s when the internet reached mass popularity that such services expanded in the public domain. Early sites were in the form of online communities focusing on bringing people together to interact through chat rooms among other means, but it was in 1997 that the first social network site was launched in the form of SixDegrees.com.

SixDegrees.com was the first site to allow users to combine features of the social sites we know today by allowing user profiles; listing of friends and surfing of friend's lists. <sup>46</sup> However, it was not profitable and closed in 2000. It was 2002 before social network sites became mainstream in the form of Friendster, which although not as popular in the

 $<sup>45\,</sup>$  Google images – www.prometheus.net.au/research.htm

<sup>46</sup> Social Network Sites: Definition, History and Scholarship, Danah M. Boyd, University of California-Berkeley, Nicole B. Ellison, Michigan state University, 2007

West as it once was, remains popular in Asia. Many of the large social network sites we know today launched shortly after, including MySpace and LinkedIn in 2003, Facebook in 2004 and Bebo in 2005. A prerequisite for the increase in the popularity and use of social networks such as these have been declines in the price of computing equipment coupled with an increase in the availability, affordability and speed of internet connections which have enabled increased use of more data intensive services on these sites such as video, and photos etc.

## 6.3 Are there Different Online Social Network Types?

There are a range of social network sites available today from global sites to those with a regional focus, as well as sites focussed on a particular area or interest. Examples include, Bebo (general), GamerDNA (computer and video games), LibraryThing (book enthusiasts), Yammer (social networking for office colleagues), LinkedIn (career professionals), MySpace (focused on music and entertainment) and Twitter (lets users send and receive broadcast messages called tweets). Google has also recently announced a new social platform built directly into Gmail called Buzz which promises to provide users with an instant list of approved friends and to allow the integration of videos, photos and links with the ability to share information publicly or privately.

From an Irish specific perspective there are a number of social network sites in operation ranging from lonely.ie which is a social networking and online dating service to the Irish discussion forum, boards.ie, an Irish bulletin board site which offers web hosting, chat rooms and news group access.

The single largest player from a global perspective is Facebook. Facebook has over 400 million active users, with more than 100 million active users through mobile devices. Facebook doubled its US audience alone from 54.4 million visitors in December 2008 to 111.9 million in December 2009. It now accounts for 7% of all time spent online in the US. <sup>47</sup> In Ireland, the number of Facebook users doubled between January 2008 and January 2009 to over 400,000 and by August 2009 had reached over 900,000 active users. <sup>48</sup>

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<sup>47</sup> The ComScore Blog, January 21, 2010

<sup>48</sup> Mulley Communications http://mulley.ie/blog/2009/08/facebook-hits-900k-in-ireland/

The Yankee Group in their report *Social Networking*  $101^{49}$  describe six forms of business models for social networking.

- Broadcast model: This has the broadest appeal and is aimed at a general
  audience. The value of these sites is the information that is collected about
  users, which can be used to profile them, serving users with the information and
  advertising in which they are most interested.
- Niche model: This targets an audience only in one specific genre or interest area.
   Advertising as well as sponsorships can be beneficial to boosting the bottom line for revenue.
- Resellers of information model: For the audience these are created to share information on an issue or mutual interest, while for creators the information about users can be directly resold to those interested in this group. An example of this are social networking sites for professionals that in part support their business by allowing access to and reselling information related to recruitment to HR professionals. Users volunteer personal information for professional purposes, and share this information with others in their profession or direct colleagues.
- Affinity/Association model: Social networking sites that feature information on specific groups, or which link groups of users who have strong interest in an industry. Organisations purchase the social networking platform as a measure to reach out to their audience. Examples of this model include colleges that offer a social networking site for alumni or professional associations.
- Corporate, lead with brand as organizing principle model: The value of this site is
  engagement with a brand's prime audience. This engagement can be used as a
  focus group for products and services which fall under the brand name. Users
  expect that they should be able to respond both positively and negatively within
  a brands social network.
- Corporate, lead with idea as organizing principle model: This has been the more
  popular method for experimentation with the social networking model for
  corporate entities. For example Joga was created by Nike and Google for those
  interested in soccer. The value can include learning what the audience wants and
  needs and using that information to build products and services around this.

