

SPEECH

"Future of Telecommunications – Implications for the BMW Region"

Address by Etain Doyle, Director of Telecommunications Regulation to the BMW Conference.

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First, I would like to thank the organisers of this conference for bringing us together today to share fundamental ideas about the development of the country.

While my address to you today will not surprisingly be about telecommunications, I want first to step back a little and take a look at where and how we live.

Let us look at a few key characteristics.

- We have a diffuse population, lower than it was in the early nineteenth century. Yet the Greater Dublin area accounts for approx. one third of the population and suffers from huge stresses in terms of transport and housing. It is not that we have a population problem. It is a matter of population distribution and population density.
- Secondly, for a variety of reasons, we more or less missed the industrial revolution of the nineteenth century. Our attempts after independence to introduce heavy industry to Ireland were not very successful. It was not until recent decades that we set ourselves on a course through which we could prosper *despite* our geographic position out on the west of the European continent. The core of this industrial strategy was to put labour and capital into the production of high value goods, that is into industries where transport costs were a low percentage of total cost. A planeload of pharmaceuticals is a most valuable cargo. The industries with the lowest 'transport' costs must surely be those of software and information technologies. With our predominantly English-speaking workforce, these industries are particularly suited for development in Ireland. So while it is necessary for *every* country to put in place first class technology for information exchange, it is *particularly important* for Ireland.
- Thirdly, the software and information technology industries demand leading edge telecommunications infrastructure to communicate internally

in their multinational organisations and increasingly to compete in the online community

It is clear that – both socially and economically - Ireland would benefit from a better balance between Dublin and the rest of the country. For us to be a population that earns a decent living on the world stage, we must have ready affordable access to leading edge communications technology. Everything points towards the absolute necessity of doing this. The issue is - how can we do so in an affordable and sustainable way.

So let us just hold out there a vision of an Ireland in which anyone wishing to set up a business – in pretty well any part of the country – could have ready access to such technology.

The ODTR

Before we get into this, just bear with me as I sketch out what I see is the role of the ODTR

Not long ago, it was thought appropriate for telecommunications services to be managed by the public sector. We no longer think that. Technological innovation is so complicated, so rapidly evolving, that it is just not possible for any State agency to set out detailed instructions governing all the services that should be offered to consumers. To try to do so would get in the way of competition.

The spirit of this age – a spirit encapsulated in Irish and European law – is to open up markets. However well intentioned, centralised power stifles innovation. I lived in Russia for a few years in the early 1990s, and speak from experience of the damage done over decades of centralisation.

Today we recognise that creativity and development come from two sources – from technological and business innovation and from consumer demand.

Let us be absolutely clear about where I stand. I believe that free competition — where the consumer can genuinely pick and choose in a market free of monopolies and restrictive practices — is when the consumer has real power. This is also an environment that encourages innovation. This in turn generates more choice, and so we get onto a positive circle of creative development and consumer response. My Office is there to ensure fair play, to be in a sense constantly subversive so that old monopolies cannot subsist or new monopolies arise. Beyond this, we cannot say how the players should play.

In short, our job is about providing the framework for the delivery of quality services at competitive prices. Our role is not to prescribe delivery on fixed line or satellite for example, or to decide the range of products mobile operators may offer, but to facilitate the competitive provision of services by addressing actual or potential market failures.

The evidence is overwhelming that liberalisation is the best road. In the short time since we have followed this path there has been a significant growth in the new entrants' market share and consumers are experiencing lower telecoms costs and more choice.

Given the rapidly growing telecommunications needs of our economy and the increasing importance of the industry to GDP as a whole, Ireland has to maintain the highest standards with regard to the availability and delivery of telecommunications services to users. Telecommunications has become a hugely successful industry that currently amounts to 3% of real GDP according to figures in our recently published Quarterly Report. In line with current trends in the economy, it is leveling off after a period of high growth. I believe that it will resume its path as the economy comes through the current downturn, to further drive the economic prosperity of the country for the benefit of all. For all – includes importantly regional and rural areas where access has traditionally been a problem.

