BT Group response to the DCMS Public Consultation on the Statement of Strategic Priorities for telecommunications, the management of radio spectrum and postal services

29th February 2019

Overview

BT welcomes the introduction of the Statement of Strategic Priorities (SSP).

We want to ensure that all customers have a choice of high quality, secure, easy-to-use communications services available wherever they live, work or travel. Ofcom's role in helping to create an effective environment for the necessary investment in the UK's digital infrastructure and in ensuring consumers are properly protected is fundamental to our collective success.

A core challenge for Ofcom is to find the appropriate balance between relying on competition and commercial investment to secure these outcomes and deciding where further market intervention is necessary. The SSP should be a valuable steer to Ofcom in charting its course.

In this vein, we are pleased to see the Government reaffirm the approach adopted in last summer's Future Telecoms Infrastructure Review (FTIR). The policy and regulatory framework that it established for delivering the necessary investment for nationwide full fibre roll-out and for taking a global leadership role on 5G remains the right one.

With regard to full fibre, we would stress in particular: the importance of regulatory forbearance where competition exists and where it is prospective (since the prospect of competition can have a positive impact on the market, whereas over-hasty regulation can hold it back); the need for certainty over 'fair bet' returns from risky fibre investments; and ensuring that current interventions, such as unrestricted duct and pole access, are given the opportunity to deliver before other remedies, such as regulated access to dark fibre, are considered.

On mobile, we welcome the four strategic priorities the SSP sets out. However, there are a number of key areas where further consideration is needed before the SSP is finalised:

- It should encourage Ofcom to be more proactive in supporting efforts to overcome perennial deployment barriers, such as access to land and planning regulation.
- The steer to Ofcom to consider mandating network roaming should be removed. Whilst we understand the desire to retain regulatory flexibility, the market already produces a range of sharing arrangements (including roaming on commercial terms). Mandated roaming would only serve to reduce network competition and investment whilst creating significant and unnecessary uncertainty at

the time of spectrum auctions if the risk of its subsequent imposition existed.

- It should consider explicitly the role of Annual Licence Fees and, in particular, how the Government Direction to require Ofcom to set fees to reflect full market value goes against the grain of achieving its stated spectrum management objectives.

Working with the Government and Ofcom and the wider sector, we are also focused on improving our engagement with customers by making it simpler and easier for them to get the products and services that they want. We know that digital communications are increasingly important to customers' everyday lives. We believe that the majority are able to access and assess the right information, to help them identify when to act (e.g. know when their contract is due to come to an end), understand their usage patterns and compare services, and have access to effective tools to exercise choice (e.g. improved switching regimes for broadband and mobile services). This is a competitive market with good customer outcomes, and routes to redress, when needed, are generally effective.

We also know there is more for companies across our industry to do, in particular: to help empower and engage more customers; to raise our service performance; and to do more for our vulnerable customers. The Government is right to identify these as priorities. But further regulatory intervention should be a last resort, where it is clear that competition has failed. It is particularly important, that any direction from Government to Ofcom promotes a targeted, consistent, proportionate and predictable approach.

Ofcom has previously described (in the context of its regulation of fixed access) how it has tried to 'balance' retaining investment incentives with the protection of customers from higher prices[1]. This balancing exercise is a matter of judgment which raises important policy issues, not least the appropriate trade-off between short-term price reduction benefits and longer-term dynamic gains from new investment.

[1] WLA Statement 2018 'Setting regulated prices where there is the prospect of competition requires a balance between retaining the incentives to invest in new networks (leading to longer-term benefits to consumers such as choice and innovation), and the risk of higher retail prices (with the associated shorter-term harm to consumers).'

It is appropriate for Government to clarify how Ofcom should err in exercising its judgment on a matter like this which has important societal implications – particularly as the country looks ahead to significant full fibre and 5G investment. Through the SSP, the Government makes clear its view that "promoting investment should be prioritised over interventions to further reduce retail prices in the near term". We fully support this approach and would encourage the SSP to ask Ofcom to track and report annually on how the decisions it has made have followed this clear steer.

