

Submission of the UKB Group in relation to the CMA's Phase 2 Investigation into the Anticipated Acquisition by BT Group plc of EE Limited

Introduction

UK Broadband Limited (owned by PCCW) and UKB Networks Limited (owned by HKT) (together "the UKB Group") work together in the UK to provide fixed and wireless data networks and services.

1. Executive Summary

- 1.1. As a matter of procedure we are concerned that the CMA's decision to agree to BT's request for a fast track reference to Phase 2 has meant that the CMA has not had adequate time to identify all of the relevant markets that are affected by the BT/EE merger. Given the large number of affected markets and the complexity of the products we consider that it is now time to provide a coherent framework for assessment. We have set out below our suggestions for further potentially relevant markets.
- 1.2. As a matter of substance we are also concerned about the significant reduction in horizontal competition that will arise as a result of the transaction, and the extraordinary extent of vertical integration which will benefit, in particular, the combined entity and foreclose competition from third parties. BT/EE will have the broadest fixed and mobile offerings and networks, operating across all spectrum and bandwidth, throughout the whole geography of the UK. Third parties will only have limited capacity and capability with which to respond; they will operate only as weak competitive constraints to BT/EE with respect to a wide range of communications services. Suppliers will need an 'equality of arms' to be able to redress the balance and compete effectively
- 1.3. The merger with EE builds on BT's existing market power which is only partially addressed by current regulation. BT's competition law undertakings were designed to complement regulation and act as a further remedy, but they are increasingly out of date, and do not address the specifics arising from the transaction. We review further below some factors to be borne in mind when considering the impact of the transaction on the current and likely future markets against the existing fabric of competition law and telecoms regulatory remedies, in an effort to help craft more effective remedies for the future.
- 1.4. We note that the CMA decision to refer the case to Phase 2 will entail the consideration of a counterfactual including the proposed concentration between H3G and O2 which has been announced and is a parallel transaction. We expressed our view that it is important that both transactions are considered together and,

given the significance of merger remedies that are likely to be needed, we strongly suggests that both transactions are fully considered by the CMA and that a formal case for the use of Article 9 of the EU Merger regulation is made by the CMA to the European Commission ("the Commission").

- 1.5. In particular we agree with the CMA's analysis and believe that the CMA is the only authority that is now well placed to deal with the consolidation affecting the UK. We note that the CMA recognises that accurately defining the counterfactual by taking into account the H3G/O2 merger poses some challenges, as the Commission's assessment of the H3G/O2 merger could lead to a range of possible outcomes. The Commission could decide on an outright prohibition, an unconditional clearance, or a conditional clearance, with a range of possible remedies. If the CMA were to decide the H3G/O2 matter it could more easily manage those outcomes.

2. Overview of the impact of the transaction on competition in markets in the UK or parts of the UK.

- 2.1. At the retail level, consumers throughout the UK currently benefit from rich and thriving communications markets. Many mobile operators or mobile virtual network operators are offering a wide diversity of services and packages of services. As noted in the CMA decision to refer the merger to a Phase 2 enquiry:

"BT is also the largest wholesale provider of a number of fixed services to other communications providers (CPs), including mobile backhaul services, which it supplies to mobile network operators (MNOs). EE is the largest provider of mobile communications services (consisting of voice, messaging and data services) to retail customers in the UK.¹

- 2.2. Following the merger, competition between BT and EE will be eliminated. This is a direct reduction of horizontal competition at the level of services to end users, and will significantly reduce competition at the level of supply to intermediaries such as mobile virtual network operators. At the level of telecommunications infrastructure, the UK's five (including BT) mobile network operators (MNOs), will be reduced to only three. BT/EE will likely be able to profitably raise price, and capacity limitations affecting other suppliers may well limit their ability to respond². Competition for the provision of masts and towers is currently limited to very few providers, and while the merger may not change this, BT will be able to vertically integrate and provide its own infrastructure to EE, limiting vital communications infrastructure competition from third party suppliers.

¹Based on information provided by the parties and third parties. Based on information provided by the parties and third parties. See also: Ofcom, *Mobile call termination market review 2015-18*, page 123, Figure 10.

² Mobile and fixed telecommunications are inherently capacity constrained markets where participants' ability to respond on a timely likely and sufficient basis is affected by the availability of capacity in the relevant geographical location. The Commission has found that these markets are oligopolistic markets characterised by a high degree of concentration and high barriers to entry.

- 2.3. Unlike enterprise services that tend to be concentrated in urban areas, mobile backhaul requirements are geographically dispersed, reflecting the need for mobile operators to provide mobile base stations to cover a significant proportion of the UK. Local Loop Unbundled backhaul demand also extends outside of the main urban areas, as the main operators such as TalkTalk and Sky have co-location equipment at a significant number (but not all) of BT's local exchanges around the country. In each case the BT's extensive infrastructure and economies of scale involved creates a situation where it may be able to more readily supply additional fibre and backhaul services to masts and towers, foreclosing competition from smaller infrastructure players.
- 2.4. Both horizontal and vertical effects and the availability of third party capacity which is needed to constrain post-merger upward pricing pressure require very detailed investigation. The extent to which current retail competition is driven by business customers' needs rather than consumers' use is obscure and will be affected by the merger. It is important that these issues are investigated. Also, while regulation assumes that competition exists across all geographies, the reality is very different with a variety of services being available in some places in the UK and none at all in others. The traditional approach has been to regard rural areas as having less competition than urban areas, but there are many urban 'not spots' or places where large areas are not provided with either adequate mobile or fixed services or both.
- 2.5. A major issue affecting the market at present is that the high switching costs and barriers to switching from BT to other infrastructure tends to drive investment only in BT's infrastructure and not in alternative providers of infrastructure. This is a deep structural failing in the current markets in the UK which is exacerbated by the merger. For example, packages of services (broadband bundles including mobile) are increasingly important to consumers, but currently mainly supplied over only two fixed network services suppliers: BT and Virgin Media. Virgin Media's infrastructure is unregulated and effectively unavailable to third parties. While in the past local loops were unbundled and used by companies like Talk Talk to provide competing services on a quasi-ownership basis, those services are increasingly now offered over superfast broadband using only BT's infrastructure. As fibre replaces copper loops the unbundling regime has changed and the level of true structural competition has been altered.
- 2.6. The illusion of competition for broadband at the retail level between companies such as BT and EE is in fact increasingly driving revenue to BT, since the main players, Sky, Talk Talk, EE and BT, all resell BT infrastructure. Indeed, the growth of broadband in 2014 drove the take up of physical lines from BT's Openreach division by 111,000 during the last three months of 2014, the best performance on record according to BT Group³. The merger of BT and EE reinforces this position and further

³ <http://point-topic.com/free-analysis/uk-sees-strong-broadband-additions-amidst-consolidating-market/>

undermines the prospect for sources of revenue to support effective alternative infrastructure in the UK.

- 2.7. The combination of BT with EE will also increase the incentives for BT to integrate its own end to end services and packages and build integrated infrastructure that will operate better when supplied by the merged firm than when supplied to and used by third parties. We address the potentially relevant candidate markets first followed by an outline of factors that need to be borne in mind in improving the existing regulatory and competition remedies.

3. Procedural Issues: the identification of Relevant Markets is now urgent

- 3.1. The transaction was announced in February 2015. Pre-notification took from at least the 4th March to the 18th May. Throughout this time, until the recent CMA decision announcing the 2nd phase review, third parties did not know what was being discussed and how the CMA was considering the relevant markets affected by the transaction. The parties have had the opportunity for extensive access to the CMA that has not been available to third parties. We have raised these concerns in our previous submissions. We now wish to record the fact that the process adopted to date is likely to have resulted in the CMA failing to take into account relevant considerations, or taking into account irrelevant considerations on the nature and extent of competition and in defining relevant markets for assessment.
- 3.2. We now understand that the CMA has decided to proceed to a second phase review because at least two markets triggered the criteria for such assessment. Significant competition concerns were raised about other markets during the initial consultation. The CMA's decision to proceed to Phase 2 accepts that other markets will be assessed.⁴
- 3.3. It is unfortunate that the Phase 1 process has not been used to narrow down the issues to be assessed in Phase 2 in accordance with usual practice and the CMA's guidelines.⁵ The current approach causes a problem for third parties who need to know what they are to provide evidence and assistance about. In telecoms markets,

⁴ The CMA has recognised in the decision on reference under section 33 (1) of the Enterprise Act 2002 of 9th June 2015 [ME/6519-15] that

“3. The Merger will lead to both horizontal and vertical overlaps between the Parties..” and

“The CMA also received significant competition concerns in relation to the impact of the Merger on the retail mobile market in the UK. Given that the criteria for a fast track reference are met on the basis of the two issues stated above, it has not been necessary for the CMA at phase 1 to reach a conclusion in relation to other potential competition concerns.”