So, with this focus, in this free market, let us see how we can move towards our objectives.

A key issue for my Office is access. At this point, anyone can change fixed line operator via carrier pre-selection, whether they wish to do this for local, national or international calls, or all three services. This transfers the business to another operator, but it does not upgrade the line to broadband. Access to broadband may be facilitated by regulatory measures such as a simple regime for infrastructure build, local loop unbundling and fixed wireless access, but I need to make clear that telecommunications liberalisation of itself does not create new networks nor network upgrade. As you will be aware, that requires a range of other measures to which I will refer.

What is happening?

So what is happening today on the provision of broadband access.

As many of you will be aware, Government policy is designed to support the development of a widely accessible, low cost broadband infrastructure which is funded mainly through the National Development Plan (NDP) 2000-2006. The initial stages have focused on regions such as the BMW and South and East. You are also probably aware of the projects within the region. It is important and encouraging that the Department of Public Enterprise recently (8th August) announced the second tranche of funding for broadband to the regions.

In terms of the national network, there have been substantial improvements in the backbone network since liberalization with the use of new technologies. Ongoing development will see all backbone links upgraded to 2.5 gbits per second.

Although eircom still controls the majority of the network, several other operators have been rolling out fibre networks in parts of the country. While the current environment has seen roll out plans scaled back for a number of operators there are still projects continuing that will result in more infrastructure in areas outside of Dublin. LLU has been slow to start, but will roll out in coming months,

providing an opportunity for upgrade in suitable areas. I am still awaiting word from eircom in respect of their pricing of their bitstream product

There has been much development in Ireland's international network connectivity and it is expected that there will be sufficient international capacity for Ireland to satisfy demands for the next five years.

However in terms of national network, further improvements are required to meet current needs and to prepare for the expected increased needs for the future. There are places where no operator has adequate network, places where only one has, but upgrading is not planned or possibly not feasible, places where additional fibre has been laid but is yet 'dark' fibre, that is fibre that has not yet been 'lit' or made operational. Why is this so, and what practical steps can be taken to relieve the situation?

In terms of the ODTR involvement, I now wish to outline the frameworks that we have implemented to assist in the development of the national telecommunications network, and those initiatives that will be of benefit particularly to the regional areas such as the BMW region.

FWA licensing

The first area I would like to outline is the addition of Fixed Wireless Access technology, or Wireless Local Loop, as it is also known. This technology is a radio based alternative to copper or optic fibre in the local loop i.e. the last mile linking the customer to the main network. This technology was included in the licensing framework in July 1999 and during 2000 six licences were issued under the new framework. Four licences were issued to provide broadband services. Eircom, Esat, Chorus and Formus all took up licences. The broadband services to be offered by the companies include high speed Internet access, video on demand and other high bandwidth usage services.

of the worldwide An unfortunate consequence downturn in the telecommunications sector resulted in the closure of Formus, one of the operators to be granted a broadband FWA licence. The Irish operations were closed earlier in the year after funding was withdrawn from the US parent company. One of the other broadband FWA licensees is Chorus who applied for and were awarded £17.1 million from the Government's national development plan to provide FWA services to the regions, in particular the BMW region including towns Castlebar, Ballina, Sligo, Donegal, Letterkenny and Buncrana. Chorus have started offering their services in parts of the country and are working on the roll out of their network.

This will supplement the MMDS network operated by Chorus to provide wireless television services, including digital services. My office recently published consultation documents which show revised completion dates for digital roll out. Ballina, for example, will have 80% digital coverage by Q1 2003; the Midlands served by MMDS will have 100% digital coverage by Q1 2003 and the MMDS network serving the NorthWest is planned to have 100% digital roll out completed by Q1 2004¹. Chorus' MMDS signal is only one way and users would have to use a dial up connection to complete the two way service required for interactive services. FWA solves this problem.

The two operators that took up the FWA narrowband licences were eircom and Chorus. The services to be provided under the narrowband category include basic telephony and the equivalent to dial-up Internet access.

