Commission for
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General

ComReg response to the Forfás report on Benchmarking Ireland's Broadband Performance

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Foreword

ComReg welcome the opportunity to respond to this consultation on Broadband benchmarking by Forfas. Given both the progress made to date and the challenges that still lie ahead the consultation is both timely and opportune.

Over the past eighteen months real progress has been made in terms of the availability of basic and advanced broadband services to both homes and businesses in Ireland. The competitive landscape for Broadband in terms of the number of competing providers, innovative packages and competitive pricing has also improved quite significantly during this period.

Forfás highlights the link between productivity and the usage of Information & Communications Technologies (ICT) in its recent report. Broadband is increasingly an essential tool for businesses enabling greater efficiency and facilitating more efficient ways of communicating with its customers, suppliers and its workforce. ComReg notes with concern the gap between Europe and the US with regard to productivity in the ICT-using industries[1] and sees Broadband as one of the key tools that can be used to bridge this gap. In this context we believe that as well as focusing on improving availability further consideration has to be given to ensuring that businesses, particularly the SME sector, utilise the potential that Broadband can bring through its integration into business systems and processes.

ComReg's focus and responsibilities in the area of Broadband is to ensure the availability of Local Loop Unbundling as well as regulate eircom's wholesale provision of Broadband services to other service providers. In addition we have a key role to play in the promotion of alternative platform competition by means of spectrum allocation and innovative, light-handed licensing frameworks. We have no direct role in relation to broadband policy and demand initiatives.

In the short term, in order to drive Broadband take-up and usage the key challenges for Broadband service providers and content owners will include:

(a) more focussed marketing, advertising and promotional programs to specific consumer segments,

(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

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

Introduction

2005 saw wide-scale commercial deployment of, and take-up of, Broadband across Europe and by the end of 2005 an estimated 60m subscribers had some form of Broadband access.

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 modems.

There is now a wide range of competitively priced and differentiated broadband products available in the Irish market as can be seen from the table below.

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

Figure 1 Range of broadband packages available in the Irish market

While take-up of Broadband now exceeds 10% penetration by household it is still relatively low by international standards.

ComReg considers the stimulation of end-user demand for Broadband as the key challenge both for operators and other stakeholders in 2006.

1.1 Residential use of the Internet

ComReg's most recent residential survey[2] 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 appropriate to measure Broadband take-up per household.

The most up to date data on households with the Internet awaits the publication of the CSO household study undertaken in June 2005. It is possible nevertheless, based on an estimate of around 150,000 residential broadband users and 500,000 narrowband users, to suggest that around 48% of households currently have access to the Internet. This is significantly below best international practice and further

[2] Amárach Consulting Q4 Trends survey conducted in November 2005

initiatives in terms of stimulating PC penetration needs to be factored in to any overall strategy.

Segment	Percentage
Internet households	48%
(Of which narrowband households)	*77%*
(Of which broadband households)	*23%*
Non-Internet households	52%

Figure 2 Home Internet access in Ireland (Source: ComReg)

There are a number of consumer segments to address in terms of both demand for Internet access and broadband.

Section 1.6 provides more analysis of narrowband and broadband households and discusses ways to stimulate increased take-up of broadband among both narrowband users and those households with no access to the Internet.

1.2 Businesses' use of the Internet

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.

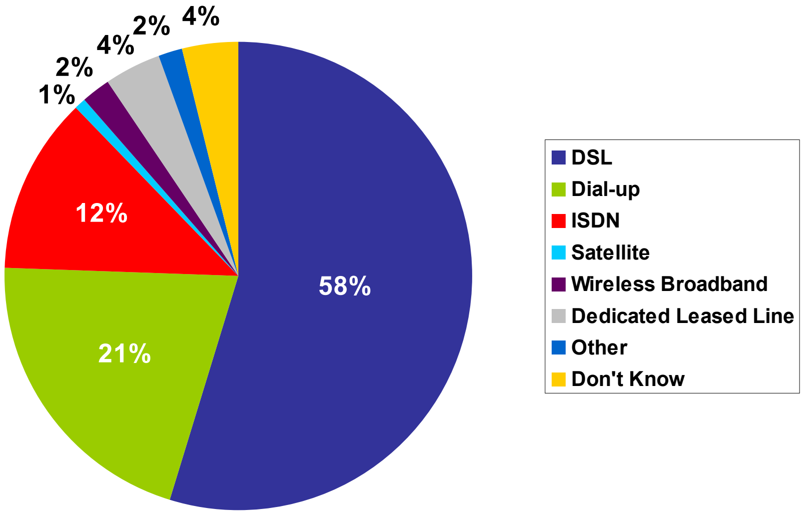

Figure 3 Internet connections of businesses in Ireland [source: Millward Brown survey for ComReg, document 06/02

