Vodafone response to Ofcom's Proposal for Comment

Strengthening Openreach's Independence

4 October 2016

NON-CONFIDENTIAL

Executive Summary

Functional Separation has failed to achieve effective competition. The fixed telecommunications market in the UK exhibits important and persisting competition problems and market failures

It may be considered by many overly harsh to declare functional separation a 'failure'. But the truth, as recognised by Ofcom,[1] is that while functional separation and the 'equivalence of inputs' regulatory model has had some success in preventing the most egregious forms of price and non-price discrimination as regards access to already existing infrastructure it does not address the key problems faced by the UK fixed telecoms market today.

While discriminatory behaviour in relation to access to existing assets was the challenge facing Ofcom at the time of its original Telecoms Strategic Review more than 10 years ago, when it was seeking to encourage greater and more innovative use of copper loops, Ofcom itself acknowledges that the challenge today is different. Now the problem is how to prevent BT from continuing to make strategic decisions about how it operates or upgrades the UK's largest fixed network and, even more importantly, the way it chooses its future investments in order to restrict or distort competition for its own downstream benefit. Ofcom has found clear evidence that, today, it does just that.[2]

Unless real Openreach independence can be guaranteed by putting in place an enhanced legal separation model, then Ofcom must immediately move to impose full structural separation[3] as the only means of addressing these persisting competition problems and market failures. The 100,000 plus individual customers who have written directly to Ofcom to express their frustration with the current lack of choice, investment and innovation in a UK fixed market dominated by Openreach cannot afford to wait any longer.

Making communications work for everyone

The benefits to the UK industry of an independent Openreach; a trusted partner focussed on funding, building and operating a best-in-class network for the benefit of all of its customers, not just the downstream arms of BT are enormous.

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[1] See Initial Conclusions at 1.39 *"We are concerned that the current model of 'functional separation has failed sufficiently to remove the incentive and ability to discriminate against competing providers."*
[2] See Proposal for Comment at 3.12 to 3.31
[3] Notwithstanding Ofcom's existing powers under the 'exceptional measures' provisions of the Access Directive and its power to order a Market Investigation Reference under the Enterprise Act 2002, the current passage of the Digital Economy Bill may be an appropriate opportunity to introduce a simpler divestment power modelled upon that of the Payment Systems Regulator. This is set out in more detail in Annex B.

- Other countries which have focussed on supporting passive access and co-investment have managed to pass the majority of their premises with fibre within 5-10 years. In contrast, the UK has achieved less than 2% of homes passed in the 7 years since its FTTP deployment began.
- EU analysis suggests that the speed and quality increase associated with an all-FTTP network would result in GDP levels 2% higher than the status quo by 2025.[4]
- Competitors in Europe and elsewhere in the world are rapidly deploying future-proof networks. Ofcom has recognised that the UK *"compares poorly with the majority of our peers"*[5] in rolling out FTTP.

Ofcom has set out clear evidence[6] demonstrating why structural reform is urgently required. It finds:

- Openreach does not adequately consult its external customers;
- Openreach's decisions are stifling innovation;
- BT Group has excessive influence over Openreach's strategic decisions.

Achieving a truly independent Openreach

Ofcom has rightly set an objective of these reforms that: *"Openreach should behave like, and be seen to behave like, an independent company."*[7] Ofcom expects a more responsive Openreach to deliver two clear sets of benefits:[8]

- A more competitive market ensuring people and businesses have a wider choice of services from different providers; and
- Continued investment in new networks and services with investment decisions taken in the interest of all Openreach's customers making new models of investment more likely including models which share risk across a broader base of customers.

Vodafone strongly supports these goals. We believe that a step change in the deployment of fibre networks is needed to support future fixed and mobile data growth, cloud-based services and the Internet of Things and unless fundamental action is taken, there is a real danger of the UK falling even further behind.

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[4] ECC Impact Assessment (Part 1) 14.09.16 at p. 77. The EC document goes on to note an increase of 0.76% over the status quo in a more realistic scenario in which 62% of broadband connections are based on FTTP/B by 2025.
[5] Initial Conclusions at 4.2 and Figure 7
[6] Proposal for Comment at 3.12 to 3.31
[7] Initial Conclusions at 1.43
[8] Proposal for Comment at 1.7

In the absence of any detailed public plans, Vodafone has asked the industry analysts, Point Topic to predict where BT Group will direct Openreach to deploy G.Fast. Their analysis finds that of the 12 million premises promised ultrafast by BT by 2020[9] only 1.8 million (15%) are incremental to cable's footprint.[10] Overwhelmingly, under BT's plan, those who already have access to a form of ultrafast broadband will get one more provider. Those who don't will get nothing.

Thus, the UK is facing a fundamental choice between, at best, an entrenched G.Fast and cable duopoly over much of the country, or taking the necessary steps now to deliver Ofcom's goal of three or more competing ultrafast networks across the country[11] with the accompanying benefits of consumer choice, innovation and deeper competition. Throughout this debate, Vodafone has put forward a number of options to achieve Ofcom's goal:

First and most cleanly, Openreach could be structurally separated from the rest of BT. With an independent board and separate shareholders which, given the different investments characteristics of Openreach from the rest of BT, would be likely to increasingly diverge over time, Openreach would clearly be and behave like an independent company focussed upon the needs of all its customers.

Second, Openreach could be legally, strategically and operationally separate from the rest of BT but remain under its ownership. To meet the objective of 'behaving like an independent company' this option requires very significant financial and strategic independence including the ability to set its own budget, raise third party finance and completely control its own people and assets. Vodafone's view of the minimum required for legal separation to meet this goal was set out in the '10 Point Plan' submitted to Ofcom in May 2016.

Third, if Ofcom considers that there is an irreconcilable tension between the need for Openreach independence and the necessary oversight required by BT Group for good corporate governance and the discharge of the fiduciary duties of BT Group's directors (which, for the avoidance of doubt, Vodafone does not accept) we suggest an alternative approach to achieve the necessary level of Openreach independence. This consists of:

[9] http://www.btplc.com/news/index.htm#/pressreleases/bt-to-invest-billions-more-on-fibre-4g-and-customer-service-1394948
[10] Also measured as at 2020.
[11] See Proposal for Comment at 2.3. In fact, for full competition to emerge, what is important is the emergence of 3 or more network providers each with the ability to wholesale capacity rather than 3 or more physical networks as such. IRUs would meet this requirement and it is analogous to the mobile market with 4 network providers but, broadly, two infrastructure providers.

- Ofcom's current proposals on Openreach legal separation including incorporation, board-to-board oversight and Openreach's full control over its budget and the necessary assets and people for it to run its business; and
- New obligations which, in the absence of an alternative commercial agreement, oblige Openreach:
    - To offer fractional indefeasible rights of use[12] ("IRU's") on any new FTTP build it undertakes if partners are willing to make an appropriate up-front contribution to build costs and ongoing opex[13]; and
    - To properly consider and give detailed reasons if it rejects a co-investment offer in favour of its own self-build plans. Such reasons must be based upon Openreach-specific considerations rather than solely upon the impact of such a plan upon one of Openreach's downstream customers (BT) as against its other customers.

The first of these obligations would make it far more likely that, in 40% or more of the UK, real network competition will emerge. There are well-developed examples of such regulatory regimes working effectively in other countries such as France and Switzerland which have successfully deployed millions of fibre lines via such approaches and the European Commission has recently outlined proposals to give even greater regulatory support for such regimes.

The second obligation would consist of specific duties imposed upon the Openreach Board through the Articles of Association, to support efficient investment with particular regard to co-investment, to ensure that the Openreach Executive had properly considered all investment options and to give detailed reasons for its decisions.

This would not compel Openreach to co-invest but would dis-incentivise it from regulatory gaming or simply 'going through the motions' in its confidential consultations with customers and partners which is a major weakness of Ofcom's current proposals.[14] Instead of a vaguely worded 'obligation to consult' which will be impossible to enforce, Openreach would know that it cannot reject credible offers of co-investment outright.[15]

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[12] Essentially, a long-term (25 years or more) lease of 'dark fibre' with a financial structure mirroring asset ownership and investment. The French system, for instance, requires IRUs in 5% increments of the relevant fibre build.
[13] Vodafone notes that this may require a new SMP obligation to be imposed upon BT as part of the upcoming Wholesale Local Access market review.
[14] See Proposal for Comment at 4.35-4.37
[15] This could be backed up by Ofcom guidance on what it would expect to see covered in a "credible" co-investment offer enforced, if necessary by its existing dispute resolution powers which cover all forms of 'Network Access' disputes between Communications Providers.

Such rules would only apply in the absence of an alternative commercial agreement between Openreach and any co-investing or co-building partner. This allows a more independent Openreach and its partners the commercial flexibility to adapt to different commercial models. For its part, Vodafone has adopted different approaches to investing in fibre in various European markets from a wholesale-only joint-venture (Ireland) to co-investment peering (Spain and Portugal) or even 'anchor tenant' arrangements (Italy). Ofcom should allow for the same flexibility here.

This approach would allow commercial arrangements to evolve over time and take account of any UK specific issues. Such rules would, therefore, reinforce rather than replace Ofcom's other proposals to ensure Openreach is and is seen to be acting truly independently.

Vodafone strongly supports Ofcom's overall goals in the Strategic Review of Digital Communications and believes that ensuring real Openreach independence is vital if they are to be delivered. BT's current proposals are actually a retrograde step which undermine the principle of equivalence and give BT Group undue and unnecessary control over Openreach's decision-making. They must be firmly rejected.

1. Introduction

Ofcom's Strategic Review of Digital Communications has been ongoing for over 18 months. Ofcom has identified BT's current incentive and ability to discriminate through the way strategic decisions are made about new investment by Openreach as a key element problem affecting the market, and therefore addressing it, a key goal of its overall Strategic Review.

Fundamental, structural and irreversible increase in Openreach's independence from the rest of BT is required and the outcome, if successful, will be a more competitive market, new models of investment[16] and, ultimately, a more balanced UK telecom's industry no longer dominated by Openreach's relationship with its access seekers. Instead *"the UK will move towards a fibre future with widespread availability of competing networks including new networks that take fibre all the way to the home or business."*[17]

Competitor countries in Europe and around the world are already far ahead of us in terms of rolling out future-proof high quality fibre networks and given the major economic and social benefits which will accrue to those countries which do the best job of managing the transition to fibre, we strongly support Ofcom's call for a 'step-change.'[18] It is important to keep this outcome in mind when considering the costs and benefits of significantly increased Openreach independence.

There are some who will no doubt argue that a fully independent Openreach would make the same investment decisions as the BT-controlled Openreach has made to date. We do not accept this view. An independent Openreach would:

- Need to set out a clear technology strategy and vision to serve the needs of all of its customers, potentially taking a longer-term view, as this would be the sole value of its franchise;
- Improve its responsiveness to its customers or face an existential threat in overbuild;
- Find it more difficult to game the regulatory system whether via shifting costs between regulated and unregulated activities, delaying DPA or otherwise; and
- Be more open to risk and capital cost sharing opportunities with all its downstream customers and be a more trusted investment partner for them.