One issue not addressed by the SSP is the set of wider changes occurring in digital markets, with ever more competition from OTT providers and increasing disintermediation. We believe that DCMS should be asking Ofcom to consider the long-term implications of these changing competitive dynamics in the sector – given that it will become increasingly difficult to protect consumers and promote effective competition without taking this broader view. By the same token, it will be important that the approach taken by DCMS and Ofcom is carefully co-ordinated with any wider adjustments to economic regulation, for example through the strategic steer given to the CMA, or in response to the Furman review – in order that there is alignment and co-ordination across different regulatory regimes. DCMS should consider including in the SSP an explicit encouragement to Ofcom to collaborate with other regulators to help achieve this.

1 Furthering the interests of telecoms consumers

1.1. Telecommunications retail markets are fiercely competitive, prices are low, innovation is constant and customer satisfaction is high. As Ofcom's recent report on service quality notes: "Overall, the vast majority of mobile phone customers were satisfied with their service. When asked, just over nine in ten mobile customers said they were satisfied with their service overall."[2] Consumers have a high degree of protection, not only through general consumer law, primarily the Consumer Rights Act 2015, but also through specific sectoral regulation devised and enforced by Ofcom.[3]

1.2. We are not convinced that the consumer experience in telecommunications lags as far behind other sectors as the SSP suggests. It is important to note that, in these markets, customers have benefited from innovation in a very wide range of different products and bundled services – this makes switching decisions more complex than in commodity markets, where products are identical. There is nonetheless more work to do to ensure that customers get information in a simple, accessible and accurate form to help inform their choices. The SSP highlights a number of important issues where there is more work to do, namely: the 'loyalty penalty'; consumer empowerment and the role of smart data; and protection of vulnerable consumers. Our concern is that the SSP could do more to clearly articulate the policy trade-offs and desired outcomes, as explained below.

Loyalty Penalty

1.3. As the CMA explains, the 'loyalty penalty' estimates are not a measure of the extent to which prices are currently too high overall.[4] Instead, the issue of a 'loyalty penalty' raises concerns around the fairness of differential pricing. A legitimate matter for debate is whether policy should extend beyond achieving equal engagement opportunities, to creating more equal outcomes in markets. But policy and regulatory interventions to achieve more equitable outcomes may have the effect of dampening customer engagement and reducing competition. These trade-offs must be understood and made consciously.

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[2] Ofcom (2018), [Comparing Service Quality 2017, published May 2018]

[3] In particular, the General Conditions of Entitlement which are the regulatory conditions with which all providers of electronic communications networks and services must comply if they want to provide services in the UK.

[4] CMA response para 4.8

1.4. On balance, we believe that the priority should be ensuring all customers are able to effectively engage in the market – through, for example, better data and easy switching mechanisms. This will require specific interventions to support vulnerable customers, as the SSP outlines and we consider below. We would encourage that the SSP is explicit on urging Ofcom to adopt this approach.

Vulnerability

1.5. We already have in place products and services for vulnerable customers developed through insight and dialogue with charities that represent different groups of vulnerable customers. We are also ready to discuss with industry, Ofcom, Citizens Advice and other parties further initiatives to make it easier for vulnerable customers to engage with the market. However, the issue of vulnerability is complex and interventions must reflect this in order to be helpful.

1.6. The types of vulnerability need clear identification, a robust evidence base needs building, and then interventions need to be targeted to the issues identified. In our experience, care needs to be taken in determining whether a customer is vulnerable and, where they are, it should not be assumed that they will wish to be treated in the same way as other vulnerable customers. For instance, a visually-impaired customer may wish for greater measures to improve inclusion. But they may also be highly engaged and would find any reduction (or removal) of the reward for engaging to be undesirable (or unfair).

1.7. It should not, therefore, be assumed that vulnerable people are more likely to be susceptible to the loyalty penalty. Engaged consumers include those that may be vulnerable (e.g. those with low financial means) who could be made worse-off by interventions, with the unintended effect of removing or reducing engagement rewards.

1.8. Ofcom placed new requirements on CPs from October 2018, extending existing requirements (for customers with disabilities) to include customers whose circumstances might at the time make them vulnerable e.g. due to a mental health issue or a bereavement. It is currently monitoring the outcome of those requirements. This should form part of the evidence base that needs to be built and analysed to assess this issue.

Consumer empowerment and smart data

1.9. We support the Government's initiative to better enable customers to engage with the market. Customer purchasing decisions in telecoms are based on a range of factors, for example: broadband speeds and technology (e.g. copper or fibre); what mobile coverage is like at home or work; how many devices they want to connect; or whether or not they can watch the content they love or get the latest mobile handset at an affordable price. Customers also benefit from bundling (e.g. discounts). Put simply, there are a range of existing triggers for customer engagement – much more so in telecoms than in markets where products are more homogenous (such as utilities).

