



**Consultation on the
Report of the Next Generation Broadband
Taskforce
*Enabling a Connected Society***

**Submission from the
Western Development Commission
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1. Introduction

The Western Development Commission (WDC) welcomes this opportunity to make a submission to the public consultation on the Report of the Next Generation Broadband Taskforce (May 2012).

The WDC is a statutory body established by government to promote, foster and encourage economic and social development in the Western Region¹. It operates under the aegis of the DECLG². The WDC works in co-operation with national, regional and local bodies involved in western development to ensure that the Western Region maximises its full development potential. It does this by:

- analysing economic and social trends and making policy recommendations;
- promoting the Western Region through the LookWest.ie and RE:CONNECT campaigns;
- supporting the rural economy through facilitating strategic initiatives (e.g. renewable energy, creative economy, rural tourism); and
- providing risk capital to businesses through the WDC Investment Fund³.

One of the functions of the WDC is regional policy analysis. The WDC seeks to ensure that government policy reflects the needs and maximises the potential of the Western Region in such areas as infrastructure, natural resources, enterprise and regional and rural development. It also tracks the implementation of policies and recommends adjustments as appropriate. It is in this context that the WDC welcomes the publication of the Report of the Next Generation Broadband Taskforce and the opportunity to submit its insights into the policy formulation process.

The WDC considers this consultation period as an important opportunity for all interested stakeholders to offer their insights. It is hoped that the views of the wider stakeholders will inform and contribute to the formulation of a new Broadband Plan for Ireland to be published later in 2012.

The WDC will first provide some context to the provision of high speed broadband in the Western Region. Following this, some observations are provided on the Introduction and Executive Summary. The WDC then sets out its views in line with the 51 recommendations contained within the Report of the Next Generation Broadband Taskforce (the Report). In some instances no comment is offered as it may be beyond the scope of the work of the WDC.

¹ Counties Donegal, Sligo, Leitrim, Roscommon, Mayo, Galway and Clare.

² Department of the Environment, Community, and Local Government.

³ See www.wdc.ie

1.1 Context

The Western Region: A Rural Region

The Western Region is a predominantly rural region with 64.9% of its population living outside of towns with a population of 1,500 or more. This compares with a national figure of 38%⁴. Because of this, the WDC is particularly mindful of the impact of any changes in government policy on rural areas. The region has four National Spatial Strategy (NSS) gateways (Letterkenny linked with Derry, Sligo, Galway and Shannon (part of the Limerick/Shannon gateway)) and three hubs (Ballina/Castlebar, Tuam, and Ennis).

The population distribution and the size and distribution of urban settlements in the region are different to that nationally. Over half the national urban population live in cities, however as the Western Region has only one city the share of its urban population living in a city is far lower (27.4%). As a consequence, a larger share of the region's urban population lives in each of the other town size categories. The difference is most striking for the smaller towns. In the Western Region 16.4% of the urban population lives in small towns (1,500-2,999) while nationally only 6% of the urban population lives in such towns⁵. This population distribution is important in considering how and with which technologies to deploy Next Generation Broadband.

Infrastructure and regional growth

In the national interest, growth in all regions should be optimised. To do this all regions need to have a strong infrastructure base enabling them to compete, as well as to attract and retain investment and jobs⁶. The importance of spatially targeted investment has been highlighted by the Department of Finance which noted that capital investment that is co-ordinated around the framework of the National Spatial Strategy will position strategic locations as the drivers for growth⁷.

Broadband is widely accepted as critical to the modern economy as a key enabler of innovation, growth and ICT industry. An increasing range of services, from on-line purchases, public information services and education require broadband access. The delivery of public services on-line via eGovernment also yields efficiencies and cost savings.

The current Programme for Government recognises the importance of Next Generation Broadband and has committed that NewERA will co-invest with the private sector and the commercial semi State sector to provide next generation broadband to every home and business in the state. This will be achieved by delivering fibre to the home or kerb for 90% of homes and businesses in Ireland with the remaining 10% provided with high speed mobile or satellite broadband⁸.

⁴ CSO, Census of Population 2011, Population Classified by Area, Table 3

⁵ CSO, Census of Population 2011, Population Classified by Area, Table 7

⁶ WDC 2010 Policy Briefing, *Why Care About Regions? A New Approach to Regional Policy* and OECD, 2009, *How Regions Grow: Trends and Analysis* and OECD 2009, *Regions Matter: Economic Recovery, Innovation and Sustainable Growth*

⁷ Department of Finance, 2010. *Infrastructure Investment Priorities 2010-2016*. p.13, 14

⁸ Programme for Government 2011, p 14.

http://www.taoiseach.gov.ie/eng/Publications/Publications_2011/Programme_for_Government_2011.pdf

The WDC has been engaged on the issue of telecommunications in the Western Region since 2001⁹. In 2002 we published *Update on Telecommunications in the Western Region*, where we assessed provision in the Region and identified recommendations. It is instructive that some of these findings remain relevant today, despite the considerable technological advances since then.

Locations that are distant from the fibre backbone have little prospect of attracting or retaining businesses with high data transfer requirements....In a knowledge based economy, quality broadband infrastructure is a necessity and without it growth and competitiveness will be constrained. Telecommunications infrastructure policy for the Western Region should be based on an acceptance that infrastructure there must be at least on a par with other regions¹⁰.

In the 2002 report the WDC argued that due to lower population densities in the Western Region, in a deregulated market it was likely that there would be insufficient private investment to ensure competitive broadband provision throughout the West.

Poor access in the Western Region is a result of market failure i.e. the commercial return on investment in fibre, or other broadband technology, is insufficient to attract private investment¹¹.

Since the publication of the 2002 report, various government policies supporting telecommunications services in the Region have been introduced, from the investment in Metropolitan Area Networks to the County and Group Broadband Scheme (CGBS), the National Broadband Scheme and the current Rural Broadband Scheme.

The WDC, as a statutory body with a remit for a largely rural region is uniquely placed to offer insights on the broadband needs of the Western Region. This submission on the Report of the Next Generation Broadband Taskforce offers the WDC view on its issues and recommendations and how they may impact on the rollout of advanced broadband services across the Western Region.

⁹ The WDC provided an analysis of broadband issues in *The State of the West* (2001).

¹⁰ WDC 2002, *Update on Telecommunications in the Western Region*, p. 34

¹¹ Ibid.

1.2 General observations on Introduction and Executive Summary

The comments below refer to the Foreword, Introduction and Executive Summary of the Report (pages 4-18). Comments on the specific recommendations are addressed in section 1.3.

Foreword (page 4)

The WDC acknowledges that this report is aimed at addressing how to facilitate the rollout by the commercial operators, of high speed broadband services throughout Ireland, and that the second challenge is to identify the best way for government to address any market failure issues which arise.

The WDC believes that this is the right process; the market should define its areas of commercial interest and then the government can actively bridge any gaps. However, it is important that these two steps are concurrent so that there is not a significant time delay between the rollout of services to the commercially attractive areas compared to those areas which are likely to require government intervention.

Previous practice has been based on a sequential process. For example in the rollout of basic broadband services, the process has been to let the market deliver first and once that process is complete and services are rolled out (which can take many years), the residual areas were defined and subsequently served following government intervention (for example through the National and Rural Broadband Schemes). This is completely unsatisfactory as it means that a significant time delay is factored in.

The WDC considers that a process where the market defines its area of interest and in doing so also identifies those areas requiring government intervention would be preferable. This could be part of the mapping exercise discussed in Recommendation 1. In addition to minimising any time delay in market and government funded provision, this approach will also allow for a geographic assessment of where government intervention is required rather than relying on a process based on individual self-assessment of need subject to market provision (as for example under the Rural Broadband Scheme). A geographic assessment is also likely to be a quicker process rather than waiting for gaps in the market to be identified by individual self-selection following the rollout of commercial services. The latter approach may have contributed to lower broadband take-up in those areas.

