EU Guidelines for the application of state aid rules in relation to the rapid deployment of broadband networks

Virgin Media Consultation Response

September 2012

Executive Summary

Virgin Media welcomes the opportunity to respond to the Commission’s consultation on draft revised State aid guidelines for broadband networks (the ‘Guidelines’). Given the focus across the EU on stimulating broadband deployment and take up, these guidelines are of central importance. Aid in the context of broadband deployment is of course important, but of far greater importance is the effect that these guidelines have on private investment in networks and network infrastructure.

Virgin Media recognises that in situations of proven market failure, where commercial investment is not viable, State aid can have a role to play in fostering the deployment of broadband. In this regard, achievement of the EU’s broadband ambitions will require the use of public funds in certain circumstances to prevent the emergence of societal exclusion. However, if the guidelines do not create the right conditions or if State aid is used inappropriately, either will result in severe market distortions, both disincentivising and crowding out private investment. Such intervention must therefore be made on a strictly controlled basis and in a targeted manner.

Sustainable private investment, giving rise to true infrastructure based competition, is the best way to meet the Commission’s over-riding objectives and to improve the EU’s position in international connectivity rankings. Successful outcomes are not achievable without private investment as public funds alone cannot achieve the Commission aims. This means that the Commission needs for example to take a far more restrictive approach to the approval of aid to grey areas. However, this is not the only reason why the Commission needs to consider the approach advocated by the Guidelines to date. There are other traditionally “accepted” practices prescribed in the Guidelines which merit careful consideration, including circumstances where the consumer interest may be better served by refraining from imposing access conditions.

Although no end date is given in the Guidelines, they are likely to apply for the next 3 to 5 years - which is the period during which the bulk of investments must be made if the Digital Agenda targets are to be met. Their focus must be to encourage and safeguard competing, private investments, with State intervention used not only in extremis as a backstop, but also open to all infrastructure competitors rather than just incumbents. This must be the focus of the Commission and Member States. Single network competition limited to discounting against an incumbent’s prices will not lead to genuine infrastructure competition, or resulting benefits in the form of investment in infrastructure and innovation.

Against this backdrop, we consider that the key proposed revisions to the Guidelines present a serious risk to the EU’s digital ambitions. The Guidelines send a negative signal to potential investors in broadband in the EU which will chill further investment by existing players and, at the most extreme, result in new funds being diverted to other territories where the regulatory and policy regimes are more supportive of private investment.
If aid is granted in additional circumstances as envisaged in the proposed Guidelines it will also undermine existing investments, thereby jeopardising progress that has already been made towards the Commission’s objectives. This is particularly concerning for Cable operators such as Virgin Media. Cable operators have invested billions of pounds in market leading, future proof broadband networks that demonstrably stimulate investment in other competing networks, only to see them classified as ‘interim’ solutions by the Guidelines and to face the prospect of having them over-built by State funded, unnecessary, Fibre to the Home (“FTTH”) networks.

The rationale for the current revisions and anticipated interventions is, in our view, not objectively justified and is not based on objectives of common interest. It disregards the continuing, substantial contribution that competing privately funded operators have made towards the EU’s digital ambitions and the level of choice, innovation and competition that is already available to consumers. Operators’ ability to upgrade existing networks and to foster conditions in which there is an incentive to continue to make such investments must be taken into account.

The current revisions put this progress at risk, and indeed the prospect of future such progress, on the basis of funding speculative projects that are not reflective of actual demand or market realities. As well as undermining competition, granting aid to such initiatives at the expense of areas that genuinely require assistance from the State presents a serious risk of widening the digital divide. These risks arise, for example, from:

- Deployment of State funded networks in areas where NGA networks already exist, regardless of the prevailing level of competition, innovation and actual evidence of the practical and reasonable needs of end users
- The introduction of a third category of ‘future proof’ broadband network, based on speculative future needs
- Favouring a particular type of technology (namely FTTH), at the expense of others
- Ambiguity and confusion caused by inconsistency with established principles and other policy and guidance

The proposals are all the more disappointing given the apparent stark inconsistency with the latest, progressive and encouraging guidance from the Commission relating to the broadband investment environment.

Virgin Media considers that this is the right time for the Commission to take a bolder and far more sophisticated approach to stimulating broadband investment with these Guidelines, and with greater encouragement for true infrastructure based competition. To achieve this, the following steps are necessary:

- Removal of the third, ‘ultrafast’ category distinction
- Reinstatement of the principle of technological neutrality
- Confirmation that State aid will be used on a controlled and exceptional basis, to address proven market failures

• Assurance that existing, well functioning investments, which deliver innovation and meet users’ needs will not be over-built with publicly funded networks
• A more progressive approach to the granting of aid in grey and white areas
• Recognition that ‘closed’ networks represent a viable business model and can therefore be eligible for aid in certain circumstances
• A general presumption that there should not be a granting of aid in areas where Cable operators’ (NGA networks) are present
• Greater transparency of aid measures
• Removal of external and internal inconsistencies and ambiguities
• A broader role/greater responsibility for NRAs in any consideration of the granting of aid
• In the broader context, a much stronger focus on removing barriers to broadband deployment, and on the promotion of demand side measures

The approach to this version of the Guidelines will shape the development of the sector over the next 20 years and revisions made to them now will determine whether the Digital Agenda targets will be achieved. The proposals as they currently stand will lead to opposite outcomes to those sought by the Commission.

Introduction

Virgin Media shares the overall objectives of the Commission in driving forward the deployment and take up of high speed broadband services. It has invested billions of pounds to be able to deliver next generation broadband services. Virgin Media has consistently stated that it does not oppose the use of State aid in the appropriate circumstances. However, the broadening of the circumstances in which it will be possible to grant aid – in particular the contemplated public funding of facilities in areas where there is no market failure or issues of social exclusion – is damaging to the prospects of private investment and contrary to the purpose envisaged for such an intervention under the Treaty on the Functioning of the European Union (“TFEU”).

Considerably more effective and efficient measures can be taken to achieve the Commission’s ambitions. Arbitrary speed focussed and technology specific targets aside, market forces, underpinned by privately funded, and infrastructure based competition have been proven to deliver the best outcomes for citizens and consumers, more than meeting demand and providing end users with innovation and choice. This approach will deliver the Commission’s requirements at significantly lower cost, in a quicker timeframe and with better long term results than the currently envisaged expansion of the public funding of networks into competitive and well functioning areas.

