EUROPEAN COMMISSION

Brussels, 12.06.2012
C(2012) 3763 final

Subject: **State aid SA.33540 (2012/N) – United Kingdom**
City of Birmingham - Digital District NGA Network

Sir,

I. PROCEDURE

(1) Following pre-notification discussions, by letter dated 21/03/2012 pursuant to Article 108(3) TFEU, the United Kingdom ("UK") authorities notified to the Commission a *"City of Birmingham - Digital District NGA Network"* supporting the deployment of ultra high speed broadband networks in two districts of Birmingham. By letter registered on 10/05/2012 the Commission requested additional information on the measure, to which the UK authorities provided answers on 16/05/2012.

II. DESCRIPTION OF THE MEASURE

II.1. Strategic frameworks for broadband development

(2) **The Digital Agenda for Europe:** Broadband connectivity is of strategic importance for European growth and innovation in all sectors of the economy and to social and territorial cohesion. The Europe 2020 Strategy (EU2020) underlines the importance of broadband deployment as part of the EU's growth strategy for the coming decade and sets ambitious targets for broadband development. The achievement of EU2020 objective of a smart, sustainable and inclusive growth depends also on the provision of widespread and affordable access to high speed internet infrastructure and services. One of its flagship

The Rt Hon William HAGUE
Secretary of State for Foreign Affairs
Foreign and Commonwealth Office
King Charles Street
London SW1A 2AH
United Kingdom

initiatives, the Digital Agenda for Europe (DAE)[1] acknowledges the socio-economic benefits of broadband, highlighting its importance for competitiveness, social inclusion and employment. Meeting the challenge of financing a good quality and affordable broadband infrastructure is a crucial factor for Europe to increase its competitiveness and innovation, provide job opportunities for young people, prevent de-location of economic activity and attract inward investments. Therefore the DAE restates the objective of the EU2020 that sets the following targets for broadband development in Europe: to (i) bring basic broadband to all Europeans by 2013 and by 2020, (ii) all Europeans have access to much higher internet speeds of above 30 Mbps and (iii) 50% or more of European households subscribe to internet connections above 100 Mbps.

(3) **The National Broadband Strategy of the UK:** At the end of 2010, the UK Government has published a National Infrastructure Plan[2] outlining the Government's vision for the future of UK economic infrastructure focusing on supporting investments in energy, water, transport, digital communications and waste disposal networks and facilities. As part of the overall infrastructure development, the UK Government published in December 2010 the "Britain's Broadband Future Report"[3] setting out its strategic vision for ensuring that the UK has the *"best superfast Broadband network in Europe by 2015"*, which will be measured in terms of speed, coverage, price and choice.

(4) As acknowledged in the National Broadband Strategy of the UK as well as in the DAE, carefully targeted public sector intervention shall complement commercial investments, where the market is not delivering or not delivering effectively. In order to achieve the first two objectives of DAE, under the Broadband Delivery United Kingdom (BDUK) broadband support scheme[4], the UK Government will provide public funds in the electronic communications sector to bring forward network infrastructure upgrades and to improve the accessibility of services in locations where it would not otherwise happen because of the weak commercial investment case, which primarily concerns rural and remote areas. In order to achieve the third DAE objective, namely to reach 50% internet penetration for 100 Mbps networks by 2020, the UK Government is planning to support the deployment of "ultrafast broadband networks" (i.e. networks that are capable to provide at least 100 Mbps download speeds) in certain UK cities[5]. This is the DAE objective where the EU is the furthest from the achievement, since as of July 2011, only 0.9 % of the broadband lines were able to provide at least 100 Mbps download speeds.[6]

---

1 Communication from the Commission to the European Parliament, the Council, the Social Committee and the Committee of the Regions, COM (2010) 245 final *A Digital Agenda for Europe.*

2 See: http://www.hm-treasury.gov.uk/ppp_national_infrastructure_plan.htm.

3 Available at: http://www.culture.gov.uk/images/publications/10-1320-britains-superfast-broadband-future.pdf.

4 This initiative is part of a seperate State aid notification, thus does not form scope of the current assessment. See also: http://www.culture.gov.uk/what_we_do/telecommunications_and_online/7781.aspx.

5 See http://www.hm-treasury.gov.uk/national_infrastructure_plan2011.htm.

6 Digital Agenda Scoreboard of 2011, available at: http://ec.europa.eu/information_society/digital-agenda/scoreboard/docs/pillar/cocom_broadband_july_2011.pdf

II.2. Objective of the measure and rationale for public intervention

(5) **Selection of the target areas**: Birmingham City Council has developed a city development plan, which notes that some of the districts adjacent to the city core – Eastside, Digbeth and the Jewellery Quarter in particular – are already thriving 'creative quarters'[7]. However, given the nature of the target areas (former industrial area, high regenerative need, poor legacy infrastructure, high level of SMEs), telecommunications providers so far remained reluctant to commit resources and investment to the area. Although Birmingham has benefited from basic broadband (namely ADSL) rollouts, the absence of major commercial and industry centres and the relatively small residential population means that it has not been cost effective to widely deploy next generation access (NGA) networks infrastructure, and such investments are primarily focused in on the outer regions and the city centre.