Enabling a connected society (pages 9-11)

The WDC agrees with the Report in its consideration of the importance of information and telecommunications technology in helping to determine the country's future economic growth and its competitiveness. The WDC believes that broadband infrastructure is a transformative infrastructure, with the capacity to transform what people do and the way they do it¹². The WDC agrees also with the Report in comparing ICT with electricity and sees

¹² This is in contrast to other types of infrastructure, e.g. transport infrastructure, which is often considered a derived demand, that is the demand for transport is derived from other needs in the economy, for example in a growing economy there is a need to transport more goods and therefore a need for better transport provision.

the rollout of Next Generation Broadband networks as analogous to electrification. With that in mind the return to investment should be seen over similar time periods; the investment in electrification is still yielding benefits today, 80 years later.

Broadband has enabled new product development and facilitated new ways of doing business across all industry sectors. New products include on-line entertainment and games, while new ways of doing business include on-line trading as well as the provision of services electronically for example through e-Government. Broadband also enables a way of working; eWorking and as the Report notes this can be a particularly useful tool in promoting regional development and reducing, if not eradicating the limitations of more peripheral locations.

As an industrial sector, broadband related industry; ICT and Cloud computing is very significant, both globally and in Ireland and includes the hardware and software sectors as well as sectors such as medical devices and e-learning products. In the Western Region, the ICT sector is currently the second smallest employer, though it is a fast growing sector, recording the strongest employment growth in the region since 2007. In 2011 there were 10,800 people working in the ICT sector in the Western Region, an increase of 4,900 persons (83.1%) since 2007¹³. It is also a sector which has a very strong export focus and it is the second largest assisted employment sector in the Western Region (after Medical technology) and it accounted for 13% of total assisted employment in the Western Region in 2010¹⁴.

Broadband in Ireland Today (page 12)

The Report claims that, *all parts of Ireland now have access to at least a basic broadband service*. However, there is no definition as to what constitutes a basic broadband service therefore it is hard to determine whether the above statement is in fact the case. This is discussed further under Recommendation 2.

The Rural Broadband Scheme which is designed to deliver a basic broadband service to those not able to receive a service from the commercial providers, plans to have services rolled out by the end of 2012¹⁵. Until these services are rolled out, it is clear that all parts of Ireland do not have access to a basic broadband service.

On the following page (page 13) the Report acknowledges *....provision of a reliable and consistent service at an affordable price continues to be a challenge in some parts of the country, particularly in rural areas*. This statement more accurately reflects the experience of the WDC in its research undertaken for a review of telecommunications in the Western Region (WDC forthcoming).

There is evidence that household broadband penetration rates differ by region. The latest CSO data show that while 78% of households nationally have internet access, the figure is

¹³ CSO, Quarterly National Household Survey, Quarter 1, 2011, special data analysis. Forthcoming WDC regional sectoral analysis

¹⁴ Based on Forfás data to be published in a forthcoming WDC sectoral analysis

¹⁵ <http://www.dcenr.gov.ie/Communications/Communications+Development/Rural+Broadband+Scheme/>

just 66% in the Border region¹⁶. There is also concern that the minimum broadband service levels are not being delivered. This is discussed further under Recommendation 2.

The National Broadband Scheme (NBS) and the Rural Broadband Scheme (RBS) are programmes designed to deliver universal basic broadband. The WDC believes that if Ireland is to achieve the EU Digital Agenda¹⁷ target of universal broadband by 2013 then these schemes must be rolled out fully and comprehensively with an emphasis on ensuring consistent delivery of a service with a basic minimum speed rather than based on headline rates (discussed further under the section on 'Speeds'). It also must be recognised that services under the National and Rural Broadband schemes are those which aim to deliver only 'basic' broadband, not high speed services.

Targets for the Rollout of High Speed Broadband in Ireland

The government will need to invest to complement private sector investment and it is important that 'a Next Generation digital divide' is not allowed emerge. In addition to ensuring widespread regional high speed access, it is important to ensure that regional broadband costs are competitive with Dublin rates, otherwise these extra costs to business will act as a disincentive to regional investment, job creation and retention and reduce regional and national competitiveness¹⁸. It is also important that broadband costs and speeds improve compared to our international competitors so as to ensure our competitiveness improves and we support export growth as much as possible¹⁹.

Government policy is to promote high speed broadband capacity using NGNs with an aim of ensuring speeds of 30Mbps throughout Ireland, in line with an EU target date of 2020²⁰. To achieve these higher speeds, fibre networks are critical. The physical extension of the fibre network as near to the user as possible and ideally to the home/business, is regarded as the most future proofed technology for next generation broadband delivery. While the fibre network will not be universal, and more rural areas are likely to use a variety of means to access the fibre network such as mobile and satellite, it is important to extend the fibre network as far as possible. If centres in the Western Region are to compete, retain and attract investment and support job creation, investments in various technologies including fibre networks must be made so that the Region is not disadvantaged in its broadband capacity and quality of service.

The following sections set out the views of the WDC in relation to the full list of Industry recommendations / requirements detailed in the Report.

¹⁶ The Border region includes counties Donegal, Sligo and Leitrim which are in the Western Region, as well as counties Cavan, Louth and Monaghan. Central Statistics Office, (2011) Information Society and Telecommunications in Households 2009-2011, p.28

¹⁷ The Digital Agenda for Europe (DAE) is one of seven flagship initiatives under the Europe 2020 strategy for smart, sustainable and inclusive growth. The DAE focuses on the 21st century technologies and online services that will enable Europe to boost job creation, promote economic prosperity and improve the daily lives of EU citizens and businesses in a variety of ways. "

<http://www.dcenr.gov.ie/Communications/Communications+Policy/Digital+Agenda+for+Europe.htm>

¹⁸ Engineers Ireland 2011, The State of Ireland, A Review of Infrastructure in Ireland. p22

¹⁹ Forfás has found that the average business package offered had the second slowest speed among the benchmarked group. Forfás (2011), Ireland's Advanced Broadband Performance and Policy Priorities, p.22

²⁰ <http://www.dcenr.gov.ie/Press+Releases/Faster+Broadband+to+More+Places+Quicker.htm>

1.3 Industry Recommendations/Requirements

Targets

1) Government and industry should consider a formal mapping exercise to verify the industry investment trajectory outlined in the Report of the Working Group on Targets dealt with on pages 33 to 35 of the overall Report and to identify in sufficient detail those areas which will be served with high speed broadband at the predicted speeds in the timeframe considered.

The WDC would welcome a formal mapping exercise which would identify the industry rollout and targets to be achieved. By its nature this process will also show those areas which will remain unserved by the market. Therefore the WDC believes that this recommendation should be amended, so as to include this as a specific objective of the mapping exercise. The mapping exercise should identify both the areas to be served by the market and those areas which will need to be served by a government funded Next Generation programme.

It is important that this mapping exercise be transparent, published and conducted in a speedy fashion to minimise time delay in rollout plans. The identification of areas subject to market failure can be identified by the market and it should not fall to individual users to determine this (as was the case with the Rural Broadband Scheme).

In addition, the WDC believes that a monitoring process should be established to assess the degree to which industry targets and trajectories are being met. The Report states that achievement of the *targets 'depend strongly on the delivery of measures recommended elsewhere in the full Taskforce report'* (p.29) and therefore is probably a 'best case' scenario. The WDC believes that progress towards achieving industry targets should be monitored and assessed and this assessment should include measurement at regional and urban/ rural levels.

This monitoring process including the mapping exercise should not be a 'once-off' exercise but should be undertaken periodically and could be used as part of a regular monitoring process which will help direct industry and government investment plans more effectively.