1.10. The SSP highlights the potential of smart data in enabling customers to make comparisons on what matters most to them – price, but also other factors such as data, connectivity, usage additional benefits and quality of service. We are strongly of the view that smart data solutions should be industry-led to encourage innovation – significant progress is already being made. Whilst there is a role for Ofcom and Government to play, we believe that (at least at this stage of the evolution of smart data) it should be limited to a convening role, potentially bringing industry together to agree a standard set of metrics and technical standards which could be used to implement a data portability initiative. This could provide customers with a personalised, portable data profile which could be read on all CP and comparison websites, using common standards, to better inform customer purchasing decisions. This could helpfully be reflected in the SSP.

2 World-Class Digital Infrastructure

2.1. The Future Telecoms Infrastructure Review (FTIR) concluded that the most effective way to deliver nationwide roll-out of FTTP at pace is to promote competition and commercial investment where possible, and to intervene where necessary. For 5G, Government sees the existing model of network competition between multiple mobile network operators as offering strategic advantages. Ofcom is asked to monitor levels of investment and to consider appropriate options if the current market structure is found not to be supporting investment in 5G at sustainable levels.

2.2. It is envisaged, therefore, that the vast majority of the desired outcomes set out in the FTIR will be delivered by commercial organisations who will be making large and risky investments substantially ahead of demand, and ahead of clarity on potential use cases. This, together with uncertainty about deployment costs and on convergence (i.e. whether full fibre and 5G are complementary or substitute technologies), creates significant risks (both market and regulatory).

2.3. The role of Ofcom is critical in the delivery of the Government's connectivity ambitions because scale deployment, in the context of these risks, requires consistent and predictable regulation over a number of years. This is particularly important for full fibre where regulation of Openreach directly affects the investment environment.

2.4. It is important (and appropriate), therefore, for Ofcom to consider its functions and interventions within the context of a long-term strategy for digital infrastructure, and a clear set of strategic priorities set by the Government.

2.5. Viewing connectivity in a converged manner, rather than dealing with fixed and mobile separately, is also key to the UK's success. Customers are, in the main, technology agnostic and are principally concerned with having a fast, reliable and affordable connection rather than precisely how the connectivity is delivered. This is crucial when considering the convergence of full fibre and 5G (as emphasised in the FTIR and the SSP). A converged view of connectivity should also apply when Ofcom, the Government and the industry consider approaches to ensure universal coverage, be it through a Universal Service Obligation, through outside-in full fibre programmes (where we await further details from the Government) or through initiatives to deliver good mobile coverage to 95% of UK geography.

A policy steer is appropriate on matters of judgment with important societal implications

2.6. Ofcom has previously described (in the context of its regulation of fixed access) how it has tried to 'balance' retaining investment incentives with the protection of customers from higher prices.[5] This balancing exercise is a matter of judgment which raises important policy issues, not least the appropriate trade-off between short-term price reduction benefits and longer-term dynamic gains from new investment.

2.7. It is appropriate for the Government to clarify how Ofcom should err in exercising its judgment on a matter like this which has important societal implications. Government makes clear its view that "promoting investment should be prioritised over interventions to further reduce retail prices in the near term". We support this approach.

2.8. The Government is rightly recognising here the impact that regulation of Openreach has on the investment cases of all network providers.[6] If, going forward, Ofcom shifts its strategic focus towards incentivising investment (as it states it will), this will support full fibre investment by all infrastructure providers (not just Openreach), thereby improving customer outcomes through better service quality, lower faults and ease of provision – as well as the wider economic or social value of improved connectivity.

2.9. We also note that actual and prospective competition (facilitated by physical infrastructure access) provides its own protections for customers from higher prices as we transition to new networks.

Government envisages regulatory roll-back where competitive pressures are shaping investment and pricing – this is the right approach

2.10. To create an environment which supports risky investments by commercial providers, investors must see an opportunity to make a fair return and must have greater clarity on whether, and the extent to which, regulation may affect this opportunity.

[5] WLA Statement 2018: "Setting regulated prices where there is the prospect of competition requires a balance between retaining the incentives to invest in new networks (leading to longer-term benefits to consumers such as choice and innovation), and the risk of higher retail prices (with the associated shorter-term harm to consumers)."

