



Commission for
Communications Regulation

General

ComReg response to the Department of
Communications, Marine & Natural Resources'
report on Broadband Demand

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Foreword

ComReg welcomes the opportunity to respond to DCMNR's consultation document on Broadband Demand. The focus in the report on consumer demand, both in terms of actual take-up of broadband and potential demand in the future, is welcome. This is not to suggest that supply-side issues do not continue to exist. However given the presence of a range of competitive broadband products in Ireland, it is important and timely to focus increasingly on demand-side initiatives, which can and will contribute to increased take-up and utilisation.

Forfás in its recent report on broadband highlighted the link between productivity and the usage of Information & Communications Technologies (ICT).¹ The integration of broadband-based applications into businesses is an increasingly essential step, enabling greater efficiency and facilitating more efficient ways of communicating with customers, suppliers and employees. ComReg notes with concern the gap between Europe and the US with regard to productivity in the ICT-using industries² and sees broadband as one of the tools that can be used to bridge this gap. In this context we believe that as well as continuing to focus on improving availability, further consideration needs to be given to stimulating demand and ensuring that businesses, particularly SMEs, utilise the potential that broadband can provide through its integration into business systems and processes.

In the short term, in order to drive broadband take-up and usage, among the key challenges for broadband service providers, content owners and other key stakeholders are:

- (a) more focussed and relevant marketing and advertising programs, aimed at specific consumer groups,**
- (b) encouraging migration, particularly among SMEs, from narrowband Internet products such as ISDN to broadband**
- (c) persuading the mass market of the benefits of broadband**
- (d) Stimulating the take up of PC ownership and Internet use by enhancing the availability and knowledge of useful applications and services**
- (e) Offering innovative and competitive product offerings tailored to specific needs**

The role that ComReg can play in this context is to raise awareness of innovation in networks as a means of promoting competitive ways of doing business and the

¹ <http://www.forfas.ie/publications/forfas051205/index.html>

² See, for example, Ovum/Indepen (2005) Achieving the Lisbon Agenda: the contribution of ICT

emergence of innovative services over existing networks. In this way ComReg is working to ensure that there is a competitive market, which delivers choice to consumers. In the words of the ITU,

“Competition in as many areas of the value chain as possible provides the strongest basis for ensuring maximum innovation in products and prices and for driving efficiency.”³

³ International Telecommunications Union (2005) The Role of Regulators in Promoting Broadband

Introduction

Broadband subscribers in Ireland exceeded 250,000 by the end of 2005, with strong growth in particular in alternative platforms such as fixed wireless access and cable. However despite this welcome progress, the European Commission's recent 11th Implementation Report identifies Ireland's per capita broadband penetration rate as still being below the EU average.

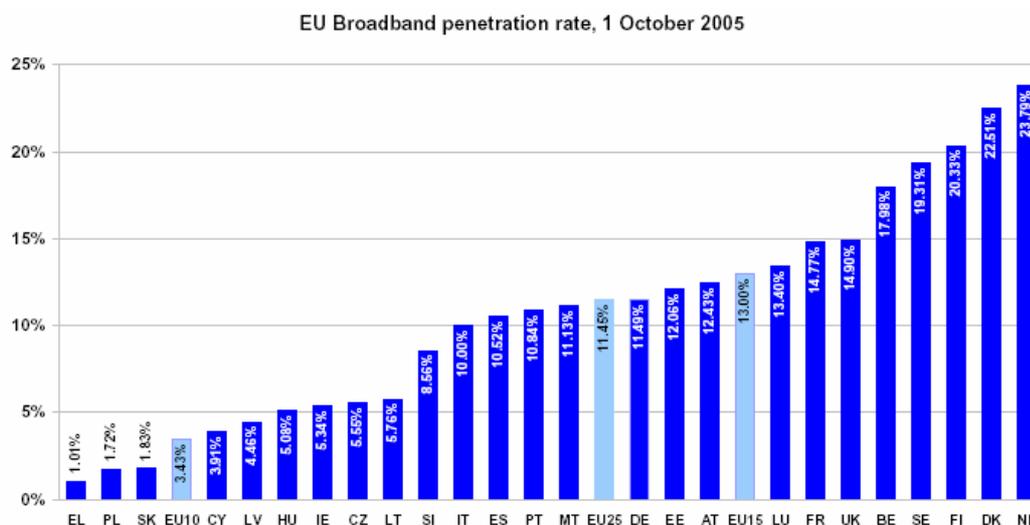


Figure 1 Broadband penetration in the EU, October 2005 [Source: European Commission]

While overall take-up levels remains disappointing there are now a wide range of competitively priced and differentiated broadband products available in the Irish market. The table below illustrates some of the options currently available.