2) Government intervention could be considered necessary to provide high speed broadband services for the 15% to 30% of the population that may not be served through commercial investment.

The formal mapping exercise (no.1 above) will help determine the extent of government intervention required. However, as noted above, if the targets are not met as planned in the mapping exercise, then the extent of government intervention required may change. Assessment of the extent of government intervention required will be a dynamic process and reinforces the need for a monitoring process.

The Report notes the commitment in the Programme for Government 2011 to co-investing with the private sector to provide high speed broadband to every home and business, by delivering fibre to the home or kerb to 90% of homes and businesses and providing the remaining 10% with high speed mobile or satellite. The WDC believes that an additional

criterion in determining the need for and extent of state investment should be in the choice of technologies to be deployed. Where possible (though it may require additional investment), fibre to the home or kerb should be the preferred technology because fibre, as the most future proofed technology, will ensure the greatest return on investment, be it to the state or industry²¹.

Area Categories

The Report identifies three types of areas

- principally urban areas
- areas outside the urban centres (as above) but not rural areas
- rural areas with dispersed populations which are likely to require government intervention in order to have new high speed services.

While noting that these are not definitive, it would be helpful to have greater clarity on the constituents of these categories, naming the urban centres and defining rural areas. For example, Forfás in its analysis²² proposed the threshold of centres with a population greater than 1,500 as those areas to be served by advanced broadband of 100Mbps download speeds. The WDC believes that greater clarity on the constituents of categories, naming the urban centres and defining rural areas, should be included as part of the formal mapping exercise. A definition of the categories could be an objective of the mapping exercise and could provide clarity on how and what type of services are likely to be delivered and when.

Speeds

As noted the targets and trajectories outlined may be a best case scenario and the targets are only realisable subject to many other developments. This and the acknowledgement that 'the DAE [Digital Agenda for Europe] targets represent headline speeds' (p31), which in many cases are NOT achievable are very important considerations. The issue of headline speeds is discussed further at recommendation No.4.

There is a lack of clarity on basic broadband speeds. Given the importance of speed as a criterion for broadband services it is unfortunate that a definition of 'basic broadband' is not provided in the Report²³. According to DCENR, the minimum speeds to be provided by the Rural Broadband Scheme are approximately 1 -1.6 Mbps download, comparable to the National Broadband Scheme with a commitment to download speeds of 1.6Mbps, though if the service is to be delivered by satellite the minimum download speed is 1Mbps²⁴. In the Report, the diagram on page 81 seems to indicate that 'Basic Broadband' has headline speeds of 3-10Mbps (though as will be discussed the use of headline rates poses particular difficulties). Even considering the lower speeds under the NBS (and the RBS) it is clear to the

²¹ This is also the view of Forfás in their recent publication, Forfás (2011), Ireland's Advanced Broadband Performance and Policy Priorities, p.35

²² Forfás (2011), Ireland's Advanced Broadband Performance and Policy Priorities

²³ There is a general trend of raising the threshold of the broadband definition as higher data rate services become available, so for example in 2010 the U.S. Federal Communications Commission (FCC) defined "Basic Broadband" as data transmission speeds of at least 4Mbps downstream. Ten years ago, Forfás (2002) defined broadband as anything higher than Basic Rate ISDN (144k/bits) and ComReg defined the minimum threshold for broadband as 512kbit/s. (ODTR Report 02/79)

²⁴ <http://www.dcenr.gov.ie/Communications/Communications+Development/National+Broadband+Scheme/NBS+FAQs.htm#Product>

WDC, that there is dissatisfaction with service levels under the NBS in parts of the Western Region²⁵.

The Report discusses user speeds required for different applications (p.32) but appears to discuss download speeds only and there is no reference to upload speeds. WDC research has found that there are difficulties for the SME sector in particular with the available upload speeds. Poor upload speeds have prohibited the use of video-conferencing in particular, which is a particularly useful tool for businesses located on different sites and can significantly reduce travel costs to business, in terms of time and expense, especially those located in more peripheral areas such as the Western Region.

In addition, as the range of on-line activities grows and user participation increases it is probable that upload speeds will become increasingly important. Just as the definition of 'basic broadband' has increased over time, it is likely that the importance of upload speeds will grow.

Investment plans over next 3-5 yrs

- The Report indicates that initial investments are likely to concentrate on urban areas and investment in the cable network is likely to only have an impact in a few parts of the Western Region, most likely Galway and Sligo.
- The spatial extent of the investment plans of eircom are not specified but the 1.04 million premises it plans to upgrade are likely to be in the main urban centres and it is not clear how much of this investment will be in the Western Region.
- The Report notes that the additional availability of spectrum will help the rollout of new and advanced mobile and fixed wireless services but there is no detail on specific investments or information on how much the market will provide.

Actual targets/ Conclusions

- The Report indicates that Ireland will meet its EU target of basic broadband for all by 2013 (upon completion of the government's Rural Broadband Scheme). According to DCENR, the minimum speeds to be provided by the Rural Broadband Scheme are approximately 1 -1.6Mbps download, comparable to the National Broadband Scheme. The WDC is aware of dissatisfaction with service levels under the NBS in parts of the Western Region. Much relates to unreliability and the slower speeds due to contention, and some relates to the fact that the minimum service is inadequate to meet the needs of users today. In a survey of 280 creative sector businesses operating in the Western Region improved infrastructure including broadband was the number one recommendation to attract/retain creative sector businesses. A current lack of sufficient quality broadband was also cited as a constraint to their operation and expansion in interviews with creative sector enterprises operating across the region, but particularly those based in rural areas²⁶. This research also found that there was very low export activity among creative sector businesses in the region with only a third exporting to any extent. Increasing export activity within this sector is vital to its future growth and job creation and high speed broadband

²⁵ Further detail will be provided in a forthcoming WDC report.

²⁶ WDC, 2008, Baseline Research on the Creative Industries Sector in the Western Region of Ireland

access would be a key facilitator for increasing exports. In 2010 a lack of/inadequate broadband was cited as a barrier to increasing exports among creative sector businesses in the Western Region²⁷. While improved broadband speeds are a national issue, it is particularly important to ensure acceptable broadband speeds for rural businesses and those needing to trade on-line.

Acceptable and required broadband speeds are increasing all the time. What was deemed a minimum standard ten years ago would not be considered acceptable now, and the minimum speeds to be delivered under the Rural Broadband Scheme will be completely inadequate for future needs. Rural and regional areas must not be left behind.

- The Report notes that by 2015 over 50% of the population will have access to headline speeds in excess of 70Mbps. The delivery of high speed broadband to a large segment of the population is welcome and will ensure that at least parts of the country will be on a par with comparator countries. While it is probable that these higher speeds will be available first in urban areas, the regional pattern is less clear. It is important that in delivering this target there is a good spatial balance across regions²⁸ and that centres in the West also benefit.

From an enterprise development perspective it is also important that there is regional balance in the availability of Next Generation services. As noted the ICT sector is very significant and fast growing sector. It is the second largest assisted employment sector in the Western Region. Next generation access is an important selling point for the State's development agencies and widespread availability will be important in ensuring support for new investments, both foreign and indigenous.

- The Report sets out the view that between 70-85% of the population will have access to minimum broadband speeds of 30Mbps by 2020, through a combination of technologies including mobile and 4G fixed wireless. The remaining 15-30% of the population will only have the basic broadband service currently available. This assessment falls far short of the Digital Agenda for Europe targets which promise minimum broadband speeds of 30Mbps or higher to all citizens by 2020. This means that 15-30% of the population will not have access to the agreed EU target speeds and will be relying on basic broadband which in some cases is currently insufficient for their needs.
- The Report notes the urban /rural divide in terms of future infrastructure investment. There may also be a regional divide emerging where some regions have limited investment and others are well served. The rural nature of the Western Region suggests that this region will be more severely impacted by market failure. The WDC acknowledges that Ireland has a relatively low proportion of people living in urban areas compared to the OECD average, however its rate of 62% is similar to

²⁷ WDC, 2011, Economic Impact Assessment of the Creative Sector in the Western Region: Future Growth Trajectories, compiled by the Centre for Innovation & Structural Change on behalf of the WDC

²⁸ For example it would be possible to achieve the 50% target by providing services to Leinster only as in excess of 54% of the population live there.