[6] At the wholesale layer, cheap access to BT's network makes access takers less inclined to build their own networks or share risks with builders. At the retail layer, lower prices for superfast service makes consumers less likely to take up higher priced ultrafast service

2.11. The Government is right, therefore, to steer Ofcom towards a model which regulates only to the extent necessary to address competition concerns, and not where competitive pressures are shaping investment and pricing. If regulation is rolled-back reflecting these competitive pressures, investors will still face market risk but not (as currently) a combination of uncertainty about market outcomes and regulatory outcomes.

2.12. We agree with the Government that such forbearance is appropriate both where competition exists and where it is prospective. The prospect of competition can – and we would argue does - discipline access terms offered by network providers where markets are more contestable (due to physical infrastructure access) and there are strong buyers able to leverage their buying power. This pressure will be exerted in the commercial negotiation of access terms between network providers and their customers, which Government rightly states may also open up new ways of managing risk.

2.13. The pro-investment benefits of commercial arrangements which share risks and gains (over traditional regulated access arrangements) are widely recognised, including as part of the new European Electronic Communications Code. It is appropriate, therefore, that Government should stress the importance of flexibility in the regulatory model to allow firms to develop new approaches, and that Ofcom should facilitate (or at least not inhibit) such arrangements where appropriate.

2.14. We also see a connection between this strategic priority and switchover which, as Government recognises, will be led by industry but where it is possible that commercial access arrangements will be negotiated to help achieve a smooth transition and excellent customer experience.

Where regulation remains, investors must have confidence that any future interventions will reflect a fair return on investment

2.15. Investors need greater predictability of regulatory outcomes over the extended time scale of full fibre investment, in particular on the application of the ‘fair bet’ principles. The Government stresses the need for clear guidance from Ofcom setting out the approach and information it will use in determining a ‘fair bet’ return.

2.16. We think the fair bet is more than this. It involves an upfront commitment by Ofcom that regulation will not remove the opportunity to earn returns which are the legitimate reward for bearing downside risk. As the risks perceived by investors at project inception are observable, Ofcom should be able to make such a commitment and would still be able to review how risks evolve with subsequent tranches of investment.

2.17. Providing greater certainty upfront on the conditions under which price regulation could take place in future will allow investors to substantially mitigate a major source of uncertainty. This would go a long way to bolster investor confidence, ultimately bringing down the costs of investment not just for BT, but for the industry as a whole.

Transparency of Openreach's build plans is not a live issue – it has already committed to making important progress

2.18. We are unconvinced that the SSP needs to focus on DCMS's intention to work with Openreach and Ofcom on effective measures to achieve greater transparency of Openreach's build plans.

2.19. Openreach has now stated that it is (and will be) as open and transparent as it can be about its build plans (including the locations where Openreach will start building in the next twelve months, and the total number of telephone exchanges that it plans to reach in those locations over the next 24 months, with updates every three months).[7] The details of these plans are for Openreach itself to determine, but as parent company BT does not view this as a live issue in need of regulatory action.

Passive infrastructure access will better support competitive investment if more generally available – but mandated dark fibre should not undermine the role it can play

2.20. Government makes clear that it wants telecoms network competition to be promoted by making it cheaper and easier to build new high-capacity business and residential networks. Effective access to Openreach's network of ducts and poles is seen as a key enabler. BT and Openreach understand this objective and are working with Ofcom (and industry) to achieve an effective and unrestricted access regime.

[7] https://www.homeandbusiness.openreach.co.uk/transparency

2.21. We think that competitive investment in full fibre networks would have the best chance of success if physical infrastructure access is facilitated more generally (rather than limited to Openreach). The Government is right, therefore, to instruct Ofcom to work with other sectoral regulators to remove barriers to passive infrastructure sharing with other utilities.

2.22. This is one area where Government should be encouraging Ofcom to bear in mind the potential for competitive dynamics to change in rapidly moving markets, and to regulate accordingly. For example, the largest existing operator of ultra-fast fixed networks today is not Openreach but Virgin Media, whose network is not currently usable by third parties.

2.23. The Government highlights aspects of the duct and pole regime that it judges to be particularly important, namely the enforcement of access on a non-discriminatory basis. We agree that this is important. Openreach must ensure that it is fully compliant with the regulatory requirements (established as part of the Wholesale Local Access market review) not to unduly discriminate.

