Geo Networks Limited

Draft Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks

Response to EC consultation of 19 May 2009 ("Consultation")

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1. Executive Summary

- Geo has unrivalled expertise in delivering fibre network infrastructure both for the private sector and on major public sector projects. Geo's national and London networks are the newest non-legacy networks in the UK and our business is focused on providing dedicated optical fibre for our customers. Our strong focus on infrastructure means that we have a unique insight into the issues at stake in the consultation
- Geo is in a particularly strong position to comment on the current Consultation as the parent company of, and prime contractor for, FibreSpeed Limited. FibreSpeed is a wholesale-only next generation network funded jointly by European Regional Development Fund, the Welsh Assembly Government and Geo. It has been deemed compatible with relevant state aid rules by the European Commission. Crucially, it offers open access to all communications providers on non-discriminatory terms
- Geo strongly supports the Commission's initiative to bring clarity to this area through the current consultation. The Commission has rightly identified the importance of broadband infrastructure for Europe, together with the potential for state aid to be granted in a way which maximises competition and welfare for citizens. In the application of state aid to completing 100% coverage of current generation broadband (First Generation Broadband or 1 to 8Mbit/s), a key consideration is ensuring compatibility with not only Next Generation Broadband (NGB[1]) but also Future Generations of Broadband (FGB[2]), so as to maximise value for money from the aid
- When considering the optimum use of aid to facilitate the introduction of Next Generation Broadband (NGB), applying this same consideration (i.e. compatibility with FGB) would indicate that continuing state investment in an incumbent's copper telephone line network to deliver NGB needs to be treated with great care
- Of equal concern is the risk that investing state aid in an incumbent's copper line network perpetuates regional monopoly
- We therefore support the commission's proposal that passive infrastructure access needs to be made available wherever state aid is utilised as the best way of combining: (i) compatibility with FGB; (ii) long term value for public money and; (iii) avoidance of regional monopolies. This open access needs to be guaranteed for a period of 15 to 20 years
- Geo is bidding and plans to bid for further publicly-funded networks and will commit to offer both passive and active open-access when successful
- Geo also makes a number of recommendations in this response as to how compatibility benefits with FGB can be given increased weight in the Commission's evaluations
- The best outcome from this consultation would include:
  - The final guidelines should include a mandatory requirement that open, non-discriminatory access to underlying passive network inputs is essential in cases where state aid is granted. This will require some changes to the draft guidelines as they stand

[1] NGB is broadband which still relies significantly on today's local access infrastructure – for example, services which rely on updating modems in exchanges; or which, for longer lines, are delivered over copper to the premises using VDSL modems, but deployed with fibre-to-the-cabinet. NGB, almost by definition, is a transitional phase, as was First Generation Broadband, both being subject to the 3 -7 year technology upgrade cycle typical in electronic systems..

[2] FGB is not a single technology but refers to the cycles (or 'generations') of technology and broadband service which will follow NGB, and will require genuinely new local access infrastructure – for example, fibre-to-the-premises.

- Additions to the guidelines should be made to ensure that when designing procurements for state aided networks and in evaluating the desirability of state aid, compatibility with FGB and the resulting long term value for money are taken into account fully

2. Background to Geo and Introductory Comments

Geo is in a strong position to contribute to the state aid debate

Geo has unrivalled expertise in delivering fibre network infrastructure both for the private sector and on major public sector projects with state involvement.

Geo's network is the newest non-legacy network in the UK and our business is focused on providing dedicated optical fibre for our customers. Our almost exclusive focus on infrastructure means that we have a unique insight into the intricacies of open access arrangements such as fibre and duct access.

Geo's innovative business model is based on a distinctive conceptual approach towards the industry, which we have given much intellectual thought to before and since Geo was formed in 2004. In Geo's view there is a fundamental difference between the infrastructure required for modern data networks and the network equipment used to supply services over them. Consequently, the industry is best viewed as three distinct and inter-related areas: infrastructure, network and services. Geo is positioned primarily in the area of infrastructure and the fibre, space, environmental management systems and power that we provide have more in common with real estate than with traditional telco services. We provide these services to our customers on long-term leases so that they are able to exploit and change the use of these assets over time as they wish. If requested by the customer, we also offer to design and build optical transmission solutions and, again on an optional basis, to operate the resulting in-life private network service for the customer.

This business model is consistent with, for example, the UK approach in the Telecommunications Strategic Review whereby BT's access infrastructure was separated from the downstream business. It is also consistent with the Commissions own approach which focuses SMP regulation on upstream product markets where possible.

Geo has valuable experience in the practicalities of national and urban fibre deployment. Our 3000 km optical fibre network is the newest, highest quality and most reliable optical fibre network in the UK (please see illustrative map in Annex A). It tracks the national mains gas pipeline and connects all major commercial centres. Our London network is the most reliable in the capital, currently spanning 85km, buried deep below street level in Thames Water's sewer system, making it highly diverse, resilient and secure (please see illustrative map in Appendix B). In addition, Geo can extend this network quickly with minimal street works disruption.

The new and different approach that Geo has taken has not only been profitable for Geo but has genuinely altered the shape of the market. Before Geo began providing fibre-based backbone network and backhaul services to large broadband providers it was virtually impossible for customers to secure access to wide area optical fibre infrastructure to allow them to design their own networks, choose their own technology solutions and benefit from the fixed and low cost scalability which high quality assets provide.