Finland, Japan and Hungary. Also Ireland's population density is higher than several other comparator countries, for example Australia, Finland, USA, Canada and Sweden all of which have higher rates of fixed broadband subscribers²⁹ and some have more ambitious targets. For example in Finland a universal service of 1Mbps was set for 2010, with a further target that by 2015 more than 99% of the population will have access to 100Mbps³⁰. In Australia, the advantages of high speed broadband in connecting rural areas and in delivering on-line education and health services is a key goal of that country's Digital Strategy³¹.

2 contd.) The Government may also wish to consider whether the speeds that are likely to be available to the other segments of the population, outside of urban areas, meet the needs of an emerging digital economy and society and whether there are further measures which could accelerate or improve services in this band.

Given that the current basic service is quite unsatisfactory to many (small) businesses and householders in the Western Region especially in rural parts, it is clear that further measures to improve services are needed. The WDC believes that the current poor level of service available to many rural businesses and householders is hampering growth and development and undermining competitiveness. Case studies of particular difficulties will be outlined in a forthcoming WDC report. To support the needs of a digital knowledge economy, better upload and download speeds which are competitively priced need to be more widely available.

The Report notes that the State will need to intervene to address market failure. The WDC believes that any State investment designed to deliver high speed broadband must be based on technologies which are future proofed over the longer term and not just aimed at the immediate targets of 2015 and the 2020 Digital Agenda for Europe target. This investment should be seen as analogous to rural electrification with a cost-benefit time period potentially in excess of 100 years. This is also the view of Forfás, arguing that state investment should be in the most future proofed technology³². This longer term perspective will also inform consideration of target broadband speeds under a government funded NG programme, which should be aimed at being as close as possible to that available to the 'urban' population. The WDC believes that investment should be guided by a principle of deploying fibre as extensively as possible; to the home or kerb, to ensure the greatest return on state investment.

2 contd.) It would be important however that any State intervention would only occur in a manner compliant with applicable EU State Aid rules to avoid undermining existing or planned private sector investment.

The WDC agrees that state intervention should comply with EU State aid rules, however it is clear that some level of government intervention is required to ensure high speed broadband services are available to all. The extent of this requirement at a spatial and

²⁹ Forfás (2011), Ireland's Advanced Broadband Performance and Policy Priorities, p.19

³⁰ <http://www.lvm.fi/web/en/topical/pressreleases/-/view/4109304>

³¹ <http://www.nbn.gov.au/the-vision/digitaleconomystrategy/>

³² Forfás (2011), Ireland's Advanced Broadband Performance and Policy Priorities, p.35

financial level will be informed by the mapping exercise discussed at no. 1. In certain instances, there may be preferential terms under State aid rules for investment in rural areas so as to ensure that rural and regional areas are not left behind in accessing high speed broadband services. Any flexibility in rules which will help deliver better broadband services to areas where the market is not active should be explored so as to ensure investment in services in these areas are maximised.

3) The State should consider targets for the take up of broadband services by various segments of society, including SMEs and citizens generally, and consider concrete measures to incentivise these groups to engage.

The State could consider targets for broadband take-up and if so doing, it would be important that all regions, as well as rural and urban areas be included. The impact of various incentives should be measured at a spatial level to ensure that the weaker performing regions are benefiting from the measures. It would also be important to fully understand the reasons for poor take-up. It is likely that poor take-up, in certain areas can be attributed to poor service availability, which in many cases is compounded by poor customer service³³. Any concrete measures (and/or funding) designed to incentivise take-up will only be effective once a quality service at an affordable price is available to the particular target group.

4) Government may also wish to consider whether an interim target/s for 2015 should be considered with industry, delivered in such a way so as to ensure that consumers and business can expect a certain minimum standard of service and speed regardless of location or time of day.

Consideration of targets for 2015 which would include minimum standards of service and speed regardless of location and time would be welcome, but only if they are realisable. An introduction of realisable targets based on minimum speeds might help improve customer satisfaction and increase consumer demand as the current practice of using headline rates, which in many cases are unachievable has possibly discouraged demand and led to dissatisfaction and frustration among customers.

Setting targets which use criteria which are rarely achievable (headline rates) is providing a service with in-built customer dissatisfaction! The problem in using headline rates is compounded by the nature of contended services, where increased demand and usage (as the industry and government are promoting) will reduce speeds even further below the headline rates.

While the more experienced users may well understand the use of headline rates, those who are more inexperienced are less likely to and these are among the target groups for increasing the demand for services.

³³ For example there is dissatisfaction in parts of Leitrim and Roscommon with services under the National Broadband Scheme in terms of both service level (download speeds at or below the specified minimum level and intermittent services) and poor customer support. These will be discussed in a forthcoming WDC report.

Demand Stimulation

5) The Government, in partnership with industry (both the telecommunications service providers and content providers), should co-fund a national awareness campaign aimed at presenting a positive and compelling case highlighting the benefits of the Internet to the various target groups not currently digitally engaged, with a particular emphasis on the SME sector. Additionally, DCENR should urgently develop a comprehensive new National Digital Strategy which reflects the full range of issues, benefits and challenges required to make Ireland a modern digital society and economy.

A campaign by industry to highlight the benefits of the Internet to those not 'digitally engaged' would be welcome, but to be effective it will need to specifically target different groups (elderly, unemployed, socially disadvantaged, SME sector) and different areas and fully understand the reasons for low engagement.

Parts of the Western Region have consistently lagged the national average in broadband take-up. The latest CSO figures indicate that while 78% of households nationally have internet access, the figure is just 66% in the Border region. In the Mid-East region 87% of households have internet access while in the West region it is 79%³⁴. Reasons for this are likely to include access to services, cost³⁵, the later availability of broadband services and the generally older demographic profile.

Broadband take-up is often slower among the elderly and some groups in Ireland have developed specific initiatives aimed at supporting them. For example, the Benefit 3 Scheme funded by the Department of Communications, Energy and Natural Resources has supported Age Action in providing digital skills training has trained more than 11,000 older people in how to use a computer^{36,37}. The WDC welcomes the recent extension of the scheme. Other countries have also developed specific training schemes for the elderly. An effective example of this has been the government sponsored Broadband for Seniors Program in Australia which is aimed at supporting those over 50 years in learning the skills they need to participate in the digital economy³⁸.

The continuing deficit in broadband services in the Region is evident in the data on the applicants to the Rural Broadband Scheme which indicate a disproportionately high number are in the Western Region. While the Western Region accounts for 18% of all households nationally, it accounted for 27% of applicants to the RBS indicating a greater regional need.