The proposed revisions as drafted could lead to almost the entirety of the EU being classified as ‘white’ for State aid eligibility purposes. This is not consistent with a market failure approach and the ubiquitous deployment of State funded networks is neither economically viable nor desirable.

In the UK it is estimated that the cost of deploying FTTH to the entire country would be in the range £15 billion to £25 billion\(^2\). This contrasts with only £1 billion of public

\(^2\) See, for example, [www.broadbandwatchdog.co.uk/ftth.php](http://www.broadbandwatchdog.co.uk/ftth.php) and “The costs of deploying fibre-based next-generation broadband infrastructure – a study for the Broadband Stakeholder Group by Analysys
money allocated to fund broadband networks (a material portion of which is drawn from the BBC licence fee and does not represent ‘new’ public money).

The cost of deploying FTTH across the extent of the EU is estimated at EUR 190 billion to EUR 300 billion\(^3\). The proposed EUR 9 billion of funding set aside for telecommunications and ICT in the Connecting Europe Facility\(^4\) similarly falls far short of this. We further understand that this figure is likely to be significantly reduced as the budget is finalised.

Even on a conservative view it is clear that public funding is scarce and falls short of what is required to meet both the Digital Agenda targets and the Commission’s broader aims. This illustrates the necessity for private investment and the need to encourage and safeguard it.

Given the scarcity of public funds, it is all the more important that they are utilised in an effective and efficient manner. The allocation of public money to ‘showcase’ projects in cities when other areas exist that genuinely require State assistance to meet basic targets cannot be permitted. State funds must be used where they are most needed, and efforts focussed on allowing the market to deliver in other areas

**Background and Context**

**About Virgin Media**

Virgin Media operates a communications and entertainment business and offers a “quad play” of broadband, fixed line telephony, mobile telephony and TV products. We provide services to over 6.8 million residential and (in relation to some services) enterprise customers in the UK.

We have already made substantial investments in next generation facilities and operate an independent, hybrid fibre coaxial (HFC) infrastructure which is a next generation broadband network in its own right. This network passes in excess of 50% of homes in the UK, and customers across the entire network footprint have access to a 100 MBit/s broadband service. This figure will rise to 120MBit/s by the middle of 2013.

The Virgin Media network is a fibre rich installation, within which high capacity fibre has typically been deployed to within a few hundred metres of end users’ homes (the final drop consisting of coaxial cable). This topology allows the delivery of both very high speed broadband and next generation digital TV services to end users, and the bandwidth that it supports enables those two services to be provided on a discreet, or independent basis, with specific capacity dedicated to each, such that they do not compete for network resource.

**Cable Innovation**
Across the EU, Cable has led the way in the deployment of successive generations of internet access capability – and this is particularly true of the UK. Cable operators were first to introduce unmetered internet packages in the late 1990s. They similarly pioneered the evolution from dial-up to broadband internet access. Most recently, Virgin Media was the first to market with 50 MBit/s and then 100 MBit/s superfast broadband services – and we have continued to raise the industry benchmark for such products. In this regard, at the start of 2012 we commenced a speed doubling program, via which we are automatically doubling the majority of our customers’ broadband speeds. We also have an ongoing program of investing in our network capacity, ahead of demand, and we continually investigate further measures by which to drive the advancement of NGA services and the take up of them.

The investments that we have made in the network have enabled us to make a substantial contribution towards the UK’s achievement of the Commission’s Digital Agenda broadband targets. Indeed, within the Virgin Media footprint the 30 MBit/s coverage target has already been met – more than 8 years ahead of schedule - and good progress is being made towards the third (100 MBit/s take up) target. The same is true of the majority of other Cable operators across the EU. We remain fully supportive of the overall objectives of the Digital Agenda and intend to make further significant contributions towards achievement of the broadband targets.

Importantly, all of the advancements outlined above, and the consequential benefits that they have delivered to consumers, have been achieved solely via private investment.

Future Focussed Cable Networks

The DOCSIS 3.0 standard, to which Virgin Media upgraded in 2009/10, is easily scalable to deliver download speeds in excess of 400MBit/s and we have tested it in the field at speeds of 1.5 GBit/s\(^5\). This pilot, undertaken at as part of a project in a ‘technical hub’ area of London, also demonstrated the scope for Cable networks to deliver innovative products and solutions to certain business users.

Most recently, tests by other operators have achieved speeds of 4.7 GBit/s (or 4,700 MBit/s) using this same technology\(^6\).

In terms of upload speeds, Virgin Media currently provides an upstream capability of up to 10 MBit/s. This is a speed which until only relatively recently was regarded as a very fast downstream speed – and indeed remains better than many end users in white areas currently achieve in the downward stream. There is scope, also, for our upstream speeds to be increased. By investing in further capacity and/or reconfiguring frequency allocations, Cable operators could achieve a significant uplift in this capability, should demand materialise.

We would also draw the Commission’s attention to the fact that Virgin Media’s current generation of customer premise equipment is capable of supporting 400MBit/s downstream and in excess of 40MBit/s upstream speeds, so is well placed for future upgrade.


The network architecture itself also lends itself to further enhancement. Indeed Cable operators, including Virgin Media, have over time progressively deployed fibre deeper into the network (or closer to the customer) as end user demands evolve – and there again remains scope to deploy fibre deeper still, should future demand dictate.

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The scope for Cable networks to be upgraded using current protocols, and indeed the prospects for future enhancement, demonstrate very well that such networks are very well positioned for the future, and that they should not, as the revised Guidelines purport (at paragraph 54), be regarded as ‘interim’ solutions.

Investments

Virgin Media has made a substantial financial commitment to the deployment of broadband networks. Overall, we have invested in excess of £13 billion in network infrastructure and the associated facilities within the UK, and we are continuing to add to that.

The various components of our upgrade to the DOCSIS 3.0 standard for example saw a further combined investment of several hundred million pounds. We are making ongoing investments in capacity upgrades and capability enhancements. Most recently, we have committed an additional £<CONFIDENTIAL> to the above mentioned speed doubling initiative and this project is scheduled to be completed by the end of 2013. In addition, as a part of this initiative we are also increasing the capability of our top tier broadband service from 100 MBit/s to 120 MBit/s – and we would emphasise that the existing top tier of 100 MBit/s has been available to customers across our entire network footprint for several years.