⁵ We refer specifically to guidelines 5.2.4 which states:

“Reflecting the different functions of the two Authorities, the OFT will usually make an initial assessment of the boundaries of the relevant market but may not reach a conclusion, while the CC will usually reach a conclusion on the boundaries of the relevant market in cases referred to it.”

both the technical nature of the products and what they are used for can cause confusion. For example we have observed that there is competition between Wi-Fi and cellular connection services, since they are substitute economic products in the same antitrust market. However, other commentators might regard Wi-Fi to be in the market for fixed services since it enables untethered use of devices only within limited range of a Wi-Fi base station, by contrast to cellular radio, which offers truly mobile access to data.

3.4. Given its counterfactual will take into account the proposed O2/H3G merger, the CMA should take into account the framework for assessment adopted by the EU Commission ('the Commission'). This will facilitate a consistent approach being taken by both the CMA and Commission in O2/H3G. Furthermore, recent Commission decisions dealing with relevant markets in telecoms mergers may cast light on the approach to market definition that may be taken by the CMA.⁶ Proceeding inconsistently would also raise risks of the CMA taking into account irrelevant considerations or failing to take into account relevant considerations.⁷

3.5. In this regard we note that the Commission has taken into account at least the following as relevant considerations:

- Whether mobile consumers can be identified with different demands than business users, (and we would add whether there are sub categories of business users such as SMEs, or large national businesses, where the characteristics of their needs are fulfilled by the emerged entity without meaningful competition from others);
- Whether there is a separate mobile market for pre-paid and post-paid services, or private, business, voice, mobile broadband, or machine to machine segments and whether there should be a series of separate markets or one overall retail mobile telecommunications services market subject to a segment by segment analysis;
- Whether there are differences between high value and low value mobile customers;
- Whether mobile services can be defined against the different underlying network technology (2G, 3G 4G etc);

⁶ See for example Commission Decisions of 12 December 2012 in Case No COMP/M.6497 – *Hutchison 3G Austria / Orange Austria*, recital 58; Commission Decision of 1 March 2010 in Case No COMP/M.5650 – *T-Mobile / Orange UK*, recital 24; Commission Decision of 27 November 2007 in Case No COMP/M.4947 – *Vodafone / Tele2 Italy / Tele2 Spain*, recital 14; Commission Decision of 26 April 2006 in Case No COMP/M.3916 – *T-Mobile Austria/Tele.ring*, recital 18 (but leaving open the question whether a separate market exists for specific 3G-only applications); Commission Decision of 24 September 2004 in Case No COMP/M.3530 – *TeliaSonera / Orange* and Commission Decision of 16 September 2003 in Case No COMP/M.3245 – *Vodafone / Singlepoint*.

⁷ It should be noted that in each case, the Commission's assessment has been in accordance with its guidelines. The CMA endeavors to adopt an approach that is consistent with the Commission's and both authorities use guidelines that require them to look carefully at the facts and checking into a series of potentially relevant candidate markets where the parties provide substitutable products or services or complimentary products and services

- Whether voice, SMS, and data services substitute for services offered over either fixed or mobile networks; and
- Whether services are offered together or are purchased by users separately (bundles).

3.6. We outline below certain candidate relevant markets that might be adopted by the CMA.

4. Candidate Relevant Market 1: Retail Mobile Telecommunication Services

- 4.1. BT is a provider of mobile phone SIM only deals and therefore is a direct competitor to EE in the mobile market. BT does not, to date, provide mobile handsets to retail consumers. Both BT and EE are able to provide low cost SIM-only deals and both provide large (though not unlimited) data packages. Both offer a free Wi-Fi option as an add-on to the mobile package.
- 4.2. BT had recently re-entered the mobile market with a range of capability that made it a credible competitor. It had previously been a major player in the mobile market before it demerged its wireless business some years ago. BT was a pioneer in providing mobile services in the UK and owned and operated mobile businesses in many countries worldwide such as the Netherlands, Germany, USA, Ireland, Spain and Japan.
- 4.3. Given the scale of its current UK and international expertise, its infrastructure and network capacity, its recent acquisition of spectrum, its plans for Wi-Fi and femtocell upgrades and its capabilities in running telecoms (including mobile) networks, BT could clearly have become a substantial competitor to EE in the provision of mobile services to end users absent the merger. It is a well-established principle that even players with relatively small market shares may be an important competitive force.⁸
- 4.4. The capabilities that BT has retained from its historic position as one of the pioneers in running and managing mobile networks and its leading position as the dominant provider of telecommunications infrastructure in the UK, when taken together indicate that it is an important competitive force in the provision of retail mobile telecommunications services in the UK. Through eliminating its presence as an independent force, the merger risks substantially lessening competition.

⁸ See for example the Commission's Horizontal Merger Guidelines (paras 24-26 and para 191-192 and section 7.5.2 *case Comp/M6992 Hutchison 3GUK/Telefonica Ireland*.

5. Candidate Relevant Market 2: Mobile data services (internet access)

- 5.1. There has been a continuing steady increase in the use of mobile networks to access the internet or web-based services⁹. This is likely to be due to the increase in the use of 'smart' devices with 6/10 adults now owning smartphones. The majority of mobile data traffic is accounted for by web browsing and video streaming¹⁰. Whilst there is some indication that mobile data services provided over cellular radio systems and Wi-Fi are becoming interchangeable for many users, it is clear that the use of mobile data is important to consumers both outside and inside the home.¹¹ This trend is expected to continue, especially in light of the ongoing 4G roll out. 4G enables users of mobile data to access higher bandwidth services (such as video streaming) and 4G users tend to use more mobile data.
- 5.2. Both BT and EE are currently competing providers of 4G mobile data services. EE already has significant 4G network coverage and is committed to expansion. The wider use of 4G may well increase use of mobile data more generally¹². Revenues from mobile data have also increased year on year¹³. Given that most mobile network providers include a cap on the data 'bundled' within their mobile contracts (including EE and BT), it is foreseeable that users will, as their usage of mobile data increases, turn to other access points (such as Wi-Fi) to use the internet on their mobile devices wherever possible.
- 5.3. In addition to the increasing ownership of smartphones and tablets¹⁴, the Internet of Things is also an area which may well push up the use of mobile data. As more and more services can be integrated, there may be an increased demand for mobile capacity as a method of connectivity between devices, in addition to connectivity between one device and the internet¹⁵. Whilst mobile data usage remains significantly lower than data usage over broadband¹⁶, the increasing consumer demand for data may well shift to whichever can provide the better, most reliable connection at the lowest cost.
- 5.4. Mobile data is clearly an area in which the CMA should be concerned, given the direct competition between BT and EE's mobile data services. Also, given the increased convergence between mobile data provided over cellular radio and Wi-Fi, the CMA is also invited to consider the interchangeability of cellular radio and Wi-Fi services together in the same market.

⁹ Ofcom – Communications Market Review 2014 (page 347). Also see page 351 which reports that people spent 2 hours 17 minutes per month using the internet over a mobile data network. Also see Ofcom – Infrastructure Report December 2014 (6.4.3 page 121 suggests a fourfold increase can be expected by 2018).

¹⁰ Ofcom – Communications Market Review 2014 (page 9)

¹¹ Ofcom – Communications Market Review 2014 (page 367)

¹² Ofcom – Communications Market Review 2014 (page 306)

¹³ Ofcom – Communications Market Review 2014 (page 325)

¹⁴ Ofcom – Communications Market Review 2014 (p264)

¹⁵ Ofcom – Communications Market Review 2015 (page 323) indicates there were 55m UK mobile data connections by the end of 2013, an increase of over 10% on the following year.

¹⁶ Ofcom – Communications Market Review 2014 (page 9)

6. Candidate Relevant Market 3: Broadband

- 6.1. The Commission's recent investigations¹⁷ have accepted that fixed broadband potentially constitutes an alternative to mobile broadband services. For example, in the *Telefonica/EPlus* decision from 2014 it found:

"The more relevant question is therefore whether fixed broadband services constitute at present, or are likely to constitute in the future, an alternative to mobile broadband services. [Para 61]"

- 6.2. BT is a retail and wholesale supplier of fixed line broadband and has by far the greatest reach in the UK. EE is a direct competitor to BT in the provision of retail fixed broadband services to UK customers. 73% of UK households have fixed line broadband services (but of the remaining 27%, a further third is likely to use other connections to access the internet). Only 18% of households do not have broadband access¹⁸. A similar number of SMEs use fixed internet connections¹⁹ and are often reluctant to switch providers²⁰.
- 6.3. The UK remains committed to improving coverage of superfast broadband networks²¹. Take up of superfast broadband is steadily increasing in both consumer and business markets, though coverage in the SME market is noted to be slower than the retail market²². BT has already invested heavily in this area²³ and retains significant power to develop its existing infrastructure even further.²⁴
- 6.4. BT is a wholesale supplier of fixed line broadband and is the market leader, as demonstrated in the table below. EE is also a supplier of fixed line broadband (both bundled with TV packages and with a fixed line). Whilst EE has a comparatively small market share, BT and EE are direct competitors and the post-merger entity will reduce the number of viable companies yet further. Those main operators that do remain, save for Virgin Media, remain largely reliant on the post-merger entity for their network infrastructure access.