Compared with traditional fixed methods FWA is relatively quick to install and provides the potential for a more cost-effective way of delivering broadband services to consumers that are geographically difficult to reach. For example, installing a base station in a rural area would be very much more cost effective than laying cable to each individual premises. FWA therefore extends the reach of broadband beyond the areas that can be realistically served by fibre. This technology is of course also suitable to urban areas and may provide the

¹ Chorus Price Increase Application ODTR 01/63

opportunity for small and medium sized businesses in towns to access services typically only used by large corporate via fibre cable.

Another attractive feature of FWA technology is that operators are not dependent on eircom's network for local loop access. They are able to control their own network development schedule and they are more able to innovate with their service portfolio.

As these networks develop, the availability of services in the regions should increase competition and choice and complement other technologies that are being introduced.

In addition to the licences that have already been granted, my office recently released a report on the consultation paper that sought views on new opportunities in the radiocommunications market for FWA¹. In the response I outlined my intention to carry out a full review in the very near future to identify the best basis for the future licensing of FWA before we take the step towards issuing any further FWA spectrum. This review will take into account the proposal of issuing regional FWA licences, which may help encourage the spread of competitive FWA networks throughout the regions. However there are some valid concerns that need to be addressed in the review which relate inter alia, to the viability of these systems serving remote areas.

I still feel that there is sufficient interest and demand in the market to warrant further work in the licensing of these services. Certainly the number of responses to the consultations gave an indication that there were potential operators in the market that are interested in providing services via this technology under an appropriate framework.

¹ New Opportunities in the Radioncommunications Market: Fixed Wireless Access (FWA), Response to the

Short range devices

Aside from the FWA services that will be provided under the current regime there is now real potential for telecommunications operators to move into the area of short range public access services using wireless technologies such as bluetooth, hiperlan and radiolan. Following our review, we clarified the situation for these services and the spectrum they can use. These services are now exempt from licensing under the existing Wireless Telegraphy Act. Operators will therefore be free to use these bands subject to certain technical restrictions, on a non-exclusive basis: however if they are offering public services the appropriate telecommunications licence is needed.

The range of high speed services that are capable of being delivered via these platforms at a relatively inexpensive cost will be attractive to consumers in regional areas that are not currently served. The high data rates capability for wireless lan technology for example, is able to provide for data rates of up to 11 mbits per second. Many of these products are already available in the Irish market place. The introduction of these platforms could mean that services such as video on demand and high speed internet access would be quickly available in regional areas at a relatively low cost to install.

This development is a very significant step forward in terms of wireless technology and may prove to be a welcome move forward in the provision of regional services for the BMW region.

I may also note, that in the light of the lack of interest in public Tetra licensing, that we have opened up the possibility for private PMR users to upgrade their services to digital standards, enabling them to upgrade their private networks. Details are available from my Office.

VSATs

For areas that cannot get other fixed means of access, satellite – based access for newer services may prove to be an ideal solution in the future for regional areas. The advantage of a satellite service is that almost anyone almost anywhere can make use of it.

In addition to the FWA licencing the office broadened the licensing regime further to include satellite platforms such as VSATs. The satellite VSAT framework has been in place since last September, which means that operators can move into this market to provide alternatives for consumers. VSAT stands for Very Small Aperture Terminal and is a communications terminal that can be easily installed on the roof of a user's premises. VSATs can be used to access a wide range of telecommunications services such as broadcast video and internet access. One of the advantages of VSATs, as with other wireless technologies, is the relatively low cost and ease of installation for areas with limited telecommunications infrastructure, in particular with VSATs large areas may be covered by way of the satellite systems.

Recently VSAT networks have been able to offer limited two way broadband services. This market is growing and systems are currently being developed that will provide higher broadband access rates. In the longer term high density fixed satellite systems may provide further opportunities for broadband connectivity in remote areas.

VSATs offer the potential of broadband services to rural areas. This technology may play a significant role in developing rural regions in the near term, prior to more wide spread availability of terrestrial broadband infrastructure. VSAT systems are less competitive in urban areas where alternative methods of broadband exist.

New broadband VSAT systems are being developed which have more competitive access capacities. These should begin to emerge within the next two years.