The project also entailed the upgrading of our entry level broadband product for new customers to a 30MBit/s service. All new customers joining Virgin Media will therefore automatically be provided with NGA speeds.

We have also invested in upgrading our upstream capability, such that upload speeds of 10MBit/s are available across the network footprint. While, as we demonstrate later in this response, demand from our customers for higher upload speeds remains modest, and certainly shows no evidence of a requirement for symmetrical capability, we have been investing ahead of demand. This upstream capability is also capable of being upgraded to support speeds considerably in excess of this figure, should customer demand require it.

The chart below shows the investments that we have made in our broadband capability and corresponding products over the last few years – and this is in addition to the billions of pounds spent on deploying the network in the first place.

Chart 1: Virgin Media Broadband Investment Capital Expenditure 2008-2012

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7 The DOCSIS 3.0 rollout was phased: Initially the network was upgraded to a 50MBit/s capability, and then 100MBit/s. In addition to the introduction of the new standard itself, it was also necessary to increase capacity, deploy new network and customer premise equipment etc.
Research has demonstrated that Cable operators reinvest, on average, over 20% of their turnover in their networks and associated products – and Virgin Media’s re-investment profile is consistent with this figure. <CONFIDENTIAL>.

This contrasts, for example, with incumbent operators who typically re-invest 12%. The below chart shows our re-investment profile in the period 2008-2012 – and we anticipate this trend continuing into the future.

**Chart 2: Virgin Media Re-investment Profile 2009-2012**

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These facts demonstrate very clearly that there is no lack of investment, or willingness to invest, in areas where Cable operators are present. Cable operators have a proven history of undertaking substantial competitive, market/demand driven investments, and will continue to be compelled to do so in the future, as long the regulatory framework remains conducive to it.

However, if the Commission proceeds to implement the proposed revisions to the Guidelines, not only will the investments that have already been made be undermined, but there will be a very strong disincentive to future such investments.

**Competitive Dynamics**

The investments and innovations outlined above have acted as a catalyst to competing providers – in particular incumbents. Advancements introduced by Cable operators in each of the above instances have compelled those other providers to react and to invest in order to remain competitive and to differentiate their product offerings (also using private funds). This has lead to broadband following a continuous, self fulfilling cycle of investment and counter investment as Cable operators seek to maintain a first mover advantage and satisfy demand, whilst competing providers respond and attempt to move ahead.

This is particularly evident in the UK, where the incumbent operator (BT) has responded to Virgin Media’s DOCSIS 3.0 upgrade by upgrading its network to NGA capability, and countering subsequent Virgin Media speed upgrades with additional capability upgrades of its own. These investments by BT to date total £2.5 billion⁸, and there is no reason to doubt that further investment will follow.

The Commission itself has also recognised the important role played by Cable in driving competition and innovation. Indeed, the September 2012 Communication on investing in digitally driven growth⁹ notes that “Cable networks…are being gradually upgraded to higher speeds through deployment of DOCSIS 3.0 and extension of their backhaul networks. Cable competition gives incentives to copper network operators to invest in VDSL…and in optical fibre to the home (FTTH)”.

It is important to draw a distinction between infrastructure based competition and competition between providers using a single underlying network. The latter does not lead to investment in networks or innovation. Given that such competition is reliant on the same underlying input, there is little scope for differentiation. In addition, the

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⁸ See for example: [http://www.btplc.com/news/Articles/ShowArticle.cfm?ArticleID=6939BFAC-7F41-4383-8B09-17FCDF38D7A2](http://www.btplc.com/news/Articles/ShowArticle.cfm?ArticleID=6939BFAC-7F41-4383-8B09-17FCDF38D7A2)

⁹ Communication adopted by the Commission in September 2010 “European Broadband: Investing in digitally driven growth”
owner of the host network has little incentive to innovate in the absence of a coexisting competing infrastructure.

Competition based on a single underlying network is driven solely by price competition. This has the effect only of driving down price and erodes the value of infrastructure. This deters investors and ultimately will prevent development of the long term sustainable environment upon which the EU’s ambitions are critically dependent.

It is a well established fact that the best consumer outcomes are observed where there is competition between sustainable, privately funded infrastructure providers. While this model may not be viable in all areas, the Commission’s focus should therefore be on doing its utmost to encourage and safeguard such an approach and ensuring that it prevails to the greatest extent possible.

**Comments on the Proposed Revisions**

As set out above, we consider that the proposed key revisions contain a number of serious shortcomings, are based on misguided justifications and contain inconsistencies.

Specifically, the proposed revisions to the Guidelines demonstrate:

- Disregard for the established purpose of State aid and accepted economic and regulatory best practice
- Absence of a well defined objective of common interest
- Failure to understand and reflect actual market circumstances and disregard for potential distortive effects on both target and adjacent markets
- Divergence from the principle of technological neutrality
- Stark inconsistencies with other EU policy areas and guidance
- Failure to take account of alternative, less intrusive measures

As a result the proposed amendments promote an inefficient and wasteful use of public funds and risk the granting of aid approved by the draft Guidelines being declared incompatible with EU law by the EU courts.

We elaborate on our observations and concerns in this regard below.

**Disregard for the Established Purpose of State Aid and the Absence of a Well Defined Objective of Common Interest**

The purpose of State aid is to remedy market failures and, in certain circumstances, to address enduring issues of cohesion. In the context of broadband, the Commission envisages the latter as relating to the ‘digital divide’¹⁰, whereby citizens and consumers in certain areas are disadvantaged as a result of a regional inequality in broadband services. The Commission’s emphasis in the draft Guidelines on speed (over coverage), creating a ‘step change’ and on future proofing networks will encourage the granting of aid in instances other than to remedy market failures. In short, the amendments to the Guidelines focus on objectives which are not in the common interest.

¹⁰ See, for example, draft Guidelines paragraph 38
The Commission suggests that the principal objective of the proposed revisions to the Guidelines is to enable achievement of the Digital Agenda targets, in particular the third Digital Agenda target of 50% take up of above 100MBit/s\textsuperscript{11} services.

Regardless of whether achieving penetration rates of a particular internet connection speed is in the common interest, amending the Guidelines in the manner proposed may actually undermine this objective by deterring private investment. In any event, the market is, in the vast majority of areas, more than capable of meeting the Digital Agenda targets without State intervention.

