



Commission for
Communications Regulation

Response to Consultation and Decision

Market Review:

Wholesale Broadband Access (Market 5)

Decision No:	D06/11
Document No:	11/49
Date:	08 July 2011

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1 Executive Summary

Background

- 1.1 The purpose of this paper is to determine whether and how regulation should be imposed in the market for wholesale broadband access (“WBA”) as this market is currently subject to ex-ante regulation as prescribed by the European Commission (“EC”)¹.
- 1.2 An undertaking wishing to provide broadband services to end-users must build, establish or obtain access to a transmission channel to the end-customer’s premises. The undertaking may purchase access to unbundled loops (the physical connection between the local exchange and a home or premises) or wholesale broadband access, which is described below. Both of these services are provided by Eircom as a result of existing regulatory obligations.
- 1.3 These options for the undertaking can be distinguished on the basis of the flexibility they give in supplying the retail service, or by means of the location at which access is obtained. Wholesale broadband access in the form of a bitstream service typically offers less flexibility over the retail service, and may be supplied at higher points in the network (such as regional interconnection points), as well as at the main distribution frame (“MDF”)².
- 1.4 In contrast, unbundled loops typically give greater flexibility and control over the retail broadband service offered to the end-user and have typically been supplied at the MDF. Currently a number of operators avail of this service, principally BT, which at present is the largest LLU purchaser in Ireland.
- 1.5 A number of operators purchase these regulated wholesale inputs from Eircom in Ireland. About 240,000 end users are supplied with retail broadband by virtue of these wholesale broadband products.
- 1.6 Notwithstanding the above, LLU take up in Ireland is still at relatively low levels³. This is an important consideration in assessing whether the market for wholesale broadband continues to require regulation.
- 1.7 Alternatively, competing operators can use their own infrastructure to provide retail services. An example of this in Ireland is UPC which has its own cable network concentrated in urban centres. UPC does not provide broadband on a wholesale basis.
- 1.8 A variety of other technologies supply broadband, including mobile network operators who supply mobile broadband.

¹ Also referred to as Market 5 of the Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex-ante regulations, 17 December 2007.

² Normally some element of backhaul to a point of handover to the other operator is included in both services.

³ In Ireland just 7.2% of total DSL lines were provided to subscribers by OAOs using LLU. Source: ComReg, “Irish Communications Market: Quarterly Key Data Report Q1 2011”, Document 11/44, 21 June 2011. Furthermore, this is equivalent to approximately 25% of OAO DSL lines, which is significantly below the EU average of 76%. Source: European Commission, Digital Agenda Scoreboard, January 2011.

- 1.9 It is important to note that the market under review is a *wholesale* market. The paper considers, *inter alia*, if the indirect impact of competition in the *retail* market by operators such as UPC exercises a constraint on the incumbent, Eircom, at the *wholesale* level.
- 1.10 The paper also considers whether mobile broadband technologies are sufficiently interchangeable with fixed technologies to such an extent as to be considered a substitute at both the retail and wholesale levels.
- 1.11 The paper also considers the impact of regional variations in the intensity of competition, given that UPC's cable network and BT's LLU footprint are not ubiquitous but are present in towns and cities only.
- 1.12 At the outset of this review of the WBA market⁴ it is important to state ComReg's view that competition in the provision of retail broadband services is largely dependent on effective competition at the wholesale level, or, where this is not occurring, through regulation of the wholesale market.
- 1.13 The strategic objectives of ComReg, in support of its functions, are set out in Section 12 of the Communications Regulation Act 2002⁵ and Regulation 16 of the Framework Regulations in particular⁶. It can be noted ComReg is required *inter alia* to "*safeguard competition to the benefit of consumers*"⁷ in relation to the provision of electronic communications networks, electronic communications services and associated facilities, and in this regard to focus on encouraging efficient investment in infrastructure and promoting innovation and ensuring regulatory predictability⁸.
- 1.14 We consider that consumers best served in terms of product pricing and innovation where competition is based on investment in infrastructure by competing operators. This is because service providers can offer greater differentiation in services and products which are based on their own infrastructure, and where their reliance on the SMP operator's wholesale infrastructure is reduced. As the European Commission ("EC") has noted:
- "Competing network infrastructures are essential for achieving sustainable competition in networks and services in the long term"*⁹.
- 1.15 In addressing the retail broadband market, we consider that significant investment in infrastructure (such as LLU) or other Wholesale Physical Network Infrastructure Access ("WPNIA") inputs) will influence the competitive dynamic in the downstream market for WBA, and that competition at this level is likely to be the most sustainable.

⁴ This is also known as Market 5 of the European Commission's list of "Relevant Product and Service Markets".

⁵ Communications Regulation Act 2002, No. 20 of 2002, as amended by Communications Regulation (Amendment) Act 2007, No. 22 of 2007 and Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010, No. 2 of 2010 (the Communications Regulation Act 2002), the "Act".

⁶ The European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011), (the Framework Regulations).

⁷ Regulation 16 2(c) of the Framework Regulations.

⁸ Regulation 16 2 of the Framework Regulations.

⁹ European Commission, "Explanatory Note accompanying Recommendation on relevant Product and Service Markets", C(2007) 5406

- 1.16 This view is further supported by additional comments from the EC. ComReg has taken the utmost account of the EC's Recommendation and its accompanying Explanatory Note on relevant product and service markets within the electronic communications sector¹⁰ on this issue. The EC states that *"the coverage of LLU in a given Member State...may imply that in a limited number of Member States the market for wholesale broadband access may tend towards effective competition behind the barriers to entry. This may be the case where both broadband penetration and unbundling rates are very high, and where alternative operators have started to provide wholesale broadband access services in large parts of the country in competition with the incumbent..."*
- 1.17 Therefore in undertaking this review of the market for WBA, we highlight the role played by investment in LLU infrastructure which is the key driver of competition in the downstream WBA market.
- 1.18 The consultation on the market review of the WBA market was published on 1 October 2010 ("the Consultation")¹¹. This is the second review of the market for WBA and developments in the market have been assessed since the time of the last review. The review of the market has taken into account regulation of the upstream market for WPNIA¹²; the two market reviews have been assessed in sequence. In response to the Consultation, responses were received from BT, Eircom, Magnet, O2 and Vodafone.
- 1.19 Having considered responses to the Consultation and comments on our analysis and Draft Decision Instrument, we have reviewed our preliminary analysis and findings and come to a final conclusion which is noted below. Our analysis has been presented to the Competition Authority which supported our findings. The draft measure was then notified to the European Commission on 14 April 2011¹³. The EC responded on 16 May 2011, supporting our analysis and its comments are noted in paragraph 4.32.
- 1.20 The paper commences by examining conditions in the retail market and considering the implications for the wholesale market. It then proceeds to define the scope of the wholesale market followed by an assessment as to whether any operator is dominant in the market as defined. Finally, the appropriateness of regulatory remedies is assessed.

Market developments since the 2005 review

- 1.21 The WBA market is currently regulated and was last reviewed in 2005¹⁴. Key changes in the retail broadband market include:

¹⁰ P.34, Commission Staff Working Document, Explanatory Note, Accompanying document to the Recommendation, SEC(2007) 1483, dated 13/11/2007 (the Explanatory Note).

¹¹ ComReg, "Market Review: Wholesale Broadband Access (Market 5)", Document 10/81, 1 October 2010

¹² This is also known as Market 4 of the European Commission's list of "Relevant Product and Service Markets".

¹³ Notification by ComReg to EU Commission under Article 7 of Directive 2002/21/EC, 14 April 2011

¹⁴ ComReg, "Market Analysis: Wholesale Broadband Access", Document 05/11r (amended), Decision 03/05, 24 February 2005.

- A significant increase in the number of broadband subscribers with market growth now stabilising
- Technological advances leading to faster speeds capable of delivering new and more sophisticated consumer applications
- The entry and expansion of providers offering broadband on different platforms
- The increasing level of localised competitive pressures

1.22 Key changes in the wholesale broadband market include:

- The progress in reducing the price of LLU and line share in the upstream WPNIA market
- Vodafone Ireland's acquisition of retail and SME customers from BT Ireland and the associated agreement relating to the supply of wholesale services by BT Ireland to Vodafone Ireland ("the BT/Vodafone agreement").
- The emerging trend of competitive pressures, particularly in some urban areas
- The potential impact of Next Generation WBA¹⁵, although the substance of the implementation is still unclear

1.23 These developments have been taken into account in our definition of the market and our assessment of the degree of competition in the WBA market.

Market definition

1.24 Our conclusion on the scope of the retail market is that the definition of the broadest possible retail market, on which to base the analysis of the wholesale market, includes retail broadband provided over DSL, cable, Fibre to the X ("FTTx") and Fixed Wireless Access ("FWA"). These products offer similar product and pricing characteristics, such that a customer would be likely to consider these products as substitutes. The retail broadband market does not include mobile broadband or broadband delivered over satellite because based on an analysis of demand and supply side substitution, on a comparison of technical characteristics, and on an assessment of actual customer switching in the market, retail mobile broadband is not considered to be a close substitute for retail fixed broadband.

1.25 The geographic dimensions of the retail broadband market are considered to be national in scope. This finding is based on an assessment of entry conditions and evolution of operators' market shares; retail pricing patterns; and a consideration of geographic differences in product characteristics, as is consistent with the approach recommended by the EC¹⁶.

1.26 The definition of the wholesale market is that it consists of WBA provided over extensive current and next generation infrastructure.

¹⁵ Next Generation services are high speed broadband services which are supplied in whole or in part over new fibre optic cable in the local access network.

¹⁶ See cases UK/2007/0733, PT/2008/0851, ES/2008/0805, FI/2009/0900.

- 1.27 In the Consultation, we left open the question as to whether the supply of WBA by a WPNIA purchaser should be included in the market. As BT's supply of WBA is now available in the merchant market¹⁷ and as BT's period of exclusive supply to Vodafone has now expired in some exchanges, we now conclude that the WBA market includes WBA supplied by a WPNIA purchaser.
- 1.28 In light of comments from respondents, we reviewed our analysis of the extent to which indirect constraints from retail competition would be strong enough to constrain small but permanent wholesale price increases, and maintain that they would not be sufficient to warrant inclusion in the market.
- 1.29 Analysis of updated data provided by operators confirms that there are signs that a more competitive environment is developing in some urban areas. However, structural changes are not yet well enough established and continue to evolve, and commercial activity does not appear to be focused on responding to competitive pressures within a specific area. ComReg therefore considers that these factors are insufficient to indicate the presence of separate geographic sub-national wholesale markets. Our conclusion is that the WBA market is national in scope. ComReg has also considered localised variances in competitive dynamics as part of our SMP analysis.

Competition assessment

1.30 Eircom is designated with SMP in the WBA market. The reasoning can be summarised as follows:

- Eircom's current market share is at least 95%, and even when Vodafone's migration to BT is complete, Eircom's market share will remain above 90%.
- Barriers to entry and expansion persist, including sunk costs, economies of scale, scope and density, control of infrastructure not easily replicated, and vertical integration.
- Given the emergence of more localised competitive pressures, we intend to continue to closely monitor any changes in the structure and dynamic of the market and in the commercial behaviour of operators, particularly in urban areas where there is a cable operator offering retail broadband and a WPNIA purchaser offering WBA. In this context, it is noted that ComReg has consulted separately on a WBA price control¹⁸ which may offer Eircom greater flexibility in its ability to respond to such localised competitive pressures and which may provide the opportunity for pricing innovations¹⁹. ComReg may also examine any developments in the retail and wholesale markets through further consultation on the extent to which regulatory obligations are applied.

¹⁷ The merchant market consists of sales made to independent third parties.

¹⁸ ComReg, "Wholesale Broadband Access: Further Consultation to Consultation Document No. 10/56 and Draft Decision in Relation to Price Control and Transparency", Document 10/108, 22 December 2010.

¹⁹ For the avoidance of doubt and to ensure clarity ComReg notes that where it is referred to, the outcome of the consultation in relation to WBA price control is not pre-empted in this document.

Remedies

- 1.31 Eircom has been designated with SMP in the WBA market, and a range of actual and potential competition problems was identified.
- 1.32 The analysis of existing and potential competition problems resulting from Eircom's position of SMP confirmed that regulation is still required in the WBA market. The following remedies are imposed on current and next generation WBA to ensure well-functioning wholesale, and therefore, retail broadband markets:
- Obligation to provide access
 - Obligation of transparency
 - Obligation of non-discrimination
 - Obligation of accounting separation
 - Obligations relating to price control and cost accounting
- 1.33 ComReg has considered the potential impact of the above regulatory measures to be imposed on Eircom as part of our Regulatory Impact Assessment ("RIA").
- 1.34 Remedies are applied to both current generation and next generation services. Based on experience in the market in recent years ComReg has imposed detailed remedies on current generation services. However for now we have imposed only high level remedies for next generation services and propose to consult further on these remedies later in 2011.

2 Strategic overview

Background

- 2.1 Wholesale Broadband Access is a non-physical or virtual wholesale input used in the provision of a range of retail products, which are used by consumers for broadband internet access. The WBA market lies downstream from the WPNIA market and the regulation of the WPNIA market has the potential to affect competition in the WBA market (since WBA may be offered over infrastructure captured within the WPNIA market). Furthermore, both the WPNIA and WBA markets ultimately aim to facilitate competition in the downstream retail broadband market.
- 2.2 This market review has assessed the development of competition in the retail and wholesale broadband markets since 2004, and the current and future outlook for the WBA market. In this market review we have concluded that significant market power is present at the wholesale level and measures have been proposed to address identified competition problems.
- 2.3 The initial consultation on the review of the WBA market was published on 1 October 2010²⁰ and the analysis followed the guidance and methodology as outlined in the regulatory framework for electronic communications markets in the European Union²¹ (“EU”) and in the SMP Guidelines²². Our analysis in this Response to Consultation and Final Decision includes the findings of the Consultation and has reviewed responses and recent data to continue our review of this market. With this in mind, we refer to the analysis noted in the Consultation throughout this document²³. The regulatory framework within which we conduct market reviews is set out in Annex A. In the Consultation, a definition of the market for WBA was proposed and the level of competition in the market was assessed and analysed. Our preliminary finding from this analysis was that Eircom has a position of significant market power in the market for wholesale broadband access and hence should be designated with Significant Market Power (“SMP”). We proposed a set of remedies to address this market failure and potential competition problems that may arise.
- 2.4 In response to the Consultation, five responses were received; BT, Eircom, Magnet, Telefonica Ireland (“O2”) and Vodafone. Non-confidential versions of these responses are available on ComReg’s website.

²⁰ ComReg, “Market Review: Wholesale Broadband Access (Market 5)”, Document 10/81, 1 October 2010

²¹ European Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services OJ L 344 (the Recommendation).

²² European Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic networks and services, OJ 2002 C 165/3 (the SMP Guidelines).

²³ However where there are differences between the content of the Consultation and this document, it is the analysis detailed in this document that represents the final view of ComReg.

- 2.5 Having considered responses to the Consultation, we reviewed our preliminary analysis and findings, and presented our findings to the Competition Authority, which confirmed its support for our analysis.
- 2.6 The EC was notified of our intended measure on 14 April 2011²⁴. The EC examined our review of the market and proposed course of action and responded to ComReg on 16 May 2011²⁵.
- 2.7 This Response to Consultation reviews our analysis in the light of responses to the Consultation, assesses the most recent data available from operators and from market trends and presents our conclusions on the review of the WBA market. It takes utmost account of comments received from the EC²⁶, which supported our market review in terms of the defined market, the market analysis and proposed remedies for this market. The document includes a final decision instrument which comes into force on the date of publication.

Key Issues

Changes since the last review

Growth of the retail broadband market

- 2.8 The WBA market is currently regulated, and was last reviewed in 2005²⁷. Since the time of the last review, the total number of retail fixed broadband subscribers has increased from just over 45,000 (end of Q1 2004) to over 1 million (end of Q1 2011)²⁸. Consumers have benefited from developments in the provision of retail broadband services and increasing competition at the retail level and consumers can avail of products which offer faster broadband speeds and enable the use of new applications.
- 2.9 The entry and expansion of service providers offering different types of retail broadband has contributed to an increasing level of localised competitive pressures, as market entrants tend to focus initially on more densely populated urban areas. In many parts of the country, consumers have a choice of provider, offering services on different platforms such as cable and wireless-based platforms. Mobile broadband services have been introduced since the time of the last review, and have shown strong growth, though this product is primarily used by consumers to complement the use of a fixed broadband connection. That said, the predominant means of retail fixed broadband access in Ireland is still based on DSL over copper infrastructure, which accounted for almost 70% of fixed retail broadband subscriptions by mid 2010²⁹. Part of this analysis has been to consider whether these retail pressures have led to unique geographic markets emerging. In this regard, we have considered a wide range of structural

²⁴ Notification by ComReg to EU Commission under Article 7 of Directive 2002/21/EC, 14 April 2011.

²⁵ Commission decision concerning case IE/2011/1207: Wholesale broadband access in Ireland.

²⁶ Commission decision concerning case IE/2011/1207: Wholesale broadband access in Ireland, Brussels 16/05/2011, C(2011) 3530, SG-Grefe (2011)7727.

²⁷ ComReg, "Market Analysis: Wholesale Broadband Access", Document 05/11r (amended), Decision 03/05, 24 February 2005.

²⁸ ComReg, "Irish Communications Market: Quarterly Key Data Report Q1 2011", Document 11/44, 21 June 2011.

²⁹ Note that the retail fixed broadband does not include broadband provided over mobile and satellite networks.

and behavioural parameters to assess whether unique sub-national geographic markets exist.

Developments in the Wholesale Broadband Market

- 2.10 In the assessment of the wholesale markets which service the retail broadband market, the market for Wholesale Physical Network Infrastructure Access (“WPNIA” or “Market 4”)³⁰ was reviewed firstly and was followed by this review of the market for WBA, or Market 5. This has allowed us to analyse the extent to which, having found SMP and imposed obligations in the upstream WPNIA market, regulation is still required in the downstream WBA market.
- 2.11 The WPNIA market review defined the relevant market; designated Eircom with SMP on this market; and put in place a set of remedies. Detailed work carried out in parallel on the implementation of the price control for the WPNIA market resulted in the establishment of a reduced maximum price for Local Loop Unbundling (“LLU”) and Sub Loop Unbundling (“SLU”)³¹, and a reduction in the regulated price for Line Share (“LS”)³². These Decisions focused on reducing the high cost of LLU in Ireland, which had been identified as a major barrier to the take-up of an economically viable LLU product. To date, WBA has been the predominant wholesale input used to offer retail broadband services and the WBA market is now maturing with fewer new broadband additions to the network. Following the recent price reductions of LLU products, the take-up of LLU products has increased, in particular of LLU Line Share. This increased take-up of LLU has mainly been migration from WBA. The reduction in the maximum price for Line Share assists in the development of sustainable competition in retail broadband; since the publication of the WPNIA Decision and the reduction in price, the take-up of LLU in certain exchanges has been increasing. However there is very likely scope for further reduction in the actual price charged, in particular for LLU, to encourage further take-up.
- 2.12 Even with regulation in place in the upstream WPNIA market, our analysis in this market review has found that there is a continuing need for regulation of the WBA market. An important development in the wholesale market and contributing factor to the increased take-up in LLU has been the BT/Vodafone agreement. The impact of the BT/Vodafone agreement has been taken into account in the market definition and again in the assessment of SMP. As part of this agreement, BT transferred its retail residential and SME customer base to Vodafone and now offers a WBA³³ product to Vodafone in a set of defined exchanges, based on its WPNIA inputs³⁴. This is an important market development and its development will be monitored³⁵. Geographic market

³⁰ ComReg, “Market review: Wholesale (Physical) Network Infrastructure Access (Market 4)”, Decision D05/10, Document 10/39, 20 May 2010.

³¹ ComReg, “Local Loop Unbundling (LLU) and Sub Loop Unbundling (SLU) maximum monthly rental charges”, Decision D01/10, Document 10/10.

³² ComReg, “Rental Price for Shared Access to the Unbundled Local Loop”, Decision D04/09, Document 09/66.

³³ Under a wholesale managed services agreement, BT Ireland will supply to Vodafone Ireland: wholesale broadband services over LLU, voice services as a reseller for WLR and CPS, and international direct-dialled traffic services.

³⁴ The Competition Authority Press Release, “Competition Authority Clears Acquisition of Certain Fixed-line Customers of BT Ireland by Vodafone Ireland”, 21 August 2009.

³⁵ As further detailed in paragraph 2.22.

conditions were also considered in the wholesale market based on our assessment of the relevant wholesale product market.

- 2.13 We are mindful that the WBA market has been regulated since the 2005 first round market review and that the competition problems identified continue to arise, in spite of regulation being in place. For example, it has become clear from responses to the Consultation and from issues raised in the LLU forum that the process of migrating customers from Bitstream to LLU for an OAO has not been as efficient as it could have been. This has impacted on the ability of the OAO to compete effectively in the retail market and in supplying WBA services using its WPNIA inputs. It is in the context of persistent competition problems that we have considered it necessary to clarify and develop some of the remedies currently in place for non-discrimination and transparency. It is our view that the persistent problems in the supply of wholesale services needs to be addressed. In fact, the potential impact on SMP from direct WPNIA purchasers can only come to fruition where an efficient and effective migrations process has been established.
- 2.14 Upon undertaking a second round review of the market, we reviewed the effectiveness and appropriateness of regulation put in place at the time of the first round review. As the WBA market is no longer in the early stages of development ComReg has consulted upon the possibility of a move from the current price control remedy, which is based on a ‘retail minus’ approach (imposed as part of Decision Notice D1/06, ComReg Document 06/01), to cost orientation based on a ‘cost plus’ model. Over the past year, data has been requested from Eircom and Other Authorised Operators (OAOs) to develop a draft ‘cost plus’ price control model which will form the basis for a wider Consultation with industry and other stakeholders on the appropriate price control for WBA. The price control Consultation is taking place in parallel with this WBA market analysis review³⁶.

WBA market outlook

- 2.15 A review of a market considers not only past trends and behaviour in the market, but also prospective developments over the next two to three years time of horizon. This means that the market review should consider factors which may reasonably be expected to emerge over the lifetime of the review.

Response to localised pressures

- 2.16 Providers which have entered or expanded in the market over the last few years have tended to be concentrated in urban areas. There is an emerging trend of more localised competitive pressures. Prospectively, it will be important to actively monitor any change in market structure and in commercial behaviour, particularly within urban areas. One aspect of this analysis concerns product pricing, it is noted that the parallel consultation on the WBA price control³⁷ seeks to provide clarity to Eircom as to the minimum prices it can charge for

³⁶ ComReg, “Wholesale Broadband Access: Consultation and draft decision on the appropriate price control”, Document 10/56, 15 July 2010.

³⁷ ComReg, “Wholesale Broadband Access: Further Consultation to Consultation Document No. 10/56 and Draft Decision in Relation to Price Control and Transparency”, Document 10/108, 22 December 2010.

WBA, while at the same time providing clarity to current or prospective LLU operators that LLU will remain commercially viable relative to WBA services³⁸.

WBA through WPNIA inputs

- 2.17 At the wholesale level, there is potential for further developments in the provision of WBA through WPNIA inputs, driven by the reduction in LLU pricing, and we expect this to enhance the development of competition. Over the next year, BT should complete its migration of many of Vodafone's customers from an Eircom Bitstream basis to an LLU basis, and should be in a position to offer a WBA product on the merchant market across its unbundled footprint. Where other NRAs have found that retail broadband competition has been driven by a number of LLU operators developing their own retail base (and so exercising an indirect constraint), the Irish market may be influenced by operators providing WBA products based on an upstream WPNIA input. The increased take up of LLU has mainly been from migrations, so efficient and effective WPNIA provision, either on current or next generation infrastructure, is paramount for development of the downstream WBA market. However there is reason to be concerned that once current migration programmes are complete there will be little new organic LLU growth. The potential for a direct constraint to develop will continue to be closely monitored over the period of this review, however, it appears that at this juncture there is little justification to deregulate this market based on LLU inputs although there may be a case to tailor remedies to emergent regional (i.e. urban) conditions. In section 6 and in our Regulatory Impact Assessment ("RIA") we further discuss the implications of prematurely deregulating the WBA market in light of the current level of competition in the upstream WPNIA market.

Next Generation WBA

- 2.18 A major technological change which could impact on the retail and wholesale broadband markets is the deployment of Next Generation infrastructure, which would support super-fast broadband at higher speeds than are available at present. As well as delivering faster services, the implementation of NGA could lead to the development of new types of services designed to make use of the higher speeds and bandwidth. Since the period of the first round WBA review, we have seen increased supply and take up of higher speed broadband and by the end of Q4 2010, over 90% of retail customers were purchasing broadband subscriptions with contracted download speeds above 2Mbps³⁹. This suggests that customers are willing to move to higher speed services as they become available.
- 2.19 NGA investment is at a very early stage in the Irish market, and the manner of both its development and deployment are uncertain. Our approach to NGA in this review recognises the opportunities it may offer and recognises the economic challenges in its implementation in particular in terms of investment

³⁸ ComReg, "Wholesale Broadband Access: Further Consultation to Consultation Document No. 10/56 and Draft Decision in Relation to Price Control and Transparency", Document 10/108, 22 December 2010.

³⁹ ComReg, "Irish Communications Market: Quarterly Key Data Report Q1 2011", Document 11/44, 21 June 2011.

costs and risk. Based on the information received about operators' plans, it is not expected that the implementation of NGA will materially affect the definition of the WBA market over the lifetime of this review. Given its future importance however, we propose to monitor the development of NGA closely.

- 2.20 In line with our views on current generation broadband, ComReg considers that in a forward looking NGA environment consumers will continue to be best served, in terms of product pricing and innovation, where competition is, so far as economically possible, based on investment in infrastructure by competing operators. Therefore, it is our view that regulatory obligations (i.e. access to the upstream infrastructure) will be critical in ensuring effective competition between providers of NGA-based retail products. In particular ComReg is committed to ensuring that any (current generation) competition problems, which have arisen as a result of SMP detailed in this paper, do not persist in an NGA environment. However, as for current generation broadband, regulation of (next generation) WBA will be necessary only where upstream regulation, such as access to the NGA infrastructure, proves to be ineffective.

Future market review

- 2.21 The nature of the broadband market is dynamic and therefore, we intend to closely monitor the developments in the retail and wholesale markets. We will consider the timing of the next market review in the context of significant changes in market conditions. Furthermore, the timing of the next review will be carried out in light of the new procedures and timeframes for conducting market reviews introduced by amendments to the EU regulatory framework⁴⁰ which states that *“The Regulator shall carry out an analysis of the relevant market and notify the corresponding draft measure..within 3 years from the adoption of the previous measure relating to that market”*.
- 2.22 In this regard ComReg is committed to reviewing, on an ongoing basis, the relevant criteria which may offer further indication on the extent of competition within wholesale broadband markets, including any regional patterns which are clearly discernible. These criteria include:
- Developments in the price of WPNIA-inputs which would encourage greater LLU-based competition at both wholesale and retail levels.
 - Developments in the provision of LLU-based WBA services.
 - Price and product differentiation at the wholesale and retail levels.
 - Market share trends corresponding to the areas of price and product differentiation.
- 2.23 ComReg also recognises the interdependencies between the market under review (WBA), retail narrowband and bundled products. ComReg shall review these markets using the standard consultation process, with the aim of promoting the provision of diverse and innovative retail products, while providing any appropriate safeguards for competition.

⁴⁰ Regulation 27 6(a) of the Framework Regulations.

2.24 ComReg also considers that, within the context of these market review findings and decisions, there is scope to address any market developments through consulting on the detail of the relevant regulatory obligations. ComReg is currently consulting on the detail of existing price control and transparency (and non-discrimination) remedies to ensure that the appropriate measures are in place in ensuring competitive markets.

3 Market definition

Retail product market

Summary of Consultation proposals

- 3.1 According to the EC Recommendation⁴¹ “*the starting point is therefore a characterisation of retail markets, followed by a description and definition of related wholesale markets*”. Therefore while the focus of the present review is on WBA, and ComReg and all other Member States are not required to come to a definitive conclusion on the scope of the retail market, we are analysing the retail market because demand and behaviour at a wholesale level is largely derived from demand at a retail level. In addition, it needs to be considered whether any competitive constraints arising at the retail level are strong enough to offset any potential market power at the wholesale level.
- 3.2 The Consultation detailed an assessment of a retail product market definition in paragraphs 4.6 to 4.122.
- 3.3 In the Consultation, the proposed retail product market definition was for the reasons there set out:
- Retail broadband and retail narrowband internet access are in separate markets.
 - All retail broadband products offered at a fixed location over DSL, cable, FWA⁴², and alternative FTTx networks were provisionally considered substitutes for the purposes of the broad retail assessment because they share general similarities in terms of functionality, pricing, and customer use. However, availability issues may in practice limit customer switching in response to a SSNIP⁴³.
 - Retail broadband offered over DSL is in a separate market to satellite-based broadband and to internet access provided via leased lines.
 - Retail mobile broadband is not an effective substitute for retail broadband offered over DSL, due primarily to functional differences, differences in pricing, and in customer use.

⁴¹ See Section 4, p19 of the Explanatory Note.

⁴² ComReg considers that in principle customers may find FWA and DSL broadband products to be relatively substitutable, and as noted in the Consultation the shared nature of the FWA network could impact on the comparative performance of FWA broadband, particularly where a high number of nomadic WiMAX users become active in a single sector. ComReg will continue to monitor these technical developments in broadband delivered using the FWA networks.

⁴³ The Small but Significant Non-transitory Increase in Price (SSNIP) test provides a conceptual framework within which to identify the existence of close substitutes. The SSNIP test examines whether, in response to a permanent price increase in the range of 5% to 10% by a hypothetical monopolist (HM) of a given product set, sufficient customers would switch to readily available alternative substitute products such that it would render the price increase unprofitable. If the level of switching to alternative products is sufficient to render the price increase unprofitable (say because of the resulting loss of sales) then the alternative products are included in the relevant product market.

- The retail broadband market should neither be segmented by customer type (i.e. residential or business) nor by whether the broadband access is sold as part of a bundle or on a stand-alone basis.

Summary of responses

- 3.4 BT, Magnet, O2 and Vodafone agreed with our preliminary view that retail mobile broadband is not a substitute for retail fixed broadband⁴⁴ due to differences in functionality, pricing and customer use and should therefore be excluded from the relevant retail product market.
- 3.5 In its response Eircom proposed that 3G broadband and fixed broadband services were substitutes. Eircom argued, *inter alia*, that the significant take-up of mobile broadband, the device enhancements available to customers and higher average speeds experienced by mobile broadband users, indicate that mobile broadband can be considered to be a close substitute for DSL-based broadband. Eircom's comments are discussed in further detail below.
- 3.6 O2 suggested further consideration be given to the possibility of separate markets for business and residential customers, because it believes that this approach has been adopted by other European NRAs, and because of its view of the wholesale inputs required to serve business customers.
- 3.7 Magnet commented on our application of the SSNIP test and the appropriate benchmark price used in our assessment.
- 3.8 All comments from respondents are examined in more detail below.

ComReg analysis and conclusions

Fixed/mobile substitution

- 3.9 Using the same criteria with which we have assessed all other competing broadband platforms, we have again reviewed in detail the extent to which retail mobile broadband could be considered as a substitute for retail fixed broadband, taking account of the potential for demand and supply side substitution based on the latest available data and operators' submissions.

Demand side substitution

- 3.10 We have reviewed the extent to which a customer of DSL based retail broadband would find retail mobile broadband to be a good substitute⁴⁵. The demand side analysis has considered the ways in which a customer would use the product; customer switching patterns; and the characteristics of fixed and mobile retail broadband.

Customer Use

- 3.11 We have reviewed Eircom's submission that the latest subscriber data highlights the strong growth of mobile broadband in the Irish market and would indicate that '*consumers are comfortable using it as a form of broadband*'.

⁴⁴ See paragraphs 4.106 to 4.109 of the Consultation.

⁴⁵ ComReg acknowledges that in areas where no other broadband products are available, consumers may primarily use mobile broadband products to access the internet.

- 3.12 The latest available data⁴⁶ continues to indicate a significant uptake of mobile broadband in Ireland. However, we remain of the view that growth of a particular product does not, in itself, imply a significant or sufficient degree of demand-side substitutability for market definition purposes. As noted in the Consultation⁴⁷ we consider that in some cases strong initial growth may represent the emergence of a new product market altogether. In some cases demand may be driven by the increasing use of smartphone devices such as the iPhone/iPad, however this growth cannot be determined at this stage. Therefore we have continued an in-depth analysis of available evidence, concerning the relevant product characteristics, pricing and customer use.
- 3.13 We have further assessed the factors which drive growth in mobile broadband. Our evidence indicates that the high take-up of mobile broadband is largely due to customers purchasing it as a complement to fixed broadband, rather than a substitute. For example, a recent study carried out by Analysys Mason (“AM”) of the telecoms and media activities of 6,000 consumers across Europe and the USA finds that mobile broadband is often purchased as a complement to fixed broadband as opposed to a substitute⁴⁸. The results of the survey showed that *“where consumers have a choice between fixed and mobile broadband, mobile broadband should not be sold as the primary means of access, but as a complement.”* While we acknowledge that this report does not focus on Ireland or small countries with conditions similar to those in Ireland, we consider it to be informative at a general level and its conclusions on the complementary nature of mobile broadband are very relevant and supported by other evidence, which is discussed below.
- 3.14 Furthermore the report indicated that *“More than 70% of respondents who expressed an opinion agreed with statements that mobile broadband was slower, less reliable and more expensive than fixed broadband. Customers are also becoming increasingly happy with their fixed broadband service. Of respondents who said they were not interested in mobile broadband, 72% said it was because they are happy with their fixed service (up from 65% last year).”*
- 3.15 These comments further support our view that the functional limitations, as well as the pricing, of mobile broadband products make it a less viable demand substitute for consumers compared to fixed broadband products.
- 3.16 This report from AM supports consumer survey research⁴⁹ cited by ComReg in the Consultation⁵⁰, which found that of those consumers using mobile broadband, only 18% stated that it was a substitute for a previous broadband connection, while 72% said it was not a substitute. Of the 18% who viewed it as

⁴⁶ ComReg, “Irish Communications Market; Quarterly Key Data Report”, Document 11/44, 21 June 2011.

⁴⁷ See Paragraph 4.76 of the Consultation.

⁴⁸ <http://www.analysismason.com/About-Us/News/Press-releases/mobile-broadband-should-complement-fixed-not-substitute/?journey=580,55>

⁴⁹ ComReg, “Residential ICT Services Survey Quarter 2, 2010: A review of findings by Millward Browne Lansdowne July 2010”, Document 10/62r, 9 August 2010. It is important to highlight that the results of surveys carried out are not sufficient alone to draw definitive conclusions across all aspects of consumer broadband preferences and frequently indicate stated consumer behaviour which may diverge from actual consumer behaviour in practice. Such results should be considered alongside other available evidence.

⁵⁰ See paragraph 4.101.

a substitute, almost one third (28%) said that they used mobile broadband because it was cheaper than other forms of broadband. The research also asked those who had previously (but no longer) subscribed to mobile broadband products why they no longer subscribed. The main reasons cited were poor coverage and slow speed of mobile broadband products.

- 3.17 To further assess customer switching behaviour, since the Consultation we have sought updated data from operators, of churn between broadband services delivered over different platforms on an historical basis. While most operators indicated that this information was not routinely collected or incomplete⁵¹, some operators were able to supply anecdotal information based on selected surveys of their gaining and/or departing customers. We have assessed churn data submitted by Eircom and note that, while the results of a survey carried out by Meteor indicate that almost a quarter of its existing customers previously used fixed broadband products, a considerable majority of c[...] %⁵² had previously used other mobile broadband providers or wireless broadband solutions⁵³.
- 3.18 While recognising the limitations of this information, our assessment of the information made available by fixed DSL operators is that movement from DSL to mobile was clearly identified as significantly lower than movement between DSL providers.
- 3.19 Therefore we consider that the available consumer data does not indicate that there has been a significant degree of subscribers switching from fixed to mobile broadband providers.

Product characteristics

- 3.20 We have reviewed Eircom's submission that mobile network upgrades and improved average actual speeds indicate that mobile broadband is an effective substitute to fixed broadband products. While we acknowledge the increased capabilities of mobile networks and improved average actual speeds, our own analysis⁵⁴ of average throughput over mobile broadband platforms shows actual speeds of between [...]⁵⁵, despite having theoretical advertised maximum network download capabilities which typically range between 7.2Mb/s or 21.6Mb/s. This translates to approximately [...] % to [...] % of the advertised/maximum product speed. This compares to just under 80% for fixed broadband customers⁵⁶ (that is, consumers of fixed broadband products achieve approximately 80% of advertised speeds of the service to which they have contracted). Furthermore, the same study conducted by ComReg shows that there are considerable variances within this range based on the user's location and time of use.