In Ireland, the Department of Public Enterprise has awarded IR£1 million to a cofunded pilot initiative as part of the National Development Plan. This is a step to considering satellite based broadband services as a potential alternative to remote areas of the country including offshore islands.

Broadcasting - TV delivery systems

Another industry facing technological and market change is the broadcasting industry. The convergence of the telecommunications and broadcasting markets is becoming increasingly blurred. There are many exciting developments that are taking place within this arena that will provide services of the future for example digital television and more interactive content services.

The broadcasting industry is a very broad and complex industry. With the advent of digital and the move towards convergence, it will become increasingly important area for the future in terms of the services it can deliver.

As it stands at present, our role in relation to licensing in this sector is to ensure adequate access to and quality of broadcast services from terrestrial and other channels and ensure the services are delivered at a reasonable price to the Irish consumer. The ODTR is committed to ensuring that there is effective competition within the distribution segment of the industry and that the consumer benefits with regard to choice, price and quality of service.

When we first began reviewing the delivery of television services in Ireland in 1997/8, we made provision for both cable/MMDS services on the one hand and DTT on the other, in order to ensure that most consumers would have at least a choice of two network providers for advanced, digital television services.

DTT is the replacement for the conventional analogue system that has existed for 30 years, providing free to air access for the national services. DTT will have the capacity to deliver far more television channels than the analogue services and also to provide a range of interactive services to consumers. Its services will therefore more resemble those of the cable and MMDS operators who are adding digital services to their platforms at present.

Commercial Programming for digital television will give rise to interactive services such as music, games, home shopping and home banking. Traditional television content such as films and sports events will continue to benefit in the digital age, with sports content having the potential to become club specific and based on a PPV service model, and Near Video-on-Demand (NVOD) films competing with video rental.

We have recently published a paper asking for views on regional DTT, whether there are people interested in offering services and outlining some of the spectrum considerations involved. The period for reply ends on 12th October so there is still time to respond.

In a market heading towards convergence, cable operators are moving from multichannel providers to convergent video and telecommunications service providers. In order to facilitate this both CABLE/MMDS operators embarked on heavy investment programmes to upgrading their network infrastructure. At this stage both operators have had to revise business plans in response to the downturn in the sector. However, both operators are maintaining their plans for the rolling out of digital televisions services. By the end of this month a quarter of all Irish households will have digital capability. Ntl for example have operations in Galway which is included in their digital upgrade, by the end of this month they plan to have the service available to all their subscribers in Galway and Waterford and a first tranche in Dublin.

The full upgrade of the cable networks will enable the operators to provide one complete package of telephony, Internet access and digital television by a single connection. The ability to bundle packages gives cable/MMDS operators the ability to offer a very attractive package in the market.

Both operators are also increasingly providing services to business customers. Among the services currently offered and that will be offered in the future to business customers include direct voice, high speed Internet, wireless, and data services such as leased lines, VPN, Frame Relay and ATM.

There are therefore a range of platforms on which fixed telecommunications services in their broadest sense are being or will be delivered in future. Let me now turn to the development of Digital Subscriber Line and local loop unbundling, which are not a separate infrastructure platform, but ways of enhancing the existing copper loop in the public network and enabling its enhanced use on a competitive basis.

Local Loop Unbundling (LLU)

One of the significant advances this year has been the implementation of the framework for local loop unbundling (LLU) in Ireland. In case it is not clear exactly what LLU is let me briefly explain.

The local loop is the copper pair that connects an individual telephone subscriber to the local exchange. It is important because the connection to the end user or the 'last mile' as it is often referred to, is very difficult for new entrants to replicate without cabling their own way to each individual premises.

The copper pair can deliver limited capacity - a voice line as you know - but with digital subscriber line technology, it can be substantially enhanced, with some systems capable of developing up to 8mbts/sec. The length of line from the switch to the subscriber's premises is very important, as DSL technology is not

effective where that line is more than 5.5 Km, and for several systems, the distance would be shorter.

