

## **BEREC promotion of broadband report – ECTA’s response**

### **Summary**

We welcome the opportunity to comment on BEREC’s analysis and questionnaire concerning the promotion of broadband. We generally believe that supply-side measures – and in particular the promotion of competitive markets - are most effective in stimulating take-up of new services and technology and that many of the demand-side issues identified by BEREC could be solved through specific supply-side actions. The remit of the majority of NRAs also tends to fall mostly on the supply side, with the exception of important powers relating to consumer transparency which are needed to ensure that consumers can make an informed choice. Our main points can be summarised as follows:

**Suggested supply-side obstacles to the roll-out of NGAs such as alleged low rates of return and access to finance have in many cases been over-stated. Rather than taking these obstacles as “given” regulators could do more to overcome these obstacles through:**

- Minimising risks associated with the roll-out and marketing of NGA. NRAs should in particular (i) minimise the risk of inefficient access network duplication by supporting open networks and co-investment in shared networks; and (ii) foster rapid migration from copper to fibre once open fibre networks are installed; and (iii) support competition over NGA networks to boost innovation and demand.
- Setting a coherent pricing regime for copper and fibre which ensures that wholesale charges are not excessive (high wholesale charges also lead to high retail prices for broadband) and that the copper charging regime is not distorting incentives to invest in fibre by allowing excess profits that make fibre seem unattractive by comparison.

**Suggested demand-side obstacles could in many cases be addressed through supply-side action**

- Checking that wholesale charges are not excessive and that competition is effective could address broadband affordability to a significant degree in many countries.
- Ensuring the availability of effective cost-based wholesale broadband access which enables triple play services and backhaul to remote exchanges could help to improve choice in rural areas.

**The key role that competitive operators play in stimulating broadband promotion could be supported through:**

- Effective enforcement of competition rules under the EU Telecoms framework particularly in relation to SMP regulation in markets 4 and 5 for fixed broadband.
- Facilitating competitors’ ability to offer innovative and bundled services through ensuring that wholesale broadband inputs enable the provision of retail services and bundles and that competitive bottlenecks to provision of compelling content are addressed.

- Ensuring that broadband/bundle discount strategies or “penetration pricing” for NGA are not anti-competitive – in many cases this may require margin squeeze tests and the application of discounts at the wholesale level.
- Ensuring fair reallocation of existing spectrum and pro-competitive allocation of digital dividend spectrum to boost competition in mobile broadband.

**BEREC could usefully bolster its existing supply-side activities to foster broadband NGA by:**

- Placing more focus on the Commission’s efforts to assess **copper and fibre pricing** and the impact pricing regimes may have on investment incentives, retail prices and affordability.
- Creating a **standardised definition and technical specifications for key wholesale products** in an NGA environment particularly as regards physical unbundling, VULA and wholesale broadband access. Active products should enable service differentiation including triple-play for residential and secure network provision for business providers.
- **Collection of benchmarking data** showing the architectures used for NGA and the prevalence of wholesale access (unbundling and bitstream) over those networks.

**Demand-side initiatives are also important, but we agree that these should normally be subsequent to supply-side policies. In any event, many demand side measures may fall outside the remit of NRAs. Nonetheless, we would favour action to:**

- Increase transparency and facilitate switching between broadband providers.
- Ensure that subsidies are applied in ways that maximise their value and minimise competitive distortions. This could be achieved through:
  - Favouring use of state aid to subsidise construction of open networks in areas where open fibre is unlikely to be built on commercial terms.
  - Favouring direct subsidies to low income users where there is a need, despite competition, to ensure the affordability of broadband services.

**Question 1 (section 5): What elements do you consider essential for the successful definition and implementation of governments' strategies to promote broadband:**

- a) Overall at the national level? What role, if any, could NRAs play to enhance the effectiveness of those strategies?
- b) Specifically at rural and peripheral areas? What role, if any, could NRAs play to enhance the effectiveness of those strategies?

We would suggest a focus on the following measures, some of which have already been identified in the paper.