This ability for new entrants to these markets to compete on a level playing field in at least the core network (as if they were their own telco) with vertically-integrated players such as BT and Virgin Media has been a critical factor in the successful roll-out of LLU services over the last few years, increasing competition in the broadband market and lowering prices to consumers. Today, Geo continues to grow its significant position in this market as well as assisting its customers in finding ways of using infrastructure-based solutions to improve the quality, capacity and cost of the critical "middle mile" backhaul networks. It is in this middle mile that the ever-increasing network demands from bandwidth-hungry internet services such as YouTube and iPlayer are felt most keenly by ISPs.

However, Geo's dedicated fibre proposition has gained significant traction in far more sectors than just the broadband market. It serves customers in a number of markets:

- Wherever a large data network is needed to connect two or more customer sites
- For carriers, mobile operators, systems integrators
- In the public sector including a landmark relationship with the Welsh Assembly Government and extensive deployment within the NHS Connecting for Health project
- In traditional early adopter end-user markets such as financial services, broadcasting, media and professional services

In certain sectors, such as that for critical data centre connectivity for the very largest end users, this rapid market transformation has taken hold to such an extent that dedicated (or "dark") fibre is now almost always requested in a major request for a competitive tender, at least as an alternative to a managed service and often exclusively.

This is a significant transformation from the time before Geo's entry to the market when no telco in the UK willingly and openly offered this service. Before 2004, a large customer would occasionally request dedicated fibre, knowing the advantages it would bring, and a telco might grudgingly provide it in private rather than lose the business. Now this choice is a reality for many businesses and public sector organisations who understand it provides a fundamentally lower cost and superior way of running an essential long-term input to their organisations' successful operations.

In 2008, the success of its business model led to Geo's acquisition out of the Hutchison Whampoa Group by Alchemy Partners, the UK's leading private equity firm.

In essence, Geo is relying for success on the quality and size of its own fibre assets, together with its skills in network integration, new build, network design and network operation. Its disaggregated business model appeals to customers who have the technical competence to select and control their own data networks (even if they then outsource the network build and operation). Above all, it relies upon the current supremacy of optical fibre as the transmission medium of choice for large data networks and isolates the volatile component – how the fibre is lit – so that the ever-changing technologies in this space are presented to the customer as options it can control at the lowest possible unit cost over the much longer lifetime of the fibre asset.

The result for Geo has been an average contract term to date of over 10.5 years, with some contract terms exceeding 20 years: increasing revenue and profit visibility for investors and building a rapidly growing business. The company is already profitable, has no debt and plenty of cash to continue its expansion.

Geo's participation in FibreSpeed is a useful case study for public sector involvement in telecoms networks

As an operator of one of the publicly funded broadband networks noted within the guidelines, FibreSpeed, we have a great interest in the guidelines and what they aim to achieve. We are immensely proud of our FibreSpeed network and the benefits that it will deliver to North Wales and feel we have a significant contribution to make in the creation of a set of guidelines for the application of state aid rules to broadband networks.

Geo's contract with the Welsh Assembly Government to build its new FibreSpeed network in North Wales merits particular analysis in the context of the NGA and wider broadband debate.

Geo won a competitive tender to build and operate a new 270km optical fibre network through from Holyhead to Manchester. Funded jointly by the European Regional Development Fund, the Welsh Assembly Government and Geo, this initiative was notable from the outset by the Government's insistence that the successful supplier should operate the network on an open access basis for the full 15 year term of the agreement.

The business model that was ultimately created in negotiation with Geo was for an operating business (FibreSpeed) which sells exclusively to service providers on a wholly transparent and equivalent basis including, critically, access to passive network components. These service providers in turn use FibreSpeed's services and their own to engage the end-user community and sell network-based services and solutions. The network was launched in 2008 by the Deputy First Minister of Wales and went live in January 2009. Early indications are for high market demand in an area which to date has been poorly served by an incumbent exercising regional monopoly power.

Based as it is on some of the core business principles which Geo has evolved in its experience of taking the UK's first open access network business to market, we feel that there are some critical lessons which must be learned from this experience if the public sector is to have a role to play in the development of the country's broadband infrastructure.

The FibreSpeed experience is discussed throughout this response. In our view it provides an admirable example of the benefits of well-designed public interventions.

We are bidding and plan to bid in competitive processes for other state aided broadband network projects in the UK. Where we are successful, we will propose to the procuring authorities that access to passive components of the infrastructures we deploy is made available, to ensure that:

- Other operators and service providers are able to deploy solutions over the infrastructure to maximize competition
- As active technologies that we deploy as part of solutions reach obsolescence, others (as well as ourselves) can enter the market with new technology, maximizing both competition and value from the public investment over the long term
- Competition is encouraged for the length of time that the passive assets are capable of providing services and are only limited by time where the measure is subject to a time defined duration

2.1 Conclusions to Introductory Comments

In conclusion to our introductory comments:

- Geo is a major player in UK telecoms infrastructure with particular experience of issues related to NGA
- Our experience of participating in, and operating, a major network build with public participation gives us invaluable insight into the issues at stake in the current consultation
- This insight leaves us convinced that open access to infrastructure which benefits from public sector assistance is essential. Without such access genuine competition for telecommunications services in the grant aided geographic area cannot be ensured, depriving end-users of the benefits of competition in terms of price and innovation