Local loop unbundling refers to arrangements whereby another operator may rent the line from eircom, and put its own equipment on to enhance the capacity of the line or share it with an eircom' enhancement. Under the LLU regulation in force since the beginning of the year, the network owner, which is eircom, is now required to provide other operators access to this copper pair. This means that other licensed operators are able to offer a full service directly to the customer. As noted already, of great significance is the fact that new operators can offer broadband services, including services such as fast internet access, even if they are not currently offered by eircom.

The establishment of the framework for LLU has been tortuous, and I do not propose to go into it here. Although the framework has been put in place, the current market conditions has led to revised business plans and investment decisions of operators which has in turn impacted the number of operators pursuing local loop unbundling. My office is however closely supporting requests that have been made, and maintaining detailed monitoring of the situation. I am would like to encourage more operators to consider the market possibilities surrounding LLU and take-up the benefits offered by the current LLU framework.

One operator that is in discussions with eircom regarding colocation space in eircom's exchanges, in areas all outside of Dublin and in particular in Galway. This is a very positive sign in terms of the regions and we hope to be able to assist in progressing this development.

The delivery of new services via LLU will assist in the development of broadband access to the nation as a whole but particularly has significant potential for regional areas.

We are now at the early stages of the development of the market for broadband access via DSL. It has the capacity for widespread deployment, although there are technological limitations on line length as noted above, and under current

business models, it would not appear to be viable for all switches. However, it is a technology that is advancing all the time and I expect that improvements will be made that will lower cost, by cutting out the need for on-site visits to customer premises for example.

Mobile Coverage & Services

The future for mobile communications is exciting and on the brink of a revolutionary phase in the way we use data services.

Currently the Irish mobile market is one of the fastest growing in Europe, with approximately 2.6 million mobile users in Ireland⁴. One of the key indicators of the vibrancy of the mobile market is the penetration rate. The mobile penetration rate indicates the percentage of the population who are mobile phone users. And at a rate for 70% is one of the highest in Europe

The growth in mobile subscriber numbers has been driven by the introduction of prepaid mobile phones and in turn by the demand generated for these products by previously untapped demographic consumer groups particularly the under 25 market. Moreover, the growth of SMS messaging which is a European wide phenomenon bodes well for the early adoption of data based services so key to the next phase of mobile growth.

The market is already moving away from its focus on simple voice telephony. 2.5G technology is already on the way, and it is anticipated that the introduction of UMTS or 3G technology in particular will overcome the current limitations on data speed transfer which have to date limited the range of data services available on existing 2G Mobile networks. If so, mobile networks could begin to rival fixed networks for speed of data transfer and quality of service. The industry expects future mobile services to focus on Internet access but to offer a wide

⁴ Source: FT Mobile Communications, 1st August 2001.

range of additional features, including video conferencing and enhanced content provision.

This promising future is enhanced in Ireland by the introduction of the third licensed operator into the mobile market this year and the impending licensing of 3G; with the introduction of 3G based services in 2002.

We have already outlined the framework for the 3G competition following extensive consultation and study. We have designed a competition to focus bidders on providing better coverage, capacity and service backed by performance guarantees. The competition format will use comparative selection and will focus on evaluation of bids in respect of key requirements such as coverage, roll-out, access (including wholesale offerings) and performance guarantees. An admittance test will also be held to determine the financial, technical and business capabilities of applicants, including their ability to meet certain threshold criteria on geographic coverage and roll out. This is to ensure that they are capable of delivering the major effort required to develop 3G services effectively and to ensure that the basic requirements for competition are met. We will be issuing four licences seeking to ensure that the benefits of 3G are available as quickly and extensively as possible.

My objective is to encourage market entry at both the service and infrastructure levels and this will be best served by offering two distinct 3G licence packages, one of which carries incentives to support certain types of MVNOs. I have therefore decided to offer one "class A" licence and three "class B" licences. The "class A" licence will carry a more stringent rollout and coverage requirement than the "class B" licences, which will command a higher spectrum access fee. We hope to launch the tender shortly.

New 3G services will be delivered alongside new, enhanced 2G services supported by technologies such as GPRS and EDGE. Accordingly, dual mode operations will be utilised as operators configure networks for optimal provision of mobility, coverage and data transmission rates.