(6) **Limitations of existing networks:** According to the UK authorities, existing networks are not sufficient to satisfy the continuously growing needs of citizens and business users in the area in question. Most businesses within the area use basic broadband ADSL services which for many lack the speed and reliability required to maintain competitiveness. Typical download speeds are below 20Mbps and upload speeds below 2Mbps. Companies requiring higher speed connectivity in the Districts must procure LAN Extension services; or pay for dedicated bespoke fibre connectivity, the price of which is often prohibitive for SMEs with high bandwidth needs.

(7) **Current level of prices**: According to the UK authorities, besides the non-availability of adequate infrastructures, the other key constraint for the high speed broadband adoption in the Digital Districts areas is price. The prices are particularly high for connectivity services required by business customers (high bandwidth, symmetrical connections) and which are only available from the market through the installation of a dedicated LAN extension services. Businesses typically have to pay connection prices in excess of £10,000 for such services. In addition, the rental charges for a non-contended 100 Mbps service are above £1000 per month. Typically a prices point of approximately £200-£300 per month is viewed as an acceptable rental price to drive adoption[8]. According to the UK authorities, in other European countries, where fibre to the home (FTTH) roll-outs have taken place, SMEs can access to symmetrical, very high speed broadband services at the fraction of the current pricing available in the Birmingham Digital Districts[9]. Hence a key objective of the public intervention is to lower the access cost and encourage a competitive service provider environment to deliver this price point. The lack of competitive service supply results in price points that are constraining the market and having an adverse economic effect on the districts.

(8) **Demand for new services:** As regards the demand for new services, a number of changes are occurring within the industry structure that will require not only increases in bandwidth but also for symmetric services, for example, to enable the upload of a film copy (3D and HD in the mid-long term) to remote data-centres. The business model of companies active

[7] In recent years they have become the focus of a creative, knowledge based community such as games developers, video production companies, software developers and creative media companies, which rely on high bandwidth to compete globally.

[8] Based on the findings of expert report conducted by the UK authorities. Digital Birmingham: Market Research. July 2011.

[9] For instance, the UK authorities quote France, where Orange 100 Mbps symmetrical FTTH offer costs €69 per month and the Netherlands, where InterNLnet offers 100 Mbps symmetric broadband for €119.95 per month.

in the 'creative and knowledge based industry' requires very high speed, reliable, symmetrical broadband speeds to be able to transfer large amount of data, to stream videos, and to effectively cooperate with other companies located worldwide. Considering the capabilities of the current networks and the investment plans for the near future, the UK authorities concluded that these infrastructures are not able to satisfy the needs primarily of the business users in the area concerned.

II.3. Description of the measure

(9) **Objective:** The current notification is part of the UK's "ultrafast broadband cities" initiative and may serve as a precedent for other similar initiatives. The focus of the measure is the development of an ultrafast broadband network as part the Digital Districts programme. The aim is the transformation of the Digital Districts and to drive the wider transformation of Birmingham.

(10) **Subject of the aid:** The aid measure will support the development of ultra-fast broadband network within a small geographical area but which is scalable to larger geographical areas and other regions. The new infrastructure will be able to provide genuine ultra-fast services (i.e. 100Mbps, 1Gbps, etc) at an affordable price which is not currently provided by the market. End users will benefit from fibre to the premise and will be served by service providers offering download speeds far in excess of those available in the market today. The infrastructure will be a genuinely 'open access' NGA network offering operators and service providers' access to a full portfolio of wholesale services including ducts, dark fibre, wavelength, ethernet and co-location services.

(11) The UK authorities' feasibility study reveals that the project is viable at an operational level with the revenues covering the on-going cost base, but the project could not fully repay the initial capital investment of the build programme. Therefore public funding and state aid would be necessary to support this intervention. According to the UK authorities, supporting such small scale "ultrafast broadband" initiatives will later provide impetus for additional investments on market terms.

(12) **Legal basis:** the measure is based on Local Government Act 2000 and the Power to Promote Well Being of the Area: Statutory Guidance for Local Council's[10].

(13) **Beneficiaries:** The direct beneficiary of the aid will be an electronic communication operator selected through a competitive tender process. Indirect beneficiaries will be electronic communication operators utilising the new network through the wholesale access products for offering retail services to consumers. Indirect beneficiaries will also be business users, primarily SMEs in the areas concerned who will benefit from better broadband services.

(14) **Target areas:** the measure will target districts of the Jewellery and Digbeth/Eastside quarter in Birmingham.

[10] Available at: http://www.communities.gov.uk/documents/localgovernment/pdf/1148897.pdf.

(15) **Mapping and public consultation:** The UK authorities conducted a detailed survey on the existing broadband infrastructures and services and conducted a public consultation to verify the results of the mapping and to obtain information on the plans of the private operators.