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 non 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 DSL in particular. Some of the challenges associated with a number of these areas will not be addressed through existing initiatives or programs and additional steps will need to be taken if this issue is to be resolved. Recognition however needs also to be given that significant investment across a range of operator 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.

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.

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 conducting business in a more cost-efficient way.

Competitively-priced Broadband services help boost the competitiveness of businesses in Ireland by allowing them to have predictable monthly costs and encouraging the development of tele-working,

Response to specific questions

1.3 Given Ireland's spatial patterns, what is the most effective way(s) to accelerate the rollout of broadband services to all?

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

Advances in ADSL technology are however increasing the reach from the DSL-enabled exchange to the end-user's premises. Further investment in the existing infrastructure will be necessary to meet the growing demand for bandwidth to support existing and emerging products and services. 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.

Given Ireland's relatively plentiful and unhindered access to spectrum, ComReg is working to encourage innovation in the use of wireless broadband at regional level in Ireland to deliver high-speed Internet access across the country.

In summary therefore ComReg is of the view that we collectively need to be as creative as we can be if we are to achieve the objective of ubiquitous Broadband coverage. We need to recognise that in the vast majority of areas commercial service providers are/will shortly be in a position to meet demands for Broadband. There are however areas where consideration will need to be given to special initiatives over and above those currently in place to stimulate the availability of Broadband services. Key to ensuring success of any such initiatives will be the availability of affordable backhaul products

1.4 How can Ireland accelerate the effective implementation of local loop unbundling to provide competition in the DSL market?

ComReg's view, based on international experience is that LLU can play a critical role in meeting national broadband objectives. It gives alternative operators more control over the types and quality of services that they can provide to end-users. It has in other markets allowed operators to innovate in terms of both product and pricing. And has been a catalyst for step change in Broadband supply and take-up. Alternative operators are currently effectively limited to the Bitstream offering where little if any opportunities exist for innovation.

The position taken by the incumbent in Ireland is not unique, although in many countries the market has moved on with a deeper and wider understanding that unbundling can both help to stimulate the Broadband market and result in enhanced and predictable wholesale business for the incumbent operator.

Progress albeit slower than we would like is being made on elements of local loop unbundling including an initial geographical number porting solution. The processes needed to deliver fully unbundled loops to customers are complex and considerable care has to be taken to ensure that customers get the quality and level of services they require in any processes we would seek to put in place. ComReg is currently working with the incumbent and access seekers to move the process forward. Considerable challenges nevertheless lie ahead and clearly it is important in that context that ComReg is able to move forward quickly with the appropriate powers to resolve any difficulties in terms of meeting this key national objective.

1.5 How can Ireland optimise infrastructure in state ownership to increase availability and choice of broadband services?

The provision of government-funded infrastructure in areas where it may not be economically viable to build new infrastructure has benefited some operators in rolling out new services and expanding the reach of communications networks. Operators such as Smart Telecom have been able to link to the government MANs to expand the reach of their networks.

Prices to connect to the MANs and the type and reach of some alternative operators networks remain a challenge. The availability of competitively priced backhaul is central to continuing take-up.

Developments such as ESB and Bord Gais carriers' carrier service can help stimulate supply of Broadband at a regional level. However there is a lack of integration between these networks and the local access network, or last mile into each home and business in Ireland.
In addition ComReg would once again highlight the fact that although public funding has ensured universal broadband coverage in Northern Ireland, this has not as yet resulted in high take-up of Broadband.

ComReg's role in this context is to raise awareness of innovation in networks as a means of promoting competitive ways of doing business and the 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

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 the form of subsidies or tax breaks at the access level to stimulate household penetration of Broadband.

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.

There may be a role for the state at the access level. But ComReg is mindful of the potential distortionary effects of subsidies on communications markets and the need to avoid potential displacement of other investment and would encourage a detailed cost-benefit analysis of any proposed incentives.