Access Type	Operator	Features	Price
DSL	eircom	1 MB Broadband (not including line rental)	€29.99
LLU	Smart Telecom	3 MB Download (including line rental)	€35
Bitstream (Timed)	Imagine	1 MB Broadband (must also take home phone service)	€9.99
Cable	NTL	1 MB Broadband	€24.99
Wireless	Irish Broadband	512K Wireless Broadband	€18.99

Table 1 Range of broadband packages available in the Irish market [Source: operators' websites]

ComReg estimates that by the end of 2005 take-up of broadband in Ireland exceeded 10% penetration by household.

ComReg considers the stimulation of end-user demand for broadband and increasing the use of the Internet as the key challenges both for operators and other stakeholders in 2006.

Response to specific questions

1.1 *Is there a fundamental problem with the level of demand for broadband?*

While ComReg is supportive of the report's contention that the Irish market is at an earlier stage of development than others, analysis of take-up of broadband, particularly in the last eighteen months, does indicate that demand exists for broadband among consumers. As supply side improvements continue to come into play it is important, if we are to meet our national objectives, to stimulate accelerated growth in take-up and use of broadband, so that the benefits that higher speed access to the internet can provide can be enjoyed by all. We believe demand side stimulation and initiatives will be necessary to ensure this.

1.1.1 *Residential use of the Internet*

ComReg's most recent residential survey⁴ found that 99% of Irish consumers were familiar with the term "Broadband", indicating that there is an opportunity for broadband providers to convince Irish consumers of the benefits it can bring.

Although many comparative measurements of broadband take-up internationally use a per capita metric (i.e. connections per head of population), ComReg considers it more relevant to measure broadband take-up per household.

The most up to date data on households (from the CSO's most recent Quarterly National Household study) indicates that almost 55% of households had access to a PC while 655,000 households had Internet access by June 2005. This is equivalent to a penetration rate of 45%, just below the EU-average of 48%. The study also found that 16% of these households had broadband access. This is still below best international practice and further initiatives in terms of stimulating both PC and Internet penetration need also to be factored in to any overall strategy.

Segment	Percentage
Internet households	45%
(Of which narrowband households)	84%
(Of which broadband households)	16%
Non-Internet households	55%

Table 2 Home Internet access in Ireland (Source: CSO, June 2005)

There are a number of consumer segments to address in terms of both demand for Internet access and broadband. Section 1.3 discusses these segments in more detail.

⁴ Amárach Consulting Q4 Trends survey conducted in November 2005

1.1.2 Businesses' use of the Internet

A survey of small, medium and large corporate businesses commissioned by ComReg found that around two-thirds (65%) of businesses with Internet access in Ireland are currently using broadband to connect to the Internet.

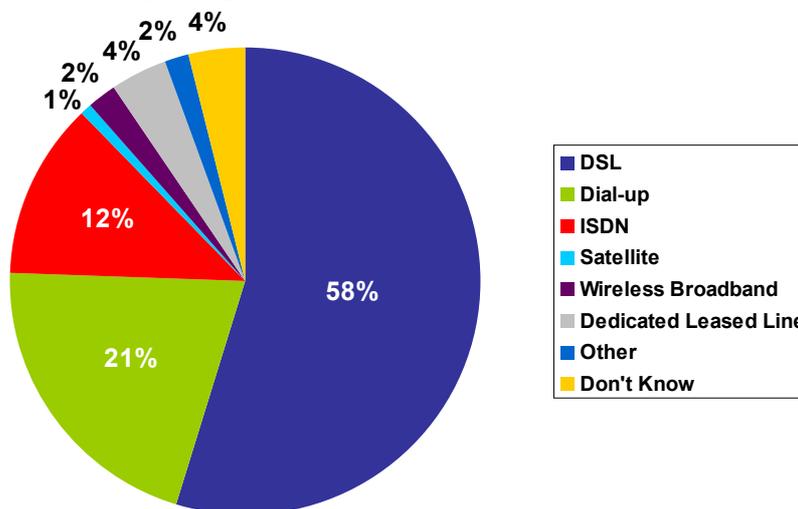


Figure 2 Internet connections of businesses in Ireland [source: Millward Brown survey for ComReg, document 06/02]