3. Public Sector Investment

The need for public intervention

As is well understood and described in the Consultation, next generation access networks present an important investment opportunity for the public sector and for European economies generally. The Consultation recognises this and précis it admirably:

> *Broadband connectivity is a key component for the development, adoption and use of information and communication technologies (ICT) in the economy and in society. Broadband is of strategic importance because of its ability to accelerate the contribution of these technologies to growth and innovation in all sectors of the economy and to social and regional cohesion.*

Equally – and again as recognised by the Consultation – in some areas the market alone will not deliver. There are two particular dangers here: first, that some areas will not benefit from any advanced broadband services at all; and secondly, that ill-directed interventions may create or perpetuate de facto regional service monopolies, thus depriving citizens of the dynamic and other benefits of competition.

The challenge faced by the market to deliver affordably priced broadband in less populous areas will increase with each generation of technology deployed:

- Services at up to 8Mbit/s can be deployed over networks designed for voice - using either modems in existing telephone exchanges combined with existing copper telephone pairs, or the available wireless spectrum (using 3G) with radio base stations at established spacing
- Due to the limitation in performance of the copper network and the finite availability of spectrum, NGB will require far deeper distribution of modems and base stations to extract the necessary performance, resulting in the significant cost of masts and street cabinets
- Most analysts agree that NGB delivering around 50Mbit/s asymmetrical capacity is the limit to which the copper telephone network can be economically employed
- However demand will inevitably continue to rise, and from this point onwards FGB will require the substantial cost of a combination of Fibre to the Home (FTTH) and extensive fibre backhaul to high density wireless transmitters will become unavoidable

There is no precedent for the incumbent alone (or, indeed, any other commercial player) undertaking the substantial investments which will be required to create the future optical fibre networks for rural and disadvantaged areas, public intervention is thus appropriate.

All this speaks to the need not just for public sector intervention, but for interventions which are well designed to deliver the greatest possible benefits to as many consumers as possible. In this context, the Commission's current initiative is particularly welcome.

The form of public intervention

Geo has first hand experience of working with the public sector to provide world-class communications services to businesses in Wales as part of the landmark FibreSpeed project (see case study below). Further, across the public sector, from Local Authorities to central government departments, public sector policies and other business drivers have led to an explosion in the amount of data that these organisations themselves need to network and only next generation access networks will be able to provide the infrastructure, networks and services needed to support them.

Public intervention is appropriate in geographic areas where private investments will not be viable or timely. In Geo's view, it is quite likely that we will continue to see the market fail to deliver competitive optical fibre infrastructure in many of the UK's regions and metropolitan areas (even in parts of the largest cities). Existing European, National and Regional government funds should be directed carefully and in a planned way to address this gap and help reduce the Digital Divide. Initiatives such as the Commission's European Economic Recovery Plan and the guidance which is the subject of the current Consultation will play a critical and rapid role in addressing these issues.

The design of these public sector interventions is critical. They must always be undertaken by competitive procurement process (which can be used to attract private investment wherever possible). It is imperative that such procurement ensures that funding support is made available to those who will use it most efficiently and effectively.

However, there are some primary considerations as to the best form of intervention to achieve the outcome, and in particularly to ensure that the outcome is sustainable and in line with the commission's own objectives:

> *Broadband connectivity is a key component for the development, adoption and use of information and communication technologies (ICT) in the economy and in society. Broadband is of strategic importance because of its ability to accelerate the contribution of these technologies to growth and innovation in all sectors of the economy and to social and regional cohesion.*
>
> *... in particular, the aim of the [European Economic Recovery Plan] is to boost EU investment in defined strategic sectors, such as broadband, that can help support the economy in the short run and over the longer term create essential infrastructures for sustainable economic growth (emphasis added)..*

As explained previously, the cycle of upgrades to modems which has allowed incumbent's copper telephone networks to be upgraded to 8Mbit/s and now to NGB, is nearing the end of economic viability and further investments, for example of electronic equipment in street cabinets, will not be compatible with FGB.

In contrast, investments in new passive assets, in particular optical fibre networks, whether fully 'to the home' or part way, certainly will be fully compatible with FGB:

- Optical fibre is a fully transparent media: it is capable of transmitting the widest possible range of digital and analogue signals and even radio frequencies, and hence can carry the signals of today and tomorrow
- The characteristics of optical fibres have been unchanged for thirty years, making it a stable and trusted technology
- For these reasons, the market in infrastructure leases of up to 25 years has been long established

So well-designed interventions should always concentrate on the state supporting the long life passive assets, and minimize state investments in short term technology 'fixes'.

In many ways this prioritization by the state has parallels with the divide between public and private participation in other national infrastructures such as road transport – the state frequently makes investment in the long asset life road infrastructure, but would not so readily intervene in the consumer led purchase of cars nor a freight operator's lorry fleet.

Unfortunately, this may not be the default recourse for the many government bodies that have been accustomed to dealing with the legacy operator. But there is absolutely not *a priori* reason why an incumbent would be best placed to utilise public funds more efficiently in the next generation environment, when incumbents themselves face the substantial investment challenge of creating the optical fibre local access infrastructures required to support FGB for the next fifty years.