(16) As regards the presence of existing infrastructure in the targeted areas, firstly, the UK authorities started the analysis on the basis of the central mapping prepared by the national competition and regulatory authority, OFCOM[11]. Secondly, to verify the data for the two targeted districts, further street level analysis was undertaken. Thirdly, the UK authorities have consulted widely with the telecommunications industry and other stakeholders on the planned measure[12]. Fourthly, the Digital Birmingham has its own website which provides details of key projects and is updated regularly. The formal consultation was published on a dedicated website with all important details on the target areas, project plans, funding and envisaged services[13]. The UK authorities confirmed that no stakeholder raised any concern on the planned measure.

(17) **Result of the mapping:** According to the UK authorities, the existing telecommunications infrastructure within Digbeth/Eastside and Jewellery quarters is largely restricted to legacy BT copper base services.

(18) The incumbent operator, BT is currently providing basic broadband ADSL services in the areas concerned. As regards its future plans, BT has announced that it will partly upgrade its existing basic broadband infrastructure to fibre to the cabinet (FTTC)[14] network in the targeted areas in the next 3 years. However, such upgrade will only concern approximately […]* of the postcode areas of the Digital Districts thus leaving […] of the target areas unserved with NGA networks after BT's announced partial upgrade. In addition, the UK authorities argue that even the planned FTTC network for the […] of the target area has limitations as regards the possible use for SMEs. The capacity of FTTC networks is dependent on the distances between the end user premises and the cabinets: in principle, within 300 meters of cable length from a cabinet download speeds up to 40-50Mps could be offered, but beyond 300 meters from a cabinet the speeds fall rapidly to 10Mbps at 2km from the cabinet. In addition, FTTC networks provide only asymmetric connectivity services with strong limitations on the upload speeds, therefore such network types are in general not adequate for business users' who require high capacity, reliable, symmetric broadband connectivity.

---

11 The UK baselines maps are available here: http://maps.ofcom.org.uk/broadband/

12 For instance, industry days series, workshops, on-going dialogues were held with the industry representatives. Digital Birmingham regularly meets with two main telecommunication operator, BT and Virgin Media as they are engaged with as members of the Digital Birmingham Management Board.

13 The public consultation documents are available here: http://www.digitalbirmingham.co.uk/ and https://www.birminghambeheard.org.uk/.

14 A gradual upgrade of the existing copper-based basic broadband networks. The fibre is terminated in a street cabinet up to several kilometres away from the customer premises, with the final connection being copper. Fibre-to-the-cabinet networks are often seen as a temporary, interim step towards full fibre networks.

* *[…]: the information in brackets is covered by the obligation of professional secrecy.*

15 They are only able to serve less than 1% of business and residential customers with their own fibre infrastructure in the target area.

(19) […] Virgin Media has basically no presence with its own cable infrastructure in the targeted areas thus there is no additional competing infrastructure available[15]. According to the UK authorities, Virgin Media has extensive duct infrastructure across the Digital Districts, but this is not widely fibred and the company does not permit access to its ducts or fibre infrastructure by third parties. Virgin Media has no publicly announced plans to expand and upgrade its infrastructure in the Digital Districts, and was involved in the consultations described in paragraph (15).

(20) There are several other fixed network operators active in the UK market (for instance, Geo, Cable&Wireless, SSE Telecom). However, as confirmed by the UK authorities, these operators are primarily focused to serve large enterprises with communication services (and they do not serve residential or SME customer, which are the main focus of the current measure) and none of them is serving consumers in the targeted areas.

(21) **Budget and funding instruments:** it is envisaged that the project requires a total funding requirement of £9 million. Depending on the outcome of the competitive tender procedure, it is envisaged that the maximum aid will be approximately £5million. Digital Birmingham will be seeking funds from European Regional Development Fund and the UK Government Urban Broadband Fund[16].

(22) **Tender process**: The UK authorities envisage one tender to cover both the Jewellery and Digbeth/Eastside Quarters. The aid will be allocated on the basis of a competitive tender process in line with the principles of the EU Public Procurement Directives[17]. The UK authorities confirmed that all tender processes and procedures will be followed in respect of the requirements of transparency, equality, non-discriminatory treatment of bidders.

(23) The UK authorities confirmed that the award criterion will be **the most economically advantageous offer**. In line with footnote 55 of the Broadband Guidelines, for the purposes of determining the most economically advantageous offer, the awarding authority will specify in advance the relative weighting which it will give to each of the (qualitative) criteria chosen. The UK authorities also confirmed that amount of state aid will be one of the selection criteria to ensure compliance with paragraph 51(c) of the Broadband Guidelines[18], i.e. *"in order to reduce the amount of aid to be granted, at similar if not identical quality conditions, the bidder with the lowest amount of aid requested should in principle receive more priority points within the overall assessment of its bid."*

(24) **Technology neutrality:** The procurement process will be technology neutral, however the UK authorities consider that given the stated requirement to deliver ultra-fast broadband services service, a fibre based solution will be the most likely outcome of the procurement

[16] The UK government has earmarked £100 million of public funding to support the development of ten "super-connected cities" in the UK. See for instance: http://www.culture.gov.uk/news/news_stories/8931.aspx.

