



# UK BROADBAND LIMITED RESPONSE TO OFCOM CONSULTATION ON ASSESSMENT OF FUTURE MOBILE COMPETITION AND PROPOSALS FOR THE AWARD OF 800MHz AND 2.6GHz SPECTRUM AND RELATED ISSUES

31 MAY 2011

## 1. INTRODUCTION

UK Broadband Limited (“UKB”) welcomes the opportunity to respond to the Ofcom Consultation on assessment of future mobile competition and proposals for the award of 800MHz and 2.6GHz spectrum and related issues published on 22 March 2011 (the “Consultation”) and public discussion of the issues raised.

We set out below in section 2 some information about UKB, in section 3 some general comments on the matters raised in the Consultation and in section 4 we address the questions raised in respect of which we wish to comment.

## 2. ABOUT UKB

UKB is a wholly owned subsidiary of PCCW, an integrated telecommunications provider offering fixed, mobile, internet and pay TV services to consumers and businesses in Hong Kong. It is one of Asia’s leading information and communication technology companies and through its global division covers more than 1,000 cities and 100 countries across the world with the latest IP, fibre, and satellite transmission technologies.

UKB acquired 3.5GHz spectrum in 2003. Our recent research and development highlighted that the 2x20MHz of 3.5GHz spectrum we then held would not provide sufficient capacity to meet our anticipated demand for broadband mobile services, particularly given increasing industry emphasis on ever wider channel bandwidths e.g. 20MHz+. Therefore, in 2010, UKB acquired the spectrum holdings of Freedom 4 Group resulting in UK a total of 124MHz of spectrum suitable for innovative new broadband mobile services as well as a significant assignment of spectrum suitable for low cost backhaul essential to the overall economics of a wholesale wireless operator.

Our investors are convinced that demand for convenient, fast, flexible, low cost wireless access to the internet will continue to grow significantly as rich media makes up an ever growing proportion of internet traffic. We believe that, despite technical improvements offered by advances in 4G technologies, the cost effective provision of innovative broadband mobile data services will require significant amounts of spectrum.

Our recent work with multiple tier 1 vendors indicates that LTE equipment is available imminently for our spectrum bands. We are therefore investing in and intend to commence the construction of a 4G LTE network in the UK in the second half of this year. We intend this to be a wholesale network.

## 3. GENERAL COMMENTS

### Overall

Radio spectrum is a limited resource of considerable technical, economic and social importance. The Consultation proposes the disposal of the largest ever single award of spectrum in the UK. It is crucial

for the provision of mobile services over the next ten years and offers the opportunity for innovation and for the UK to achieve leadership in the knowledge based economy. We must not waste this opportunity.

UKB is concerned that, in seeking to establish a fixed, regulator-enforced, set of spectrum holding packages, the proposed auction rules will fail to encourage new competitors and will stifle innovation. Historically it has been clear that new entrants without the burden of legacy networks and business models can, and are able to take risks and offer innovative new services to the market.

Citizens and consumers in the UK are best served by a range of viable and affordable wireless data and wireless voice services. In the wireless world of tomorrow, with such huge anticipated demand in data usage, it should not be necessary for consumers to buy both wireless data and wireless voice services from the same provider. The market should offer the opportunity for providers to decide what services should be offered at what price. Putting in place a policy framework that encourages market innovation and long term viable services offered by both existing and new entrant operators is critical.

**Bidders should be properly informed of the characteristics of the spectrum available and other proposed releases before the auction.**

The Consultation document sets out several matters to be settled before the spectrum to be awarded will be made fully available – interference both within the bands and with adjacent bands, DTT and PMSE clearance in the 800MHz band, issues with radar interference in the 2.6GHz band and reserved use of the spectrum for the London 2012 Olympics. There are also outstanding issues relating to the technical specifications to be attached to all licences.

Furthermore the Department of Culture Media and Sport is consulting simultaneously on the release of an additional 500MHz of spectrum (“**DCMS Release**”). It is due to report later in the year but it is unclear how much information will be available and how much information on the timing for disposal of this spectrum will be available or when it will be available.

Current licence holders and potential new entrants need to understand the medium and long term competitive environments. Having a view of spectrum availability over the next 10 years is therefore essential. Additionally, given that data networks built for commercially viable capacity will need multiple channels with bandwidths of at least 20MHz, operators and potential operators must be able to assess properly how they will acquire or refarm enough spectrum to meet customer demand.

UKB suggests that the combined auction take place when stakeholders have available to them all information necessary to make a fully informed decision as to bidding strategy and investment.