2.24. Of equal importance for BT and Openreach, as well as users of the access regime, is that a stable and sustainable pricing regime is established. A full and thorough review is required as part of Ofcom's consolidated market review (due to conclude in 2021). The aim should be the establishment of access terms that will support cost recovery on long-lived assets and which avoid placing a disproportionate burden of cost recovery on Openreach active services in a way that would distort competition in active access services.

2.25. Finally, duct and pole access is likely to underpin more commercial dark fibre offers. Mandating Openreach to offer dark fibre would deter this market-led outcome (as well as rival network build more generally).

2.26. The Government only sees a role for dark fibre where duct and pole access is not available or effective, and where Ofcom can be sure that it will not undermine the case for operators to invest in their own networks. We agree with this position but suggest that the Government should also encourage Ofcom to be cautious in the timing of any dark fibre remedy.

2.27. Duct and pole access (combined with the existing regulation of active products) should operate in the market for a period of time, before regulated dark fibre is considered. This would allow the former to reveal more accurately the viable scope of competition, whilst the latter would protect customers where competition is not viable. This would be more likely to maximise the scope and incentive for competing fibre build by letting the market reveal what is viable rather than relying on Ofcom's estimation (which will inevitably result in some error).

An industry-led switchover process is vital to successful full fibre deployment

2.28. We agree that switchover should feature in the SSP given how important it is to the prompt realisation of the benefits from full fibre.

2.29. A swift transition of consumers to full fibre will help to maximise the opportunity for the UK in terms of productivity growth and increased competitiveness. It will also drive cost savings across the industry and ensure that everyone benefits from the new platform once it is built.

2.30. Switchover will be a complex undertaking and processes will have to be developed jointly between Openreach and its customers, including, for example, an industry-developed process to deal with late adopters. But there is also a role for Ofcom. As the Government points out, Ofcom may have to consider amendments to its regulation of existing copper assets. We note that Openreach also proposes to work with industry and Ofcom to develop a consumer charter that will help to ensure transparent communications with end customers and will protect vulnerable end customers.

3 Delivering Better Mobile Coverage

3.1. There have been significant advances in mobile coverage made over recent years, driven principally by private investment and infrastructure-level competition across all four UK networks[8] and supported by significant commercially-driven network sharing through, and between, two network joint ventures. BT/EE has consistently demonstrated a commitment to improving rural coverage, pursuing a strategy of building the biggest and fastest 4G network, now covering over 84% of the UK's landmass by Ofcom's measure of good coverage. Our decision to invest in rural coverage has delivered a five-percentage-point lead over the next nearest operator and a ten-percentage-point lead over the least advanced operator.[9] Our ability to market to consumers and businesses on the basis of this network leadership remains a key competitive differentiator and an important element of our customer proposition.

3.2. A significant minority of the UK's population and landmass, however, remain without good mobile coverage. We note the Government's commitment to reach 95% geographic coverage and agree that this establishes a useful proxy measure for good coverage wherever people live, work and travel. It will be important that this ambition is more accurately defined. For example, there will be additional costs and trade-offs involved should the Government expect all four operators to provide this level of coverage – this would remove a significant competitive differentiator between networks and be inconsistent with the policy statement in the SSP to continue to foster "a model that maintains the benefits of network competition between multiple mobile network operators". There will also be a question to resolve in due course about how far investment should be directed towards extremely remote rural areas, if that were to mean that other coverage issues (for example on roads and railways) could take longer to resolve.

3.3. We agree that an industry-led solution on rural coverage is preferable and are working closely with the other operators to develop an approach that achieves the shared goal for wider 4G coverage.

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[8] See page 6 of Ofcom's 2018 Connected Nations Report recognises that in 2017, 21% of the UK landmass did not have good outdoor 4G coverage from any operator and this has reduced to 9% in 2018.

[9] According to Ofcom's 2018 Connected Nations Report (see Consultation document Annex 11 Fig. A11.1).

Network competition and commercial solutions should be encouraged to deliver as far as possible, but public funding, in some form, is needed to fully realise coverage ambitions

3.4. Ofcom has proposed two coverage obligations for 90% geographic voice and data coverage outdoors[10] to be associated with 700 MHz and 3.6 GHz spectrum. Applying coverage obligations to spectrum licences is a tried and tested method of funnelling public funding into mobile coverage in the form of foregone auction revenues.[11] We are supportive of a straightforward 90% geographic coverage obligation[12] and have requested that Ofcom removes the unnecessary sub-obligations (500 new macro sites and 140,000 additional premises to be covered), which limit flexibility for operators to innovate in the most cost effective way of delivering coverage unnecessarily and are discriminatory in being easier for the less advanced operators to achieve.