- Setting availability and take-up targets and regular assessments against these targets. Alongside end-user (availability, actual take-up) measures, governments should also track inputs including the degree of competition and presence of high speed infrastructures.
- Commitment to competitive broadband markets and full empowerment of the regulator to exercise its powers under the EU Framework. Competitive markets have proven to be one of the most effective mechanisms for achieving widespread coverage at affordable prices.
- Early and pro-competitive allocation of digital dividend spectrum. In the short term, commercially available wireless broadband could help to ensure universal availability of low speed broadband especially in rural areas. It is also possible that, in time, the lower 30Mbit/s EU2020 availability target could be partially addressed through LTE. However, there will always be a substantial gap between the capabilities of fixed and wireless technologies both in terms of speed, capacity and price, which means that wireless is unlikely to provide a full substitute to fixed technologies.
- Plan to complement commercial roll-out with state aid where investment in open next generation networks is unlikely to be forthcoming in the near term. State aid should preferably be targeted at future-proof open fibre networks and structurally separated models should be favoured. In order to ensure that several players are able to bid for state funding, it is crucial that underlying bottlenecks such as access to ducts and where relevant terminating segments, subloops and backhaul are fully and effectively regulated.
- If support is needed to improve affordability of broadband to low income customers this should preferably be in the form of direct subsidies to the customers allowing them to use any provider of their choice rather than subsidising a special tariff from a single provider.

NRAs have a pivotal role in enabling member states to achieve national and EU broadband targets. Regulators are likely to be best equipped to collect the data that assesses progress against targets, and ensure that fixed broadband markets are competitive. Even if responsibility in a particular case lies with the national Government, we believe regulators also have an important role to play in:

- Identifying areas in which effectively open NGA networks are unlikely to be built in the medium term, ensuring that projects built with the support of **state aid** meet standards of openness that are at least equivalent to those available under the SMP regime, that wholesale product specifications are coherent across the national territory (whether privately or publicly funded) and that bottlenecks are addressed to enable state aid projects to be contested.

- Providing advice to ensure that spectrum auctions do not lead to the concentration of mobile markets and that the outcome of spectrum allocation facilitates competition in the provision of mobile and wireless broadband.

## Question 2

**Among the main supply-side obstacles to broadband promotion, NRAs have perceived the low expected return on investment, the lack of access to financial resources and the access to spectrum. In addition, NRAs have considered, amongst the main demand-side obstacles to broadband promotion, aspects such as the citizens' lack of perceived need to adopt broadband, the high price of broadband, the fact that NGA is still in an initial stage of the product life cycle and, mostly in rural areas, the lack of choice between operators.**

**2.1 What of the above-mentioned factors, if any, would you not consider as obstacles? And what other factors, if any, would you add to the list of main obstacles to broadband promotion? Please reply with specific regard to:**

### **a) Supply-side obstacles**

We do not in general consider the supply-side obstacles or risks to provision of next generation access to be as great as is sometimes suggested, and where risks do arise, we believe there are effective ways to minimise these, as follows:

#### **Alleged low expected return on investment**

Cost analyses such as those carried out by WIK in 2008 (Economics of NGA) suggest that significant areas of many countries can be profitably reached with NGA networks without assuming any major uplift in ARPU (ie base assumption is that consumers would pay the same as they would today) and with a cost of capital/return on investment of 10% that should clearly be adequate from an investor perspective (this is a higher rate of return than that available for regulated products today and could be considered to be "risk-adjusted"). WIK's assessment was that in many cases 70% of national territory could be covered with vDSL on this basis and >20% with FTTH. Profitable coverage of FTTH would be significantly greater than WIK's estimates if existing ducts can be reused – which is likely in most cases. This assessment would seem to suggest that the risks of rolling out NGA – at least to these proportions of the national territory – are limited. The WIK results are based on scenarios which could to a large extent be influenced by NRAs:

- WIK finds that NGA is typically only commercially profitable if a **single (or a maximum of 2 in most cases) firms roll out infrastructure**. NRAs should shape NGA policy around the expectation that certain parts of the network are realistically difficult to duplicate and therefore focus on ensuring open networks and fostering co-investment (to avoid uneconomic duplication) rather than "promoting" infrastructure competition at the access level.
- The WIK results are based on the assumption that once FTTH is rolled out in an area, customers are migrated from the copper network onto the new network and the **copper is**

**“switched off”**. This approach minimises (and can even eliminate) the demand risk associated with FTTH, but requires clear policies on the part of regulators to actively encourage migration ONCE effectively open and cost-based fibre networks are built.