As can be seen from the chart above, one-third of businesses are still using narrowband Internet connections such as ISDN. Those surveyed who had dial-up and ISDN services were asked to state the reasons why they used these technologies instead of broadband. Among the key reasons given were:

- Lack of perceived need or business relevance for the Internet.
- The lack of availability of broadband in their area. This was particularly pronounced in those companies with less than 10 employees.

There are some specific geographic regions that are experiencing issues with supply of broadband (and of DSL in particular). Some of the challenges associated with a number of these areas may not be best addressed through existing initiatives or programs and additional steps may need to be taken if this issue is to be resolved. Recognition however needs also to be given to the fact that significant investment across a range of operators, from fixed line, cable and wireless is improving the overall level of supply.

ComReg's view is, that in terms of Ireland remaining competitive and a leading centre for the ICT sector, that future national strategies will have to marry demand and supply initiatives. Further analysis is required on this issue. Experience in Northern Ireland for instance would suggest that achieving 100% coverage has not on its own resulted in strong take-up of broadband.

However there is evidence to suggest that once businesses embrace broadband, this enables new ways of working.

The CSO's most recent e-commerce survey of enterprises in Ireland, which was carried out in June 2005, found that:

“Enterprises who use broadband for connecting to the internet are more than twice as likely to have employees who regularly work away from the enterprise's premises and use electronic networks to communicate with the enterprise's ICT system. Similarly, those enterprises who use broadband show greater levels of e-business activity and higher degrees of integration.”⁵

The CSO survey sampled companies with at least ten employees. Indications remain that some businesses, particularly smaller companies, have yet to integrate the Internet into their business. Content-driven initiatives to the business community of e-government services like the Revenue Commissioners' *Revenue On-Line* service can play a significant role in encouraging offline businesses to adopt the Internet. Applications specific to broadband such as VoIP and growing use of teleworking and other more flexible ways of working may also encourage businesses with narrowband Internet access to migrate to broadband.

ComReg has a part to play in partnership with other agencies in raising awareness of the benefits of broadband to business users, as a means of improving their competitiveness and to enable them to conduct business in a more cost-effective way.

In addition, from consumer protection and promotion of competition perspectives, ComReg recognises the need for user-friendly and timely switching processes that allow consumers to move between broadband providers with relative ease. ComReg will continue to work with industry to promote such aims.

In tandem with this, ComReg anticipates that the addition of 'Home Phone' and 'Broadband' calculators to ComReg's www.callcosts.ie website in May, will further enhance pricing transparency for consumers and assist them in choosing which broadband and fixed line packages available in the market can meet their pricing and usage requirements.

1.2 How should the Department prioritise broadband demand-side issues, relative to supply-side issues?

As highlighted above ComReg would point to high levels of consumer awareness of broadband, based on end-user surveys carried out recently.

A number of countries, particularly at state level in Australia and Sweden and at local authority level in France and the UK, have chosen to provide public funding in

⁵ CSO. E-commerce and ICT Survey 2005, available at <http://www.cso.ie>

the form of subsidies or tax breaks at the access level to stimulate household penetration of broadband. Given the evidence from both ComReg surveys and CSO data that Internet penetration is more prevalent among high and middle income households, it might be fruitful to extend such funding to specific lower-income segments and/or particular regions.

Such incentives include tax breaks for purchase of a PC or broadband connection. Tax breaks to businesses to encourage tele-working may also be of benefit in stimulating demand. The Government's decentralisation programme and its resultant demand for communication services will also contribute to increased communications infrastructure in regional locations.

ComReg recognises that both the Broadband for Schools programme and the Community and Group Broadband Schemes have raised awareness of and demand for broadband.