**Competition assessment.** Ofcom has set out its competition assessment in the Consultation document. The DCMS Release includes considerable amounts of spectrum which may be used for mobile broadband services. The release of this spectrum may, and indeed is likely, to affect any competition assessment of the spectrum which is the subject of this Consultation. Therefore, we wonder whether, once information on the DCMS Release is available, Ofcom proposes to undertake a further competition assessment to ensure that it has addressed the entirety of the relevant markets and competition issues.

**Related consultation documents.** Our comments are subject to consideration of the foreshadowed additional consultation documents on technical issues and auction rules. UKB is concerned that the technical consultation and responses to it be considered fully before any further steps or final decision

in relation to the release are made. Any statement by Ofcom in relation to its plans for this auction should be issued after it has considered responses to all related consultations. UKB reserves its position and the right to revise response on these points when the further related consultation documents are published.

#### 4. QUESTIONS RAISED IN THE CONSULTATION

**Question 4.1: What use, if any, would you make of the top 2x10MHz of the 800 MHz band in the second half of 2012 if it were available for use? What would be the benefits for citizen and consumers of such availability?**

Spectrum lots at the top of the 800MHz band become available in principle earlier due to the Digital Switchover spectrum clearance plan. UKB considers that the 800MHz band should be made available as a whole since timing of availability of this band is already a contentious issue in respect of competition between existing operators.

**Question 4.2: If we were to offer shared access low-power licences in some way, do you have any comments on the appropriate technical licence conditions which would apply for the different options?**

UKB does not support the introduction of shared access low-power licences in the 2.6GHz band. The best way to ensure that a range of innovative and low cost mobile broadband services are available is to encourage the development of multiple commercially viable networks. It is UKB's view that both competition and innovation is best encouraged with an open and well informed spectrum market. Regulator imposed market structures restrict this development.

Furthermore, UKB considers that 2.6GHz low power licences shouldn't be necessary from a competition perspective if there is a competitive market as trading and wholesale products should be able to provide access to low power spectrum if such demand emerges. In addition there are already large allocations of unlicensed spectrum available for the types of uses suggested.

As a matter of procedure the inclusion of 2.6GHz low power lots also will create complications in relation to bidding strategies at the auction.

**Question 5.1: Do you agree that national wholesalers need a reasonable overall portfolio of spectrum to be credible providers of higher quality data services? In particular, do you agree that national wholesalers need some sub-1GHz in order credibly to be able to offer higher quality data services? Please state the reasons for your views.**

UKB does not agree that the regulator should manage the market so as to require a certain number of wholesale operators, or to require a wholesale operator at all. This is properly a matter for the market, which is in a better position to determine the inputs it requires in order to offer innovative and low cost mobile broadband services. As Ofcom will recall, this approach was used in respect of the original 900MHz cellular licences.

UKB agrees that an operator requires a minimum portfolio of spectrum to offer commercially viable high quality data services. However, it does not believe the type of spectrum required should be specified by Ofcom or that an operator necessarily needs sub 1GHz spectrum in order to operate a viable business, this being a matter for operators and the marketplace. Indeed, UKB's intends to build a high capacity wireless

data network and service with no sub-1GHz spectrum. It is true that higher capacity data services require larger amounts of spectrum and most efficiently operate in larger channels, in UKB's view ideally 20MHz.

We note in particular that Article 8 of the Government Direction does not require an allocation of sub-1GHz spectrum for national wholesalers. As noted above, it is UKB's view that the industry, including those members of it who bid for this spectrum, are in the best position to decide what spectrum holdings (including sub-1GHz spectrum) are required for its business, as a national wholesaler or otherwise.

**Question 5.2: Do you agree there is a material risk of a significant reduction in the competitive pressures, at least to provide higher quality data services, in retail and wholesale markets without measures in the auction to promote competition? Please state the reasons for your views.**

Radio spectrum is a limited resource of considerable technical, economic and social importance. The Consultation proposes the disposal of the largest ever single award of spectrum in the UK and therefore the opportunity for successful bidders to provide high quality and capacity data services. UKB is concerned that Ofcom use this opportunity to offer spectrum in a way which allows a real opportunity for innovation in services and the structure of the market and that the award is not constructed so that it results in spectrum being awarded to existing market players.

Significant spectrum holding is a requirement for entry to this market and Ofcom, with this auction, has the opportunity to structure the spectrum offering to encourage new entrants, both to ensure there is enough spectrum available for new entrants to make a viable business case and to ensure a level playing field. Ofcom's measures and activities to increase competition should focus on promoting the emergence of new entrants who are willing to innovate in the market and to assist the UK in driving development of its knowledge based economy and thereby enhancing the UK's continuing position as a global leader.