3.5. In addition to Ofcom's proposed coverage obligations, we welcome the four strategic priorities that the Government has identified to help create the conditions for a competitive mobile market that supports investment and innovation in 5G.[13] The first two of these are equally relevant to the continued expansion of 4G, which we comment on in turn below.

Greater support for initiatives that make it easier to extend coverage

3.6. MNOs continue to face significant resistance in rolling out their networks, which increases costs unnecessarily, whether funded privately or publicly. The influence that wider stakeholders play in enabling network deployment should not be underestimated: central government, Ofcom and devolved administrations in establishing the public policy framework and national-level regulations concerning access to land and planning permission; local government and other public bodies in considering planning applications, agreeing terms of access for the use of the public estate and developing local economic strategies; and private landowners and infrastructure providers in their willingness to host mobile sites and/or equipment on appropriate terms.

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[10] At signal level -105dBm, which equates to a very high probability of having coverage.

[11] Specifically, Ofcom is proposing that up to £700m of total subsides could be awarded – £350m for each of the identical obligations.

[12] And note that Ofcom's cost benefit analysis makes the case for a public subsidy being warranted to achieve 90% geographic coverage but not for 92% geographic coverage.

[13] Draft SSP, para. 33.

3.7. There has been some good progress across each of these areas, including that led by the DCMS Barrier Busting Taskforce, the creation of a Digital Infrastructure Toolkit for local authorities, and a number of progressive local authorities demonstrating best practice in supporting the deployment of mobile infrastructure. But there is more to do to create a deployment environment that better reflects the importance and necessity of delivering good digital connectivity to all parts of the country. The following outcomes would significantly enhance coverage deployment more broadly:

- Further planning reform in all parts of the UK, focused on simplifying the framework and increasing investment certainty by making clear that all digital infrastructure is considered as permitted development, and by eradicating unnecessary differentiation between permissions for fixed and mobile-related deployments; and
- All public assets to have access terms that reflect the new Electronic Communications Code, which would have the dual positive effect of expediting roll out and setting helpful precedent for facilitating deployment more broadly.

3.8. It will be vital that Ofcom reflects on enduring infrastructure roll-out challenges as it considers and monitors mobile investment. Our experience is that Ofcom does not tend to see it as their role to support initiatives to reduce deployment risk and cost. However, we believe that it should consider whether adopting a more proactive approach, beyond spectrum management, in this space would help support coverage extension and capacity improvements.

Encouraging operators to remain open for business to support further commercial sharing opportunities across their networks

3.9. Infrastructure sharing on a commercial basis across the mobile sector is already extensive. The two joint ventures (MBNL and CTIL), for example, have enabled better coverage at reduced cost, through significant sharing and utilisation of wholesale infrastructure.

3.10. The opportunities that the new Emergency Services Network (ESN) and Extended Area Service (EAS) deployments have created – in delivering new infrastructure to a large number of previously unserved areas – should also be recognised. EE won a competitive tender process for ESN and has made available all sites it is deploying under the ESN programme to other operators for sharing on commercial terms, and on an equal and non-discriminatory basis. A similar approach has been adopted by the Home Office for those EAS sites it is building directly.

3.11. Further sharing, which will support the erosion of partial not-spots (where only one or some operators are present), would be best encouraged by addressing planning policies that restrict the deployment of suitably tall structures that allow multi-operator deployments. Allowing more operators to deploy on a single site avoids the duplication of physical infrastructure costs.

3.12. In the SSP, the Government requests that Ofcom should maintain the option of requiring roaming when granting licences for spectrum. We understand the desire to retain regulatory flexibility. However, roaming is just one method of implementing sharing agreements, with the market already producing several other commercial sharing arrangements (such as site and equipment sharing) to allow more cost-effective deployments and, ultimately, more choice for customers. Including clauses in new spectrum licences that would allow Ofcom to subsequently mandate national roaming would create significant uncertainty at the time of the auction and beyond. We therefore strongly believe that it is ill-advised for Government to encourage Ofcom to pursue this specific option, given these evident risks.