Development of strong educational content which supports the school curriculum and increasing focus on promoting PC and Internet literacy among school children and their teachers will be crucial to ensure that the coming generations are fully conversant with broadband and see it as a key tool in their lives.

By linking demand to specific applications and content which are only enabled by broadband, consumer demand for broadband can be encouraged. It would be useful to encourage a common approach across each Government department with regard to the development of unique content and e-government services and applications delivered over broadband connections.

The new generation of games consoles such as Playstation 2 and the Xbox 360 are now broadband-enabled and given the high penetration of such consoles in Irish households, such devices should also be factored into any comprehensive approach to enhancing further broadband penetration in the home.

1.3 *What sectors should the Department prioritise as part of a broadband demand initiative?*

There is a dearth of information to link particular initiatives with an increased take-up of broadband and ComReg would welcome an exchange of views at a public forum on initiatives that have worked both in Ireland and in other countries. In the main Irish consumers do enjoy a high level of disposable income but are not as likely to consume high levels of Internet access and services.

Initiatives in rural areas may need to focus on aggregated local demand and need for broadband, as was demonstrated by the rural electrification scheme which started in earnest in the 1940s. The Broadband for Schools programme could provide the basis to ensure a point of access in most communities and may also support complementary developmental activities.

While early adopters are quick to embrace new technologies, mass take-up of new technologies is harder to develop.

In terms of marketing broadband there are a number of different user segments for broadband. In 2002 ComReg commissioned a study which segmented the consumer market for broadband as follows:

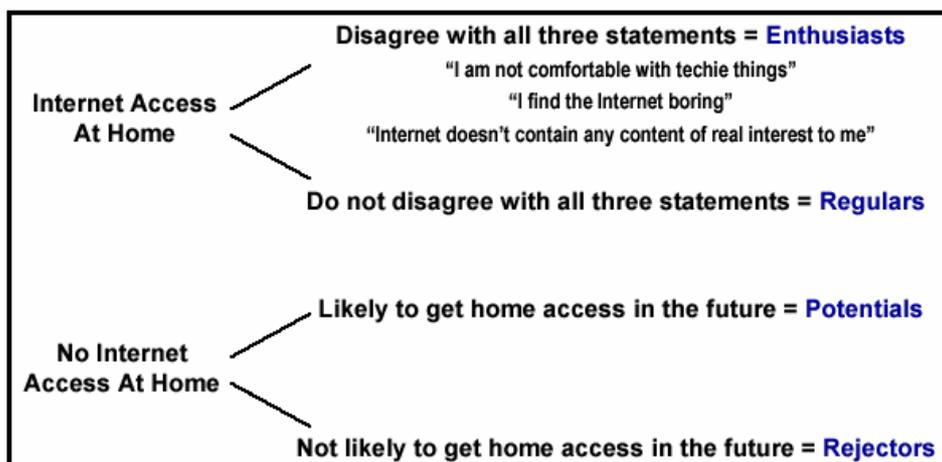


Figure 3 Market segmentation for Internet users [source TNS mrbi survey commissioned by the ODTR, 2002]

This segmentation is useful as it suggests that a one-size-fits-all approach to broadband marketing is not appropriate. Given the assumption that early adopters or enthusiasts have already adopted broadband, the key challenge for providers is to stimulate take-up among regulars and potentials.

“Potentials” are those consumers with no household access to the Internet. These consumers are potentially interested in taking on an Internet connection at home and may already have access to the Internet at their place or work or study. In surveys conducted by ComReg the main reasons cited by these households without Internet access at home are that they don’t need it or that they have access at work or college.

The Yankee Group European Connected Consumer Survey, conducted in July 2005 found that 52% of the sample of broadband consumers had adopted a new service provider during the previous 12 months. These included 21% churning from existing service providers, 20% migrating from dialup services and 11% who were going straight to broadband as their first Internet access service

The latter group falls into the bracket of potentials and will need to be persuaded not only of the benefits of broadband but of the benefits of the Internet in general.

An emphasis on content enabled by the Internet and particular applications which are best appreciated via broadband (such as video or voice over broadband) may be the most effective way to reach this segment.