1.6 How can Ireland best use experiences/initiatives in leading countries to create awareness and drive demand?

1.6.1 End-user Marketing

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:

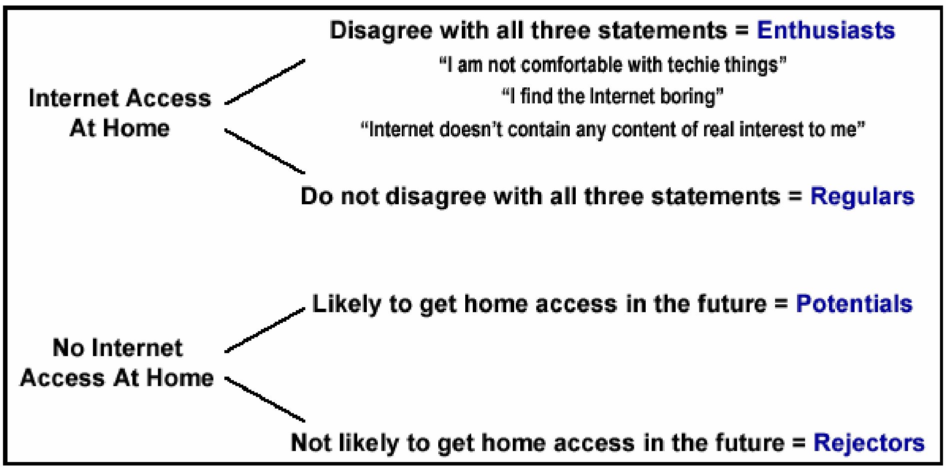

Figure 4 Market segmentation for Internet users [source TNS mrbi survey commissioned by the ODTR, 2002]

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.

Research by the Yankee Group suggests that narrowband services continue to provide a nurturing ground for up-selling customers to broadband, while persuading the much larger residual of non-users to the bigger challenge
In the UK, AOL is launching a promotional offer aimed at upgrading dial-up users by pricing its entry level broadband package the same as its dialup subscription service.

1.6.2 Content and Applications

There are a number of areas in which the development of strong online content can help drive increased consumer and business take-up of broadband.

E-Government
Government has a role to play as a major consumer in its own right of communications services and the Irish government's embrace of e-government as exemplified in the examples of Revenue Online (ROS) and the REACH Agency's work has contributed to improved public sector effectiveness. ComReg welcomes further development of innovative e-government applications and is mindful of the need to deliver advanced online services such as e-Licensing to consumers.

In this field Canada has been praised recently[4] for its innovative eGovernment services including its Consulting with Canadians website[5].

E-Health
The health sector is also an area that could benefit from broadband access.
A noteworthy initiative in this regard is the UK government's Broadband Aggregation project which aims to provide 256kbit/s to all GP practices by end of 2006.

E-Education
The Irish government's Broadband for Schools programme recognises the importance of broadband and Internet access for children from a very young age so that they are equipped with strong IT skills from the outset.
Both the UK (via their Curriculum Online (UK) programme launched in December 2001) and South Korea by means of its CyberKorea21 initiative have also recognised the importance of adequate content as well as access for schools.

E-communication
VoIP or voice over broadband is becoming popular among both businesses and households in Europe and has helped drive strong broadband take-up in France in particular.

Broadband access is also available via alternative devices such as games consoles and mobile phones. In Japan for example there was high take-up of i-Mode because of its strong content and ease of use and in the absence of high PC penetration until quite recently i-Mode helped stimulate use of the Internet in Japan.

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 may also help drive further broadband penetration in the future.

1.7 Are there local initiatives that have been successful in some regions in Ireland that can be used as a template for other parts of the country?

ComReg welcomes the development of programmes such as the Broadband for Schools programme and the Group Broadband Schemes

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

[4] http://www.forum-edemo.org/article.php3?id_article=558

[5] http://www.consultingcanadians.gc.ca/

earnest in the 1940s. The excellent joint Broadband for schools programme between Government and the industry provides the basis to ensure a point of access in most communities and may also support complementary developmental activities.

Conclusion

The competitiveness of Ireland's economy hinges on the nurturing of a competitive, high-quality and innovative communications sector.

ComReg welcomes the opportunity to input into this Forfás consultation on a strategy for further broadband growth in Ireland in the medium term and looks forward to the outcome of Forfás' work.