[17] Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts. OJ L 134, 30.4.2004, p. 114–240.

[18] OJ C 235 of 30.9.2009, p. 7.

(25) **Use of existing infrastructure:** the UK authorities assessed the possible use of existing infrastructure, in particular access to ducts, which could significantly reduce the investments costs. Two companies have significant infrastructure in place. With regards access to the duct infrastructure of Virgin Media, as explained in paragraph (19), the company will not permit access to its ducts or fibre infrastructure by third parties on commercial terms and has not legal obligation to grant such access. With regards to BT, access to its duct infrastructure, which is possible under the applicable regulatory framework, the UK authorities argue that there are a number of operational and regulatory constraints that prevent it being a solution for the Digital Districts. Firstly, when BT built its duct infrastructure it was not envisaged that multiple providers would be installing, sub-ducts and/or blown fibre of their own alongside the BT infrastructure hence there could be technical limitation for the use of ducts. Secondly, the Birmingham authorities argue that BT's wholesale pricing for the access as well the as price of ancillary services hampers the effective use of its duct infrastructure. Most importantly, under the applicable UK regulatory framework, ducts and poles access can only be used as an access product for retail internet, but not for leased line services. These restrictions on the use of ducts access substantially reduce the benefit of this wholesale product to cities like Birmingham with a large base of SMEs. […]

(26) Due to this non-availability of the existing electronic communication infrastructure, the UK authorities expect a green-field build for the planned measure. To reduce the possible aid amount, any work will be co-ordinated with local property developers and the road upgrade and maintenance programme. In addition, a full survey has been undertaken of local waterways and sewers, which will be shared with the potential bidders.

(27) **Wholesale access:** The subsidised infrastructures will be opened for third party operators, including both passive and active infrastructure elements, which will satisfy all different types of network access that operators may seek, including access to ducts, dark fibre, wavelength services, Ethernet services and co-location services. The wholesale access conditions will be designed in a way that all existing operators shall be able to utilize the infrastructure. All new ducting installed will be sufficiently large to host multiple operators and point-to-multipoint and point-to-point topologies as well. Third party operators will have wholesale access to the subsidised broadband networks in a non-discriminatory way during the entire duration of the contract and for a minimum of 25 years. To further incentivize take-up rates and competition, and to reduce any potential distortion of competition, the subsidised broadband infrastructure will be used only to offer wholesale access services to third party operators, but not retail services[19].

(28) **Wholesale price benchmarking:** A price benchmarking mechanism will be incorporated in the contract with the selected bidder. The price for wholesale access will be based on average prices for comparable services in more competitive areas of the UK and EU. The NRA and the granting authority will monitor and approve the pricing of broadband services.

[19] The UK authorities confirmed that if the selected operator wishes to provide retail broadband services, it can do that through a legally and functionally separated company.

(29) **Monitoring and clawback mechanism***:* A reverse payment mechanism will be included in the contract with the selected bidder to address over-compensation if demand grows beyond anticipated levels. Any extra profit will be calculated annually and, at the end of the lifetime of the project, the cumulative calculation will determine the amount of the funding to be paid back, which shall not exceed the amount of State aid received (adjusted with interest rates for comparing the actual present values).

(30) **Timeline for the envisaged investment:** According to the plans of the UK authorities – subject to the State aid approval - most likely the implementation of the project will start in 2013 and will finish in 2015. In case of significant delays in the implementation of the project (i.e. more than 2 years), the UK authorities will *inter alia* re-conduct the market analysis of the existing infrastructures, the plans of the private operators as well as the availability of existing infrastructure (for instance in case of changes in the applicable regulatory framework); and on that basis, the measure will be subject to new State aid notification accordingly.

(31) **Expected economic benefits:** the UK authorities expect benefits in generating and retaining jobs, increasing the competitiveness of local businesses, having positive environmental impacts though reduced emissions, congestion and waste and stimulating economic growth and position Birmingham as a hub for knowledge based industries. According to the estimation of the UK authorities, the project could generate £135 million of GVA[20] for the Digbeth, Eastside & Jewellery Quarter locations.

III. ASSESSMENT OF THE MEASURE: PRESENCE OF AID

(32) According to Article 107 (1) TFEU, "*any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market*". It follows that in order for a measure to qualify as state aid, the following cumulative conditions have to be met: 1) the measure has to be granted out of State resources, 2) it has to confer an economic advantage to undertakings, 3) the advantage has to be selective, (4) distort or threaten to distort competition and 5) the measure has to affect intra-EU trade.

III.1. State resources

(33) The measure will be financed by funds from the national budget and possible by EU funds, which qualify as state resources once they come under the control of a Member State[21]. Hence state resources are involved.

III.2. Economic advantage

(34) *Selected operators*: Through the tender process, the selected operator will receive financial support which will enable it to enter the market and provide very high speed broadband

[20] Gross Value Added (GVA) is a measure in economics of the value of goods and services produced in an area, industry or sector of an economy.