Rather than highlighting “low return” as a supply-side issue, we suggest that regulators should instead look at access network duplication (ie network bypass) and demand-risks as the main underlying supply side issues and seek to address those directly through encouraging open networks and/or co-investment and rapid copper switch-off once effective open networks are built.

A further issue not acknowledged in this paper, but clearly identified by the European Commission in its questionnaire in the context of a future Recommendation on cost methodologies, is that “relative returns” and not just absolute returns affect investment incentives. Thus returns on NGA must be examined in the context of available returns on copper. If excessive returns are possible on copper, that would tend to disincentivise fibre upgrades from dominant firms, even if the returns on fibre are objectively “adequate”. High profits from copper and any over-valuation of ducts also put incumbents in a preferential position compared with rivals if and when they do decide to invest in NGA because they could subsidise their NGA investments in a way that others could not match.

#### **Lack of access to financial resources**

Lack of access to financial resources should not be a barrier to incumbents. Most incumbents have sufficient cashflows from existing legacy businesses to invest in fibre without recourse to the capital markets if they chose to do so. This is because copper networks are priced in a way that at the least includes a contribution towards network renewal and in many cases – where current costs are used – incorporates a further uplift due to the high costs of copper and duct construction today compared with the actual costs incurred by the firm when the networks were built.

Conversely, access to financial resources IS a constraint which prevents alternative operators from investing in fibre access in those circumstances where it would be viable for them to do so. Most alternative operators lack the cashflows necessary to invest in fibre directly partly because of high outpayments that they typically must make to dominant firms for access. They also face difficulties sourcing financing from the markets due to the correctly perceived risk that an entrant’s fibre investment could be pre-empted or duplicated at lower cost by the dominant firm, rendering it unprofitable.

Outside the telecoms sector, further financial resources are available from infrastructure investment funds. However, these funds require stable business models which minimise network duplication and maximise demand (see above). In today’s climate, these investors usually do not have such guarantees when considering alternative network investments.

NRAs can unlock the financial resources available from dominant firms and infrastructure funds and enable access to capital for entrants through policy choices as follows:

- Dominant firms are more likely to invest, making use of their considerable available cashflows, if they know that failure to invest would result in a reduction in those cashflows. **Pricing approaches to copper and fibre** are crucial in this context. BEREC and NRAs should engage closely in the work being done on this subject by the European Commission.

- Infrastructure funds and entrants are more likely to invest if there are guarantees that their investment will not be bypassed and if the copper customers currently with the incumbent could be transferred to the new fibre network, limiting demand risks. **Co-investment strategies** may help to unlock access to these resources. Reducing copper access charges or sharing the benefits of higher copper charges with operators other than the incumbent (through averaging of copper and fibre charges or through a fibre fund available to all) should address the existing problem whereby altnets are themselves starved of capital, whilst they contribute to the significant cashflows of dominant firms.

## **b) Demand-side obstacles**

Whilst we agree with NRA's assessment as to the main demand-side obstacles (lack of need, high price, early phase for NGA and lack of choice), we believe that to a certain extent these can be seen as symptoms of supply-side issues, and solutions should primarily be found from the supply-side – supported by regulators – as follows:

### **Lack of need for broadband/high speed broadband**

Vibrant, competitive markets can go a long way towards creating products that meet consumer needs. This may ultimately not just be through traditional broadband, but those not currently taking broadband services, could be attracted by other high bandwidth services delivered in a competitive market such as “on-demand” TV, new uses of the Internet (e.g. tailored to older demographics), etc.