3.13. The further effect of mandating national roaming would be to remove the incentives for operators to differentiate their networks. Differentiated networks provide more choice for consumers and enhance healthy competitive tension between operators – a tension which has so far been the main driver of 4G coverage expansion. Mandating national roaming would distort this competition and lower incentives for operators to invest in order to differentiate their services in the future.[14] There would appear to be little incentive, for example, for operators to expedite 5G coverage roll out if access to other operators was subsequently mandated on regulated terms. The distortive effects of mandated national roaming could therefore be significant, both in terms of restricting geographic coverage and hindering technological advancement. We agree with Ofcom's conclusion[15] that roaming arrangements should be entered into on a voluntary basis.

3.14. BT/EE is happy to discuss potential commercial terms with any operator seeking to use roaming to improve its UK coverage. Indeed, BT/EE established a 2G roaming relationship with H3G, which has played a role in allowing H3G to meet its existing obligation to provide 90% geographic voice coverage. Given the market is successfully producing sharing agreements of various technical forms, these market-driven solutions might be monitored in the first instance, with intervention only considered if they fail to deliver and where the benefits of intervening are greater than the costs.

[14] We note that other authorities have reached the same conclusion. See, for example, the Australian Competition and Consumer Commission Domestic mobile roaming declaration inquiry (October 2017).
[15] Paragraph A17.28 of Ofcom's consultation.

4 Ensuring Effective Spectrum Management

Annual licence fees for mobile spectrum

4.1. The draft Statement of Strategic Priorities notes under the heading 'Spectrum Management':

"Spectrum is a valuable national asset and the Government wants to maximise the economic and social value for the UK from its use. The Government's key objectives in relation to spectrum are: ensuring the efficient use of spectrum (including preventing under-utilisation of spectrum); improving mobile coverage to meet current demands; encouraging innovation and investment in new 5G services to meet future demands; and promoting competition in mobile markets."

4.2. However, it is silent on a key policy point – the application of Annual Licence Fees (ALFs) on key mobile spectrum bands. Following Ofcom's Statement in December 2018, the Government now takes almost £200m per year from the four MNOs in ALFs for the 900 and 1800 MHz bands and, with fees to come in 2022 for 2100 MHz, this is set to increase.

4.3. Ofcom sets these fees to reflect full market value based on the Government Direction to Ofcom in 2010.[16] Yet this Direction goes against the grain of the relevant legislation[17] and removes an important degree of flexibility for Ofcom in meeting the Government's key objectives.

4.4. It is clear that ALFs on mobile spectrum are not necessary to ensure the efficient use of spectrum, but that they do create a potential barrier to investment in mobile coverage and new 5G services.[18] On this latter point, the National Infrastructure Commission has stated: "spectrum auction fees – often hundreds of millions of pounds – and ongoing annual license fees are another cost which makes business cases more of a challenge for operators and investors faced with uncertain decisions such as rolling out infrastructure for new technology markets".[19]

4.5. If the Government effectively taxes the mobile industry on a key input that it cannot do without, there will be fewer funds to invest in productive coverage and service improvements.

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[16] https://www.legislation.gov.uk/uksi/2010/3024/pdfs/uksi_20103024_en.pdf

[17] Communications Act 2003 Section 3(4), EU and EU Framework Directive Article 8 (in association with EU Authorisation Directive Article 13).

[18] This argument is set out in detail in a report by the economist Brian Williamson of Communications Chambers, which is available here: https://tinyurl.com/y565erow

[19] NIC, Connected Future, March 2016. Paragraph 3.62.

4.6. The capacity demand on mobile networks has been, is and will continue growing rapidly.[20] Mobile operators face a cost in providing for this increasing demand either through densifying their networks with more sites, the purchase of additional spectrum in future Ofcom auctions and/or the upgrade of networks to more efficient radio access technologies (4G and 5G) that deliver more capacity from each MHz. Because of the cost of the alternative ways in which MNOs could provide this capacity, MNOs already have a strong incentive to use their existing spectrum efficiently.

4.7. At the same time, administrative spectrum fees reduce free cash flow, with a potential impact on investment.

4.8. We would therefore encourage the Government to clarify that the SSP, in making clear its desired outcomes with respect to spectrum management, takes effect in place of the Government Direction from 2010 – which is no longer required. We suggest that DCMS should mandate Ofcom to review and update its spectrum pricing framework with the objective of promoting investment, recognising that imposing unnecessary costs on the industry will have a potential impact in terms of coverage expansion and 5G deployment.