In any event, this is the wrong way to consider the problem. Greater independence of Openreach is clearly necessary for there to be any chance of these positive outcomes emerging. Put another way, if Openreach remains, as today, directed in all of its key strategic

[16] Proposal for Comment at 1.7
[17] Proposal for Comment at 1.2
[18] Proposal for Comment at 1.14

decisions by BT Group, we can be certain that Ofcom's ambition for *"full competition from three or more network for around 40% of premises"* will not be delivered.[19] Openreach's independence alone may not be sufficient to deliver this vision (we propose additional steps to address the key business risks of non-incumbent FTTP deployment in Section 5) but it is absolutely necessary to do so.

We must recognise that Openreach producing 'better board minutes'[20] more transparently rejecting fibre build cases or credible co-build, co-investment or risk-sharing proposals for new network build will not deliver the necessary step-change Ofcom is seeking.[21] Ofcom noted:

> *"the underlying incentive for BT to discriminate against its competitors remains... we concluded, in February that BT can act on this incentive through the way strategic decision are made about new investment by Openreach...*
>
> - *BT Group has retained control over Openreach's strategic decision-making. This includes decisions about the budget that is spent on parts of the network used by competitors.*
> - *BT does not consult sufficiently with all Openreach customers on new investments in the network;*
> - *Openreach's governance lacks independence from BT Group; and*
> - *Openreach does not have its own capability, independent of BT, in areas such as research and development.*
>
> *We also concluded that a step change is required in the outcomes delivered to consumers and businesses. Our ambition for the future is that more homes and offices receive 'fibre to the premises' (FTTP). This technology, which offers average broadband speeds many times higher than those of today, is currently available to just 2% of premises in the UK, compared to 60% and higher in world-leading countries.*[22]

Ofcom's overall strategy sets out very clearly the ultimate purpose of its interventions[23]:

'We set out a ten year vision for ensuring the quality and availability of communications services in the UK. This means that:

[19] Proposal for Comment at 2.3
[20] See1.46 of the Proposal for Comment but Ofcom recognises immediately thereafter that increased transparency is not an end goal itself in 1.47.
[21] Ofcom admits at 1.49 and 1.50 this will, at best, lead to 'monitoring reports' and 'a more detailed review' where the issue of legal vs. structural separation is addressed again.
[22] Proposal for Comment at 1.14
[23] Proposal for Comment at 1.2

- *Everyone in the UK will enjoy fast, reliable broadband services. Most consumers and businesses will move from 'superfast' to 'ultrafast' broadband, and the latest mobile phone technologies will be rolled out across the UK's geography;*
- *The UK will move towards a fibre future, with widespread availability of competing networks, including new networks that take fibre all the way to the home or business. As consumers and businesses enjoy greater choice, competition will drive both innovation and affordable prices…*
- *The UK will be a world leader in the availability and capability of its digital networks.*

These statements, which Vodafone strongly supports, sit very uncomfortably with a rather more pedestrian objective of 'greater transparency' over Openreach's decision-making which, at times, Ofcom appears to set as the end-purpose of these particular reforms. It states

> *"The most direct measure of success will be whether Openreach Board decisions are taken in an independent manner, without undue influence from BT Group. The increased transparency resulting from the new governance processes will be one of the most important aspects of this assessment."*[24]

It is vital not to fall into this trap. Immediately after making this statement, Ofcom itself recognises increased transparency is not enough on its own. Rather, it is a by-product of improved governance which is aimed at more far-ranging and consumer-impacting outcomes. Namely:

"…these are the ultimate goal of our intervention. They include:

- *Effective retail competition, so that people and businesses have a choice of services from different providers, with quality and pricing that meets their needs*
- *Further innovation by all retail providers using Openreach's network; and*
- *Improved investment outcomes arising from new potential models of investment, such as co-investment and risk sharing."*[25]

Unless it grasps this opportunity now, Ofcom will have spent the last 18 months achieving, at best, greater transparency over something we already know- that Openreach takes its network investment decisions solely for the benefit of the rest of BT. This will, as Ofcom already notes, lead to nothing more than 'periodic monitoring reports' every six months and then annually and then, when these half-formed reforms are shown not to be delivering, it will lead to 'a more detailed review' where the issue of legal versus structural separation will

[24] Proposal for Comment at 1.46.
[25] Proposal for Comment at 1.47.

need to be addressed again.[26] We do not believe that UK consumers or the telecommunications industry can afford to wait.

The rest of this document sets out our evidence and reasoning:

Section 2 describes the relationship between Openreach and rest of industry today;

Section 3 describes the need for high quality fibre networks;

Section 4 sets out the need for intervention in order to achieve the goals of Ofcom's Strategic Review of Digital Communications;

Section 5 assesses the effectiveness of Ofcom's legal separation proposal in delivering its ultimate objectives.

Annex A sets out a detailed analysis of BT's Voluntary Offer of 18 July 2016;

Annex B proposes a new, simpler, disposal power for Ofcom modelled upon that of the Payment Services Regulator;

Annex C is the Confidential FTI Consulting report "The economics of fibre – Assessing the impact of incumbency advantages";

Annex D is the Confidential Mercer report "Ofcom Proposals for the Legal Separation of Openreach from BT plc: Pensions report"

[26] Proposal for Comment at 1.49 and 1.50.

2. The current situation in UK fixed market

Openreach feels no need to consult its external customers

Ofcom finds that BT did no consultation at all with its external customers on its strategic choice of investing in ultra-fast broadband.[27] When BT set out its intent to invest in FTTC, it actively sought changes to the Undertakings to allow it to run electronics in Openreach and to use its Sub-Loop Unbundling product on a non-EoI basis. As a result it started competing with its then current customers by extending its market strength from network access into broadband services. It is worth pausing to reflect upon just what startling developments these are.

In what normal commercial relationship would a supplier embark upon a £3bn[28] capital expenditure programme or the currently proposed G.Fast upgrade, making far-reaching decisions over its choice of long-lived assets with no discussion or consultation with its external customers and potential partners? More importantly, what does this tell us about the current relationship between Openreach and its customers? It is a 'you will take what we give you' relationship, where BT controls the technology and development choices of the entire market.

For another example, see the tone of Openreach's Charter which baldly states: *"We will work to provide the speed people need"* There is absolutely no clarity on how Openreach came to its decision on what 'speed people need'. Was this based upon a BT Retail view of end-user requirements? What range of future demand was considered? Is this the speed customers need today, in the next 3 years, 5 years, or longer?

What is clear is that none of Openreach's external customers were consulted in making this decision. Openreach describes as a 'future plan' that:

> *"We will consult with our communications provider customers on offering increased end customer contact with Openreach, as well as the opportunity to input to service and product developments, through a customer panel."*[29]

[27] See Proposal for Comment at 3.27
[28] We had understood BT's claimed investment in FTTC was £2.5bn but note that £3bn is the figure now being quoted by BT See www.btplc.com/ukdigitalfuture
[29]http://www.btplc.com/Sharesandperformance/Presentations/Presentations/keycompanyannouncements/downloads/OpenreachCharter.pdf

There are numerous other examples of this 'unresponsive' supplier behaviour continuing today.

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Differentiation has vanished for those companies reliant upon Openreach infrastructure

As a result of BT's control over the relevant wholesale products, the UK broadband market has become focussed upon an undifferentiated 'me too' competition based upon introductory discounts, balanced by ever-increasing line rental charges and call charges hidden in the small print. While Vodafone has recently sought to shake up this model by abolishing line rental[30] the fact remains that BT controls all the key attributes of the product including speed, backhaul contention and, of course, service quality. It trumpets the fact that over 500 companies now sell the Openreach FTTC product up from 300[31] but does not acknowledge the fact they are all just selling fundamentally the same BT product with no means to differentiate in the market. Openreach's service crises are their service crises, its failed engineer visits are theirs and its long lead times for delivery are theirs as well. Compare this against the true service and quality differentiation and deeper competition which can be achieved when operators control their own networks.[32]

BT Group retains considerable real and perceived influence over Openreach decisions

Ofcom states:

> *"We need a set of arrangements that are more likely to ensure Openreach makes strategic investment and operational decisions that reflect the needs and interests of the whole market, rather than just those of BT Group."*[33]

Vodafone agrees.

Ofcom sets out a number of the reporting line and governance issues operating today which plainly demonstrate that Openreach is not and is not seen to be independent of the rest of the BT Group. These include:

- BT Group CEO appoints the Openreach CEO and has a direct reporting line;

[30] http://mediacentre.vodafone.co.uk/pressrelease/vodafone-uk-abolishes-home-broadband-line-rental-charges-nationwide-industry-first/
[31] http://www.btplc.com/Sharesandperformance/Presentations/Presentations/keycompanyannouncements/downloads/OpenreachCharter.pdf
[32] See Vodafone's original response to the Strategic Review in October 2015 especially Annex 4 detailing its experience in Spain and Portugal.
[33] Proposal for Comment at 3.16

- BT Group CEO reviews the Openreach Annual Operating Plan before it is submitted to the BT Group Board;
- Openreach has a £75m limit on any investment above which it needs to seek BT Group Board approval;
- The Technology Committee sets overall BT technology strategy including for Openreach without membership or an independent view from the Openreach CEO.

As discussed further in Annex A none of these concerns are addressed, adequately or at all, by BT's Governance Proposal. This 'tinkering around the edges' cannot address such deep and structural issues.

Trust between Openreach and its customers has broken down

"Functional separation has been hugely successful. Why would you stop something that is successful? And in practice who is going to buy [a structurally separate Openreach]?"- Sir Mike Rake reported in Financial Times 12 January 2016 "Opportunity calls for the expanded BT"

Vodafone utterly rejects this characterisation of the 'success' of the current regulatory rules as put forward by BT's Chairman.

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As noted above, Ofcom has set what we consider to be the correct test for these reforms, namely, that Openreach:

- behave[s] like an independent company; and
- [is] seen to behave like an independent company.[34]

The second of these objectives might seem, at first glance, a less important afterthought. But it is not. If we are truly going to deliver a fundamental change to the UK telecoms environment as Ofcom has set out, it is vital that Openreach becomes a trusted partner of all of its customers. It is vital that its commitment to a new level of transparency is demonstrated and that it is seen to be delivering for the benefit of all its downstream customers. Rebuilding trust requires rather more than opaque processes and assurances from BT Group that *"we will be a trusted partner for CPs, continuing to guarantee fair and equal treatment for all."*[35] The simple fact is that this trust does not exist today and BT's rather underwhelming proposal for some cosmetic changes to internal governance do nothing to address Vodafone's underlying concern.

[34] Initial Conclusions at 1.43
[35] https://www.btplc.com/Sharesandperformance/Presentations/Presentations/lobpresentations/downloads/SeanWilliamsDecember2015.pdf

From Vodafone's perspective we have seen:

- Extremely high profitability across BT's SMP services. In the past 10 years (to April 2015) we calculate BT made c. £18.9bn profit from regulated services and of this £6.5bn was over and above its determined cost of capital.

- Approximately £250m of costs misattributed to regulated services in a single year. If BT's costs were reduced to reflect this misattribution, it would further increase BT's return on capital employed from 17% to 19% in 2013/14.