Whilst consumer education, more generally and through schools, is undoubtedly useful, we strongly believe that boosting competition and affordability for high speed services will be the ultimate “killer app” that attracts further users to NGA.

### **High price**

Before considering consumer-specific interventions, it is essential that regulators check that regulated wholesale charges are properly cost-based and that other measures have been taken (such as ensuring effective enforcement of non-discrimination and against margin squeeze) to deliver the effective competition at retail level that keeps retail prices at an affordable level.

Only if these measures have been taken and affordability issues still remain is further intervention justified. The least distortive approach in this context would be to give subsidies directly to those low income consumers which cannot afford a competitive price. They could then select the provider of their choice in a competitive market.

If high prices are the result of the high cost of provision in a given area, because it is rural or remote, the least distortive solution would be the use of state aid to subsidise the construction of an open fibre network. Once the subsidised network is in place, competition should deliver retail services at prices similar to those available elsewhere.

### **Early phase for NGA**

Whilst it is true that it often takes time for a new technology to “take off”, take-up can be significantly accelerated through regulatory and commercial practices. It is important not to grant

regulatory holidays for NGA or neglect to ensure that wholesale charges are properly cost-based, because this is likely to result in high prices and little innovation on the new technology, which will depress demand. Exactly this phenomenon was observed in countries without effective cost-based unbundling during the launch of broadband at the turn of the century. This is clearly illustrated in a graph in the March 2010 Analysys report “Europe’s Digital Deficit” ([http://www.ectaportal.com/en/upload/Press\\_Releases/2010/Europes\\_Digital\\_Deficit.pdf](http://www.ectaportal.com/en/upload/Press_Releases/2010/Europes_Digital_Deficit.pdf)) which shows that 8Mbit/s broadband was priced at GBP300 per month prior to the introduction of effective cost-based unbundling, after which the price fell through competitive pressure to GBP20 per month.

Regulators and operators should also explore ways of minimising the price gap between copper and fibre and facilitating the transition to fibre – with copper switch-off as the ultimate objective. Minimising the price gap should not entail raising all prices for broadband, but averaging the real costs of copper and fibre could be a solution in circumstances where unbundlable fibre is actively being constructed. Switch-off has already been discussed above.

### **Lack of choice**

We agree that lack of choice of provider – with consequent effects on prices and innovation – is a significant demand-side barrier. We agree that transparency measures are useful. However, no amount of transparency will help consumers in rural or urban areas, if the choice is not available.

Facilitating choice in rural areas requires important emphasis on certain regulatory interventions that have mostly not been pursued to date. These include:

- Ensuring the availability of properly cost-based wholesale broadband access, which offers full capability for triple play services. This is particularly important in areas which cannot viably be reached through unbundling.
- Providing effectively cost-based dark fibre backhaul to reach more remote exchanges, to extend the viability of local loop unbundling.

### **2.2 Taking into account namely your assessment of the existing and potential obstacles to broadband adoption, what elements do you consider essential in the successful definition and implementation of NRA’s strategies, in particular from a demand-side viewpoint, to promote broadband?**

**When replying to question 2.2 above, please mention also what core strategic differences, if any, should be weighted regarding the consideration of those elements in rural/peripheral areas and in urban areas.**

In summary we believe the primary elements that should be considered by NRAs in shaping strategies to promote broadband are on a nationwide basis:

- The need to ensure that broadband markets are competitive including through appropriate regulation of bottlenecks.
- The need to minimise risks associated with the construction and marketing of NGA. These are primarily (i) the risk of fibre network duplication/bypass and (ii) the demand risk associated with continued operation of a parallel copper network. NRAs should

consequently look towards solutions that minimise access network duplication (open networks and co-investment) and foster rapid migration once open fibre networks are installed.

- The need to ensure a coherent pricing regime which ensures that wholesale charges are not excessive (high wholesale charges also lead to high retail prices for broadband) and that the copper charging regime is not distorting incentives to invest in fibre.