The publication of the conclusions of the UK Government's Digital Britain Report on 16 June has highlighted the great importance of this issue to the UK and the need for strong guidelines on the use of state aid to promote the interests of consumers. The proposal to allocate some £200m of public money to pay for the provision of services at 2Mbit/s to virtually the whole of the UK population by 2012 is a highly significant development; and the proposed Next Generation Fund - for the deployment of NGA to one-third of the country – could amount to something close to £1bn. The sheer amount of state aid under consideration has the potential to create a distortive effect on competition, including regional monopolies, if it is not allocated to underlying infrastructure and linked to open access obligations. Were this aid to be allocated to technology and service upgrades to the incumbent's copper network, ultimately it is both the consumer who will suffer the detriment of a lack of competition, and the taxpayer the repeat requirement for more aid for the next upgrade in 3-7 years time. This only serves to highlight the need for open access to the infrastructure created by these public funded procurements. In addition, the proposal to spend up to £200m on NGB raises particular concerns. In this context the Commission's guidance is absolutely essential and Geo strongly welcomes it.

In conclusion to this section, co-ordinated and thoughtful government intervention to a consistent set of investment criteria is critical to avoid wasting any investment.

Priorities for well designed interventions – maximising compatibility with Future Generations of Broadband

There are a number of ways that the state investor can prioritise the creation of long-life; open access, passive assets, and the proposed guidelines have an important role to play.

Firstly, the guidelines should contain both an explicit expectation that aid will only be allocated to long life passive infrastructure, and some specific recommendations to supplement and clarify the established state aid rules in respect of the economic evaluation criteria:

- Clarifying that, where the life of an asset created by intervention is longer than the contract awarded to an economic operator, the enduring benefit should be reflected by use of a finance leasing proxy using the whole life of the assets as the repayment period
- Ensuring that the benefit derived by service providers and other broadband operators from the use of an 'open access' asset is valued and allowed for as a third party benefit again over the full life of the assets

These two provisions, taken together, will ensure that long life asset based projects do not exhibit unrealistically high State Aid Intensity (SAI) ratios, when compared to short life technology upgrades to incumbent's networks, and hence are not disadvantaged.

Priorities for well designed interventions - open access networks: access to passive infrastructure

A key part of Geo's service offering is the provision of open access passive infrastructure solutions in "core" networks between points of presence in the UK's main centres. By accessing passive infrastructure and deploying their own transmission equipment, Geo's customers avoid the most significant capital costs associated with building a network, but still realise very low marginal costs for additional bandwidth. This type of cost structure is not available to companies buying downstream active bandwidth solutions. This low marginal cost is ideal in a world where bandwidth demand is growing very quickly, and will ultimately be passed on to consumers through a combination of faster broadband speeds, less restrictive usage caps, and lower prices.

These same benefits could be extended beyond the core and into the 'middle mile' (backhaul) and the access segments with appropriately-designed public intervention. These areas, or markets, are undoubtedly an economic bottleneck. Throughout the vast majority of the UK, there is no viable business case for replicating BT's duct infrastructure.

In the less populous areas, and in particular in socially disadvantaged post-industrial and rural areas, public intervention is to be encouraged in the middle mile. This is because the market is unlikely to deliver competition on its own.

Although Geo believes that passive access remedies can have a role across many different kind of networks, in the current context we are talking specifically of schemes which benefit from public funding.

With open access to publicly funded infrastructure investment, competition could be extended to the middle mile in large parts of the UK. This would remove capacity constraints and reduce costs as explained above in relation to the core. End users would therefore benefit from even lower prices and faster speeds.

Access to passive infrastructure in the form of Local Loop Unbundling has already resulted in an analogous change in access network economics, driving bandwidth up to the technical limits of the physical network, effectively removing any cost driven capacity constraint at this level of the network. In an NGA environment, where public sector intervention is justified, a new passive product will be needed if the competitive benefits secured by LLU are to be maintained.

Geo has direct experience of duct access – both in using spare capacity in alternative utility ducts, and also in sharing telecoms duct infrastructure. Although there are considerable operational hurdles to be overcome, it is easy for these to be overstated.

There are two principal competition benefits of duct access over the main alternative passive remedy of access to dark fibre: (i) flexibility in provisioning; and (ii) flexibility in pricing. The first of these is an example of the innovation potential that stems from deep infrastructure competition. Although this argument usually focuses on differences in the final retail product, characteristics such as bandwidth or contention ratio, the ability to deliver new services in a timely manner is of critical importance in this infrastructure market. Innovation can therefore relate to the speed with which services are provisioned, the time taken to upgrade, and the levels of disruption to existing services. These factors will be of utmost importance in the roll-out phase of NGA as new backhaul circuits are deployed and existing circuits upgraded at a relatively fast pace.

The second benefit comes from the ability to price innovatively. As noted above, Geo often sells on the basis of long term contracts in order to meet the needs of its customers. This type of flexibility to offer alternative pricing models to suit the financing arrangements for our customers' investment needs would not be possible under a non-discriminatory regulated pricing regime. Once again, this type of flexibility, provided by encouraging deep infrastructure competition, could help make some of the more marginal NGA business cases viable, and in doing so speed up and expand the roll-out.

A real danger with state assisted projects is that they can essentially deliver an entrenched regional monopoly to a single incumbent. This is recognised by the Draft Guidance in the careful discussion on grey areas in the discussion on "avoiding the creation of regional service monopolies". Geo strongly agrees that State Aid policy should avoid the creation of regional service monopolies. The best way to do this is by making open access to passive infrastructure a requirement in public tenders for aid.