Spectrum sharing, trading, leasing and pooling

4.9. The SSP notes that preventing under-utilisation of spectrum can be a means to ensure efficient use, it should not be a goal in itself. This is an important clarification. It is also important not to assume that more users in a given band is more efficient. Spectrum is predominantly scarce in urban areas, and there is a need to ensure allocations are efficient in these areas. Where spectrum is mostly efficiently structured into national licences, which tends to be the case for mobile spectrum, it is important that licences are awarded at a national level.[21] In rural locations, it is not necessary to deploy the same amount of spectrum for capacity demand as in urban areas, and so the pattern is of lower-intensity use. At the same time, the deployment economics are less favourable (high costs and low revenues).

[20] At a rate of 46% p.a. See A6.7 of Annex 6 to Ofcom's consultation on 700MHz and 3.6-3.8GHz award https://www.ofcom.org.uk/__data/assets/pdf_file/0021/130737/Annexes-5-18-supporting-information.pdf

[21] We note that where regional licences were in the past awarded (e.g. 3.4GHz and 28GHz), the market mechanism eventually evolved these to national licences. Also, the market mechanism demonstrated via the 2013 auction that, at least under those auction rules, exclusive national licences for 2.6GHz had higher value to bidders than several shared low power national licences.

4.10. We are very supportive of market-based mechanisms to promote efficient spectrum use and we believe the SSP could usefully state as a general policy goal that Ofcom should focus on market-based tools. We do not understand the policy statement in the draft SSP that Government wants to see "greater liquidity in the spectrum market". Trades are a means to an end, namely to get spectrum in the hands of the most efficient users, and in our view greater market liquidity should not be a policy goal in and of itself.[22] Equally, we do not understand the Government's request for Ofcom to clarify in the guidance notes to the Mobile Spectrum Trading regulations that leasing and pooling are not prohibited. Leasing is prohibited in mobile spectrum licences and pooling should be considered as a form of trade, which can be considered under the Mobile Spectrum Regulations. This is to ensure that spectrum leasing and pooling do not become instruments to circumvent the ex-ante competition assessments associated with outright transfers in the Mobile Spectrum Trading Regulations.

4.11. Although we think Ofcom's current proposals are too prescriptive, we are willing to explore the best way to facilitate potential shared use of spectrum assigned to MNOs beyond what is already permitted by existing regulations. We think it will be important to do this in a way that provides sufficient flexibility for a range of different arrangements to be agreed between existing licensees and incoming sharers.

[22] There have been a number of value-enhancing trades of mobile spectrum; for example, recently Vodafone and O2 swapped several 900 MHz allocations to create wider contiguous allocations that are much more valuable to them for the deployment of 4G and 5G. Likewise, Qualcomm sold its 1.4 GHz spectrum to Vodafone and Three in 2015. It may appear that there are fewer secondary trades of mobile spectrum than other licence classes; however, this is predictable given the enormous effort Ofcom puts into its design of primary awards (auctions) to achieve the most efficient outcome.

5 Secure and Resilient Telecommunications Infrastructure

5.1. The security and resilience of our networks is of paramount importance and we have long-standing policies to mitigate risk from third-party suppliers. The availability and integrity of our network and the confidentiality of the data we process is at the heart of our ability to serve our customers – cyber security is therefore a top priority for BT. We welcome the strengthening of Ofcom's capability to support these efforts.

5.2. BT has invested significantly in developing world-leading capabilities to combat cyber threats; developed a long-standing partnership with the National Cyber Security Centre (NCSC) focused on improving the resilience of the UK's telecommunications infrastructure; established clear and consistent network architecture policies to minimise any risk; and have strong governance arrangements in place, with BT's Security Council providing Executive-level oversight of all cyber security issues, including the use of all vendors in the network.

5.3. We own and operate critical national infrastructure and so we see it as vital to work in lock-step with the NCSC on our vendor deployment, sharing full visibility of major procurement decisions. We have established a comprehensive risk mitigation programme, in-line with their guidance and strategy.

5.4. We have also welcomed the Government's ongoing Supply Chain Review. We remain confident that our network architecture policies, together with our multi-vendor strategy and our strong partnership working with the Government and Ofcom, enable us to strike the right balance between continuing to have access to the best technology globally for the benefit of our customers and mitigating any risk that any specific vendors may pose.

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