- Despite earning such enormous returns, Openreach has been unable or unwilling to address a multi-year Ethernet service crisis where its fault rates and delivery have deteriorated significantly. There is clear customer evidence that industry-wide service failures benefit BT as the perceived 'safe harbour' supplier.

We would surmise that all of these activities (and many others which never come to light due to information asymmetry) amount to ever more aggressive regulatory gaming to the ultimate commercial benefit of BT.

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There is little prospect of effective and sustainable infrastructure-based competition within a reasonable time-frame

It may feel defeatist to conclude that with the existing market regulation and structure there is little prospect of effective and sustainable infrastructure-based competition within a reasonable time-frame. However these are the facts:

- A cable / G.Fast duopoly, even if that duopoly extends from 50% to 65% of the population it is still a duopoly, not 'effective and sustainable infrastructure-based competition'. Ofcom states that *'a good long-term outcome would be to achieve full competition between three or more networks for around 40% of premises…'*[36] We agree and note that while 40% might be a good 'sighting shot', from our experience in other markets, lessons learned in deployment often make it possible to go further than what is first considered economic;[37] and
- Small scale build by independent FTTP providers such as Cityfibre, Gigaclear and Hyperoptic are to be applauded but will not deliver a 'step change' in competition or UK FTTP deployment within a reasonable time-frame.

[36] Proposal for Comment at 2.3
[37] Vodafone Portugal started with an FTTP roll out of only 200k premises. This has now grown to over 2m HH passed.

In relation to the first point, Ofcom has been clear *"more investment is needed to enable a step change in the speeds and technology available to consumers. Such a change will keep the UK at the forefront of digital connectivity globally"*[38] and this new investment is explicitly in addition to the currently planned investments of Virgin and BT's copper upgrade plan.[39] This is important because only by increasing the number of network providers to at least 3 in a particular geography will real infrastructure competition emerge allowing Ofcom to deregulate in those areas.[40]

As detailed further in Section 3 below, BT and Virgin's 'pick up your shovel' rhetoric must be firmly rejected. They both know full well that there is no fit for purpose duct and pole access regime in place today and even if there were, the business case for cable infill as the first ultrafast operator in an area (with the possibility of a BT response) is very different from that of a third or later ultrafast network into a properly competitive market.

As for relying upon small scale and patchwork FTTP build, Credit Suisse estimates[41] that ex-Openreach all of these other providers (Cityfibre, Gigaclear, Hyperoptic, B4RN etc) will pass a maximum of 1.3m premises by 2021 (2.5m including Openreach). This would give the UK a maximum of 9.5% premises passed by FTTP in 13 years after it started being deployed. But see Credit Suisse's analysis of "Years taken to reach current FTTH coverage" below. Over 5-6 years countries like Spain and Portugal have achieved upwards of 70-80% coverage with 95% coverage expected by 2020. The UK will still be fighting with Germany for the FTTP wooden spoon.

If an objective of this Strategic Review is to make the UK industry less dependent upon Openreach in the future, this can hardly be said to have been achieved if less than 5% of homes are passed by a non-Openreach FTTP provider.

[38] Initial Conclusions at 1.8

[39] Initial Conclusions at 1.22 *"Investment in new fibre networks will create an alternative means of delivering world-class connections to people and businesses in addition to the innovations in copper-based technologies currently being planned by BT, and advanced improvements to Virgin Media's cable network."*

[40] Initial Conclusions at 1.29

[41] Credit Suisse Building the gigabit society 07.09.16

3. A vision for the future with an independent Openreach at its heart

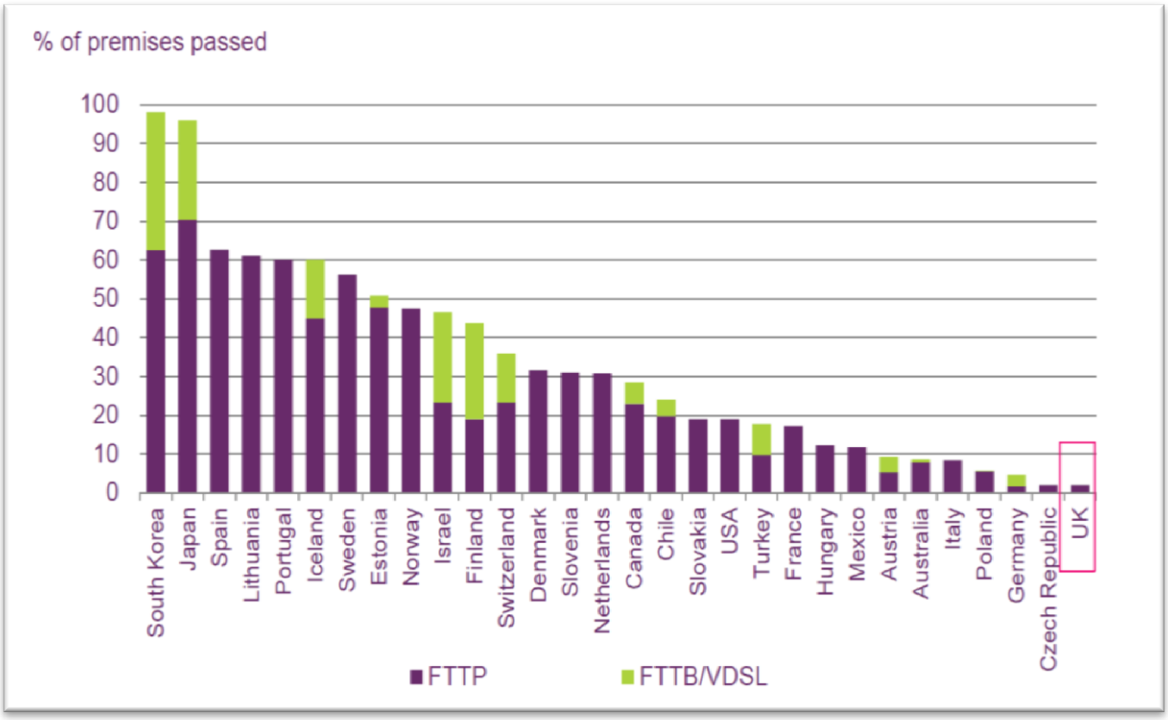
Europe is moving forward with wide-spread fibre deployment - there is a real risk of the UK being left behind

As described above, increased Openreach independence has a vital role to play in delivering Ofcom's joint benefits of a more competitive market and investment in new networks and services including new models of investment that share risk across a broader base of customers.[42]

There can be no question that there is a need to act. The gap between UK FTTP deployment and that in other European countries is startling.[43] Average FTTP coverage is already at 25% across Western Europe while the UK is below 2%.[44] Ofcom noted just how poorly the UK fares against world-leading countries in its Initial Conclusions and more up-to-date analysis shows the gap is growing even larger with over 80% of homes in Sweden and Spain now passed by fibre. In Portugal the figure is now over 60% and in Norway and Denmark it is over 50%.[45] Portugal and Spain are now expected to get to 95% FTTP coverage by 2020.[46]

In contrast, BT has made no firm commitments. It is instead *"working up proposals that would increase the proportion of broadband coverage served via FTTP, with the prospect of two million premises passed by 2020"*[47] Its ambition therefore is to reach less than 10% of UK premises in the next 4 years- a level roughly equivalent to that currently occupied by Italy. This is hardly the 'step change' in fibre deployment which Ofcom says the UK needs. Looked at another way, if none of the UK's comparator countries deploy any more FTTP over the next 4 years, BT's ambition is to move the UK from last to 4th last on the chart below.

[42] Proposal for Comment at 1.7
[43] *Making communications work for everyone: Initial conclusions from the Strategic Review of Digital Communications*, 2016 figure 7.
[44] Credit Suisse Building the gigabit society 07.09.16
[45] See Credit Suisse Building the Gigabit Society 07.09.16
[46] Impact Assessment (Part 1) Accompanying A Directive of the European Parliament and of the Council establishing an Electronic Communications Code ("ECC Impact Assessment") of 14.09.16 p. 78
[47] With, of course, the thinly-veiled threat that these plans require ongoing 'regulatory support'. See Strengthening Openreach's independence BT's Notification to Ofcom dated 18 July 2016.



Source: Analysis Mason, September 2015

'Very High Connectivity' is becoming the new normal in many countries. Will the UK be one of them?

But, of course, other countries are not standing still. The European Commission has proposed ambitious new targets for 'gigabit capable networks' with a prediction that by 2025 FTTP/B will account for 54% of total connections across Europe with an additional 28% of connections on upgraded 'gigabit capable' cable.[48] Naysayers may dismiss these as simply future predictions, but concerted policy efforts have succeeded in the past. The EC notes these predictions are conservative as against take up previously achieved in Japan or Sweden.[49]

The EC is proposing a new 'connectivity objective' for:

> *"Access and take-up by all European citizens and businesses of <u>very high-capacity connectivity</u> both fixed and mobile, and interpersonal communications services, on the basis of affordable price and choice, enabled by effective and fair competition, by efficient investment with adequate returns, by innovation, by common rules and*

[48] ECC Impact Assessment (Part 1) 14.09.16 p. 179
[49] ECC Impact Assessment (Part 1) 14.09.16 p. 180

predictable regulatory approaches in the internal market and by the necessary sector-specific rules to safeguard the interests of citizens."[50]

The definition for very high capacity fixed and mobile infrastructures is that they should guarantee best-in-class performance in terms of speed (that should be significantly above 100 Mbps and able to reach 1 Gbps when considering both upload and download capacity), latency, package loss and jitter.

As speed, latency, packet loss and jitter improve when using all fibre networks, the utility of that service means it can be used increasingly for more critical applications such as synchronised small cell mobile backhaul which will be vital for 5G.

To encourage the rapid deployment of very high capacity connectivity, the EC is proposing a series of measures including: (i) improving infrastructure mapping, (ii) targeting regulation to foster infrastructure competition and co-investment models; and (iii) providing a harmonised approach towards wholesale products used for business access. Ofcom has a clear work-plan for improved access to BT's ducts and poles but, as set out further in Section 4 below, its plans remain woefully underdeveloped in the other areas (rightly) identified by the EC as key blockers to the rapid deployment of fibre.