As the Report acknowledges, access may still be an inhibiting factor, and though basic broadband may be widely available, there are parts of the country with high levels of dissatisfaction with service availability. In the Western Region a section of the target

³⁴ Information Society and Telecommunications in Households 2009-2011, CSO 2011

³⁵ Cost of services is also likely to be a factor, arising out of the huge increase in unemployment, for example 17% of adults in the Western Region now live in a jobless household. Source: CSO, Quarterly National Household Survey, Q1, 2011, Special Run

³⁶ <http://www.dcenr.gov.ie/Communications/Knowledge+Society/Digital+Inclusion/Benefit+3+Digital+Skills+Training+Grant+Scheme.htm>

³⁷ <http://www.ageaction.ie/getting-started/about-getting-started>

³⁸ <http://www.nbn.gov.au/nbn-benefits/for-households/government-initiatives/broadband-for-seniors-program/> Since 2008, the Australian Government has invested \$15 million to establish 2,000 internet kiosks across Australia to provide older Australians with free access to computers and the internet, as well as training in information technology skills.

population including sole traders and small businesses are frustrated by poor service levels. There are parts of the SME sector that cannot access services to satisfy their requirements. In some cases pricing is an issue; higher speeds at a more competitive cost are available to competitors across Europe, in other cases there is a lack of service availability ranging from intermittent and inconsistent basic broadband services with poor customer service under the National Broadband Scheme through to a lack of sufficient upload speeds to support basic videoconferencing. An example includes an SME in county Galway, who wishes to avail of a higher speed broadband service to connect with its site in Scotland and to use videoconferencing to reduce the travel time undertaken by senior executives. They have been advised that this service is not available to the company and there is little prospect of it being available in the foreseeable future.

The WDC believes that a better quality service which reliably delivers sufficient speeds all the time will help stimulate demand. In some cases, better services, or rather services that deliver what the consumer believed they had subscribed to (rather than the often unrealisable headline rates), will engender customer confidence in services and they are then more likely to subscribe to additional services.

Although government funding is always limited, it is likely that it will be particularly constrained for the foreseeable future. With that in mind investment choices are more limited and given the gaps in the industry investment plans in more rural areas discussed under Recommendations 1 and 2, the WDC believes that rollout of infrastructure and services to those areas unserved by the market should be the priority for any available government funding. An industry funded awareness programme targeted at specific groups and areas could supplement this investment and help stimulate demand and use of the infrastructure and state investment.

6) While it is acknowledged that the ongoing intervention of training funded by the corporate, community and voluntary sectors is producing positive outcomes in terms of increasing the numbers who are digitally engaged, there is a crucial need to invest in awareness raising measures. While it would ultimately be a matter for Government to decide, any such campaign should have clear targets in terms of a timescale over which penetration and take up rates would be increased (measured through both SMEs and households).

The reasons for poor broadband take-up vary across different groups. As has already been noted take-up in parts of the Western Region is associated with a lack of or poor service availability rather than any lack of awareness of the benefits of broadband. Any awareness campaign will need to be targeted so as to ensure it does not add to the frustration of those who want better services but cannot access them.

Any campaign which has clear targets should also measure regional access, so as to measure performance across all regions and ensure that more rural areas, such as the Western Region are not falling further behind.

7) The Centre for Management and Organisation Development (CMOD) led eGovernment Strategy paper, to be published in 2012, should focus on the increased availability of online

services and should include mechanisms to improve the degree of integration and co-ordination in the delivery of public ICT services to citizens.

The relationship between the public and the State is increasingly taking place via the internet and it is important to ensure that limited broadband access (for whatever reason; poverty, social exclusion, skills, interest) does not cause further isolation or exclusion. The promotion and extension of on-line service provision, especially by government should ensure that it is not an exclusive method of interaction and that traditional face-to-face or telephone methods are still available. Even with interventions such as Benefit 3, there will remain those who cannot or choose not to engage on-line.

8) Consideration should also be given to mandating online interaction with selected Government services within a defined time period. While the Working Group understands that the primary rationale for the new eGovernment strategy is to reduce costs and increase efficiencies in the delivery of public services, the opportunity should also be taken, in line with the clear targets in the DAE, to ensure that public sector websites and online services are brought in line with international web accessibility standards so as to make them more accessible to people with a disability.

The WDC believes that any promotion of on-line service provision, especially by government should ensure that it is not an exclusive method and traditional face-to-face or telephone methods are also available. Wider use of ICT for accessing government services on-line can be more efficient and reduce travel times. However there are some (particularly among the elderly), who may prefer to engage at a personal level and may choose the extra travel time in order to have greater social interaction and to reduce a sense of isolation. For those not able to (due to access, cost or other reasons) , or who do not wish to avail of broadband, the ever increasing online service delivery by both public and private service providers makes it increasingly difficult for these citizens to access services. It would be important not to disenfranchise the more vulnerable members of society in the effort to expand eGovernment.

The WDC agrees that as part of the government strategy, efforts should be made to ensure that public sector websites and online services are harmonised in line with international web accessibility standards so as to make them more accessible to those with disabilities.

9) Given the economic and financial status of many of those not digitally engaged, financial stimuli, through tax incentives or phased payments through the social welfare system, should be given to incentivise the purchase of PCs/laptops. The current allowance from the Department of Social Protection (DSP) at €22.22 should be extended to include all electronic communication services and it should be left to each individual customer to choose their preferred service provider. This extended scheme should be directly administered by the DSP and be open to all operators, irrespective of technology platform.

The WDC would support the extension of the current allowance to include all electronic communication services. Technological change and consumer demand will drive the increasing use of mobile devices for internet access. This pattern is likely to pervade every region but may be of particular value to areas such as the Western Region and other rural

areas, which may become increasingly reliant on mobile devices availing of wireless and mobile broadband rather than traditional PC usage.

10) The current rate of eWorking available in the Irish public service should be significantly increased so as to increase the demand for residential Internet connectivity. The Civil Service, as a very significant employer, should be used as an exemplar and the focus should be on areas where such developments would not impact adversely on the delivery of customer service.

The WDC as a public body supports the concept of eWorking and has itself operated an eWorking policy since 1998. The WDC can vouch for the value of remote working in improving efficiencies and reducing commuting times. The practice of eWorking can also be very valuable in supporting rural employment and a company case study of this and the use of broadband in supporting eWorking will be outlined in a forthcoming WDC report.

However, for eWorking to be effective reliable broadband speeds are required and it is clear that in parts of the Western Region even a very basic service suffers from poor quality with intermittent speeds. Therefore to be effective any eWorking campaign will need a reliable broadband service. The government's eWork Action forum in 2001³⁹ noted that one of the more significant obstacles to more widespread deployment of eWorking was the need for adequate telecommunications services. Over 10 years on, services in some parts of rural Ireland are still inadequate and cannot fully support eWorking.

11) The Government should continue to invest in broadband for schools to ensure we have a current and future generation of digitally skilled citizens. Such investment will increase overall demand not just in the schools themselves but in the wider community in which they are located. The proposed change to the Junior Certificate cycle should be used as an opportunity to include computer science as a core subject and collaborative national and international project work facilitated by high speed connectivity should be encouraged. In addition to the very welcome investment to provide high speed broadband connectivity to all of Ireland's second level schools, it is also important that schools and teachers are further supported through the development of improved digital content and through ongoing teacher training and development of ICT skills.

The WDC welcomes the extension of the pilot Schools Broadband scheme to all second level schools who will be able to access high speed broadband (100Mbps) by 2014. This will ensure that broadband access in schools will be sufficient to deliver education using modern methods (such as on-line delivery) as well as improving and modernising the educational content available (such as digital textbooks).

The WDC is particularly pleased that all post-primary schools in the seven counties of the WDC Western Region will be included in the first phase of the rollout and will have 100Mbps by the end of 2012. This will help ensure that children attending schools in more peripheral regional and rural locations will have access to high speed broadband in school, even if

³⁹ <http://www.djei.ie/publications/trade/2001/ewaf.pdf>

those services are not available at home. This can also help stimulate demand for higher access speeds at home.

However the WDC is concerned that parts of the education sector may be overlooked with regard to high speed broadband access. These relate particularly to facilities which are educational but are not served by the HEAnet system. A specific example is the Mayo Education Centre, based in Castlebar Co. Mayo which cannot access sufficient broadband speeds to deliver the various on-line education and training courses they provide. In particular upload speeds are insufficient to allow the tutor and students to upload their course work and the tutor is unable to use video-conferencing facilities. The WDC believes that all training and education centres should be able to access high speed broadband so as to allow them deliver high quality training. This is particularly important in the current climate with high unemployment and a renewed focus on re-training and re-skilling to enable the unemployed and underemployed to successfully re-enter the workforce⁴⁰.