⁵¹ For example, most operators were only able to collect data for operators switching away from their network, rather than from where they had switched.

⁵² [...] denotes data provided confidentially by operators in response to formal information requests or discussions.

⁵³ For example, wi-fi and mobile handset.

⁵⁴ Further comparison of fixed and mobile broadband products, in terms of available speeds and download limits, can be seen in Annex E.

⁵⁵ Mean throughput for each HSDPA operator over past seven test campaigns for 77 test locations.

⁵⁶ NetIndex, Promise Index, April 2011. <http://www.netindex.com/promise/3,12/Dublin/>

- 3.21 Similar research in the UK shows that the average fixed broadband speed is over four times greater than the average mobile broadband speed⁵⁷. Ofcom's research found that the average download speed achieved by consumers was 1.5Mbit/s. This compares with the average fixed broadband speed of 6.2Mbit/s.
- 3.22 A recent announcement by Eircom notes the decision to upgrade 20,000 of its retail customers currently on the up to 8Mb/s Next Generation Broadband⁵⁸ ("NGB") Advanced product to the up to 24Mb/s NGB Ultimate product⁵⁹. This development suggests that the gap between the speeds available on fixed networks and the speeds available on mobile networks is widening.
- 3.23 Eircom commented that there is little or no difference in download volume limits for the majority of broadband users. While it is clear that usage allowances⁶⁰ offered by mobile operators have increased in the last nine months, with most operators offering caps of up to 30GB, the equivalent usage allowances offered by fixed operators have increased significantly too, with some operators offering unlimited caps and others offering usage allowances as high as 300GB per month⁶¹. In addition further analysis undertaken by AM indicates that *"Data allowances of 20–30GB may not be enough in the long term to compete where mean Internet data consumption on fixed is already about 20GB and growing at a rate of about 50–60% per year."*⁶² Download volume limits are significantly different between mobile and fixed broadband products; it should be noted that any expansion of the download cap for a mobile broadband product would come at an increased cost, further widening the gap between the intended use and pricing of these products.
- 3.24 Furthermore, while broadband providers are increasing usage allowance to meet the growing demand for bandwidth, the latest data⁶³ provided by fixed and mobile operators, shows that the gap between the average monthly use of fixed and mobile customers⁶⁴ persists despite the improved functionality of mobile 3G networks. The average mobile broadband customer downloads/uploads approximately 3GB of data per month, this compares to over 11GB per month for DSL broadband customers. We acknowledge that the usage profiles for fixed and mobile broadband connections are different in terms of a fixed connection, usually serving a household with multiple users and a mobile connection, serving an individual. However, when comparing the usage volumes for multiple mobile broadband users on an equivalent level to an entire household, multiple usage would be considerably more expensive than a single fixed connection, as it would involve multiple individual contracts. The emergence of devices which enable the sharing of mobile connections within a household is discussed below in paragraph 3.30.

⁵⁷ Source: Ofcom - Mobile broadband speeds revealed, May 26, 2011.

⁵⁸ These products are delivered via Eircom's copper access network and therefore are distinct from other next generation product offering which are delivered via fibre access networks.

⁵⁹ Eircom Next Generation Broadband Announcement, 11 May 2011.

⁶⁰ See paragraph 4.89 of the Consultation.

⁶¹ As noted in paragraph 4.90 of the Consultation charges for exceeding these inclusive monthly limits are significantly higher for mobile broadband than for DSL.

⁶² Analysys Mason, *The 4G all-you-can-eat mega bucket: should fixed operators be afraid?*, 14 April 2011.

⁶³ Data supplied by Eircom and the four mobile operators February 2011.

⁶⁴ See paragraph 4.99 of the Consultation.

- 3.25 ComReg also considers that it is less costly⁶⁵ for fixed operators to add capacity than it is for a mobile operator, therefore it can be expected that fixed operators will continue to increase their capacity to meet the growing demand for bandwidth hungry applications, such as live video streams, and in turn provide increasing data caps, or in some cases abolish them.
- 3.26 In its response to the Consultation, Eircom submitted that recent trends and anticipated evolution of fixed and mobile networks do not indicate that functional differences between the two networks shall persist, even in a LTE scenario. We have considered this evidence and conclude that recent analysis published by Intelligence Centre⁶⁶ confirms the reservations expressed by ComReg⁶⁷ concerning Long Term Evolution (“LTE”)⁶⁸ networks ability to match fixed Next Generation Networks (“NGNs”) in terms of product functionality. This article notes that LTE and 4G networks will continue to focus on delivering mobility, less on speeds. Fibre-based networks will focus on delivering consistent speeds of 100Mb/s and will facilitate a much wider range of applications. It is further noted by the author that in the Next Generation environment, two products offering 100Mb/s (fibre) and 40Mb/s (LTE) are not comparable.
- 3.27 The research undertaken by AM which we refer to in paragraph 3.23 also highlights the fact that while in the short term, a LTE network with no capacity constraints may be able to deliver speeds equivalent to ADSL2+ based networks, in the longer term it will not be able to compete because of the shared nature of a mobile access network⁶⁹.
- 3.28 In its response to the Consultation, Vodafone also commented on this matter, noting that:
- “....deployment of LTE services is unlikely to be on a widespread commercial basis within the period of the WBA market review. Therefore even if LTE based Mobile Broadband was a functional substitute for Fixed Broadband services (a view that Vodafone does not currently hold) then it would still not be relevant for the purposes of this review.”*
- 3.29 However, with regard to the above analysis and comments from Eircom and Vodafone, ComReg acknowledges for mobile broadband customers in Ireland that the development of LTE networks will offer enhancements to the user’s experience of mobile broadband in the future. When such networks are launched in Ireland ComReg will monitor closely any observable consumer behaviour.
- 3.30 We acknowledge Eircom’s comment that mobile broadband offerings have been enhanced by the introduction of products such as Broadband in a Box⁷⁰ and

⁶⁵ See footnote 62.

⁶⁶ Intelligence Centre is part of the Informa Telecoms & Media group which specialises in analysis of the telecoms and media industries.
<http://www.intelligencecentre.net/2011/03/02/mobile-broadband-hype-is-muddying-the-broadband-waters>.

⁶⁷ See paragraph 4.87 of the Consultation.

⁶⁸ Long Term Evolution is a next generation mobile wireless broadband technology

⁶⁹ See footnote 62.

⁷⁰ <http://www.vodafone.ie/df/homebroadband/inabox/>

other MiFi⁷¹ devices which improve indoor signal strength and enable multiple users of a single mobile broadband connection throughout a household. However, while we acknowledge that these devices allow for multiple users in a similar way to that offered by fixed broadband products, the same functional limitations to the quality of service experienced by the end-user persist⁷² and in some cases this may be amplified. For example, although the Three “MiFi” product offers download speeds of up to 7.2Mb/s, we believe that a potential maximum speed of 7.2Mb/s over a 3G network is not comparable to the potential speeds offered by a fixed broadband connection. In paragraph 3.20 it is noted that mobile broadband products are limited by much lower average actual speed when compared to fixed broadband. Additionally, the simultaneous use of the shared broadband connection across multiple users further reduces the actual download speeds experienced. The same logic can be applied to the constraining effect of download caps which is magnified where the usage allowance is shared amongst multiple users.

- 3.31 Additionally, such sharing docks or other equivalent routers, such as the Broadband in a Box or MiFi products, required for this wireless mobile broadband experience must be purchased as a supplement to the USB dongle⁷³, whereas routers are often offered free of charge as part of fixed broadband contracts⁷⁴. This raises the cost to the customer and therefore reduces the degree to which fixed and mobile broadband products are considered to be a sufficiently close substitute from a pricing perspective.

Supply-side considerations

- 3.32 In addition to our assessment of demand-side factors ComReg has also reviewed supply side factors in considering whether a mobile broadband provider, not currently active in the provision of DSL broadband services, would be capable of delivering services, over a mobile broadband platform that would sufficiently reflect the characteristics of DSL-based broadband services such as to constrain a hypothetical monopolist⁷⁵ (“HM”) provider of fixed DSL broadband from implementing a 5-10% price increase above the competitive level.
- 3.33 We remain of the view that the capacity of a mobile broadband platform to develop services within a short timeframe and at negligible cost that would sufficiently reflect the characteristics of DSL broadband services is constrained by the aforementioned functional limitations. For example, the shared access nature of the mobile broadband network has implications for its ability to offer a comparable performance to DSL networks.

⁷¹ Source: Three website April 2011
http://three.ie/products_services/broadband/mifi.html

⁷² For example, mobile broadband services are still shared in the access layer.

⁷³ Source: Vodafone website April 2011.
http://www.vodafone.ie/df/mobilebroadband/devices/devices_detail.jsp

⁷⁴ For example, all Eircom products include a wireless router free of charge.

⁷⁵ As per the U.S. Dep’t of Justice & Fed. Trade Comm’n, Horizontal Merger Guidelines the Hypothetical Monopolist can be assumed to be the only provider of the relevant product or service (and for forward looking period under review).

- 3.34 Furthermore, as detailed in the Consultation⁷⁶, we suggested that the diversification of some mobile operators into the provision of DSL broadband⁷⁷ suggests that the mobile operators do not consider mobile broadband to be a close substitute for DSL. ComReg's view was that it would not be commercially rational for the diversifying mobile broadband network operator to operate two networks in parallel, if mobile broadband was to be considered a close substitute for fixed broadband in the retail market. Eircom disagreed with this, and proposed that diversification initially addressed early development of mobile broadband and/or poor coverage. In Eircom's view, mobile broadband competes for fixed customers.
- 3.35 The AM study noted in paragraph 3.13 above suggests that "*operators should position mobile broadband as a complement to fixed broadband, not a substitute*". The report states that customers now have realistic expectations for mobile broadband, and do not consider it to be a direct equivalent to fixed broadband. AM adds that "the factors that might attract consumers who are not currently considering mobile broadband – price reductions and network improvements – would be costly to implement." In this case, from a commercial perspective, it is suggested that operators focus on selling mobile broadband as a product enabling customers to connect to the internet while on the move, rather than focusing on it as a potential substitute for fixed broadband. AM's conclusion lends further support to our view expressed in the Consultation that the diversification of some mobile operators into the provision of DSL broadband, suggests that mobile operators do not consider mobile broadband to be a close substitute for DSL. Comments submitted by Vodafone in response to the Consultation also support this view. Vodafone commented that "*its investment in its fixed line business is intended to allow Vodafone to service new markets and access a new customer base that has distinct needs.*"

National Broadband Scheme ("NBS") area

- 3.36 We maintain our view that mobile broadband offered in the NBS area does not imply substitutability between fixed and mobile broadband services. In fact, ComReg believes that the roll-out of DSL in parts of the NBS area suggest that DSL service providers see their services as having a commercial advantage over mobile broadband.
- 3.37 The NBS aims to ensure that some form of broadband is available in certain areas where a commercially-driven broadband offering is not widely available: that is, it was designed to address a failure of the market to deliver a basic broadband service. It is noted that the tender/procurement process to award the contract for the NBS took place under a unique set of conditions, in the sense that:
- The NBS was a technology neutral, competitive public procurement exercise under which tenders were invited from suppliers to provide, amongst other things, a minimum specification broadband product.

⁷⁶ See paragraph 4.105 of the Consultation.

⁷⁷ For example, Vodafone has engaged in such a strategy through its acquisition of Perlico Communications, and has expanded its fixed broadband customer-base further through its recent acquisition of BT Ireland's retail residential and SME customers.

- The NBS contract was awarded, not just on the basis of the service provider being able to meet this minimum product specification, but also having regard to the ability to meet a range of other tender criteria (coverage, roll-out, pricing, level of subsidy sought, etc.).
- The award of the contract to a mobile service provider was as a result of the winning bidder having the most economically advantageous tender having regard to its performance across a range of award criteria, and not purely on the basis of it being a mobile broadband provider.
- Having regard to the objective of the NBS, consumers in the NBS area are faced with a choice of no broadband or mobile broadband.

3.38 For these reasons, the Government's decision to award the NBS contract to a mobile broadband service provider should not be viewed as being representative of overall market behaviour.

Conclusion on fixed/mobile substitutability

3.39 We have considered in detail points raised by respondents, and have reviewed and updated our analysis presented in the Consultation. We have reviewed the analysis and findings of other NRAs which have recently analysed the WBA market, and note that all NRAs (with the exception of Austria) have concluded that mobile broadband is not considered to be a good substitute for fixed broadband, and does not form part of the same market⁷⁸. We continue to hold the view that based on an analysis of demand and supply side substitution in the Irish retail broadband market, on a comparison of technical characteristics, and on an assessment of actual customer switching in the market, retail mobile broadband is not in the same product market as retail fixed broadband (i.e. broadband delivered on DSL, cable, FTTx and FWA platforms).

Business and residential markets

- 3.40 We have reviewed O2's comments regarding the possible segmentation of residential and business retail markets.
- 3.41 While conditions of market entry may differ between business and residential markets, a consideration of demand and supply side substitution⁷⁹ confirms that the retail broadband market should not be further differentiated by customer type. On the demand side, the similarities in terms of functional characteristics and pricing for both business and residential products constitute a chain of substitution. On the supply side, operators active in one market would be able to move into the other without delay and without incurring significant costs since there is no real difference between the wholesale inputs necessary to supply the retail products. For this reason, we consider that supply side substitution is possible across both customer segments.
- 3.42 We have given further consideration to approaches adopted by other European NRAs and have found that only the Austrian regulator ("RTR") has distinguished the retail broadband market by customer type. Comments made

⁷⁸ For example, Poland (Case PL/2011/1184), UK (Case UK/2010/1065), Slovenia (Case SI/2010/1159)

⁷⁹ Document 10/81, paras 4.110 - 4.117

by the EC in response to RTR's notification showed that its analysis was found to be problematic on several levels⁸⁰. Although eventually the EC withdrew its serious doubts over the Austrian notification, the Commission emphasised that the Austrian approach, which included mobile broadband in the retail market and so found a differentiation between the residential and business markets, was based on specific national circumstances, and the Austrian NRA was invited to closely monitor market developments. ComReg considers the Irish market to be distinct in this regard.

SSNIP methodology and Greenfield Approach

- 3.43 In its response to the Consultation, Magnet queried the price used in the application of the SSNIP test, and pointed out that if pricing was not cost-oriented, it may not be a competitive price and there is scope for the price increase to be absorbed by the incumbent.
- 3.44 We have followed the EC's guidance⁸¹ which states that a regulated price which is assumed to be set at the competitive level is a good proxy for a wholesale price to be used in a 'Greenfield' environment, i.e. in the absence of wholesale regulation in the market under review. The benchmark price used in the SSNIP test is the current regulated wholesale price. We note Magnet's point and although we consider the regulated price to be a good proxy for a competitive price, it may be that it gives scope for the incumbent to pass through a lesser proportion of a wholesale price increase to the retail level. In any case the benchmark price adopted by ComReg ensures our assessment of any pass-through of a SSNIP at the wholesale level does not lead to an unnecessarily narrow market definition.

Retail geographic market

Summary of Consultation proposals

- 3.45 In paragraphs 4.127-4.163 of the Consultation we detailed our analysis of the scope of the geographic market. We considered the ERG's Common Position on Geographic Aspects of Market Analysis⁸² along with guidance from the EC⁸³ on the relevant criteria for assessing geographic market definition. These criteria provide the framework for assessing whether competitive conditions are such that a national approach to market definition, market analysis and the implications of remedies would be justified.
- 3.46 In the Consultation we noted that developments in the retail market such as increasing competition on a localised level and the launch of improved product offerings may indicate that there are areas where varying conditions of competition may be emerging. However, our analysis showed that this did not appear to have triggered a specific regional or local product or pricing response by operators in that area.
- 3.47 In particular, the nationally-driven pricing practices of both the incumbent and of alternative operators, coupled with similarities in product characteristics

⁸⁰ Case AT/2009/0970: Wholesale broadband access in Austria, Brussels, 5/10/2009 C(2009)7720 SG-Greffe (2009) D/6009

⁸¹ See paragraph 42 of SMP Guidelines.

⁸² http://erg.eu.int/doc/publications/erg_08_20_final_cp_geog_aspects_081016.pdf

⁸³ Cases UK/2007/0733 and PT/2008/0851.

offered, supported our preliminary conclusion that the conditions of competition in the retail broadband market were sufficiently homogeneous to suggest a national market.

Summary of responses

3.48 All respondents, with the exception of Eircom, agreed with our preliminary finding that the geographic market for retail broadband is national in scope. Eircom submitted that our assessment of the geographic market for retail broadband did not acknowledge developments in competition in urban areas and therefore disagreed with our assessment of the homogeneity of competitive conditions for the provision of retail broadband access throughout Ireland. Using the criteria⁸⁴, which we also re-examined, for geographic market definition set out in the Consultation we have reviewed Eircom's comments in further detail below.

ComReg analysis and conclusions

3.49 In order to fully consider Eircom's submission on the nature of geographic differences in the retail market, we have reviewed and updated the analysis presented in the Consultation.

3.50 This is a second round market review, and both the WBA market and the upstream WPNIA market have been regulated since the time of the last review. It should be recognised therefore, that a discussion of the actual retail market is a discussion of a market in the presence of wholesale regulation. It should be noted that the level of actual competition in the retail market is largely dependent on regulation in the wholesale market.

3.51 The assessment of the retail product market concluded that the broadest possible market on which to base our analysis of the wholesale market, would include retail broadband provided over DSL, cable, FTTx and FWA. This is because in terms of pricing and product characteristics, a customer would be likely to consider these products as substitutes. We do not believe it was necessary to pursue a full definition of the retail market by, for example, carrying out a SSNIP test to ascertain what proportion of customers would be likely to switch in response to a price increase, and note that the only outcome of a SSNIP analysis would be to narrow the market. The assessment of any potential geographic variation starts from the product market, which includes retail fixed broadband provided over DSL, cable, FWA and FTTx networks⁸⁵.

3.52 The assessment of geographic variation has been carried out in terms of⁸⁶:

- Entry conditions, distribution and evolution of market shares of alternative networks
- Retail pricing patterns of incumbent and alternative operators and
- Geographic differences in retail product characteristics

⁸⁴ These criteria have been derived from latest guidance issued by the EC (see Cases Case PL/2011/1184 and FR/2011/1214) and ERG on the subject of geographic market definition.

⁸⁵ This is in line with EC guidance as detailed in section 2.2.2 of the SMP Guidelines.

⁸⁶ These criteria have been derived from the ERG and the latest EC guidance noted in paragraph 3.45.

3.53 The first consideration, that of entry conditions and market share evolution, is primarily concerned with establishing the structure of the market. It would be expected that there is geographic variation in the availability of retail broadband provided over some alternative platforms, in the sense that coverage is geographically limited. That in itself does not necessarily indicate that there are different conditions of competition. The second and third criteria assess the extent to which there may be behavioural differences in how operators address any perceived variation.

Entry conditions, distribution and evolution of market shares

3.54 We have considered our analysis of entry conditions, distribution and evolution of market shares, in light of Eircom's submission that the growth of the cable network and potential for further growth in the LLU footprint does not support a finding of a national market. It should be noted that when assessing the structure of the market that the presence of alternative infrastructure alone is insufficient evidence when assessing sub-national geographic markets. ComReg considers that this should have a corresponding impact on the distribution and evolution of market shares.

3.55 First of all, we have considered the structure of the market at the national level in terms of the area covered by the incumbent's network and any other competing alternative network infrastructure. UPC's cable network coverage in terms of total households is approximately 41%⁸⁷. According to information supplied by UPC to ComReg, the number of broadband enabled homes by 2012 is expected to increase and the full realisation of UPC's plans will bring its potential national broadband coverage up to around 44% based on an estimate of 720,000 homes passed.

3.56 The number of LLU lines has increased since the time of the Consultation as Vodafone customers are migrated to BT's network. However the overall coverage in terms of footprint for LLU remains largely similar to that presented in the Consultation. Retail broadband using WPNIA inputs remains distributed across 85 unbundled exchanges and is supplied by four networks: BT, Smart Telecom, Magnet, and 3PlayPlus, which cumulatively account for a 5%⁸⁸ market share of fixed broadband subscriptions at the national level reflecting a relatively low level of WPNIA development in Ireland.

3.57 As at 26 April 2011, the number of Fixed Wireless Access Local Area (FWALA) licences had grown to 210⁸⁹, issued to 24 operators in the 3.5 GHz, 10.5 GHz and 26 GHz bands. The coverage of FWALA remains relatively broad in terms of territory, and also in terms of population (fixed wireless broadband is available in all major metropolitan areas).

3.58 Alternative fibre networks continue to be generally associated with supply to new housing developments, or to Greenfield business sites. Alternative fibre networks (including fibre to the home, fibre to the curb and fibre to the

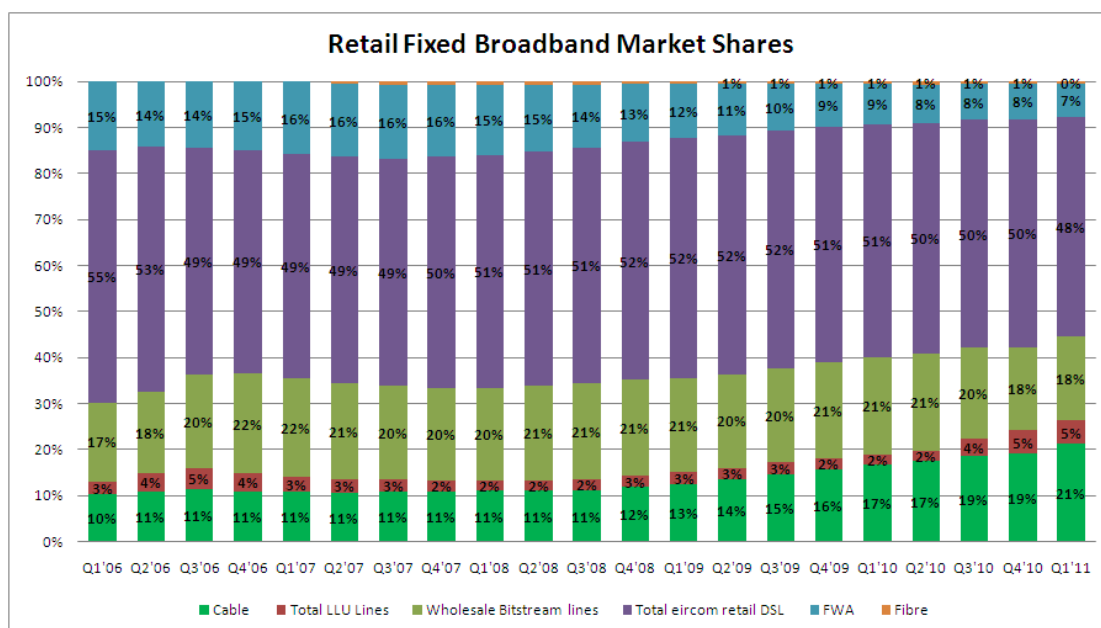
⁸⁷ This figure is based on Liberty Global first quarter 2011 results – March 31 2011 - which reports that 677,200 of homes passed are currently capable of receiving broadband services over UPC's hybrid fibre/coaxial (HFC) cable network, as well as the latest CSO figure from Q4 2010 which reported 1,646,200 households nationally.

⁸⁸ Source: ComReg, Irish Communications Market; Quarterly Key Data Report, Document 11/44, 21 June 2011.

⁸⁹ At the time of the Consultation there were 197 licences issued to 23 operators.

premises, collectively referred to as FTTx) still make up less than 1% of fixed broadband subscriptions in Ireland. At the time of Consultation, we noted that the coverage of OAO fibre networks in Ireland was very limited and spread over a number of small geographically separated locations, covering a total of approximately 15,000 homes. This recent trend of static retail subscriptions and network coverage reinforces our view that alternative FTTx providers are unlikely to assume a material presence at national level over the period of this review.

- 3.59 The assessment of the coverage of alternative networks indicates that the availability of broadband supplied over cable, purchased WPNIA inputs and alternative FTTx networks, remains limited to specific geographic areas. The coverage of such broadband supply is still significantly less than that of DSL at national level, which is at 92% of population.
- 3.60 The graph⁹⁰ below (which includes the effects of current regulatory obligations in place in the WBA market) shows that DSL continues to account for the majority of retail fixed broadband subscriptions, standing at 66% of fixed broadband subscriptions (excluding WPNIA-based supply which as noted above accounted for a further 5%), as of Q1 2011⁹¹. This shows that retail broadband competition still continues to rely significantly on the availability of regulated WBA inputs.



⁹⁰ Source: ComReg, Irish Communications Market; Quarterly Key Data Report, Document 11/44, 21 June 2011.

⁹¹ ComReg has also examined the provision of total DSL access only to further illustrate the distribution of market shares. DSL provided directly to the consumer by Eircom using direct access to its network accounted for 67% of all DSL subscriptions in Q1 2011, while 26% of all DSL lines were provided by OAOs using wholesale bitstream. A total of 7% of DSL lines were provided to subscribers by OAOs using LLU.

- 3.61 Having established the structure of the market at a national level in the Consultation, we have considered comments made by Eircom, and reviewed the evolution of market shares within areas covered by alternative networks based upon data submitted by Eircom and other operators. Generally, areas with alternative networks tend to be more densely populated areas, or by contrast they can be specific areas, which may historically have been lowly populated but quickly added significant housing. Therefore ComReg has adopted a cautious approach in defining specific boundaries between areas, as existing boundaries may be the result of a number of such circumstantial factors, rather than specific competitive responses. In order to update our analysis since the time of the Consultation, we issued a further information request, and considered whether urban and rural areas exhibited clear structural differences in terms of demand and supply of retail broadband.
- 3.62 It should be noted that the boundary between urban and rural is indicative rather than definitive as described in the Consultation, because the overlap is not always exact and has been based on population spread rather than precise exchange-based parameters or identified competitive conditions. For this reason, the data provided has been used to inform our analysis, rather than to provide precise assessments of specific locations.
- 3.63 This latest data indicates that of the alternative broadband platforms present in the Dublin area, cable and LLU have experienced the most significant increase in subscriber share, at a rate significantly above that of their national market share growth. Eircom's share of broadband subscribers in the Dublin area has decreased from [...] % in Q4 2009 to [...] % in Q4 2010. Meanwhile UPC's share of the broadband subscriber base in Dublin has increased from 28% to 37% over the same period. The retail market share of WPNIA purchasers in the Dublin area is also showing signs of growth as customers migrate from Eircom bitstream products to BT wholesale services, and LLU operators now account for just under 9% of broadband subscribers. The retail market shares of alternative FTTx and FWA operators in the Dublin area have been declining, mirroring to a large part the decrease in their share of the national market. The FWA providers' market share now stands at [...] % while the market share of alternative FTTx operators remains just above [...] %.
- 3.64 When considering geographic variation in the structure of the market, we can see that over the last one to two years, alternative operators providing retail broadband based on cable and on purchased WPNIA inputs, have increased their market shares in urban areas. These operators have a very limited presence outside major urban centres. Their increase in market share has been at the expense of FWA-based retail broadband and of DSL broadband, provided directly by Eircom and by suppliers using WBA inputs.

Pricing patterns of incumbent and alternative operators over time

- 3.65 We have reviewed Eircom's submission which questioned the analysis of pricing patterns in broadband access, and submitted that the geographic scope of the market cannot be inferred from pricing patterns.
- 3.66 As noted by the EC and in comments to the UK and Portuguese NRAs where sub-national wholesale markets have been defined, evidence of differentiated retail pricing applied by the incumbent and/or alternative operators over time

might help indicate different regional or local competitive pressures⁹². For example, in the UK there has been clear evidence of increasing differentiation in prices by LLU operators reflecting their geographic footprint⁹³.

- 3.67 Our analysis of all the available retail broadband products and associated marketing campaigns continues to show that national pricing strategies are still being pursued by both the incumbent and alternative operators in the provision of retail broadband services in Ireland⁹⁴.
- 3.68 We have assessed the approaches of other NRAs and note that in the UK, Ofcom found that even where it had evidence of differentiated retail pricing by ISPs providing retail broadband using WPPIA inputs, the retail market was proposed to be national and was not a precise retail market definition⁹⁵. The main reason for this is that the majority of retail broadband customers in the UK are provided service by ISPs pursuing a national pricing policy⁹⁶.

Geographic differences in retail product characteristics

- 3.69 A further indicator of potential regional/local variations in competitive conditions identified by the EC includes differences in the functionalities or types of products being offered by both the incumbent and alternative operators or in the marketing strategies being pursued.
- 3.70 With respect to the emergence of Eircom's NGB service, Eircom submitted that this was a direct response to localised demand and supply conditions and in particular competitive pressure from UPC, and was not driven by technical considerations. Firstly, we consider that NGB products can be distinguished from existing product offerings on the basis of offering an 'uncongested' service. This technical upgrade is driven primarily by upgrades to Eircom's core network (from traditional TDM (Time Division Multiplexed) based transport technology to Ethernet and C/DWDM (Coarse and Dense Wavelength Division Multiplexed)) transport technology⁹⁷. It does not demonstrate a strategic plan to introduce differentiated products in particular geographic areas based on localised demand and supply conditions. Secondly, based on the NGB coverage map available on Eircom's website⁹⁸ it is clear that NGB will be available on an increasingly widespread basis by the end of the year and not limited to areas where UPC is present.
- 3.71 Based on this assessment our view remains that this strategy is driven primarily by technical considerations and therefore cannot explicitly be linked to a response to competitive conditions in specific geographic areas.

⁹² For example, a key element to Ofcom's review of the WBA market was its ability to demonstrate distinct variances in the average retail prices in each of the three wholesale markets it identified.

⁹³ See Paragraph 3.13, Ofcom: Review of the wholesale broadband access markets, December 2010. Despite the evidence of differentiated pricing at the retail level, Ofcom proposed that the retail market was national in scope.

⁹⁴ As indicated by operators in response to information requests and responses to ComReg Consultation no. 10/81.

⁹⁵ The UK excluding the Hull Area.

⁹⁶ Ofcom, "Review of the Wholesale Broadband Access Markets", 23 March 2010.

⁹⁷ It should also be noted that this network was used by Eircom to launch its wholesale leased line NGN Ethernet product in June 2010.

⁹⁸ www.Eircom.ie/ngb.

Conclusion on geographic scope of the retail market

- 3.72 Considering responses to the Consultation, we have collected and analysed data in order to assess geographic variation in structural and behavioural patterns in the retail broadband market. Alternative networks tend to be built in urban areas and so more densely populated areas will generally have more networks available. This has been the pattern in Ireland over the last one to two years. Operators providing retail broadband over cable and purchased WPNIA inputs, have been increasing their market shares in urban areas at the expense of both FWA and Eircom DSL. This structural development is noted but the boundary around any such area cannot be considered as established or stable over the lifetime of this review. To date it has not followed that even at a retail level there are behavioural changes unique to a particular localised area and hence it would appear that operator marketing and pricing strategies are aimed at a national market. In other Member States (UK and Portugal) where sub-national markets have been defined, however, the geographic assessment by the respective NRAs found that there was evidence of differentiated retail pricing by ISPs providing retail broadband using WPNIA inputs. Despite this, in both cases, the retail market was found to be national⁹⁹.
- 3.73 Our assessment of behavioural indicators suggests that any structural change has not yet had an impact on the commercial behaviour of operators which would indicate sub-geographic markets. This means that for a retail customer in an urban area compared with a rural customer, there is often a greater choice of platform when purchasing retail broadband, but the pricing and product characteristics are similar in urban and rural areas. We would therefore infer that though there are some structural developments in urban areas this has not influenced product and pricing behavioural patterns, such as to identify unique and stable boundaries around a sub-geographic area that are, absent wholesale regulation, either stable or self-sustaining.
- 3.74 As aforementioned the impact of varying competitive pressures in different areas is considered further in the parallel consultation on the WBA price control¹⁰⁰. The preliminary view is that the changes proposed in this pricing consultation will facilitate additional flexibility that may be required by Eircom to respond to competitive conditions in the retail broadband market and which may provide the opportunity for developments in terms of product and pricing strategies.
- 3.75 We also acknowledge Eircom's comment concerning the recent proposal for geographically de-averaged prices for wholesale Ethernet traffic conveyance¹⁰¹, whereby the prices reflect the costs of the geographic regions i.e. high density regions and medium density regions. This is discussed further in Section 7.
- 3.76 It is in light of this further analysis that we conclude that for the period of this review the retail market is national in scope.

⁹⁹ Cases UK/2007/0733 and PT/2008/0851.

¹⁰⁰ ComReg, "Wholesale Broadband Access: Further Consultation to Consultation Document No. 10/56 and Draft Decision in Relation to Price Control and Transparency", Document 10/108, 22 December 2010.

¹⁰¹ ComReg, "Response to Consultation Document No. 10/70 and a further consultation and draft decision on the price control obligation in the market for wholesale terminating segments of leased lines", Document 11/32, 29 April 2011.

Conclusion on retail market definition

- 3.77 Notwithstanding the analysis above, ComReg maintains that in line with the EC Explanatory Note¹⁰², for the purposes of this market review, our characterisation of the retail market is used only to inform our subsequent analysis of the wholesale market. Therefore it is not necessary to conclude on the precise scope of the retail market, in terms of geography or product.
- 3.78 However for completeness, based on the assessment above and taking into account the comments received, we consider that for the purposes of analysing the WBA market a retail broadband market includes the following:
- broadband products provided over DSL-based copper networks;
 - broadband products available over cable-based networks;
 - broadband products provided over FWA-based networks;
 - broadband products provided over alternative FTTx networks.
- 3.79 We further consider that DSL-based broadband falls within a product market which is distinct from products provided over retail narrowband access, satellite networks, leased line networks, as well as mobile broadband networks.
- 3.80 We consider that the geographic scope of the retail broadband market is national.

¹⁰² P.19, Explanatory Note, "The starting point is therefore a characterisation of retail markets, followed by a description and definition of related wholesale markets."

4 Wholesale market definition

Wholesale Product Market

Summary of Consultation proposals

- 4.1 Having considered the relevant retail product market, our wholesale market definition as set out in the Consultation¹⁰³ is consistent with the EC's guidance¹⁰⁴, which begins by hypothesising a relatively narrow WBA product market¹⁰⁵ and then considers whether this should be broadened to include products providing additional constraints on a hypothetical monopolist ("HM").
- 4.2 The predominant means of retail broadband access in Ireland is currently based on DSL infrastructure, and since wholesale demand is ultimately derived from the demand for access at the retail level, we assumed as its starting point, a HM supplier of DSL-based WBA services, with extensive or ubiquitous infrastructure.
- 4.3 The next point of our analysis was to consider whether WPNIA products (e.g. LLU or LS) and WBA products constitute distinct wholesale markets. We then considered a number of possible constraints (direct and indirect) and the extent to which they could exercise a sufficient constraint to warrant such products being included within the scope of the relevant product market.
- 4.4 Our preliminary view was that WBA services offered by a HM over NGA infrastructure would allow for replication/replacement of current generation broadband access services and/or for the provision of higher quality services. Wholesale demand for a comprehensive or ubiquitous WBA product is likely to prevail, regardless of whether the HM's network is based on current generation (DSL) access or whether fibre is overlaid (either in whole or in part) as part of an NGA upgrade. Therefore we proposed that both types of access would represent effective demand side substitutes and form part of the same relevant market.

Potential direct constraints from non-physical access supplied by WPNIA purchasers

- 4.5 Taking the starting point of a HM supplier of a (currently DSL-based) non-physical WBA product, we considered that Eircom's self-provisioned access network would offer the type of ubiquity and capacity expected by access seekers. Further, we took into account the scope of Eircom's network as a self-provisioning operator and its existing wholesale systems and relationships in adjacent markets. In this regard it may be expected that Eircom could switch production to the relevant products and market them in the short term without incurring significant additional costs or risks. On that basis, our preliminary conclusion was that non-physical broadband access provided over Eircom's access network falls for inclusion within the WBA product market.

¹⁰³ See section 5 of the Consultation.

¹⁰⁴ Explanatory Note, p. 15.

¹⁰⁵ A HM supplier of DSL-based WBA services, with extensive or ubiquitous infrastructure.