-

Yankee group, Social networking 101: How to Build a Platform and Business Model that Matters, December 2006

#### 6.4 How popular are Online Social Networks?

Social network sites are becoming an increasingly popular phenomenon among internet users. As of 2008 two thirds of the world's $^{50}$  internet population visited a social network or blogging site and usage accounts for almost 10% of all internet time. $^{51}$ 

According to research company Nielsen, global consumers spent more than five and a half hours on social network sites such as Facebook and Twitter in December 2009, an 82% increase from the same time last year when users were spending just over three hours on social network sites.<sup>52</sup>

Indeed, in an Irish context, a significant proportion (52%) of Irish internet users used the internet for social websites in the three months of Q4 2009.<sup>53</sup> Use of these sites is not just confined to the home. An online marketing agency, Simply Zesty, found that 33% of respondents stated that they spend more than 2 hours each day on social media at any location with 73% accessing social media through their mobile phone.<sup>54</sup>

Social networks are not just limited in popularity to younger age groups. While social networks started out among younger audiences, the audience is becoming broader and older. For example, Facebook started out as a service for university students, but now almost one third of its global audience is aged 35 – 49 years of age and almost one quarter is over 50 years old.<sup>55</sup>

According to the Economist, social networks have grown rapidly due to the 'network effect'. This is where the value of a service or product rises with the number of people who use it. <sup>56</sup> For example, LinkedIn which has 60 million members took 16 months to reach its first million but the most recent addition of five million users came in two months.

Those taking particular note of this trend are advertisers. Estimated online advertising spending on social network and blogging sites increased 199% from approximately \$49 million in August 2008 to approximately \$108 million in August 2009 according to Nielsen.<sup>57</sup>

<sup>50</sup> World encompasses USA, Brazil, UK, France, Germany, Italy, Spain, Switzerland and Australia)

<sup>51</sup> Nielsen, Global Faces and Networked Places, March 2009

<sup>52</sup> Nielsenwire, Led by Facebook, Twitter, Global Time spent on Social Media Sites up 82% Year on Year, January 22, 2010

<sup>53</sup> Millward Brown Lansdowne / ComReg, Consumer ICT Survey, Q4 2009

<sup>54</sup> http://www.simplyzesty.com/social-media/irish-social-media-survey-results/

<sup>55</sup> Nielsen, Global Faces and Networked Places, March 2009

<sup>56</sup> The Economist, January 30th – February 5th, 2010

<sup>57</sup> Nielsenwire, Social Networking and Blog sites Capture More Internet Time and Advertising, September 24, 2009

## 6.5 What are the Strengths and Opportunities of Online Social Networks?

There are a range of benefits from social networking online. Making friends is just one of these.

Small businesses are using networks to become more profitable by using services like Twitter to alert current and potential customers to services they are providing. These networks act as a free advertising platform affording smaller players a greater platform to advertise their wares in a way that bigger companies can afford to do.

Job hunters also use such networks to gather intelligence about prospective employers and recommendations. For recruiters advantages are that people visit them frequently and therefore they tend to be more up to date, which helps employers get a better feel for the candidate. The biggest attraction is likely to be that networks help firms cut costs through headhunting.

Many companies are organised into silos making information sharing more difficult and complex. Information sharing through social networks can help address this. Sharing information through such mechanisms in firms may help to reduce duplication and increase productivity if used correctly. Firms may also encourage employees to use such sites to present a more human face to their organisation.

These sites also act as tool for mass communication. They have become important tools for news and channels of influence. Twitter regularly scores headlines with real time updates on news events and activities of high profile users.<sup>58</sup>

While a key issue for social networks is the ability to derive a revenue stream from their audience, there has been some degree of monetary success to date.

In Asia for example, social networks are making profits from sales of games and virtual goods. In 2008 Tencent QQ reported revenues of just over \$1 billion with \$720m coming from sales of items and games. Digital gifts are another source of potential revenues as the cost of producing and storing virtual inventory is minimal. <sup>59</sup> Habbo, aimed at teenagers, draws 85% of its revenues from selling virtual goods with which users can personalise their areas within their social network world. Another business model that has proved lucrative involves charging users for premium services. LinkedIn charges users up to \$200 a month to access premium features. Informa cites Bebo as a

59 The Economist, January 30th - February 5th 2010

<sup>58</sup> The Economist, January 30th - February 5th 2010

successful example, as its TV programming has attracted product placement from advertisers.  $^{60}$ 

Social networks have also benefitted from search engines' desire to get their hands on more content. For example, Twitter has signed lucrative deals with Google and Microsoft's  $Binq.^{61}$ 