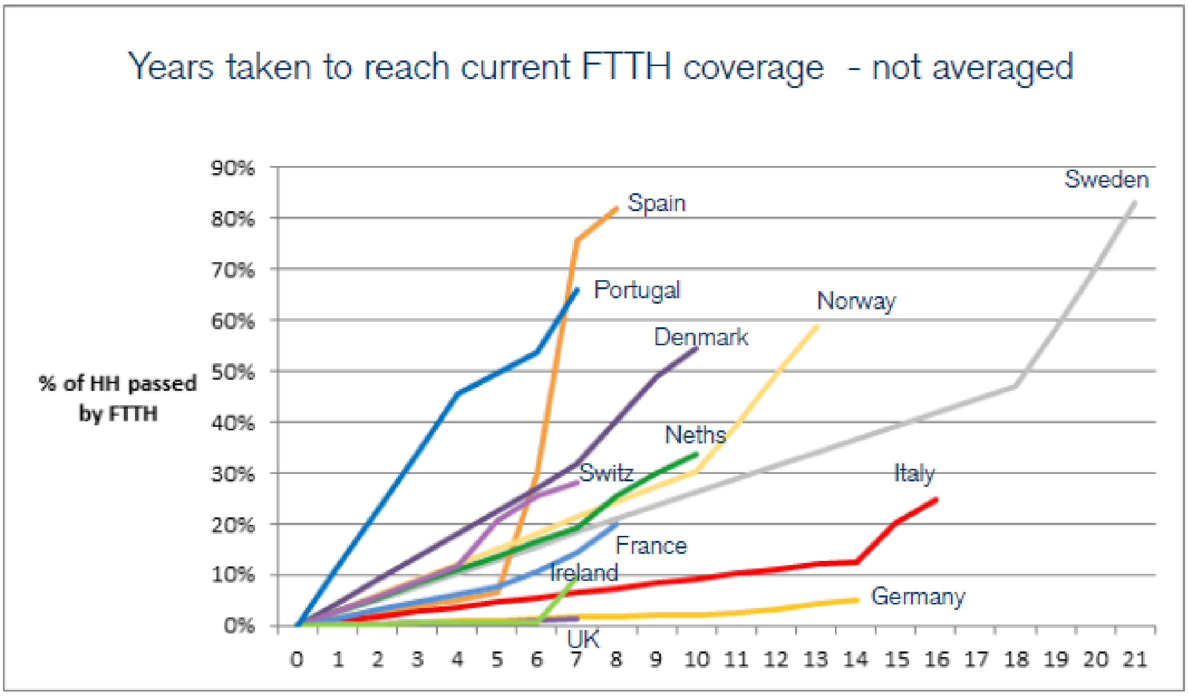
The UK cannot afford to dismiss what is going on in other countries

Regardless of whatever form Brexit ultimately takes the plain truth is that these countries and others around the world who are even further ahead such as Japan or South Korea are the UK's competitors in a world-wide market for high skilled employment today and the digital technologies and industries of the future.

But we can change the deployment curve

The experience of other countries shows that meaningful changes in the speed of deployment can take place. The rapid rise in homes passed in Spain and Portugal in particular demonstrates what can be done when you harness the (co-) investment capabilities of the entire industry, not just one dominant player or, at best, the slow moving duopoly of limited incumbent/cable competition.

[50] ECC Impact Assessment (Part 1) 14.09.16 p. 58.



Source: Credit Suisse "Building the gigabit society" 07.09.16

What is more, the UK has a number of advantages which give reason to believe that bold and concerted new policies to encourage the deployment of fibre would make a significant difference.

For instance, the UK already has the highest per-capita spend on e-commerce (B2C) at £1591 per head in 2014 meaning that e-commerce expenditure per head in the UK was over 50% higher than in the US, the next highest-valued market, which had an average spend of £918 per head.[51] Ofcom suggests that the UK's high per-capita spend on e-commerce may be due to a combination of factors, including trust in the postal service, a traditionally strong appetite for catalogue shopping and high use of debit and credit cards. Similarly, the UK had the second highest spend amongst the comparator countries at £84 per head on fixed internet advertising in 2014. BT itself makes the point that the UK is *"one of the most digitally-savvy nations in the world with the largest digital economy in the G-20."*[52] The difference is that Vodafone believes this is <u>in spite</u> of the UK's comparatively poor digital infrastructure. Historic leadership in creative industries, a shared English language with the other major e-commerce region of the USA and a corporate and tax system which encourages entrepreneurship and start-ups are responsible for this leading e-commerce

[51] http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr15/icmr15/icmr_2015.pdf at p. 280
[52] https://www.btplc.com/ukdigitalfuture/index.htm

position. What more could be accomplished if these advantages were paired with world-leading fibre infrastructure?

Vodafone is ambitious for the future

[CONFIDENTIAL]

We have done this via a pragmatic mixture of commercial approaches, from an 'anchor tenant' arrangement with the electricity utility ENEL in Italy to founding a wholesale-only joint venture with the electricity company in Ireland and self-build in Spain and Portugal evolving into peering arrangements with other alternative networks (Spain) or separately the incumbent operator (Portugal).

The EC has noted a clear gap between those countries pursuing an 'upgrade' of copper versus those taking an FTTP deployment strategy. This is not a debate between 'incumbents' and 'access seekers'- many European incumbents see the benefits of future-proofing their networks to improve service quality, reduce running costs and ensure a clear upgrade path. As is evident from the chart above, it is BT and its largest shareholder Deutsche Telekom who are the two incumbents most clearly setting their faces against a fibre future.

As we said in responding to BT's comments regarding our campaign to 'Fix Britain's Internet':

> *We believe that the UK is capable of funding, building and deploying a truly world-class national broadband network that can stand shoulder to shoulder with other world leaders, supported by strong retail competition driving better consumer outcomes.*
>
> *Our concern is that none of this will happen if Openreach's strategy and budget remains controlled by BT Group. Not only will fundamental challenges to rapidly improving service to customers today remain; but without reform we will limit our ambitions and hinder the industry's ability to play a greater role in developing the broadband infrastructure we need for the future.*

Vodafone has been consistent with this call across all of its European footprint. In December 2015 we issued our 'Call for a Gigabit Society[53] noting:

> *Capital and labour are increasingly mobile with some service industries becoming super-mobile (e.g. start-ups, programmers, creative industries) and highly dependent on ultrafast broadband infrastructure. In this context, the attractiveness of regions*

[53]https://www.vodafone.com/content/dam/group/policy/downloads/Vodafone_Group_Call_for_the_Gigabit_SocietyFV-Dec15.pdf

and municipalities and their long-term ability to maintain and develop economic activity will become more dependent on the digital infrastructure they offer. This is supported by recent OECD research on the effect of local FTTP networks in Sweden which shows that a 10% increase in fibre penetration is correlated with 1.1% higher employment and greater business creation.[5]

In May, 2016 Vodafone sought to detail further the social and economic benefits of very high speed and reliable connectivity, working with Arthur D Little[54] to articulate these benefits and examine case studies across the sectors of media and entertainment, education, retail, communications and IT and the public sector. Examples included in home health care for diagnosis and post-operative care, real-time balancing of power grids, remote learning and 'big data' manipulation in the cloud.

The paper notes that gigabit offices are already becoming commonplace as are many gigabit homes. Network effects and collaborative benefits lead to 'gigabit clusters' such as academic campuses (eg. University of Cambridge with annual usage of 36 petabytes p. 23), industrial parks and small city zones such as Soho with its particular density of media and entertainment companies. Creative and highly skilled industries such as these are unquestionably attracted and nurtured by the quality of the digital infrastructure available to them and the desire to attract such employment skills and tax base means 'gigabit cities' such as Bristol (p.30) and Dundee (p.31) are also emerging. The policy choices facing Ofcom, as the UK's national communications regulator are the same, but writ large. They will have a significant effect upon the UK's competitiveness and attractiveness to such industries as against other countries around Europe and the world.

The EC's package of reforms recognises the transformative economic and social benefits which it believes will come from focussing efforts upon rolling out very high connectivity networks. Its work suggests real labour productivity will rise as a result of its reform package by 0.8% across the EU.[55] Meanwhile, in a 2015 study, The Analysis Group estimated that gigabit broadband communities in the US exhibited a per-capita GDP approximately 1.1% higher than the 41 similar communities with little to no availability of gigabit services.[56]

There can be no question that the 'bow wave' of demand is coming- if not already upon us. The EC notes that it is not simply a question of 'build it and they will come'. Ofcom's own

[54] "Creating a Gigabit Society" May 2016 http://www.vodafone.com/content/dam/group/policy/downloads/Vodafone_Group_Call_for_the_Gigabit_SocietyFV.pdf See, in particular the Healthcare case study of Karolinska University Hospital and Philips at pages 13-15, Energy and Utilities at pages 16-17, Media and Entertainment pages 18-21 and Education at pages 22-24

[55] ECC Impact Assessment (Part 1) 14.09.16 at p. 184

[56] ECC Impact Assessment (Part 1) 14.09.16 at p. 78

data[57] shows that demand responds to supply with NGA data consumption double that of customers on non-NGA networks. There is also evidence of this phenomenon in FTTP networks with Orange customers in a trial area of France consuming 3 times the internet and VOD traffic after they were upgraded to FTTP. Moreover, the EC notes that the availability of FTTP changes behaviours allowing different and productivity-enhancing use cases:

> *"Importantly, this trial also resulted in fibre clients' usage of upload bandwidth being increased 8 times, due to changes in Internet usage and an increased usage of cloud-based services."*

Put simply, people cannot fully know how they will use the capabilities of far better connectivity until it is provided to them. The EC quotes work from WIK looking at the German market potential in 2025 which posits nearly 80% of users with bandwidth demands of >500Mb/s and the top 30% at or above 1Gb/s.[58] .

There is a wider social case for FTTP deployment

The social impacts of a step-change in the speed and reliability of UK communications infrastructure are hardly less striking. For instance, looking at the environmental impact of FTTP the EC quotes the academic literature that a 10% increase in the proportion of the population living within 353 meters of a fibre connected premise corresponds to a positive change in the population after three years of 0.25% in terms of increased inflow or decreased outflow. They conclude that FTTP can have a noticeable impact upon reducing rural to urban migration and increasing employment in rural areas.[59] What is more, we can see that those countries who are furthest ahead in FTTP roll outs are also making significant inroads into rolling out rural fibre. FTTP coverage in the EU overall was above 20% by mid-2015 with rural FTTP around 7.5% [60]

As FTTP networks use 20% less electricity than a VDSL2 network serving the same number of subscribers[61] other studies conclude that the environmental impact of an FTTP network would typically be positive within 15 years. They note further that as the main environmental impact comes from laying fibre in ducts, co-building or co-investment could reduce this impact dramatically.[62] EC research concluded that an all-FTTP scenario would

[57] ECC Impact Assessment (Part 1) 14.09.16 at footnote 74
[58] ECC Impact Assessment (Part 1) 14.09.16 at p. 48
[59] ECC Impact Assessment (Part 1) 14.09.16 at p. 83
[60] ECC Impact Assessment (Part 3) 14.09.16 Figure 8 at p. 313.
[61] ECC Impact Assessment (Part 1) 14.09.16 at p.83
[62] ECC Impact Assessment (Part 1) 14.09.16 at p. 83

result in 88% less greenhouse gas emissions from fixed networks in Europe than the status quo.[63]

Fibre deployment is equally required to improve mobile networks throughput

The EC expects that mobile data traffic in Western Europe will grow 6-fold from 2015 to 2020 representing a higher growth rate than South Korea and Japan. It expects the average smartphone user will use 4.6 GB of mobile data traffic per month in 2020 up by 353% from 2015.[64] Similarly, 'Internet of Things' connected devices are expected to rise at a CAGR of 23% to well over 4 billion connections with Western Europe growing at the fastest rate of any region.[65] The EC further estimates a 'standalone' 5G deployment cost of €120bn for 5G to 95% population coverage across 28 Member States, but that of this, €81bn is for the fibre rollout required for front and backhaul. It notes that there will be considerable synergies if 5G deployment is linked with a fixed fibre roll out.[66]

Impact upon the electronic communications sector as a whole

The impact upon the UK electronic communications sector of a demonstrably independent Openreach would be enormous. This could kick-start different forms of partnership, risk sharing and co-investment in future-proof fibre networks which would enable greater customer choice, innovation and deeper competition.