Strategies that could specifically support broadband adoption in rural areas are:

- Ensuring the availability of cost-based wholesale broadband access capable of delivering triple play services. NB this is also relevant in urban areas where physical unbundling of copper and/or NGA is not possible.
- Ensuring the availability of cost-based dark fibre backhaul to access more remote exchanges so as to make them accessible for unbundling.
- Supporting national and regional authorities in the allocation of state aid to subsidise the installation of open fibre networks in areas where such networks would otherwise not be rolled out. This is also relevant in urban areas with limited duplication where it is anticipated that NGAs could be constructed in a closed manner.

The above measures significantly affect user demand and take-up, but are essentially supply-side measures. In addition, we would advocate the following demand-side measures to be available on a nationwide basis:

- Support for transparency mechanisms, which may or may not be operated by the regulator, which enable customers to effectively compare broadband offers. Switching processes should also be supported.
- Advice to national authorities on the use of subsidies directed at low income users to enable them to afford commercial broadband services (ensuring choice of retail service provider).

### **Question 3**

**What elements do you consider essential for the successful definition and implementation of operators' strategies, in particular from a demand-side viewpoint, to promote broadband, with regard to:**

#### **a) Fixed broadband**

The success of competitors' business models is based on the ability to differentiate their offers both in price and quality. It is essential in this context, that the inputs that competitors' rely on to access customers allow full flexibility over the capabilities of the network and do not restrict the ability to innovate. For standard broadband, cost-based unbundled elements such as copper LLU are preferred in this respect. However, unbundling is not economically viable in all areas or for all operators (eg in countries where competition is not yet established or for operators such as business providers that do not have a mass market presence). Wholesale broadband access products should also enable competitors to offer the full range of services including IPTV, for residential customers, or multiple VPNs, for business customers, and should allow flexibility over the speed offered.



The report correctly identifies that bundling of fixed services is a common practice. This is indeed because the high bandwidths available through fixed technologies lend themselves to the provision of enhanced services such as IPTV. Competitors were the first in Europe to innovate with the provision of such services. However, care is needed to ensure that competition can be preserved as bundles become increasingly prevalent. One issue is the need for IPTV-capable wholesale, broadband access (as described above – capability being in both technical and economic terms). The development of content offers including potentially with online service providers may also become a key differentiator. In principle such “managed services”, which are likely to be offered alongside and not instead of traditional Internet services, should not be prevented through overly restrictive “net neutrality” requirements. However, deals with content providers, including premium sports rights holders or key website owners, could also give rise to competitive problems in the provision of broadband offers, which should be addressed.

We also acknowledge, as mentioned in the report, that discounts can be used to boost broadband take-up, and competitors also naturally engage in discounting activity. It is important to ensure however, that when discounts are offered by an SMP operator, that they do not have anti-competitive effect. Margin squeeze tests should be carried out for discounted offers, and if a squeeze would arise that impacts competition, the discount should be made on the basis of the wholesale charge.

#### **b) Mobile broadband**

As a still nascent market, take-up of mobile broadband is most likely to be accelerated in the short term through increased competition in mobile services. It is important in this context that providers have the technological capability to compete on quality of service. Measures to address historic spectrum imbalances and ensure that the allocation of the digital dividend strengthens competition rather than concentrates the market will be important in providing this competitive dynamic.

Due the restricted nature of wireless bandwidth, operators face particular challenges in ensuring that bandwidth is efficiently utilised. Whilst anti-competitive practices should be prohibited, providers should not be prevented from taking reasonable and non-discriminatory measures to manage traffic, provided such measures are accompanied by transparency. Mobile operators should provide clear information about what they are providing and any limitations and ensure that any service described as “Internet access” provides access to all available content and services.