¹⁷ M.7018 TELEFONICA DEUTSCHLAND / E-PLUS

¹⁸ Ofcom – Infrastructure Report December 2014 (page 2)

¹⁹ See Jigsaw research paper for Ofcom SME Experience of Communications Services for Ofcom 16 October 2014 Figures 44 and 45 look at fixed internet usage and compare this by number of employees (Figure 44) and location (Figure 45). Overall, 78% of SMEs used fixed internet⁸. A further 9% of SMEs were accessing the internet through mobile devices, bringing penetration of internet use to 87% of SMEs.

²⁰ See Jigsaw research paper for Ofcom SME Experience of Communications Services for Ofcom 16 October 2014

²¹ Ofcom – Infrastructure Report December 2014 (3.1, page 18)

Ofcom has imposed obligations on o2 to improve 4g network coverage (see Ofcom Infrastructure Report December 2014 (8.2.6 page 152))

²² See Ofcom – Infrastructure Report December 2014 (3.1, page 18)

²³ See <http://www.bt-nbg.com/about>

²⁴ See <http://www.broadbanduk.org/wp-content/uploads/2014/11/BSG-Out-Of-Home-Internet-Usage-Report.pdf>

Provider	Market Share
BT	31%
Virgin	20%
TalkTalk	15%
Sky	20%
EE	3%
Others	10%

Source: Ofcom statistics: <http://media.ofcom.org.uk/facts/>

- 6.5. Furthermore, there is an indication that users tend not to switch providers regularly²⁵ so those customers of BT and/or EE who might otherwise be inclined to switch or to use more than one provider for services will be even less likely to do so if the merged entity can offer all their mobile, broadband and TV services in a convenient package.
- 6.6. Whilst the fixed line broadband remains an important part of the market which warrants analysis in the current investigation, the CMA is invited to consider this area more generally rather than broadband provision in isolation, given that Wi-Fi routers are 'bundled' or packaged with the majority of fixed broadband packages²⁶.

7. **Candidate Relevant Market 4: multiple-play services (bundles).**

- 7.1. As a threshold matter in determining the relevant markets affected by a merger, the Commission has often left open the question of whether a separate market for multiple play offers comprising, for example, fixed internet access, fixed telephony and television ("TV") (triple play) or fixed internet access, fixed telephony, TV and mobile services (quadruple play) should be defined. However, it has been recognised that mobile telecommunications services can be offered in combination with fixed-line services, such as fixed-line telephone, fixed-line internet or fixed-line TV. These combined offerings are sometimes referred to as triple or quadruple play offers.
- 7.2. With relation to bundles of services offered over fixed and mobile networks the Commission's latest decision in the Jazztel/Orange case of 19th May 2015 is important since it addresses the question of the definition of a relevant market in the context of bundled offers where the underlying infrastructure was provided largely by an incumbent on a regulated basis. That transaction involved two players offering services providing internet access services in Spain. Both companies mainly rely on regulated direct access to the unbundled local loops of the copper network of the incumbent telecom operator Telefónica. In addition, they are deploying their own FTTH networks in parts of Spain. Players in the UK similarly provide bundles to customers while relying on regulated inputs from the incumbent operator, BT, but,

²⁵ JIGSAW REPORTS

²⁶ 93% of fixed broadband packages included a wifi router - see Ofcom – The Communications Market Report 2014 p263

unlike the market position in Spain, there is only limited alternative local infrastructure in the UK.

- 7.3. Fixed internet access services are offered separately to customers in Spain but also in so-called "dual-play", "triple-play" or "quadruple-play" bundles. These offers combine the fixed internet access services with other telecommunication services such as fixed telephony, television and mobile telephony both from Telefónica and others.
- 7.4. The Commission had concerns that the takeover as initially notified would have led to higher prices for customers on the retail market for the provision of fixed internet access services in Spain, as well as on the possible markets for dual-, triple- and combined triple-/quadruple-play services including fixed internet access services. It required conditions to be imposed to ensure that competition would not be substantially reduced.
- 7.5. The extent to which EE and BT compete with each other or could realistically be expected to compete with each other for such bundles of services absent the merger should be assessed by the CMA consistent with this approach.
- 7.6. Turning to the effects of the merger on these markets, there has been an increase in the number of customers, both at a consumer²⁷ and business²⁸ level who purchase bundles of telecoms services. Telephony, fixed line broadband, pay TV and mobile are commonly packaged in so called dual-play, tri-play or quad-play bundles. Wi-Fi is also commonly bundled into fixed line broadband services or packages.
- 7.7. Absent the merger, BT is already able to provide a full quad-play package of services. Similarly, EE is able to provide all four services which make up the quad-play product. TalkTalk do offer quad-play services and Sky may be in a position to enter the mobile market in future²⁹ but these are both reliant on BT's network infrastructure. However, competition in the 'quad-play market' is dependent on the quality of infrastructure on which it is based. Currently, only Virgin Media has meaningful infrastructure coverage to provide quad play bundles which do not rely on the BT network. The differences in the end users' broadband services using the different infrastructures are significant and illustrate how infrastructure defines the parameters of retail service competition.
- 7.8. In the SME business market, for example, a high proportion of customers purchase communications services as part of a bundle (predominantly fixed line and

²⁷ See Ofcom – Communications Market Report 2014 1.3.5 (page 30 & 31) – 63% of consumers purchased at least two of their services as a package

²⁸ See Jigsaw 16 October 2014 report - SME Experience of Communications Services – a Research Report report prepared for Ofcom for the ongoing Strategic Review of Digital Communications consultation (March 2015) 4.6 (page 32)

²⁹ Sky has announced that it intends to provide mobile services from 2016. See <http://news.sky.com/story/1417269/sky-to-enter-mobile-market-in-o2-partnership>

broadband). BT already has significant market power in the provision of these services, with over half of bundles found to be supplied by BT - over six times more than the nearest competitor (Talk Talk). Almost all SMEs have bundles with only one provider³⁰.

- 7.9. There has also been a rise in the use of mobile phones by SMEs. Given the propensity of business consumers to prefer one service provider for bundled communications services, the merger risks the substantial lessening of competition between business bundle providers. BT will gain a significant competitive advantage within the business mobile market by building on a pre-existing customer base with a clear preference for bundled services (and a preference to use BT for business services). BT and EE are also, able to provide the most comprehensive coverage of 'superfast' broadband services and the EE 4G mobile network services in a combination which other providers of bundles cannot realistically replicate.
- 7.10. Given the rise in the take up of quad-play bundles, it can be anticipated that quad-play providers will already have a market advantage over providers who are able to offer only one or some of the individual components, given the economies of scale and the benefit of access to a pre-existing customer base for each individual component. The merger risks further reducing competition in this area; there are already limited providers of the quad-play bundles and the merger will reduce the number of providers from 4 to 3. The post-merger entity will have full access to the BT and Openreach infrastructure but will also have significant control of the network infrastructure required for any other competitor to offer comparative services (or indeed component parts of the packages available).
- 7.11. Bundles of broadband services should be a candidate relevant market for assessment. BT and EE are both competitors and that competition will be eliminated through the transaction. Also, one issue which we wish to highlight to the CMA is that there is a dysfunctional market at the level of underlying infrastructure used to support bundles of broadband services. One of the consequences of the transaction is to further internalise the revenues available for the development of alternative infrastructure and reduce true structural competition in the UK.

8. Candidate Relevant Market 5: Wi-Fi and fixed broadband as a substitute for mobile broadband and as a compliment to cellular mobile radio services.

- 8.1. In *Telefónica/EPlus* the Commission assessed whether fixed broadband was a competitive constraint to mobile broadband. It was argued by the merging mobile operators that fixed broadband exercised a strong competitive constraint on mobile data services and the parties pointed to the fact that on average 64% of the data traffic via smartphones in Germany was transmitted via home Wi-Fi. The

³⁰ See Jigsaw 16 October 2014 report - SME Experience of Communications Services – a Research Report report prepared for Ofcom for the ongoing Strategic Review of Digital Communications consultation (March 2015) Figures 36 – 38 (page 33)

Commission noted that fixed broadband services offer customers only a limited service in terms of time and location of their data usage, and therefore did not fulfil the same demand fulfilled by mobile services. In the context of identifying potential competition concerns from a mobile/mobile merger that analysis is not unreasonable, but with relation to BT/EE it misses the extent to which Wi-Fi substitutes for mobile in the home and the level of competition between Wi-Fi and cellular services more generally. An investigation is needed of the extent to which there is horizontal competition such that Wi-Fi is provided by mobile operators such as EE in the UK, in competition to BT, as well as vertical issues where it is a product that is complimentary to mobile cellular radio services given BT's extensive Wi-Fi and femtocell plans.

9. Candidate Relevant Market 6: applications for smartphones, cloud computing and their effects on demand for voice and data services over fixed and mobile infrastructure.