- 4.6 In the Consultation¹⁰⁶ our preliminary conclusion was that, in principle, a WBA offering based on purchased WPNIA inputs would share similar product/technical characteristics as a (DSL-based) WBA product offered by a HM supplier. However, we also noted that the ability of a WPNIA purchaser to offer an effective non-physical WBA product is limited to the areas where there is demand from WPNIA purchasers. We considered that with the exception of BT, purchasers¹⁰⁷ of WPNIA inputs in Ireland would not be able to offer a WBA product with the ubiquity expected by access seekers within the immediate to short term and without incurring significant additional costs. Supply side substitution from WPNIA purchasers would be limited.
- 4.7 We did, however, take particular account of BT's plans to supply a WBA product to Vodafone as part of their agreement. At the time of writing, the agreement was just beginning to undertake its unbundling programme and the parties were in the early stages of wholesale arrangements. Given the incremental nature of its implementation and its dependence on a number of factors, our preliminary view was that the BT/Vodafone agreement did not meet the criteria for inclusion in the relevant market from a supply side analysis. However, regardless of this, we noted that the question of whether or not BT's planned WBA supply should be included in the relevant product market could be left open. We added that it was not necessary to reach a definitive conclusion for the purposes of this product market definition as potential constraints from BT's WBA supply would be considered further in both the geographic market definition and the SMP assessment.
- 4.8 Furthermore, we proposed to carefully monitor BT's wholesale supply as it materialised and to revisit the market definition, SMP analysis and/or remedies if appropriate.

Potential direct constraints from non-physical access supplied by cable/FWA/FTTx operators

- 4.9 Our analysis of direct constraints from cable¹⁰⁸, FWA¹⁰⁹ and FTTx¹¹⁰ operators showed that there were no wholesale products delivered via these alternative platforms available on the market and nor was it likely that, absent regulation, such operators would have sufficient economic incentives to voluntarily offer a WBA product following a SSNIP in (DSL-based) WBA.

Potential direct constraints from non-physical access products supplied over mobile networks

- 4.10 Our preliminary view as detailed in paragraphs 5.80 to 5.85 of the Consultation was that from the demand side, the differences in functionality and quality of service which were identified between mobile and fixed broadband products at the retail level would be apparent also at the wholesale level, such as to render

¹⁰⁶ See paragraphs 5.22 to 5.45 of the Consultation.

¹⁰⁷ In the Consultation it was noted that another WPNIA purchaser supplies a wholesale broadband product to one of its customers on a very limited basis, although this is more akin to a resale product rather than a WBA product offering.

¹⁰⁸ See paragraphs 5.51 to 5.68 of the Consultation. ComReg's assessment of the indirect constraints exerted by cable operators at the retail level was set out in paragraphs 5.86 to 5.117 of the Consultation and is discussed further below.

¹⁰⁹ See paragraphs of the Consultation 5.69 to 5.79.

¹¹⁰ See paragraphs of the Consultation 5.69 to 5.79.

them in separate relevant wholesale markets. From the supply side, absent regulation, it was considered unlikely that a mobile operator would be capable of switching to third-party supply of WBA quickly or on a sufficient scale as to constrain a HM supplier of comprehensive or ubiquitous (DSL-based) WBA services.

Potential indirect constraints from WPNIA purchasers, cable, FWA and alternative FTTx networks

- 4.11 In addition to the assessment of potential direct constraints, we considered the extent to which self-supply¹¹¹ of WBA by an operator offering retail broadband over purchased WPNIA inputs or over alternative cable, FWA, or FTTx networks, should be considered part of the same market as (DSL-based) WBA provided by a ubiquitous vertically-integrated HM based on an indirect constraint from the retail level¹¹².
- 4.12 In doing so, having considered guidance from the EC on indirect constraints¹¹³, we revised the analysis of indirect constraints as notified in the first round (2004/2005) review of the WBA market in Ireland which found that cable and FWA-based broadband services should be included in the relevant wholesale market.
- 4.13 Our analysis of indirect constraints was set out in paragraphs 5.86 to 5.117 of the Consultation, and concluded that the previous assessment from the 2005 review that retail substitution between DSL, FWA and cable networks constrains wholesale pricing no longer holds.
- 4.14 Using the criteria detailed by the EC in respect of the inclusion of cable in the relevant wholesale market our assessment firstly examined the possibility that pass-through of the wholesale price rise to retail prices could be less than complete and that, even in the event of significant pass-through, the impact of any such wholesale price increase would still be diluted when passed to the retail level, as the WBA input constitutes just one element of the overall retail price.
- 4.15 Secondly, we considered the impact of the more limited/dispersed availability of alternative platforms, as well as possible switching costs, on the ability and incentives for retail switching in response to small price changes. In view of recent retail growth trends, we proposed to monitor in particular the development of retail competition from cable-based broadband with a view to identifying if it may be strong enough to constrain a wholesale SSNIP by the time of the next WBA market review.
- 4.16 Thirdly, we considered the scope for indirect retail constraints to be further muted if, absent regulation, a vertically-integrated HM raised its wholesale prices but sustained its own retail prices below those offered by its wholesale purchasers. In such a scenario, the integrated HM (given its brand recognition

¹¹¹ ComReg's approach to self-supply has been consistent with that taken by many other NRAs in this market. A report by BEREC published in March 2010 surveys the treatment of indirect constraints and shows how inclusion at the product market definition stage is common. See http://www.erg.eu.int/doc/berec/bor_10_09.pdf

¹¹² See paragraphs 5.86 to 5.117 of the Consultation.

¹¹³ See cases IE/2004/0093, NL/2005/281, UK/2007/733, ES/2008/805, PT/2008/851.

and network ubiquity) would also be likely to gain any switching retail customers, further mitigating the effects of any indirect retail constraints.

- 4.17 Based on the above, our preliminary view was that indirect retail constraints, from suppliers of broadband services via purchased WPNIA inputs or over alternative cable, FWA, or FTTx networks are not of sufficient strength to be included in the relevant WBA market for the purposes of the present review.

Preliminary conclusions

- 4.18 Having regard to the analysis presented above, we proposed that the WBA market was provisionally considered to consist of:
- Wholesale broadband access provided over an extensive or ubiquitous current generation DSL/copper network infrastructure
 - Wholesale broadband access provided over an extensive or ubiquitous next generation fibre network infrastructure
- 4.19 We considered that the market definition could potentially include WBA products supplied by a WPNIA purchaser (such as BT) on a forward-looking basis, but at the time it was left open at this stage of market definition.

Summary of responses

- 4.20 All respondents with the exception of Eircom agreed with our proposed wholesale product market definition. In its response Eircom raised a number of issues concerning our approach to wholesale product market definition and its findings. Eircom's main arguments, along with any other relevant comments from OAOs, are summarised below, and are addressed in detail in the analysis section.
- 4.21 With regard to the approach to wholesale product market definition Eircom considered that:
- WPNIA and WBA do not constitute distinct product markets
 - The predominant means for retail broadband access can no longer be assumed to be DSL and therefore the starting point for our analysis is incorrect
- 4.22 With regard to our analysis of potential direct constraints from non-physical access supplied by WPNIA purchasers. Eircom considered that:
- The exclusion of self-supply from WPNIA operators from the relevant market is incorrect
 - The exclusion of WBA supplied by BT from the relevant market is incorrect
- 4.23 In its response Vodafone submitted further analysis concerning whether LLU based WBA exerts any constraint on the hypothetical monopolist. Vodafone's analysis indicated that, inter alia, the up-front costs associated with offering a wholesale service and potential migration inefficiencies mean that it is unlikely that another WPNIA purchaser (i.e. in addition to BT) would enter the WBA market.
- 4.24 With regard to our assessment of potential direct constraints from non-physical access supplied by cable, FWA and FTTx operators. Eircom submitted that the

limited coverage of the cable and fibre networks is only relevant in the context of a national market and as Eircom submits that the relevant geographic market is not national, cable and fibre networks may therefore exercise a direct constraint in the WBA market.

4.25 With regard to our assessment of potential indirect constraints from WPNIA purchasers, cable operators, FWA operators, and alternative FTTx operators on a HM supplier of (DSL-based) WBA, both O2 and Eircom submitted that:

- The present approach to indirect constraints which excludes FWA and cable from the WBA market is irreconcilable with the approach adopted in the 2005 WBA review.

4.26 Eircom further commented that:

- Ofcom’s analysis concerning indirect constraints exercised by cable networks should be considered further
- The assessment of a SSNIP at the wholesale level is inconsistent with ComReg findings in relation to the proposed WBA price control
- ComReg was wrong to consider that the impact of competition at the retail level is limited at the wholesale level by the limited reach of UPC’s network

4.27 In its response, Vodafone submitted that we had underestimated the difficulties that would be faced by WBA purchasers in passing any price increase through into the retail market. In particular, Vodafone highlighted three issues which would restrict an ISP’s ability to pass on any increase in the wholesale price.

4.28 First of all, Vodafone submitted that as per the existing regulatory framework¹¹⁴, ISPs are constrained by their retail contracts and therefore cannot increase retail prices without terminating these contracts or affording end-users still within a minimum term period the right to cancel without penalty.

4.29 Secondly, Vodafone added that *“Where a purchaser of the HM’s WBA has set its retail price level relative to the existing retail prices of service providers using alternative wholesale inputs it could not increase these prices without damaging its competitive position in the retail market.”*

4.30 Lastly, Vodafone submitted that *“Most retail prices are set to yield marketing friendly headline pricing. Input cost increases due to a wholesale SSNIP would be unlikely to be fully passed through if they could not be aligned with a suitable headline retail price point.”*

4.31 On the same issue of pass through, Magnet’s comments would indicate that there is room for an OAO to absorb an increase in prices *“to a certain level before it becomes untenable.”*

4.32 In its comments on the WBA notification, the EC stated that:

“Need for analysis of market 4

The Commission notes that the last analysis of market 4 was notified to the Commission in January 2009. The Commission would like to reiterate its

¹¹⁴ Regulation 14 (4) of the Universal Service and User Rights Regulations 2011. S.I. 337 of 2011.

previous comment inviting ComReg to analyse markets 4 and 5 together thus ensuring a coherent approach to NGA regulation. Therefore, the Commission invites ComReg to analyse and to notify to the Commission its review of market 4 as soon as possible”¹¹⁵.

ComReg analysis and conclusions

- 4.33 We acknowledge the EC’s comment that in an NGA environment, it would be desirable to analyse Markets 4 and 5 together, and maintain that a consideration of the upstream market would still be a necessary precursor to a consideration of the downstream market. ComReg’s forthcoming consultation on NGA remedies will be performed for both markets simultaneously.
- 4.34 In the review of the WPNIA market ComReg¹¹⁶ noted that it was more appropriate, given the national circumstances prevailing in Ireland, to analyse the WPNIA and WBA markets sequentially. This was primarily to allow ComReg to eventually consider the market for virtual access after coming to a finding on the market for physical access.
- 4.35 In response to the comments concerning our approach and methodology used to define wholesale markets, while we have considered the operator’s submissions and reviewed our analysis, we maintain that the approach and methodology is consistent with the requirements set out in the Framework Regulations¹¹⁷ and the guidance in line with the EC’s Recommendation and its accompanying Explanatory Note¹¹⁸, the relevant Article 7 notifications and relevant case law, as demonstrated through our analysis in the subsequent paragraphs.
- 4.36 With regard to the issue of whether the WPNIA and WBA markets constitute distinct markets, we have considered the EC’s guidance as detailed in the Recommendation on Relevant Markets¹¹⁹ which defines two distinct markets for wholesale broadband services. This is consistent with the approach adopted by ComReg in its review of the WPNIA market¹²⁰, along with reviews of wholesale broadband services markets carried out by every other European NRA.
- 4.37 In summary, we maintain the view that on the demand side, a purchaser of WBA is unlikely to switch to purchase WPNIA inputs (i.e. LLU or LS) due to functional differences in product characteristics; investment costs; and time taken to enter the market in response to a SSNIP in the price of WBA. On the supply side, a supplier of WBA is not likely to switch to offer WPNIA without incurring significant investment costs in network infrastructure and in associated management facilities.

¹¹⁵ Commission decision concerning case IE/2011/1207: Wholesale broadband access in Ireland, Brussels 16/05/2011, C(2011) 3530, SG-Greffe (2011)7727.

¹¹⁶ Paragraph 4.278, Response to Consultation 08/41, ComReg Doc 08/104, 23 December 2008.

¹¹⁷ The European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011), (the Framework Regulations).

¹¹⁸ Explanatory Note, p. 34. In addition we have considered the European Commission’s views as recently expressed in its Recommendation on NGA. European Commission Recommendation on regulated access to Next Generation Access Networks, 20 September 2010, (2010/572/EU).

¹¹⁹ Explanatory Note, p. 34.

¹²⁰ Note ComReg’s analysis of same issue in ComReg document 08/104 paras 4.262 – 4.281.

- 4.38 With regard to the starting point for our analysis of the wholesale market, we have considered, in line with the SMP Guidelines, a scenario that a vertically-integrated HM which owns a network over which it offers DSL retail broadband to be the narrowest starting point for product market definition. We have reviewed the latest available subscriber data to assess whether DSL remain the predominant means of serving the retail broadband market.
- 4.39 The predominant means of retail broadband access in Ireland continues to be based on DSL infrastructure, accounting for approximately 71% of retail fixed broadband subscriptions as of Q1 2011. Since wholesale demand is ultimately derived from the demand for access at the retail level, we thus assume as its starting point a HM supplier of DSL-based WBA services, with extensive or ubiquitous infrastructure.

Direct constraints from non-physical access supplied by WPNIA purchasers

- 4.40 In the Consultation the question of the inclusion of WBA supplied by a WPNIA purchaser in the relevant product market was left open, because the supply was still at the planning stage, and the extent and timing of its implementation was uncertain. In any case, the potential impact was further considered in both the geographic market definition and the SMP assessment. We proposed to carefully monitor BT's wholesale supply and to revisit the market definition, SMP analysis and/or remedies if appropriate.
- 4.41 We have reviewed the progress of BT's implementation with a view to considering the extent to which WBA supplied by a WPNIA purchaser may now constitute a direct constraint, and so be defined in the WBA product market.
- 4.42 Based on the latest data supplied by BT there are [...] exchanges where the one year exclusive agreement with Vodafone has expired, with a further [...] expiring in July 2011. This means that BT can supply WBA services to wholesale customers on the merchant market at these exchanges.
- 4.43 [...] The time horizon for our assessment of market definition is one year and therefore in this context this wholesale supply may be considered relevant.
- 4.44 [...] While the potential volumes being discussed remain small in the overall context of the market, there are likely bottlenecks in a wider WBA provisioning. It is clear that the development of BT's network and provisioning of WBA services to Vodafone demonstrates the potential of an alternative supply of WBA products which may in the future have the potential to change the competitive dynamics of the merchant market. However at present this constraint on Eircom is limited and is likely to remain so over the time horizon of this review.
- 4.45 Our conclusion is that while a WBA product offered by BT may be limited in terms of nationwide coverage, its functional characteristics and its immediacy, due to the expiry of exclusive provisions to Vodafone at some exchanges, means that it does have the potential to offer an alternative supply of WBA services on a sufficient scale. Therefore, on a prospective basis, we take the view that the wholesale product market definition should include WBA products offered by a WPNIA purchaser as a direct constraint.

Direct constraints from non-physical access supplied by cable, FWA and FTTx operators

- 4.46 In order to take account of Eircom's comments, we have revisited the analysis of potential direct constraints from non-physical access supplied by cable, FWA and FTTx operators.
- 4.47 We do not agree with Eircom's assertion that the coverage of the cable network is not relevant as it believes that the market is not national. In line with standard methodology for market definition exercises, we have considered product market definition prior to considering geographic market definition.
- 4.48 Even if the cable operator were to provide a wholesale service it would be limited to its own footprint. ComReg considers that while it may be possible for a DSL operator to contract with two DSL-based wholesale providers in order to offer a national product range, it would be impractical for an ISP to offer a cable-based service in one area and a DSL-based service in another.
- 4.49 Our view concerning the potential direct constraint from cable is further supported by comments from the EC¹²¹ which state that *"In this context, the question has arisen as to whether wholesale access to cable networks that provide a return path is part of the relevant market. Across the EU, cable represents 15.5% of broadband connections compared to 81.8% of DSL lines and its relative importance has been declining, although broadband delivered via cable has a high market share in Malta, Austria, Belgium, the Netherlands and Portugal. Experience under the market analysis and Article 7 notification procedures so far has indicated that, where cable networks exist, their geographical coverage is often limited and wholesale access to such networks does not constitute a direct substitute for DSL-based wholesale access products from the demand or the supply side, so that inclusion in the same product market is not justified."*
- 4.50 Therefore we reaffirm the view that while technically feasible, the absence (or likelihood) of wholesale offers based on these alternative networks, and consequent time and investment constraints associated with market entry; potential switching costs; and limited reach in the case of cable and FTTx networks, means that the WBA product market definition should not be expanded to include these platforms.

Direct constraints from non-physical access supplied over mobile networks

- 4.51 With regard to the wholesale offering from 3 Ireland in the NBS area, as at February 2011, no service provider has availed of this wholesale offer. As noted in the demand-side section in the analysis of the retail market, the differing functional characteristics of services offered over mobile broadband networks and DSL networks are also likely to apply at the wholesale level.
- 4.52 Therefore we consider that non-physical access supplied over mobile networks does not act as a sufficient direct constraint and should not be considered in the relevant wholesale product market.

Indirect constraints from WPNIA purchasers, cable operators, FWA

¹²¹ P.34, Explanatory Note.

operators, and alternative FTTx operators

4.53 At the time of our first-round market review, the EC in its comments on the first-round assessment¹²² expressed doubts as to whether cable and FWA-based wholesale bitstream access products (whether currently or prospectively) formed part of the relevant market. Since then, the EC has further clarified its views and methodologies on the recommended evaluation and treatment of possible indirect retail constraints by NRAs when carrying out their WBA market reviews¹²³. In particular its “*Accompanying document.. on market reviews under the EU Regulatory Framework*”¹²⁴ published in June 2010 clearly outlines this revised approach concerning the inclusion of cable in the wholesale market definition. It states:

*“The Commission has .. systematically elaborated on the appropriateness of **the inclusion of cable** in the relevant market. When assessing NRAs' notifications, the Commission has reiterated the need for a thorough assessment of the direct competitive constraints exerted by cable operators on traditional broadband access products for the purposes of properly delineating the relevant wholesale broadband access market¹²⁵.”*

4.54 The EC further elaborates on the inclusion of cable in the relevant market based on indirect constraints. It “*underlines that if weak constraints are automatically taken into account at the market definition stage there is also a risk of understating the real extent of market power at the wholesale level by including self-supplied market shares for all vertically integrated competitors irrespective of whether the latter are actually constraining the market behaviour of the incumbent. It is therefore essential that the degree or strength of the constraint posed is correctly estimated in the assessment.*” In estimating the strength of the indirect constraint posed, the EC has prescribed specific criteria which NRAs are required to use when performing such analysis. These criteria are detailed in paragraph 4.58 below, and ComReg has, in particular, undertaken its analysis in accordance with these criteria (in the addition to our application of the SMP guidelines).

4.55 We have carefully considered this evolved guidance from the EC on indirect constraints. In this second-round review of the WBA market we have also considered comments on a number of Article 7 cases¹²⁶ and used the relevant criteria for reviewing indirect constraints as part of this review. Furthermore, the EC acknowledges that the “*definition of relevant markets can and does change over time as the characteristics of products and services evolve and the possibilities for demand and supply*”¹²⁷. In keeping up to date with

¹²² See case IE/2004/0093.

¹²³ Commission Staff Working Document, Explanatory Note, Accompanying document to the Recommendation, SEC(2007) 1483, dated 13/11/2007 (the Explanatory Note).p. 34.

¹²⁴ Commission staff working document, accompanying document to the communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions on market reviews under the EU Regulatory Framework (3rd report), Further Steps towards the consolidation of the internal market for electronic communications. P.20/21.

¹²⁵ E.g. cases AT/2008/0757, EE/2009/0943, FI/2009/0900, FR/2008/0781, NL/2009/0827, PT/2008/0851 and UK/2007/0733.

¹²⁶ See cases NL/2005/281, UK/2007/733, ES/2008/805, PT/2008/851.

¹²⁷ P.5, Explanatory Note.

developments regarding guidance and case law in this area, ComReg will consider each market review based on its own circumstances.

- 4.56 If we were to apply the evolved methodology to our first round review, it is not certain that the earlier conclusions would be the same. Our approach to assessing indirect constraints is consistent with guidance from the EC and analysis undertaken by other European NRAs; we do not agree therefore with Eircom and O2 that we should revert to the previously used methodology and subsequent analysis.
- 4.57 We also acknowledge that in its comments on a number of Article 7 cases, the EC has however noted that indirect pricing constraints, where they are found to exist, should be taken into account in the context of the SMP assessment¹²⁸. In this regard we consider that we have assessed the strength of any such constraints at both the market definition and SMP analysis stages to ensure that any immediate constraints as well as any medium-to-longer term effects, if they arise, are accurately captured¹²⁹.

Analysis of potential indirect constraint

- 4.58 Our approach to considering the effect of indirect substitution through a constraint from the retail level is in accordance with the EC guidance¹³⁰ which requires the examination of whether:
- ISPs would be forced to pass a hypothetical wholesale price increase on to their consumers at the retail level based on the wholesale/retail price ratio;
 - There would be sufficient demand substitution at the retail level such as to render the wholesale price increase unprofitable; and
 - Customers of the ISPs would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices.
- 4.59 In considering responses to the Consultation, we have reviewed our assessment.
- 4.60 Respondents expressed mixed views on the extent to which a SSNIP at the wholesale level would be passed through at the retail level. Our analysis in the Consultation considered a complete pass through and having considered comments from respondents, we acknowledge that it is possible that operators may choose to absorb some or all of this pass through and hence dilute the effect of any SSNIP.
- 4.61 ComReg has reviewed Vodafone's comments as highlighted in paragraphs 4.27 to 4.30 above and considers that there are difficulties facing an ISP in passing through a SSNIP to its retail customers such as altering marketing strategies and allowing customers to void existing contracts.
- 4.62 Furthermore we have reviewed Magnet's comment as detailed in paragraph 4.31 and consider that there is sufficient scope for operators to absorb an increase in

¹²⁸ See cases UK/2003/0032, UK/2007/0733.

¹²⁹ As noted in BEREC "Report on self supply", BoR 10(09), March 2010, a majority of NRAs address self supply at both the market definition and SMP analysis stages of their market reviews.

¹³⁰ See footnote 124.

wholesale costs, although the level of such would depend on the particular circumstances of the operator.

- 4.63 Having considered the views expressed by both Vodafone and Magnet, that because there is some scope for an operator to absorb an increase in wholesale costs and the fact that there are limited commercial incentives to increase retail prices, the impact on an operator's retail price of a SSNIP at the wholesale level may be more muted than suggested in the Consultation.
- 4.64 Eircom has suggested that the approach carried out by Ofcom in its 2010 review¹³¹, in particular its assessment of indirect constraints, is applicable to the Irish market. In Ofcom's 2010 review, a hypothetical SSNIP of 5-10% would translate to an increase of 3.25-7.5% in retail prices¹³². This is broadly in line with our range of 2.3-5.6%¹³³, and not the figure of 8.5% which was the top of the range quoted in the earlier Ofcom review¹³⁴ to which Eircom refers.
- 4.65 Ofcom maintained in its 2010 review that it believed retailers would not be able to absorb an increase in wholesale costs due partly to low margins, partly due to strong retail competition, and also evidenced by geographic variation in prices. However, the EC noted that Ofcom had not provided sufficient evidence of an indirect constraint and requested that Ofcom provide further information to substantiate its analysis.
- 4.66 It is also worth noting that in response to the Czech Republic's 2008 WBA notification¹³⁵ the EC commented "*that the cost of the wholesale input does not seem to represent a significant proportion of the price of the relevant retail product (around 60%) and, therefore, any potential increase in the price of the wholesale input could potentially be absorbed and not be passed through to the retail level.*"
- 4.67 Our conclusion on the level of pass through is that our findings are based on complete pass through, but that this constitutes a maximum figure which could well be further diluted if operators choose to absorb some of the increase.
- 4.68 In considering the extent to which there would be sufficient demand substitution at the retail level such as to render a wholesale price increase unprofitable, we have reviewed information on customer switching.
- 4.69 Our assessment is that the total subscriber population whose service providers currently rely on (predominantly DSL-based) WBA inputs and thus who could potentially be affected by a SSNIP in the wholesale market amounts to around 18% of the retail market¹³⁶. For a wholesale price increase to be rendered

¹³¹ See case UK/2010/1123.

¹³² In its most recent review, Ofcom suggests that the wholesale input accounts for 65-75% of the retail price, so that the potential retail price increase in response to a 5-10% SSNIP would be 3.25-7.5%. In its previous review, Ofcom considered that the wholesale input accounted for 85% of the retail price. (Ofcom "Review of the Wholesale Broadband Access Markets", 23 March 2010, para 3.193).

¹³³ ComReg has calculated the wholesale/retail price ratio using the retail price of standalone broadband, and the wholesale price of its bitstream input.

¹³⁴ Ofcom, "Review of the Wholesale Broadband Access Markets 2006/07", 21 November 2006.

¹³⁵ See Case CZ/2008/0797.

¹³⁶ ComReg considers that Eircom's downstream retail arm, which also uses bitstream inputs, would not be subject to the SSNIP in wholesale costs. For example, a hypothetical monopolist could increase its wholesale price while sustaining lower retail

unprofitable, a significant number of retail customers would have to switch to purchase a retail product provided over an alternative platform, causing a material impact on demand for the relevant WBA inputs.

- 4.70 The latest data on customer churn available indicates that on a national basis switching at the retail level primarily takes place between DSL products and providers and not to cable operators¹³⁷. We do, however, acknowledge that levels of churn may vary by location, depending on the alternatives available to customers.
- 4.71 While UPC is experiencing steady growth in its retail market share, the coverage of UPC's broadband network in terms of total households passed is still at approximately 41% of households and, even though UPC has indicated plans to increase its coverage up to 44% of households over the timeframe of this review. Such potential coverage would still fall short of the DSL network (which is currently reported to have 92% coverage in terms of homes passed). This would thereby limit the scope for retail substitution away from retail broadband products supplied over DSL to retail broadband products supplied over cable.
- 4.72 We further consider that when taking into account the costs (money and time) associated with switching,¹³⁸ an insufficient number of customers are likely to be motivated to switch to broadband services provided over alternative cable, FWA or FTTx platforms or over purchased WPNIA inputs, in response to a retail price increase of 2.3-5.6% to render the wholesale price increase unprofitable.
- 4.73 Furthermore, in light of the comments from Vodafone and Magnet we believe that demand-side substitution would be further constrained by operators choosing not to pass through a SSNIP in the wholesale price.
- 4.74 The third criterion critical to the assessment of indirect constraints concerns whether the customers of the ISPs would switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices.
- 4.75 Assuming a situation absent regulation, it can be expected that a vertically-integrated supplier of WBA over a widespread or ubiquitous DSL network would have incentives to hold its own retail prices constant, so as to attract as many switching customers as possible back to its own network, provided it does not create a margin squeeze.
- 4.76 Given our assessment of churn data which indicates that most switching of ISPs takes place between DSL providers, we maintain the view that should retail customers switch at all, a proportion of such customers would be likely to switch to the retail arm of a HM supplier, because of the similarity of product characteristics and low switching costs. Furthermore, the ubiquity of the HM's

prices than the ISPs which purchase its wholesale product without exercising a margin squeeze.

¹³⁷ Data supplied by operators in response to information request. February 2011.

¹³⁸ Possible switching costs include costs associated with new modems and installation, possible costs for early contract termination (given that, particularly in the purchase of bundles, customers are generally tied to a contract time of at least 12 months), as well as less measurable and intangible costs such as time and effort expended.

DSL network implies that its downstream arm would not be limited by coverage in the way in which some of the alternative platforms are limited. In such cases the HM supplier would gain the retail revenues associated with those customers switching to its retail arm, thereby offsetting any loss of wholesale revenue from the access seekers. In addition to our analysis of comments made by Vodafone and Magnet detailed in paragraph 4.63 above, it is considered that this effect further diminishes the potential for alternative broadband platforms to indirectly constrain an integrated HM supplier of (DSL-based) WBA inputs.

Wholesale geographic market

Summary of Consultation proposals

- 4.77 In the Consultation¹³⁹ having taken account of guidance and comments to NRAs from the EC and the ERG¹⁴⁰ in relation to defining geographic markets, we considered the following types of evidence as most relevant for assessing potential regional or local competitive pressures, including:
- Distribution of market shares and the evolution of shares over time
 - Evidence of differentiated retail or wholesale pricing strategies
 - Geographical differences in additional supply and demand characteristics such as in product offerings or marketing strategies
 - Differentiated entry conditions in a given area
- 4.78 Our preliminary conclusion was that while there are early signs that a more competitive environment may develop in particular areas, it was not yet well enough established to indicate the presence of separate geographic wholesale markets for the purposes of the present market review.
- 4.79 Our assessment of the wholesale geographic market definition was based on our preliminary conclusion on the wholesale product market that the market comprised non-physical WBA provided by a HM's (predominantly DSL-based) infrastructure, and excluded WBA offered over other types of infrastructure, such as wholesale inputs self-supplied by cable, FWA, or alternative FTTx operators.
- 4.80 Having taken into account the low uptake of purchased WPNIA inputs and the absence of an identifiable behavioural response in distinct geographic areas, WBA competition from WPNIA purchasers did not appear to be at the stage where stable sub-national market boundaries could be drawn over the timeframe of this review. We have taken into account the recent WPNIA pricing decisions and BT's plans to expand its WPNIA footprint for the purposes of supplying wholesale broadband services, and considered that if a meaningful competitive wholesale presence were to emerge on the basis of purchased WPNIA inputs capable of driving material and sustained changes in competitive conditions in distinct geographic areas, we would re-consider the case for geographic segmentation of markets and/or remedies.

¹³⁹ See paragraph 5.130 of the Consultation.

¹⁴⁰ European Regulators Group, ERG Common position on Geographic Aspects of Market Analysis (definition and remedies), October 2008. http://erg.ec.europa.eu/doc/publications/erg_08_20_final_cp_geog_aspects_081016.pdf.

- 4.81 We also considered whether there were similarities between the Irish market and the Portuguese and UK WBA markets, where sub-national markets were defined. Having assessed these market reviews in detail we noted that both the Portuguese and UK markets were characterised by significant advances in unbundling activities and wholesale provisioning by WPNIA purchasers¹⁴¹, along with growing constraints from cable at the retail level, and indirectly at the wholesale level, and that these factors led to a finding of differentiated competitive conditions in WBA in certain urban centres.
- 4.82 We thus proposed to monitor any appropriate retail and wholesale broadband developments periodically over the period of the present market review.

Summary of responses

- 4.83 All respondents, with the exception of Eircom, agreed with our proposed definition of a national market. As noted above in paragraph 3.46 Eircom disagreed with our assessment of a national market for retail broadband access and therefore its arguments are also presented in the context of wholesale geographic market definition.
- 4.84 Eircom's comments concerning wholesale geographic market definition can be summarized as follows:
- Eircom did not accept that there is no obvious impediment to de-averaging its prices on a geographic basis.
 - Eircom submitted that the absence of differentiation of pricing by itself and by its competitors cannot be interpreted alone as an indication of a national market.
 - Analysis conducted by Eircom shows that, in its view, there are a growing number of areas where there is an overlap of cable and LLU networks.
 - Eircom submitted that if ComReg continues to propose a national market definition, then it should take into account the extent of the competition on the market and impose differentiated remedies.
- 4.85 In its response, Vodafone supported our proposal that the market should be defined as national, and noted that there is no discernible pattern in the number of access seekers at individual exchanges and that this would indicate that the decisions in respect of unbundling are not driven by a clear set of conditions delineating separate geographic markets but by an individual Access Seeker's business decisions.
- 4.86 Vodafone also submitted that Eircom does not consult its wholesale customers as to which new exchanges to enable with broadband, and that this is evidence that its NGB strategy is mainly driven by internal considerations rather than external market considerations.
- 4.87 Furthermore Vodafone noted that where operators offer services on a national or wide area basis the WPNIA based WBA inputs that they use appear to be aligned with Eircom's WBA propositions in terms of price structure and level.

¹⁴¹ Ofcom noted that there is a reasonable degree of direct competition as most of the large LLU operators are either already selling wholesale services to third parties or planning to do so in the near future.

This lack of differentiation between WPNIA based WBA and Eircom's WBA indicates, in Vodafone's view, that the existence of unbundled exchanges does not create a separately identifiable sub-national market; rather this is a partial competitive response within the wider national WBA market.

ComReg analysis and conclusions

- 4.88 In order to address points raised by respondents to the Consultation, we have reviewed our approach to the analysis of possible geographic variation, and have reviewed the substance of the analysis.
- 4.89 The purpose of the assessment of the geographic scope of the WBA market is to determine whether conditions of competition within a geographic area are similar or sufficiently homogeneous to be considered as a single market, or whether we can identify areas where the conditions of competition are sufficiently different to warrant their definition as separate markets¹⁴².
- 4.90 Our assessment of geographic market definition has considered a broad range of guidance on the matter. For instance, the EC's Explanatory Note states that *"investment in alternative infrastructure is often uneven across the territory of a Member State, and in many countries there are now competing infrastructures in parts of the country, typically in urban area"* and that *"where this is the case, an NRA could in principle find sub-national geographic markets"*¹⁴³.
- 4.91 The EC further states that *"In the electronic communications sector, the geographical scope of the relevant market has traditionally been determined by reference to two main criteria: the area covered by the network and the scope of application of legal and other regulatory instruments (para. 59 Guidelines). This corresponds generally to the territory of the Member State concerned since the consideration centres on the scope of the potential SMP operator's network and whether that potential SMP operator acts uniformly across its network area or whether it faces such different conditions of competition that its activity is constrained in some areas but not in others"*¹⁴⁴.
- 4.92 However, since the publication of the revised list of Recommended markets and accompanying Explanatory Note, Ofcom became the first NRA to geographically segment the market for WBA¹⁴⁵. In its responding comments letter, the EC set the criteria and type of evidence required for geographic segmentation of the wholesale broadband access market. These criteria and types of evidence have now become the standard approach used by NRAs when considering geographic market definition.
- 4.93 In line with this most recent approach as recommended by the EC, we are assessing a set of structural and behavioural indicators, along with its previous guidance¹⁴⁶ as noted above to ensure the most comprehensive assessment possible.

¹⁴² Para. 55, SMP Guidelines "Once the relevant product market is identified, the next step to be undertaken is the definition of the geographical dimension of the market."

¹⁴³ P.12, Explanatory Note.

¹⁴⁴ See footnote 143.

¹⁴⁵ Case UK/2007/0733.

¹⁴⁶ Para. 59, SMP Guidelines (2002) and P.12, Explanatory Note (2007).

4.94 As with our approach to the assessment of the geographic scope of the retail broadband market, the assessment of possible geographic variation in the wholesale broadband access market has been carried out in terms of:

- Entry conditions, distribution and evolution of market shares of alternative networks;
- Retail pricing patterns of incumbent and alternative operators; and
- Geographic differences in wholesale product characteristics and other supply and demand factors.

4.95 The ERG¹⁴⁷ outlines indicators which may suggest a national market, and notes that:

“Competitive conditions are sufficiently homogeneous where:

- Alternative networks either have small coverage and market shares or have (close to) national coverage with similar prices;
- There is a uniform price of the incumbent operator and similar prices of alternative operators;
- There are no significant geographic differences in product characteristics”.

4.96 ComReg’s analysis of geographic market definition has carefully considered the varying views submitted. In doing so, ComReg has also considered fully all the available relevant evidence under the criteria detailed above to identify whether distinct geographic markets exist.

4.97 The approach adopted by ComReg to define geographic markets is part of an established European-wide methodology and has been consistently applied by ComReg in both the Consultation and this Decision. As previously noted ComReg will continue to monitor the latest developments, not just in terms of market developments, but also in terms of the correct methodology to be applied. On a forward looking basis ComReg will conduct all market reviews on their own merits and circumstances.

4.98 Our initial assessment is that, while pricing is largely uniform, and there are no significant geographic differences in products, alternative networks (particularly cable and WPNIA/LLU) have increased their market share of retail broadband in certain urban areas, and that this warranted further analysis.

Entry conditions, distribution and evolution of market shares

4.99 In its response to the Consultation, Eircom raised several issues around the significance of the presence of alternative operators, in particular in urban areas, and proposed that two or possibly three distinct areas could be identified. Eircom’s view is that an “urban” market would be characterised by the presence of a cable TV network and/or unbundled exchanges. Eircom also cited an economic paper which suggested that one or two competitors are sufficient to constrain the behaviour of a dominant firm.

¹⁴⁷ ERG “Common Position on geographic aspects of market analysis”, October 2008.