[21] See for instance Commission decision in case N157/2006 South Yorkshire Digital Region Broadband Project, - United Kingdom. JOCE C/80/2007.

services on conditions not otherwise available on the market. Although a competitive tender procedure tends to reduce the amount of financial support required, but as confirmed by the calculations of the UK authorities, the planned project would not be able to fully repay the investments costs (see paragraph (8)). Therefore the financial support received will enable the successful bidder to conduct this commercial activity on conditions which would not otherwise be available on the market. In view of the above, an economic advantage will be granted to the selected operator.

(35) *Third party providers*: Third party electronic communication providers will be able to offer their services by using the active and passive wholesale access to the subsidized network on open, non-discriminatory terms. They may therefore also indirectly benefit from the state resources under terms and conditions that would not apply without State intervention, as they will be customers of the selected electronic communication operator.

(36) *End users:* The measure aims at improving the provision of existing broadband services primarily to small business users and residential users. Whereas residential users are not subject to state aid rules, the specific businesses (SMEs in particular) in the targeted areas will therefore ultimately benefit from the improved broadband services and coverage in comparison with what would be provided on a commercial basis.

III.3. Selectivity

(37) State measures supporting the deployment of broadband networks are selective in nature in that they target broadband investors and third party operators which are active only in certain segments of the overall electronic communications services market. As regards the business-end users of the subsidised network, by contrast, the measure might not be selective as long as the access to the subsidized infrastructure is open to all sectors of the economy. In the current case, the selection of the target areas was also influenced by the high number of SMEs linked to the 'creative industry' (since they have high demand for services that the current networks are not able to satisfy) thus State support is also geared toward the deployment of a broadband network in favour of pre-determined companies[22]. Thus the measure is deemed to be selective also as regards business end users of the planned network.

III.4. Distortion of competition

(38) According to case law of the Court of Justice of the European Union[23], financial support or support in kind distorts competition in so far as it strengthens the position of an undertaking compared with other undertakings. Due to the State aid granted to a competitor, existing operators might reduce capacity or potential operators might decide not to enter into a new market or a geographic area. The intervention of the State alters the existing market conditions by allowing the provision of improved broadband services by the selected electronic communication operator and, potentially, third party providers. Furthermore, the measure will alter the conditions of competition between end users who are likely to subscribe to the very high speed broadband services in the targeted areas and end users

[22] See also Commission decision in case N626/2009 – Italy, *NGA for industrial districts of Lucca*.
[23] See for instance Case C-310/99, Italian Republic v Commission [2002] ECR-I-02289, paragraph 65.

elsewhere in the UK and the EU. Therefore, the fact that an improved broadband service becomes available has the effect of distorting competition.

III.5. Effect on trade

(39) Insofar as the State intervention is liable to affect service providers from other Member States, it also has an effect on trade since the markets for electronic communications services (wholesale and the retail broadband markets) are open to competition between operators and service providers.

III.6. Conclusion

(40) The Commission therefore concludes that the notified aid measure constitutes State aid within the meaning of Article 107(1) TFEU as moreover confirmed by the notifying Member State during the notification.

IV. ASSESSMENT OF THE MEASURE: COMPATIBILITY

(41) Having established that the project involves aid within the meaning of Article 107(1) TFEU to the selected service provider, third party providers and businesses, it is necessary to consider whether the measure can be found to be compatible with the internal market.

(42) The Commission has assessed the compatibility of the scheme according to Article 107(3)(c) TFEU and in the light of the *Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks*[24] (Broadband Guidelines), which contain a detailed interpretation of Article 107(3)(c) TFEU in this area of State aid law.

IV.1. The balancing test and its application to aid for the broadband network deployment

(43) As described in paragraphs 34 and 35 of the Broadband Guidelines, in order to assess whether a measure is compatible under article 107(3)(c), the Commission balances positive and negative effects of the aid according to the criteria set out in the Guidelines. In applying the balancing test, the Commission considers it appropriate here to ask the following questions:

(1) Is the aid measure aimed at a well-defined objective of common interest (i.e. does the proposed aid address a market failure or other objective)?

(2) Is the aid well designed to deliver the objective of common interest? In particular:

  (a) Is the aid measure an appropriate instrument?

  (b) Is there an incentive effect, i.e. does the aid change the behaviour of firms?

  (c) Is the aid measure proportional, i.e. could the same change in behaviour be obtained with less aid?

(3) Are the distortions of competition and the effect on trade limited, so that the overall balance is positive?

[24] OJ C 235 of 30.9.2009, p. 7.