Case Study: FibreSpeed

The FibreSpeed project is a truly innovative collaboration between the public and private sectors that will enable world-class business communication services to be delivered to businesses across Wales. Geo provides an optical fibre network serving North Wales, linking into Manchester and will deliver modern broadband communications. The £30million contract is funded by the European Regional Development Fund and the Welsh Assembly Government. The network links 14 strategic business parks in North Wales, potentially expanding to incorporate approximately 50 locations across Wales by 2010 (see illustrative map in Annexe C). FibreSpeed is an open access network, available on a wholesale basis to service providers, ISPs and telcos, who are able to treat it as an extension of their own network.

FibreSpeed is expected to have a positive impact on the telecoms market by making available an alternative infrastructure that could be used by other network operators, such as local loop unbundlers, fixed network operators, system integrators and wireless and mobile network operators. In the longer term it will have a transformational impact on Wales, helping economic growth through development of the ICT industry, increased foreign investment, new firm creation, increased productivity, formation of new industry clusters and the promotion of new ways of working.

4. Conclusions

It will be clear from the rest of this submission that Geo considers there is a real need for the kind of guidance offered by the Commission and therefore strongly welcomes the Commission's current initiative. In particular:

- Broadband services are a key enabler of economic growth and social inclusion across the Communities
- The market alone will not deliver broadband services to all
- There are likely to be geographic areas where public sector intervention will be efficient and compatible with the framework
- Maximum benefit can be derived by ensuring that, where public intervention is desirable, that intervention is well designed

In the current context, this means that where possible, public investment should be made on the basis that networks will grant open access to passive infrastructure inputs on an equivalent basis to all, and that investments in long life passive assets, vital for the deployment of Future Generations of Broadband (FGB), are prioritised over short term technology upgrades to existing networks.

5. The Draft Guidelines – Detailed Comments

This section contains Geo's comments on the detail of the draft guidelines on a paragraph-by-paragraph basis as requested in the consultation.

Paragraph	Observation and Comments
1.	INTRODUCTION
(3)	In relation to investments being proposed by government in the UK which support both rural broadband and NGA over large areas, a significant proportion of proposed state investment is funded by the convergence program (or otherwise by UK Government) through either public ownership of assets or through "Gap Funding". The Community Guidelines should explicitly apply to all state investments.
(4)	In addition to the digital divide caused by the availability and non availability of services, we believe that there is also a significant divide caused by the price of services where those services are available from only one operator. In some cases available prices can differ by a factor of four to seven. Paragraph 4 could be amended to ensure that that the public body responsible for the state aid recognises that the reason for this price differential is the lack of competition and that the guidelines provide that the aid introduces competition at both the passive and active levels. In general our experience in the UK is that this is more of an issue for the SME business market segment than either the large business market (where high bandwidth services are more closely matched) and the residential market (where service providers generally follow a national pricing policy for marketing reasons and where that price cannot be economically provided where no service is offered or a

	reduced access speed is provided). Well targeted state intervention can play a significant role in improving the pricing available to SMEs and is a desirable market outcome.
(5) & (6)	In our view a significant increase in the coverage and penetration could be delivered in many cases without the need for aid by the introduction of more effective regulatory regimes that provides Open Access at a passive level including to sub ducts, fibre and exchange facilities. In cases where state aid is in fact required to secure a higher level of coverage and penetration of broadband, it could in some cases be restricted to supporting the use of passive assets in the provision of next generation broadband where existing operators do not provide the appropriate technology to provision those services. In the UK we have identified this as a particular issue in all areas (urban, rural and remotes) where service providers are reliant on the incumbent operator for access from an exchange level.
(7)	We would welcome the introduction of specific provisions or guidance within the guidelines in relation to complex projects involving competing objectives of increasing overall penetration or speed of basic broadband services and the extension of next generation access. In the UK a number of these projects are already under way and particular concerns are: (a) That the eligibility of any state aid relating to the provision of NGA is also measured against the impact that it may have on basic broadband services. (b) That where it is proposed that the most cost effective short term means of providing NGA is through upgrades to the incumbent's network, special attention must be given to the measures needed to ensure competition and long term value for money.
2.2	Article 87.1: Presence of aid
(14)	Under the Community Guidelines, the "investor", is considered to be the party in receipt of the aid and only the benefit to that party is evaluated when assessing State Aid Intensity. The Commission does not currently recognise that third party operators can potentially benefit in a similar way to the investor. This is particularly true when an 'Open Access' regime is mandated. Passive infrastructure leasing to other operators can be assessed on a simple property lease valuation model to ascribe value and benefit between investor and lessee. We propose the formulation of a mechanism that reflects the division of benefit in this way.
(22)	It would be useful if the Guidelines clarified what is considered pre-determined and transparent criteria. For example, areas for coverage, and the criteria where a proposed measure contained two potentially competing aims.
2.3	Compatibility assessment under Article 87(3)
(27)	We believe that it would be useful for the Commission to give further guidance on aid within the scope of the RAG to incumbent operators or an existing network provider where that provider is the only operator on the basis of a network presence. In the UK a direct example may be the receipt of aid to the incumbents in areas where it has a network but does not provide basic broadband services. To provide such an operator with aid may perpetuate the distortion of competition.