- 9.1. When thinking about relevant market boundaries the position of apps as substitutes for retail fixed and mobile services, such as voice calls, also needs to be fully understood. In *Facebook/WhatsApp*³¹ it was recognised that consumer communications services can be offered as a stand-alone app (for example, WhatsApp, Viber, Facebook Messenger and Skype). As regards functionalities, consumer communications apps enable one-to-one and/or group real-time communication in various forms, such as voice and multimedia (text, photo or video) messaging, video chat, group chat, voice call, sharing of location, etc. The majority of the respondents to the Commission's market investigation considered in 2014 that traditional electronic communications services, such as voice calls, SMS, MMS, e-mails, etc., can be regarded as substitutable to the communications functionalities offered by consumer communications apps. In that Commission decision it was reported that telecoms operators who took part in the market investigation consistently explained that there is a competitive interaction between the two services, but only 'one way' (that is, consumer communications apps constrain traditional electronic communications services but not the other way around).
- 9.2. From this and factual information available in the UK, it is clear that calls originated by EE customers on smartphones either as voice calls or using communications apps may either be provided over cellular radio services or over home Wi-Fi operated by BT or public Wi-Fi operated BT and each will provide services that compete with the other. This competition will be eliminated by the merger.
- 9.3. Cloud computing has grown rapidly in recent years and is important for both consumers and enterprise customers.³² Cloud computing enables computer services

³¹ M.7217 [FACEBOOK](#) / [WHATSAPP](#)

³² See IDC reports for the EU Commission and its Digital Single Market strategy.

to be provided as a service remotely from the place of computation. Cloud computing has enabled relatively less sophisticated devices such as smartphones, tablets and laptops connected to Wi-Fi and mobile networks to provide the features and functionality previously associated with expensive fixed computing systems.

- 9.4. The increased quality of service available from both mobile and fixed networks have enabled use and storage of data in whatever form to be available to meet user demands at a distance from the machines on which the data is stored. Data may be consumed in the form of video or images, but is critically dependent on the quality of the communications links between the device and the data centre for an acceptable service to be provided. With increased fibre, mobile and high capacity data transmission under one roof, the BT/EE merged entity will be in an unrivalled position to engineer and integrate its services in a way that no other player in the UK will be able to replicate. This adds further pressure on open, transparent and effective regulation or unbundling undertakings to ensure that competition is preserved in the post-merger world.

10. Candidate Relevant Market 7: voice telephony from the home

EE competes in the calls market with BT (callers at home substitute between using a landline and mobile to make calls)

- 10.1. Traditionally, fixed and mobile services have been provided over different networks and considered to be distinct so that fixed and mobile were not considered as substitutes. The UK has a number of fixed line broadband providers (including BT) and a number of mobile data providers (including BT and EE). The boundaries between fixed and mobile voice services are, however, becoming increasingly blurred with many consumers using their smartphones to make calls while at home in substitution for calls that could be made via a fixed service. The features and functions of handsets enabled to make calls within the home are broadly substitutable, with many home phones operating as portable via a radio link. While in the past calls from mobiles were generally more expensive than calls from fixed lines, the position has been reversed with the rise of smartphone apps such as WhatsApp that allow users to make calls free of charge. Interchangeability between mobile devices connected over either cellular radio or Wi-Fi means that the same devices are used to make calls over either system.
- 10.2. As explained above, it is clear that mobile and fixed data are becoming interchangeable from the consumer perspective. Provided the service is efficient, at reasonable cost and reliable, consumers are less concerned by the source or carrier of that data service than may have been in the past.
- 10.3. In addition to the blurring of the mobile/fixed data boundaries, this also brings about a blurring of the lines between traditional calls made from fixed lines and calls made by or using mobile devices. The numbers of consumers using mobile devices to make calls is increasing year on year.

10.4. Ofcom has reported on this issue³³

Fixed/mobile convergence, which is leading to the continuing and seemingly inexorable decline in use of fixed voice services, as consumers use newer forms of communication such as voice over internet protocol (VoIP) and instant messaging (IM) instead.

It is clear that as a mobile service provider EE competes with BT (16% of homes already being mobile only). According to Ofcom (infrastructure report 2014):³⁴

Some 95% of households in the UK have mobile phones, and 16% are mobile-only: they have no voice landline. Mobile is important in business too: 79% of SMEs use mobile phones.

And

Fixed ('landline') voice is near universally available across the UK. However use of traditional landlines for voice calls has been declining for several years and traditional voice networks are aging. Alongside this we see an increasing use of alternatives, including voice services delivered over broadband connections and mobile voice services.

Communications providers are therefore starting to consider the long term evolution of their traditional voice networks. This is likely to include greater use of voice delivered over broadband and may ultimately lead to the switching off of the traditional landline network (the 'PSTN' network).

The UKB Group commissioned original research from CEBR that shows the extent to which BT's business has benefitted from the lack of true structural alternatives. We wish to highlight the following:

- In the UK, fixed line residential call volumes fell by 33% over the five years preceding Ofcom's 2013 Communications Market Report.
- At the same time, landline subscription rates saw virtually no change.

These striking trends point to a collapse in the usage of home phones with a shift towards mobile and internet calls. Landline subscription numbers remain static, primarily because households do not have the option to switch to a broadband service that allows them to avoid paying for a landline. The lack of competition for alternatives is characterised in the substantial increases in the standard landline rental charge over the past ten years – which has grown at twice the rate of inflation

³³ See Infrastructure Report 2014, p146

³⁴ Ofcom – 2014 Infrastructure Report, page 6

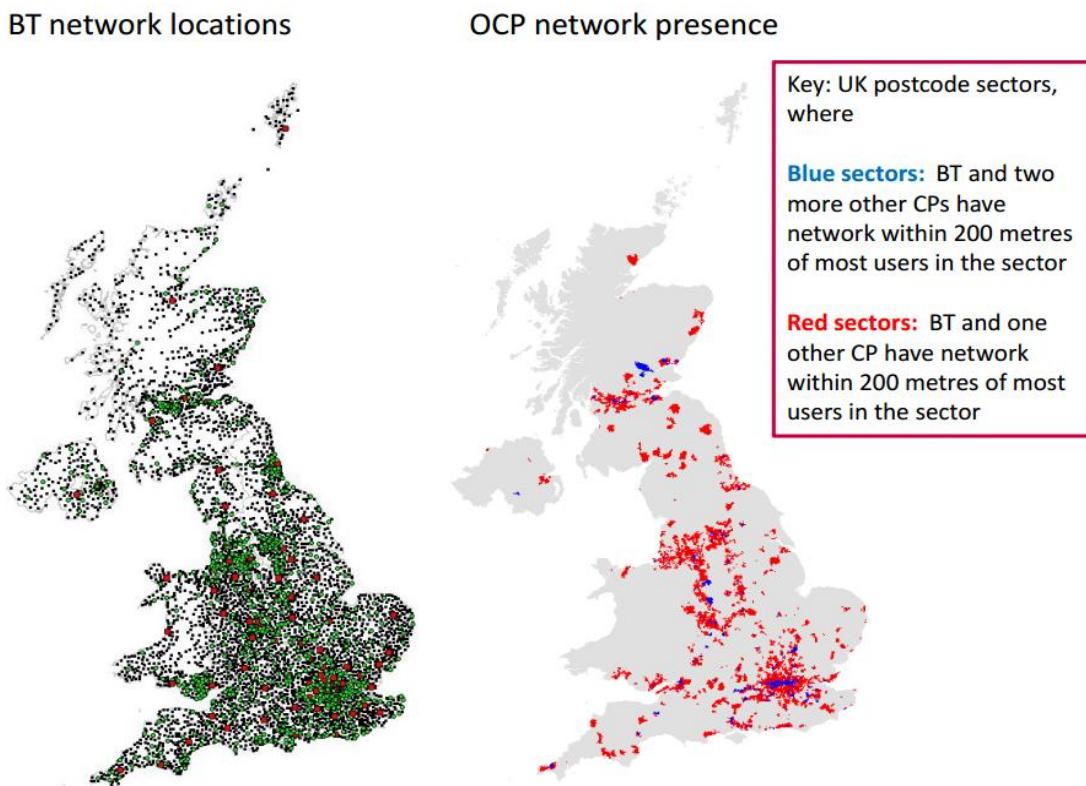
- 10.5. Clearly, to the home user, there is direct competition in the current, pre-merger markets for the provision of services which enable call and data usage on a mobile device. An integration of those products may lead to some benefits in a seamless transition between the various connectivity options but also risks a significant lessening of competition.
- 10.6. There have been a number of applications and programs for both mobile devices and the more traditional laptops and PCs ('fixed devices') which have entered the market. WhatsApp and Viber are one example and Skype now offer applications for both Apple and other smart devices.
- 10.7. In addition to the use of external applications, many mobile network operators now advertise the ability to use mobile devices when there is no mobile network available. O2, for example, offers its TuGo service to users to enable them to make calls and send SMS as normal. EE advertise a similar service where no additional application is required. As far as the consumer is concerned, there is clearly an increasing demand for seamless transition and/or interchangeability between mobile data and Wi-Fi data. Consequently there is a clear demand for mobile connectivity, irrespective of the actual source of the data services.