Alternative networks would not only improve customer choice and expose more of the telecommunications cost-stack to competition thereby leading to lower end customer prices but they would also enable greater product and service differentiation and innovation. A number of these benefits were set out by Vodafone in its original response to Ofcom's Preliminary Consultation on Passive Remedies of January 2015 and the Frontier Report attached to that response.[67] While the focus of that response was business connectivity markets and the innovations which could be unleashed by access to dark fibre, they apply similarly to any policy which enables communications providers to control a greater proportion of the value chain via self-build or passive access.

For instance, we noted that due to control of their own infrastructure COLT launched Carrier Grade Ethernet services in the London area and Virgin Media delivered Synchronised Ethernet capability in high capacity services in advance of BT. Other incremental improvements are difficult to move forward in today's cumbersome Statement of

[63] ECC Impact Assessment (Part 1) 14.09.16 at p. 76.
[64] ECC Impact Assessment (Part 1) 14.09.16 at p. 23
[65] ECC Impact Assessment (Part 1) 14.09.16 at p. 23
[66] ECC Impact Assessment (Part 1) 14.09.16 at p. 22
[67] http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-passives/responses/Vodafone_Frontier_Economics_Report.pdf

Requirements ("SOR") process which puts the business benefit to BT Group as a whole ahead of the benefit to the Openreach customer. Even if a request is accepted, through its very nature, the SOR process blunts the first-mover advantage of the innovative CP thereby reducing the benefits of making such improvements.

Separately, Vodafone's response to Ofcom's original Strategic Review consultation (October 2015) set out its experience of greater passive access and improved network competition in Spain and Portugal (Annex 4 to our response). In respect of Spain, we noted the significant quality improvements which had come about from the switch from an 'access seeker' ADSL broadband market to one more based upon self-deployed fibre.

Table 3: Comparison of QoS via different delivery methods

	QoS metrics	Spain (own deployment) FTTH	Spain (on incumbent network) ADSL
Installation	Days to provision new customers	5.42 (April 2015)	11.26 (April 2015)
Incidents	Line incidents per 100 customers	0.5%	1.2%
Repeated incidents	Repetitive line incidents per 100 customers	5%	11%
Early life incidents	Early life incidents per 100 customers	2.3%	4.9%
Faults repair time	Percentage of faults resolved within 24 hours	87%	57%

Source: Vodafone Spain

These are just some of the very tangible end customer benefits which Ofcom needs to keep in mind when considering the potential impact of strengthening Openreach's independence.

Greater independence for Openreach would be beneficial for BT itself

In addition to its benefits in kick-starting additional fibre investment with the improved outcomes for competition, choice, quality and innovation that follow, there are a number of stand-alone benefits from increased independence of Openreach. These include the additional retail competition created by BT's downstream businesses 'unshackled' from the network business and a simpler regulatory regime which reduces the enforcement burden on all market participants.

In our response to Ofcom's original Strategic Review consultation we submitted a short paper highlighting the market benefits of the structural separation of Telecom New Zealand into Chorus and Spark based upon the experience of our sister company operating in both the fixed and mobile markets there.[68] In particular, we underlined the clearer purpose of Chorus focussed solely upon the building and running the network and the additional retail competition unleashed by a resurgent Spark. We noted that:

- Significant regulatory burdens were removed, delivering a simplified and more effective regime;
- Two new businesses were forged, which have performed better for their shareholders and for New Zealand; and
- A step-change in the competitive retail broadband market has been unlocked.

This trend has continued. A recent regulatory submission of Vodafone New Zealand states:

> *New Zealand's transition to fibre is well underway. Structural separation has unleashed a highly competitive retail fixed broadband market, and is ensuring better incentives for both wholesalers and retailers.*

In particular, Vodafone New Zealand has highlighted the increased industry trust that has emerged as a result of the split. A direct consequence has been reducing regulatory compliance structures, complexity and industry cost. The response continues:

> *A genuine opportunity remains for Chorus (and the LFCs) to lead a commercial negotiation process with access seekers. Not all of the challenges associated with Chorus' position as the dominant provider of fixed access in New Zealand have been resolved. However pro-competitive incentives exist on both sides to reach an agreement that will accelerate New Zealand towards a Gigabit Society. This will avoid the potential risks and costs associated with a complex regulatory transition.*

Compare this situation, where Vodafone New Zealand as an access-seeker is positively advocating commercial negotiations as the way forward in migrating from a copper regime to fibre, to that in the UK where access-seekers and the incumbent all turn to Ofcom to set increasingly complex regulatory rules to govern quality of service, pricing and the key characteristics of fibre products.

The New Zealand Government is expected to conclude negotiations for the extension of the Ultrafast Broadband Initiative shortly. Vodafone is not participating but expects the existing UFB providers, and particularly Chorus, to win a significant share. This is seen as a positive development from the perspective of Vodafone New Zealand as it has confidence that it will be treated fairly by Chorus[69] in gaining access to the new infrastructure. Again, compare this against the acrimonious and opaque process of Government funding for rural broadband in

[68] Vodafone response to Strategic Review of Digital Communications October 2015 Annex 5.
[69] And other LFCs

the UK overseen by BDUK where many have been highly critical of the value for money achieved by the Government and the competitive advantage this has handed BT.

The New Zealand example has also led to a more balanced industry. Because only ~70% of the UFB fibre build was awarded to Chorus, Spark also buys fibre access services from the three Local Fibre Companies (LFCs) awarded the balance of the build (Enable, Ultrafast Fibre, and Northpower). This creates the ability for both the regulator and all retail companies to compare business processes and outcomes across different network providers including Chorus. This puts all providers under increased pressure to improve their efficiency and quality of service.

While Ofcom is not currently proposing full structural separation of Openreach, any material improvement in the independence of Openreach will be at least helpful to unlock these benefits compared to the situation today. That said, Vodafone continues to believe that structural separation would be the simplest and cleanest approach to address the persistent competition problems which Ofcom has identified.

Impact on Ofcom and regulatory enforcement costs

One of the clear benefits of Ofcom's proposal for separate incorporation of Openreach and full legal separation is that such an act immediately imports established company law instruments, structures and obligations. As set out in detail in the 10 Point Plan, rather than the current regulatory rules which seek to impose independence upon Openreach officers notwithstanding duties owed to BT Group as a whole, a separate Openreach board and directors would, by law, be focussed upon ensuring the success of Openreach in its own right.[70] This is precisely the independence of thought and action which Ofcom is seeking to achieve. Therefore, proceeding via legal incorporation and properly constituted Articles of Association will greatly reduce the strain of seeking to introduce incremental regulatory rules to mimic the vast canon of corporate law which already exists.

Finally, a multi-network market with a less asymmetric relationship between the incumbent on one side and hundreds of access seekers on the other can enable the roll-back of regulation and even a reduction in the number of disputes brought to the regulator. Improved quality of service results from the fact that there is now a commercial means (and incentive) to improve business processes, speed up delivery and fix faults. In Portugal, Vodafone has an active sharing arrangement with another alternative provider [CONFIDENTIAL] and a passive sharing arrangement with Portugal Telecom [CONFIDENTIAL]. This means that the incumbent PT is, at least to some degree, an access seeker for those passive inputs [CONFIDENTIAL] that it rents from Vodafone. As in the New Zealand case, this arrangement also means there are more 'data points' for the regulator to compare service

[70] See 10 Point Plan of 6 May 2016 at 4.9 to 4.12

levels and processes which can prevent disputes from coming to the regulator in the first place.

[CONFIDENTIAL]

4. Achieving large scale deployment of new fibre networks

When considering the effectiveness or not of Ofcom's proposals to strengthen Openreach's independence it is vital that one keeps in mind the purpose of that strengthening, namely to create a more responsive Openreach focussed upon the needs of all of its customers. Ofcom says that:

> "*BT has the ability to influence or determine strategic investment and operational decisions that favour its own retail businesses over the retail businesses of others. Where BT acts…other retail providers will be less able to deliver the innovation and services that their customers demand unless this accords with the needs of BT Group.*"[71]

The role of Openreach independence in encouraging large scale deployment of new fibre networks

In its Initial Conclusions document[72], Ofcom set out an overview of next steps in order to deliver on its overall strategy of '[encouraging] *large scale deployment of new fibre networks*'. Ofcom set out that it will:

> "*make it easier for competing providers to build their own fibre networks, across as much of the UK as is practicable, by providing them with access to Openreach's network of underground ducts and telegraph poles*."

Vodafone applauds and supports Ofcom in its efforts to improve a currently impractical, inefficient, and consequently unusable process, as set out in its "Duct and Pole Access (DPA) progress update" accompanying the Proposal for Comment. We note that there are some trials in train and more planned but that this workstream is at a very early stage and has not yet delivered any tangible improvements that fundamentally change an investor's ability to rely on the product. Whilst delivery processes may feel far removed from high level policy and corporate governance, they are in fact part of the same issue, as we discuss below.

[CONFIDENTIAL] we found that three very specific risks materialised for non-incumbent investors [CONFIDENTIAL]. We describe these risks as:

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[71] Proposal for Comment at 3.14
[72] http://stakeholders.ofcom.org.uk/binaries/telecoms/policy/digital-comms-review/DCR-statement.pdf

1. Deployment risk: - due to operational constraints or difficulties accessing passive infrastructure, deployment takes longer or is more costly than envisaged;
2. Market-share risk: requiring an operator to take on build costs out of proportion with their likely credible retail and wholesale market shares; and
3. Strategic overbuild risk: that an investment will be deliberately undermined, especially from a lower cost G.Fast incumbent roll out in order to 'warn off' other investors or investment in other geographies.

[CONFIDENTIAL] we asked FTI Consulting to assess the impact of incumbency advantages when applied to an FTTP investment case for Greater London. We asked them to compare and contrast a case for a new entrant building FTTP versus BT as an incumbent building its chosen platform which is G.Fast based. Their report "The Economics of Fibre: Assessing the impact of incumbency advantages" is attached at Annex C.

FTI Consulting approached this by applying the OECD Barriers to Entry framework[73]. This framework has identified 19 different barriers to entry (some of which are specifically in the gift of incumbents to choose to apply); many of these characteristics are to be found in telecommunications markets and specifically apply to building new entrant FTTP networks.