Social networks are a key medium for many young people and more and more companies are signing deals to bring content to that demographic via social channels. Facebook is working on partnerships with entertainment providers. TV production giant Endemol last year launched a game based on the popular TV programme "Deal or no Deal" live on its platform in the UK. It is free to play and is funded by advertising and sponsorship.<sup>62</sup>

Finally the development of applications for these sites is valuable to both social network companies and developers for a number of reasons. For the developer they are a low cost method of R&D. For the social networks the applications often involve some form of interaction that can keep consumers on a given social network for a longer period of time. A third benefit is that both developers and social networks can learn more about a user, growing the potential for distributing targeted advertising to that consumer. Doing so reduces sales and support costs while increasing the richness of the customer relationship. <sup>63</sup>

## 6.6 What are the Challenges for social networks?

A key issue for social networks is privacy. To attract users, sites need to offer ways for members to restrict the information about themselves that gets shared. But if a site allows members to keep too much data private, then there will be less traffic that can be turned into profit through advertising and other means.<sup>64</sup>

Concerns include: Are social media networks causing harm by allowing criminals easy access to minors? Are consumers using the web maliciously to gain access to private information? Are users giving up too much information to web companies? How much data are web companies collecting on users and how are they using it? Are web site

<sup>60</sup> Informa Telecoms and Media, Monetizing social media is no easy task, 20 June, 2008

<sup>61</sup> The Economist, January 30th - February 5th 2010

<sup>62</sup> Informa Telecoms and Media, Premium-content providers and social networks see benefits from partnerships, 29 January, 2010

<sup>63</sup> Yankee group, The Brief Wondrous Lives of Social Networks, July 2008

<sup>64</sup> The Economist, January 30th - February 5th 2010

profiles of individuals accurate or do people create fake pictures of themselves to mislead others or undertake criminal actions?<sup>65</sup>

But the biggest challenge that all social networks have faced to date has been how to monetize their audience. The strategy of online social networks has concentrated on increasing users rather than worrying about profits. The issue is whether they can come up with a successful advertising strategy from which to profit.<sup>66</sup>

Social networks have the potential to change the way consumers are targeted but the current level of advertising activity on social networks isn't aligned to the size of the audience. The social networks and advertising industry haven't yet found a successful model to make this happen. <sup>67</sup> News Corporation reported in May 2009 that advertising revenue at its Fox Interactive Media unit (which MySpace dominates) was down 16% yoy in Q109. <sup>68</sup>

This is not just a challenge for the content providers themselves but also for the telecoms network provider. Increasing popularity of these sites is putting more pressure on the network providers to upgrade their networks to cope with bandwidth intensive applications such as videos and photos, yet they derive little or no revenue streams from these content services.

Equally challenging is bringing brand advertisers to social networks, partly because they have targeted mass markets rather than niche markets.<sup>69</sup>

In a recent eMarketer survey 73% of advertisers said they would not advertise on social video, 39% wanted nothing to do with blogs and 27% were turned off by social media. Advertisers have to relinquish a significant degree of control in a social media environment and that can cause problems. Several brands withdrew from Facebook UK last year after their ads were featured on pages dedicated to a far right political party. Certain product categories may never be suitable for community based marketing. Advertisers also face a challenge to ensure that their advertising campaigns get to the entire social network audience as not all social network users may be active users.

<sup>65</sup> Yankee group, Redefining Risk and Opportunity for Web 2.0 and social Networks, October 2007

<sup>66</sup> The Economist, January 30th - February 5th 2010

<sup>67</sup> Nielsen, Global Faces and Networked Places, March 2009

<sup>68</sup> Informa, Social networking booms, but revenues stay flat, 4 June, 2009

<sup>69</sup> Yankee group, The Brief Wondrous Lives of Social Networks, July 2008

<sup>70</sup> Informa Telecoms and Media, Monetizing social media is no easy task, 20 June, 2008

Another concern is the effect that these sites have on employees at work. Morse, an IT company estimated personal use of social networks during the working day was costing the British economy almost £1.4 billion a year in lost productivity. In an Irish context online marketing agency, Simply Zesty, found that over 25% of respondents to their survey spend more than 2 hours a day on social networks while at work.  $^{72}$ 

### 6.7 What Does the Future Hold for Online Social Networks?

The consensus seems to be that accessing social networks over a mobile phone is and will become an increasingly prevalent phenomenon as it allows connections for those without internet access via a PC or laptop while also offering the flexibility of accessing social networks on the go. Facebook, for example, has over 100 million mobile users and states that they are twice more active on Facebook than non-mobile users.