IV.2. Objective of the measure

The "colour" of the target area

(44) The measure targets area where basic broadband (ADSL) services provided on the incumbent operator's network are already available. In addition, the incumbent operator has credible investment plans to roll-out a fibre to the cabinet (FTTC) network in parts of the target areas (approximately […] of the area concerned) in the near future of three years. FTTC networks are networks where fibre optical elements are extended until the street cabinets, while the end user premises remain connected with the existing copper networks. In comparison with basic broadband networks, FTTC network is able to provide higher speeds in short distances. Thus FTTC networks under certain conditions could meet the criterion to qualify as an NGA networks within the meaning of the Broadband Guidelines as laid down in paragraph 56: they are "*wired access networks which consist wholly or in part of optical elements and which are capable of delivering broadband access services with enhanced characteristics (such as higher throughput) as compared to those provided over existing copper networks*". It shall be noted that investment in an FTTC network is a relatively small, gradual upgrade of existing basic broadband networks. Although capable to provide better download speeds (with limitations the upload speeds) in short distances in comparison with basic broadband networks, FTTC networks are generally considered as temporary, interim investments especially for urban areas and they are suffering from the same limitations as basic broadband ADSL types of networks[25].

(45) Accordingly the target area shall be considered as a "*grey area*" regarding the availability of basic broadband networks, and partly as a "*grey NGA area*" regarding the availability of NGA networks.

The aid is in line with the EU policy

(46) The objective of the measure is to support the deployment of an ultra-high speed broadband network (capable to provide more than 100 Mbps download speeds) and to contribute to achieve the third objective of the DAE, namely to ensure that 50% or more of European households shall subscribe to internet connections above 100 Mbps by 2020. The DAE calls Member States to use public financing in line with EU competition and State aid rules in order to meet the coverage, speed and take-up targets defined in EU2020. Therefore the measure at stake pursues well defined EU policy objectives.

Aid is the appropriate instrument

(47) Alternative instruments, such as demand side measures could include grants or tax incentives to end users. However, in the situation currently under assessment, the efforts

[25] Due to technological reasons, the available bandwidth is significantly deteriorating as the distance between the exchange and the end users sites increase. See for instance WIK-Consult: Study on the Implementation of the existing Broadband Guidelines. COMP/2011/006.
Available at: http://ec.europa.eu/competition/consultations/2011_broadband_guidelines/final_report_en.pdf.

[26] If the selected operator wish to provide retail services as well, it shall do that through a legally and functionally separated company.

from alternative instruments (including *ex ante* regulation) do not solve the problems related to the lack of supply (non-existence of appropriate infrastructure) in the targeted areas. In line with paragraphs 47 and 48 of the Broadband Guidelines, the UK authorities see no alternative but to grant public aid to the construction of a high speed broadband network in the targeted areas of the country.

The aid provides the right incentives to operators

(48) Regarding the incentive effect of the measure, the Broadband Guidelines set out in paragraph 50 that it needs to be examined whether the broadband network investment concerned would not have been undertaken within the same timeframe without any State aid. The market analysis and the public consultation described in paragraphs (15) to (20) have demonstrated that in the targeted areas no comparable investment would take place without public funding in the near future of three years, hence the aid produces a change in the investment decisions of the operators. Moreover, as explained in paragraph (21), the recipient of the aid will be selected by public tender.

(49) Due to its highly pro-competitive design, the notified measure is considered as a complement and stimulation of commercial investments. Firstly, due to the wide range of wholesale access products provided on the subsidized network, all potential operators will be able to use the network to extend their coverage and connect consumers with internet services. Secondly, the subsidised broadband infrastructure will offer only wholesale access services to third parties, not retail services[26], thus the chosen public intervention model will ensure that commercial investments have to be undertaken in the access segment in order to provide internet services. Accordingly, the public intervention will encourage commercial operators to invest in areas where such investments would have otherwise been unprofitable for private operators.

(50) Therefore, the aid should provide a direct and appropriate investment incentive for the selected operators

IV.3. Design of the measure and the need to limit distortions of competition

(51) In order to minimise the State aid involved and the potential distortions of competition, the notified measure has to meet a number of necessary conditions.

(a) Market research and consultation: As set out in detail in paragraphs (13) to (20), the UK authorities undertook a detailed analysis of the existing broadband infrastructure. The consultation with existing operators in an open, transparent way ensures that any potential investments plans of commercial operators are sufficiently taken into account, and public funds are used only in areas where similar commercial investments do not exist and they are not planned in the near future. The Commission concludes that the detailed market research and "mapping" together with the public consultation conducted by the UK authorities will limit any potential distortion of competition *vis-à-vis* existing operators and reduce the amount of State aid required for the measure.

(b) Competitive tender process: The UK authorities will select the preferred bidder for the construction and the management of the network in open, non-discriminatory and competitive tender procedures in full compliance with national and EU public

procurement principles. These procedures could maximise the effect of the aid provided while minimizing any potential advantage granted for the selected operator.

(c) Most economically advantageous offer: Within the context of an open tender, the UK authorities will select the most economically advantageous offer among those presented by the operators. Under the terms of the competitive tender process, the bidder with the lowest amount of aid requested will receive more priority points within the overall assessment of the bid. In line with footnote 55 of the Broadband Guidelines, for the purposes of determining the most economically advantageous offer, the awarding authority will specify in advance the relative weighting which it gave to each of the (qualitative) criteria chosen as described in paragraph (22).