Operators are already increasingly focussing on value added data services, which are widely anticipated to be a major mobile growth area over the next decade. E-mail and Internet access are already available over 2G mobile networks, however connection speeds are slow (9.6 kbit/s max compared with up to 56 kbit/s for a fixed modem). Enhancements to GSM networks such as the General Packet Radio Service (GPRS) are expected to increase transmission speeds to 56 kbit/s or more within a couple of years. Other mobile initiatives in the pipeline include interactive games and the ability to download MP3 files and listen to them on the move.

A combination of competitive markets, private ownership and foreign investment has created an environment for rapid growth. Analysts expect further growth in the mobile market world-wide and it has emerged as one of the most dynamic industries of the 21st century.

The practical, affordable path

Turning from what is technically possible to what is commercially viable, let us take a cold look at how we deliver high speed communications throughout the country.

The laying down of such an infrastructure is a very expensive business. It is a matter for Government to determine how and to what extent the State should involve itself in this development. Should it leave it entirely to the private sector? How should the State respond if the private sector does not invest? Should the State look at more models of funding along the lines of Public Private Partnerships? This is not the business of my office. It is our job to ensure that — in whatever structure we have — that there is full and free competition.

We need, incidentally to get rid of a popular myth. There is no easy solution around the corner or in any other country that will give Ireland high quality fibre optic communication to every house and business. There is no solution that will give us high quality communications services - or even low quality ones - without 'holes, poles and masts'. Countries which are ahead in the broadband game have

been at it for far longer than Ireland and have invested far more than has been invested here.

Ireland needs a more advanced broadband structure if it is to prosper, so how do we catch up? The value of a conference such as this today is that it reminds us that we must see this holistically. Telecommunications infrastructure is but one element of Ireland's spatial strategy.

I look forward to seeing the development of the strategy and expect that the Government will draw on the expertise of the telecommunications industry to develop it just as much as they will draw on the expertise of road engineers, environmental managers, education and health authorities. We need to look at the costs of delivering all the necessary types of infrastructure and establish to what degree there are minimum necessary concentrations of population in order for a spatial strategy to succeed.

We know we cannot have a three lane motor highway to every village in Ireland. Neither can we afford to have a fibre optic link reaching into every home. A policy of 'ribbon development' of housing is vastly expensive to serve, in every sense. It would make a huge amount of sense *in the first instance* to concentrate our resources on particular centres that will have the capacity to communicate within themselves and to each other and the wider world with efficiency.

As I have already noted, telecoms services require 'holes, poles and masts: infrastructure build is only partly about high tech elements such as glass fibre or technical equipment. Basic construction such as trenches, holes, poles and tower construction constitute a substantial part of the operations and of course planning complexities add to costs and delays for all kinds of infrastructure. These are issues that can be looked at locally to identify ways of reducing costs for operators for example, including ducts with road-building and repair, identifying suitable sites for installations. These kinds of initiatives are being considered in some places, but we need a systematic review of the possibilities and a practical plan for action.

Another very practical thing we could do is to speed up the planning system in Ireland. We have excellent way of preventing things happening and even better ways of delaying them. A speedy planning process can be just as transparent, fair and in the widest public interest as a cumbersome one. It is extraordinarily difficult for any operator to make a rapid response to the market when the planning process is so slow, unclear and variable from one local authority to another. The demand for better infrastructure is widespread, but the connection between this and the practical issues in respect of delivery including costs and implementation via the planning process is less often made.

I very much hope that this conference today will shift such ideas into a higher gear and that we will learn from each other just how our disciplines impact on one another.

There are a number of other key regulatory issues which we are currently addressing and which have an impact on telecommunications in the regions.

Our Role in the Internet

The use of the internet is one of the main factors driving the demand for the widespread availability of national broadband access. The movement towards e-business via the internet can only be achieved if there are high speed, reliable broadband networks in place. According to Nielsen NetRatings as at end August 2001, there are now over one million people with home access to the internet in Ireland, which represents a penetration rate of approximately 33%⁵.