- 4.100 Our analysis of the wholesale product market concluded that indirect retail constraints from suppliers of broadband services via purchased WPNIA inputs or over alternative cable, FWA, or FTTx networks are not of sufficient strength to be included in the relevant WBA market for the purposes of the present review. However, in order to fully consider Eircom's comments, we have further analysed the extent to which alternative operators which have significant but less than national coverage may exert a competitive constraint in the areas where they are present, even when their supply (for example, in the case of cable) is not considered to form part of the WBA product market.
- 4.101 We have assessed the structural characteristics of the market in terms of entry conditions, and the distribution and evolution of market shares.
- 4.102 As part of this assessment, a number of structural factors were identified that are considered relevant to the assessment of competitive conditions. These are:
- Current availability of LLU-based services
 - Planned availability of LLU-based services
 - LLU-based likely entry according to operators' business plans and our own modelling
 - Current availability of cable-based services¹⁴⁸
- 4.103 At present, four operators in Ireland offer some form of wholesale non-physical broadband access product. Eircom's WBA product is offered pursuant to a regulatory obligation, and is available on all broadband-enabled lines on its network. The mobile broadband operator, 3 Ireland, has a contractual obligation to offer a wholesale non-physical product in the NBS area. As at 3 March 2011, no operator had yet availed of this wholesale offer¹⁴⁹.
- 4.104 One alternative operator supplies a wholesale broadband product using purchased WPNIA inputs on a very limited basis to a single customer, although this offer appears to be more akin to a resale product with similar technical specifications/parameters to the services of the host operator. This service has not grown in the last two years, and is not expected to.
- 4.105 A second OAO, BT, is offering WBA services to Vodafone based on purchased WPNIA inputs at unbundled exchanges. After an initial 12 month exclusive supply period at each exchange, BT is contractually free to offer WBA services on the merchant market.
- 4.106 Given the apparent lack of demand for a wholesale offer from 3 Ireland and the conclusions in the product market definition regarding the exclusion of mobile from the market, and the very small-scale nature of the WPNIA-based OAO with single customer supply, we have firstly focused on assessing the extent to which there are different conditions of competition in exchange areas broadly corresponding to BT's LLU footprint compared with exchange areas where only

¹⁴⁸ ComReg has considered this as part of the wholesale market definition in response to Eircom's submission. However, it is important to note that it was considered for completeness, despite its exclusion from the relevant wholesale market.

¹⁴⁹ For the reasons set out in our assessment of the retail market ComReg does not consider mobile broadband to be included in the relevant retail product market, however, it is considered here in the context of the wholesale market for completeness and responding to the relevant comments.

Eircom can offer wholesale broadband access. We consider cable infrastructure in this context below.

- 4.107 We requested further information from operators and assessed BT's potential market shares at different levels of geography, including on a disaggregated basis at the level of each individual exchange, on a cumulative basis within the overall BT WPNIA footprint (this footprint takes account of the net number of exchanges which are to be unbundled by BT over the next 12 months), and on an aggregated basis at national level. When assessing BT's plans on an aggregated level, assuming that current plans are implemented, BT's share of WBA would reflect a wholesale market share of 23%¹⁵⁰ within the overall WPNIA footprint, and a share of 9-10% at a national level. Should BT extend its WBA offer from exclusive supply to Vodafone to a merchant market offer, then this market share could increase.
- 4.108 Our conclusion on the structure of the market as evidenced by the evolution of market shares is that BT's supply to Vodafone could eventually give it a market share of over [...] % in 18 of its exchange areas, assuming that BT's current plans are implemented in full.
- 4.109 Our next consideration was whether there are structural differences in conditions of competition in Eircom exchange areas where there is a significant overlap with the cable operator offering retail broadband. As noted above, and as discussed in the Consultation, the assumption is that any potential constraint would come from the cable operator's presence in the retail market and not from its entry to the wholesale market¹⁵¹.
- 4.110 UPC's cable network coverage in terms of total households is approximately 41%¹⁵². According to information supplied by UPC to ComReg, the number of broadband enabled homes by 2012 is expected to increase and the full realisation of UPC's plans will bring its potential national broadband coverage up to around 44% based on an estimate of 720,000 homes passed. Although its share of the overall national market for fixed retail broadband is now around 21%, cable subscription has grown strongly in the Dublin area, increasing its market share from 17% at the beginning of 2008 to 36.7% at end 2010. According to information provided by UPC, the cable footprint is not expected to increase significantly over the period of this review.
- 4.111 We have considered whether geographic units constituted by Eircom's exchange areas can be grouped into separate local geographic markets, which can be characterised by sufficient or relevant differences in competitive conditions between the geographic areas included in each market, and which are identifiably different from neighbouring areas.

¹⁵⁰ ComReg has used the following equation for the calculation of WBA market shares at national/LLU/Exchange level. $(\text{Eircom WBA Supplied to OAOs} + \text{Eircom WBA Self-Supply}) \div (\text{Eircom WBA Supplied to OAOs} + \text{Eircom WBA Self-Supply} + \text{WBA Currently Supplied by WPNIA Purchasers to OAOs})$.

¹⁵¹ ComReg has received no such information from UPC to the contrary of this view.

¹⁵² This figure is based on Liberty Global first quarter 2011 results – March 31 2011 – which reports that 677,200 of homes passed are currently capable of receiving broadband services over UPC's hybrid fibre/coaxial (HFC) cable network, as well as the latest CSO figure from Q4 2010 which reported 1,646,200 households nationally.

- 4.112 The ERG notes that in undertaking this exercise, it may not be clear where the precise geographic boundary of the markets lie, and suggests it can be useful to consider (i) where ex ante remedies are required and where they are not i.e. where there would be effective competition and where there would not; or (ii) where there are differences in the identified competition problems which have an impact on the imposition of appropriate remedies. The approach proposed by ERG in its own view merges to an extent the market definition and the SMP assessment.
- 4.113 Our analysis groups Eircom's exchange areas which contain both a WPNIA purchaser selling a WBA product, and a cable operator selling retail broadband. We have chosen to select this grouping as our first point of analysis because it is the most likely to reveal any potential geographic differentiation, as it would address the ERG's suggested consideration of where effective competition would be most likely. For the purposes of the initial stage of the analysis, we have focused on Eircom's exchanges in Dublin which contain a WPNIA purchaser and overlap significantly with a cable operator.
- 4.114 Our analysis of UPC's cable network and BT's LLU footprint indicate that approximately [...] % of lines are covered by both the respective operators' networks. Based on ComReg's current assumptions for further uptake of WPNIA, and assuming a best case implementation of these plans, this could increase to [...] % of lines¹⁵³. Data submitted by Eircom on overlapping cable and LLU footprints is broadly in line with analysis conducted by ComReg.
- 4.115 We are mindful that in other jurisdictions which have identified sub-national geographic markets, the driver has been LLU take-up and not primarily cable, even where cable roll-out and take-up has been more advanced than it is in Ireland. This is the case in other jurisdictions such as the UK and Portugal, where retail broadband supplied by WPNIA purchasers is viewed as an indirect constraint, and alternative wholesale supply is minimal.
- 4.116 In this context, we have taken note of the EC's comments to the Polish regulator, UKE, which proposed that competition on the retail broadband market was driven by the rollout of parallel end-to-end networks, in particular by the presence of cable-TV networks and LAN operators. The EC commented that competition may also be driven by the presence of LLU operators which continued to rely on the incumbent's copper loop, as DSL still accounted for 50% of retail broadband connections in Poland.¹⁵⁴
- 4.117 Structural indicators show that there is a difference in the market shares of operators with alternative infrastructure in the Dublin area compared with the rest of the country. The table below presents market shares by platform for Dublin (city and county) compared with the rest of the country¹⁵⁵. It is emphasised that this is indicative.

platform	Dublin	Non-Dublin ¹⁵⁶
DSL ¹⁵⁷	[...] %	[...] %

¹⁵³ Source: Confidential data submitted by operators.

¹⁵⁴ Case PL/2011/1184.

¹⁵⁵ Data for December 2010. Confidential data has been removed.

¹⁵⁶ These are all other areas located outside of Dublin.

LLU	8.8%	2.9%
cable	36.7%	10.1%
FWA	[...]%	[...]%
other	[...]%	[...]%

- 4.118 In areas which have overlapping cable and LLU infrastructure, a retail broadband customer would have a choice of at least two platforms (cable and DSL), and possibly three operators (cable, DSL provided by Eircom, DSL provided by LLU operator). A wholesale broadband customer would have a choice of purchasing WBA from Eircom, or from BT or potentially another WPNIA purchaser¹⁵⁸. The market share of retail broadband provided by cable and by WPNIA purchasers has increased in the overlapping areas, largely at the expense of FWA and other DSL retail broadband (including that of Eircom).
- 4.119 However, in order to find that there is a sub-national market, we need to consider whether structural change has been accompanied by any changes in commercial behaviour.
- 4.120 In its comments to ARCEP as notified in 2008¹⁵⁹ the Commission advised that “though competition between vertically integrated broadband operators might be observed at the retail level, it may not directly appear at the wholesale level when such operators would not provide WBA or provide it only to a limited extent. The degree of constraint would depend on the structural and behavioural factors in that market....”
- 4.121 In any event ComReg has also considered comments from the EC’s Explanatory Note¹⁶⁰ in this regard which state that “*the fact that competitors have a supply area which is not national does not suffice to conclude that there are distinct markets.*”

Pricing patterns and commercial behaviour of incumbent and alternative operators over time

- 4.122 The EC has been very clear in its comments to other NRAs that it is not sufficient to cite the presence, and even a high market share, held by an alternative operator. For example, in its comments to Ofcom, the EC noted that:
- “...a geographic delineation which is based primarily on the number of operators present in a local exchange is not, in itself, sufficiently detailed or robust to identify real differences in competitive conditions for the purposes of the market definition. In assessing whether conditions of competition within a geographic area are similar or sufficiently homogeneous, additional structural and behavioural evidence is necessary.”*
- 4.123 Relevant evidence would include information on the distribution of market shares and the evolution of shares over time. In addition, evidence of differentiated retail or wholesale pricing which might apply could help indicate

¹⁵⁷ DSL includes retail broadband supplied by Eircom, and supplied by OAOs on Eircom bitstream.

¹⁵⁸ On a forward looking basis.

¹⁵⁹ Case FR/2008/0781: Wholesale Broadband Access.

¹⁶⁰ P.12, Explanatory Note.

different regional or local competitive pressures. It is also considered appropriate to look at the pricing of both the incumbent and alternative operators and at its evolution over time in the relevant areas”¹⁶¹.

- 4.124 Having assessed the structural indicators through considering operators present in an exchange area, and the evolution of their market shares, we then examined the pricing patterns of both Eircom and OAOs, and the extent to which geographic differences in other supply and demand characteristics could be discerned. This assessment addresses the EC’s requirement to examine behavioural indicators, which would review the extent to which operators engage in commercial practices which are demonstrably different in one part of the market compared with others.
- 4.125 As our examination of structural indicators showed that change was evident in exchange areas where there is the presence of a cable operator and a WPNIA purchaser offering WBA, we focused our analysis on potential differences between the overlapping area and the rest of the market.
- 4.126 The presence of variances in pricing patterns has been critical in the finding of sub-national markets in the Ofcom¹⁶² and Anacom¹⁶³ cases. In the UK, for example, BT does not offer a national uniform WBA price but rather offers a geographically targeted discount in its ‘dense cell’ areas. While BT continues to offer WBA in the area where it no longer has SMP, this is done at bespoke prices. Ofcom’s argument is therefore that there is no common pricing constraint in the national market. As Ofcom includes LLU¹⁶⁴ and cable operators in the WBA market on the basis of their exercising an indirect constraint from the retail level, variation in retail prices may be significant. For example, in the UK, Ofcom notes that one LLU operator (TalkTalk) offers a retail package at £6.99 a month within its LLU footprint compared to £21.49 a month outside its LLU footprint¹⁶⁵. It is noted that even with this level of variation in retail prices, Ofcom found the retail broadband market to be national in scope because most retail broadband customers were provided service by ISPs pursuing a national pricing policy.
- 4.127 We have found no evidence of localised pricing in either the wholesale or the retail broadband markets in Ireland. In its response to the Consultation, Eircom submitted that its retail minus pricing obligations for WBA meant that it was not able to differentiate its retail price geographically because a reduction in the retail price in one area would trigger a reduction in the national WBA price. In this regard ComReg has not in fact mandated nationally averaged wholesale prices.

¹⁶¹ Case UK/2010/1065.

¹⁶² See Case UK/2010/1065 - Ofcom was also able to provide additional information on pricing which indicates that BT engages in wholesale price discounting behaviour on a sub-national basis.

¹⁶³ See Case PT/2008/0851.

¹⁶⁴ In this regard ComReg notes that the same cannot be applied in an Irish context given the low level of WPNIA-based retail subscriptions in Ireland. The numbers of OAO unbundled lines as a proportion of total DSL lines in the UK are in line with the EU average and significantly greater than in Ireland. For UK LLU 75% of OAO DSL lines are unbundled compared to c.25% in Ireland. Source: European Commission, Digital Agenda Scoreboard, January 2011.

¹⁶⁵ Ofcom, “Review of the Wholesale Broadband Access Markets”, 23 March 2010.

- 4.128 We considered whether DSL-based operators other than Eircom have adjusted their prices in response to localised competition from UPC, and confirmed that they maintain national pricing. We considered whether the cable operator offered differentiated pricing in response to any perceived pressure from areas where there is a WPNIA purchaser offering a WBA product, and confirmed that the pricing is uniform across its footprint.
- 4.129 The ERG¹⁶⁶ notes that geographically uniform pricing by the incumbent and OAOs may indicate a national market, but it is not essential to defining sub-national markets, and this point was noted by Eircom in its submission. This is often because there is often a trade-off in setting prices between an area where an incumbent has SMP and an area where it faces competition. If “competitive” areas are small, the monopoly price has more weight and leads to a larger difference between the incumbent price and the OAO price, and often to a lower incumbent market share in the “competitive” area. Where the competitive area has more impact in price setting, pricing is generally closer to a competitive level overall. In the latter instance, there is a good case to argue common pricing constraint¹⁶⁷. Based on the ERG discussion, (and supported by Eircom’s assertion elsewhere that margins in the retail broadband market are very small so that any wholesale price increase must be passed through) we would argue that price differences between Eircom and OAOs are relatively small¹⁶⁸; that the area where there are other operators is potentially relatively large (assuming the impact of reduced pricing for LLU line share and increased take-up of LLU is reflected in the market) and significant in terms of its contribution to Eircom’s price setting; and that therefore this further supports the notion of a common pricing constraint and a national market.
- 4.130 Eircom has also some flexibility to differentiate its pricing based on the introduction of new wholesale products in specific areas. For example, Eircom has introduced a new WBA product, BMB, in exchanges where the core network has been upgraded. These exchanges are also ones which are likely to be unbundled. The new WBA product, which is an input to Next Generation retail broadband, has a lower price than current generation bitstream products, and the retail price is correspondingly lower. While the establishment and take-up of a product of this kind could be seen as indicating structural change, the roll-out of the product is at an early stage, and it remains to be seen whether it will trigger different commercial practices in different areas. It is noted also that while the national WBA obligation applies also to the BMB product, the product is available only at exchanges which have been, or are likely to be, unbundled, so that although it is a national obligation, the product is only available in specific areas.
- 4.131 We considered the extent to which product differentiation could indicate separate sub-national markets. That is, the extent to which an operator would respond to particular commercial pressure by offering different products in the area which was under pressure. In its response to the Consultation, Eircom

¹⁶⁶ ERG Common Position on Geographic Aspects of Market Analysis (definition and remedies) October 2008.

¹⁶⁷ Valletti, T., Hoernig, S., Barros, P.P. (2002): Universal Service and Entry: The Role of Uniform Pricing and Coverage Constraints, *Journal of Regulatory Economics*, 21:2, 169-190.

¹⁶⁸ See Annex E for retail product information.

claimed that its introduction of NGB¹⁶⁹ in urban areas was in response to cable and LLU operators. Our analysis showed that Eircom offered its NGB product in areas corresponding to the overlapping areas, but also in areas which did not have a cable operator or a WPNIA purchaser present¹⁷⁰. This suggests that Eircom was not just responding to the presence of cable and LLU in introducing its NGB products. We remain of the view that the availability of NGB is driven primarily by technical considerations¹⁷¹ rather than being explicitly driven by a sub-national commercial strategy. Vodafone's comments with regard to the business strategies of LLU operators and of Eircom's NGB strategy lend further support to this view.

Geographic differences in other supply and demand characteristics

- 4.132 In considering other demand and supply factors which may indicate behavioural differences between geographic areas, a significant factor in the Irish market is the potential for WBA based on a purchased WPNIA input to act as a direct constraint in the WBA market, as BT is offering an alternative wholesale product. There are similarities with the case, for example, in France, where there is a wholesale cable-based bitstream product available and a wholesale offer based on FTTx. The Regulator (ARCEP) has found there to be two distinct areas with differing competitive conditions. These areas are identified based on whether there is one operator or more than one operator offering a wholesale product. In fact, ARCEP decided that the boundaries are insufficiently stable to define a sub-national market, as the number of unbundled MDFs is likely to change over the period of analysis and that the wholesale market is therefore national¹⁷². The EC accepted this conclusion, and invited ARCEP to monitor developments in the market.
- 4.133 Furthermore, even within areas where cable infrastructure is present conditions of competition cannot be considered to be uniform. In analysing the supply and demand conditions we note the Commission's comment to ARCEP, where a wholesale offering of cable based bitstream was available, "In particular, the Commission invites ARCEP to assess the real technical and economic ability of access seekers to switch to an alternative (cable- or FTTx-based) bitstream product to obtain conclusive evidence on the degree of competition"¹⁷³.
- 4.134 While we have identified some structural indicators of changing market conditions, development is at an early stage. The migration of Vodafone customers to BT is not yet complete, and although BT could now offer a

¹⁶⁹ Eircom has also introduced an upgrade to its wholesale offering - Bitstream Managed Backhaul - in certain areas, mainly urban, and this has enabled it to offer "Next Generation Broadband" at a higher speed and to be promoted at a lower price in a bundle.

¹⁷⁰ Please see Annex C. Based on the NGB coverage map on www.Eircom.ie/ngb it is clear that NGB will be available on increasingly widespread basis by the end of the year and not limited to areas where UPC is present.

¹⁷¹ NGB products can be distinguished from previous product offerings on the basis of being 'uncongested'. This technical upgrade is driven by upgrades to Eircom's core network. The lower speed 8Mb/s NGB/ BMB product can be provided via an existing ASDL2 DSLAM which is connected to the NGN Ethernet Core. A new ASDL2+ DSLAM is only required to provide the 24 Mb NGB / BMB product.

¹⁷² Case FR/2011/1214.

¹⁷³ Case FR/2011/1214.

wholesale product on the broader merchant market in some of its unbundled exchanges (given that the period of exclusivity has expired) it will not be able to offer a wholesale product across its unbundled footprint until June 2012. Further, as there has yet to be third party take up of BT's wholesale services in the merchant market a consideration of its likelihood and success of such an offering can only be speculative in terms of assessing whether market conditions will be unique to that area. Market share growth by the cable operator is also relatively recent, although we note that the cable operator does not plan to significantly expand its footprint, so that any future growth would largely be within its existing footprint.

- 4.135 In this assessment, we have further taken into account ERG guidance that it is paramount to ensure that any potential market boundaries reflect self-sustainable competition, absent wholesale regulation. Even where several operators are present, it is not certain that competition is sustainable in the long run, particularly where economies of scale are important. The very early stages of BT's involvement in wholesale supply, means that it is difficult to conclude on the sustainability of any competition.
- 4.136 While acknowledging structural change, particularly in the areas of overlapping cable and WPNIA infrastructure, we consider that there has been little behavioural change in the commercial practices of operators in the market, and have seen no established evidence of differentiated pricing or marketing. Our view is that any structural changes should be monitored with a view to identifying possible behavioural changes in parts of the market. We propose to focus monitoring on these areas which have overlapping cable and LLU based broadband offerings. It should also be noted that any indirect constraint on a position of market power emerging from the retail level should be treated differently from any direct constraint at the wholesale level, in terms of potential remedies for the SMP operator.
- 4.137 We have reviewed the material submitted by Eircom regarding the impact on competition of the entry of one or two competitors. While we do agree that a market does not have to be highly fragmented to be regarded as competitive, the paper cited by Eircom focuses on very specific markets, for example professional services such as dentists in small towns and the results may not be readily extrapolated directly to competition for wholesale supply in a local exchange.

Conclusion on wholesale geographic market definition

- 4.138 We have assessed comments made by respondents and carried out further data analysis in order to ascertain whether sub-national markets can be identified. Our approach is consistent with that recommended by the EC, such that the analysis should take into account a range of structural and behavioural parameters.
- 4.139 Although cable has been excluded from the WBA product market because its ability to exercise an indirect constraint is insufficiently strong, and although the EC has consistently commented that it is not appropriate to consider indirect constraints in the market definition stage of the analysis, we have considered the impact of retail cable broadband in assessing the geographic scope in order to fully address Eircom's issues.

- 4.140 We have considered whether we can identify groups of exchange areas which share competitive conditions, and propose that the group most likely to show indications of competitive pressure would be exchange areas where there is both a significant presence of the cable operator and a WPNIA purchaser offering a wholesale product. This area (on a forward-looking basis) covers around [...] % of lines.
- 4.141 In line with EC and ERG guidance, we assessed structural change in the overlapping areas, in terms of operator presence and evolving market shares. We also assessed behavioural indicators including pricing and marketing practices, and differentiation of product characteristics.
- 4.142 Our conclusion is that there is evidence of structural change in the overlapping area, but that this is relatively recent, and cannot be considered to be stable, particularly absent regulation. We have found little evidence of behavioural change, in the form of change in commercial practices which would distinguish one area from another.
- 4.143 For these reasons, we consider that the geographic scope of the WBA market is national.

Conclusion on wholesale market definition

- 4.144 Having regard to the analysis presented above and in the Consultation, we have arrived at the following conclusions in defining the WBA market. The WBA market consists of:
- Wholesale broadband access provided over an extensive or ubiquitous current generation DSL/copper network infrastructure
 - Wholesale broadband access provided over an extensive or ubiquitous next generation fibre network infrastructure
- 4.145 This would include, for example, the WBA products provided by Eircom and BT.
- 4.146 Self-supplied WBA by vertically integrated operators would be included in the WBA market if the following conditions for direct wholesale constraints are satisfied:
- The operator could switch readily to providing a WBA product to third parties without significant additional costs or risks (e.g. in implementing additional infrastructure and/or relevant wholesale systems)
 - The network would offer the coverage/ubiquity expected by access seekers
 - There would be sufficient capacity to provide a WBA product to third parties and
 - There would be sufficient wholesale demand side substitution
- 4.147 Where the above conditions are not fulfilled, self-supply by vertically integrated operators would only be included in the WBA market where indirect constraints from retail competition are strong enough to constrain small but permanent wholesale price increases.

- 4.148 We consider that self-supply of WBA by Eircom and BT satisfy the above conditions for direct wholesale constraints and therefore fall within the WBA product market.
- 4.149 We consider that self-supply of WBA on alternative platforms is unlikely to constitute a direct or indirect wholesale constraint within the period of this market review, and therefore does not fall within the WBA product market.
- 4.150 We consider that, for the purposes of this review, the geographic scope of the WBA market is national.

5 Competition Analysis and Assessment of Significant Market Power

Summary of Consultation proposals

- 5.1 Section 6 of the Consultation detailed our assessment of market power.
- 5.2 The European regulatory framework for electronic communications networks and services has aligned the concept of SMP with the competition law definition of dominance advanced by the Court of Justice of the European Union in *United Brands v. Commission*:
- “The dominant position referred to [by Article 102 of the Treaty on the Functioning of the European Union] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.”*¹⁷⁴
- 5.3 Article 14 of the Framework Directive effectively mirrors this definition of dominance and equates SMP with:
- “...a position of economic strength affording it [the undertaking] the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers”.*¹⁷⁵
- 5.4 The European Commission stresses that the existence of a dominant position cannot be established on the sole basis of large market shares. The European Commission recommends a number of criteria that may be used as a guide when measuring the power of an undertaking to behave independently of competitors, customers, and consumers.
- 5.5 Using the criteria for the assessment of SMP highlighted in the SMP Guidelines and with reference also to the ERG working paper¹⁷⁶, we identified the following criteria as being particularly relevant to the analysis of the WBA market:
- Overall size of the undertaking;
 - Control of infrastructure not easily duplicated;
 - Absence of or low countervailing buying power;
 - Economies of scale;
 - Economies of scope;
 - Vertical integration;
 - Absence of potential competition;
 - Barriers to expansion.

¹⁷⁴ Case 27/76 *United Brands v European Commission* [1978] ECR 207, Paragraph 65.

¹⁷⁵ Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 018/33, 24.4.2002.

¹⁷⁶ http://www.erg.eu.int/doc/publications/public_hearing_concept_smp/erg_03_09rev3_smp_common_concept.pdf

5.6 In the Consultation we assessed the WBA market in terms of existing competition, potential competition, and the strength of any countervailing buyer power in order to determine whether any undertaking has SMP¹⁷⁷. In summary, our overall preliminary conclusions were as follows:

- Eircom's current market share was at least 98%. This was the case even if the market is considered to include WBA offered over OAO purchased WPNIA inputs.
- Barriers to entry and expansion persist, including sunk costs, economies of scale, scope and density, control of infrastructure not easily replicated, and vertical integration.
- Neither the expansion, in terms of coverage, of WBA based on OAO purchased WPNIA inputs, nor the continuing growth of retail cable-based broadband was individually anticipated to have a material effect on the competitive structure of the national WBA market over the timeframe of this review. However, should BT and UPC significantly expand their operations and continue to see increased demand for their services, particularly in overlapping areas, within the next two to three years¹⁷⁸, taken together, this market development could potentially lead to an increasing differentiation in competitive conditions between particular areas. We proposed to monitor the combined effect of any such retail/wholesale developments.
- Our preliminary view was that countervailing buyer power is not strong enough to constrain Eircom's market power in the WBA market over the current review period.

Summary of responses

5.7 All respondents with the exception of Eircom agreed with our competition analysis and agreed with the proposed finding of SMP. As noted above in paragraphs 3.48 and 4.83, Eircom disagreed with our assessment of a national market for broadband access and therefore its arguments are also presented in the context of our competition analysis and finding of SMP.

5.8 Vodafone noted that our approach in setting prices for LLU, where ComReg's view was that it is most unlikely that exchanges with fewer than 2,500 lines would be unbundled over the period of the review, is consistent with the limited likelihood of WPNIA based WBA reaching levels where it constrains Eircom.

5.9 BT submitted that existing migrations processes and pricing act as barriers to entry, while Eircom's BMB product and its pricing reduces the attractiveness for WPNIA operators to supply WBA services.

5.10 Eircom's comments concerning our SMP analysis can be summarised as follows:

- Eircom submitted that ComReg finds that Eircom has a 98% share of the market only on the basis of a narrow definition of the market. Eircom submits that that while a finding of SMP in relation to rural areas (that is, those areas

¹⁷⁷ See paragraphs 6.10 to 6.90 of the Consultation.

¹⁷⁸ In any case ComReg has confirmed that it shall monitor the market closely for any relevant developments.

outside the urban reach of the cable operator's network, and unbundled exchanges where LLU providers supply their own WBA service, and those areas outside the NBS) may be justified, this is not so in relation to urban areas, characterised by multiple competing platforms. In this respect Eircom submits that where there are varying degrees of market power, in its view it is appropriate in these circumstances to impose differentiated remedies.

- Eircom did not agree with our analysis of the barriers to entry on the market on the basis that recent developments regarding the reduction in the price of Line Share ("LS") and the expansion of the cable network would suggest, it submitted, that barriers to entry in the WBA market are low.
- Eircom submitted that BT's ability to offer WBA services to approximately 40% of the addressable broadband market significantly increases the countervailing buyer power of Eircom's current WBA customers.

ComReg analysis and conclusions

5.11 We have addressed responses to the Consultation in terms of

- Existing competition in the WBA market
- Potential competition in the WBA market
- Strength of countervailing buyer power (CBP)

Existing competition in the WBA market

5.12 While market shares are not on their own determinative of SMP¹⁷⁹, they are nonetheless a useful starting point for defining instances where SMP is more likely to arise.

5.13 We have revised our calculations of market shares, taking into account our finding that the wholesale product market includes Eircom's supply and the wholesale broadband supply of WPNIA purchasers, and having regard to current demand and supply conditions. Based on the latest figures available to ComReg¹⁸⁰, Eircom possesses a market share of at least 95%¹⁸¹.

5.14 With regard to mobile broadband provider 3 Ireland's contractual obligation to make a wholesale product available in the NBS area, ComReg can confirm that no operator has availed of the wholesale product¹⁸². Therefore the inclusion/exclusion of this supply has no impact on existing competition¹⁸³.

5.15 It is thus clear from the above that Eircom continues to enjoy a persistently high market share of at least 95% in the provision of WBA services in Ireland and that the relative strength of alternative WBA providers is still restricted, with only very limited WBA volumes being supplied at present.

¹⁷⁹ Para. 78, SMP Guidelines.

¹⁸⁰ January 2011.

¹⁸¹ $(\text{Eircom WBA Supplied to OAOs} + \text{Eircom WBA Self-Supply}) \div (\text{Eircom WBA Supplied to OAOs} + \text{Eircom WBA Self-Supply} + \text{WBA Currently Supplied by WPNIA Purchasers to OAOs}) = 95\%$.

¹⁸² Confirmed by Department of Communications, Energy & Natural Resources, 24th February 2011.

¹⁸³ For the reasons set out in our assessment of the retail market ComReg does not consider mobile broadband to be included in the relevant retail product market, however, it is considered here for completeness and in response to the relevant comments.

Potential competition in the WBA market

- 5.16 Our assessment of potential competition considers whether entry and/or expansion in the WBA market is likely to such an extent that it would constrain Eircom's ability to act independently.
- 5.17 In considering the potential for entry into the WBA market we have assessed current market conditions and in this context, we consider that an operator would need to either establish, or expand, an access network with the capacity to offer a wholesale service, or it would need to avail of WPNIA inputs on a sufficient geographic scale to offer a commercially attractive alternative to Eircom's bitstream product. Alternatively, a vertically-integrated operator could expand its retail presence and exert sufficient pressure at the retail level to constitute an indirect constraint at the wholesale level. The analysis in the market definition section considered the possibility of these options in a shorter timeframe, and at negligible cost, and concluded that WBA supplied by a WPNIA purchaser forms part of the WBA market. Indirect constraints from a vertically-integrated operator (such as a cable operator) were considered to be insufficiently strong to warrant their inclusion in the relevant product market over the lifetime of this review. The SMP assessment considers possible developments over the two to three year lifetime of this review.

Potential competition from purchasers of WPNIA

- 5.18 We have found that WBA supplied by WPNIA purchasers forms part of the WBA market, and in the SMP assessment, are considering the extent to which this is likely to constrain Eircom's commercial behaviour over the lifetime of this review.
- 5.19 In the Irish market, we believe the main pressure from a WPNIA purchaser seeking to offer a WBA product will come from BT. We consider that the particular commercial agreement between BT and Vodafone is unlikely to be replicated to the same extent by other operators, and therefore any further entry from WPNIA purchasers into the WBA market is not likely. This view has been confirmed to ComReg in responses from WPNIA purchasers.
- 5.20 As noted in the Consultation¹⁸⁴, we expect that at the end of its unbundling programme at June 2011, approximately 40% of the available broadband market would be within reach of BT's network footprint and WBA services could be supplied in these areas. However, while we acknowledge that in theory approximately 40% of the wholesale market may ultimately have the choice between two competing WBA providers, our view is that there remains a number of outstanding factors which may limit the constraint on Eircom exerted by BT.
- 5.21 The agreed commercial terms of BT's provision of WBA services to Vodafone means that an alternative LLU-based WBA product may only be available on the merchant wholesale market on a staggered basis as the exclusivity period at exchanges elapses¹⁸⁵. At present, there has been no further take-up of BT's

¹⁸⁴ See paragraph 4.139 of the Consultation

¹⁸⁵ Competition Authority Merger Determination, pp. 6-7. The first year of WBA supply from each unbundled exchange will be on an exclusive basis, so that BT will supply only Vodafone with a wholesale non-physical broadband access product at that exchange. For this initial period, the product will not be available to any other

wholesale services by third parties at exchanges where exclusivity clauses have expired, and it is unclear as to how such a provisioning may take place in terms of its short-term availability. The nature of the agreement which BT has with Vodafone means that it cannot be assumed that BT could or would make WBA available to other purchasers on a similar basis, and this would apply to the characteristics of the product and to the terms and conditions on which it is offered. BT's agreement with Vodafone formed part of a mutually beneficial strategic agreement, and it is not necessarily the case that the terms offered to Vodafone would be replicated in offers to other operators.

- 5.22 We have given further consideration to the extent to which other OAOs would pursue a strategy similar to Vodafone, and purchase WBA from BT within unbundled exchanges and from Eircom in the non-LLU areas. We examined this scenario by analysing the number of Eircom WBA lines supplied to OAOs within the LLU footprint. Excluding Perlico¹⁸⁶ customers who are in the process of migrating to the BT network, our estimate is that there are almost [...] OAO bitstream based subscribers. This contrasts with almost [...] Eircom retail bitstream subscribers. Furthermore, we note that almost [...]% of wholesale bitstream lines¹⁸⁷ are purchased by OAOs outside of the current LLU footprint and this suggests that the possibility of significant switching to BT is limited. Even if every current WBA purchaser within the LLU footprint were to switch its bitstream purchases to BT, the volume of WBA within the LLU footprint would not appear likely to be significant enough to constrain Eircom.
- 5.23 Comments received from OAOs indicate that in the consideration of purchasing WBA services, network ubiquity is a key factor. If a WBA purchaser decided to purchase from BT within the LLU footprint and from Eircom outside of that footprint, Eircom would have the potential and the incentive to react at a national level to any localised price reductions by BT. Bearing in mind the low volume of WBA within the LLU footprint (particularly relative to the size of the market as a whole), Eircom would not have to match any localised pressure from BT as it would have the ability to offer a nationwide alternative. This indicates that any constraint exercised by BT would be minimised.
- 5.24 Overall, retail broadband access supplied by WPNIA purchasers has grown in Dublin to almost 9%¹⁸⁸, but still accounts for only 5% of the national retail broadband market. Our assessment remains that it is still too early to judge the level of constraint which a WBA service offered by WPNIA purchasers could provide, particularly as a broader merchant market WBA product would not be available across BT's footprint until at least June 2012. It should be noted that

wholesale customers on the broader merchant market. Vodafone also commits to purchasing WBA services only from BT for a period of 7 years in those exchanges which BT has unbundled or successfully unbundles over the course of the agreement.

¹⁸⁶ Vodafone's acquired Perlico Communications to allow it to offer customers a choice of fixed and mobile packages. Irish Independent, "Vodafone set for expansion with €80m Perlico deal", 14 November 2007.

¹⁸⁷ Data provided by Eircom shows that, as of 31 December 2010, there are c.[...] WBA lines provided by Eircom to OAOs within footprint of LLU exchanges. Data for the same period indicates that there are c.183,000 WBA lines provided by Eircom in the entire country. This shows that [...]% of the wholesale bitstream lines provided to OAOs is outside the LLU footprint.

¹⁸⁸ Once the migration of Vodafone customers from Eircom to BT is complete the market share of LLU based broadband will rise to just under [...]%.

even upon completion of the migration process of Vodafone customers from Eircom bitstream to BT's network, Eircom's share of the WBA market will remain over 90%. We therefore do not believe that BT's supply of WBA will be sufficient to materially impact Eircom's market position over the lifetime of this review.

Potential indirect competition from retail level

- 5.25 In response to Eircom's suggestion that UPC's expansion in the provision of retail broadband access suggests that barriers to entry in the WBA are low, we agree that barriers to entry in the retail broadband market are not high, and this is evident by the absence of *ex ante* regulation. Therefore, as UPC is not active in the wholesale market it would suggest that there remain significant barriers to entry in the WBA market, for example, the costs associated with developing the necessary wholesale interfaces.
- 5.26 We have already considered the near-term effects of indirect constraints operating through the retail level in the wholesale product market definition, and concluded that these are insufficient for alternative platforms to be included in the relevant market. We have also considered when assessing the geographic scope of the wholesale market the potential geographic variation in conditions of competition brought about by operators with alternative infrastructure. In considering the potential impact of indirect constraints within the competition analysis, we have reviewed our assessment of the potential for retail competition to constrain the wholesale market over a medium to longer timeframe, e.g. within a two to three year timescale.
- 5.27 In the Consultation, in assessing the potential for indirect wholesale constraints from alternative platform operators to constrain Eircom's behaviour in the WBA market over the forthcoming two to three year period, we assessed the retail presence of the respective fixed broadband platforms and their development on a national basis over time¹⁸⁹.
- 5.28 In considering the responses to the Consultation, in particular the issues raised by Eircom, we have further considered whether the conditions of competition would be different in 'urban' areas which are characterised by the presence of the cable operator with a strong market share, overlapping with the presence of an LLU operator selling a WBA product. Our assessment is that this currently accounts for approximately [...]% of lines, and assuming BT's plans are implemented in full, could account for [...]% of lines¹⁹⁰.
- 5.29 Key trends by platform in the Dublin area over the last two years can be summarised as follows:

¹⁸⁹ See paragraph 6.73 of the Consultation. ComReg has considered the potential indirect constraints exercised by operators offering products which may potentially be considered viable retail substitutes. Broadband products which are not considered effective retail substitutes for DSL broadband (e.g. satellite or mobile broadband) cannot be considered to pose effective indirect constraints at the wholesale level and are thus not considered further here.