(d) Technological neutrality: while according to the current technological and market developments in line with paragraph 53 of the Broadband Guidelines, only fibre based networks are able to provide ultra-high speed broadband services, the design of the measure is done in a way that does not favour any technology or network platform leaving it to commercial operators to come up with the most appropriate technological solutions to provide very high speed broadband services to end users.

(e) Use of existing infrastructures: To avoid unnecessary and wasteful duplication of resources, the UK authorities encourage the use of existing infrastructure. The bidders will be encouraged to have recourse to any available existing infrastructure in the area so as to avoid unnecessary and wasteful duplication of resources and to lower the aid amount necessary. However, in the current case, the limitation related to the re-usability of the existing telecommunication infrastructures as explained in paragraphs (15) will most likely lead to greenfield investments. The amount of State aid will be reduced by additional administrative measures, including the coordination of civil works as explained in paragraph (25).

(f) Wholesale access: The selected operator will have to offer a wide range of wholesale services and access to the subsidised network during the complete lifetime of the project (or minimum 25 years) independently of any change in ownership or any other conditions. The selected operator will have to offer other operators access to the active and passive network elements or to the capacity of the network in an open, transparent and non-discriminatory manner. The wholesale access, in particular with the additional safeguard that the wholesale service provider will not provide retail services (unless a legally and functionally separated company is set up for this purpose), will enable third party operators to compete with differentiated broadband services to the consumers, thereby strengthening choice and competition in the areas concerned by the measure while at the same time avoiding the creation of regional service monopolies.

(g) Price benchmarking: In order to ensure effective wholesale access and to minimise potential distortion of competition, the prices of access wholesale prices will be based on the average published (regulated) wholesale prices that prevail in other comparable, more competitive areas of the country and the EU. Wholesale prices on the subsidized network will be monitored and approved by the granting authority together with NRA with the objective to keep these at a reasonable and non-discriminatory level.

(h) Monitoring and claw-back mechanism to avoid over-compensation: The project will be examined on a regular basis and the monitoring mechanisms implemented will ensure that any extra profit generated through the operation of the networks will be clawed back. Thereby the UK authorities will ensure that the recipient of the aid will not benefit from overcompensation and will minimise *ex post* and retroactively the amount of aid deemed initially to have been necessary.

(52) To the extent the measure targets a *"grey NGA"* area within the meaning of the Broadband Guidelines, additional compatibility criteria shall be met as set out in paragraph 75 of these Guidelines. For the Commission to make a finding of compatibility, the UK authorities demonstrated that the existing or planned NGA network is not or would not be sufficient to satisfy the needs of citizens and business users in the areas in question as explained in section II.2 and, secondly, that there are no less distortive means (including ex ante regulation) to reach the stated goals as explained in paragraph (47). In the context of its detailed assessment the Commission have in particular assessed that:

(a) the overall market conditions are not adequate, by looking, *inter alia*, into the level of current NGA broadband prices, the type of services offered to residential and business users and the conditions attached thereto and whether there exists, or is likely to appear, demand for new services that cannot be met by the existing NGA network as explained in section II.2. As proved by the UK authorities, existing and planned network infrastructures are not adequate to satisfy the needs of the local business consumers even if an FTTC network will be partially deployed in the target area in the near future of three years. The Birmingham authorities prepared a detailed feasibility study on the commercial viability of project and, in the framework of this study, they have analysed in detail the bandwidth needs of the local business consumers with the assistance of an external expert. According to this study, although very small, micro enterprises in general consider the existing broadband services adequate, limited upload speeds of copper-based networks is an increasing problem for many of these companies, as they need higher speeds to upload and stream content for their clients. As regards small and medium enterprises, the study reveals that the unavailability of cost effective high speed broadband hampers their business developments. The situation will not change with the partial roll-out of a FTTC network either: over 75% of the respondents of the survey saw a need for greater connectivity speeds – well above the asymmetrical 40-50Mbps that the FTTC network will be able to provide. The study shows that a high proportion of radio stations, e-learning and training companies, data centres, academic institutions and other digital intense users located in the Digital Districts require high-capacity and reliable bandwidth of above 100 Mbps with very high upload speeds[27]. If no public intervention takes place, such services will only remain available through LAN lines, for which the prices are considered to be prohibitive for SMEs (as explained in paragraph (7);

[27] For instance, small local film studios asserted that sending even short, very high quality films for post production works across the Atlantic could take sometimes up to several days due to the strong limitations of copper based (xDSL) networks on upload speeds. They argue that such delays clearly hamper their business activity and effective business cooperation with other firms.