For example, in Cable areas, the network investments required to meet that third Digital Agenda target have already been made. That is, the vast majority of Cable operators already offer 100MBit/s and above services to end users across their footprints. There is, in addition, very strong evidence of competing operators in those areas upgrading their networks in order to compete. The meeting of the third Digital Agenda broadband target in these areas is therefore not dependent on further investment. The granting of aid to achieve that aim in such circumstances would represent a wasteful use of public funds.

In any event, a failure to meet the Digital Agenda targets does not constitute a market failure. Speed focussed targets alone do not represent a wider objective of common interest. The recent House of Lords report into UK broadband policy recognised this point, concluding that ‘The delivery of certain speeds should not be the guiding principle; what is important is the long term assurance that as new internet applications emerge, everyone will be able to benefit, from inhabitants of inner cities to the remotest areas of the UK’\textsuperscript{12}. The granting of aid to achieve what in effect would be the forced take up of a particular speed of service (a choice that should be left to the market), is inconsistent with its core purpose. Penetration targets are a demand side, not a supply side issue. It is not the role of State aid to drive demand.

The revised Guidelines also contemplate the granting of aid to support ‘future proof’ networks, based on a specific technology (namely FTTH), and on the basis of the beneficiary delivering a step change in capability. This is proposed irrespective of the prevailing market conditions or actual demand in an area and therefore does not correlate to the addressing of a proven market failure. None of these objectives is sufficiently in the common interest to justify the granting of aid, nor are they consistent with the established purpose of such intervention.

These objectives fail to take account of the extent to which existing networks are upgradeable and are therefore ‘future proof’. In black areas in particular, market dynamics are such that if there was tangible demand for a step change in capability, private operators would, logically, have an adequate incentive to invest and satisfy that demand without the need for State intervention. The granting of aid under such circumstances will, in addition to causing severe market distortions, foreclose future market investment aimed at delivering enhanced capabilities.

It is clear from Commission decision-making practice and the case law of the European Court of Justice that the common interest in State aid cases should be to...

\textsuperscript{11} See the FAQs accompanying the proposed revised form of the Guidelines
\textsuperscript{12} http://www.publications.parliament.uk/pa/id201213/idselect/idcomuni/41/4103.htm
remedy market failures\textsuperscript{13}. The draft Guidelines suggest that in black areas there is no market failure\textsuperscript{14}. This is consistent with decisional practice which equates market failure with insufficient broadband coverage or regional inequalities\textsuperscript{15}. Therefore focussing aid on the achievement of arbitrary targets or vague, aspirational outcomes, at the expense of targeting areas that have a genuine need for State assistance is clearly not in the common interest and will not position the EU well for the future.

Failure to Understand and Reflect Actual Market Circumstances and Characteristics

\textbf{General Demand:}
The Commission bases many of its proposed revisions on perceived or speculative future demand. In particular, the justification for the introduction of the ‘ultrafast’ broadband category and the favouring of FTTH networks is based on the rationale that end users will require symmetrical capability and other enhanced characteristics in the near future. Not only does this rationale fail to take into account the capabilities, and scope for upgrading of other types of networks, but it does not reflect reality.

The vast majority of end users have shown no demand for symmetrical capability – demand for higher upload speeds is modest. \textlt<CONFIDENTIAL>\textgt

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\textbf{Distinction Between Business and Residential Users’ Needs:}
There is an emerging trend for business users’ needs to have a greater influence on any consideration of the granting of aid. Indeed, there is a notable shift towards the requirements of business users being used as a principal justification for the public funding of a particular technology and/or a higher level of capability than would otherwise be required by the market (including where those areas have already been categorised as NGA black for State aid assessment purposes). This is apparent both in the proposed revisions to the Guidelines and in a number of initiatives that are currently being advanced in some Member States (for example the Super Connected Cities/Urban Broadband project in the UK).

While satisfying the needs of business users is a necessary objective which may, in certain circumstances, warrant the use of State resources, it is important that the needs of business users, and the dynamics of the market, are fully understood before aid is granted. Any perceived market failure must be fully tested, proved and contextualized.

In particular, the relevant authorities must be absolutely clear about the market in which any perceived failing exists. Without this contextual analysis, the focus on business users risks distorting and chilling future investment, not just in consumer broadband, but also in enterprise connectivity (which in many instances is already competitive and offers business users a high level of choice and innovation).

\textsuperscript{13} Case C-403/10 P Mediaset v. Commission [2011], para. 24. This is also confirmed in Commission decision-making practice. See, for example, Commission Decision of 19 July 2006 C 35/2005 Broadband infrastructure in Appingedam.

\textsuperscript{14} Draft Guidelines paragraph 66

\textsuperscript{15} For example, Commission Decision N473/2007 – Italy, Broadband connection for Alto Adige; Decision N570/2007 – Germany, Broadband in rural areas of Baden-Württemberg.
Residential broadband users’ needs are typically characterised by (download) connectivity speeds. In contrast business users may have a myriad of needs based on some or all of the following:

- Enhanced resilience and security
- Specific download and upload speeds and potentially symmetry of up/download speeds
- High service levels, including performance level guarantees
- Fault and repair lead time agreements/guarantees
- Fixed IP addresses
- Uncontended services (typically via dedicated bandwidth)
- Dynamic configuration and control capability
- Longer lifespan of accompanying equipment
- Multi-site connectivity

Business users’ needs are normally best served by enterprise grade products. These products are typically provided via dedicated, business specific networks, which are geared towards providing this greater level of capability and service.

Enterprise grade products are distinct from services provided over residential grade networks, which generally take the form of an aggregated infrastructure, in which multiple end users share and compete for capacity over single connections to the core network.

The costs of deploying, and providing services over enterprise grade networks are markedly greater than ‘residential grade’ alternatives. This is why enterprise grade products are generally provided ‘on request’ or in response to specific demand - and the different economics are reflected in the level of end user charge.

‘Residential grade’ networks on the other hand are typically deployed on a more speculative basis, because of the (relative) lower cost per end user of deployment and higher density of the addressable market.

It is not appropriate for business users and policy makers to expect residential grade broadband products to have the same level of capability or service as products provided for enterprise connectivity – and certainly not at residential grade pricing levels. It is also not reasonable to expect products provided in the broadband market to offer GBit/s speed levels, symmetrical capability or uncontended/dedicated connections, when those features are not reflective of the current broadband demand profile in a given area.