	In Geo's view, it is essential that guidelines are put in place to ensure open access to all of the passive assets that the network provider uses in the geographic area of the measure, not just those directly funded by state aid. This is particularly important for rural areas, where any measures may provide a service that previously was not available (in a white area) by the extension of services from nearby grey areas. Incumbent or sole operators are generally in the position to serve a white area at the lowest possible short term cost, which no other network provider could compete with. To make only those assets directly funded available to a third party operator would not provide the means for it to compete at the passive assets level as it would have access only to stranded assets.
2.3.2.3	*"Grey areas": need for a more detailed assessment.*
(40)	Where the Commission assesses whether or not effective network access is being offered, we would propose that effective network access should include a statement similar to those elsewhere in the document that this must include passive duct and fibre access. To exclude these would result in a measure not conducive to effective competition.
2.3.3	*Design of the measure and the need to limit the distortions of competition*
(45)-f	We whole heartedly welcome the statement on wholesale access and that this should ensure that regional service monopolies are not created or in some cases perpetuated. Again, a clarification that wholesale access is also applicable to passive duct and fibre assets would be welcomed. In relation to the period of time over which wholesale services should be offered we would like to make the following observations (a) The duration should be determined in relation to the nature of the subsidised assets and their economic life. For passive assets we would not consider either 7 years or as contained in point (74) half the amortisation period of the assets to be an adequate period of time for open access. The open access commitment should persist for the entire economic life of the assets. (b) To limit the time that wholesale access is available may result in the benefits of any measure disappearing after that point in time and the market returning to a monopoly status where an existing single network provider in an area receives aid. We would not consider this to be a good use of aid. (c) In relation to the provision of active services, wholesale access may be considered reasonable for 7 years given the expected economic life of such assets. However, in the case of publicly owned assets, the period of wholesale offering should be effective for the duration that any network operator has the right to use those assets. (d) In relation to open access to passive assets we would consider 7 years to be wholly inadequate. The economic life of the state aid-funded assets is in the region of 25 years for fibre and 40-50 years for ducting. It is our view that the network provider should be obligated to provide open wholesale access for: • the economic life of the asset • for a period of no less than 20 years • The length of time that the network provider has a right to use those assets, should that be a shorter time or should the assets not be physically capable of economic use