They valued the relevant factors in relation to a London-wide (4.6m premises) FTTP investment. The NPV impact of the cost of not having the incumbency advantage is set out below:

OECD Theme	Incumbency effect	Impact if New entrant FTTP had the advantage (NPV)
Advantages to the incumbent operator		
Start-up cost (subscriber acquisition costs)	An incumbent can rely on its existing customer base to switch to FTTdp whereas a new entrant would have to persuade customers to switch networks. Customer acquisition costs are therefore lower for an incumbent, estimated at £13 per new FTTdp subscriber versus £120 per new subscriber for a new entrant FTTP provider.	+£103m (£28per new subscriber)

[73] https://www.oecd.org/competition/abuse/36344429.pdf

OECD Theme	Incumbency effect	Impact if New entrant FTTP had the advantage (NPV)
Economies of scope	The incumbent operator providing a range of services benefits from its ability to recover costs common across a number of different services, compared to a new entrant who may have to recover those costs across a single service.	+£64m (£3 per connected customer)
Network knowledge and sunk network costs	The incumbent's network consists of copper, fibre, ducts and buildings. Ducts are the most significant 'sunk cost'- a new entrant would have to spend in the region of £25bn[74] to build its own national duct network in the UK. Furthermore, the incumbent has better knowledge of its own network and, potentially, quicker access to systems and databases. Poorer network knowledge increases the use of self-build relative to DPA for the new entrant and raises the costs of FTTP roll-out and slows down roll-out of the new entrant.	+£658m (£166 per home passed)
Existing customer base	The incumbent has an existing wholesale and retail customer base. It benefits from being able to migrate retail customers rather than "win" new customers. The wholesale business reduces the risks of lost market share, since even when a retail customer is lost then the incumbent may still earn wholesale revenues from the gaining supplier. In this scenario we assume that the new entrant immediately gets to it steady state market share.	+£170m (£9 per connected customer)
Sunk network – speed of roll out	In the base case, it is assumed that an incumbent can upgrade its existing network (in London) to FTTdp within one year. However, a new entrant requires six years to pass through a similar number of homes for FTTP because it needs to self-build a new duct and fibre network which takes time. In this scenario, we assume that the new entrant can build its network out in one year, like the incumbent. This allows it to more widely benefit from marketing, attracting customers and build up its revenues	+£216m (£11 per connected customer)

[74] Exploring the costs and benefits of FTTP in the UK, Nesta (March 2015), estimate by Analysys Mason for BSG from 2008.

OECD Theme	Incumbency effect	Impact if New entrant FTTP had the advantage (NPV)
	more quickly.	
First mover advantage – customer inertia/loyalty creates pricing premium	Having an existing customer base which has a degree of switching inertia alongside a general perception that BT is better, allows the incumbent to price at a premium to competitors' prices. It is difficult to determine the pricing premium needed to overcome incumbency advantages versus one driven by other commercial factors. In the base scenario we assume that the new entrant FTTP provider has to price at a discount to BT in order to gain market share.	+£804m (£42 per connected customer)

[CONFIDENTIAL] The OECD's framework clearly identifies the value of sunk network assets and information about sunk assets critical to both reduce costs and speed up network roll out. This not just reduces deployment costs and associated risks, but also allows an incumbent to build out in response to competitive threats easily and swiftly. In addition, the value of existing customers (both retail and wholesale) are to be seen as it minimises customer acquisition costs, leverages customer inertia to allow premium pricing (and less discounting) and the volume of customers on the platform defrays costs across a wider customer base, all of which are critical to successful infrastructure investment. These clearly align with [CONFIDENTIAL] deployment risk; market-share risk and strategic over build risk which we discuss in turn below.

Strengthening Openreach's independence reduces the risks of alternative network roll out

Vodafone believes Ofcom's proposals to strengthen Openreach independence could go some way to reducing the risks of alternative network deployment but would urge it to re-inforce its proposals with further steps aimed at addressing the key risks. For instance, the EC's recent European Communications Code[75] proposals recognise that different and often non-traditional business models should be encouraged in order to generate the infrastructure investment necessary. They are making a serious attempt to redress the control that incumbents have on investment by encouraging co-investment in FTTP or

[75] https://ec.europa.eu/digital-single-market/en/news/proposed-directive-establishing-european-electronic-communications-code

allowing new entrants into the market with a clearer run in the face of incumbents. Their 24 September 2016 draft Directives set out a number of measures which have been described as a 'bunch of carrots'[76] for fibre investment including:

1. Reducing deployment risk by ensuring 'fit for purpose' access to passive infrastructure with targeted and sustained regulatory pressure to improve business processes and learning the lessons from 'best in class' countries;
2. Reducing market share risk by removing certain regulatory obligations on co-investment schemes and other non-traditional market models such as wholesale only players; and
3. Reducing strategic overbuild risk by requiring the publication of firm investment plans by incumbents with the potential for sanctions including fines if they make false claims about their future intentions.

Reducing deployment risk through a fit-for-purpose duct and pole access

Both Ofcom and the EC see the need to ensure that fit for purpose, effective Duct and Pole access is vital to maximise downstream competition. [CONFIDENTIAL]

It is clear that the Duct and Pole Access product requires significant improvement to enable it to contribute to large scale deployment of new fibre networks. In particular (and in line with the advantages identified by FTI Consulting) the Duct and Pole Access product requires improved:

- information and knowledge sharing about the location and availability of DPA infrastructure;
- operational processes to speed up deployment; and
- contractual and commercial relationships to allow for speedier decisions and deployment.

We are not expecting BT to make these improvements without significant regulatory policy intervention and to this end Ofcom's proposed work on DPA through the WLA Market Review process is welcomed.

We agree with Ofcom's direct intervention to improve the readiness of the product, but of course regulatory directions count for nothing if the obligation doesn't deliver.

Therefore, Ofcom's proposals here have a significant role to play: a legally separate Openreach would find gaming regulatory obligations to provide DPA much harder if there was clarity on the assets (and cost of those assets) used to provide it and Openreach was a

[76] https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxmZWFzZXl3YWxlc3xneDo1MjE1NDQ1MzgxMDk1Yzk3

single, well defined, organisation required to do so rather than if it was just one of many things to do, handed down from its parent company. Of course it could still decide to prioritise other projects, but given the lack of influence from BT Group, and its overall control over its own budget and priorities, there would be sufficient much improved clarity and transparency.

Reducing market share risk via co-build / co-investment or wholesale only and risk-sharing models

As described in the FTI Consulting report, Openreach can rely on its existing market share in existing broadband markets to support future investment cases. The complexities, perceived or real, with switching, lower cost of customer retention, ability to discount to retain customers and the ability to deploy new platforms (such as G.Fast or FTTP) with relative ease all mean that Openreach's existing market share provides it with a very sticky revenue stream that can be assumed to remain and move onto any new Openreach platform.

As a result a new entrant such as Vodafone would need to discount heavily in order to generate customer volumes, in addition to shouldering the burden of the costs of the whole deployment on a much smaller potential customer base. This disparity is clearly demonstrated by BT's claim that *"Fibre broadband from Openreach is currently available to well over 24 million premises using FTTC technology*[77] which is totally misleading – neither BT nor Openreach has invested in sufficient capacity to service 24 million premises, perhaps one third of that at most. Its proposal to cover 10m households with G.Fast is similarly unclear, with reports suggesting that BT may focus on upgrading cabinets and installing only around a third of the capacity covered by that cabinet (96 lines compared with 288 VDSL lines).[78] However a new entrant FTTP provider would be required to invest in capacity to serve all the homes it claims it passes. As a result costs are higher and whilst market share needs to be won, price will be an important factor; as a result margins based on high costs will be heavily squeezed.

Therefore, entrants need ways of enabling fixed infrastructure investment which more closely aligns their likely market share[79] with their build costs in order to enable the investment to deliver downstream market competition. This is why 'risk sharing' investment models are so vital if we are to achieve Ofcom's goal of 3 or more competing network providers over much of the country.

[77] http://home.bt.com/news/bt-life/openreach-expands-ultrafast-fibre-plans-11364045256060
[78] http://www.ispreview.co.uk/index.php/2016/06/bt-openreach-reveals-g-fast-broadband-cabinet-extension-pod.html
[79] Principally retail although this could also include wholesale access provision.

The EC's proposal for a Directive establishing the European Electronic Communications Code ("ECC Proposal") puts co-investment at the heart of its remedies.[80] Proposed Article 74 provides regulatory relief on new investments which are subject to credible co-investment offers. This is a meaningful and tangible remedy which addresses one of the biggest concerns with any new entrant investment case – recovering costs of building 100% coverage from a much smaller possible customer base. As we have already discussed, to serve a market with FTTP, and market to the homes passed, the homes really do have to be passed. However, a credible competitive entry business case will only be able to attract a subset of the total market. When factoring in the incumbents market share and ability to upgrade customers more cheaply, this addressable market share is ever reducing - even without resorting to heavy discounting to attract customers which then undermines the investment. As a result the investment case becomes very high risk. However a credible co-investment offer would reduce costs.

Article 74 of the ECC Proposal which states:

> *"A national regulatory authority shall not impose obligations as regards new network elements that are part of the relevant market on which it intends to impose or maintain obligations….and that the operator designated as significant market power on that relevant market has deployed or is planning to deploy, if the following cumulative conditions are met:*
> *(a) the deployment of the new network elements is open to co-investment offers according to a transparent process and on terms which favour sustainable competition in the long term including inter alia fair, reasonable and non-discriminatory terms offered to potential co-investors;*
> *(b) the deployment of the new network elements contributes significantly to the deployment of very high capacity networks;*
> *(c) access seekers not participating in the co-investment can benefit from the same quality, speed, conditions and end-user reach as was available before the deployment, either through commercial agreements based on fair and reasonable terms or by means of regulated access maintained or adapted by the national regulatory authority;"*

The EC proposes to implement co-investment by reducing regulation where credible co-investment is offered by the incumbent and, importantly, 'fair and reasonable terms' for non-investors need not be the same as for up-front investors. In a vertically integrated business the temptation is likely to be to stick with the status quo and tough it out. However an independent Openreach that can make decisions based on its own criteria on what is good

[80] Of course we understand that depending upon the form of Brexit ultimately taken by the UK these obligations may not apply directly. In such a circumstance we would urge the UK Government and Ofcom to implement similar rules under domestic law.

for its own business is more likely to consider all the options (including those which lead to reduced regulation over time) more fully. Whilst an independent Openreach creates no guarantee that it would come to a decision to accept a credible co-investment offer, we can be sure that BT Group will not make or accept such an offer. In any case if they were to do so, would other Communications Providers trust it sufficiently to co-invest with it? A legally separated Openreach is required in order to create the independence for co-investment to work for all parties. What is more, the additional obligations on the Openreach Board proposed by Vodafone in Section 5 to actively consider co-investment, to ensure that the Openreach Executive has properly considered all investment options and imposing a duty to give 'Openreach-centric' reasons for its decisions would manifestly improve the likelihood of success.

Reducing the risk of Strategic Overbuild or Strategic Announcements of Overbuild

Investing at scale in FTTP is not a decision that can be taken lightly - it involves very large sums of money, many years of build and leaves the investor with, quite literally, huge 'sunk assets.'

As FTI Consulting set out in paragraph 3.14 of its report, it is likely that if an alternative FTTP deployment had any level of success, BT would overbuild the network using either G.Fast or FTTP in part to 'warn off' other entrants or expansion by the entrant to new geographies.