The role of my office with respect to the internet is to regulate the networks that underpin the internet. Specifically the regulation of transmission for the provision of and access to internet services by means of communications networks. My responsibilities involve many of the issues that I have already

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⁵ Based on a population figure of 3.74 million.

spoken about including PSTN pricing, leased line regulation and overseeing interconnection.

We have undertaken an ambitious program of consultations regarding the development of the internet in Ireland. Our most recent paper, 'The Internet in Ireland' was published in July this year, and we are currently considering responses with a view to publishing a report on our future direction in this important area in the next few weeks.

We are looking at what needs to be done in regulatory terms in respect of major business, small business and residential users. Our role in the Internet as one of a facilitator in the development of the Internet market. This is by developing frameworks for different technologies suited to internet delivery (such as FWA and LLU), pricing of interconnect services and leased lines and the delivery of facilities against agreed service levels.

Leased Line Delivery

The competitive supply of leased lines is essential in terms of leveraging the national broadband infrastructure to supply high bandwidth services to multinationals and corporates. Since liberalisation we have seen decreases in the costs of both national and international leased line circuits and these cost reductions have improved Ireland's relative cost competitiveness within the OECD. Ireland's national leased line costs are 7th in the OECD and in terms of international circuits are 2nd cheapest in the OECD. I will be conducting a further review of leased line pricing very soon.

My office has put a great effort into improving the timeframes of delivery of leased lines to customers. In 1999 we introduced Service Level Agreements that require eircom to adhere to terms covering delivery timeframes, quality levels and maintenance terms and outline the penalties to be paid by eircom to operators in the event of its failure to meet the targets set. Since the establishment of these SLAs we have had to intervene several times to establish backlog programmes.

Recently, eircom has been required to publish details on the web of its delivery performance and we are conducting an audit of processes at present as part of a review to ensure that eircom reaches its objective of being amoungst the best European providers on leaded lines.

Universal Service Obligation

At present the provision of universal service is provided by eircom and is based on the EU directive. This aims to ensure that all reasonable requests for access to the fixed public telephone network and provision of telephone services are met. Universal service is defined in the directive as 'a minimum set of services of specified quality which is available to all users independent of their geographical location and, in the light of specific national conditions, at an affordable price'.

The three main elements of universal service that eircom are required to adhere to are access to the fixed network and services, directory services and the provision of public payphones. The connection to the public fixed telephone network must be capable of allowing users to make and receive national and international calls, enabling speech, facsimile and data communications. Such a connection must be capable of transmitting data via modems at 2,400 bits per second⁶.

Ireland – current broadband use

The ODTR has surveyed business use (both SME and Corporate) of broadband, which becomes of increasing importance once businesses start doing any significant business on-line. Among the larger corporates, 62% indicated that they use leased capacity and 14% ISDN. According to the results in the recent SME survey carried out by IMS for the ODTR, over six in ten (62%) of the companies surveyed do not have any ISDN telephone line and around nine in ten (88%) companies indicate they do not have leased lines. We can expect these

⁶ Annex I (Part 1) of Directive 97/33/EC of 30 June 1997 of the European Parliament and of the Council on interconnection in telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provision (ONP).

figures to grow as 71% indicated that they would increase their broadband requirements in the next 12 months

Finally, just a word of thanks again to the organisers of this conference and to leave you with one thought. It could be argued that a first class telecommunications capability is more important than an adequate road network. If we are going to develop in a commercially viable way, we must make some choices and difficult decisions, to make up our spatial strategy. The core principles of these are matters for Government - national, regional and local. My Office has a supporting role to play in enabling competition and giving the consumer the ultimate power, the power of free choice. But as we strive towards this objective of an Ireland in which each region generates wealth, my Office is keen to share ideas about what is practicable so that such policies can be implemented efficiently.

Thank you.

	Ends		

Note to editors

The BMW region includes

- the **Border** counties Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo
- the **Midland** counties of Laois, Longford, Offaly, Westmeath
- the **Western** counties of Galway County Borough, Galway County, Mayo, Roscommon