This must be reflected in any policy applying to the granting of aid to satisfy the needs of business users. It is not, for example, appropriate to grant aid for the purposes of deploying a network in an NGA black area on the basis that the existing or planned networks in that area are not providing products that are typically features of the adjacent enterprise connectivity market. Nor where demand is not reflective of the general, reasonable requirements of the majority of end users.

We note also that there is a trend towards advocating speculative or predicted future business user need as a justification for the granting of aid for (residential grade) broadband networks in areas that are otherwise competitive and meeting the demands of end users. Again, this does not constitute a market failure and does not reflect the established basis on which the granting of aid should be based.
To the extent that any market issues are proven to exist in this regard, there are alternative, less disruptive measures available to address them. These could include, for example, voucher schemes or guarantees for network operators.

**Investment Signals and Incentives**

As we have set out elsewhere in this response, the outcomes sought by the Commission depend on private investment and with it sustainable, true infrastructure based competition. In addition, the Commission must support market forces if possible rather than State intervention (as to do otherwise risks wasting public money)\textsuperscript{16}.

It is widely accepted that the key challenge with investment in NGA lies not in the availability of funds, but in the attractiveness and security of investments\textsuperscript{17}. This applies to the regulatory backdrop and the practical and administrative aspects of network deployment.

**The Regulatory Backdrop:**

Encouraging private investors rests on them being persuaded that there is sufficient certainty to underpin the kind of large scale, long term investment that deployment of NGA networks requires. The amendments to the Guidelines will undermine confidence among operators and the investment community as opposed to fostering it.

First, the overt intervention foreseen by paragraphs 77 and 78 of the revised draft Guidelines provides a clear indication that regulatory certainty could be sacrificed at any time in order to meet a political ambition. Undermining past investments, as contemplated by these paragraphs risks deterring all types of future investment, regardless of the type of technology upon which that investment is based.

Second, the proposed amendments will not assure investors that their investments for the future will be worthwhile. They place investments that have already been made in broadband networks in the EU to date in significant jeopardy. Such investments were undertaken on the basis of an entirely reasonable expectation that they would not be undermined at some point in the future by a change to the established regulatory regime.

Amending the Guidelines in the manner proposed sends a clear signal to investors that their investments could be sacrificed at any time in order to meet a political ambition. This is the quickest way to erode the assurance and confidence that is needed in order for investment to take place.

**Barriers to Broadband Deployment:**

Investors also need to have confidence that investments will not be frustrated by practical or administrative difficulties – both in the deployment and in-life servicing. Issues that require urgent resolution in this regard include:

- Inefficiencies, restrictions and lack of certainty in planning regimes
- Bureaucratic or illogical wayleave/right of way arrangements
- Inequitable and inconsistent ratings regimes


\textsuperscript{17} See for example "Four Steps for Fibre – A Presentation to the ETNO/Total Telecoms Conference, May 2012", HSBC

Virgin Media Limited (Company number 2591237) is registered in England.
If these regimes were more efficient and equitable, deployment in areas that are currently uneconomic could become feasible, thereby reducing the need for the application of State funds.

We refer, in this regard, to Virgin Media’s response to the Commission’s consultation on reducing the cost of rolling out high speed communication infrastructure in Europe.\textsuperscript{18}

Overall, we would emphasise that if investors believe that there is a risk that investments made today may be jeopardised by changes to the regulatory regime within the lifetime or pay back period of those investments, they simply will not commit funds. Similarly, barriers to network deployment, or frustrations around in-life servicing represent a significant deterrent to investment.

The EU must compete with other territories for investment funds – the existence of an investment friendly environment is therefore vital. Investors have a wide choice of countries in which to invest and will not be encouraged to do so within the EU on the basis of the draft Guidelines.

**Technological Neutrality**

The principle of technology neutrality is a key underpinning of policy making. Indeed, more explicitly, it is a key underpinning of much EU legislation and regulation, established in case law.\textsuperscript{19} It is fundamental to promoting a favourable investment environment and allowing private operators to take market led, demand influenced technology decisions.

By favouring or effectively mandating a specific technology (namely FTTH),\textsuperscript{21} the proposed revisions to the Guidelines conflict with this principle and the spirit on which existing regulation and guidance is based. More specifically, as we elaborate below, the de facto discrimination against other, non-favoured technologies is legally questionable.

\textsuperscript{18} Public Consultation on an EU Initiative to Reduce the Cost of Rolling Out High Speed Communication Infrastructure in Europe, European Commission, May 2012


\textsuperscript{21} See, for example, draft Guidelines, paragraph 77
The deviation from the position adopted by the Commission in other, recent (and related) policy decisions is also notable:

- The Communication on investing in digitally driven growth, adopted by the Commission in September 2010\(^{22}\) states, in reference to the Digital Agenda broadband targets that “To reach these ambitious objectives it is necessary to develop a comprehensive policy, based on a mix of technologies…”

- Similarly, Commissioner Kroes’ recent policy statement on enhancing the broadband investment environment\(^{23}\) explicitly cautions against an approach that is not technology neutral: “We should be wary of picking winners. Technology neutrality is just another way of saying that we cannot predict with any certainty what the best technological solutions will be, nor how they will compete and interact”

In the wider context, favouring or mandating of a specific technology is counterproductive. It is clear that achievement of the Digital Agenda targets is dependent on the use of a number of different technologies. Favouring FTTH networks over others will send a negative message to operators and investors that have committed to alternative technologies, creating the impression that they have a limited life span and deterring further investment in them. This reduces the prospect of achieving the targets.

It is important to recognise that FTTH is not the only technology capable of delivering the Digital Agenda targets. Cable networks already offer speeds of 100 MBit/s and above to around 50% of EU households, and there is no reason why FTTC networks and indeed nascent LTE technology will not continue to evolve to deliver higher speeds. We note that the Commission itself has recognised this fact. Specifically, the Communication on investing in digitally driven growth\(^{24}\) states that “Both FTTH and DOCSIS3 can meet the broadband targets with speeds above 100 Mbps”.

The over-building of existing networks that are capable of meeting the targets with publicly funded FTTH networks is unnecessary and represents a waste of scarce public money – particularly when there is a greater need for such funds to be deployed to improve connectivity in areas not served by commercial deployments.