¹⁹⁰ Source: Confidential data submitted by operators.

- Cable subscription has grown strongly, increasing its market share from 17% at the beginning of 2008 to 36.7% at end 2010
- In cabled areas, broadband penetration overall is higher than when only DSL is present¹⁹¹
- DSL subscriptions have declined from [...]% of the market in Dublin at the beginning of 2008 to [...]% at the end of 2010
- FWA based broadband has declined significantly over the last two years, from over [...]% of the market at the beginning of 2008 and now accounts for just over [...]% of the market.]

5.30 Cable broadband has increased its market share, particularly in parts of Dublin, and this has been at the expense of FWA and DSL retail broadband. In the wholesale market, Eircom is losing a major wholesale customer¹⁹², as BT has entered the wholesale market to supply Vodafone, and potentially other customers. However, even in the overlapping UPC-BT areas (which account for approximately [...]% of the market) where we would expect competitive pressures to be greatest, Eircom's retail market share is still just under [...], even though its retail broadband prices are generally more expensive than those of the cable operator. On a forward looking basis ComReg will continue to monitor closely the key trends in this regard.

5.31 In this context we have taken account of EC comments on the WBA market notification in Poland, where in response to the Polish regulator's proposal to withdraw the price control remedy from certain areas, the EC asked that in areas where the incumbent's market share was above 30%, the price control remedy (in addition to other remedies) should be maintained¹⁹³.

5.32 While acknowledging some structural change, particularly in the areas of overlapping cable and WPNIA infrastructure, we consider that there has been little behavioural change in the commercial practices of operators in the market, and have seen no established evidence of differentiated pricing or marketing. We have taken account of the analysis carried out by ARCEP, the regulator in France, which found that, although it has operators offering wholesale products based on cable, FTTx and purchased WPNIA inputs, it could not define precise and stable boundaries between the areas in which these operators are present and the areas where they are not present. ARCEP's conclusion was that the wholesale market contained two geographic areas with specific competitive conditions but was national in scope¹⁹⁴. The competition assessment based on this finding highlighted the incumbent's control of an infrastructure not easily replicated, and the vertical integration of the incumbent.

5.33 Our view is that any structural changes should be monitored with a view to establishing any behavioural changes in parts of the market, and in light of the analysis carried out in the market definition and in the competition assessment, we propose to focus monitoring on these areas which have overlapping cable and LLU based broadband offerings.

¹⁹¹ Source: Confidential data submitted by operators.

¹⁹² However Vodafone continues to purchase a substantial proportion (over 50%) of its total WBA volumes from Eircom in non-LLU areas.

¹⁹³ Case PL/2011/1184: Wholesale broadband access, Brussels, 23/03/2011 C(2011) 2036 SG-Greffe (2011) D/4675.

¹⁹⁴ Case FR/2011/1214.

Strength of Countervailing Buyer Power

- 5.34 In assessing the strength of countervailing buyer power we have firstly considered whether a current purchaser of WBA services from Eircom would have choice of an alternative wholesale provider.
- 5.35 We estimate that for 40% of working lines, or 60 exchanges, BT is the only potential alternative WBA provider. However, up until recently, BT's supply of WBA services has been restricted to Vodafone because of the exclusive nature of the agreement between the two operators. As noted above it is expected that WBA services may only be available to third parties at all of these exchanges in June 2012.
- 5.36 Even upon expiry of the exclusivity clauses at BT's exchanges, it is clear that for 60% of the market there are no alternative options available other than Eircom for Bitstream purchasers. This means that for the majority of lines and/or exchanges an ISP wishing to provide a product on nationwide basis must continue to purchase WBA services from Eircom.
- 5.37 In assessing whether there is countervailing buyer power in the WBA market, we then analysed the profiles of current WBA purchasers within the LLU footprint which could potentially switch WBA providers. Our analysis indicates that within the LLU footprint WBA volumes provided by Eircom to OAOs are relatively small and spread across a number of smaller operators¹⁹⁵.
- 5.38 Once BT has completed the migration of Vodafone customers to its network we estimate that there will be approximately [...] OAO WBA lines spread across [...] purchasers. This equates to an average of just over [...] lines per wholesale customer. It is also significant to note that Eircom's own downstream arm is the largest purchaser of WBA within the LLU footprint.
- 5.39 Based on this analysis, it does not appear that there is a single WBA purchaser who would be in a position to bargain aggressively with Eircom. We would expect our conclusion would be the same if all the WBA purchasers were considered collectively.
- 5.40 On this basis, we believe that even where there is a limited alternative to purchase of WBA products, Eircom's wholesale customers will be unable to exercise significant countervailing buyer power over the period of this review.

Conclusion on SMP

- 5.41 With regard to the above analysis and that contained within the Consultation our overall conclusions are as follows:
- Eircom's current market share is at least 95%, and even when Vodafone's migration to BT is complete, Eircom's market share will remain above 90%.
 - Barriers to entry and expansion persist, including sunk costs, economies of scale, scope and density, control of infrastructure not easily replicated, and vertical integration.

¹⁹⁵ As noted in footnote 187 ComReg estimates that just under [...]% of wholesale bitstream is provided by Eircom within the LLU footprint. In other words the remaining [...]% of wholesale bitstream customers do not even have the option of considering an alternative WBA provider.

- Neither the expansion of WBA based on OAO purchased WPNIA inputs, nor the continuing growth of retail cable-based broadband is individually anticipated to have a material effect on the competitive structure of the national WBA market over the timeframe of this review. However, should BT and UPC continue to expand their operations, particularly in overlapping areas, this market development could potentially lead to an increasing differentiation in competitive conditions between particular areas.
- Our view is that countervailing buyer power is not strong enough to constrain Eircom's market power in the WBA market over the current review period.
- Given the emergence of more localised competitive pressures, we intend to continue to closely monitor any changes in the structure and dynamic of the market and in the commercial behaviour of operators, particularly in urban areas. In this context, it is noted that the parallel consultation on the WBA price control¹⁹⁶ may offer Eircom greater flexibility in its ability to respond to such localised competitive pressures and provide the opportunity for pricing innovations¹⁹⁷.

Eircom is designated as having SMP in the market for Wholesale Broadband Access in Ireland.

¹⁹⁶ ComReg, "Wholesale Broadband Access: Further Consultation to Consultation Document No. 10/56 and Draft Decision in Relation to Price Control and Transparency", Document 10/108, 22 December 2010

¹⁹⁷ As previously noted, the outcome of this price control consultation cannot be predicted at this stage.

6 Competition Problems

Summary of Consultation Proposals

6.1 Our preliminary view was that, absent regulation, there is the potential and incentive for an SMP operator in the WBA market to engage in actions which could impact on competition and customers in related broadband markets, and ultimately inhibit competition in the WBA market itself. In the Consultation, we provided examples of some potential competition problems, but noted that it is neither necessary to catalogue examples of actual abuse, nor to provide exhaustive examples of potential abuse¹⁹⁸. Rather, it was noted that the purpose of *ex ante* regulation is to prevent the possibility of abuses given that Eircom has been identified on a preliminary basis with SMP in the WBA market, and thus has both the ability and incentives to engage in exploitative and exclusionary behaviour to the detriment of competition and end-users.

Summary of Responses

6.2 All OAO respondents commented extensively on competition problems detailed in the Consultation. Most respondents agreed with our assessment, and operators also provided a number of further examples of competition problems. Examples of the types of problems cited by respondents included:

- Migrations, including migrations processes and pricing structure;
- Price Squeeze: Pricing of Eircom's BMB WBA product relative to WPNIA pricing; and
- Sync Checker¹⁹⁹.

6.3 Eircom's response raised a number of issues concerning our assessment of competition problems, including the following:

- Eircom expressed a view that the competition assessment set out in the Consultation is limited to a list of the types of abuses by dominant firms which have been condemned by enforcement agencies and the courts under competition law. Eircom submitted that it is difficult to see the connection between such a catalogue and remedies, which are proportionate and justified, based on the nature of the competition problems identified.
- Eircom did not believe that under the "Greenfield Approach", properly implemented, ComReg could find that the incentives for Eircom, as the SMP operator, to deny access to WBA operators are as strong as they are on the WPNIA market. Eircom also expressed a view that the same market conditions could not provide Eircom with the incentive of imposing excessive prices and too low prices.
- Eircom does not believe that there is sufficiently detailed analysis on the appropriateness of a price control obligation on Eircom "*to maintain an appropriate economic space between prices set for WBA and those set for WPNIA*".

¹⁹⁸ See paragraphs 7.5 to 7.33 of the Consultation.

¹⁹⁹ See ComReg, "Decision to find that Eircom is not in compliance with the non-discrimination obligation in its use of 'Sync Checker'", Document 08/95, 4 December 2008.

ComReg Analysis and conclusions

- 6.4 We have considered Eircom’s assertion that our analysis of competition problems was restricted to a list of types of abuse. As noted in the Consultation²⁰⁰, it is not necessary for ComReg to point to examples of actual anti-competitive activity within the meaning of Article 82 of the Treaty (now Article 102 of the TFEU) and/or Section 5 of the Competition Act, 2002 that have occurred or are occurring. The finding of dominance indicates the potential for competition problems to arise, and this is sufficient to justify the imposition of proportionate regulatory obligations. Eircom is not correct in asserting that *ex ante* regulation must be based on evidence of past anti-competitive behaviour. The EC is of the view that the WBA market is a market suitable for *ex ante* regulation and that competition law alone is not sufficient to address problems in the market. Competition law, which is *ex post* in its application, is generally applied after the anti-competitive event has occurred, and would be concerned with actual instances of past anti-competitive behaviour. *Ex ante* regulatory obligations are designed to prevent the occurrence of actual competition problems (through the exercise of market power) with a view to ensuring the development of an effectively competitive market.
- 6.5 In considering the form which *ex ante* regulation should take, we have been guided by experience in the market, in particular, by the types of competition problem which have arisen as well as competition problems which could potentially arise given the vertically integrated nature of the SMP operator. Our view remains that there is the potential and incentive for an SMP operator to engage in actions which inhibit competition in the WBA market, and that this view is supported by actual competition problems in the market. OAOs submitted examples of their experiences as purchasers of WBA which they believe constitute competition problems. It should be noted that these actual problems are arising in a market which is already subject to SMP regulation.
- 6.6 However, in addition to reviewing the competition problems detailed in the submissions by OAOs and as set out by ComReg in the Consultation, we have reviewed the details of competition problems reported to ComReg. The following additional examples can be noted::
- i. A formal complaint was received from [...] in 2009 that Eircom did not inform OAOs that it was developing a product which could meet a Request for Tender (“RFT”) issued by a public body. The OAO was not aware that the particular product feature could be made available until the date for response was passed.
 - ii. On August 30th 2007, Eircom²⁰¹ announced its intention to launch a new Capacity Based Bitstream product for its wholesale customers. ComReg directed Eircom not to launch this product and to refrain from taking and processing orders for this product, until such a time as Eircom demonstrated, to ComReg’s satisfaction, that it is fully compliant with all of its regulatory obligations, including those arising

²⁰⁰ See Paragraph 7.2 of the Consultation.

²⁰¹ <http://www.comreg.ie/fileupload/publications/ComReg0769.pdf>

from Eircom's dominance of the Wholesale Broadband Access market. However, the product was never launched.

- 6.7 ComReg is currently investigating the following cases and considering, *inter alia*, Eircom's submissions in respect of same. Please note, in respect of the below, that the outcome of same cannot be pre-empted and is not being pre-determined here, rather the existence of these live cases is mentioned for completeness²⁰²:
- i. Allegation from [...] regarding the provision of wholesale inputs to OAOs retail broadband products.
 - ii. Allegation from [...] that Eircom has provided better and more timely information to its retail division concerning the availability of new broadband products.
- 6.8 Our analysis of actual and potential competition problems in the WBA market has also taken account of work undertaken by the EC and BEREC²⁰³ on net neutrality²⁰⁴. While the internet has been relatively open up till now, and we are not aware of any major issues regarding unequal treatment of data, this may not always be the case in the future. We are mindful that concerns have been raised in other jurisdictions regarding blocking and throttling content and / or traffic associated with particular applications. Our view is that the regulatory measures which will be imposed following this review, in particular those relating to non-discrimination and transparency, should be sufficient to address future issues regarding net neutrality. In order to clarify our position, we note that the amended Framework Directive which has come into force obliges the NRA to promote the interests of the citizen by, *inter alia*,
*"promoting the ability of end-users to access and distribute information or run applications and services of their choice"*²⁰⁵.
- 6.9 In undertaking the analysis of the WBA market, we have consulted widely. This has included issuing data directions to industry (and following up on such submissions for clarification where necessary), broad public consultation, and consultation with the Competition Authority and with the EC. We have also relied on our own experiences in dealing with issues in the WBA market. All of these inputs are used when forming judgements. It is therefore not the case that our assessment of competition problems relied solely on a list of types of abuse, and in fact we drew on a broad range of inputs.
- 6.10 We have considered Eircom's point that the incentives to deny access are weaker in the WBA market than they are in the WPNIA market. Such a comparison does not seem particularly useful because, while we have found Eircom has SMP in both markets, we have proposed obligations designed to address specific competition problems arising in each market. We have also

²⁰² In addition, for completeness, it is important to note that Eircom does not agree with the allegations.

²⁰³ Body of European Regulators for Electronic Communications.

²⁰⁴ European Commission, "Report on the Public Consultation on the open internet and net neutrality in Europe", 9 November 2010.

²⁰⁵ Article 8.4 (g).

identified that competition problems have emerged, even in the presence of regulation since the last review in 2004.

- 6.11 In assessing Eircom’s belief that we have not justified the need to maintain an appropriate economic space between prices set for WBA and prices set for WPNIA, we note that this issue was raised as a potential example of leveraging, where the SMP operator may seek to foreclose infrastructure-based competitors by way of maintaining an insufficient economic space between the relative pricing of different upstream/intermediate inputs²⁰⁶. We explained that, absent regulation, a dominant operator could potentially use its dominance to “game” the system – for instance, by making the wholesale product which is least attractive or profitable for them, or which could pose the greatest competition risk over the longer term, unattractive to OAOs through higher relative prices or degraded service. Our view was that absent regulation, Eircom would have the ability and incentive to price its wholesale inputs in a way that increases uncertainty and could dissuade potential entrants from engaging in efficient infrastructural investments. This is possible because Eircom is active in a number of related input markets. In the light of the discussion earlier in this section on the approach to *ex ante* regulation, our view is that there is clear justification for establishing that a failure to maintain an appropriate economic space between WBA and WPNIA prices would constitute a competition problem and that we are therefore justified in imposing an obligation to remedy this.

Conclusion on Competition Problems

- 6.12 Eircom’s SMP position in the WBA market affords it the potential and incentive to behave in a manner which would inhibit the development of competition. The consideration of actual and potential competition problems in the Consultation included detailed references to past and current experiences in the WBA market, and confirmed that the consideration of competition problems arising due to an SMP position is firmly grounded not only on the identification of potential competition problems but also having regard to actual experiences in the market.
- 6.13 The analysis of responses to the Consultation included further details provided by OAOs on perceived competition problems, particularly associated with migrations and with price squeezes. We are mindful that these problems are occurring in a market which is currently under regulation.

²⁰⁶ See paragraphs 7.25-7.28 of the Consultation.

7 Remedies

Approach to remedies

- 7.1 In the Consultation, we outlined our regulatory basis for imposing obligations. Further to Regulation 27(4) of the Framework Regulations, ComReg is obliged to impose on an undertaking with SMP such specific obligations as it considers appropriate²⁰⁷. Pursuant to Regulation 8(1) of the Access Regulations, the NRA shall impose on an SMP operator such of the obligations set out in Regulations 9 to 13 of the Access Regulations²⁰⁸ as it considers appropriate.
- 7.2 In accordance with Regulation 8 (6) of the Access Regulations ComReg considers that any obligations imposed in accordance with this Regulation are
- (a) *based on the nature of the problem identified,*
 - (b) *proportionate and justified in the light of the objectives laid down in section 12 of the Act of 2002 and Regulation 16 of the Framework Regulations, and*
 - (c) *imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations*
- 7.3 In light of the potential competition problems arising from the preliminary conclusion of SMP in the relevant market, we proposed to impose a number of proportionate regulatory obligations and specific questions were asked in this regard. The Consultation Document included a draft Decision Instrument. Proposed remedies were considered to be based on the nature of the actual and potential competition problems identified, and justified in light of the objectives laid down in section 12 of the Communications Regulation Act, 2002²⁰⁹ (further to Regulation 9(8) of the Access Regulations).
- 7.4 We considered the approach to WBA in an NGA context, and expressed the view that the advent of next generation access (NGA) should not be allowed to lead to a restoration of monopoly conditions over the access network. The conditions of competition were not expected to change appreciably where Eircom overlays or replicates its existing access network with fibre and NGA equipment. It was our preliminary view that Eircom's SMP will prevail across

²⁰⁷ The SMP Guidelines note at paragraph 114 that " If an NRA finds that competition in the relevant market is not effective because of the existence of an undertaking or undertakings in a dominant position, it must designate in accordance with Article 16(4) of the framework Directive the undertaking or undertakings concerned as having SMP and impose appropriate regulatory obligations on the undertaking(s) concerned."

²⁰⁸ Transparency (Regulation 9 of the Access Regulations); Non-discrimination (Regulation 10 of the Access Regulations); Accounting separation (Regulation 11 of the Access Regulations); Access to and use of specific network elements and associated facilities (Regulation 12 of the Access Regulations); and Price control and cost accounting (Regulation 13 of the Access Regulations).

²⁰⁹ (i) to promote competition
(ii) to contribute to the development of the internal market, and
(iii) to promote the interests of users within the Community.
These objectives have been supplemented by additional objectives under regulation 16 of the Framework Regulations, which ComReg has also taken into account.

current generation and next generation network infrastructure. Market failures have been provisionally identified in the WBA market independently of whether the underlying access network is substantially copper or fibre based.

- 7.5 However, the nature and the timing of material NGA investment and evolution of services in wholesale and retail markets were considered to be still uncertain. Against this background, we indicated that, while it is important to establish the principles of regulatory remedies which would apply to WBA in both a current and next generation context, further consultation was required to consider to what extent these obligations may need to be further specified in an NGA environment.
- 7.6 The approach which was proposed in the Consultation was that it should be clarified now that NGA is subject to regulation and that access should be provided to such new infrastructure. However, we considered it prudent to be flexible in the detail of its approach, pending a more focused consultation on NGA remedies. The degree of intervention required would, in our view, also need to take into account the degree to which Eircom makes WBA over its NGA network available to other players in the interim.
- 7.7 The proposed approach to remedies was therefore specific and detailed in relation to current generation services, in regard to both the obligations which are proposed, and to how the obligations would be implemented. In considering NGA services, the approach was specific in terms of the principles of the obligation, but less detailed in terms of their implementation pending a more focused consultation on NGA remedies. We noted that it is important that the remedies proposed now sufficiently address potential migration from current generation products and services to NGA-based products and services. For this reason, we considered the need for more detailed transparency and non-discrimination obligations, particularly around possible NGA planning, within the proposed NGA remedies. Furthermore, we considered an obligation not to withdraw access to facilities already granted without the approval of ComReg to be important in paving the way for a smooth transition from current generation to NGA-based WBA.
- 7.8 We noted that the proposed approach is consistent with that of the European Commission²¹⁰, and has taken into account the NGA Recommendation, as well as comments from the European Commission in its review of regulatory measures notified under the Community consultation mechanism for electronic communications services, when formulating its views²¹¹.

²¹⁰ European Commission, "Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA)", Brussels, C(2010) 6223

²¹¹ In its Article 7 letters, the European Commission has encouraged NRAs to ensure that sufficient remedies are in place to address competition problems in NGA-based WBA services. For example, in its comments on the analysis of markets 4 and 5 by the Portuguese regulator, Anacom (case PT/2008/0851), the Commission noted that fibre roll-outs may significantly change the competitive landscape, especially if MDFs will be closed down, and invited Anacom to impose remedies on fibre access products as appropriate following national consultation. In its comments on cases involving market 4, the Commission has invited NRAs *inter alia* to ensure that, in the event of any replacement of the existing copper access network with fibre, existing customers receive all necessary information (concerning any network modification plans) in a timely fashion so as to be in a position to adjust their own network plans accordingly (case EE/2009/0942-0943).

Summary of responses

7.9 Eircom proposed in its response that, if ComReg were to find that the scope of the WBA market is national, it should at least impose differentiated remedies, and specifically there should be no regulation in urban areas.

ComReg analysis and conclusions

7.10 In order to address Eircom's proposal that even if a national market were to be defined, there is scope for imposing differentiated remedies, we have reviewed guidance from the European Commission²¹² to assist in determining this issue.

7.11 In the Austrian case cited by Eircom²¹³, TKK proposed to impose differentiated remedies in areas to reflect varying degrees of competition. However the imposition of remedies by RTR was subsequently annulled in court with the consequence that the previously imposed remedies are currently applied without a geographic differentiation²¹⁴, including in relation to access and pricing.

7.12 ARCEP, the French NRA, recently notified a decision to the EC²¹⁵ for its review of the WBA market which proposed a national product market definition but with differentiated remedies based on two different areas of competitive conditions. However, in response to ARCEP's notification the EC recommended that it undertake a more thorough assessment of the differences in competitive conditions between geographic areas on the basis of all structural and behavioural factors and impose SMP regulation²¹⁶. Furthermore the EC invited ARCEP to assess the real technical and economic ability of access seekers to switch to alternative bitstream products in order to obtain conclusive evidence on the degree of competition.

7.13 While EC comments²¹⁷ indicate that the EC views differentiated remedies as an option open to NRAs, the recommended approach to the assessment and imposition of differentiated remedies is very similar to the overall approach to the definition of sub-national markets, in that it must be shown that there are structural and behavioural differences.

²¹² See cases UK/2007/0733, AT/2008/0757, FR/2008/0781, DE/2008/0781, DE/2010/1116 and UK/2010/1123

²¹³ Case AT/2008/0757

²¹⁴ Case AT/2009/0970: Wholesale broadband access in Austria Opening of Phase II investigation pursuant to Article 7(4) of Directive 2002/21/EC Brussels, 5/10/2009 C(2009)7720.

²¹⁵ Case FR/2011/1214.

²¹⁶ See case ES/2008/0805 for a similar example. CMT, the Spanish NRA, defined a national market but proposed differentiating remedies according to the intensity of retail competition in the different parts of the country. The Commission had serious doubts as to whether the development of the Spanish broadband markets would or would not justify the application of geographically differentiated regulatory obligations. The Spanish regulator in Phase II changed its conclusions and has inter alia abandoned its intent to apply geographically differentiated remedies.

²¹⁷ See Cases FI/2008/0848 and FI/2009/0900. Ficora, the Finnish NRA, proposed to distinguish geographic sub-markets within five specified operating areas, where it identified 25 municipalities (typically urban centres) which exhibited differing competitive characteristics in relation to the rest of the local operating area. Ficora proposed to partially deregulate inter alia the referred five operating areas. The Commission raised serious doubts as to the proposed de-regulation due to the lack of sufficient evidence to substantiate the geographic market definition/partial de-regulation. Following the serious doubts raised by the Commission and the opening of phase II, Ficora withdrew the referred notification and re-notified its analysis under Case FI/2009/0900. No geographic sub-markets were then defined.

- 7.14 In line with the latest amendments to the Framework Regulations ComReg has also taken “*due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State*”²¹⁸. In our analysis of the geographic scope of the retail and wholesale broadband markets, we found that, while there are emerging variations in structural conditions of competition particularly in urban areas characterised by the presence of both a cable operator and operators using purchased WPNIA inputs, these changes are not yet well-established. Further, changes in structural conditions have not yet been translated into changes in operators’ commercial behaviour.
- 7.15 ComReg is encouraged by these green shoot signs of more competition in certain areas and greater competition from Line Share/Full LLU-based operators but it is concerned, at this delicate stage in the development of the market, to ensure that these signs of a transition towards greater competition are not undermined by a premature asymmetric weakening of remedies. In this regard, the timing of the next review will be carried out in light of the new procedures and timeframes for conducting market reviews introduced by amendments to the EU regulatory framework²¹⁹ which states that “*The Regulator shall carry out an analysis of the relevant market and notify the corresponding draft measure..within 3 years from the adoption of the previous measure relating to that market*”. But ComReg has also committed to monitoring developments regarding cable broadband.
- 7.16 For these reasons, we do not intend to impose different remedies in particular sub-national areas at this time. However, in recognition of the way in which the market is developing, ComReg is considering the impact of geographic differences in Eircom’s cost of supply in the context of the parallel consultation on the WBA price control²²⁰.

Remedies for current generation WBA

- 7.17 In the Consultation, we proposed to impose the following remedies:
- Access
 - Non-discrimination
 - Transparency
 - Accounting separation
 - Price control and cost accounting
- 7.18 The Consultation proposal, summary of responses received, and our analysis and conclusions are discussed under each category of remedy below.

²¹⁸ Regulation 16 2 (e) of the Framework Regulations.

²¹⁹ Regulation 27 6(a) of the Framework Regulations.

²²⁰ ComReg, “Wholesale Broadband Access: Further Consultation to Consultation Document No. 10/56 and Draft Decision in Relation to Price Control and Transparency”, Document 10/108, 22 December 2010.

Obligations to provide access

Summary of consultation proposals

7.19 In the Consultation, we outlined the regulatory basis for, and approach to, considering an access obligation²²¹. It was proposed that the access obligation would apply both to reasonable requests from OAOs²²², and that Eircom would be obliged to continue to offer its existing product set, including (but not limited to) the following²²³:

- Bitstream
- Bitstream (Ethernet) Connection Service (BECS)/Bitstream Connection Service (BCS) or other equivalent backhaul service
- In-building/in-span handover
- Migrations

7.20 We proposed that Eircom should be obliged to negotiate in good faith²²⁴, and should not be allowed to withdraw access to facilities already granted without the prior approval of ComReg²²⁵. We noted that this is particularly pertinent in the potential implementation of NGA. We proposed that Eircom should be obliged to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services, and considered that Eircom should be obliged to provide access to operational support systems (OSS) or similar software systems necessary to ensure fair competition in the provision of services²²⁶. In providing OSS or equivalent, we explained that the outcome experienced by the OAO should be the same as the experience of Eircom's retail operation. This does not mean that the method of access needs to be identical. Rather, it needs to be demonstrated that different methods of access facilitate the same outcome and are non-discriminatory.

7.21 In the Consultation, we proposed to attach conditions²²⁷ to the access obligation, such that Eircom would be obliged to grant access in a fair, reasonable and timely manner, and would be obliged to conclude and implement SLAs. We proposed that SLAs should include performance metrics, and should specify a level of compensation in the event of any breach. We also proposed that Eircom should be obliged to provide the objective criteria for refusing a request, or only partly meeting a request, to the OAO which has made the request.

²²¹ Document 10/81, paras 9.8-9.12

²²² Document 10/81, para 9.13

²²³ Document 10/81, paras 9.14-9.22

²²⁴ Document 10/81, paras 9.23-9.25

²²⁵ Document 10/81, paras 9.26-9.30

²²⁶ Document 10/81, paras 9.31-9.33

²²⁷ Document 10/81, paras 9.34-9.40

Summary of responses

- 7.22 Respondents' views are dealt with in detail in the analysis section below, and can be summarised as follows.
- 7.23 BT, Magnet, O2 and Vodafone broadly supported the proposals in the Consultation. BT suggested that an additional specific Equivalence of Input (EoI) remedy should be imposed on next generation WBA. Magnet proposed that there should be a requirement for Eircom to provide naked DSL, and also that there may be a need for prioritised SLAs, which should be comparable with the SLAs offered to Eircom retail. Vodafone proposed that there should be a specified time for Eircom to respond to a request for access, and the initial response should indicate whether Eircom believed the access request fell within the scope of its access obligation.
- 7.24 BT expressed its view that the migrations process is unnecessarily slow and cumbersome for customers at both the wholesale and retail level. BT also believes that some elements of migrations pricing are anomalous.
- 7.25 Eircom stated that in its view, an access obligation and an obligation not to withdraw access, were not necessary in urban areas. Eircom believes that in the face of cable competition in urban areas, it has a strong incentive to offer bitstream. Eircom reserved its position on whether naked DSL would constitute a reasonable access request. While agreeing that it was reasonable to offer notice of withdrawing facilities, Eircom stated that the five year notice period proposed by the European Commission was unjustifiably long in the WBA market.

ComReg analysis and conclusions

- 7.26 Pursuant to ComReg's objectives under section 12 of the Act, Regulation 16 of the Framework Regulations and pursuant to Regulation 12 of the Access Regulations we consider that the proposed access obligation takes "*appropriate account of the risk incurred by the investing undertakings and by permitting various cooperative arrangements between investors and parties seeking access to diversify the risk of investment, while ensuring that competition in the market and the principle of non-discrimination are preserved*"²²⁸. Furthermore ComReg considers that this access remedy as written shall promote "*efficient investment and innovation in new and enhanced infrastructures*"²²⁹ through increased inter-platform competition at the retail level.
- 7.27 In our consideration of the factors set out in Regulations 12(4) of the Access Regulations we took into account:
- the *technical and economic viability* of Eircom providing virtual or non-physical access in the form of Bitstream and our analysis is that Eircom is currently providing an equivalent service to its retail division and in the absence of sufficient evidence to the contrary ComReg considers this obligation is indeed technically and economically viable.
 - The *feasibility of providing access in relation to capacity available* and our conclusion is that the provision of WBA relates to existing infrastructure. ComReg also notes this form of access has been made

²²⁸ Regulation 16 2(d) of the Framework Regulations

²²⁹ See footnote 228.

available by Eircom to OAOs for a number of years. ComReg is not aware of any material capacity constraint issues having been raised to date such that it would give rise to difficulties in providing future access.

- The *initial investment of the provider*²³⁰ and considers that the investments made by Eircom in its copper access network are largely sunk, although there is ongoing investment associated with the maintenance of the network. ComReg has already established what it considers to be an appropriate rate of return (known as the Weighted Average Cost of Capital or WACC) that can be earned by Eircom in providing its regulated services. In doing so, ComReg has taken into account the investment made by Eircom and has allowed a reasonable rate of return on adequate capital employed, taking into account the risks involved.
- The *need to safeguard competition* and considers that the proposed remedies are essential to ensure that competition over the local access network is safeguarded in the long term. The withdrawal of access remedies would result in the reinforcement of Eircom's dominance in the WBA market, and hinder the development of competition in this market and ultimately in the retail broadband market.
- *Any intellectual property rights* and concludes that there is no issue regarding intellectual property rights.
- And in relation to *Pan European Services* ComReg considers that its approach will facilitate pan European services since they are consistent with the policies of the EU Commission and other NRAs. ComReg also notes that there are a number of OAOs in the retail broadband market which have international operations and which rely on the provision of WBA for the provision of services to businesses which have internationally located operations.

7.28 We do not agree with Eircom's assertion that an access obligation is unnecessary in urban areas. It is not clear that an SMP operator would voluntarily offer a WBA product absent an access obligation. There are few examples of jurisdictions where a commercial and sustainable WBA offering is available absent regulation. Evidence suggests that even in the presence of regulation on Market 5, there have been difficulties in supply to OAOs and in the adherence to the obligations of non-discrimination. This would suggest that were regulation to be lifted, even if some areas could be specified, it is not clear that Eircom would supply WBA on a non-discriminatory basis to OAOs absent regulation.

7.29 We note BT's comments on difficulties experienced in migrations, and have seen evidence of this through the ComReg facilitated industry fora and other discussions. Regulatory intervention has been required to address shortcomings in the implementation of migrations, and confirms our view that the access obligation should specifically oblige Eircom to ensure that the migrations process is carried out in an efficient, effective and timely manner.

²³⁰ This criterion is similar to new Regulation 16 (2) (d) of the Framework Regulations 2011 and ComReg confirms for completeness we also considered this new text in the conclusions reached on this point.

- 7.30 We have considered the proposal from Magnet that there should be a specific obligation on Eircom to offer naked DSL and also note Eircom's reservations. Our view is that the formulation of the access obligation in the Consultation did not preclude an OAO requesting naked DSL, and the request could then be assessed in terms of reasonableness. We believe this gives greatest flexibility to OAOs in terms of what they may decide to request, and allows Eircom to assess each case on its merits.
- 7.31 We understand Vodafone's concern that Eircom should be obliged to respond to an access request within a certain time period. However, we believe that attaching a condition to the access obligation that access should be provided in a way which is fair, reasonable and timely signals expected behaviour.
- 7.32 We have taken into account Magnet's comments on SLAs, and conclude that the refinements proposed to the content and processes of concluding and implementing SLAs should address their concerns.
- 7.33 ComReg maintains the view that bistream and backhaul is an important facility associated with the provision of a WBA service, and that it should be made available by Eircom. In terms of required notice before withdrawing access to facilities already granted, we note that the European Commission's proposal is that, absent a commercial agreement on any such migration period, a five-year notice period shall be required before any de-commissioning of points of interconnection such as the local loop exchange, although this may be less if fully equivalent access is provided at the point of interconnection²³¹. We were clear in the Consultation that our proposed approach is to assess any request by Eircom to withdraw access to existing services/facilities on a case-by-case basis.
- 7.34 BT's point on EoI is covered in the context of Next Generation remedies.
- 7.35 ComReg considers that it is acting reasonably and proportionately in reaching its conclusions and in particular in conducting a further consultation in relation to the nature of applicable remedies to next generation access. The analysis of this section can be read with the Consultation.

Obligation of non-discrimination

Summary of consultation proposals

- 7.36 In the Consultation, we proposed that Eircom should be obliged not to discriminate in its supply of WBA²³². As provided for by Regulation 11 of the Access Regulations, a non-discrimination obligation includes obliging Eircom to ensure that it applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and that it provides services and information to others under the same conditions and of the same quality as it provides for its own services or those of its subsidiaries or partners.

²³¹ Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), (2010/572/EU), 25.9.2010

²³² Document 10/81, paras 9.41-9.50

- 7.37 We recognised, however, there may be commercial sensitivity surrounding the provision of information and services, and proposed that it was reasonable to restrict the obligation regarding non-discrimination to the provision of services and information to Access Seekers²³³, rather than to all OAOs. We do not consider it proportionate or justified to expect Eircom to make available commercially sensitive information to all market players, some of whom do not rely on Eircom-supplied WBA inputs to compete.
- 7.38 To ensure that Access Seekers are in the equivalent position as Eircom and/or its partners, we considered it essential that information and services are provided in sufficient time. To provide further clarity in this regard, we proposed that Eircom should be required to provide WBA services and information to Access Seekers within a specified timeframe, that is the earlier of:
- at the same time as the WBA service(s) or information is available to Eircom or its partners; or
 - unless otherwise determined by ComReg, at least two months before any Eircom retail service or facility, which relies on the provision of the WBA service(s) or information, is made available on the retail or downstream market.

7.39 Because of the significant contribution of access to OSS to an OAO's ability to compete, we proposed a specific non-discrimination obligation on Eircom to ensure that OAOs should experience the same standard and quality of service and information in this regard as Eircom itself. This means, for example, that the time taken to process requests via OSS, quality and completeness of output from OSS, and ease of OSS use should be the same regardless of whether the request comes from an OAO or from Eircom's own operations or partners.

Summary of responses

- 7.40 Respondents' views are dealt with in detail in the analysis section below, and can be summarised as follows.
- 7.41 BT, Magnet, O2 and Vodafone agreed with our proposals in imposing a non-discrimination obligation. Magnet noted that it was not convinced that the UG (Universal Gateway) system used by OAOs provided an equivalent service in practice to that experienced by Eircom's retail operation. This point was also made by BT, which suggested that it indicated the importance of a transparency obligation to support the non-discrimination obligation. BT proposed that Eircom should be functionally separated in order to ensure that there is no discriminatory behaviour. Vodafone expressed a view that Eircom's obligations of non-discrimination would be more readily enforced if there was a move to cost-oriented price control, because the link between the retail price and the wholesale price would be broken, and so Eircom's retail operation would not be in a position to receive any wholesale product development information in advance of OAOs.