11. Relevant Candidate Market 9: Communications infrastructure

- 11.1. In the UK, the level of investment in fixed telecommunication infrastructure has been based on historic patterns of consumption of the historically different services of telecommunications, broadcast and cable TV. Investments in competing infrastructure have been through a phase of consolidation and remain limited to three main players: BT, Vodafone (formerly Cable and Wireless) and Virgin Media (formerly NTL and a range of local cable operators). As a consequence, while this infrastructure can increasingly support a range of services, the geographical provision is defined by history with BT providing ubiquitous coverage, Virgin Media supplying services to suburban locations and Vodafone focussed mainly on business customers and trunk services between the major conurbations.
- 11.2. We provide below a picture of BT's market position versus its competitors. BT has significant advantages over other operators arising from its possession of the largest and only ubiquitous UK network. Figure 3.11 from Ofcom's recent BCMR review consultation³⁵ shows BT's extensive network of 5,600 local exchanges (black dots) and the 1,100 higher tier Access Serving Nodes (green dots) and 107 Openreach Handover Points (red dots). BT has an extensive duct and fibre network from these main network node locations.

³⁵ http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-2015/summary/BCMR_Sections.pdf

Figure 3.11: BT network locations and rival infrastructure across the UK



Source: Ofcom based on BT exchange and operator network locations.

- 11.3. Figure 3.11 also shows BT's highly interconnected network of nodes across the UK (with the links between these locations covering core and backhaul network segments). As Ofcom explains in the consultation document, "*One of BT's main advantages in the provision of access segments is that BT has existing connections from local exchanges to virtually all business premises. BT's rivals have built physical networks to gain coverage of the main business concentrations and sites.*" Out of BT's rivals, Virgin owns and operates the largest physical network, with its network connecting at least one large business in a limited number of UK postcode sectors.
- 11.4. All the other providers' physical networks have a more limited reach than BT's. Ofcom states "*These networks have typically been built in business districts with high densities of potential business users (most notably in central London but also in some other large cities) and on aggregated trunk routes between major population centres. The fact that BT has existing connections to most buildings is an enormous competitive advantage and a major barrier to entry. Also, it means that the (forward-looking) incremental costs that BT will need to incur to provide services to a new customer site will generally be lower than those of other [infrastructure competitors].*"

- 11.5. As they are limited in their geographical coverage, service providers other than BT have limited scope for competition in the provisioning of their services via owned infrastructure. Through regulation of BT, unbundled local loops have provided capability for non-infrastructure players such as TalkTalk to obtain the exclusive use of an asset over which to provide services to end users. The ability to unbundle local loops was critically dependent on the fact that competitive operators could install their own equipment in BT's local exchanges. This approach facilitated a quasi-ownership basis for competition in broadband. However this relationship is changing with the shift from copper to fibre in the underlying infrastructure. Ofcom have permitted BT to provide an "active" wholesale access product, i.e. a service with the electronic components included, rather than access to the raw network asset. This undermines the original concept of quasi-infrastructure-based competition in standard broadband and represents a move back to service-based competition, creating an additional level of dependency by third parties on BT.³⁶
- 11.6. The way in which BT has been permitted to roll out fibre-based broadband services means that other operators now re-sell BT's Generic Ethernet Access ("GEA") service in order to supply their customers with a competing broadband service. All broadband providers in the UK except Virgin Media within its limited geographic region, thus drive the financing and use of BT's infrastructure.
- 11.7. The economics of infrastructure competition are very challenging. They depend to a considerable extent on the ability of the alternative network provider to aggregate sufficient demand for retail or wholesale services to justify the substantial costs of capital investment. The ability to aggregate sufficient demand will depend on which broadband providers commit to use the alternative network providers' infrastructure and on the size of their respective customer bases. As noted by Sky in its recent submission to Ofcom's strategic review of digital communications:

"Whilst an investor in a new network might also make assumptions about the ability of ISPs using the new networks to aggregate additional demand by growing their market shares and winning subscribers away from other operators using Openreach and/or Virgin Media, this will clearly be more speculative. Investment cases that rely on heroic assumptions about future consumer switching may not be fundable." (para 23)

"If BT Consumer is successful in building a substantial market share in the downstream market (as described above), and is able to increase its downstream market share at the expense of other CPs, then the potential for third party infrastructure investors to underpin any business case based on the combined existing customer base of Sky and TalkTalk will be reduced. The fibre roll-out which is being trialled in York with the potential for success to trigger additional roll-out

³⁶ See: 'Variation to BT's Undertakings under the Enterprise Act 2002 related to Fibre-to-the-Cabinet', Ofcom, 11 June 2009, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/fttc/statement/statement.pdf>.

will no longer have any prospect of being viable if Sky and TalkTalk's market share is significantly reduced."(para 25)

- 11.8. Apart from price, the different features and functions of products and services are always important in any competitive assessment of comparable products from different suppliers. With increasing volumes of traffic and revenue from buying BT broadband and supporting BT's infrastructure, one of the consequences for competition in downstream markets is that they are becoming more and more dependent on BT's decisions about the features and functions that BT builds into its fibre infrastructure.
- 11.9. Current impediments to switching between BT and other service providers such as UKB also include the fact that BT's order entry system ('EMP') is dimensioned in a way that allows broadband service providers to offer broadband from BT as a retail activity. This allows broadband service providers such as BT, Sky, Talk Talk, EE and O2 to use the services and billing systems that BT developed in providing its local access monopoly business. However the consequence is an increased switching cost for other providers of broadband service over alternative infrastructure and a very real impediment to the development of effective infrastructure competition. This allows BT to reserve to itself the market for infrastructure in the UK.

12. CMA decision to refer

- 12.1 We agree that the market identified as relevant by the CMA, concerning wholesale call origination services to MVNOs is appropriately defined and relevant for the purposes of the Phase 2 enquiry. We have provided previous submissions on this market and will in due course provide further evidence and information as required.
- 12.2 We have described above the extent to which BT's ubiquitous infrastructure provides it with a dominant position over a range of downstream services in the UK. In relation to the market for mobile backhaul services that the CMA considers relevant, and the importance of provisioning services over fibre, BT's extensive fibre deployment and geographic reach provide it with considerable competitive advantages over its rivals. With respect to the potential differences in analysis between Ofcom and the CMA, we consider that focus on demand side factors alone is not required by the CMA merger assessment guidelines and that supply side factors should be fully taken into account such that no inconsistency is necessary. We reserve our position on the market for mobile backhaul services in this regard. We expect to be making further submissions with respect to the availability of alternative infrastructure and BT's extensive geographical coverage and the competitive advantages these provide to BT over its rivals.
- 12.3. The CMA considers that fibre backhaul currently represents around [60–70]% of all mobile backhaul circuits at base stations and has been growing as a proportion of total backhaul year on year. Given increasing data consumption alongside the widespread adoption of 4G, having examined the potential alternatives, the CMA recognises that there is no effective alternative to fibre backhaul for an increasing number of base stations. In its competitive assessment, the CMA has also considered the differences in competitive conditions as between the supply of fibre

mobile backhaul services by BT Wholesale to MNOs as part of a managed (unregulated) service, and by Openreach to MNOs on an unmanaged (regulated) basis. The CMA also notes that MNOs requiring mobile fibre backhaul can also build or lease unlit fibre (dark fibre), if it is available, and install and manage their own electronic equipment. BT is not active in the provision of dark fibre. The CMA has considered the use of dark fibre as compared to 'active' mobile backhaul services (ie those which include both the fibre infrastructure and electronic equipment) where relevant in its competitive assessment. Given recent announcements from Ofcom, this may be in the process of changing.

- 12.4 The CMA has considered the impact of the transaction in respect of the supply of fibre mobile backhaul services in the UK. However the geographic market was not defined and we believe that it should be defined and information on alternatives that could feasibly be supplied to meet demand for backhaul to each separate mobile base station should be investigated. There are likely to be wide areas of the country where BT is the only supplier of fibre to such sites, but that some areas will be served by other players, and this will vary by location.

13. Supply side factors; the importance of spectrum and geographical coverage and other factors concerning mobile infrastructure.