Subscribers access social networks on their mobile through three primary means: by browsing over the mobile web, through downloaded applications and by SMS. In the Western world, UK mobile web users have the greatest propensity to visit a social network through their handset with 23% of them doing so compared to 19% in the US. More sophisticated mobile applications for handsets such as Apple's iPhone have the ability to play a substantial role in the expanding the mobile user base of these networks.<sup>73</sup>

Wire line service providers are also now trying to take advantage of the social networking trend. Because this trend of using mobile phones as input devices begins with younger people, wire line providers are integrating social networking into their video services. The Yankee Group believes social networking can play an important part in the future of IPTV and cable providers but it must be approached with caution. They suggest that social networking will first appear on TV as part of recommendation and search engines but full scale interaction with social networking via TV is still several years away. However, while the Yankee Group believes service providers will not generate significant new revenues with social networking via TV, they can use social networking to greatly enhance the user experience.<sup>74</sup>

Finally, as discussed earlier, social networks need advertisers to monetise their audience effectively. Advertisers need the networks as they have to go where consumers are spending more of their time. Though there has been some monetary success to date a

<sup>71</sup> The Economist, January 30th - February 5th 2010

<sup>72</sup> http://www.simplyzesty.com/social-media/irish-social-media-survey-results/

<sup>73</sup> Nielsen, Global Faces and Networked Places, March 2009

<sup>74</sup> Yankee group, Meet Me at the Intersection of TV and Web 2.0, March 2009

successful revenue generating model has yet to be fully established. In the current economic climate reductions in advertising spend might be expected to make this even more of a challenge. However, according to Nielsen, advertising spend on the main social networking sites has remained resilient.<sup>75</sup> Despite this, it is likely that it will take time to work out a successful advertising model for online social networks.

 $75\,$  Nielsenwire, Social Networking and Blog Sites Capture More Internet Time and Advertising, September 2009

# 7. Appendix

Aggregated SB-WLR Performance Statistics, as supplied by Eircom, are published in accordance with ComReg Decision Notice (07/61) Section 6.6 (vii).

# Performance metrics: Q4 2009

Oct-09

Order Type	% Orders Validated within Performance Target	% Orders Delivered within Performance Target
DR		98.46%
LE	-	99.61%
PW		98.54%
LNI/LTI/MI	-	95.90%
LNI/LTI/MI	-	98.24%
CL	-	99.81%
LNN/LTN/MN	99.11%	91.67%
CH	-	99.26%
CN	-	97.47%
CM	-	99.88%

### Nov-09

Order Type	% Orders Validated within Performance Target	% Orders Delivered within Performance Target
DR	-	98.50%
LE	-	99.24%
PW	-	98.76%
LNI/LTI/MI	-	96.73%
LNI/LTI/MI	-	98.20%
CL	-	99.44%
LNN/LTN/MN	97.56%	86.11%
CH	-	98.54%
CN	-	96.61%
СМ	-	99.88%

## Dec-09

Dec-03		
Order Type	% Orders Validated within Performance Target	% Orders Delivered within Performance Target
DR	-	97.07%
LE	-	99.40%
PW	-	98.84%
LNI/LTI/MI		98.39%
LNI/LTI/MI	-	98.99%
CL	-	99.27%
LNN/LTN/MN	97.54%	92.65%
CH	-	99.30%
CN	-	93.02%
СМ	-	99.76%

Count of Time Interval	SB-WLR Repair performance metric Qrt 4 Oct - Dec 2009		
OPT 4 0000	Percentage of faults		
QRT 4 2009	<=2	<=5	<=10
Grand Total	71.48%	92.52%	98.08%

## Glossary

DR	Data request: supply of list of numbers, DDIs/MSNs and Ancillary Service for a customer account
PW	Provide Wholesale Line Rental (WLR) and Carrier Selection (CS)
СН	Modify or provide Ancillary Services
CL	Cease Line
LTN	Provide WLR and Carrier Pre-Selection (CPS) and additional line to a specified Customer Account (Non-Insitu)
LNI	Provide WLR and Carrier Pre-Selection (CPS) and new line to a new Customer Account (In-Situ)
LTI	Provide WLR and Carrier Pre-Selection (CPS) and additional line to a specified Customer Account (In-Situ)
LNN	Provide WLR and CPS and new line to a new Customer Account (Not In- Situ)