“Regulars” are likely to be using narrowband, i.e. dial up Internet access at home. ComReg data indicates that around three-quarters of residential home Internet users currently have a narrowband (PSTN dial-up or ISDN) connection.

The most recent data from the UK indicates that migration from narrowband to broadband is driving take-up of broadband in the UK, and that in consequence almost two-thirds of Internet connections in the UK are delivered over broadband.⁶

Research by the Yankee Group also suggests that narrowband services continue to provide a nurturing ground for up-selling customers to broadband, while persuading the much larger group of non-users to adopt the Internet. However some concerns do exist in relation to the developmental stage at which the market is currently considered to be at, in terms of the “tipping point” at which customers with unmetered dial-up services may be inclined to switch and the role which pricing may play in this decision. Consideration may be necessary for instance, where both broadband and unmetered dial up are available in given locations, as to whether conversion and pricing initiatives may be necessary to stimulate and accelerate the migration to broadband

AOL is currently seeking to address this issue through the launching of a promotional offer in the UK aimed at upgrading dial-up users, by pricing its entry level broadband package at the same level as its dialup subscription service.

Initiatives such as free broadband connections and/or reduced modem costs (as has been offered by a number of service providers) can also encourage both non-users of the Internet and current narrowband users to adopt broadband services. The lower the up-front cost the more likely the consumer will be to adopt new services such as broadband.

In looking at the business segment it is important to segment these into various categories

- Multinationals and large corporate firms- these typically are part of an integrated network where broadband forms an integral part of doing business. Many large Irish companies also fall into this category.
- Small and medium businesses- progress has been made here and agencies such as Enterprise Ireland, Chambers of Commerce and other regional bodies have invested considerable time and effort in promoting and stimulating broadband take-up. There are sectors within this where take-up levels are lower than the national average and further effort may be necessary to address these. Analysis of initiatives taken by other countries such as Canada, Australia and South Korea may provide useful insights into further measures worth considering.

⁶ <http://www.statistics.gov.uk/pdfdir/intc0206.pdf>

- Then there are businesses typically employing less than 10 employees who make up a sizeable element of the business community. Many are in fact micro-businesses and operate outside the ICT/High-tech Sectors. Further analysis of this segment and their needs and challenges would be valuable. In many cases the absence of skilled IT staff, lack of knowledge or perceived lack of relevance of broadband may be significant inhibitors of broadband deployment.

Apart from reviewing in more detail initiatives aimed at stimulating broadband deployment and utilisation in businesses in other areas, consideration might be given by the Department to evaluating and addressing the special needs of businesses of under 10 employees.

Conclusion

In ComReg's view there is no simple or single way to achieve the roll-out of broadband services to all. DSL, for instance as in many other countries, despite the improvements in technology, will not on its own create a broadband-based community. Issues such as line failure and customer distance from the local exchange all have an impact. There are also areas without appropriate exchanges and where a combination of economic and technical issues will result in DSL deployment being impractical without further interventions.

ComReg's FWALA scheme has also encouraged broadband infrastructure deployment by allowing wireless broadband providers to enter small local service areas. Wireless broadband technologies such as FWA and Wimax may be the most cost-effective options for delivering broadband to less populated areas of Ireland. They, along with satellite services, may in reality be the only ways of providing broadband services in certain parts of the country and there may be a role for state intervention where the up-front costs of equipment installation and roll-out to customers are prohibitive.

While to date the focus has correctly been on enhancing broadband supply, nevertheless evidence in other locations demonstrates that 100% availability on its own will not necessarily result in the sort of ubiquitous Broadband Society that we want and need to have to under-pin Ireland's position as a leading services and high tech-centre. More focus and thought needs to be put into stimulating demand, making the services that broadband can support more relevant, not just to early adopters but to the community at large. Role models exist of excellent Government services that can act as a catalyst in this regard and these should be built on. Understanding the needs of micro businesses is important, as is ensuring that schemes such as the Broadband for Schools initiative are maximised in terms of their capacity to integrate broadband into educational system.

Considerable challenges nevertheless lie ahead and it is important in that context that public sector agencies such as ComReg and Forfás work closely with Government departments to resolve any difficulties in terms of meeting the key national objective of stimulating take-up of broadband across the board in Ireland.