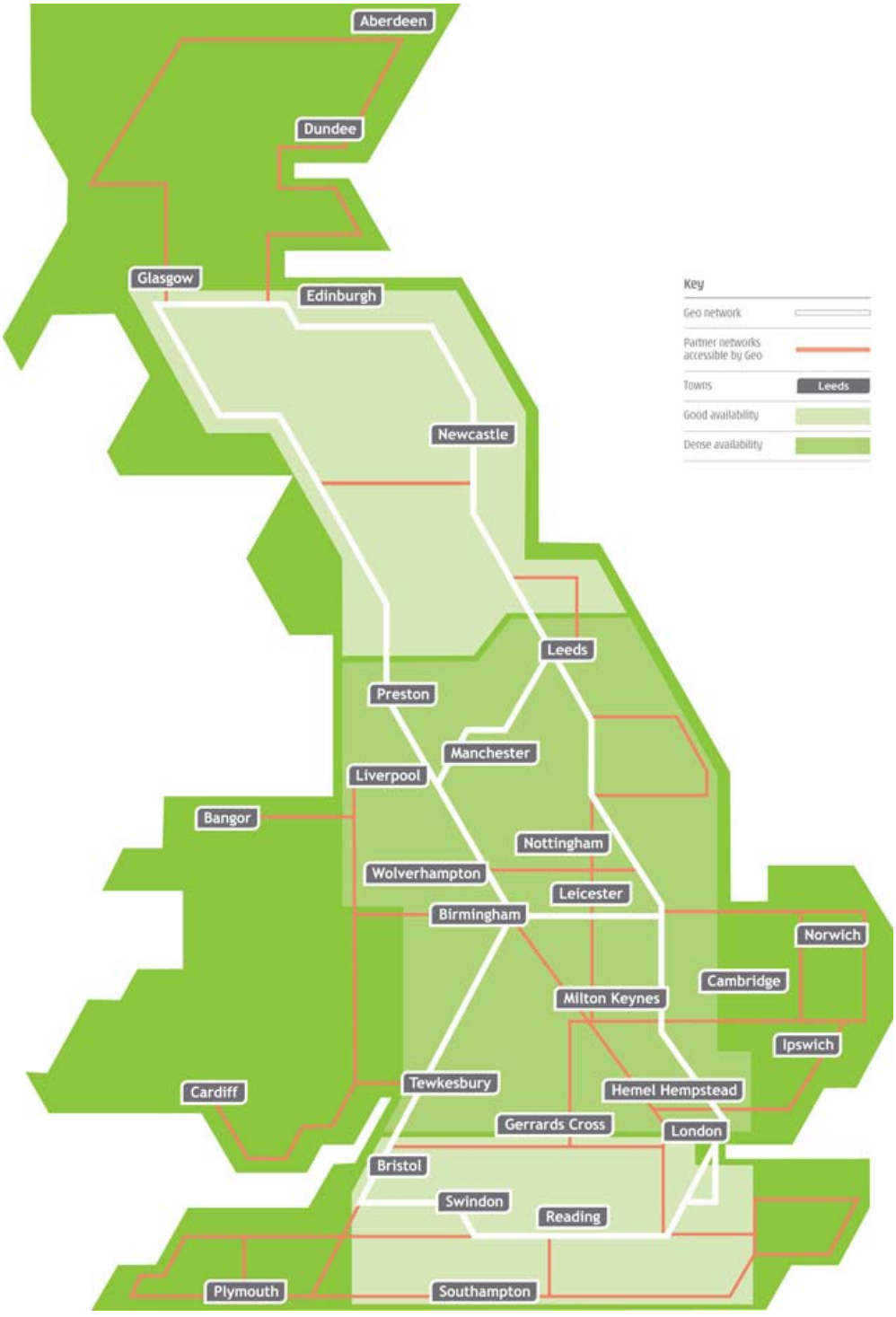
	(e) In connection with the continued provision of open access it would, in our view, be prudent in cases where significant state aid is being provided to place an onus on the Member State to either retain ownership of those assets or as a minimum covenant their use for public benefit in some manner. Given the current economic climate we are concerned that in certain measures being contemplated across Europe, publicly-funded assets could be lost to the community they are intended to benefit for example in the case of insolvency or re-structure of an economic operator.
(45)-g	We would like to make the following observation in relation to the use of regulated pricing to benchmark prices. The disadvantage that many regions lacking access to basic broadband or NGA broadband in future have is that in addition to low population densities, they are generally areas remote from centres of economic activity in a member state. As a consequence they are often a greater distance away from the core building blocks of broadband services, such as internet peering points. In general, the regulatory pricing models determined by national regulators are distance dependent. This is exacerbated by the fact that the lowest cost back haul products are only available over specified distances, in the UK's case 25-35km which makes them unavailable for connection in many remote and rural areas. We believe that it may be appropriate in the guidelines to confirm that the distance element of national benchmarking may be ignored for the purpose of benchmarking and that it is the price paid on average in a competitive area that would be the bench mark target. Another approach could be to alter the benchmarking based on a cost per head of population served. We believe this issue is of prime importance for attracting competing service providers to sparsely populated white areas. Here, even with the provision of the network and services, service providers may not take up the solution due to the level of the costs being too high. The benchmarked price has to be adjusted to reflect this and alter the price to the point that they will offer service and ensure competition in these areas. To ignore this fact may mean that the state aid does not have the desired effect of increasing competition or even enable the provision of services at attractive price levels.
(48)	We welcome the clarification of the term NGA and the specification of minimum speeds. We would however note that this point includes only elements of fixed asset networks in relation to the minimum of 40Mbps download and 20Mbps upload. In the near future it is expected that a number of wireless technologies (indeed as microwave is capable of today) could offer such speeds and should be contained in the definition of NGA. To exclude the delivery of NGA by this method would to us appear to conflict with the provisions of 45(d) which requires that any measure should have the condition of "Technological Neutrality" and may prevent the measure being the "Best Economic Offer". It also infers that the Commission would only accept a scheme that is listed, which we do not understand to be the case. Point (iii) of the NGA definition is too narrow. Although we recognise that it is likely to be the case that newly constructed homes and offices are more likely to feature direct fibre access, the construction of fibre to existing premises should not to be excluded. This is particularly important in the business market where obstructing the

	construction of fibre may re-establish the digital divide if existing premises cannot receive services but new premises could. It is likely that any NGA solution may have a variety of delivery mechanisms to the end user premises. Our FibreSpeed network is in fact NGA ready for the business market using its core fibre network, park access network and microwave technology. In the future speeds of many 100s of Mbit/s may be required and in the context of deriving best value from public investment, any intervention that does not provide for this may be short-term in the benefit delivered. We therefore propose that the Commission should recognise the likely emergence within a short number of years of Future Generations of Broadband, providing these speeds and above. Recognition that creation of assets which are compatible with FGB is a particularly important role for State aid would be welcomed.
(50)	It may be useful to reference the FibreSpeed network Decision 131/2005, referred to in note 35, against note 45 in relation to this point.
3.3	**<u>The Establishment of grey and white areas for NGA</u>**
	In relation to the determination of "white" and "grey" areas for the provision of NGA networks we support the need to determine areas where investments in NGA may be made by private investors. The "expectation" that NGA will be available within 5 years would seem to be a reasonable period of time for some member states, if at the end of an acceptable time frame. However, in the UK NGA broadband will be available to all homes connected to the Virgin Media Network by the middle of 2009. In the UK an expectation of 3 years would be a more appropriate time frame. However, we note that the ability to undertake a proper and full assessment may be hampered by the actions of the incumbent network providers. They may be incentivised to delay the roll out, or fail to announce the roll out, of NGA to areas where they believe public funds may be available to them to implement such networks. In such cases it may be appropriate for an independent economic model to be used to determine if that incumbent operator could provide NGA on an economic basis.
3.4.2	<u>Grey NGA areas: Need for a more detailed analysis</u>
(69)	In relation to "grey areas" of NGA, we would support an assessment period for the provision of these services of 5 years. However, we would emphasise that where there is no open access to the passive duct and fibre assets of a single network provider at reasonable market rates, it should be deemed that intervention would be compatible with the state aid rules.
(70)	The detailed assessments to be performed by the Commission rely on the whole on the current NGA pricing and conditions. In our view a forward assessment of such matters should be permitted to avoid any delay to necessary state intervention. In particular we believe that the following points could be relevant to the assessment: (a) In determining whether intervention is appropriate, the Commission should also have regard to the number and type of service providers who are currently utilising active component wholesale access methods that may be legislated by national regulators (in the absence of any form of passive access). An absence of alternative service providers actually utilising the available active component wholesale access may be an indicator that conditions are not conductive to effective competition and that aid is compatible with the state aid rules.