Strategic Overbuild is recognised by FTI Consulting as a credible and realistic threat to FTTP investment. Indeed, we have already noted Point Topic's prediction of BT's likely G.Fast investment locations is to overwhelmingly overbuild Virgin Media's footprint. Is it Openreach, or BT Consumer that has defined the investment case to compete with Virgin Media rather than investing in areas where Openreach has a de facto monopoly? Openreach's investment in G.Fast could possibly deliver up to 60% market share (in the long term) in the Virgin Media footprint assuming all customers switch to ultrafast networks, however in non-Virgin Media footprint, market share would be 100% for Openreach. Whilst we recognise that there are other variables including cost of roll out and market size to consider, on the face of it, it appears as if Openreach's roll-out priority has been set by BT Group to concentrate upon retail competition with Virgin Media rather than other objectives such as investing in network that is most poorly performing, or even where customers do not have a choice of provider and are therefore reliant on Openreach for their broadband.

A useful cross-check for Ofcom on the existing level of independence exhibited by Openreach is whether Openreach itself has developed any or alternative roll out plans comparing one that focussed upon Virgin Media areas and plans that looked at other priorities. If it is to focus upon Virgin Media areas as expected, is this the better business case for Openreach <u>at the network level</u>?

Overbuild is not specific to Virgin Media either. Local residents who have long waited for Openreach to invest in their areas have been disappointed; disappointed not just with the absence of investment, but in the absence of information. As a result in some cases they have been driven to create their own investment plans and vehicles, often community based in order to improve their own broadband infrastructure. Press reports[81] indicate that this appears to spur BT into looking again at those regions. Whilst there is no suggestion of deliberate wrong, if BT were more transparent[82] in its investment plans this kind of overbuild and consumer frustration would not occur.

In the other extreme, where BT faces no competition, BT has defined certain geographic areas un-economic to invest in any fibre based broadband on a commercial basis. As a result, the Government, local authorities and the EU have provided subsidies of nearly £1.7bn[83] for BT to extend superfast broadband coverage to 95% of the UK. Furthermore whilst BT is now saying that it can deliver the proposed Broadband USO (10Mb/s broadband) to the final 5%, presumably it expects not to pay for this itself, otherwise why does BT not just get on with it? Either way, the ability of BT to cherry pick investment and leave other parts of the country without an adequate service (or rely on state funding to do so) demonstrates that, without well designed regulatory intervention, BT cannot be relied upon to meet public policy or consumer welfare objectives in its investment plans.

There is no clarity on BT's G.Fast investment plans

Looking at the situation today, BT has announced investment in G.Fast technology, rather than other solutions such as FTTP. It has not set out its rationale; there is no published vision or understanding of the opportunity it provides for customers. There are no public roll out plans, no understanding of how customers can be included in future upgrades, no assessment of the locations or premises that are to be included in the plans. However we can be sure that the investment choice delivers BT's company-wide objectives. See for instance the BT website in the section dedicated to presentations from the various BT Lines of Business aimed at providing *"Presentations from around BT with updates on products and strategy."* The most recent update (of a total of 4 dating back to 2013) is from Sean Williams, BT's Strategy Director which deals with Openreach in 3 pages starting at slide 12 of a deck dominated by retail issues. While these slides set out that BT's network strategy is based

[81] http://www.ispreview.co.uk/index.php/2016/07/select-committee-inquire-concludes-uk-needs-radical-broadband-upgrade.html and http://www.ispreview.co.uk/index.php/2016/02/lancashire-villages-accuse-bt-of-overbuilding-their-community-network.html/2
[82] http://media.ofcom.org.uk/content/posts/analysts/presentations/2016_DCR_transcript.pdf
[83] http://researchbriefings.files.parliament.uk/documents/SN06643/SN06643.pdf

upon G.Fast there is no attempt whatsoever to explain why BT believes this is the right choice or what alternative models have been considered.[84]

A more historic but no less pertinent example: in 2008, Openreach announced plans to install Fibre to the Premises at a greenfield housing development in Ebbsfleet[85], the first proposal of its kind and way ahead of BT's group-driven FTTC programme. However it took Openreach another 8 years to provide such a capability to any other housing development.[86]. In the meantime BT's group-wide FTTC programme was put in place and Openreach had little choice but to continue to provide new builds with copper based connectivity. Given the location of many newer housing developments on the edge of towns, the choice of technology is even more bewildering given that longer copper line lengths result in poor broadband speeds from the very start. If Openreach hadn't been stuck with BT Group's decision to build FTTC[87] in order to overcome job losses in BT Global Services, then perhaps more of the 660,000[88] new homes that had been built in the UK between April 2009 and February 2016 would have been connected by Openreach with fibre instead of copper.

Uncertainty regarding BT's future plans is a deliberate strategy to discourage alternative fibre investment

Any new entrant investment case is extremely sensitive to the competitive counter-reaction of BT. BT has the ability to control the market, investing as a defensive move just enough to repel any new market entry and compete with Virgin Media. It does this, not by competing vigorously to deliver the best possible outcome for consumers, but by controlling all the levers in the market:

- it decides where and how to invest,
- it decides what is commercially viable and where is not commercially viable and therefore defines which regions require State Aid,
- it decides the technology that the industry use and therefore consumers will use,
- it decides when and where it will be deployed and/or upgraded.

In fact, it can deter market entry simply by announcing its (possible) future intentions in respect of these issues.

The current debate demonstrates just how this informational asymmetry currently benefits BT. In the UK we talk about investment in the abstract and with large numbers such as BT's

[84]http://www.btplc.com/Sharesandperformance/Presentations/Presentations/lobpresentations/downloads/SeanWilliamsDecember2015.pdf
[85] http://www.ispreview.co.uk/news/EEAAAVVyEFgArjPikC.html
[86] http://www.ft.com/cms/s/0/b27c5ab8-cc19-11e5-be0b-b7ece4e953a0.html#axzz4LNvyiCVu
[87] http://www.zdnet.com/article/bt-to-expand-2010-fibre-rollout/
[88] https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building

plan to pass 10m premises with G.Fast by 2020 but despite announcing a number of new trials of G.Fast technology BT has not, so far as we are aware, publicly declared where these 10m households actually are.[89] This lack of detail in the debate plays to BT's advantage as only it knows how and where it will invest or how and where the network is under-performing. As a result alternative investment plans from other operators lack certainty and as a result, credibility.

The UK has no detailed public infrastructure database[90] that promotes investment opportunities; BT's acquisition of public funds through BDUK did not guarantee specific build with locations[91], even after money was acquired. How then can any independent new entrant enter a market where BT controls all the information about that market – where the network exists, where it is substandard and where it plans to invest. The proposed EC Article 22 would require regulators to undertake audits of broadband investment plans and ask for any declarations of interesting in building high speed networks in specific locations in order to address this lack of certainty. We believe that a similar approach (under UK law if necessary in a post-Brexit world) should be adopted here.

The EC's approach of publishing investment locations and announcing investments is a straightforward solution that would quickly flush out false claims to ward off competition and would give certainty to any competing investor. Subsequent overbuild would not occur if BT was incentivised co-invest, but this can only happen with a trusted independent Openreach.

Even if an independent Openreach did not choose to co-invest we believe that it would need to be more open about its long-term vision for infrastructure and deployment. We strongly support Ofcom's proposals in this regard but urge them to go further by adopting an EC style obligation on Openreach to set out these plans in the confidential consultation process and at a higher level publicly, and then for there to be <u>an ongoing monitoring process which reports whether Openreach are keeping to these declared plans.</u>

More or different Behavioural Regulation on its own will not address Ofcom's concerns

Vodafone strongly supports Ofcom's conclusions *"We do not believe our competition concern is likely to be addressed effectively simply by the addition of more complex behavioural rules attached to the existing Openreach structure."*[92].

[89] BT's Voluntary Offer of 18 July 2016

[90] http://www.techeye.net/business/uk-pm-demands-broadband-details-from-bt

[91] https://www.nao.org.uk/wp-content/uploads/2015/01/The-Superfast-Rural-Broadband-Programme-update.pdf

[92] Para 1.24 i) http://stakeholders.ofcom.org.uk/binaries/consultations/strengthening-openreachs-independence/summary/condoc.pdf

There are a number of reasons for this. Firstly there is no cost to non-compliance and so cat and mouse gaming is a feature of the system, behavioural remedies cannot set out rules for every possible transgression and as a result monitoring and enforcing behavioural remedies is costly and complex.

Non-compliance carries little risk or cost

One perpetual example of the asymmetric risk/reward calculation facing BT is in relation to obligations to offer Fair and Reasonable contracts. Openreach only formally contracts with external CPs, internal trading agreements with other Lines of Business do not fully capture the full extent of the commercial relationship between Openreach and CPs. Openreach's external contracts are viewed by external CPs as one-sided and often contain terms that would be unlikely to be found in commercially negotiated contracts in competitive supply arrangements. BT's lines of business don't use these contracts even although they may access the same products in broadly equivalent term. If CPs want to improve terms they are locked into frustratingly protracted contract reviews that often yield nothing, while the largest purchaser of services (BT's retail lines of business) are not participating.

Reviews of BT's regulated contracts are initiated by CPs and are to be completed within a 6 month timeframe; Openreach doesn't initiate this, demonstrating its reluctance to participate. Whilst characterised as a negotiation, one of their key features is a failure to enter into any meaningful negotiations, but sticking to positions and fielding personnel who are not empowered to respond. This invariably leads to contract reviews lasting far in excess of 6 months – in some cases contract reviews have lasted almost 2 years, and only concluding when CPs finally run out of patience and refer matters to Ofcom for dispute resolution.

This two tier approach not only fails to reflect competitive market outcomes, it give BT lines of business advantages in supply as there is no external risk factors to consider when purchasing via Openreach. Disputes arising from the contracts are costly to pursue and often lead to deadlock. If Openreach's terms are ultimately adjudged, (after exhausting whatever appeal rights might be available) not Fair and Reasonable it can amend them on a forward looking basis only.

By way of illustration the industry is currently engaged in a protracted and expensive negotiation of a Dark Fibre contract with Openreach. A number of areas of contention exist (including the minimum contractual term) and the likelihood it that industry will spend many months locked in negotiations and end up with a contract that falls short on a number of fronts. Ofcom are naturally reluctant to micromanage the negotiations, but despite detailed regulatory obligations to supply a Fair and Reasonable contract, Openreach still feels able to ignore CPs reasonable requests.

Exactly the same issue arises in respect of BT's cost accounting disclosures. We cannot overstate the importance to our industry and the wider consumer interest of reliable, unbiased regulatory accounting information. The detail within BT's regulatory accounts is used to set prices within charge controls, resolve disputes before Ofcom and even settle subsequent litigation before appeal bodies and the courts. What is in the accounts matters to consumers who are many stages removed from the detail. They need to have confidence in the regulatory system and the regulatory accounts are at the heart of that system. The accounts must be right first time all the time, they shouldn't be subject to either restatement or, as has now become all too common, revelations after the fact that cast doubt on the validity of previously published numbers. Since 2008 we have seen confidence in BT's published regulatory accounting output evaporate, firstly through hasty restatements apparently motivated by BT's desire to reduce overcharging claims before Ofcom, then through the reallocation of costs in one year to the next, moving costs from regulated markets where charge controls have already been set into other regulated markets where baseline costs have yet to be established for future price setting. Most recently we have seen Ofcom move to clean up attribution decision-making within the accounts through the Cartesian review.