12) The Irish SME sector is losing large volumes of business opportunities through its lack of engagement with the Internet. Initiatives aimed at addressing this should be supported and should include the City and County Enterprise Boards, SOLAS (formerly FÁS) and other relevant State agencies. The WebActivate programme was very successful in terms of engaging SMEs and should be reintroduced without delay. This should occur in parallel with various marketing and awareness raising initiatives designed to sensitise SMEs to the potential for them to grow their business.

The WDC would welcome initiatives such as the WebActivate programme and it would be important to ensure that these are available and promoted across all regions. There is limited regional data on enterprise ICT usage but a recent survey for the Commission for Communications Regulation found that just 12% of businesses in Connacht/Ulster with a fixed lined used VoIP (Voice over Internet Protocol), much less than the national average of 18%⁴¹.

As a related issue the WDC would welcome improved data on the regional take-up of broadband services by enterprise as, better data will help inform and target initiatives to where they are needed most.

However, while there may be parts of the SME sector in the Western Region which are not aware of the growth potential associated with on-line activity, there is also a segment of SMEs in the Region which is frustrated by poor services hampering the growth of their business. Some of these issues are noted under Recommendation No.5.

Another consideration which could promote take-up of broadband services in the Western Region would be more active marketing of services to the enterprise sector. The availability of new services via the fibre networks across the Western Region, should be actively marketed to potential clients to avail of latent demand. Technological change and cloud computing potential may not be fully appreciated by owner managers in the SME sector in particular. The WDC believes the marketing and business plans of the industry providers

⁴⁰ The particular education and training issues that arise from the economic downturn in the Western Region are discussed more fully in the WDC (2011) Policy Briefing no. 4, *Education, Enterprise & Employment – How Can Better Integration Of The 3Es Drive Growth In The Western Region?*

⁴¹ <http://www.comreg.ie/fileupload/publications/ComReg1196b.pdf> (Slide 36)

should be cognisant of the specific nature of the region which is less densely populated than other regions and with a greater need to attract new clients to avail of the network. Communication to potential clients via trade associations and local Chambers of Commerce may help target potential clients.

13) While the focus in this report has been on engaging those who are not currently Internet users, it is also acknowledged that areas such as eLearning and eHealth offer very significant potential in the future in terms of economic and social benefits through increased efficiencies, lower costs and increased demands for bandwidth and services. The early market advantage for small Irish companies in the areas of next generation Internet, transport, mobile applications, eLearning, eHealth and energy management should be capitalised on.

The WDC would be very supportive of highlighting applications such as eLearning and eHealth. In the Western Region, eLearning is well established as a delivery mode, for example Institute of Technology Sligo have pioneered its use across the region and internationally and the Mayo Education Centre has been delivering on-line courses for the last decade at least. However as discussed at Recommendation 11, on-line delivery is hampered by inadequate broadband services, specifically insufficient upload and download speeds. There is a significant growth potential for international trade in on-line education services which can only be realised with better broadband services.

The WDC also sees huge possibilities in the application of eHealth services across the Western Region, which has an older age profile, a more dispersed population and in some cases, relatively long distances to major medical centres. More advanced broadband access will be critical to ensure that these applications can be used.

14) While there are many areas that can create demand, the socio-group in the age bracket 25 to 54 are likely to be the ones to have most influence both on younger and older demographics. When targeting demand initiatives, particular attention should be given to this group as they are most likely to be direct consumers of high speed technologies or those who fund or facilitate others to do so (such as children, education, elderly).

When targeting demand initiatives at the 25-54 age cohort it would be important to recognise and respond to the different constituent groups within it. A particular group which could be targeted are the unemployed, who may be very skilled in particular sectors for example construction, but may have limited skills in accessing the internet. As has been noted with regard to eWorking some employees may access the internet at work and the introduction of eWorking may prompt more internet usage at home. The unemployed may be completely marginalised, with no option for internet usage at work or at home. The lack of engagement can further diminish any skills these individuals may have had. A range of upskilling, reskilling and professional development training targeted to the needs of this group will help create demand.

As has been noted, there is a regional/ rural difference with regard to broadband take-up. Demand stimulation measures will need to address this spatial pattern. While a factor may be the higher age profile in some rural areas, the continuing deficit in broadband services in

the Western Region is evident in the data on the applicants to the Rural Broadband Scheme which indicate a disproportionately high number are in the Western Region.

In devising demand initiatives it would be important not to be too prescriptive with regard to age brackets. The ever increasing age profile of the population means that the elderly are likely to be an increasingly significant consumer cohort. It is also worth noting the degree to which definitions of 'elderly' vary, for example the Australian Broadband for Seniors program invites applications from those aged 50 years or over.

Infrastructure Barriers Removal

Much of this section is focussed on the disincentives and barriers to the deployment of telecommunications infrastructure and the role of Local Authorities in particular in improving processes. The WDC does not have a remit with regard to the planning process or administrative processes associated with the deployment of telecommunications infrastructure. Therefore with the exception of Recommendation no. 22, the WDC has no comment on Recommendations 15-33.

However, the WDC is sensitive to the particular needs of the Western Region, as a particularly rural Region extending over seven counties and eight Local Authorities. Therefore the WDC would welcome any improvement in procedures and standardisation of processes which will facilitate industry and help incentivise more widespread deployment of telecommunications infrastructure across the Region. The WDC also supports in general the shared use of state infrastructure for the rollout of telecommunications infrastructure no 17 (iv) and actions designed to facilitate the deployment of telecommunication infrastructure which will deliver 100% coverage of higher broadband speeds.

22) Local Authorities and telecommunication operators should work together to plan the coverage required within a county over a number of years. As part of this process, telecommunications operators should co-operate with Local Authorities and, if necessary, with ComReg to provide information to Local Authorities on site location of existing and planned sites, existing sharing arrangements and future sharing potential.

The WDC would welcome co-operation between the telecommunications operators, the regulator and local authorities to help deploy network infrastructure in a planned manner at local level to ensure the widest possible delivery of Next Generation Broadband services. Apart from their role in the planning process, local authorities have developed expertise in the delivery of broadband infrastructure, through their role in previous broadband initiatives, for example the deployment of Metropolitan Area Networks (MANs) and the County and Group Broadband scheme. The WDC believes that deployment of Next Generation Broadband access will be more successful, if those operating at a local level work together and plan effectively for the deployment of infrastructure.

Spectrum Policy

Many of the recommendations on Spectrum policy relate to licensing issues and apply to ComReg and the industry, therefore the WDC will not comment on those recommendations. In general however, the WDC believes that the licensing regime should fully support the rollout of high speed broadband in rural areas as wireless technologies are likely to be the primary mechanism and in some cases the only mechanism for delivering high speed broadband in rural areas.

37) It is recommended that prompt and express confirmation is forthcoming from ComReg that spectrum sharing/pooling would be permitted by licences under the existing wireless telegraphy legislation. It is also recommended that guidelines would issue from ComReg and the Competition Authority in relation to spectrum sharing/pooling and competition/merger analysis, including locations/circumstances in which it is clearly permitted and not permitted. These should also have regard to the rollout of high speed broadband in areas where market failure has been identified, including rural areas, and to the achievement of high speed broadband targets.

The WDC supports the recommendation that the licensing and guidelines of spectrum sharing/pooling have regard to the rollout of high speed broadband in areas where market failure has been identified, including rural areas, and to the achievement of high speed broadband targets. The WDC believes that spectrum sharing should be maximised to extend coverage and improve speeds in rural areas and notes that this possibility has been stated by Industry in the Report⁴².