(b) the access conditions are not conducive to effective competition despite regulatory obligations imposed on the incumbent operator as explained in paragraph (25) in particular as regards the limitation to access existing ducts and poles;

(c) the overall entry barriers are high, and preclude potential entry by other NGA network investors. High entry barriers can be partly explained by the lack of availability of adequate existing civil infrastructure elements as explained in paragraph (25) which could consist of up to 70-80% of the total investment costs for rolling out next generation access networks[28]. In addition, in the areas where FTTC networks are planned to be rolled out, under current UK regulation the wholesale access possibilities on these networks are costly and effectively limited to active access products[29]. Therefore the overall market entry by alternative operators is limited, and the existing competitive conditions limit the possibilities for alternative operators to climb up on the "ladder of investment"[30];

(d) the partial NGA network roll-out envisaged by the incumbent operator in the near future of three years is built on the basis of access to ducts not adequately accessible for other network operators as explained in paragraph (25);

(e) the measures taken or remedies imposed by the competent national regulatory or competition authority with regard to the existing network provider have not been able to overcome the problems explained in section II.2: no alternative operators undertook or are planning to undertake investments into high speed broadband network in the near future of three years as evidenced by the public consultation conducted by the UK authorities described in paragraph (15).

(53) Concerning the conditions laid down in paragraph (79) of the Broadband Guidelines, the UK authorities proved that the following conditions will be met:

(a) The access obligations that will be requested from the selected operator include access to both passive and active infrastructure for at least 7 years. These access obligations include the right to use ducts, dark fibre, wavelength services, Ethernet services and co-location services in order to allow third parties to have access to both passive and active infrastructure. This is without prejudice to any similar regulatory obligations that may be imposed by the NRA in the specific market concerned in order to foster effective competition or the measures adopted after the expiry of that period.

(b) As detailed in paragraph (28), in setting the conditions for wholesale network access, the UK authorities consulted the NRA. The NRA will continue either to regulate ex ante or to monitor very closely the competitive conditions of the overall broadband

---

[28] See for instance WIK-Consult: Study on the Implementation of the existing Broadband Guidelines. COMP/2011/006.

[29] According to current market developments in the UK, in case of FTTC networks, alternative operators typically access such infrastructures via bitstream type of access products (Virtual Unbundled Local Access - VULA), whilst the use of the other types of wholesale access products, such as sub loop unbundling or duct access is limitedly used. See European Commission: Digital Agenda Scoreboard 2011. Report on telecom regulatory developments in United Kingdom and WIK-Consult: Study on the Implementation of the existing Broadband Guidelines. COMP/2011/006.

[30] Making the ladder of investment operational, November 2004, Martin Cave.

market and impose where appropriate the necessary remedies provided by the applicable regulatory framework.

(c) As detailed in paragraph (27), the NGA network architecture that will benefit from State aid will support effective and full unbundling and satisfy all different types of network access that operators may seek, including active and passive access products on an open wholesale basis and the deployed NGA network will support both "point-to-point" and "point-to-multipoint" networks topologies.

IV.4. The distortions of competition and the effect on trade are limited, so that the overall impact of the measure is positive

(54) The subsidised broadband infrastructure offers only wholesale access services to third parties, not retail services[31]. Consequently as explained in footnote 57 of the Broadband Guidelines, the likely distortions of competition are further reduced as such a network management model helps to avoid issues of predatory pricing and hidden forms of access discrimination.

(55) On balance, the Commission concludes that the overall effect of the measure is deemed to be positive. The measure is in line with the objectives of Article 107(3)(c) TFEU as it supports the achievement of the DAE objectives. The intervention is designed in a way that does not distort competition or adversely affect trading conditions to an extent contrary to the common interest.

(56) The Commission note that the public intervention will be able to ensure a significant improvement in terms of broadband availability because considerable new investments in the broadband network will be undertaken by the selected bidder and the subsidised infrastructure will bring such new capabilities to the market in terms of broadband service availability and capacity that are not provided and would not be provided by the market on commercial terms in the near future of three years.

IV.5. Conclusion

(57) The Commission concludes that the compatibility criteria set out in the Broadband Guidelines are met, hence the aid involved in the notified measure is compatible with Article 107(3)(c) TFEU.

V. DECISION

(58) On the basis of the foregoing assessment, the Commission has accordingly decided that the aid measure "*City of Birmingham - Digital District NGA Network"* is compatible with Article 107(3)(c) TFEU.

(59) The UK authorities are reminded that, pursuant to Article 108(3) TFEU, they are obliged to inform the Commission of any plan to extend or amend the measure. In view of the duration of the scheme, the Commission would like to draw the UK authorities' attention to

[31] If the selected operator wish to provide retail services as well, it shall do that through a legally and functionally separated company.

future revisions of the Broadband Guidelines, which might require appropriate measures to the scheme necessary.

(60) If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the internet site:

http://ec.europa.eu/eu_law/state_aids/state_aids_texts_en.htm.

(61) Your request should be sent by encrypted e-mail to stateaidgreffe@ec.europa.eu or, alternatively, by registered letter or fax to:

European Commission
Directorate-General for Competition
State Aid Greffe
Rue Joseph II. 70. 03/225
B-1049 Brussels
Fax No: +32 2 2961242

Yours faithfully,

For the Commission

Joaquín ALMUNIA
Vice-President