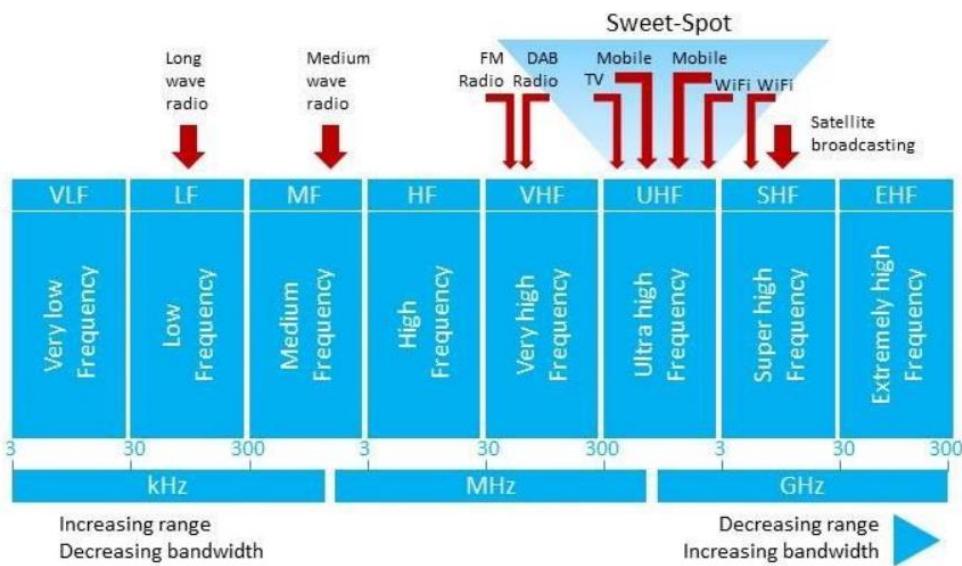
Spectrum Characteristics & Usage

- 13.1. In this section we provide an outline of the supply side factors and technical characteristics of spectrum that affect the different types of products that may be offered by different mobile operators. Absence of a full range of higher frequency and lower frequency spectrum is likely to lead to an inequality of capability and an ineffective competitive constraint. An important area for the CMA's investigation will therefore be to understand the extent of spectrum ownership and the effect of that ownership on actual and potential competition in the counterfactual scenario.
- 13.2. As helpfully summarised by Analysys Mason in their 2012 report³⁷, the radio spectrum is conventionally divided into eight frequency bands, starting with Very Low Frequency (VLF), which extends from 3kHz to 30kHz, and ending with Extra High Frequency (EHF) at 30GHz to 300GHz. Each of these eight successive bands contains ten times as much spectrum as the one immediately below it. The low-frequency bands can only be used to support relatively low-bandwidth applications.
- 13.3. Lower-frequency signals tend to travel further than higher-frequency signals, and in addition will give superior indoor reception. This gives lower-frequency spectrum some attractive characteristics for transmitting signals in widely dispersed areas and indoor use but also carries a number of other disadvantages (such as a need for larger antennas).

³⁷ Analysys Mason, Final Report for BIS and DCMS: Impact of Radio Spectrum on the UK Economy and factors influencing future spectrum demand, November 2012

- 13.4. The diagram below illustrates how the radio spectrum is used and shows the 'sweet spot' that has been considered by some to be the most attractive frequency range for commercial exploitation, because it can be used for mobile applications and has sufficient capacity to carry broadband and video broadcasting.

Radio Spectrum Frequencies & Corresponding Usage



Source: UK Spectrum Strategy, Department of Culture, Media & Sport, March 2014

- 13.5. Analysys Mason goes on to explain that the so-called "sweet spot" broadly coincides with the Ultra High Frequency (UHF) band, i.e. 300MHz to 3GHz. Sub-1GHz spectrum has tended to be more highly prized than spectrum in the 1–3GHz range because it has a longer range (meaning also that fewer base stations are required to cover a given area) and penetrates buildings better (making it more suitable for indoor coverage). This is attractive to traditional mobile operators who concentrate on obtaining maximum geographic coverage for voice services.
- 13.6. The shortage of spectrum below 1GHz has led to increases in demand for spectrum in the 1GHz–3GHz range, and this spectrum is used for applications such as cellular mobile and wireless broadband services. As well as offering greater capacity, higher frequency spectrum also supports wider channel widths, and is therefore useful for adding capacity to support high end-user data rates in mobile broadband networks.
- 13.7. With the data explosions we are experiencing with video and mobile TV, the focus is now moving to data-centric and capacity-centric, meaning smaller cells for maximum re-use of spectrum and wider bands of spectrum (which can only be found at higher frequencies) for higher bandwidth services. However, the lower frequencies still have their low speed high penetration/coverage uses and therefore

commercial operators tend to require a combination of a few of these high and low bands.³⁸

Use of spectrum as a supply side competitive constraint in practice

13.8. The spectrum and capacity that the wholesaler has available will vary in relation to the engineering in its systems and operations and the average data rates it can provide. For a given number of customers, the greater the capacity, the higher the data rates those customers will tend to receive. Spectrum can be combined with systems for transmission and interconnection with high bandwidth fixed services such that lack of full national coverage need not be an impediment to effective competition.

13.9. If capacity is truly an issue additional capacity can be achieved by:

- acquiring spectrum
- investing in macrocells;
- deploying small cells;
- buying capacity; or
- deploying more efficient technology³⁹.

However this does not address the important issue of the quality of coverage. There are two distinct aspects of quality of coverage; breadth of coverage and depth of coverage.

13.10. In relation to breadth of coverage, if competition between mobile operators continues to operate across a range of frequencies and a range of services, then it is unlikely that a limited geographic coverage would operate to price constrain all the current offerings from the MNOs. However, the extent to which full UK geographic coverage is needed for a further operator to act as an effective competitive constraint is a matter that needs to be more fully investigated, particularly with regard to the location of high value business customers and whether they are located within a narrower than national geographic footprint. Even a limited geographic coverage can act as a major competitive constraint if it were to allow a further fourth operator to provide services to major businesses and MVNOs and address the major customer markets. Limited coverage of the vast majority of communications consumers and customers living and working in the main cities may allow a fourth operator to meet a high proportion of the total market needs with only a limited geographical footprint for its mobile services. For example, if 80% of all communications revenue were addressable within a narrower than national coverage footprint, then coverage in that area could act as an effective

³⁸ Extracts from Analysys Mason Report on the Impact of Radio Spectrum on the UK Economy November, 2012

³⁹ Ofcom, Second consultation on assessment of future mobile competition and proposals for the award of 800 MHz and 2.6GHz spectrum, January 2012, paragraph 4.71.

competitive constraint even if not co-extensive with the full national coverage offered by others' to meet the needs of all consumers in the UK.

- 13.11. Detailed evidence of customers by type (business or consumer) and by their level of spend will be required to assess these issues. Ofcom has reviewed some of these factors in the past.⁴⁰ We have noted above the strong market position of BT with the SME customer base.
- 13.12. Looking at depth of coverage, a national wholesaler will require a sufficient combination of capacity and quality of coverage (i.e. a range of lower and high frequencies).

14. Effectiveness of Regulatory Constraints

- 14.1. Telecommunications markets are regulated because of their propensity toward monopoly and to ensure that they operate competitively. When examining whether such industry specific regulation is in fact addressing competition issues, it is worth considering the underlying rationale that is leading to the current wave of consolidation within the European telecoms sector as well as the impact that consolidation has had on those markets. We understand that the merging entities have argued that the merger is necessary to spur investment and innovation on the industry. Each point will be addressed in turn.

14.2. Investment

- 14.2.1. There is no indication that investment will be stifled if the merger were not to proceed. BT generates significant revenues in the UK (and wider) markets and has been at the forefront of the expansion of the infrastructure which will enable the telecommunications market to continue to prosper.

- 14.2.2. BT has championed its investment and development of new technology and has stated⁴¹:

Since privatisation, BT has invested many times more than that £20bn in maintaining and upgrading its network

We are one of the world's biggest telecoms R&D investors, in 2013/14 we invested £530m, and the benefits can be seen in, for example, faster and more reliable broadband as modifications and breakthroughs are made by our experts.

⁴⁰ <http://stakeholders.ofcom.org.uk/binaries/consultations/award-800mhz/summary/combined-award-2.pdf>

⁴¹ <http://www.btplc.com/Thegroup/Ourcompany/TheBTstory/index.htm>

14.2.3. On a similar note, EE has invested heavily in infrastructure and, in particular the rolling out of the 4G network. EE's Chief Executive is quoted as saying in the BT press release of the merger⁴²:

"Joining BT represents an exciting next stage for our company, customers, and people. In the last few years alone, we have built the UK's biggest, fastest and best 4G network, significantly advancing the digital communications infrastructure for people and businesses across Britain. Today's announcement will ensure the UK remains at the forefront of the mobile revolution, bringing even more innovation and investment in world leading connectivity for our customers."

14.2.4. In ascertaining where future investments will be made, it is instructive to examine where the investments are currently focussed. For BT, it appears to be for consumer broadband where BT has responded to Sky's broadband success by its deployment of fibre and Virgin Media has now responded with its investment in superfast broadband. For EE it has used 4G as a competitive advantage over its rivals. Our view, therefore, is that it is competition that drives investment and that reduced competition would lead to reduced investment.

14.2.5. Finally, a merger of this nature and scale should generate significant synergies, in particular in view of the increasing infrastructure convergence between fixed and mobile. Such synergies would naturally include a reduced capital expenditure (i.e. investment) requirement for the combined entity compared the two separate entities.