The WDC submission on Spectrum Policy in 2008 identified the importance of spectrum policy in delivering Next Generation Broadband in rural areas.

“It is important that spectrum policy takes cognisance of the role of wireless in Next Generation Access (NGA)...Spectrum policy needs to acknowledge that the use of wireless technologies will be the only alternative for the provision of NGA in many parts of Ireland. The policy needs to explicitly recognise this fact and take account of the knock-on economic, environmental and social benefits of spectrum to the development of the more rural parts of Ireland.”⁴³

The WDC is concerned that the coverage requirements which will apply to the 4G licence holders will not adequately support the rollout of high speed services in the Western Region. Industry and government acknowledge the very important role that spectrum has to play in delivering high speed broadband in rural areas⁴⁴. As delivery will be concentrated in the higher density areas, the 70% population coverage requirement will deliver a geographic coverage rate much less than 70%. It has been suggested that the national geographic penetration rate could be as low as 12.9% nationally⁴⁵. There is no regional coverage

⁴² DECNR, 2012, Report of the Next Generation Taskforce, p.64

⁴³ WDC Public Consultation on Spectrum Policy, Submission to Department of Communications, Energy and Natural Resources, November 2008, p.4.

⁴⁴ DECNR, 2012, Report of the Next Generation Taskforce, p.61

⁴⁵ These issues were deliberated in the ComReg Consultation process as well as noting the experience of other countries with higher coverage requirements. Several stakeholders took the view that the population coverage requirements could be higher. <http://www.comreg.ie/fileupload/publications/ComReg1225.pdf>. The rate of 12.9% was contained in a submission to ComReg by S. Minch.

requirement and this is likely to impact much more negatively in the Western Region with its lower population density. If for example, in order to reach the coverage requirements, the licence holders decided to target towns with a population in excess of 1,500, nationally this would extend to 62% of the population, but in the Western Region it would only cover 35.1% of the population⁴⁶.

Apart from impacting severely on smaller settlements and rural areas this will also impact on mobile coverage as there will be extensive black spots across the Region. The WDC is concerned that one of the primary technologies considered appropriate by industry to deliver high speed broadband in rural areas will have very low population coverage in the Western Region and even lower area or geographic coverage under the new spectrum licences. Given this it is even more important for sufficient government intervention to ensure high speed services in rural areas.

The Commission for Communication Regulation, in coming to its view on the appropriate population coverage requirements considered that rural area coverage obligations have been met through the provision of the NBS and RBS⁴⁷. However, these schemes relate only to the provision of basic broadband services, which as we have seen are not currently adequate for some users, let alone sufficient to support the higher speeds which will be needed into the future.

39) DCENR's spectrum policy paper should be updated taking into account the matters discussed by the Working Group. In particular, it is recommended that the policy paper addresses the overarching public policy issues and clearly establishes the policy outcomes required by Government in the area of spectrum and related communications matters.

The WDC believes that an update of the DCENR spectrum policy paper needs to take cognisance of the particular role wireless technologies and spectrum policy will have in the deployment of higher speed broadband in rural areas. Spectrum policy needs to ensure that national wireless services are rolled out to rural areas as well as urban areas and also recognise the special requirements of those areas that are unlikely to receive services delivered via cable and/or deep fibre networks for a long time, if ever.

43) Where network operators are mandated to build out network infrastructure in rural areas, the industry representatives recommend that ComReg would take a holistic economic view to reduce the total cost of ownership of the licence.

The WDC believes that because wireless broadband may be the only available means to ensure delivery of Next Generation Broadband in some rural areas, and in some areas there is likely to be limited competition in providing such services, ComReg should take a more holistic economic view of the cost of ownership of the licences and include the societal value of Next Generation Broadband provision.

http://www.comreg.ie/publications/spectrum_liberalisation_-_publication_of_non-confidential_responses_to_comreg_document_11_60_and_recent_correspondence.583.104000.p.html

⁴⁶ CSO 2011, Population by Area (Formerly Volume One)

⁴⁷ http://www.comreg.ie/publications/response_to_consultation_and_decision_on_multi-band_spectrum_release_d04_12.583.104062.p.html p. 186 para 5.151

The WDC believes that the criteria used in evaluating public investment projects need to consider sufficiently those impacts which may be hard to quantify such as regional and rural development benefits. One of the key tools in assessing the value of investment projects is cost benefit analysis (CBA) which often does not adequately value important non-quantifiable impacts. The potential benefits of more balanced regional and rural development including maximising regional growth, a greater choice of where to live and work, less commuting time, reduced congestion costs and a better spatial distribution of economic activity are not included in many CBA evaluations, but are nonetheless important and valuable government policy objectives. The WDC would therefore welcome a more holistic view, taking account of the wider social and economic benefits which may accrue from investment in network infrastructure in rural areas.

State Assets and Entities

44) In order to inform Government policy in this area, industry should prepare a paper identifying key gaps in infrastructure provision with a view to establishing where State owned assets and services might facilitate the closing of those gaps.

The WDC would welcome a comprehensive paper identifying gaps in infrastructure provision. This could supplement the formal mapping exercise discussed in Recommendation 1 and will help inform the State and industry on gaps requiring investment.

An immediate investment requirement is to build Metropolitan Area Networks in the five remaining NSS centres, four of which are in the Western Region; Tuam, Castlebar, Ennis and Shannon. This has been a stated objective of the most recent NDP⁴⁸, and the most recent Forfás reports on Broadband⁴⁹. The evidence indicates that there are considerable advantages to a location in attracting enterprise development and foreign direct investment in particular. In terms of jobs and foreign investment, the State investment in MANs has had a significant impact; from 2004 through to 2007 the first 27 MAN towns had increased their share of new IDA jobs from 24% to 89%.⁵⁰

These advantages are over and above the benefits of additional fibre capacity which improves backhaul and promotes competition in service deployment, which in turn can help reduce price and extend the fibre reach to more towns and businesses in urban centres. These fibre networks will be very useful in extending deployment of Next Generation Broadband to homes and businesses in the MAN towns.

45) The Government should set out a clear policy position on the operation of commercial State companies and their assets / services in the telecommunications market. This policy should:

- *consider issues such as open access where possible, competition benefits, market based pricing and engagement with private sector operators;*
- *encourage terms and conditions which ensure access to assets is transparent and proportionate; and*
- *confirm that State entities can negotiate access to State assets and services on a basis which is fair and reasonable to both parties having due regard for the commercial mandate of companies, where applicable.*

The WDC agrees that the government should set out a clear policy position on the operation of commercial State companies and their assets in the telecommunications market as outlined above. The WDC recently made a submission to DCENR on bringing into use the telecommunications duct alongside the Bord Gáis pipeline from Bellanaboy in Co. Mayo to

⁴⁸ This will be in addition to the 94 MANs already completed. This was an objective of the NDP 2007-2013. The fifth NSS centre is Mallow Co. Cork.

⁴⁹ Forfás (2010), Ireland's Broadband Policy Performance and Policy Actions p.33-35. Forfás (2011), Ireland's Advanced Broadband Performance and Policy Priorities, p.29

⁵⁰ Figures supplied to the WDC by e-net and based on an analysis of IDA announcements data.

Ballymoneen in Co. Galway, recognising that this will be a significant addition to backhaul capacity within the Western Region and will provide additional connectivity from the Region to the national network. The WDC believes we should optimise the use of infrastructure in state ownership, particularly as a means of providing competitively priced backhaul for MANs and wireless networks in rural areas. This view was expressed as part of our submission to Forfás in 2006⁵¹. This additional capacity, as well as providing additional bandwidth to current users will be very valuable in attracting new investments to the Region and counties Mayo and Galway in particular.