²³³ An Access Seeker is an OAO which has already agreed a Wholesale Broadband Access Reference Offer (WBARO) with Eircom, or has signed a Non-Disclosure Agreement with Eircom.

- 7.42 Eircom disagreed with our proposals obliging the advance provision of information to Access Seekers, because it believes this will stifle innovation. While welcoming the flexibility indicated in the proposed obligation, Eircom also proposed that the obligation should only apply to standard products and not to network solutions which it considered to be non-standard or bespoke.

ComReg analysis and conclusions

- 7.43 We note comments from OAOs that Eircom should be compliant with the non-discrimination obligation both in principle and in practice. In our view, the remedies which we are imposing on the foot of this review are designed to address the competition problems which have been identified for the market for WBA. The consideration of a remedy of functional separation of an SMP operator is considered to be a remedy of last resort and would need to be considered in the context of failure of effective regulation in the market for WBA and other wholesale markets. Through this market review, we have proposed to mandate performance targets to identify and quantify Eircom's interaction with Access Seekers. The KPIs as outlined in this review, along with other indicators of market performance and competition problems across fixed wholesale markets, would be used to assess any need to impose a remedy of functional separation.
- 7.44 In considering the proposal that information and services should be provided to Access Seekers on a timescale which does not disadvantage them compared with Eircom's own retail operation, we believe that our proposal to set an overall obligation and then deal with issues on a case by case basis recognises that in some instances, for example for price reductions, we may want change in the market in less than two months, as it is to the benefit of OAOs and potentially end-users. On the other hand, we recognise that significant product introductions that have a major impact on the market and significant process change may require longer than two months advance notification.
- 7.45 Our conclusion is that the approach proposed which will set an overall objective, with flexibility on a case by case basis, demonstrates a flexible and effective approach to applying the non-discrimination obligation depending on the circumstances of the case in hand, while still ensuring that competition is sufficiently protected.
- 7.46 We do not agree with Vodafone's view that the non-discrimination obligation would be easier to enforce if there was a move to a cost oriented price control. We maintain that non-discrimination applies and can be enforced regardless of the type of price control in place.
- 7.47 We do not agree with Eircom's proposal that the non-discrimination obligation should only apply to "standard products". The distinction between "standard" and "bespoke" is open to interpretation, as, for example, a solution could be composed of various elements, some regulated products and some not, and its status would not be clear. It would also be possible to add elements or construct a solution to be intentionally "non-standard". There should be no automatic derogation based on Eircom's own interpretation of its offer, and the non-discrimination obligation will apply to all products in the WBA market.
- 7.48 Lastly, ComReg has reviewed the text of paragraph 9.5 in the Consultation concerning the provision of information by Eircom to OAOs. ComReg has now

amended this text to add greater clarity for all stakeholders, and the detail of the specific obligation is now expressed for the avoidance of any doubt.

Obligation of transparency

Summary of consultation proposals

7.49 In the Consultation, we noted that a transparency obligation is a necessary means of ensuring that ComReg and OAOs can observe relevant terms and conditions for Eircom's WBA products, thereby ensuring the effectiveness of the proposed access and non-discrimination obligations and bringing the necessary confidence to potential investors. A transparency obligation is also required to monitor and ensure the effectiveness of any price control obligations and to support any accounting separation obligations, as this would allow the calculation of costs and prices (i.e. internal price transfers) to be rendered visible. This would also allow us to monitor the compliance of Eircom's pricing behaviour with any non-discrimination obligations, and address potential competition problems relating to cross subsidisation, price discrimination and the application of price squeezes.

7.50 We proposed specific transparency obligations:

- Publication of a Wholesale Broadband Access Reference Offer (WBARO)²³⁴, which would contain at least a description of all relevant WBA offerings broken down into components according to market needs, a description of the technical specifications and network characteristics of the access being offered, and a description of the associated terms and conditions for supply and use, including prices. We expected that Eircom would engage with industry, for example, through an industry forum, to agree any changes where appropriate and reasonable, before submitting the WBARO to ComReg for regulatory approval. We also proposed a change mechanism for the WBARO. In considering appropriate notice periods, we proposed that Eircom should publish proposed changes to the WBARO at least two months before they came into effect, and should notify ComReg an additional month before publication. In order to offer greatest flexibility to Eircom and OAOs, ComReg would retain the right to reduce or extend these periods on a case by case basis.
- Publication of information about WBA products and services²³⁵
- Publication of Key Performance Indicators (KPIs)²³⁶, because a well-designed suite of KPIs would allow all stakeholders to observe any discriminatory delivery performance by inspection of the KPIs
- Publication of SLAs and performance metrics²³⁷

²³⁴ Document 10/81, paras 9.57-9.67

²³⁵ Document 10/81, para 9.68

²³⁶ Document 10/81, paras 9.69-9.70

²³⁷ Document 10/81, paras 9.71-9.73

- Publication of information on self-supplied WBA products and services²³⁸. We proposed to require Eircom to publish on its website sufficient information to identify and justify any differences between the services and facilities set out in the WBARO and the comparable services and facilities which Eircom provides to itself.

Summary of responses

- 7.51 Respondents' views are dealt with in detail in the analysis section below, and can be summarised as follows.
- 7.52 BT, Magnet, O2 and Vodafone generally supported our proposals on transparency obligations. However, in considering the obligation to publish information on self-supplied WBA products and services, BT expressed a view that this had to be sufficiently detailed to be useful. In BT's opinion, the implementation of a similar obligation in the WPNIA market was not meaningful. Magnet noted that the publication of information on self-supplied WBA was extremely important in relation to SLA (Service Level Agreements) and ensuring that there was equivalence in services and fault repair times. Vodafone proposed that an obligation was needed, requiring Eircom to publish additional comparative information on foot of OAO requests.
- 7.53 Eircom proposed that the notification and publication timeframes proposed should only apply to major product changes, and that price changes should be published three weeks in advance of coming into effect, and notified one week prior to publication. Eircom believes that the obligation to publish information about self-supplied WBA is unnecessary because the market is working well. Eircom expressed concern regarding its interpretation of obligations applying to OSS, which in its view obliged Eircom to invest in an upgraded OSS system which could not be considered cost-effective.

ComReg analysis and conclusions

- 7.54 We have considered the proposed notification and publication timeframes, and it is our conclusion that the proposed notification and publication timeframe should be two months. Our intention is that there should be provision for ComReg to extend or reduce the periods proposed where appropriate on a case-by-case basis. This would allow Eircom to make a case to ComReg to reduce the notification and publication periods, based on a commercial imperative, or other compelling circumstance. In our view, this adequately addresses Eircom's concerns.
- 7.55 We have considered Vodafone's proposal regarding the need for an additional obligation, requiring Eircom to publish comparative information in response to an OAO request. It is our view that the proposed obligations offer sufficient scope for an OAO to request and to be provided with information, hence there is no need for a specific obligation.
- 7.56 It is our view that ensuring transparency concerning the services Eircom offers to itself in comparison to the services it offers to OAOs is both reasonable and justified, and is a requirement in the WBA market. The development of

²³⁸ Document 10/81, paras 9.74-9.76

Reference Offers and SLAs address the question of supply to OAOs, and in our view this must be complemented by information regarding the services which Eircom supplies to itself to ensure effective operation of the non-discrimination obligation. We note points made by OAOs and agree that the application of the transparency obligation must be effective.

- 7.57 In addressing Eircom's comments regarding OSS, we note that in the Consultation²³⁹, OSS is discussed in terms of the obligation to grant open access to technical interfaces, protocols and other key technologies, and to provide access to operational support systems or similar software systems, and is also referred to in terms of the non-discrimination obligation²⁴⁰. We were clear in our approach that:

*"...it needs to be demonstrated that different methods of access facilitate the same outcome and are non-discriminatory. It is proposed that the obligation would be on Eircom to ensure that access to technical interfaces, protocols and other key technologies necessary for interoperability of services as well as OSS or similar software systems is provided in a way which supports effective competition. In ComReg's view, the objective of this obligation is to ensure that OAOs can gain access to such technical interfaces, technologies and relevant support systems to effectively and efficiently support the use of WBA services such that they can compete on an equivalent footing with Eircom's downstream arm"*²⁴¹.

- 7.58 This does not require Eircom to necessarily invest in an upgraded system. It identifies that the onus is on Eircom to ensure that there is not discrimination as a result of the way in which OAOs experience OSS compared with Eircom's downstream operation. We therefore do not consider that the concerns expressed by Eircom in its response are well-founded.

- 7.59 ComReg has always endeavoured in the imposition of remedies to act proportionately and justifiably and bases its remedies on the nature of the competition problems in the market. In this regard it can be noted that ComReg has recently published a decision on the precise content of individual KPIs and how are they to be introduced²⁴². ComReg's position is that these KPIs should transparently demonstrate, on the basis of the level of service actually delivered, with respect to common or equivalent inputs, if there is discrimination between wholesale inputs delivered to OAOs and the same or equivalent inputs self-supplied by Eircom to its own operations and/or partners, including, for example, its retail or other downstream operations. This decision was also welcomed by the EC²⁴³. The EC commented that:

"The Commission welcomes ComReg's proposal to use key performance indicators (KPIs) in order to enhance its ability to monitor and enforce a nondiscrimination obligation in four key markets. In this respect, the

²³⁹ Document 10/81, paras 9.31-9.33

²⁴⁰ Document 10/81, para 9.50

²⁴¹ Document 10/81, para 9.33

²⁴² ComReg "Response to Consultation and Decision on the Introduction of Key Performance Indicators for Regulated Markets" Document 11/45, 29 June 2011.

²⁴³ Commission decision concerning case IE/2011/1185: Introduction of key performance indicators in the markets for (1) retail narrowband access, (2) wholesale physical network infrastructure access, (3) wholesale broadband access and (4) wholesale leased lines (terminating segments).

Commission shares ComReg's view that the greater transparency around compliance by Eircom with its non-discrimination obligations could have a beneficial effect on competition in the relevant markets, as it not only provides the national regulator with a tool to detect potential non-compliance quickly but also as it is designed to increase the confidence both of Eircom's competitors in the wholesale input and of consumers in the retail products offered by alternative operators."

Obligation of accounting separation

Summary of consultation proposals

7.60 In the Consultation²⁴⁴, we proposed that all existing obligations in relation to accounting separation applying to Eircom in relation to the WBA market should be maintained in their entirety and Eircom should be obliged to comply with all of those obligations, pending any further decision by ComReg following consultations in relation to the details and implementation of accounting separation obligations. Eircom's obligations in relation to accounting separation are now set out in *ComReg Decision D08/10 "Accounting Separation and Cost Accounting Review of Eircom Limited – Final Direction and Decision"* and may include any other decision or directions which may be issued by ComReg from time to time.

Summary of responses

7.61 All respondents agreed with this proposal.

ComReg analysis and conclusions

7.62 All existing obligations on Eircom will be maintained following Decision D08/10 by ComReg.

Obligations relating to price control and cost accounting

Summary of Consultation proposals

7.63 In the Consultation²⁴⁵, we proposed to oblige Eircom to maintain appropriate cost accounting systems in respect of WBA products, services or facilities. The implementation of the obligation was subject to a specific consultation and Decision²⁴⁶.

7.64 We considered that there continued to be a need for a price control obligation²⁴⁷ to ensure that the SMP operator sets appropriate WBA prices. We also proposed to apply an obligation on Eircom to maintain an appropriate economic space between the relative pricing of different upstream/intermediate inputs.

²⁴⁴ Document 10/81, paras 9.77-9.78

²⁴⁵ Document 10/81, paras 9.80-9.83

²⁴⁶ ComReg, "Response to Consultation Document and Final Direction and Decision, Accounting Separation and Cost Accounting Review to Eircom Limited", Document 10/67, 31 August 2010.

²⁴⁷ Document 10/81, paras 9.84-9.90

- 7.65 We noted that a parallel consultation²⁴⁸ was considering the detail of the implementation of the price control remedy, and in particular was exploring the possibility of a move from a retail-minus to a cost-oriented control. The parallel consultation is further exploring relevant specifications for the operation of the obligation not to cause a margin (price) squeeze between the price of WBA products and associated downstream offerings including resale and retail offers.
- 7.66 Pending any revised Decision in relation to price controls, we proposed that Eircom would continue to be subject to existing price control obligations²⁴⁹.

Summary of responses

- 7.67 Respondents' views are dealt with in detail in the analysis section below, and can be summarised as follows.
- 7.68 All respondents agreed with our proposals on cost accounting.
- 7.69 BT, Magnet, O2 and Vodafone supported our proposals on price controls.
- 7.70 Eircom proposed that there should not be a single national set of prices based on a single national cost model, and that an appropriate price control remedy must have considerable gradation to address the different levels of competition in the different geographic parts of the market. Eircom proposed that it should not be subject to a price control in urban areas, and that a separate price control should apply in rural areas, with prices cost oriented between LRAIC and SAC.

ComReg analysis and conclusions

- 7.71 Eircom will be obliged to maintain appropriate cost accounting systems in respect of WBA products, services or facilities as per Decision D08/10.
- 7.72 ComReg considers that the consultation process for proposed changes to the WBA price control obligation²⁵⁰ has been undertaken in accordance with Regulation 13 of the Access Regulations. As part of that consultation process ComReg has ensured that the proposed price control shall allow Eircom "*a reasonable rate of return on adequate capital employed*"²⁵¹ and that the proposed pricing methodology promotes "*efficiency and sustainable competition*"²⁵². For further detail please see the parallel consultation on WBA pricing.
- 7.73 We have further considered Eircom's proposal regarding differentiated pricing and Eircom's comments with regard to the recent proposal for geographically de-averaged prices for wholesale Ethernet traffic conveyance²⁵³, whereby the

²⁴⁸ ComReg, "Wholesale Broadband Access: Consultation and draft decision on the appropriate price control", Document 10/56, 15 July 2010 and 10/108, 22 December 2010.

²⁴⁹ ComReg, "Retail Minus Wholesale Price Control for the WBA Market", Decision D01/06, Document 06/01, 13 January 2006.

²⁵⁰ ComReg, "Wholesale Broadband Access: Consultation and draft decision on the appropriate price control", Document 10/56, 15 July 2010 and 10/108, 22 December 2010.

²⁵¹ Regulation 13 (2) of the Access Regulations.

²⁵² Regulation 13 (3) of the Access Regulations.

²⁵³ ComReg, "Response to Consultation Document No. 10/70 and a further consultation and draft decision on the price control obligation in the market for wholesale terminating segments of leased lines", Document 11/32, 29 April 2011. It was noted that wholesale NGN Ethernet leased lines was a new product available to the

prices reflect the costs of the geographic regions i.e. high density regions and medium density regions. Our overall approach is that the market analysis has not found there to be sub-national markets. Therefore, it is appropriate and justified to continue to impose price controls to facilitate effective wholesale and retail competition, and to ensure that Eircom, as SMP operator, does not exploit its ability and incentives to benefit from advantage in the market related to its ability to set prices independently, and price-related vertical leverage.

- 7.74 However, ComReg is currently consulting in relation to price control and the outcome of that consultation may allow additional pricing flexibility for Eircom.
- 7.75 As noted in Consultation Document 10/81, we believe that, absent an appropriate price control obligation, Eircom would have the ability and incentives to set excessive prices in the WBA market which would exploit retail broadband users and potentially harm competition from OAOs relying on Eircom's WBA inputs. Therefore, we consider it appropriate and justified to continue to impose a price control obligation on Eircom so as to guard against such potential excessive pricing.
- 7.76 Furthermore, in Consultation Document 10/81, we identified that, given its presence in a number of related markets, Eircom would have the ability and incentives to engage in potential foreclosure of infrastructure-based competitors by way of an insufficient economic space between the relative pricing of different upstream/intermediate inputs. For example, where resale or end-to-end wholesale access inputs²⁵⁴ are priced too low relative to WBA or WPNIA inputs and/or where WBA inputs are priced too low relative to WPNIA inputs, this might discourage potentially efficient investment in infrastructure to the ultimate detriment of retail consumers in terms of the price, choice and quality of services available to them.
- 7.77 In Consultation Document 10/81, we also identified scope and incentives for the SMP operator to engage in possible price-related leveraging through pricing its upstream and downstream services in such a way as to give rise to an insufficient wholesale/retail margin which would impede effective downstream competition. On this basis, we consider it appropriate and justified to oblige Eircom not to cause a margin (price) squeeze. This obligation includes Eircom maintaining an appropriate economic space between the relative pricing of different upstream/intermediate inputs, for example, maintaining an appropriate pricing differential between its WBA and WPNIA prices and the price of the WBA component parts of a resale or end-to-end wholesale broadband access products and the pricing of the corresponding WBA products.
- 7.78 Given these potential competition problems absent an appropriate price control, we consulted on a revised price control in Consultation Documents 10/56 and 10/108. As noted in those parallel pricing consultations, and given that efficient costs can now be determined with a reasonable level of confidence, we are exploring the possibility of setting the following price controls:

- Maximum cost-oriented price ceilings to guard against excessive prices

marketplace and that the de-averaged pricing approach would be less likely to lead to market distortions (for business customers) than an averaged pricing approach.

²⁵⁴ Sold as 'White Label Broadband' by Eircom.

- Minimum price floors to minimize the risk of a margin (price) squeeze to WPNIA
- Not causing a margin (price) squeeze between the price for the WBA component part(s) of an end-to-end product and the price of the corresponding WBA product(s)
- Not causing a margin (price) squeeze between the price for WBA products and associated retail offerings
- Cost orientation for ancillary services/products in the WBA market.

7.79 We believe that the proposed price controls will achieve the goals of:

- Ensuring Eircom can recover its efficiently incurred costs
- Allowing Eircom flexibility to price its bitstream product within an allowed range
- Protecting infrastructure based competition.

Maximum cost-oriented price ceilings to guard against excessive prices

7.80 Following Consultation Document 10/56, the proposal to set maximum cost-oriented price ceilings will be re-consulted on. The aim of setting maximum price ceilings is to guard against excessive prices and to ensure that Eircom has the ability to recover its efficiently incurred costs, especially in those areas where WBA is the only wholesale product available as there is no LLU unbundling in those areas. Such areas tend to be rural and have a higher unit cost due to lower number of customers and longer line length.

Minimum price floors to minimize the risk of a margin (price) squeeze to WPNIA

7.81 The proposal for minimum price floors was consulted on in Document Nos. 10/56 and 10/108 and the implementation of the proposed minimum price floors for bitstream rentals in the WBA market could minimise the risk of a margin (price) squeeze in the WPNIA market, in accordance with Eircom's existing regulatory obligation²⁵⁵. This proposal is also consistent with the report of the ERG (now BEREC)²⁵⁶. As noted in ComReg Decision D05/10:

“ComReg’s objective here is to encourage efficient infrastructure-based competition, and we recognise that this objective could be undermined if the relationship between the WPNIA price and the WBA price distorts incentives to invest and operate in the WPNIA market. At present, the concern is between LLU pricing and bitstream pricing. Therefore, ComReg wishes to establish a

²⁵⁵ Section 12.4 of ComReg Decision D05/10 (ComReg Document. 10/39) 'Market Review: Wholesale Physical Network Infrastructure Access (Market 4): Further Response to ComReg Document No. 08/104, Response to ComReg Document No. 09/42 and Decision' dated 20 May 2010.

²⁵⁶ ERG (09) 21: 'ERG Report on price consistency in upstream broadband markets' dated June 2009.

*principle that will maintain an economic space between WPNIA and WBA pricing*²⁵⁷

- 7.82 As set out in Consultation Document 10/108, we believe that OAOs availing of LLU have the best potential to offer competition to Eircom to the benefit of customers, as such OAOs having made their efficient infrastructure investments, can offer differentiated retail products at possibly lower prices. The paper discussed whether such competition would pose a risk to Eircom. Absent an appropriate price control, it could be argued that it is in Eircom's interests to set bitstream prices low enough to disincentivise investment in LLU. If OAOs remained on bitstream to provide retail broadband products, the potential for market differentiation to the benefit of consumers would be limited.
- 7.83 As noted in Consultation Document 10/108, it is proposed that the minimum price floors will be based on a hypothetical Reasonably Efficient Operator ('REO') using LLU Line Share. It is assumed that this REO will target and gain market share in the larger exchanges, which tend to be in urban locations and therefore tend to have lower unit costs as urban locations tend to have a larger customer base to achieve economies of scale and shorter lines which tend to be less costly to maintain. Therefore, if the REO achieves a reasonable market share and scale, it should have a lower unit cost than Eircom, as Eircom also has a market share in rural locations which have a higher unit cost due to longer lines and lower overall customer numbers in those rural locations.
- 7.84 The consultation recognises that although the minimum price floors will minimise the risk of any margin (price) squeeze to WPNIA, it will also allow Eircom flexibility to price to the floors reflective of the lower costs in those urban areas. It was set out in that paper that Eircom may, for example, only price to these floors in certain discrete areas by, for example, only offering its 24Mb Bitstream Managed Backhaul product at the price floors as this product is only available in urban areas close to the exchange.
- 7.85 Furthermore, in Consultation Document 10/01, it has stated that if LLU take-up increases and LLU-based operators become a significant source of competition in Ireland, it may be appropriate to consider the price of LLU wholesale inputs as the appropriate wholesale cost in the net revenue test. For example, if the use of LLU Line Share increases significantly, it may be necessary to use the price of LLU Line Share plus its relevant costs (in effect the minimum price floors for WBA) as the wholesale input for broadband in the net revenue test. This could mean in effect that Eircom could use the price floor for bitstream as the input cost for LLU Line Share plus its relevant costs. This would give Eircom flexibility to offer cheaper bundles without the need to offer bitstream at the price floor. This will be re-consulted on shortly and its outcome and conclusion cannot be pre-empted at this stage.
- 7.86 Also, we believe that setting minimum price floors for bitstream rentals allows Eircom flexibility to offer promotions to the benefit of end-users as required.
- ComReg has reviewed Eircom's submission that the term "economic space" should not be defined by reference to "space" and that alternatively "difference" may be more appropriate. We have considered our approach in this matter and

²⁵⁷ Para 7.182 of ComReg Document. 08/104 which forms part of D05/10.

have accordingly deleted the reference to economic space from the Decision Instrument.

Subject to further consultation and D01/06 remains in effect

7.87 For the avoidance of doubt, the setting of the maximum price ceiling and minimum price floors range for WBA is currently subject to consultation and will be decided upon by separate decisions based on this SMP designation. Pending final decisions being made in relation to proposed price controls for WBA, prices charged by Eircom for access to, or use of, WBA products, services or facilities are subject to the existing price control obligations as set out in ComReg Decision D01/06.

Proposed remedies for Next Generation WBA

Summary of consultation proposals

7.88 In the Consultation, we proposed that it would be premature to specify NGA remedies at the level of detail which is feasible and appropriate for current generation WBA. However, there is a requirement for a set of regulatory principles which would address the immediate need for a transparent framework regarding the planning and introduction of NGA-based services, and further consultation would specify the implementation of obligations in greater detail.

7.89 The remedies which we proposed to impose at this stage of the review process are as follows:

Obligation to meet all reasonable requests from OAOs to provide access

7.90 At this point in time, a particular form of access was not mandated. The intention has been to ensure that reasonable requests for WBA over NGA infrastructure would be met where such infrastructure becomes available.

Obligation to negotiate in good faith

Obligation of non-discrimination

7.91 Obligation to apply equivalent conditions in equivalent circumstances, and to ensure that services and information are provided under the same conditions and of the same quality.

7.92 We considered it proportionate and justified that Eircom should be obliged not to discriminate in its supply of WBA over NGA infrastructure. For the avoidance of doubt, we further proposed to specify that such an obligation of non-discrimination would include access in relation to OSS. This was to ensure that operating support systems are designed so as to facilitate the migration of OAOs from current generation WBA to NGA-based access products.

7.93 Taking account of possible lead times for OAOs to submit a reasonable request for access and to develop, to market and to launch products based on such new WBA inputs, we considered that NGA-based WBA services and information should be provided to Access Seekers (that is, OAOs which have a contractual relationship with Eircom) at least six months prior to any corresponding Eircom service or facility being made available. At the same time, it is proposed to

maintain flexibility for ComReg to determine an alternative notice period where appropriate on a case-by-case basis.

- 7.94 ComReg has reviewed the text of paragraph 15.5 in the Consultation concerning the provision of information by Eircom to OAOs in a NG environment. ComReg has now amended this text to add greater clarity for all stakeholders and the detail of the specific obligation is now expressed for the avoidance of any doubt.

Obligation of transparency

- 7.95 Recognising the need for timely and sufficient information on Eircom's next generation network planning and for an effective migration of wholesale customers from current to next generation WBA services, we proposed that Eircom should immediately be required to provide information regarding its planning and development of NGA infrastructure, technologies, services or facilities which could be reasonably expected to support services and facilities in respect of Next Generation WBA.
- 7.96 In the interests of supporting sustainable competition, OAOs should be made fully aware of developments which may affect their planning and introduction of products and services based on Next Generation WBA inputs. We thus considered it proportionate and justified to oblige Eircom to regularly publish and update industry of its network plans and developments. This would involve Eircom publishing such network planning information on its publicly available website on a quarterly basis, or such other suitably regular basis as may be specified by ComReg, and to a sufficient level of detail which would allow OAOs to compete effectively.

Obligation of accounting separation

- 7.97 We proposed that Eircom should be obliged to maintain separated accounts in respect of WBA over NGA infrastructure.

Obligations relating to price control and cost accounting

- 7.98 We proposed that, as conditions of competition are likely to be similar in both a current generation and an NGA environment, the potential for price-related competition problems also arises in an NGA context. We therefore considered it proportionate and justified as part of the current market review for Eircom to be subject to a price control in respect of WBA services over NGA infrastructure and to be obliged to maintain appropriate cost accounting systems, in respect of Next Generation WBA services and facilities.
- 7.99 However, taking account of the current lack of certainty regarding the precise nature and timing of any material NGA investment and deployment and the particular products and services which would be offered over such infrastructure, we proposed that the detailed implementation and specification of such a price control obligation should be subject to further consultation.

Summary of responses

- 7.100 Respondents' views are dealt with in detail in the analysis section below, and can be summarised as follows.
- 7.101 BT considered that the same level of detail should be applied to NG remedies as to current generation obligations, except for a price control, where further consultation was required. In addition, BT proposed that a specific regulatory remedy of Equivalence of Inputs (EoI) should be imposed. Vodafone agreed with ComReg that, given the level of deployment, it was not appropriate to specify in detail the obligations of accounting separation, price control and cost accounting, but proposed that it was appropriate and necessary to specify in detail access, transparency and non-discrimination obligations. Both Magnet and Vodafone noted that OAOs are not involved in decisions made by Eircom regarding the sequencing of exchange upgrades, and both operators noted general concerns regarding their perception of Eircom's unilateral approach to planning. O2 was broadly supportive of our proposals, and added that Eircom should be encouraged to engage with industry in order to develop commercially negotiated access products.
- 7.102 Eircom proposed that there was no justification for ComReg to establish any regulation for wholesale NGA services due to the uncertainty surrounding implementation. Eircom expressed a view that the way in which obligations were framed gave little incentive for OAOs to compromise, and could result in a means of OAOs delaying Eircom bringing new products and services to the market. In addition, Eircom made a number of specific points concerning the need to take into account risks associated with investing in NGA. Eircom queried the proposed advance notification period for NGA-based WBA services, suggesting that Eircom's current approach is to work with industry to agree product information, so that the formal notification period can be relatively short, for example two months. Eircom proposed that a 6 month notification period is unreasonable. Further, Eircom does not believe it should be obliged to publish any commercially sensitive information on its plans and developments. In Eircom's view, such information should only be made available to WBARO Access Seekers who have signed a Non-Disclosure Agreement (NDA).

ComReg analysis and conclusions

- 7.103 Our overall approach notes that the conditions of competition are not expected to change appreciably where Eircom overlays or replicates its existing access network with fibre and NGA equipment, and so Eircom's SMP will prevail across current generation and next generation network infrastructure. Market failures have been provisionally identified in the WBA market, independently of whether the underlying access network is substantially copper or fibre based. We are therefore justified in addressing these issues by establishing a set of regulatory principles which will provide clarity and transparency to all stakeholders.
- 7.104 As Eircom has already announced an NGA pilot, we do not agree that it is premature to put in place a regulatory framework which will support the planning and introduction of NGA-based products and services. Our proposed

measures focus on the requirement to provide access on the basis of a reasonable request, and on the need to address behaviour in the market, such that Eircom cannot discriminate, and is obliged to provide information to OAOs which will assist in their efficient planning and eventual migration to NGA-based WBA.

7.105 NGA investment is still at a very early stage, and the uncertain nature of both its development and deployment raises complexities in specifying remedies in detail at this time. However, we are also conscious of the need to provide for certainty for all players in the market, particularly in the context of encouraging efficient investment, promoting competition and protecting end users. In considering concerns expressed by OAOs regarding the need for detailed obligations to be put in place now, and also in response to BT's proposal to introduce a specific regulatory remedy of Equivalence of Input, we reiterate the reasoning behind our incremental approach to developing NGA remedies. This approach has now been further underpinned with the publication of a parallel consultation²⁵⁸ seeking views on the specification of remedies, having regard to the European Commission's NGA Recommendation. In our view, it is appropriate to address the detailed issues raised by respondents in this parallel consultation, on the basis that the overall justification for our approach to WBA remedies in an NGA environment is established in this market review. This consultation will culminate with the specification of detailed final NGA remedies later in 2011.

7.106 In response to Eircom's specific point regarding the proposed advance notification period, we note that the European Commission has expressed the view that six months is a reasonable period, unless other effective safeguards are in place to ensure non-discrimination²⁵⁹. While agreeing with the Commission's approach, we have ensured greatest flexibility for the market by providing a case-by-case approach for the notification period to be varied. In our view, this sets out an overall structure and approach, while allowing for particular circumstances to be dealt with in an appropriate manner.

7.107 We have further considered Eircom's concern about publishing information on its plans. We maintain that Eircom should be obliged to make publicly available information about its NGA plans, as this transparency is essential to ensure that OAOs purchasing wholesale services from Eircom are aware of how such developments may impact on their own plans. However, where information is commercially sensitive, it is reasonable that such information should only be made available to OAOs which have signed a reasonable Non-Disclosure Agreement. In addition to publishing general information, Eircom should therefore publish non-commercially sensitive information and, on a case by case basis, details of the type of commercially sensitive information which will be made available to OAOs once they have signed an NDA. To this end, the NDA should also be published.

7.108 Finally, the above analysis and approach to remedies is in accordance with the "*procedure for the consistent application of remedies*" pursuant to the Framework Regulations. That is to say that the draft measure and remedies were

²⁵⁸ ComReg Document 11/40.

²⁵⁹ COMMISSION RECOMMENDATION of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), (2010/572/EU), 25.9.2010.

provided to the EC and other NRAs for comment and the EC reverted to confirm that ComReg could adopt the draft measures.

8 Decision Instrument

STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

- 1.1 This Decision Instrument (Decision Instrument) is made by the Commission for Communications Regulation (ComReg) and relates to the market for wholesale broadband access identified by the European Commission in its Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation²⁶⁰ and as defined by ComReg in the document entitled *Market Review: Wholesale Broadband Access, Decision No D06/11, Document No. 11/49*.
- i. Having had regard to sections 10 and 12 of the Communications Regulations Act, 2002²⁶¹ and Regulation 16 of the Framework Regulations²⁶² in particular;
 - ii. Having taken account of its functions under Regulation 6(1) of the Access Regulations²⁶³;
 - iii. Having, where appropriate, complied with the Policy Directions made by the Minister further to section 13 of the Communications Regulation Act 2002²⁶⁴;
 - iv. Having taken the utmost account of the European Commission's Recommendation of 17 December 2007, and of the European Commission Recommendation on regulated access to Next Generation Access Networks, and the European Commission's Guidelines on market analysis and the assessment of significant market power²⁶⁵;

²⁶⁰ European Commission Recommendation of 17 December, 2007 on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services – OJ L 344/65.

²⁶¹ Communications Regulation Act 2002, No. 20 of 2002, as amended by Communications Regulation (Amendment) Act 2007, No. 22 of 2007 and Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010, No. 2 of 2010 (the Communications Regulation Act 2002).

²⁶² S.I. No. 333 of 2011 the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 ("Framework Regulations") which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, as amended.

²⁶³ S.I. No. 334 of 2011 the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 ("Access Regulations") which transposes Directive 2002/19/EC of the European Parliament and the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities, as amended.

²⁶⁴ Policy Directions made by Dermot Ahern T.D. (the then) Minister for Communications, Marine and Natural Resources on 21 February, 2003 and 26 March, 2004.

²⁶⁵ European Commission Recommendation of 17 December, 2007 on Relevant Product and Service Market; European Commission Recommendation on regulated access to Next Generation Access Networks, 20 September 2010, (2010/572/EU); and

- v. Having had regard to the market definition, market analysis and reasoning conducted by ComReg in the Consultation *Market Review: Wholesale Broadband Access (Market 5)*²⁶⁶;
- vi. Having taken account of the submissions received in relation to *Market Review: Wholesale Broadband Access (Market 5)*;
- vii. Having consulted with the Competition Authority further to Regulation 27 of the Framework Regulations;
- viii. Having notified the draft measure imposing significant market power to the European Commission, further to the Framework Regulations whereby it was also made accessible to national regulatory authorities (NRAs) in other EU Member States, and having taken utmost account of the European Commission's response²⁶⁷ and the European Commission having informed ComReg that ComReg could adopt the resulting measure pursuant to Article 7 (5) of the Framework directive;
- vii. Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 8, 9, 10, 11, 12, and 13 of the Access Regulations.

1.2 The provisions of Consultation document 10/81, and Response to Consultation and Final Decision D06/11, document 11/49 shall, where it is appropriate, be construed with this Decision Instrument.

PART I - GENERAL PROVISIONS (SECTIONS 2 TO 5 OF THE DECISION INSTRUMENT)

2 DEFINITIONS AND INTERPRETATION

In this Decision Instrument:

“Access” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time; for the purposes of this Decision Instrument access shall include Associated Facilities and Interconnection where appropriate;

“Access Regulations” means the European Communities (Electronic Communications and Network Services) (Access) Regulations, 2011 (S.I. No. 334 of 2011), as may be amended from time to time;

European Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services of 11 July 2002 – OJ C 165/03.

²⁶⁶ ComReg “Wholesale Broadband Access (Market 5)”, Document 10/81, 1 October 2010.

²⁶⁷ Commission decision concerning case IE/2011/1207: Wholesale broadband access in Ireland.

“Access Seeker” means an Other Authorised Operator that is party to the Bitstream Access Reference Offer or Wholesale Broadband Access Reference Offer, or, although has not yet accepted the Bitstream Access Reference Offer or Wholesale Broadband Access Reference Offer, has entered into a reasonable Non-Disclosure Agreement with Eircom.

“Associated Facilities” shall have the same meaning as under the Framework Regulations, but shall also include, for the avoidance of doubt, Backhaul and Migrations;

“Authorisation Regulations” means the European Communities (Electronic Communications and Network Services) (Authorisation) Regulations, 2011 (S.I. No. 335 of 2011), as may be amended from time to time;

“Backhaul” means the transport capacity which connects the Eircom network and the Other Authorised Operator’s nominated Point of Handover. For example, this includes, but is not limited to, BECS/BCS;

“Bitstream” means a wholesale product provided in the wholesale broadband access market;

“Bitstream Access Reference Offer (BARO)” means the current offer of contract by Eircom Limited to Other Authorised Operators in relation to Current Generation WBA in place at the time of this Decision coming into force, but which shall be replaced by the WBARO. For the avoidance of doubt, however, to the extent that there is any conflict between the WBARO or the BARO, and Eircom’s obligations now set out herein, it is the latter which shall prevail;

“Bitstream (Ethernet) Connection Service (BECS)” means a Backhaul service currently offered by Eircom over Ethernet interconnects/interfaces;

“Bitstream Connection Service (BCS)” means a Backhaul service currently offered by Eircom over leased line PDH/SDH interconnects/interfaces;

“ComReg” means the Commission for Communications Regulation, established under section 6 of the Communications Regulation Act, 2002 as amended by the Communications Regulation (Amendment) Act 2007; and, Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010, No. 2 of 2010 (the Communications Regulation Act 2002).

“Direct Access Wholesale Product” means a wholesale product supplied by Eircom which allows an Other Authorised Operator to use it as an input to the Other Authorised Operator’s retail or wholesale offering. The wholesale product is described as direct access as it allows the Other Authorised Operator to connect its network equipment, co-located in Eircom’s exchange, to the segment of the access network which connects the Other Authorised Operator’s customer to the exchange, such as a copper pair. This allows the Other Authorised Operator to create a retail or wholesale offering by providing services directly from the Other Authorised Operator’s network equipment across the access network segment to the customer. Direct Access Wholesale Products include ULMP and Line Share.