	(b) An example of the above lack of competition in the UK may be the lack of service providers in a large number of exchanges where they could offer basic broadband services through LLU. Examples we have noted are Cornwall where only 22 exchanges out of 100 have at least one other LLU operator; and another is Wales where only 132 out of 443 exchanges are unbundled. (c) In relation to the fourth assessment point, Geo's view is that the use of access and ducts is a key determinant in the provision of competitive NGA services. This test should apply to the expectation of access to planned NGA networks in addition to networks that already exist. Again, to ignore this may delay a compatible intervention and allow a period of divide to occur.
3.4.5	<u>Design of the Measure and the need to limit distortions of competition</u>
	We believe that this is the most important part of the guidelines to ensure that genuine competition for NGA and broadband services are created in the provision of state aid and that true benefits are delivered.
(74)	We are unclear as to whether this point does or does not require the conditions contained within it to be applied to white areas i.e. where there is no basic or NGA access. We believe that there are circumstances where although an area is white for both basic and NGA broadband services that the conditions should apply. For example, where the incumbent operator is selected to provide either basic or NGA broadband to a white area, which would lead to it strengthening its competitive advantage, the full range of conditions in point (74) should apply. In relation to the conditions to be applied we would make the following comments: (a) We believe that the wholesale access should be in line with our suggestion in relation to paragraph (45). To limit the open access requirement to 7 years on long life assets in particular would severely limit competition at the end of 7 years. It would result in a significant benefit to the network provider at the expense of the communities that the measure was designed to benefit. (b) Based on Geo's own experience, 15 years is the minimum period of time for which alternative service providers would need to have access to passive infrastructure to enable them to operate a business, with an indication that such services would be available beyond that time. A known period of just 7 years would effectively prevent any significant use of open passive infrastructure. In order to allow alternative service providers a full 15 years access, the network operator itself would need to provide Open Access for a period of 20 years to support service providers who do not provision services on day one of any measure. (c) The right to use ducts, dark fibre and/or street cabinets is a key requirement and should apply across the region where the network provider receiving state aid has assets, not only to the element of the network that is directly funded by the state aid. An example of this would be where state aid funds the construction of fibre and duct from an exchange to a cabinet. To provide access only to that part of the network without mandating access to the passive assets backhaul to a suitable aggregation point would not enable the alternative service provider with a means to compete with the network provider. (d) Clarification that the access to passive open infrastructure should occur in the case of all types of state funding, including gap funding subsidies, tax rebated

	and other forms of finances e.g. loan provided. It is particularly important that this provision is applied to cases where incumbent or existing operators are granted state aid.
	Other Points relevant to the application of State Aid Rules to Broadband Networks
	In addition to the points raised by the Community Guidelines we consider the following issues to be highly relevant for the successful implementation and operation of rural or remote areas broadband.
	We understand that the current range of maximum approved SAI levels for such projects is in the range of 60-70%. We believe that in some cases that it may be necessary to increase this level to make it attractive for businesses to enter the market. • A review of downside cases on some of the recent UK rural broadband contracts indicated that SAI could be in the region of 80-90%; • Investment in NGA may be curtailed as it difficult to state exactly the uptake of services, meaning that investors may choose not to risk the deployment of such services, even with state aid. This has been particularly the case since the methodology for calculating SAI changed in the move to convergence funding, so that the imputed tax benefit is no longer part of the calculation. We believe that this issue will become increasingly important for very marginal business cases or remote areas. In particular the SAI levels permitted could be increased through an increase in the size of the Bonus for SMEs. This would reflect the risk undertaken by such organisations and create a level playing field with the large incumbent operators who actively seek to offset state Aid against a wider cost base, that may or may not be directly connected to the measure,
	Calculation of State Aid As stated in the introduction to our detailed comments we propose that further guidelines on the calculation of state aid in relation to long term assets could be issued to grant bodies to help them ascertain the real amount of benefit received by an aid recipient when long life assets are financed. This would include: A description of the circumstances and treatment of funding of long term assets which should be treated as a finance lease with a residual value at the end of the measure period where that is shorter than the economic life of the assets. The result of this would be that the state aid would be recognised over the economic life of the asset and recognise the aid over the duration that they deliver benefits. Recognition of the benefits provided by the aid recipient in terms of Open Access provided to 3rd parties. The measurement of this benefit could be based on a simple finance lease on the element of the network utilised by 3rd parties. The amount of the benefit provided would then be removed from the direct aid recipient's amount of state aid measured on the same finance lease basis. This basis of calculation of aid for long term assets would provide for a fairer comparison of such measures against sort term improvements in existing network which do not have the capability to provide FGB.

Appendix A – Geo's National Network – illustrative map



Appendix B – Geo's London Network – illustrative map

Appendix C - FibreSpeed Case Study – illustrative map