There is no demonstrable evidence of general demand for services that are beyond the current future capabilities of those technologies that are currently regarded as ‘interim’ solutions by the Commission, such as Cable and FTTC networks.

In deciding whether to approve any grant of State aid, the Commission must therefore continue to take a technology neutral approach. While it is within the Commission’s gift to express a view on the suitability of different technologies, market forces and competition should determine what technologies are best suited to meeting demand. This approach will lead to far better outcomes and presents the best chance of meeting the objectives.

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Deviation from the Principal of Technological Neutrality Cannot be Justified by the Establishment of 'Ultra-Fast' Networks

In section 3.3.3 of the draft revised Guidelines, the Commission foresees the granting of aid to ‘ultra-fast’ networks in the context of the Digital Agenda targets and, more generally, on the basis of them possessing significantly enhanced technological characteristics compared to existing networks. Paragraph 77 also confines such networks to FTTH installations. The rationale underpinning the introduction of this additional category of service is flawed on a number of key grounds:

- the Commission has overlooked the ability of existing or other types of networks to meet the Digital Agenda targets – particularly Cable networks, as we have demonstrated above.

- account has not been taken of the ability of existing networks to be upgraded to demonstrate comparable characteristics to FTTH networks, or to meet actual demand.

- to grant aid to ‘ultra fast’ networks at the expense of achieving an improved base level of service for those end users that have no or very poor connectivity, particularly when high capability facilities capable of more than satisfying demand, such as cable, already exist in the areas targeted by the intervention, would not only represent a mis-allocation of funds but would also very likely lead to an exacerbation of the digital divide.

- The criteria that the Commission has applied to the distinction is entirely arbitrary and is not founded on any proven demand. We do not believe that there is any tangible evidence of a general requirement for significantly enhanced technological characteristics above and beyond those demonstrated by existing networks – in particular symmetry.

There are no clear grounds to introduce this additional distinction into the Guidelines, and therefore no basis on which to grant aid to ultrafast networks at the expense of existing, other types of NGA networks.

Inconsistencies

There are a number of serious inconsistencies with the proposed revisions to the Guidelines – both with other areas of EU policy and guidance and internal to the document itself.

External Inconsistencies:
The revisions foresee an increased level of intervention, favour a particular technology over others and would not allow the market to deliver the desired outcomes to the greatest extent possible. This is a clear divergence from established policy approach. In particular:

- The Broadband Communication\(^\text{25}\) clearly promotes the notion of encouraging private, competitive investments, seeks to reduce the barriers to such

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\(^{25}\) Communication adopted in September 2010 “European Broadband: Investing in digitally driven growth”
investments and advocates the containment of State aid to circumstances in which there is no prospect of commercial investment occurring

- The Digital Agenda Communication\(^{26}\) recognises that “Our action needs to be focused on providing the right incentives to stimulate private investment, complemented by carefully targeted public investments” (emphasis added).

- The Digital Agenda Communication also notes that the achievement of the broadband targets will be contingent upon a mix of technologies and advocates that public funding instruments “should be used for well targeted broadband investments in areas where the business case is currently weak and, therefore, only such focused intervention can render investments sustainable”.

- The Commission’s recent policy statement on enhancing the broadband investment environment\(^{27}\) is clearly focussed on encouraging private investment. It explicitly recognises that the transition to the next generation of high speed networks is critically contingent upon privately funded operators, stating that “Though the public sector can help, the real heavy lifting must be done by private investment”. It also recognises the role of regulation in promoting competition and investment and clearly sets out, as a basic principle, that regulatory policy should be an enabler to investment, not an obstacle. It also upholds the principle of technological neutrality.

There also appears to be an inconsistency between the review of the Guidelines and the stated objectives of the over-arching State aid reform initiative of which this exercise is a part. In its recent Communication on State Aid Modernisation\(^{28}\), the commission notes that State aid policy should be focussed on facilitating well-designed aid targeted at market failures and objectives of common interest. As we have set out above, we consider that the draft Guidelines in their current form clearly deviate from that.

**Internal Inconsistencies:**
There are also contradictions within the draft Guidelines. For example, the Commission notes that “It is all the more important that public funds are carefully used in this sector and that the Commission ensures that state aid is complementary and does not substitute investments of market players. Any state intervention should limit as much as possible the risk of crowding out private investments, of altering commercial investment incentives and ultimately of distorting competition to an unacceptable extent”\(^{29}\). The contemplated public funding of additional networks in NGA black areas is clearly at odds with that.

The Commission also highlights the risk of intervening in areas where private operators will, or have already invested: “However, if state aid for broadband were to be used in areas where market operators would normally choose to invest or have

\(^{26}\) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A Digital Agenda for Europe, May 2010
\(^{27}\) Enhancing the broadband investment environment – policy statement by Vice President Kroes, 12\(^{th}\) July 2012
\(^{28}\) Communication on State Aid Modernisation (‘SAM’), European Commission, 8\(^{th}\) May 2012
\(^{29}\) (Draft) EU Guidelines for the application of state aid rules in relation to the rapid deployment of broadband networks, June 2012, Paragraph 4
already invested, this could significantly undermine the incentives of commercial investors to invest in broadband in the first place. In such cases, State aid to broadband might become counterproductive to the objective pursued.  

Again, this is clearly at odds with certain of the new interventions being contemplated.

The legal and commercial uncertainty which these inconsistencies create represents a barrier to private investment and a deterrent to prospective bidders for public funding – particularly given the likelihood of challenge.

Compatibility

The Commission’s State Aid practice has built up over many years. To date the EU courts have not dealt with State aid cases involving broadband providers; this can be used as evidence of the strength of the Commission’s decisional practice in this area. However, for the reasons outlined above, the amendments to the Guidelines departs from the State Aid principles in many ways. As a result aid granted under the draft Guidelines risks being declared incompatible with EU law by the European Courts.

As detailed above, the draft Guidelines are internally inconsistent and are inconsistent with other EU guidance. This is likely to lead to confusion and does not provide legal certainty, contrary to EU legal principles. These inconsistencies also breach the legal principle of good administration as set out in Article 41 of the EU Charter for Fundamental Rights.

In addition, paragraphs 77 and 78 (which set out the criteria for the assessment of aid granted to ultra-fast broadband projects) of the draft Guidelines may breach Article 107 TFEU as (i) they do not satisfy the balancing test contained in Article 107(3)(c), and; (ii) they are contrary to the principle of technological neutrality.