#### **c) NGA broadband**

Stimulation of NGA take-up is most likely to be achieved through keeping costs and retail prices as low as possible and by maximising the potential for innovation on the network through competition. Bundling is likely to become even more prevalent than for standard broadband and “penetration” pricing could be used in the initial period to facilitate migration from standard copper services (although today excessive price premiums seem to be the more favoured strategy of dominant firms). In this context NRAs should support strategies from operators which:

- Minimise costly and uneconomic duplication/bypass of the access network.
- Ensure that NGA access networks are open to competition at cost-based rates.

- Incentivise the construction of NGA networks which inherently enable competition and innovation (eg point to point fibre).
- If network architectures do not readily permit physical unbundling, an effective alternative should be provided that leave quality of service and pricing in the hands of the competing operator. Dominant firms should not for example be able to set pricing for physical unbundling or an equivalent on the basis of speeds – price points should be left to the market through competition on the basis of cost-based basic physical access inputs or equivalent. Products should also support the provision of IPTV for consumers and multiple VLANs for businesses and enable an entrant to innovate in the provision of bundles.
- Efforts should be made to ensure that “penetration” pricing strategies do not squeeze rivals out of the market. It may be more appropriate for discounts to be given at wholesale level and/or for discounts on NGA access to be subsidised for all operators from any excess profits made on copper lines.

**Question 5: in addition to the initiatives already taken by BEREC with regard to the promotion of broadband from a supply-side perspective, what other initiatives do you perceive it is important that BEREC develops in the future from that perspective?**

We believe that supply-side drivers will be crucial in boosting demand for NGA. We therefore support BEREC’s initiative to update its guidance on best practice to reflect NGA (including to take account of the Commission’s NGA Recommendation), to monitor application of best practice and consider the implications of co-investment. In addition, we would like to see further focus from BEREC on:

- Replicability and the identification of those network elements where duplication is unlikely to be viable on a widespread basis.
- Copper and fibre pricing strategies as a means to provide incentives to invest in open fibre networks and input to the Commission’s future Recommendation on this subject.
- A standardised definition and technical specifications for key wholesale products in an NGA environment. This is important to spread best practice in definition of unbundling, VULA and wholesale broadband access in an NGA context (including how to specify products in a way which enables innovation and the provision of bundled offers by competitors), and also to enable the provision of coherent inputs for business services across Europe.
- Collection of benchmarking data showing the architectures used for NGA and the prevalence of wholesale access (unbundling and wholesale broadband access) over those networks.

We are not opposed to the introduction of broadband mapping programmes, tax incentives and administrative simplification measures, but would tend to agree with the findings of the FSR study that these are unlikely to have the most significant impact on outcomes. It is important also that measures are not adopted which impede broadband adoption such as sector specific taxes or measures to cross-subsidise other sectors with revenues from broadband services.

**Question 6: A list of potential measures was identified in the present document that could be adopted or reinforced in order to promote broadband from a demand-side perspective.**

- a) **Are there any identified demand side measures that you consider inappropriate?**

**b) What other demand-side measures, if any, would you consider particularly important to promote broadband?**

We agree with the statement in 10.2 that one of the most important instruments that NRAs have at their disposal to stimulate broadband take-up is the promotion of competition.

Whilst we do not disagree with the demand-side measures suggested (such as provision of subsidies to low income households, promoting native language content, e-government), it seems that many of the measures (with the exception of billing, complaint handling and transparency measures) may fall outside the remit of most NRAs' mandates, and are in any event likely to have less of an overall impact than the demand boost through lower prices and greater choice that can be created from competitive markets.

We would prefer NRAs to focus their efforts on using the powers explicitly given to them under the EU Telecoms Framework to:

- Promote competition and efficient investment (including through ensuring that bottlenecks are appropriately regulated).
- Promote affordability by ensuring that regulated wholesale charges are properly cost-based.
- Promote choice (including in rural areas and with the introduction of NGA) by
  - ensuring that wholesale products allow full innovation in product offerings and price by competitors. The specification of wholesale broadband access products to allow triple-play and advanced business services will be particularly important in this respect.
  - ensuring that prices do not create a margin squeeze and that requirements for non-discrimination are strictly defined and enforced.
  - facilitating switching.