14.3. Innovation

14.3.1. Disruptive innovation tends to be developed and promoted by the start-ups and alternative operators that challenge large entrenched operators. For example, Skype, WhatsApp and Viber with their messaging and voice calls services, and UKB with its fixed wireless broadband service connecting customers not served by the current incumbents. Incumbent operators have not been the source of disruptive innovation in the sector and should not be expected to be a source of such innovation. In part, this is and will continue to be because such services often have the effect of cannibalising or significantly reducing existing profitable revenue streams. A good example of this, is the impact that the new messaging services (WhatsApp, Viber etc) have had on the SMS revenue of the mobile operators.

14.3.2. Therefore we consider that rather than this transaction being viewed as a mechanism to enable innovation by the merging parties, it should be viewed from the perspective of enabling the merging entities to reap higher rewards and potentially remedies need to be targeted at preventing the merging parties being able to stifle innovation from others that are dependent on its infrastructure.

⁴² <http://www.btplc.com/news/Articles>ShowArticle.cfm?ArticleID=845B68FF-E7CD-4FD9-B90B-6C4D0E3D1E3B>

14.4. Economies of Scale and Scope / Efficiencies

14.4.1. UKB accepts that there can be economies of scale and of scope from industry consolidation. However, in our view, such benefits would only flow through to benefit consumers if there is sufficient remaining competition in the market. Absent adequate competition, such economies of scale and scope would lead to increased supra competitive profits for the consolidated entity. Moreover, the Horizontal Merger Guidelines state that "the incentive on the part of the merged entity to pass efficiency gains on to consumers is often related to the existence of competitive pressure from the remaining firms in the market and from potential entry".

14.5. Markets Expect Consolidation To Lead To Reduced Price Competition

14.5.1. As well as the experience to date with consolidation leading to increased prices, it also appears that the public markets also expect such price rises to occur.

14.5.2. For example, when the Numericable-SFR/Bouygues Telecom merger⁴³ was announced, not only did the share price of the merger parties rise but the share price of Orange and Iliad also rose. Whilst a share price increase for the merging parties might have a number of reasons (e.g. increased efficiencies, market share etc), it seems that the explanation for share price rise of the two other mobile operators is a market expectation that the market will become less competitive and more profitable for the remaining players. When the merger bid was rejected, the share prices of all 4 mobile operators all fell. As the FT described it,

"The rejection all but kills the prospect of the number of operators going from four to three competitors, a move that many analysts see as vital to ending a three-year price war." ⁴⁴

14.6. The EU Commission's view

14.6.1. The European Commission has also confirmed its views on this recently, with Commissioner Vestager commenting⁴⁵:

The telecommunications industry is a good example. This is a sector in which our merger review often has to verify that competition and customer demand will continue to drive investment.

Incumbent operators argue that if they cannot merge with their rivals in the same country they will be unable to increase their investment. I've heard this claim quite often, but I have not seen evidence that this is the case.

⁴³ See report in Financial Times *Bouygues' rejection hits sector sales* 25 June 2015

⁴⁴ (FT article 24 June 2015 headed "French telecoms shares plunge after Bouygues rejects Drahic bid"
<http://www.ft.com/cms/s/0/94e911ee-1a58-11e5-a130-2e7db721f996.html#axzz3eSeWbdUK>

⁴⁵ 15 June 2015 Speech 'The State of the Union: Antitrust in the EU in 2015-2016'. See full press release at
http://ec.europa.eu/commission/2014-2019/vestager/announcements/state-union-antitrust-eu-2015-2016_en

Instead, there is ample evidence that excessive consolidation may lead not only to less competition and more expensive bills for consumers, but that it also reduces the incentives in national markets to innovate.

In fact, infrastructure investment can be stimulated by competition. In 2009 a new player, Free Mobile, entered the French telecoms market. Following that entry, the overall level of telecoms investment in France grew, and remains at higher levels than at the moment of Free's entry.

In these markets, we have also seen established players abuse their dominant positions to try and prevent competition from alternative operators. And we shouldn't forget that these alternative operators are also behind major network investments in the EU.

In the circumstances we consider that the effects on competition of the merger need to be analysed in the usual way, with appropriate remedies targeted on merger specific issues that are raised as a consequence of the transaction. Current regulation cannot be expected to address the issues raised by the transaction and additional remedies will be needed.

15. Potential Solutions

- 15.1. We have summarised below the position taken by the European Commission in Austria, Spain and Germany to the competition problem created from consolidation in the telecommunication sector.

15.2. Austria

- 15.2.1. In the decision on the acquisition of Austrian mobile phone operator Orange by H3G⁴⁶ (the “**Hutchison 3G/Orange Austria Case**”), the European Commission (the “**Commission**”) has shed light on the importance of a 4th MNO in the national mobile telephony market.

- 15.2.2. The decision was related to the proposed concentration by which the undertaking Hutchison 3G Austria Holdings GmbH, the parent company of Hutchison 3G Austria GmbH and an indirect wholly owned subsidiary of Hutchison Whampoa Limited, would acquire control of Styrol Holding 1 GmbH and its indirect wholly owned subsidiary Orange Austria Telecommunications GmbH, excluding Yesss! Telekommunikation GmbH, by way of purchase of shares.

- 15.2.3. The Commission had raised serious doubts as to the compatibility of the proposed transaction with the internal market. The transaction would lead to a reduction of network operators from four to three (with the remaining MNOs, Telekom Austria and T-Mobile having respectively 40-50% and 30-40% market

⁴⁶ Hutchison 3G Austria/Orange Austria (Case M.6497) Commission Decision 2013/C 224/06 [2012] OJ C 224/12

shares by total number of subscribers) and create the third largest Austrian MNO with an overall market share of 20-30%.

15.2.4. The Commission's market investigation identified competition concerns due to the removal of Orange (one out of only four mobile network operators in Austria) from a market which was already highly concentrated and where there was no prospect of entry. The concern was therefore that the transaction as notified would lead to competition concerns in the retail market for the provision of mobile communication services to end customers in Austria as a result of unilateral effects, leading to less competition and higher prices to the detriment of end users.

15.2.5. H3G undertook a series of commitments in order to remove the Commission's concerns, amongst which was the commitment to divest radio spectrum and additional rights to an interested new entrant in the Austrian mobile telephony market. The potential new MNO would have the right to acquire spectrum not only from H3G but also additional spectrum at an auction planned in 2013 by the Austrian telecom regulator. The latter would reserve spectrum for a new entrant, in order to enable such an operator to build up a physical network for mobile telecommunication services in Austria. The new entrant would also benefit from privileged conditions for the purchase and lease of sites for building up its own network in Austria.

15.3. Spain

15.3.1. The need for a 4th MNO to ensure competition in the national market was also highlighted in a more recent decision from the Commission in the acquisition of Jazztel plc (a telecom company registered in the UK but mainly active in Spain) by its rival Orange SA of France⁴⁷ (the "**Jazztel/Orange Case**"). The Commission raised concerns that the concentration could lead to higher prices of fixed internet access services for Spanish consumers.

15.3.2. The takeover would eliminate the strong competition between Orange and Jazztel and reduce the number of major nationwide players from four to three. Based on 2014 data, the revenue market shares in the Spanish fixed internet access market would be as follows: Telefónica had around 43%, the merged entity would have around 30% and Vodafone/ONO around 18%.

15.3.3. To address the Commission concerns, Orange submitted commitments to ensure that a 4th competitor could enter the retail markets involving fixed internet access services in Spain. Such remedies were as follows: (a) on optical fibre, Orange committed to divest an independent Fibre-To-The-Home (FTTH) network covering 700 000 - 800 000 building units, which was similar to the size of Orange's then FTTH network in Spain and covered 13 urban districts located in five of the largest Spanish cities, and (b) on copper, Orange committed to grant the purchaser of the

⁴⁷ Orange/ Jazztel (Case M. 7421) Commission Decision

FTTH network wholesale access to Jazztel's national ADSL network for up to 8 years, for an unlimited number of subscribers, allowing the purchaser to compete immediately on 78% of Spanish territory.

15.3.4. The remedies taken in the Jazztel/Orange Case addressed the Commission concerns involving fixed internet access services in Spain by ensuring that a fourth nationwide operator could enter the Spanish market and be able to compete effectively in markets involving fixed internet access services.

15.4. **Germany**

15.4.1. In the acquisition of E-Plus by Telefónica Deutschland⁴⁸, (the "**E-Plus/Telefónica Deutschland Case**"), the Commission raised concerns as the merger would remove competitors from the German mobile telecommunications market and weaken the position of MVNOs in detriment of consumers. The acquisition would bring together the third and the fourth largest MNOs in Germany and decrease the ability and incentives for MVNOs to exercise competitive pressure on MNOs at the retail level. The Commission was concerned that the merger would lead to higher prices and reduce competition to the detriment of consumers.

15.4.2. As a solution to remove the Commission's concerns, Telefónica undertook a series of commitments which, in conjunction with a frequency auction organised by the German telecoms regulator, aimed at facilitating the entry or enabling the development of a new MNO into the German market.