The compatibility of State aid with EU law depends on whether it complies with the exception contained in Article 107(3)(c). This requires the Commission to balance the positive impact of the aid in reaching an objective of common interest against any potential distortions of trade and competition in the internal market. State intervention can therefore be justified where it is aimed at a well-defined objective of common interest, i.e. where there is a market failure. Both paragraphs 77 and 78 promote the use of State aid in instances when there is not a market failure:

- Paragraph 77 promotes the use of State aid to achieve a speed focused target which is not based on actual demand. It foresees the potential to grant aid to FTTH projects even in black or grey areas. As a result the use of aid in line with paragraph 77 with not address a market failure. Paragraph 77 will also likely cause undue distortions in competition in at least the adjacent

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30 (Draft) EU Guidelines for the application of state aid rules in relation to the rapid deployment of broadband networks, June 2012, Paragraph 6
33 Paragraph 77 provides that, in relation to ultra-fast broadband networks, “public intervention would still be possible in areas where existing or planned NGA networks do not reach the end user premises with fiber networks”. As a result paragraph 77 envisages the use of aid in grey and black areas.
enterprise connectivity market. As a result it goes beyond what is proportionate.

- Paragraph 78 promotes the use of aid to achieve a ‘step change’ in network capability. This is an arbitrary standard that is not based on actual demand (in which case there would be adequate incentives for private investors to provide such qualitative improvements to networks) and is not in the common interest.

Paragraph 77 is also contrary to the principle of technological neutrality as it favours a solely fibre platform (i.e. FTTH). This departure from a well established EU law principle is not justified by attempting to introduce a new category (ultra-fast networks) into the Guidelines. favouring or effectively mandating a specific technology can lead to aid being disproportionate and distortive and therefore non compliant with Article 107 TFEU.34

Role of NRAs

Virgin Media welcomes a broader role for NRAs in the granting of aid and the design of any aid measure. We consider that this role should extend further than the Commission proposes, so that NRAs are at the centre of any consideration of the allocation of public funds.

As the Commission recognises, NRAs have technical knowledge and expertise as a result of their responsibilities under the Common Regulatory Framework (‘the CRF’). They have an established understanding of market dynamics, the nature of competition and demand/technology trends and are best placed to assist public authorities in these matters. NRAs’ experience deems them far more suited to undertake certain activities in this regard than public authorities.

NRAs should be involved from the outset of any intended State intervention. They should play a key role in assessing the eligibility of the area in which the measure will be applied, including mapping and any market evaluation procedures. NRAs should draw on recent reviews of the relevant markets undertaken as a part of their duties under the CRF. They must be involved in the development and assessment of the anticipated project itself, must advise on any wholesale access conditions and on the corresponding wholesale prices.

NRAs can increase the efficiency of the decision making process and improve the quality of those decisions. A greater role for NRAs will ensure independence of decision making, increase transparency and give stakeholders greater confidence.

At a minimum the Guidelines should be amended to require market analyses or any other assessment of prospective applications of public money to be notified to NRAs.

Transparency of Aid Measures

In any granting of aid, transparency and availability of information are pre-requisites. Affected stakeholders must have a clear and comprehensive view of any intended aid measure so that they can assess its impact and implications.

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34 Case C-403/10 P Mediaset v. Commission [2011]
Transparency must start with the mapping and market evaluation processes – and must include the substantiation of any claimed demand that is not being met or other basis for intervention. The Guidelines must require that such processes are undertaken on an open and inclusive basis and should contain an obligation for public authorities to ensure that potentially affected stakeholders are aware of the proposed intervention and are sufficiently consulted. Public authorities must take a proactive approach to communicating with, and involving stakeholders in mapping and consultation exercises.

The detail of the proposed intervention and any conditions applying to it must be fully visible to stakeholders. It must be readily available, easily accessible and must contain sufficient information to enable third parties to fully assess its impact.

Member States’ feasibility and notification processes must be more open and transparent and should include greater scope for stakeholders to make representations.

**Aid Schemes:**
Notification of aid schemes, as opposed to individual grants, are increasing. Transparency is all the more critical in this instance. Given the delegation of competence to approve aid to the national (or lower) level, greater levels of transparency and diligence are required. It is important that both the individual market assessments and the creation and notification of the overall ‘umbrella’ scheme itself are undertaken on a transparent basis, with the full involvement of potentially affected stakeholders.

**Non Aid Measures:**
Robust and comprehensive transparency requirements should apply to initiatives based on non-aid measures. As we set out in our response to the preceding consultation relating to the Commission’s consideration of whether and how to revise the Guidelines, transparency of non aid measures is a significant concern.

There is a need for comprehensive transparency measures to apply to both SGEI and MEIP initiatives. This must extend to a requirement to notify non-aid measures even if, for example, the public authority in question considers that the MEIP has been met.

**The Effects of a Lack of Transparency:**
A lack of transparency gives rise to uncertainty and causes disruption to the market.

These risks are demonstrated in recent and ongoing projects taking place in the UK. For example, as a part of the Digital Birmingham initiative, Birmingham City Council has established a project aimed at deploying a State subsidised broadband network in certain areas of the city. While Virgin Media was involved in the mapping exercise, it has no visibility of the results of that activity, nor of the corresponding market assessment procedure. Similarly, it has no visibility of the notification as approved by the Commission, nor the detail of the final form of the project, including a definitive view of the intended areas of deployment of the subsidised network.

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35 Revision of the Guidelines on Public Funding to Broadband Networks: Revision of the Community Guidelines for the Application of State Aid Rules in Relation to Rapid Deployment of Broadband Networks
36 http://www.digitalbirmingham.co.uk/
Operators that have deployed networks in the target areas should be given an opportunity to understand the nature of the project, including the exact areas in which the public authority is intending to deploy a subsidised network.

Overall, in order to improve stakeholder confidence, reduce the likelihood of formal challenge and uphold best practice, the Guidelines must require the greatest possible levels of transparency.

**Alternative, Potentially More Effective Means of Achieving the Commission’s Objectives**

The Commission could greatly increase the prospects for deployment by taking a more progressive and sophisticated approach to the stimulation of investment in broadband through the Guidelines. There are several key aspects to which a bold approach is required.