“Eircom” means Eircom Limited and its subsidiaries, and any undertaking which it owns or controls and any undertaking which owns or controls Eircom Limited, and its successors and assigns (“Eircom”);

“Exchange” means an Eircom network premises or equivalent facility used to house network and associated equipment;

“Framework Regulations” means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011, (S.I. No. 333 of 2011), as may be amended from time to time;

“In-Building Handover” means the connection from the Eircom network to the Other Authorised Operator’s equipment within the Eircom Exchange, or equivalent facility;

“In-Span Handover” means the connection between the Eircom Exchange and the Other Authorised Operator’s nominated Point of Handover.

“Indirect Access Wholesale Product” means a wholesale product supplied by Eircom which allows an Other Authorised Operator to use it as an input to the Other Authorised Operator’s retail offering. The wholesale product consists of both access network components combined with other network services, in particular, interconnect services, provided by Eircom. The product is described as an indirect access product because it enables Other Authorised Operators to create a retail offering in order to provide retail services to their customers based on wholesale services provided from Eircom’s equipment on Eircom’s network. Indirect Access Wholesale Products include, inter alia, WBA products and services.

“Interconnection” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time;

“Key Performance Indicators (KPIs)” means a measure(s) of the standard(s) of Current Generation WBA provided by Eircom to Other Authorised Operators and by Eircom to itself through self-supply;

“Line Share” also known as shared access to the Local Loop means the product whereby the high frequency capacity of a line is provided to Other Authorised Operators, as more fully described in Annex D, Service Schedule 103 Appendix 1 to Eircom’s Access Reference Offer, as may be amended from time to time;

“Local Loop” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time;

“(the) Market” means the market as defined in section 4 below;

“Migrations” means Bulk Migrations; and/or Inter Operator Migrations; and/or Intra Operator Migrations. For the avoidance of doubt, both Intra Operator and Inter Operator Migrations include migrations between Current Generation WBA services and migrations from Current Generation WBA to Next Generation WBA services.

“(Bulk) Migration” means the facility whereby an Other Authorised Operator can have multiple Inter Operator and/or Intra Operator Migrations through a single request. For the avoidance of doubt, Bulk Migrations includes Migrations from Current Generation to Next Generation WBA products;

“(Intra Operator) Migration” is the facility whereby an Other Authorised Operator can switch the wholesale input(s) it is currently using to support the provision of its retail service to its retail customer. As a result of the switch, the retail customer’s service continues to be provided by the same Other Authorised Operator. The wholesale inputs can be switched to or from any combination of Direct Access Wholesale Products and Indirect Access Wholesale Products.

“(Inter Operator) Migration” is the facility whereby the Other Authorised Operator gaining the retail customer can switch the wholesale input(s) currently being used by the losing Other Authorised Operator to support its retail service to the same retail customer. As a result of the switch, the retail customer’s service will now be provided by the gaining Other Authorised Operator. The wholesale inputs can be switched to or from any combination of Direct Access Wholesale Products and Indirect Access Wholesale Products.

“Non-Disclosure Agreement” means the reasonable non-disclosure agreement entered into between Eircom and an Access Seeker;

“Other Authorised Operator(s) (OAO)” means an undertaking that is not Eircom, providing an electronic communications network or an electronic communications service authorised under Regulation 4 of the Authorisation Regulations;

“OSS” means operational support systems;

“Performance Metrics” means the aggregate performance levels achieved by Eircom within a specified period, as calculated in accordance with the methodology and service parameter definitions set out in its Service Level Agreements;

“Plesiochronous Digital Hierarchy (PDH)” is a digital transmission scheme whereby small deviations in timing across a network are permitted;

“Point of Handover” means the physical point at which two networks are interconnected;

“Service Level Agreements (SLAs)” are legally binding contracts between Eircom and Other Authorised Operators in relation to the service levels which Eircom commits to from time to time, as more particularly set out in the Wholesale Broadband Access Reference Offer. For the avoidance of doubt, however, to the extent that there is any conflict between the Wholesale Broadband Access Reference Offer, the SLAs and Eircom’s obligations now set out herein, it is the latter which shall prevail;

“Significant Market Power (SMP) obligations” are those obligations set out in Regulation 8 to 13 of the Access Regulations, as may be amended from time to time;

“Synchronous Digital Hierarchy (SDH)” is a digital transmission scheme where the timing of the network is strictly adhered to across the entire network. It is more efficient than the PDH hierarchy;

“Unbundled Local Metallic Path (ULMP)” is the implementation of full unbundled access to the Local Loop;

“Undertaking” shall have the same meaning as under the Framework Regulations;

“WBA” means wholesale broadband access comprising non-physical or virtual network access including “Bitstream” access at a fixed location. It includes Current Generation WBA and Next Generation WBA and is synonymous with the Market;

“(Current Generation) WBA” means WBA provided over current generation access network infrastructure and its Associated Facilities (including self-supply by Eircom for the purpose of serving its downstream markets) that is substantially copper based;

“(Next Generation) WBA (NGA)” means WBA provided over next generation access network infrastructure and its Associated Facilities (including self-supply by Eircom for the purpose of serving its downstream markets) that is based on new or upgraded infrastructure, including (but not limited to) fibre and/or a combination of copper and fibre access technology, capable of supporting broadband access services with enhanced characteristics compared to current generation access infrastructure;

“Wholesale Broadband Access Reference Offer (WBARO)” is the offer of contract by Eircom Limited to Other Authorised Operators in relation to Current Generation WBA (currently the Bitstream Access Reference Offer (BARO) version 1.0). The conclusion of a WBARO will replace the existing BARO until a WBARO is concluded, the BARO will prevail. For the avoidance of doubt, however, to the extent that there is any conflict between the WBARO or the BARO, and Eircom’s obligations now set out herein, it is the latter which shall prevail.

3 SCOPE AND APPLICATION

- 3.1 This Decision Instrument applies to Eircom in respect of activities falling within the scope of the Market defined in section 4 of this Decision Instrument.
- 3.2 This Decision Instrument is binding upon Eircom and Eircom shall comply with it in all respects.

4 MARKET DEFINITION

- 4.1 Pursuant to Regulation 26 of the Framework Regulations, taking the utmost account of the European Commission’s Recommendation, and taking utmost account of its Guidelines on market analysis and the assessment of significant

market power and in accordance with the principles of competition law, the product market in this Decision Instrument is defined as the market for Wholesale Broadband Access;

- 4.2 Pursuant to Regulation 26 of the Framework Regulations, taking the utmost account of the European Commission's Guidelines on market analysis and the assessment of significant market power and the European Commission's Explanatory Note²⁶⁸ and in accordance with the principles of competition law, the relevant geographic market is defined as Ireland.

5 DESIGNATION OF UNDERTAKING WITH SIGNIFICANT MARKET POWER ("SMP")

- 5.1 Pursuant to Regulation 25 and Regulation 27 of the Framework Regulations and consistent with the European Commission's Guidelines on market analysis and the assessment of significant market power, having determined that the market is not effectively competitive, Eircom is designated as having SMP on the Market.

PART II – SMP OBLIGATIONS IN RELATION TO CURRENT GENERATION WBA (SECTIONS 6 TO 12 OF THE DECISION INSTRUMENT)

6 SMP OBLIGATIONS IN RELATION TO CURRENT GENERATION WBA

- 6.1 ComReg is imposing certain SMP obligations on Eircom in respect of Current Generation WBA in the Market in accordance with and pursuant to Regulations 8, 9, 10, 11, 12, and 13 of the Access Regulations, as detailed further in sections 7 to 12 below.

7 OBLIGATIONS TO PROVIDE ACCESS

- 7.1 Pursuant to Regulation 12 (1) of the Access Regulations, Eircom shall meet all reasonable requests from OAOs for the provision of Access, including Associated Facilities.
- 7.2 Pursuant to Regulation 12 (2) of the Access Regulations and without prejudice to the generality of section 7.1, and notwithstanding the provisions of sections 7.3 and 7.4, Eircom shall provide and grant Access to OAOs to the following particular services and facilities:
- (i) Bitstream;
 - (ii) Backhaul;
 - (iii) In-building handover;

²⁶⁸ Commission Staff Working Document Explanatory Note accompanying document to the European Commission's Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation SEC (2007) 1483/2, 13 November 2007.

- (iv) In-span handover; and
- (v) Migrations.

7.3 Eircom shall continue to offer Access to the services and facilities described in section 7 in accordance with any product descriptions and on the terms and conditions which are specified in the current version of the BARO, or elsewhere on Eircom's website as may be amended from time to time. The conclusion of a WBARO, to be published in accordance with section 10.2 below, will replace the existing BARO until a WBARO is concluded, the BARO will prevail. For the avoidance of doubt, however, to the extent that there is any conflict between the BARO or the WBARO, to be published in accordance with section 10.2 below and Eircom's obligations now set out herein, it is the latter which shall prevail.

- 7.4 Without prejudice to the generality of sections 7.1 to 7.3, Eircom shall:
- (i) Pursuant to Regulation 12 (2) (b) of the Access Regulations, negotiate in good faith with OAOs requesting Access;
 - (ii) Pursuant to Regulation 12 (2) (c) of the Access Regulations, not withdraw Access to services and facilities already granted, without the prior approval of ComReg;
 - (iii) Pursuant to Regulation 12 (2) (e) of the Access Regulations, grant open Access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services; and
 - (iv) Pursuant to Regulation 12 (2) (h) of the Access Regulations, provide Access to OSS or similar software systems necessary to ensure fair competition in the provision of services.

8 CONDITIONS ATTACHED TO THE ACCESS OBLIGATIONS

8.1 Without prejudice to the generality of section 7, Eircom shall, in relation to the obligations set out under section 7, grant Access to Current Generation WBA and Associated Facilities, pursuant to Regulation 12 (3) of the Access Regulations in a fair, reasonable and timely manner.

- 8.2 Without prejudice to the generality of section 8.1, Eircom shall:
- (i) Conclude, maintain or update, as appropriate, legally binding SLAs which include provision for associated Performance Metrics with OAOs;
 - (ii) Negotiate in good faith with OAOs in relation to the conclusion of legally binding and fit-for-purpose SLAs;
 - (iii) Ensure that all SLAs include provision for service credits arising from a breach of an SLA. Agreed service credits shall be a matter of negotiation between Eircom and Access Seekers and recovery of service credits

shall be in the first instance, a matter for the individual Access Seeker and Eircom;

- (iv) Ensure that SLAs detail how service credits are calculated, to include the provision of an example calculation;
 - (v) Ensure that payment of service credits, where they occur, shall be made in a timely and efficient manner.
- 8.3 Where a request for provision of Access, or a request for provision of information is refused or met only in part, Eircom shall provide the objective criteria for refusing same to the OAO which made the request. Eircom's response shall be fair, reasonable and timely.

9 OBLIGATION OF NON-DISCRIMINATION

- 9.1 Eircom shall have an obligation of non-discrimination as provided for by Regulation 10 of the Access Regulations in respect of Access.
- 9.2 Without prejudice to the generality of section 9.1, Eircom shall:
- i. Apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
 - ii. Ensure that all services and information are provided to other undertakings under the same conditions and of the same quality as the services and information that Eircom provides for or to itself or its subsidiaries or partners.
- 9.3 In particular in order that Access Seekers may be in the same position as Eircom or its subsidiaries or partners with respect to the provision of services and information, such services or information shall be provided in sufficient time, that is, the earlier of:
- a) at the same time as the service(s) or information is available by Eircom for or to itself or its subsidiaries or partners; or
 - b) unless otherwise determined by ComReg, at least two months prior to any Eircom retail service or facility, which relies on the provision of the service(s) or information, being made available by Eircom on the retail or downstream market.
- 9.4 Without prejudice to the generality of Section 9.1, Access to OSS (including the ability to input data to OSS, time taken by Eircom to process requests via OSS, quality and completeness of output from OSS, and ease of OSS use) and information regarding OSS shall as is necessary to ensure fair competition in the provision of services, be of the same standard and quality as that which Eircom provides for itself or its partners.

- 9.5 For the avoidance of any doubt, the obligations set out at this Section 9 apply irrespective of whether or not a specific request for services or information has been made.

10. OBLIGATION OF TRANSPARENCY

- 10.1 Eircom shall have an obligation of transparency as provided for by Regulation 9 of the Access Regulations in respect of Access.
- 10.2 Without prejudice to the generality of the obligation in section 10.1, pursuant to Regulation 9 (2) of the Access Regulations, Eircom shall make publicly available and keep updated on its publicly available wholesale website, a WBARO. The WBARO, which will replace the BARO, shall be comprehensive and appropriately detailed. It shall be published within three months from the effective date of this Decision Instrument. The WBARO shall be sufficiently unbundled so as to ensure that OAOs availing of such services and facilities are not required to pay for services or facilities which are not necessary for the service or facility requested, and the WBARO shall include at least the following:
- (i) A description of the relevant offerings broken down into components according to market needs;
 - (ii) A description of the technical specifications and network characteristics of the Access being offered;
 - (iii) A description of the associated terms and conditions for supply and use, including prices.
- 10.3 Eircom shall, unless otherwise determined by ComReg, make publicly available and publish on its publicly available website at least two months in advance, or such other period as may be determined by ComReg, any proposed changes to the WBARO and any proposed changes to wholesale prices (including prices for new services and facilities) coming into effect. Eircom shall notify ComReg at least one month in advance of any such publication taking place i.e. three months prior to any changes coming into effect, unless such other period has been determined by ComReg, as described above. Proposed changes to the WBARO including proposed changes to wholesale prices and the application of such prices shall not be implemented without prior notification to ComReg and OAOs and prior approval from ComReg.
- 10.4 ComReg may issue directions requiring Eircom to make changes to the WBARO to give effect to obligations imposed in this Decision Instrument and to publish the WBARO with such changes pursuant to Regulation 9(3) of the Access Regulations. ComReg may issue directions to Eircom from time to time requiring it to publish information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use and prices, pursuant to Regulation 18 of the Access Regulations.

- 10.5 Without prejudice to the generality of the obligation in section 10.1, Eircom shall make public information on its wholesale website, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices, in respect of the services and facilities referred to in section 7, as specified by ComReg from time to time and all other information which may be reasonably required by OAOs.
- 10.6 Eircom shall publish Key Performance Indicators (KPIs). The specification of the content of the KPIs is set out in ComReg Decision D05/11 *“Introduction of Key Performance Indicators for Regulated Markets”*, ComReg Document 11/45, dated 29th June 2011 (and as may be amended from time to time).
- 10.7 Eircom shall publish all SLAs (and any updates thereto) on its publicly available website.
- 10.8 Eircom shall be obliged to publish on its publicly available website information about Performance Metrics together with the KPIs.
- 10.9 Pursuant to its obligation of transparency, Eircom shall, within four months of the effective date, publish on its website sufficient information to identify and justify any differences between the services and facilities set out in the WBARO and the comparable services and facilities which Eircom provides to itself. The information shall include all material associated terms and conditions, including relevant processes, and shall be kept updated by Eircom as new services or facilities are developed and deployed, or existing services or facilities are amended.

11 OBLIGATION OF ACCOUNTING SEPARATION

- 11.1 Pursuant to Regulation 11 of the Access Regulations, Eircom shall have an obligation to maintain separated accounts. All of the obligations in relation to accounting separation applying to Eircom and in force immediately prior to the effective date of this Decision Instrument related to the Market, shall be maintained in their entirety. Eircom shall comply with all of those obligations, and in particular those obligations set out in ComReg Decision D08/10, *“Response to Consultation Document and Final Direction and Decision, Accounting Separation and Cost Accounting Review to Eircom Limited”* and any other decision or directions which may be issued by ComReg from time to time.

12 OBLIGATIONS RELATING TO PRICE CONTROL AND COST ACCOUNTING

- 12.1 Pursuant to Regulation 13 (1) of the Access Regulations, Eircom shall continue to comply with all of the obligations in relation to cost accounting in force immediately prior to the effective date of this Decision Instrument, until any amendment by ComReg.

- 12.2 Pursuant to Regulation 13 (1) of the Access Regulations, Eircom shall maintain appropriate cost accounting systems in respect of products, services or facilities referred to in section 7.
- 12.3 Pursuant to Regulation 13 (1) of the Access Regulations, Eircom shall have an obligation relating to price control and cost accounting. Prices charged by Eircom to any other undertaking for Access to or use of those products, services or facilities referred to in section 7 shall be subject to the existing obligations as set out in ComReg Decision D01/06 (*Retail Minus Wholesale Price Control for the WBA Market*) dated 13th January 2006 (ComReg Decision D01/06) and any other obligations applying to Eircom in force immediately prior to the effective date of this Decision Instrument. These obligations shall be maintained in their entirety pending any other decisions or directions in relation to the appropriate price control being made by ComReg.
- 12.4 Eircom shall have an obligation not to cause a margin/price squeeze.

PART III – SMP OBLIGATIONS IN RELATION TO NEXT GENERATION WBA (SECTIONS 13 TO 18 OF THE DECISION INSTRUMENT)

13 SMP OBLIGATIONS IN RELATION TO NEXT GENERATION WBA

- 13.1 ComReg is imposing certain SMP obligations on Eircom in respect of Next Generation WBA in the Market in accordance with and pursuant to Regulations 8, 9, 10, 11, 12, and 13 of the Access Regulations. ComReg will consult further on the detail of certain of the remedies contained in Sections 14, 15, 16, 17 and 18 of this Decision Instrument.

14 OBLIGATIONS TO PROVIDE ACCESS

- 14.1 Pursuant to Regulation 12 (1) of the Access Regulations, Eircom shall have an obligation to meet all reasonable requests from OAOs to provide Access.
- 14.2 Pursuant to Regulation 12 (2) (b) of the Access Regulations, Eircom shall have an obligation to negotiate in good faith with OAOs requesting Access.
- 14.3 ComReg shall engage in a consultation to further specify other details and further implementation of the Access obligations.

15 OBLIGATIONS OF NON-DISCRIMINATION

- 15.1 Eircom shall have an obligation of non-discrimination as provided for by Regulation 10 of the Access Regulations in respect of Access, including for the avoidance of doubt Access in relation to OSS.
- 15.2 Without prejudice to the generality of section 15.1, Eircom shall:

- (i) Apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
 - (ii) Ensure that all services and information are provided to undertakings under the same conditions and of the same quality as the services and information that Eircom provides for or to itself or its subsidiaries or partners.
- 15.3 In particular in order that Access Seekers may be in the same position as Eircom or its subsidiaries or partners with respect to the provision of NGA-based services and information which Eircom provides for or to itself, such services and information shall be provided by Eircom to Access Seekers in sufficient time, that is at least 6 months or as determined by ComReg, prior to any Eircom service or facility, which relies on the provision of the NGA-based WBA service(s) or information, being made available.
- 15.4 ComReg shall engage in a consultation to further specify other details and further implementation of the non-discrimination obligation.
- 15.5 For the avoidance of any doubt, the obligations set out at this Section 15 apply irrespective of whether or not a specific request for services or information has been made.

16 OBLIGATION OF TRANSPARENCY

- 16.1 Eircom shall have an obligation of transparency as provided for by Regulation 9 of the Access Regulations in respect of Access.
- 16.2 Notwithstanding the provisions of 16.3 and in order to meet its transparency obligation, Eircom shall, on a quarterly basis or such other suitably regular basis as may be specified by ComReg, make publically available sufficient information regarding the introduction of new infrastructures, technologies, services or facilities which could reasonably be expected to support services or facilities in respect of Next Generation WBA. Without prejudice to the foregoing, where such information to be provided is of a commercially sensitive nature, Eircom is obliged to publish details, on a case by case basis, identifying the category and a description of such information which will be made available to OAOs upon the signing of a reasonable Non-Disclosure Agreement (NDA). The NDA shall also be published by Eircom.
- 16.3 ComReg shall engage in a consultation to further specify other details and further implementation of the transparency obligation.

17 OBLIGATION OF ACCOUNTING SEPARATION

- 17.1 Pursuant to Regulation 11 of the Access Regulations, Eircom shall have an obligation to maintain separated accounts. All of the obligations in relation to accounting separation applying to Eircom and in force immediately prior to the effective date of this Decision Instrument related to the Market, shall be maintained in their entirety. Eircom shall comply with all of those obligations, and in particular those obligations are now more particularly set out in ComReg Decision 10/67 “*Response to Consultation Document and Final Direction and Decision, Accounting Separation and Cost Accounting Review to Eircom Limited*”, and any other decision or directions which made be issued by ComReg from time to time.

18 OBLIGATIONS RELATING TO PRICE CONTROL AND COST ACCOUNTING

- 18.1 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall be subject to a price control obligation. The content and implementation of the price control for Next Generation WBA shall be subject to further consultation.
- 18.2 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall continue to comply with all of the obligations in relation to cost accounting in force immediately prior to the effective date of this Decision Instrument, until any amendment by ComReg.
- 18.3 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall maintain appropriate cost accounting systems in respect of Next Generation WBA services and facilities.

PART IV – OBLIGATIONS AND EFFECTIVE DATE (SECTIONS 19 TO 22 OF THE DECISION INSTRUMENT)

19 STATUTORY POWERS NOT AFFECTED

- 19.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it under any primary or secondary legislation (in force prior to or after the effective date of this Decision Instrument) from time to time as the occasion requires.

20 MAINTENANCE OF OBLIGATIONS

- 20.1 Unless expressly stated otherwise in this Decision, all obligations and requirements contained in Decision Notices and Directions made by ComReg applying to Eircom and in force immediately prior to the effective date of this Decision Instrument, are continued in force by this Decision Instrument and Eircom shall comply with same.

- 20.2 If any section, clause or provision or portion thereof contained in this Decision Instrument is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that section, clause or provision or portion thereof shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining section(s), clause(s) or provision(s) or portion thereof of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument.

21 WITHDRAWAL OF SMP OBLIGATIONS

- 21.1 ComReg Document No. D05/11r Market Analysis – Wholesale Broadband Access, Decision No. 03/05 is hereby withdrawn when this Decision shall take effect.

22 EFFECTIVE DATE

- 22.1 The effective date of this Decision Instrument shall be the date of its notification to Eircom and shall remain in force until further notice by ComReg.

**ALEX CHISHOLM
CHAIRPERSON AND COMMISSIONER
THE COMMISSION FOR COMMUNICATIONS REGULATION
THE 08 DAY OF JULY 2011**

Annex A: The regulatory framework for market reviews

- 1.1 This market review is being undertaken by ComReg in accordance with the obligation that National Regulatory Authorities (NRAs) should analyse the WBA market as soon as possible after the adoption of the Recommendation or any updating thereof.²⁶⁹ Regulation 26 of the Framework Regulations²⁷⁰ requires that ComReg, taking utmost account of the Recommendation and of the SMP Guidelines, defines relevant markets appropriate to national circumstances, in accordance with the market definition procedure outlined in the Framework Regulations.
- 1.2 The European Commission refers to the WBA market as follows:
“This market comprises non-physical or virtual network access including ‘bit-stream’ access at a fixed location. This market is situated downstream from the physical access covered by market 4²⁷¹ listed above, in that wholesale broadband access can be constructed using this input combined with other elements.”²⁷²
- 1.3 Having regard to Regulation 25 of the Framework Regulations, where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations, that a given market identified in accordance with Regulation 26 of the Framework Regulations is not effectively competitive, ComReg is obliged under Regulation 27(4) of the Framework Regulations to designate an undertaking(s) with significant market power (SMP) in that market and impose on such undertaking(s) such specific obligations as it considers appropriate.
- 1.4 Where an operator is designated as having SMP in a relevant market, ComReg is obliged, under Regulation 8(1) of the Access Regulations, to impose on such an operator some of the wholesale obligations set out in Regulations 9 to 13 of the Access Regulations.²⁷³
- 1.5 In preparing this Response to Consultation Paper, ComReg has taken account of its functions and objectives under the Communications Regulation Act 2002²⁷⁴ and Regulation 16 of the Framework Regulations in particular, in addition to other requirements under the Framework Regulations and the

²⁶⁹ Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, (the Framework Directive), OJ 2002 L 108/33, 16(1), as amended.

²⁷⁰ The European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011(S.I. No. 333 of 2011), (the Framework Regulations).

²⁷¹ Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location (WPNIA).

²⁷² The Recommendation, point 5 of Annex.

²⁷³ European Communities (Electronic Communications) Access Regulations 2011 (S.I. No. of 2011) (the Access Regulations). The SMP Guidelines also state at paragraph 17 that “NRAs must impose at least one regulatory obligation on an undertaking that has been designated as having SMP”.

²⁷⁴ Communications Regulation Act 2002, No. 20 of 2002, as amended by Communications Regulation (Amendment) Act 2007, No. 22 of 2007 and Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010, No. 2 of 2010 (the Communications Regulation Act 2002).

Access Regulations. ComReg has taken the utmost account of the European Commission's Recommendation and its accompanying Explanatory Note on relevant product and service markets within the electronic communications sector,²⁷⁵ as well as the SMP Guidelines, and its Recommendation on NGN²⁷⁶. ComReg has further taken account of the European Commission's Notice on the definition of relevant market for the purposes of Community competition law.²⁷⁷

Previous review of the market for WBA

- 1.6 On 5 March 2004, ComReg published a national Consultation on WBA.²⁷⁸ The Response to Consultation and Draft Decision was notified to the European Commission and published on 29 July 2004.²⁷⁹ The Decision Notice regarding the analysis of the WBA market (the Decision Notice) was published on 24 February 2005.²⁸⁰
- 1.7 In the previous review, ComReg defined a market for WBA which included wholesale broadband access via cable, Fixed Wireless Access (FWA) and Asymmetric Digital Subscriber Line (ADSL).²⁸¹ In relation to the inclusion of cable and FWA, this was based on the perceived presence of an indirect competitive constraint resulting from demand substitution at the retail level. The market included self-supply on all platforms. With the inclusion of FWA and cable in the WBA product market, Eircom's market share was measured at 85%. There was judged to be no significant competitive pressure on Eircom in the WBA market to constrain it from acting independently of its competitors, customers and ultimately consumers.²⁸² Eircom was therefore designated as holding a position of SMP.
- 1.8 ComReg imposed a full suite of remedies under the Decision Notice in relation to access, transparency, non-discrimination, price control, accounting separation and cost accounting. As a consequence, Eircom is currently required to provide access to WBA products and associated facilities in accordance with these remedies.

²⁷⁵ Commission Staff Working Document, Explanatory Note, Accompanying document to the Recommendation, SEC(2007) 1483, dated 13/11/2007 (the Explanatory Note).

²⁷⁶ European Commission Recommendation on regulated access to Next Generation Access Networks, 20 September 2010, (2010/572/EU).

²⁷⁷ European Commission, Notice on the Definition of Relevant Market for the Purposes of Community Competition Law, OJ [1997] C372/5 (Commission Notice on Market Definition).

²⁷⁸ ComReg, "Market Analysis: Wholesale Broadband Access", Document 04/25, 5 March 2004.

²⁷⁹ ComReg, "Market Analysis: Wholesale Broadband Access: Response to Consultation Document 04/25 and Draft Decision", Document 04/83, 29 July 2004.

²⁸⁰ ComReg, "Market Analysis: Wholesale Broadband Access", Document 05/11r (amended), Decision 03/05, 24 February 2005.

²⁸¹ DSL refers to Digital Subscriber Line (DSL) technologies which use traditional copper telephony networks to deliver digital broadband signals.

²⁸² According to the test set out in the SMP Guidelines, paragraph 34.

- 1.9 A subsequent Consultation on the WBA price control was launched on 19 August 2005,²⁸³ and the Draft Direction was published on 23 November 2005.²⁸⁴ A Decision Notice on a “Retail minus wholesale price control for the WBA market” was published on 13 January 2006.²⁸⁵ Since the completion of the original (first-round) market review in 2005 and as the WBA market is no longer in the early stages of development, ComReg and Eircom have held discussions about a possible move from the current price control remedy, which is based on a ‘retail minus’ approach (imposed as part of Decision Notice D1/06, ComReg Document 06/01), to cost orientation based on a ‘cost plus’ model. ComReg is of the preliminary view that it may be appropriate at this time to consider a cost-oriented price control for WBA. Therefore, over the past year, ComReg has requested data from Eircom and Other Authorised Operators (OAOs) to develop a draft ‘cost plus’ price control model which will form the basis for a wider Consultation with industry and other stakeholders on the appropriate price control for WBA. This price control Consultation is taking place in parallel with the Consultation process in relation to this WBA market analysis review²⁸⁶.

²⁸³ ComReg, “Consultation on Retail Minus Wholesale Price Control for the WBA market”, Document 05/67, 19 August 2005.

²⁸⁴ ComReg, “Response to Consultation and draft direction on retail minus wholesale price control for the WBA market”, Document 05/88, 23 November 2005.

²⁸⁵ ComReg, “Retail minus wholesale price control for the WBA market”, Document 06/01, Decision D01/06, 13 January 2006.

²⁸⁶ ComReg, “Wholesale Broadband Access: Consultation and draft decision on the appropriate price control”, Document 10/56, 15 July 2010, also Document 10/108, 22 December 2010.

Annex B: Regulatory Impact Assessment

Summary of Consultation proposals

- 1.1 In proposing appropriate remedies for the WBA market, we have taken account of obligations under Regulation 8(6) of the Access Regulations, as well as relevant objectives as set out under section 12 of the Communications Regulation Act 2002 and Regulation 16 of the Framework Regulations in particular. In choosing remedies ComReg is obliged, pursuant to Regulation 8(6) of the Access Regulations, to ensure that they are:
- based on the nature of the problem identified;
 - proportionate and justified in the light of the objectives laid down in section 12 of the Communications Regulation Act 2002 and Regulation 16 of the Framework Regulations in particular; and
 - only imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations.
- 1.2 The strategic objectives of ComReg, in support of its functions, are set out in Section 12 of the Communications Regulation Act 2002²⁸⁷ and Regulation 16 of the Framework Regulations in particular²⁸⁸.
- 1.3 Our approach to RIA follows the Guidelines published by ComReg in August 2007²⁸⁹ and takes into account the Government's Better Regulation programme²⁹⁰ and international best practice. The assessment had regard to Ministerial Policy Direction 6.²⁹¹
- 1.4 In the Consultation, we carried out an initial definition of the relevant market, followed by a competition and SMP analysis of that market. We then considered, on the basis of a preliminary SMP finding, the potential for competition problems to arise over the review period. Taking account of these potential market failures, we considered appropriate regulatory options through conducting a RIA, following which it proposed a suite of remedies.

²⁸⁷ Communications Regulation Act 2002, No. 20 of 2002, as amended by Communications Regulation (Amendment) Act 2007, No. 22 of 2007 and Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010, No. 2 of 2010 (the Communications Regulation Act 2002), the "Act".

²⁸⁸ The European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011), (the Framework Regulations).

²⁸⁹ ComReg, "Guidelines on ComReg's Approach to Regulatory Impact Assessment", Document 07/56a, 10 August 2007.

²⁹⁰ Department of the Taoiseach, "Regulating Better", January 2004. See also "Revised RIA GUIDELINES: How to conduct a Regulatory Impact Analysis", June 2009, http://www.betterregulation.ie/eng/Publications/Revised_RIA_Guidelines.pdf

²⁹¹ Policy Directions made by Dermot Ahern T.D. (the then) Minister for Communications, Marine and Natural Resources on 21 February, 2003 and 26 March, 2004 which provide that "*The Commission, before deciding to impose regulatory obligations on undertakings in the market for electronic communications or for the purposes of the management and use of the radio frequency spectrum or for the purposes of the regulation of the postal sector, shall conduct a Regulatory Impact Assessment in accordance with European and International best practice and otherwise in accordance with measures that may be adopted under the Government's Better Regulation programme.*"

- 1.5 Taking account, in particular, of the revised approach outlined in the Government's Guidelines on Regulating Better, we considered in the Consultation that, in a market which is already regulated, the focus should be on answering the following:
- Is regulation still necessary in this market?
 - Does current regulation achieve its objectives as simply as possible?
 - Are changes to regulation required?
 - What are the impacts of proposed changes?
- 1.6 In order to assess the efficacy of existing regulation, and to consider prospective regulation, we included specific questions on this topic in data requests to industry. This allowed industry views to be taken into account as part of the process of analysing regulation in the WBA market and in considering regulatory options.

Is regulation still necessary in this market?²⁹²

- 1.7 We noted that this is a second-round market review, and that regulatory remedies were put in place following the previous (first-round) market review.²⁹³
- 1.8 Our analysis of the retail broadband market indicated that, in the presence of wholesale regulation, the overall market for retail broadband has grown since the previous review. While cable, FWA and alternative FTTx operators have invested in infrastructure which allows them to offer retail broadband, in comparison with Eircom's DSL network, these alternative networks are still relatively limited in terms of the areas they cover, as well as in their retail market shares and absolute subscriber numbers.
- 1.9 Even in the presence of regulation in the upstream WPNIA market, our finding was that Eircom still has a position of SMP in the WBA market which is not expected to be significantly eroded over the lifetime of this review. While BT had commenced providing WBA services to Vodafone, at the time of the Consultation, this was still in its initial stages and was not anticipated to have a material effect on the competitive structure of the national WBA market over the timeframe of this review.
- 1.10 In our preliminary view, it was very unlikely that a comprehensive or ubiquitous WBA product would be offered by the SMP operator without regulation. Furthermore, the Competition Problems section noted that Eircom, as the SMP operator, has the ability and incentives to engage in a range of exploitative and exclusionary practices, including a potential denial of access

²⁹² See paragraphs 8.13-8.19 of the Consultation

²⁹³ ComReg, "Market Analysis: Wholesale Broadband Access", Document 05/11r (amended), Decision 03/05, 24 February 2005, and ComReg, "Retail minus wholesale price control for the WBA market", Document 06/01, Decision D01/06, 13 January 2006.

to WBA.²⁹⁴ It was therefore necessary and appropriate that regulation continued to be imposed in the WBA market. The direct benefit of having a WBA product with a widespread reach is that OAOs are in a better position to gain scale and compete effectively in the retail broadband market, because retail broadband competition still continues to rely significantly on the availability of WBA inputs.

Does current regulation achieve its objectives as simply as possible?²⁹⁵

- 1.11 In the Consultation in consideration of acting proportionately, reasonably and justifiably, we considered regulation as incremental, such that only obligations are imposed which are necessary and proportionate to the competition problems which have been identified. The lightest measure that can be imposed is the obligation of transparency.²⁹⁶ Should this be insufficient to address competition problems on its own, ComReg may apply a non-discrimination obligation.²⁹⁷ If this is still not sufficient, ComReg may next consider the imposition of an access obligation,²⁹⁸ generally supported by accounting separation obligations.²⁹⁹ The final measure to be considered is the imposition of a price control and cost accounting remedy.³⁰⁰
- 1.12 Our preliminary view was that a transparency obligation was necessary, but not sufficient on its own, because while it allows monitoring and observation of actions, it does not directly affect the actions themselves.
- 1.13 A non-discrimination obligation establishes a form of behaviour in the market, but does not specifically address what type of product or service should be offered, or how it should be offered. The obligation not to discriminate requires equivalent treatment of operators, and the transparency obligation allows the means of observing this. However, recourse to a non-discrimination obligation tends to be on an ex post basis, so that an operator alleges a breach after the event. Thus, the operation of the non-discrimination and transparency obligations alone is not adequate in providing a means of ensuring ex ante that Eircom does not discriminate between OAOs and its own

²⁹⁴ Pursuant to Regulation 12(1) of the Access Regulations, ComReg may impose access obligations where it considers that the denial of such access or the imposition by operators of unreasonable terms and conditions having a similar effect: would hinder the emergence of a sustainable competitive market at the retail level, would not be in the interests of end-users, or would otherwise hinder the achievement of the objectives set out in section 12 of the Communications Regulation Act 2002 and Regulation 16 of the Framework Regulations. ComReg has taken cognisance of Regulation 16 (2) (d) of the Framework Regulations which requires that "(d) promoting efficient investment and innovation in new and enhanced infrastructures, including by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertakings and by permitting various cooperative arrangements between investors and parties seeking access to diversify the risk of investment, while ensuring that competition in the market and the principle of non-discrimination are preserved".

²⁹⁵ See paragraphs 8.20-8.31 of the Consultation.

²⁹⁶ Regulation 9 of the Access Regulations.

²⁹⁷ Regulation 10 of the Access Regulations.

²⁹⁸ Regulation 12 of the Access Regulations.

²⁹⁹ Regulation 11 of the Access Regulations.