15.5. **MVNOs**

15.5.1. In the Hutchison 3G/Orange Austria Case, in addition to committing to divest radio spectrum to a 4th MNO player, H3G committed to provide, on agreed terms, wholesale access to its network for up to 30% of its capacity to up to 16 MVNOs for a period of 10 years. This would enable interested MVNOs to offer mobile telecommunications services to end customers in Austria at competitive terms and conditions. H3G also committed to withhold the acquisition of Orange until it had entered into a wholesale access agreement with at least one MVNO.

15.5.2. The Commission's concerns in the E-Plus/Telefónica Deutschland Case was addressed by a package of commitments by Telefónica, some of which were aimed at ensuring the short-term entry or expansion of one or several MVNOs in the national market. Telefónica committed to sell, before the acquisition was completed, up to 30% of the merged company's network capacity to one or several (up to three) MVNO(s) in Germany at fixed payments.

⁴⁸ Telefonica Deutschland / E-Plus (Case M.7018) Commission Decision 2013/C 224/06 [2012] OJ C 224/12

15.6. Ireland

14.5.1. The Commission raised concerns in the acquisition of Telefónica Ireland by Hutchison 3G⁴⁹ (the “**Telefónica Ireland/Hutchison 3G Case**”). The merger would bring together the second and the fourth largest mobile network operators in Ireland and create a larger company facing only two competitors: Vodafone and Eircom. The Commission was concerned that the merger would lead to higher prices and less competition in the national market.

14.5.2 H3G’s commitments included a package aimed at ensuring the short-term entry of two MVNOs, by which H3G undertook to sell up to 30% of the merged company’s network capacity to two MVNOs in Ireland at fixed payments. The capacity was measured in terms of bandwidth and the MVNO entrants would obtain a dedicated “pipe” from the merged entity’s network for voice and data traffic.

14.5.3 The decision also left open an option for one of the MVNO to become a full MNO by acquiring spectrum at a later stage. To facilitate this, H3G committed to divest five blocks of spectrum in the 900 MHz, 1800 MHz and 2100 MHz bands, to be made available for ten years, starting from 1 January 2016.

15.7. Spectrum Divestment

15.7.1. As part of the Telefónica’s commitments in the E-Plus/Telefónica Deutschland Case, Telefónica offered to divest radio wave spectrum and certain assets either to a new MNO entrant or subsequently to the MVNO(s) that were supposed to take network capacity due to the first part of Telefónica’s commitments. Telefónica also undertook to extend existing wholesale agreements with Telefónica’s and E-Plus’ partners (i.e. MVNOs and service providers) and to offer wholesale 4G services to all interested players in the future. In addition, Telefónica committed to improve its wholesale partners’ ability to switch their customers from one MNO to another.

16. Factors to consider when designing remedies

- 16.1. As explained above, the merger without the imposition of remedies lead to a substantial lessening of competition in a number of relevant markets. When considering remedies, it is established practice to distinguish between structural remedies (such as divestments) and behavioural remedies with common thinking that only a structural remedy can ‘fix’ the significant impediment to effective competition that would have been likely to result from the proposed concentration.
- 16.2. In our opinion, certain remedies should be considered to be quasi structural in their operation and effect. For example, we would suggest that the local loop unbundling

⁴⁹ Telefónica Ireland/Hutchison 3G (Case M.6992) Commission Decision

requirement on BT that applied to copper loops is a quasi-structural solution in that BT retains actual ownership of the copper cable but the alternative operator obtains full control of the copper cable. The exclusive use of an asset is subject to a reversion, so that title does not fully pass to the user, but as an operational matter the user obtains the benefits of use that are similar to ownership. The charging for the use of assets could be usage based (e.g. per Gb), time based (e.g. a monthly fee) or a combination of the two as one might expect for an equipment leasing contract or a car rental agreement.

- 16.3. The operation of such a right is to be contrasted with a mere contract with a dominant company. As can be expected, contracts with dominant companies are frequently one sided, reflecting the inequality of bargaining power between the parties. In such contracts the service provider or downstream user is at the mercy of the dominant supplier. However, in the circumstances where remedies are imposed as a condition of clearing a transaction, the relative bargaining position of the parties is subject to oversight and workable usage agreements can be fashioned that address the risks of continuing abusive behaviour, without requiring full structural solutions.
- 16.4. When considering potential new entrants to a market, these should only be taken account if the entry would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects of concern.
- 16.5. Below, we have provided some initial views regarding the efficacy of certain potential remedies.

Spectrum divestment

16.5.1. Spectrum divestment has been the standard remedy imposed in relation to 5 to 4 mobile mergers as well as in 4 to 3 mergers (see for example EE merger decision, Hutchison 3G/Orange Austria, and E-Plus/Telefónica Deutschland). As a remedy, spectrum divestment fits in with the general preconceived view that a mobile operator needs to 'own' its own mobile infrastructure. The reality is far more complicated with operators having entered into network sharing agreements, leasing use of towers and masts, and relying on other telecoms operators, such as BT, for backhaul and Wi-Fi handover. Some operators have even outsourced their operations and customer service centres or made arrangements for property rights to be transferred to third parties.

16.5.2. The spectrum divestment remedy has the advantage of being a structural remedy that is relatively straightforward to implement and of not requiring ongoing monitoring. However, the remedy has significant disadvantages, particularly in the context of a market where the divestment would be to a new entrant. These can be summarised as follows:

- a) The will be a significant time delay between the new entrant acquiring the spectrum and that new entrant becoming a competitive constraint (due the time it would take that new entrant to launch a service and gain a meaningful market share. This

means that such new entrants would not be timely in operating as a competitive constraint in the context of merger control analysis;

- b) Spectrum is only one element of the infrastructure requirements for the new entrant and not in itself sufficient for the new entrant to be able to launch a new service (for example, access to operational infrastructure and towers and masts might be a significant impediment to the new entrant);
- c) the new entrant would need to incur significant capital expenditure in acquiring the spectrum and deploying a mobile network in advance of generating revenues which would effectively increase its cost base and reduce its competitiveness compared to the other operators; and
- d) there is potential inefficiency in the that the divesting party would have deployed a network based in part on the spectrum being divested and there could be considered to be an inefficiency if the deployed equipment could no longer be used with the spectrum.

Access to mobile infrastructure (including spectrum)

16.5.3. An alternative or an additional remedy to a spectrum divestiture remedy would be to mandate that the merged entity commits to provide access to mobile infrastructure to a third party. This approach was explored in detail in the E-Plus/Telefónica Deutschland case.

16.5.4. The difficulty with such an access obligation is that the viability and extent of the competition enabled depends entirely on the very precise nature of the obligation and of the price to be paid for such access. Certain types of access requirements would be quasi structural and enable a quasi MNO to enter the market (and/or an existing full MVNO to improve its offering). On the other hand, other forms of access would only slightly strengthen the very limited competitive pressure exerted by MVNOs. We consider that the technicalities of how such a remedy might work needs to be explored with all relevant parties in detail so that the required

outcome can be achieved. We could provide a further paper explaining the types of access in more detail.

16.5.5. In our view, an access remedy offers the two key advantages to a spectrum divestment:

- a) it is a mechanism whereby a new entrant can enter the market in a much shorter timeframe (and more economically); and
- b) it is a mechanism whereby more than one new entrant could enter the market.

Backhaul and Fixed Infrastructure

16.5.6. A remedy linked to infrastructure needs to look at two differing issues:

- a) ensuring that competitors can have competitive access to BT's fixed infrastructure; and
- b) ensuring that the market for the provision of wholesale infrastructure (such as the provision of fibre to cell sites and towers) is not foreclosed to competition by the merged entity.

Facilitation of switching and Opening up of proprietary platforms

16.5.7. Effective competition requires customers to be able to switch providers with relative ease. In the consumer markets for mobile and fixed telephony services Ofcom has developed and evolved the rules relating to switching to facilitate the process for customers.

16.5.8. In other markets such regulations are non-existent. One example is the market for fixed infrastructure for broadband services. This is a market dominated by BT Openreach. BT's dominance is enhanced by its proprietary ownership of the EMP platform. The effect of this is that a customer of BT Openreach, such as Sky, cannot order infrastructure from a competitor of BT via the EMP platform. This prohibitively increases the cost and complexity of provisioning infrastructure from competitors to BT.

Geographic coverage

16.5.9. Whist tempting to consider all markets as being national, there will be narrower geographic scope for certain services (for example, broadband to rural areas). Therefore, any potential remedy must also address the competitiveness of these narrower markets.

Customer Segmentation

16.5.10. Different types of users of telecoms services have markedly different requirements and it is incorrect to think of all users being part of the same market. A solution that addresses the competitiveness of consumer mobile services will not

necessarily address the competitiveness of the market of providing communications to multinational companies.

Access to content

16.5.11. Please see our earlier submission in regards to access to content.

Customer divestment

16.5.12. A requirement to divest customers' divestment should be considered in the markets where there are significant horizontal effects.