It is important that government policy consider open access arrangements with published tariff rates in order to help ensure that the services are ultimately provided at a competitive price. In addition to ensuring widespread regional high speed access, it is important to ensure that regional broadband costs are competitive with Dublin rates, otherwise these extra costs to business will act as a disincentive to regional investment and creating and retaining jobs⁵².

46) The Government should also set out a clear policy position which underlines the importance of other non-commercial State assets which may or may not currently be available to market participants but which have potential to benefit the development of the market, particularly in areas where the commercial investment case is challenging. This policy should identify open, fair and transparent processes, including pricing, by which these assets can be brought to market in an environment that supports current and future commercial investment.

The WDC agrees that the government should set out a clear policy position which underlines the importance of other non-commercial State assets (for example, the assets of Local Authorities, NRA and the OPW), and identifies open, fair and transparent processes, including pricing, by which these assets can be brought to the market. Non-commercial state assets may prove particularly beneficial in helping to deploy high speed broadband in more rural areas as (1) they are likely to have infrastructure extending across rural areas (2) rural areas may rely more on provision using these assets than urban areas where there is more market activity.

47) In all cases, access to State owned assets and services should be subject to normal competition and EU State Aid rules, statutory obligations and be consistent with Government policy on the rollout of high speed broadband.

The WDC agrees that access should be subject to normal competition and EU State Aid rules, as well as being consistent with the government's policy of high speed broadband rollout. The WDC believes also that access to assets should aim to facilitate deployment of high speed broadband in areas where there is market failure, especially more rural areas. As noted under Recommendation 2, any preferential terms under State aid rules for investment in rural areas so as to ensure that rural and regional areas are not left behind in accessing high speed broadband services should be explored.

⁵¹WDC Submission to Forfás on Key Issues in Relation to Broadband Infrastructure in 2006

⁵² Engineers Ireland 2012, The State of Ireland, A Review of Infrastructure in Ireland. p7

48) Consideration should be given to amending legislation where appropriate to enable State entities (for example as was the case for the National Roads Authority (NRA)) which are not currently active in the market place to make infrastructure available to the telecommunications sector for the purpose of rolling out services and in line with the Government policy objectives as proposed above.

The WDC agrees that where legislative change can extend the availability of infrastructure to rollout more services, especially in areas with limited competition, this should be amended.

49) Government policy and relevant legislation should mandate sectoral regulators to take account of Government policy to accelerate the rollout of, and investment in, high speed broadband in the regulation of related markets.

The WDC agrees and considers that the role of the regulator may be particularly useful in more sparsely populated areas where there may be limited competition. The regulator is mandated to regulate access to networks so as to develop effective choice for consumers both business and residential⁵³. Where there are several industry providers the market will help deliver the best service to the consumer. In areas with limited competition, the role of the regulator can be more important. The WDC believes that the regulator in its role in promoting competition has a particular role in those areas with few if any market players and more limited if any competitive activity.

Sectoral regulators such as ComReg should also be mandated to have regard for other government policy objectives. Balanced regional development is a government policy objective, re-affirmed within a specific chapter in the most recent National Development Plan⁵⁴. Achieving balanced regional development requires infrastructure to be available across all regions to allow regions achieve their potential and the NDP notes that

Access to broadband infrastructure is a particular issue for the rural economy. Broadband can provide ready access to international markets for enterprise in remote locations. Extension and take up of broadband facilities in rural areas is, therefore, an important policy objective⁵⁵.

A useful example of the regulator recognising the differing infrastructural characteristics of less urbanised areas is that of the Commission for Energy Regulation (CER) and the natural gas connections policy. Under the original CER connections policy in 2003 none of the towns in counties Galway or Mayo would have been eligible for connection to the Mayo Galway transmission pipeline. Changes by the CER to this policy, following input by the WDC and others, included the option to 'group' towns together to share services and the costs of services such as maintenance and safety. This facilitated the connection of towns in Mayo and Galway to the pipeline⁵⁶.

⁵³ http://www.comreg.ie/about_us/roles_what_we_do.523.html

⁵⁴ Government of Ireland, 2007, *National Development Plan 2007-2013: Transforming Ireland – A Better Quality of Life for All*

⁵⁵ *Ibid*, p.85.

⁵⁶ WDC policy briefing No.5, 2011, *Why invest in gas? Benefits of natural gas infrastructure for the North West*

50) The relevant State entities and their parent Departments should provide a single point of contact for telecommunications operators seeking to access assets or services which are, or have the potential to be, useful to the telecommunications sector. These contacts should be available publicly to operators through the relevant websites as well as through the website of DCENR.

The WDC agrees that a single point of contact across the various state entities and their parent Departments would be useful.

The WDC also believes that the providers' customer complaint processes need to be simplified, so as to enable consumers express concerns with service levels and to get a satisfactory outcome. WDC research (forthcoming) indicates significant dissatisfaction with service levels which are compounded by poor customer service procedures. While the Commission for Communications Regulation has a role in supporting customers it cannot act on a consumer complaint until the operator's complaint handling process is completed. In some cases it is the operator's processes themselves that are unduly onerous.

51) DCENR should, where possible, assist the relevant State entities in developing policies to deal with industry requests for use of their assets. This assistance could include, inter alia, the provision of standard contract templates and technical advice. DCENR should also work with the entities in question and with industry to assess progress periodically in this area and report to Government on developments.

The WDC agrees that the DCENR should assist the relevant State entities in developing policies to deal with industry requests for use of their assets. As discussed, this will be particularly valuable in supporting the rollout of Next Generation Broadband to those areas where market activity is limited or non-existent.

1.4 Conclusion

Public infrastructure provision is in response to market failure and is required in many countries and for many types of infrastructure. Because broadband is such a critical and transformative infrastructure, impacting on economic growth across all sectors of the economy as well as having extensive social impacts, government support is particularly important. There are many examples of government intervention in other countries in supporting the delivery of Next Generation Broadband in less populous areas and where there is market failure. Examples and models of government intervention which have been tried and tested elsewhere should be used to inform the National Broadband Plan.

The WDC believes that the choice of technologies deployed should be the most future proofed possible. This is particularly true for government funded investment to ensure the best return to the state and national economy over the medium to long-term. This return will include the wider economic benefits of better positioning in the global knowledge economy, job creation and enterprise development all supported by quality, future proofed broadband.

Data on internet penetration rates show the differing regional and rural take-up of basic broadband services. These figures are at least a year old and are unlikely to take account of the more recent availability of Next Generation Broadband services in more urban areas, especially the areas served by cable. It is likely that the urban/rural divide in service

availability has actually widened. The WDC believes it is imperative that the forthcoming National Broadband Plan prioritises delivery of higher speed broadband to regional and rural locations where there is limited, if any, market activity.

The WDC believes that because of the more limited market activity in Next Generation Broadband rollout in rural areas, those areas will not benefit from competitive activity which by its nature will improve services and reduce cost to the consumer. These same areas must not be further disadvantaged in delayed rollout of services. The mapping exercise (Recommendation 1) should identify both the areas to be served by the market and those that will need to be served by a government funded NG programme. This could enable a speedier rollout to all areas and ensure a minimal time lapse in providing high speed services to rural areas.

The WDC is concerned that in situations with limited if any market activity, service levels may not be as good as in other areas with many providers and greater competition. Wherever possible it is important that service levels are improved through targets, regulation, enforcement and improved Industry processes.

In particular, the SME sector needs competitively priced good quality broadband services to enable it to trade internationally. While improved broadband speeds are a national issue, it is particularly important to ensure acceptable broadband speeds for rural businesses and those needing to trade on-line. Technology can reduce distance to market for more peripheral locations but only where quality services are available at a competitive price.

The WDC is pleased to have had the opportunity of making a submission to the Consultation on the Report of the Next Generation Broadband Taskforce. If there are any queries in relation to this submission or any further information required please contact Ms. Deirdre Frost, deirdrefrost@wdc.ie.

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