**Question 5.3: Do you agree there is a risk of potentially beneficial sub-national RAN uses not developing without measures to promote competition? Please state the reasons for your views.**

UKB does not consider there to be such a risk. As we have stated above, UKB believes that specific measures to create sub-national RAN operators are not appropriate methods to promote competition. Rather, structuring the auction and regulatory environment to encourage new entrant(s) and long term access to sufficient spectrum will create more competition between commercially viable network operators resulting in more innovative products and services. Ofcom should therefore focus on encouraging and allowing the market to innovate in providing low cost mobile broadband services.

**Question 5.4: Do you agree with the analysis that at least four competitors are necessary to promote competition?**

UKB does not agree that a specific number of competitors is an absolute requirement for a competitive market and specifically does not see that an adequate argument has been made for the number to be four.

Furthermore, we also disagree with the presumption that there should be four wholesale operators. Our view is that the regulator should be promoting commercially viable competition between networks not seeking to impose a particular market structure via a spectrum award process.

**Question 5.5: Do you agree that the specific measures we propose to take to ensure there are at least four holders of such spectrum portfolios are appropriate and proportionate?**

No. In UKB's view the market should decide the appropriate and proportionate spectrum portfolio held. As stated above, we disagree with the presumption that there should be four wholesale operators.

**Question 5.6: Given the measures we propose to take to ensure four holders of spectrum portfolios sufficient credibly to provide higher speed data services, do you agree that it would not be appropriate or proportionate to introduce a regulated access condition into the mobile spectrum licences to be awarded in the combined award?**

Yes. Regardless of whether the measures to require four national wholesalers are introduced or not UKB agrees that access conditions should only be introduced in case of real market failure or where there is a proven concern that it will occur.

As it did with the 3G licences UKB suggests that Ofcom require existing 2G and 3G operators to provide national roaming to 4G licence holders on reasonable commercial terms.

**Question 5.7: Do you consider that we should take measures to design the auction to assist low-power shared use of 2.6GHz? If so, what specific measures do you consider we should take?**

UKB does not agree that the introduction of low power shared use licences in the 2.6GHz band would be the most efficient way to encourage innovative and low cost mobile broadband services. Please see our response to question 4.2.

**Question 6.1: Do you have any comments on the proposal to include in one of the 800 MHz licences an obligation to serve by the end of 2017 an area in which 95% of the UK population lives, while providing a sustained downlink speed of 2Mbps with a 90% probability of indoor reception? Do you think there is another way of specifying a coverage obligation that would be preferable?**

In UKB's view it is more important for Ofcom to focus its regulatory intervention on the services to be provided by operators to the market as a whole, not elements of specific spectrum holdings. Any encouragement to build out services should focus on the market and be spectrum agnostic. Indeed it is European Commission and Ofcom policy to reduce the regulatory burden on industry and to reduce ex ante regulation as much as possible. Instead the policy should look at the use of Ofcom's regulatory powers to address serious market failures as they occur.

UK Broadband believes the application of any coverage condition is unnecessary and, in the specific case of one of the 800MHz licences, is particularly inappropriate for the following reasons:

1. Any such licence condition is in danger of becoming the *de facto* minimum broadband access service for those parts of the UK not currently receiving adequate broadband services. This is in direct contradiction of Ofcom's proposal not to use the combined award to address existing not-spots (see question 6.4).
2. The Government has already put in place a scheme, Broadband Delivery UK, to ensure that those areas without access to adequate broadband services can be served by commercially viable

networks that seek to offer speeds well in excess of 2Mbps delivered via multiple technologies. Given many areas can only economically sustain a single access network, by imposing the coverage condition in one 800MHz licence, Ofcom is in danger of mandating a coverage requirement that overlaps and competes with those networks being planned and delivered using BDUK funding.

3. The proposed minimum coverage requirement does not contain a capacity component and is therefore irrelevant from the perspective of a consumer sharing the service with multiple other users in the same area. It is in practice, possible for an operator to meet the proposed obligation without providing a quality service that meets the needs of multiple consumers in an area.

UKB agrees with the Government backbench committee resolution that “... rural businesses and rural communities across the UK are isolated and undermined by slow broadband and the lack of mobile voice and mobile broadband coverage” and that a coverage obligation of 98% as proposed by the backbench committee is desirable. However UKB believes the combination of market opportunity and the incentives under the Broadband Delivery UK scheme will provide a more effective result for citizens and consumers in making this happen than a licence condition.

Experience has shown us that coverage licence conditions are very difficult to measure, monitor and enforce and therefore do not necessarily deliver the consumer benefit desired. UKB does not agree that a licence condition in the 800MHz licence is the best way for the Government “to fulfil its commitment to build both the best superfast broadband network in Europe and provide everyone in the UK with a minimum of 2 Mbps by 2015”<sup>1</sup> These services can be provided in urban and rural areas in a number of ways and by using a variety of spectrum assets, not just the 800MHz band.