**Areas of State Intervention and Subject of the Aid**

**Areas in which Cable Operators are Present:**

It is inappropriate to grant aid according to the current form of the Guidelines to areas in which Cable operators are present. In the vast majority of those areas competition from other operators exists. In general, where it has been economically viable for Cable operators to invest, it has typically been viable for other operators to invest also. Cable areas are therefore generally (NGA) black for the purposes of State aid assessment.

Where a Cable operator is the only NGA network in a given area (i.e. the area is grey for State aid assessment purposes), it will very likely be the case that other operators will either upgrade their networks in order to compete or will deploy networks into that area, as the population density/economics will be conducive to such. Even if this is not the case, the situation will not be to the detriment of consumers. The vast majority of Cable companies operate national pricing policies – as is the case in the UK. Pricing in NGA grey areas where Cable operators are present is therefore constrained by pricing in other areas, on a national basis.

Cable operators are market disruptors and are continually innovating. These innovations are also deployed on a national basis meaning that even in grey areas, where the existing network is a Cable network end users will benefit from the same level of innovation as customers in black areas.

As outlined above, Cable operators have consistently demonstrated a propensity to invest and upgrade their networks to meet tangible demand and to differentiate their products and services from competitors. The Commission can be confident that future demand is likely to be met in Cable areas.

Given the above, there is no question of market failure in such areas or of consumer harm. Accordingly there is no need, or justification, to allocate State aid to NGA black areas or grey areas in which Cable operators are present on this basis.

**Eligibility of Operators to Bid for/Receive Aid:**

We are also of the view that there is scope, via the targeted use of State aid, to significantly enhance the prospects for competition and innovation by broadening the scope of operators eligible to be aid beneficiaries.
Under the current Guidelines, certain providers that operate ‘closed’ networks are deterred from bidding for public funding as a result of the conditional open access requirement. The absence of a wholesale access product is typically a fundamental factor in these operators’ business models – but it does not mean that those models are not legitimate or are contrary to the consumer interest.

For example, many Cable operators, including Virgin Media, operate ‘closed’ networks which have delivered and continue to deliver considerable innovations, competition and other consumer benefits. The Guidelines should not contain a de facto presumption that closed networks are not in the consumer interest and that they should accordingly be ineligible to receive aid.

In grey areas where an existing operator is (already) subject to ex-ante access conditions, end users will already have a choice of provider, as a result of the competition existing on that network. Consequently there is no case for an open access condition on any additional network that may be deployed in that area.

The deployment of an alternative network in these grey areas would bring a new dynamic to the market, driving infrastructure based competition, encouraging the incumbent to invest in further upgrades to its network and stimulating further cycles of counter investment. This contrasts with competition on the existing provider’s network which is based solely on price erosion, with no ability, or incentive to compete based on innovation.

In white areas, where there are safeguards against consumer harm, we similarly consider that there is scope for aid to be granted without the imposition of an open access obligation where an operator does not have Significant Market Power (‘SMP’) more widely. This could be conditional upon:

- the beneficiary adopting a national pricing policy
- demonstrable evidence of innovation on the part of the beneficiary
- the proven meeting of the reasonable needs of the majority of end users

In short, consumers’ interests can be safeguarded by considering consumer harm in such circumstances.

Allowing alternative networks to be eligible for aid without an open access obligation, subject to the conditions outlined above, could increase the number of bidders for State funding, increase competition for tenders and expand the potential scope of the solution. It would also help the Commission to comply with technological neutrality obligations and could lead to enhanced market dynamics occurring.

In white areas it could also put an end to the situation in which the incumbent operator is the only bidder (and thus beneficiary) – a situation which leads to further entrenchment of that incumbent’s position and a reinforcing of its dominance, to the detriment of end users.

Were an alternative beneficiary to develop SMP at a subsequent point, provisions already exist under the Common Regulatory Framework to address this.

A more Balanced Approach and Required Focus

In summary, in order to create the best chance of achieving its objectives, avoid the negative consequences outlined above and ultimately to ensure the best outcomes for citizens and consumers, we believe it is necessary for the Commission to reconsider its focus in a number of areas. These relate both to the content of the Guidelines and to policy more generally.

Policy

Overall, there is an urgent need for the Commission to create a more investment friendly environment and to re-establish investor confidence. This requires action in respect of the Guidelines themselves, and also in ensuring that wider policy is geared towards attracting private funds to EU broadband projects. As we have set out, measures should include removing practical, administrative and legislative barriers to broadband deployment; a shift in focus from supply to demand side measures; and, ensuring consistency and certainty in the regulatory regime.

The Guidelines

In conjunction with these policy measures, the following aspects of the Guidelines require focus:

- **Removal of the third, ‘ultrafast’ category**: Elimination of the interim/future proof distinction; recognition of the capabilities of non-FTTH networks and the scope that they have for upgrade

- **Reinstatement of the principle of technological neutrality**: Removal of the favouring of FTTH technology; recognition of the role that other technologies will necessarily play in meeting the Commission’s objectives

- **Confirmation that State aid will be used on a controlled and exceptional basis, to address proven market failures**: Removal of the ability for aid to be granted to satisfy arbitrary aims and non proven demand; Decisions to grant aid to be fully and strictly evidence based

- **Assurance that existing, well functioning investments that are delivering innovation and meeting users’ needs will not be over-built with publicly funded networks**: Focus intervention on areas in which end users have no or sub-standard levels of connectivity

- **A more progressive approach to the granting of aid in grey and white areas**: Facilitation of the bidding for aid by multiple types of network/technology; Removal of arbitrary capability criteria; Consideration of the granting of aid to closed networks, subject to certain conditions

- **A general presumption that there should not be a granting of aid to areas in which Cable operators are present**: Recognition of the market characteristics in Cable areas; Full account to be taken of the innovation and benefits delivered to end users in Cable areas

- **Greater transparency of aid measures**: Consideration of the granting of aid (including market assessments, coverage mapping, demand studies etc) to be fully
transparent and available to affected stakeholders; Transparency of, and scope for input to, aid notifications to the Commission to be introduced

- **Removal of external and internal inconsistencies and ambiguities**: Alignment of the Guidelines with other, related policy areas and guidance; Removal of conflicting internal provisions

- **A broader role/greater responsibility for NRAs in any consideration of the granting of aid**: Greater use of NRAs’ competence to be mandated; Outcome of market reviews and other assessments undertaken by NRAs to form a key component of any consideration of the granting of aid