³⁰⁰ Regulation 13 of the Access Regulations.

internal operation. Our review of competition problems indicated potential issues which could be addressed by a non-discrimination obligation, but there may be a more fundamental underlying problem to do with the nature of the product being offered.³⁰¹ While a non-discrimination obligation would be a necessary supporting obligation to address this, it would not on its own, or coupled with transparency, be sufficient.

1.14 We noted that it would be unlikely that a comprehensive or ubiquitous WBA product would be offered by the SMP operator absent regulation. An access obligation gives operators the right to request WBA products, and establishes the principles on which the products should be made available. In our view, an access obligation on the basis of a reasonable request is a fundamental requirement in this market and, taking account of the provisions of Regulation 12(1) of the Access Regulations, the absence of such an obligation would hinder the development of fit-for-purpose WBA products impeding the emergence of a sustainable competitive market at the retail level to the detriment of end-users. An access obligation is therefore considered necessary and appropriate in achieving the objectives of section 12 of the Communications Regulation Act 2002 and Regulation 16 of the Framework Regulations in particular, namely the promotion of competition and the interests of end-users.³⁰²

1.15 At present, price controls apply in the WBA market. Currently, Eircom is obliged to ensure that prices for WBA comply with a retail-minus price control.³⁰³ We considered whether it is still necessary to ensure that prices for WBA products are subject to a price control and cost accounting obligation, and whether the current control remains appropriate and justified. Given our preliminary view that Eircom has SMP in the WBA market and that there is limited constraint offered by qualifying factors (such as potential competition and countervailing buyer power), there is no identifiable appreciable constraint on Eircom's wholesale pricing in the absence of regulation.³⁰⁴

³⁰¹ For example, as noted in the Competition Problems section of the Consultation, an SMP operator in the WBA market may have little incentive to implement product upgrades or process improvements in WBA services and delays may arise in the provisioning of alternative forms of WBA access where OAOs may express a demand for an access product which is not yet addressed.

³⁰² ComReg has taken the following factors (as set out at Regulation 12 (4) of the Access Regulations) in particular into account in its consideration of the imposition of access obligations:

(a) the technical and economic viability of using or installing competing facilities, in the light of the rate of market development, taking into account the nature and type of access or interconnection involved, including the viability of other upstream access products such as access to ducts,

(b) the feasibility of providing the access proposed in relation to the capacity available,

(c) the initial investment by the facility owner taking account of any public investment made and the risks involved in making the investment,

(d) the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure based competition,

(e) where appropriate, any relevant intellectual property rights, and

(f) the provision of pan-European services.

³⁰³ ComReg, "Retail minus wholesale price control for the WBA market", Document 06/01, Decision D01/06, 13 January 2006.

³⁰⁴ Pursuant to Regulation 13(1) of the Access Regulations the Regulator may impose price control or cost accounting obligations in situations where a market analysis

- 1.16 As separated accounts assist in the disclosure of price-related competition problems and facilitate transparency as regards any potential misallocation of costs across different services, it is considered proportionate and justified to maintain an obligation on Eircom to keep separated accounts. ComReg has now issued a Decision on the details and implementation of the accounting separation and cost accounting obligations³⁰⁵.

Are changes to regulation required?³⁰⁶

- 1.17 In the Consultation, we provisionally proposed to retain the full suite of regulatory obligations in the WBA market (i.e. transparency, non-discrimination, access, accounting separation, price control and cost accounting) in recognition of the persistent risk of competition problems which have been identified. However, we proposed that developments were required to some remedies in order to reinforce their effectiveness and to clarify Eircom's specific duties under each obligation. We also proposed that clarification was needed of how obligations would apply in an NGA context. We set out two possible regulatory options for how WBA could be addressed in an NGA context. Given the preliminary finding that the conditions of competition are expected to be the same where Eircom overlays or replicates its existing access network with fibre and NGA equipment, the same regulation could be imposed over current and next generation WBA, or similar regulatory obligations could be imposed in principle, with further consultation on the detail of how these principles will be implemented in an NGA environment.

What are the impacts of proposed changes?³⁰⁷

- 1.18 In the Consultation, we assessed the impact of proposed changes to regulation on Eircom, on consumers, and more broadly, on competition. The assessment noted that the proposed developments of obligations were primarily concerned with clarifying existing obligations, and this clarification would be of benefit to all stakeholders. The additional costs to Eircom were not believed to be significant, and in those areas where more extensive change was envisaged, for example in considering appropriate price controls, and in considering the detail of obligations to be applied in an NGA context, we stated an intention to continue with parallel Consultations which would include a specific RIA.

Summary of responses

- 1.19 Four respondents (BT, Magnet, O2 and Vodafone) generally supported our approach to and conduct of, the RIA, but three of these expressed reservations about the approach to regulating WBA in an NGA environment. All three proposed that there is a need to immediately specify obligations to apply in an NGA environment to the same level as those designed to apply to current

indicates that a lack of effective competition means that the operator concerned might sustain prices at an excessively high level, or apply a price squeeze to the detriment of end-users.

³⁰⁵ ComReg, "Response to Consultation Document and Final Direction and Decision, Accounting Separation and Cost Accounting Review to Eircom Limited", Document 10/67, 31 August 2010.

³⁰⁶ See paragraphs 8.32-8.61 of the Consultation

³⁰⁷ See paragraphs 8.62-8.89 of the Consultation

generation WBA, and concern was expressed that a failure to specify all obligations now would allow Eircom to leverage its SMP in the introduction of NGA. However, there was a general recognition that it is premature to specify price controls in the NGA environment.

- 1.20 In addition, Vodafone believes that Eircom intends to conduct a FTTH pilot which would essentially make technology choices regarding the FTTH delivery mechanism and network architecture which could constrain options available to access seekers.
- 1.21 Vodafone also proposed that ComReg should further specify obligations to be imposed on current generation WBA, for example, by attaching deadlines to Eircom's response times. Vodafone believes that instances of actual discrimination and lack of transparency in the market justify strengthening the detail of the obligations.
- 1.22 Eircom raised a number of concerns regarding the methodology and the content of the RIA. In terms of methodology, Eircom proposed that the RIA should have considered options such as the impact of sub-national markets, and should have identified a wider range of options. Eircom indicated that, in its view, there should be more quantification of costs and benefits. In particular, Eircom believes that the RIA analysis should have considered the eventual impact of proposed measures on its business, and not just the administrative burden associated with implementing the measure.

ComReg analysis and response

Methodological approach to RIA

- 1.23 This analysis of respondent's submissions should be read in conjunction with the RIA as was published in the Consultation³⁰⁸.
- 1.24 ComReg's approach to RIA is consistent with its objectives of Section 12 of the Act³⁰⁹ and Regulation 16 of the Framework Regulations, in particular in its aim of:
- (a) Promoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods,
 - (b) ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services,
 - (c) safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure based competition,

³⁰⁸ See Section 8 of the Consultation.

³⁰⁹ (i) to promote competition
(ii) to contribute to the development of the internal market, and
(iii) to promote the interests of users within the Community

(d) promoting efficient investment and innovation in new and enhanced infrastructures, including by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertakings and by permitting various cooperative arrangements between investors and parties seeking access to diversify the risk of investment, while ensuring that competition in the market and the principle of non-discrimination are preserved,

(e) taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State, and

(f) imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled.

- 1.25 ComReg has been transparent in its approach throughout the entire process of reviewing the market for WBA and in satisfying ComReg's statutory objectives in particular, and in examining the regulatory impact of the measures it proposed should be introduced. This document and ComReg Document 10/81 discussed the methodologies which are used in carrying out the WBA market analysis and also discussed and justified ComReg's preliminary conclusions across a range of issues. These were put to public consultation and full account has been taken of all responses received, including those from industry and the European Commission.
- 1.26 ComReg considers that it has been accountable and has provided all of the detail, information and justification necessary to support the decisions it is taking.
- 1.27 ComReg considers that its review of the WBA market has been consistent in taking account of the regulation of other markets in the Irish electronic communications sector, and having regard to the approaches adopted by other EU National Regulatory Authorities.
- 1.28 Several of the points raised by Eircom arise from its particular view of how a RIA should be undertaken. For example, Eircom believes that the RIA should have examined the regulatory impact of defining sub-national markets. We have reviewed our approach to RIA, and reiterate that our approach to assessing the regulatory impact of proposed obligations in the WBA market is in line with our published Guidelines, and in line with Irish Government guidelines. The RIA considers the impact of regulating a market which has been identified as being susceptible to *ex ante* regulation, has been defined according to market analysis principles, and in terms of a competition assessment which has already been conducted. These steps are necessary precursors to establishing that there is a reason to be considering regulation. The place of the RIA is to consider competition problems which have been identified in a market, and to consider regulatory options for addressing these problems. It would not therefore be logical to go back and examine the impact of a market definition which has already been discounted as an option, based on market definition principles. For this reason, we do not agree that the RIA should consider the impact of defining sub-national markets, because the

application of market analysis principles has already found that there are not sub-national markets in Ireland.

- 1.29 In addressing Eircom's concern that an insufficient number of options were considered, we note that it is not the case that "only two options" were assessed. In the Consultation, the RIA examined the possibility of applying incremental regulation, and assessed the potential impact of applying firstly a transparency remedy, then adding non-discrimination, then if this was still considered insufficient to address competition problems, imposing also an access obligation, and eventually considering the imposition of price controls, cost accounting and accounting separation. In considering WBA in an NGA environment, we established first of all our view that WBA provided over Eircom's NGA infrastructure falls within the same market as WBA provided on current generation infrastructure, and so should be subject to regulation. We then considered whether the detailed obligations applied to current generation WBA should also be applied now to WBA in an NGA context.

Quantification of costs and benefits

- 1.30 Eircom has suggested that the RIA considers only the administrative burden of implementing a remedy, and not the eventual impact of that remedy on Eircom's business. Specific examples are the obligations concerning service credits; revised advance notification and publication timelines; KPIs; and the publication of a WBARO.
- 1.31 Generally, we agree with Eircom that when specific options are being considered, a RIA should consider costs and benefits, although not necessarily via a formal cost benefit analysis (for example, other economic methodologies are often more appropriate). However, the obligations proposed in the Consultation are essentially a set of principles, and may not always be usefully quantified. For example, in proposing that Eircom should be subject to an obligation not to discriminate, it is not useful to try to estimate how much business Eircom could gain if it were allowed to discriminate – the principle is that in order to facilitate competition, Eircom, as the vertically-integrated SMP operator in a market deemed susceptible to *ex ante* regulation, cannot be allowed to treat its competitors differently to its own downstream operation. The comparison Eircom proposes is between two types of objective at different levels.
- 1.32 We can illustrate this point further with reference to one of the examples provided by Eircom, where it proposes that the RIA should consider the financial value of the outpayments due to failure to meet service credit obligations. The proposed obligation on service credits is to ensure that Eircom commits to deliver its WBA service to a pre-defined and pre-agreed level of performance or otherwise compensate its customer accordingly. The obligation is that the SLA should include an agreed process for establishing levels to be delivered, and for compensating in cases where they are not. The agreement (i.e. the SLA) would be between Eircom and its customers. We are not proposing to direct the terms which will be agreed but rather proposing the principle that the SLA will include agreed terms. In considering the regulatory impact, our concern is with the burden on Eircom of implementing this

obligation. It is therefore neither useful nor possible to estimate a) what terms Eircom and its customers will agree and b) the extent to which Eircom will fail to meet the agreed performance targets and so have to pay compensation. Rather, the regulatory impact to be assessed is the cost to Eircom of meeting an obligation to agree service credit levels, and this is an administrative burden to be set against the benefit of addressing a recognised competition problem. It is only if Eircom fails to meet its obligations that it would incur any further costs in the form of outpayments.

- 1.33 In its response, Eircom also proposed that we should substantiate our assertion that the costs associated with certain proposed measures, such as the publication of the WBARO and of KPIs, would be relatively low. In respect of KPIs, we have recently consulted and published a Decision on the detailed implementation of KPIs³¹⁰, and note that most NRAs require SMP operators to adhere to a set of Key Performance Indicators as a means of establishing and monitoring the obligation of transparency and non-discrimination. The recently published Consultation and Decision considered the overhead associated with the production of proposed metrics, and as part of this Decision, it was agreed with Eircom that additional overhead would be minimal as the suggested metrics were already being produced. Our view of costs associated with the publication of the WBARO is based on experience in working with Eircom to upgrade other reference offers, and we maintain that this is not a completely new obligation, but rather a refinement to an existing obligation.
- 1.34 In our view, many of the obligations proposed in the Consultation clarify, codify and document behaviour which Eircom should have been exhibiting under the regulations imposed on the foot of the first round market review. We believe it is correct that the RIA assesses any additional regulatory burden on Eircom in meeting the proposed obligations, and does not focus on the potential burden on Eircom should it fail to meet its obligations.

Impact of proposed obligations on WBA in an NGA context

- 1.35 We have considered conflicting responses to our proposed approach to obligations to be applied in an NGA environment. Three OAOs consider that detailed obligations should be imposed now on next generation WBA, while Eircom submits that the numerous uncertainties around NGA implementation indicate that we should not impose regulation on next generation WBA at this time.
- 1.36 The requirement to regulate next generation WBA is justified, due to the finding that WBA provided over next generation infrastructure falls within the WBA market; that Eircom has been designated with SMP in the WBA market; and that there are actual and potential competition problems in the market. In the Consultation, the RIA established the continuing need for a full suite of obligations given a) the SMP finding, and b) continuing competition problems

³¹⁰ ComReg "Response to Consultation and Decision on the Introduction of Key Performance Indicators for Regulated Markets" Document 11/45, 29 June 2011.

in the market, even in the presence of regulation. The options which are considered following this are therefore concerned with how regulation may best be developed, and this is directly linked to the nature of competition problems. For these reasons, we do not agree with Eircom that there is no justification for imposing obligations.

- 1.37 We understand the concerns expressed by OAOs who believe that detailed regulation is warranted now in order to avoid market harm. However, since the publication of the Consultation, there has been little change in the implementation plan for NGA, and Eircom's intended pilot is not due to begin until later in 2011. This indicates that our approach should be to ensure that regulation focuses on facilitating potential migration from current to next generation services, and that we should balance the need for regulatory certainty against the recognition of the current level of development of NG infrastructure and services, and the strategic aim of encouraging efficient investment.
- 1.38 We have now published our Consultation on NG remedies³¹¹ which considers in more detail how obligations may best be implemented.

Conclusion

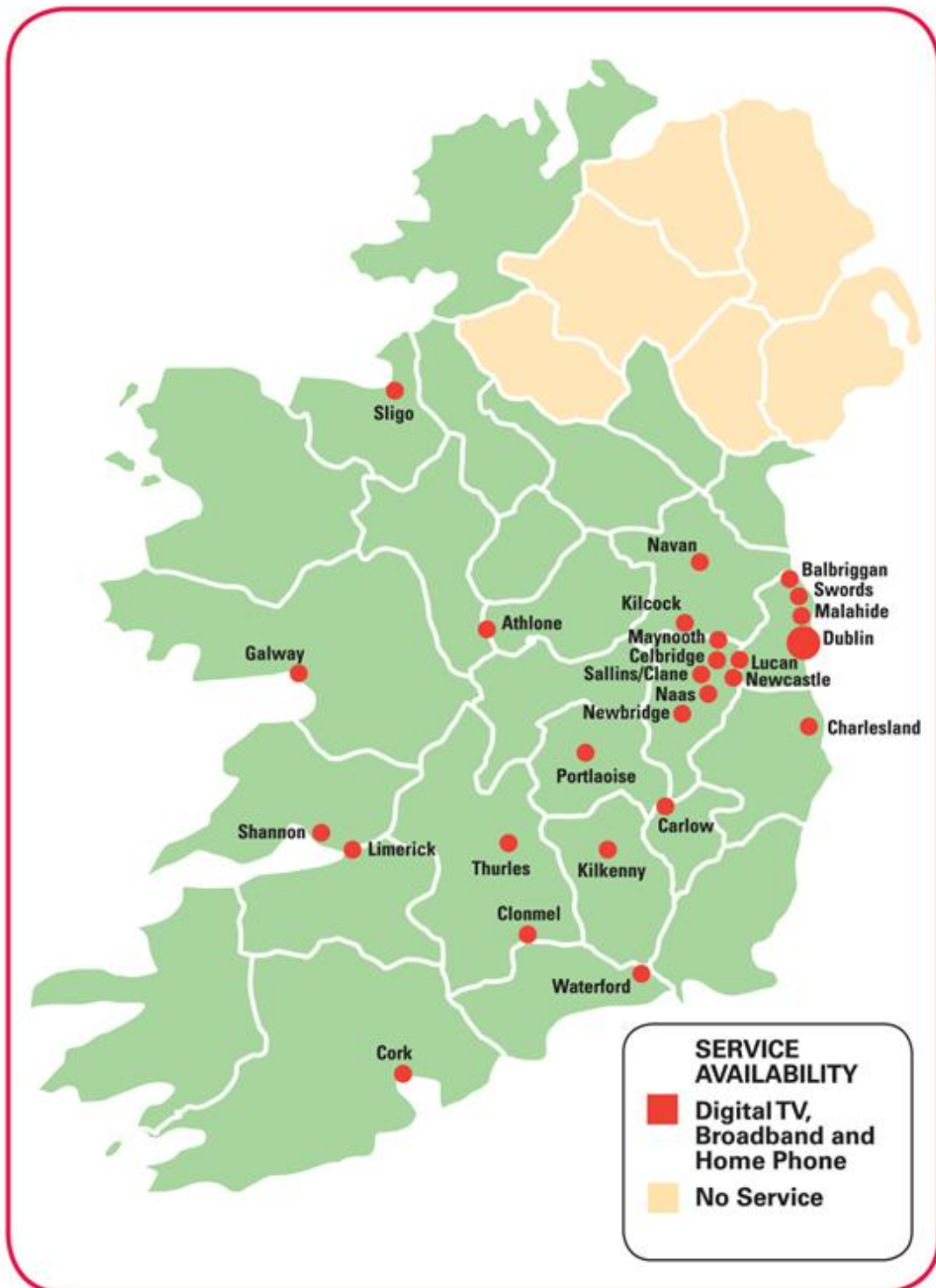
- 1.39 We have addressed issues raised by respondents in terms of our methodological approach to RIA; in terms of the extent to which proposed measures could or should be further quantified; and in terms of our approach to the regulation of WBA in an NG context.
- 1.40 The assessment of the impact of the proposed regulatory measures in the WBA market cannot be viewed in isolation. ComReg considers that the degree to which this market is regulated is dependent upon the success of upstream regulatory obligations in the WPNIA market. ComReg shall continue to monitor developments in the WPNIA market and assess whether any such upstream developments have an impact on the competitive dynamic of the WBA market. Consequently ComReg will review the relevant regulatory obligations in the WBA market.
- 1.41 Furthermore ComReg's parallel consultations on the appropriate price control and Decision on KPIs have undertaken extensive analysis of the regulatory impact of the proposed measures. These consultations not only consider a variety of options for the relevant regulatory options but also reflect the ever changing competitive dynamics at both the wholesale and retail levels. In particular ComReg considers that the proposed changes to the WBA price control, and particularly the ability to set differentiated wholesale prices, which may enhance Eircom's flexibility to supply innovative retail and wholesale offerings, while the publication of product performance metrics enables Eircom to demonstrate the performance of its wholesale products to existing and potential wholesale customers.

³¹¹ Next Generation Access (NGA) Remedies in Wholesale Regulated Markets, ComReg Document 11/40

- 1.42 Our view remains that regulation is still required in the WBA market, because a well-functioning retail broadband market is still dependent on effective WBA inputs. Eircom has been designated with SMP in the WBA market, and a range of actual and potential competition problems has been identified. We intend to retain the full suite of regulatory obligations in this market (access, non-discrimination, transparency, accounting separation, price control and cost accounting). Our review of current regulation has led us to propose developments to existing regulation in order to reinforce their effectiveness and to clarify Eircom's obligations. We will continue to monitor closely developments in competitive conditions observable in the market.
- 1.43 Our consideration of the regulatory impact of the proposed measures has taken into account the impact on Eircom and on other stakeholders in the market, and the broader impact on consumers and eventually on competition.

Annex C: DSL and Cable Coverage

UPC Broadband Coverage – March 2011³¹²

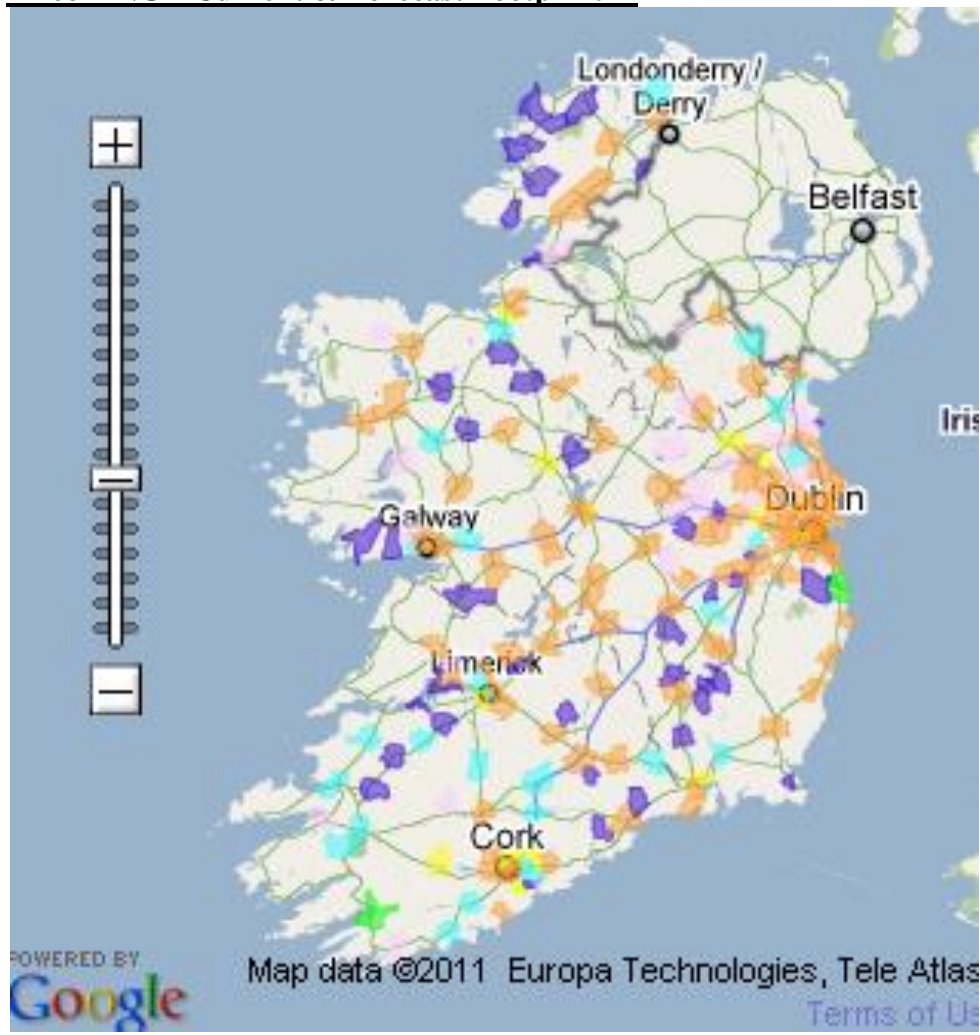


Broadband Availability in Dublin

<http://www.upc.ie/media/2011/1/13/2011BuildPlanV13.png>

³¹² Source: UPC website http://www.upc.ie/media/2009/6/30/map_ireland.jpg

Eircom NGB Current & Forecast Footprint³¹³



³¹³ Source: <http://www.nextgenerationbroadband.ie/>

Annex D: Glossary³¹⁴

<u>Acronym</u>	<u>Full title</u>	<u>Description</u>
Bitstream	Bitstream	A wholesale product provided in the wholesale broadband access market.
Broadband	Broadband	Telecommunication in which a wide band of frequencies is available to transmit information. Because a wide band of frequencies is available, information can be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time
Cable	Cable	A system of providing television to consumers via radio frequency signals. It is transmitted to televisions through fixed optical fibers or coaxial cables as opposed to the over-the-air method used in traditional television broadcasting (via radio waves) in which a television antenna is required.
ComReg	Commission for Communications Regulation	National regulatory agency for Ireland
ADSL	Asymmetric Digital Subscriber Line	A variant of DSL. See below definition.
DSL	Digital subscriber line	Digital Subscriber Line technologies which use traditional copper telephony networks to deliver digital broadband signals.
DSLAM	Digital Subscriber Line Access Multiplexer	Allows telephone lines to make faster connections to the Internet. It is a network device, located near the customer's location, that connects multiple customer Digital Subscriber Lines (DSLs) to a high-speed Internet backbone line where multiple data streams are combined into one signal over a shared medium.
DOCSIS	Data Over Cable Service Interface Specification	The international standard that allows for the high-speed transfer of data over a cable network.
EC	European Commission	The European Commission embodies and upholds the general interest of the European Union, and is the driving force in the Union's institutional system. Its four main roles are to propose legislation to Parliament and the Council, to administer and implement Community policies, to enforce Community law (jointly with the Court of Justice) and to negotiate international agreements, mainly those relating to trade and cooperation.
ECJ	European Court of Justice	
ECTA	European Competitive	An association which promotes the regulatory interests of European alternative fixed telecoms

³¹⁴ The glossary of terms represents many, but not necessarily all of the acronyms and phrases associated with both WBA and the various European regulators.

	Telecommunications association	operators
ERG	European Regulators Group	Established by the European Commission to provide a suitable mechanism for encouraging cooperation and coordination between national regulatory authorities and the Commission, in order to promote the development of the internal market for electronic communications networks and services, and to seek to achieve consistent application, in all Member States, of the provisions set out in the Directives of the new regulatory framework.
Fibre	Fibre Optic Cable	Optical fibre is a glass or plastic fibre designed to guide light along its length. Optical fibres are widely used in fibre-optic communication, which permits transmission over longer distances and at higher data rates than other forms of communication. Fibres are used instead of metal wires because signals travel along them with less loss, and they are immune to electromagnetic interference.
FTTx	Fibre to the ...	Fibre to the x (FTTx) is a generic term used to refer to any broadband network architecture that uses fibre in the access part of the network, including fibre to the home (FTTH), fibre to the building (FTTB), fibre to the cabinet (FTTC), fibre to the node (FTTN), etc.
FWA	Fixed wireless access	The use of radio links for the transmission of voice and data communications
GB	Gigabyte	The abbreviation 'GB' refers to Gigabyte. Digital information storage capacity is often referred to in terms of gigabytes. Gigabytes are used to store large amounts of information (1 GB = 1,024 megabytes). Usage allowance is the amount of data an ISP allows a customer to download/upload each month/week and is generally measured in Gigabytes (GB).
ISP	Internet Service Provider	A commercial entity that offers its customers access to the Internet
Kb	Kilobits per second	The abbreviation 'kb' refers to kilobit per second and is a unit of data transfer rate equal to 1,000 bits per second
LLU	Local loop unbundling	The regulatory process of allowing multiple telecommunications operator's use of connections from the incumbent's telephone exchange's to the customer's premises.
Local Loop	Local loop	The physical circuit connecting the network termination point at the subscriber's premises to the main distribution frame or equivalent facility in the fixed public telephone network providers network
LS	Line share	Also known as shared access to the Local Loop means the product whereby the high frequency capacity of a line is provided to Other Authorised Operators
LTE	Long Term Evolution	A proposed 4th generation mobile broadband standard, the successor to 3rd generation standards
MB	Megabytes	The abbreviation 'MB' refers to Megabyte and means a unit of data storage capacity equal to one

		million bytes.
Mb	Megabits per second	The abbreviation 'Mb' refers to megabit per second and is a unit of data transfer rate equal to 1,000,000 bits per second
MDF	Main distribution frames	A signal distribution frame for connecting equipment (inside an exchange) to cables and subscriber carrier equipment (outside an exchange).
NBS	National broadband scheme	Provision of broadband services to certain target areas in Ireland in which broadband services are not available or are unlikely to be available in the foreseeable future.
NGN	Next generation networks	The evolution in telecommunication core and access networks that will be deployed over the next 5-10 years. One network transports all information and services (voice, data, and all sorts of media such as video) by encapsulating these into packets
NRA	National regulatory agency	A state or government agency which regulates businesses in the public interest
OAo	Other alternative operators	Operators, other than the incumbent, providing telecommunication services
OfCom	Office of Communications	National regulatory agency for the United Kingdom
OSS	Operational support systems	
PSTN	Public switched telephone network	PSTN refers to the international telephone system based on copper wires and carrying analog voice data. This is in contrast to newer telephone networks based on digital technologies such as ISDN
SMP	Significant Market Power	
Satellite	Satellite	Communication that involves the use of an active or passive satellite to extend the range of a communications, radio, television, or other transmitter by returning signals to earth from an orbiting satellite.
SLU	Sub loop unbundling	Process by which a sub-section of part of the local loop is unbundled (i.e. The physical circuit connecting the network termination point at the subscriber's premises to the nearest cabinet).
WBA	Wholesale Broadband Access	
WiMax	Worldwide Interoperability for Microwave Access	WiMax is a 4G wireless technology which operates over radio waves.
WPNIA	Wholesale Physical Network Infrastructure Access	Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location, more commonly known as LLU

Annex E: Retail Broadband Product Information³¹⁵

This annex provides information on retail broadband pricing and functionality used to help inform our analysis throughout this Consultation. Below ComReg has set out a non-exhaustive selection of retail product information for broadband services as of May 2011 from a selection of the main broadband providers in Ireland. ComReg has selected (broadband) product features which are likely to be of most significance for consumers when choosing a broadband product. Furthermore, to ensure consistency ComReg has selected standalone broadband products available on 12 month contracts.

Eircom Standard Broadband

	Up to 3Mb broadband	Up to 7Mb broadband	Up to 24Mb broadband
Platform	DSL		
Price (per month)	€29.99	€39.82	€47.99
Download Speed	3Mb	7Mb	24Mb
Monthly Usage	30GB	50GB	Unlimited
Line Rental	€25.36	€25.36	€25.36
Connection fees ³¹⁶	€29.00	€29.00	€29.00

Eircom Next Generation Broadband

	Next Generation Broadband Basic	Next Generation Broadband Regular	Next Generation Broadband Advanced
Platform	DSL		
Price (per month)	€24.99	€29.99	€39.82
Download Speed	8Mb	8Mb	24Mb
Monthly Usage Allowance	10GB	Unlimited	Unlimited
Line Rental	€25.36	€25.36	€25.36
Connection fees ³¹⁷	€29.00	€29.00	€29.00

³¹⁵ As per operators' websites on July 2011. All prices exclude any special offers/discounts and are inclusive of VAT.

³¹⁶ Eircom currently offers free broadband connection when ordered online

³¹⁷ Eircom currently offers free broadband connection when ordered online

UPC

	Fibre Power Broadband 12Mb	Fibre Power Broadband 25Mb	Fibre Power Broadband 100Mb
Platform	Cable		
Price ³¹⁸ (per month)	€32.75	€42.75	€72.75
Download Speed	12Mb	25Mb	100Mb
Monthly Usage Limits	120GB	250GB	500GB
Line Rental	N/A	N/A	N/A
Connection fees ³¹⁹	€40/€20	€40/€20	€40/€20

Smart Telecom

	Home Value 10Mb	Home Pro 24Mb	Business 24Mb
Platform	DSL		
Price (per month)	€39.95	€59.95	€24
Download Speed	10Mb	24Mb	24Mb
Monthly Usage	170GB	170GB	-
Line Rental	€25.36	€25.36	€25.36
Connection Fees	Free (worth €50)	Free (worth €50)	-

Digiweb - DSL

	DSL Personal	DSL Home Offer	DSL Home Pro
Platform	DSL		
Price (per month)	€29.95	€27.96/€34.95 ³²⁰	€44.95
Download Speed	3Mb	7Mb	24Mb
Monthly Usage	60GB	100GB	150GB
Line Rental	€25.36	€25.36	€25.36
Connection Fee	Free	Free	Free

³¹⁸ Includes monthly charge of €7.75 for standalone broadband service

³¹⁹ If you decide not to connect the service yourself the connection fee is €20 per Fibre Power Broadband service ordered.

³²⁰ €27.96 for first three months. €34.95 per month thereafter.

Digiweb – Satellite

	Tooway Value	Tooway Plus	Tooway Extra
Platform	Satellite		
Price (per month)	€34.99	€59.99	€79.99
Download Speed	3.6Mb	3.6Mb	3.6Mb
Monthly Usage	2.4GB	4GB	6GB
Line Rental	- ³²¹	-	-
Connection Fees	€589 ³²²	€589	€589

Digiweb - FWA

	Metro Value	Metro Home	Metro Xtra
Platform	FWA		
Price (per month)	€34.95	€39.95	€59.95
Download Speed	5Mb	8Mb	12Mb
Monthly Usage	50GB	60GB	70GB
Line Rental	None	None	None
Connection Fee	€99	Free	€99

Imagine – WiMax

	1Mb WiMax	3Mb WiMax	7MbWiMax
Platform	FWA		
Price (per month)	€25	€30	€35
Download Speed	1Mb	3Mb	7Mb
Monthly Usage	Unlimited usage ³²³	Unlimited usage	Unlimited usage
Line Rental	None	None	None
Connection Fee	€100 ³²⁴	€100	€100

³²¹ No phone line needed.

³²² Once off charge of €340 for equipment. Once off charge of €249 for installation.

³²³ Subject to Imagine's Acceptable Usage Policy.

³²⁴ €100 equipment fee.

Vodafone - DSL

	Value Broadband	Ideal Broadband	Ultimate Broadband
Platform	DSL		
Price (per month)	€40	€48	€62
Download Speed	8Mb	8Mb	24Mb
Monthly Usage	40GB	120GB	300GB
Line Rental	Included in total price	Included in total price	Included in total price
Connection Fee	None	None	None

Perlico³²⁵

	1Mb Always On Broadband	3Mb Always On Broadband
Platform	DSL	
Price (per month)	€16.99	€24.99
Download Speed	1Mb	3Mb
Monthly Usage	10GB	36GB
Line Rental	€25.36	€25.36
Connection Fee	Free	Free

Magnet - DSL

	Magnet Force 5	Magnet Force 10	Magnet Force 24
Platform	DSL		
Price (per month)	€24.99	€29.99	€29.99
Download Speed	5Mb (uncontended broadband)	10Mb (uncontended broadband)	24Mb (uncontended broadband)
Monthly Usage	-	-	-
Line Rental	€25.00	€25.00	€25.00
Installation charge	Free ³²⁶	Free	Free

³²⁵ In order to avail of Perlico fixed line broadband, customers must transfer their fixed telephone line to Perlico and therefore must also choose a voice bundle.

³²⁶ Free installation is for self-install only; should an engineer be required, there is a charge of €99.

Magnet - Fibre

	Magnet Fibre Broadband
Platform	Fibre
Price (per month)	€50
Download Speed	50Mb
Monthly Usage	-
Line Rental	-
Connection Fee	€99

Mobile Broadband**Meteor**

	Meteor 5GB	Meteor 10GB	Meteor 20GB
Price (per month)	€16.99	€19.99	€24.99
Usage Allowance	5GB	10GB	20GB
Modem costs	Free/€29	Free/€29	Free/Free
Additional charges ³²⁷	2c per Mb		
Coverage ³²⁸	c.55%		

O2

	O2 Bill Pay³²⁹
Price (per month)	€19.99
Usage Allowance	15GB
Modem costs	Free
Additional charges	2c per Mb
Coverage	90% (population)

³²⁷ Charge applied for exceeding inclusive data allowances

³²⁸ Based on publicly available information – ComReg notes press coverage concerning Meteor’s mobile broadband coverage in which it has been stated that this would expand to 75 per cent by autumn 2011.
<http://thepost.ie/moretechnologynews/meteor-preparing-a-4gready-network-51573.html>

³²⁹ O2 Prepay includes a free 24 hour pass; €19.99 a month with 5GB allowance; €3.99 a day with 500MB allowance.

Three

	3Broadband Light	3Broadband Active	3Broadband Pro
Price (per month)	€9.99	€19.99	€34.99
Usage Allowance	1GB	15GB	30GB
Modem costs	Free ³³⁰	Free	Free
Additional charges	5c per Mb		
Coverage	96% (population)		

Vodafone

	Vodafone Mobile Broadband	Vodafone Mobile Broadband
Price (per month)	€19.90	€24.99
Usage Allowance	10GB	15GB
Modem costs	Free	Free
Additional charges	2c per Mb	
Coverage	90%	

eMobile

	Bill Pay eMobile broadband
Price	€19.99
Usage Allowance	10GB
Modem costs	Free ³³¹
Additional charges	-
Coverage	-

³³⁰ Free modem when customers sign up to Pay Monthly plans.

³³¹ Prices start from €0.00.