UKB understands that Ofcom’s proposal is this coverage obligation must be met by using the 800MHz licence granted, not other spectrum holdings. Ofcom should confirm that it proposes that the obligation applies on a licence basis. If such an obligation is introduced, which UKB opposes, UKB agrees that it should apply at a licence level. If the coverage obligation applies at an operator rather than licence level it would be much easier for existing MNOs than a new entrant to meet the coverage obligation and thus obtain this spectrum lot at the lower price.

In the event that Ofcom is minded to require a coverage condition on one 800MHz licence UKB notes that the timing of the obligation, requiring build out by 2017, would be a disproportionately more difficult for a new entrant in the mobile spectrum market compared to an existing MNO.

**Question 6.2: We would welcome views and evidence on the costs and benefits of imposing an additional coverage obligation focussed on particular geographical areas, and if such an obligation were to be imposed what might be the appropriate specification of geographic areas?**

As we have stated above UKB does not support the imposition of coverage obligations whether they are national or regional.

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<sup>1</sup> <http://www.theyworkforyou.com/debates/?id=2011-05-19b.557.0#g601.0>

**Question 6.3: Do you have any comments or evidence on whether an additional obligation should be imposed to require coverage on specific roads?**

UKB does not agree this would be feasible or would be able to be justified economically.

**Question 6.4: Do you have any comments on our proposal not to use the combined award to address existing not-spots?**

Please see our comments in relation to question 6.1. UKB is of the view as there are many mechanisms in place and services which may be made available to address these areas and that it would not be appropriate to use the combined award to address existing not-spots.

**Question 6.5: Do you have any comments on our proposal not to impose ‘use it or sell it’ obligations but to consider including an additional power to revoke during the initial term of the licences?**

UKB supports the proposal not to impose “use it or sell it” conditions, particularly in light of the availability of spectrum trading. Such conditions are difficult to formulate accurately and fairly and difficult to enforce.

**Question 7.2: Do you have any comments on the proposal to amend the spectrum Trading Regulations to apply to the auctioned licences in the 800 MHz and 2.6 GHz bands, to include a competition check before we consent to a spectrum trade of mobile spectrum and not to allow transfers that would increase the number of 2.6 GHz low-power licensees?**

UKB considers that this proposal to introduce competition checks before spectrum trades will be approved arises from the earlier proposed imposition of enforced patterns of spectrum holdings. As we have noted above UKB is not in favour of these regulator-controlled sets of spectrum holdings. Hence it is of the view that the proposed additional checks on trades are not necessary.

UKB would support any measures which in fact simplify the spectrum trading arrangements, provided that adequate measures to ensure interference protection are maintained.

**Question 7.3: We welcome views on the merits of the proposed approach to information provision; in particular concerning the type of information that may be helpful and any impacts that publication of information might have both on licence holders and the wider spectrum market.**

UKB supports measures that increase the market’s transparency providing it does not put an undue burden on operators in complying and there are adequate confidentiality measures in place. However, this proposal for including in the licence a general obligation to provide information on equipment, use of the spectrum and roll out of the network, with the right to publish this information from time to time is too wide ranging. It is not proportionate to the difficulty it would cause operators and UKB does not agree it that the rights should be included in the licence.

**Question 8.1: Do you agree with the way in which we are taking account of the main factors relevant to spectrum packaging and why?**

The most important factor is that any band plan follows internationally harmonised standards. If the vision of having innovative high speed mobile broadband services is to be realised then wider channel widths should be encouraged via spectrum packaging. UKB also supports Ofcom seeking to ensure contiguity of lots where possible.

**Question 8.2: Are there other factors that we should consider to develop our approach to packaging? If so which ones and why?**

See answer to Q8.1.

**Question 8.3: Do you agree with our packaging proposals for the 800 MHz band? Please give reasons for your answer.**

UKB does not agree with the focus on four operators rather than an environment to foster the delivery of innovative services. Please see our response in relation to the questions in section 5.

**Question 8.7: Which aspects of our packaging proposals for the 2.6 GHz band do you agree with and why?**

UKB supports the proposals that the UK follows the CEPT band plan in respect of paired and unpaired spectrum.

UKB would like to see Ofcom consider a different packaging structure which would enable more than one bidder to acquire spectrum in the unpaired block of 50MHz of spectrum and thereby allow more competitors in the market and more opportunity for a new entrant.

**Question 8.9: Which approach to reserve prices do you think would be most appropriate to secure optimal spectrum use in the interests of citizens and consumers, and why?**

UKB has no specific view on the values set on the reserve prices but notes that the mechanism is complicated and as such will favour incumbent and established operators with financial and economic strategy resources above new entrants.

If Ofcom goes ahead with one 800MHz licence with a coverage condition, which UKB opposes, UKB would expect the reserve price for this licence to be lower than for the others.