We have witnessed many examples over the last few years that demonstrate the lengths that BT will go to preserve its commercial interests when formulating its regulated accounts. However the scale of inappropriate attribution set out in Ofcom's 2015 attribution review was startling, with Ofcom ultimately removing a staggering £250m from the regulated cost base in one year and with material cost movements all in one direction (remedying misallocated costs that should not have been charged against regulated services, but instead should have been allocated to non-regulated services). These numbers demonstrate the importance of transparency over how costs and assets are allocated between Openreach and the rest of BT. Whilst Ofcom has stripped out these costs on a forward looking basis, <u>there is no automatic penalty or claw back for previous years</u>. Thus, the incentive to comply is minimal as only forward looking changes are ever made. We need a regulatory approach that prevents BT from allocating its costs in a way that artificially increases prices for regulated services and ultimately negatively impacting consumers.

The scale of the information asymmetries that exist when dealing with an organisation as large and complex as BT, even with the benefit of Ofcom's information gathering powers makes this a ongoing challenge. BT has a commercial incentive to look for ways within the current rules that permit them to adjust costs and assets to ensure a favourable commercial outcome. The complexity of BT's business, exacerbated by the fact that many regulated and unregulated services share a large pool of common costs means it is always a challenge to reach fairly derived, robust numbers, even taking into account Ofcom's more recent interventions.

The independent incorporation of Openreach would greatly aid both transparency and fairness, setting a hard demarcation point that would allow further scrutiny where it is badly needed, adding to the frame of reference available to stakeholders when scrutinising regulatory accounting output used to set prices. Company law and accounting standards would automatically apply meaning there would be greater clarity and real scrutiny on any adjustments. Things would look very different now if a hard demarcation point had existed many years ago, with many of the commercially motivated regulatory accounting changes adopted by BT (that have resulted in or were intended to lead to higher pricing being paid by UK consumers and businesses), and which have been gradually outlawed by Ofcom, not having been possible in the first place.

Behavioural remedies cannot set out rules for every possible transgression

Neither we nor Ofcom can foresee every eventuality that needs to be regulated in microscopic detail.

One example of this relates to MBORC (Matters Beyond Our Reasonable Control). This is a contractual process to allow BT to declare a force majeure event such as extreme weather conditions. This results in normal provisioning and repair times being suspended. Ofcom has recognised that there has been a strong incentive on Openreach to game MBORC, declaring it more frequently and leaving it in place for longer than is necessary due the strong financial incentive it provides: SLG payments aren't paid when MBORC is in place. When introducing its BCMR minimum standards, Ofcom was mindful of the gaming incentive that MBORC provides, excluding it from being used to compromise measurement of the standard by including a pre-set level of MBORC within the standard, stating that "*We considered that, by including delays due to events covered by MBORCs, we would avoid the risk of incentivising Openreach to use MBORC declarations as a means of addressing potential minor non-compliance issues with our minimum standards or to apply less rigor in its criteria for declaring MBORC".*[93] The level of micro-management that Ofcom has had to deal with in order to put in place effective regulation in just this one scenario is unsustainable on a more industrial scale.

Monitoring and enforcing behavioural remedies is costly

There is an inherent difficulty in monitoring and enforcing behavioural remedies. In theory the Ethernet contractual Service Level Guarantee framework (SLG) regime should have provided a tough enough incentive for Openreach to avert the quality of service crisis. The fear of making SLG payments to Communication Providers should have resulted in more resources being deployed, ensuring service standards were maintained. This did not occur

[93] See: 13.222: http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-2015/statement/bcmr-final-statement-volume-one.pdf

because the SLG regime was compromised through commercial gaming by Openreach, including the misuse of deemed consent.

Deemed consent is a contractual provision allowing Openreach to deem the consent of its Communication Provider customers to a change of the Delivery Date of an Ethernet order in a range of circumstances as provided for in its contract. As a result of the deemed consent, SLG payments for late provision do not accrue. After several months and years of abuse and little progress in discussion with Openreach, Vodafone referred a dispute to Ofcom. Ofcom considered that deemed consent mechanism should only be used in exceptional circumstances[94] given its overall operation as a mechanism for extending the timeframes set in the SLA. As the service crisis began to bite, Openreach's use of Deemed Consent spiked. Far from being used in exceptional circumstances, its use became routine. Between 2011 and 2014, 71%[95] of all provide and regrade orders for Ethernet products completed by Openreach, were subject to at least one deemed consent change to their Delivery Date, resulting in 2014 of over 24 days of delay on average per impacted Ethernet order. Ofcom have completed one investigation into Deemed consent, has had to disregard it from the KPIs and measures put in place following from the 2016 BCMR and is still in the throes of an own initiative investigation into the very same behaviour[96].

[CONFIDENTIAL]

The bodies overseeing compliance lack teeth

The Equality of Access Board is the primary body concerned with ensuring compliance with the Undertakings. The Equality of Access Board itself has highlighted within its submissions to this very consultation process[97] that a clearer set of principles and intentions are needed in order to make judgements on practices which might not be explicitly prohibited but are certainly against the spirit of what was intended. While we believe this is indeed true and accept that it would help the EAB or any successor body make judgements in unforeseen situations where the specific clauses may not be easily applicable, it very difficult to eliminate these gaming practices entirely.

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[94] See 4.33: http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01165/01165_Final_determination.pdf

[95] See 3.45: http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-2015/summary/BCMR_Sections.pdf

[96] Vodafone Investigation January 2016: http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01165/01165_Final_determination.pdf and ongoing Own Initiative Investigation: http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01170/

[97] See EAB Report 2016 page 22

http://www.btplc.com/Thegroup/Ourcompany/Theboard/Boardcommittees/EqualityofAccessBoard/Publications/EAB_Annual_Report_2016.pdf

The EAB itself has recorded 68 'non-trivial' breaches of the Undertakings[98] this is an average of more than one every two months since Openreach was founded. In 2015/16 there were twelve breaches of the Undertakings recorded, the same number as the previous year, demonstrating that 10 years after its inception, behavioural rules are insufficient to ensure Openreach's conduct matches the original expectations set for it. Rules around inappropriate information sharing and the use of non-Equivalent products and processes continue to occur. It is worth stressing that these are only the breaches that have come to light and none of us are fully aware of the extent of breaches that have not been recorded.

The EAB continues to express concern about the operation of some of the key processes that operate between Openreach and Communication Providers, for example the Statement of Requirements (SoR) process continues to cause concern[99] with external communication providers left feeling the process is loaded against them, even although on the face of it equivalence rules have been met.

Behavioural remedies have become a game of cat and mouse

Regulation cannot afford to be regarded as a game of cat and mouse between regulators and regulated parties. Compliance or non-compliance left in the hands of the incumbent should be more than a cost benefit analysis where there is little downside of non-compliance: clearly the threat of a breach being found does little to deter non-compliance where there is little monitoring. As noted above, the current system has a huge 'regulatory delay', where BT profits (quite literally) until Ofcom takes action.

Ofcom states in its Initial Conclusions that *"there is a lack of confidence from the industry that [certain processes] are delivered in an equivalent manner"*[100] Vodafone would agree that it has lost confidence in Openreach as a key supplier. It concludes in this consultation that there is therefore *"a need to move away from specific behavioural rules around future investment decisions towards changing the responsibility, purpose and culture of Openreach through a new governance approach."*[101]

Whilst we cannot get away from behavioural regulation in totality, on their own, we have demonstrated that they are not enough to overcome the filial ties between Openreach and a BT-wide corporate strategy. Whether individuals make decisions to support wider BT

[98] See Page 8: https://www.btplc.com/Thegroup/Ourcompany/Theboard/Boardcommittees/EqualityofAccessBoard/Publications/EAB_Annual_Report_2016.pdf
[99] See Page 7: https://www.btplc.com/Thegroup/Ourcompany/Theboard/Boardcommittees/EqualityofAccessBoard/Publications/EAB_Annual_Report_2016.pdf
[100] Initial Conclusions at 6.18
[101] Proposal for Comment at 3.31

objectives because it has been a safe employer for a number of years, because their future career path depends on not making waves or whether they are given direct instructions to make certain decision to behave in a certain way, it does not really matter. Therefore, we see a key role in Ofcom's proposals to improve Openreach independence giving it the purpose, capabilities and culture to act as and be seen to act as an independent company.

Simply, Ofcom's goal of *large scale deployment of new fibre networks* will not happen without intervention to address the risks we have identified. More and more behavioural regulation, which cannot be effectively monitored and enforced, is gamed and does not provide sufficient incentive to be taken seriously is not the answer. We agree with Ofcom that more complex behavioural rules attached to the existing Openreach structure are unlikely to address Ofcom's competition concerns.

5. Structural remedies are required to overcome discrimination and to deliver additional investment

Over 30 years of behavioural ex ante regulation in the UK has failed to deliver lasting structural changes in the market. Whilst retail market shares, particular in consumer broadband are more evenly split between 4 suppliers (BT Consumer, Virgin Media, Sky and Talk Talk), industry profit is overwhelmingly reserved for BT, and essentially its Openreach arm[102]. Profit drives investment which drives choice and innovation.

Behavioural regulation has its place, but it has not enabled any strategic change in the market hierarchy and even if it was possible to layer on more and more behavioural remedies (and we have already discussed the complexity of doing that), the likelihood of them delivering large scale fibre investment as set out in Ofcom's vision is minimal: full competition between three or more network operators for around 40% of premises, with competition from two providers in many areas beyond that[103] will only be delivered by addressing the three barriers to investment that we have discussed. Deployment risk, market-share risk and strategic overbuild risk are material factors negatively impacting any investment case and addressing them must be part of Ofcom's reforms.

A key aspect on this is: the structure and purpose of Openreach. Ofcom has established that the current model of regulation which is at 'step 5' on its model of separation has failed to deliver investment and risks discrimination in strategic decision making. Ofcom's ladder sets out 3 steps beyond reliance on functional separation and behavioural remedies:

- Step 6: Functional Separation with independent governance: BT's proposal based on changes to its existing Undertakings might fall into this category.
- Step 7: Legal Separation: Ofcom's proposal and the industry proposal fit into this category
- Step 8: Structural Separation

We discuss each of these in turn, starting with Structural Separation.

[102] For example, compare Openreach's profit in the last ten years with that of BT Global Services. With revenues of £50 billion over that period Openreach has returned an operating profit of £12.5bn, in stark contrast BT's IT global services with revenues of £75bn over the last ten years has returned profits of less than £1bn.
[103] Proposal for Comment para 1.4

Vodafone's 'first best' solution was and is structural separation

Structural separation has worked in New Zealand. It has reinvigorated the retail market, created opportunities for distinct investment in broadband infrastructure (incidentally, not all undertaken by the ex-incumbent), but has demonstrated that clear public policy objectives together with sufficient carrots and sticks will deliver. New Zealand put in place public funding for FTTH networks that was only available to wholesale businesses. Telecom New Zealand, in recognising that fibre was the future, voluntarily structurally separated out its Network (Chorus) and Retail (Spark) divisions in order to participate in the government scheme. Chorus and Spark are now fully independent businesses both flourishing in their own separate retail and network markets. We discussed this in our response[104] to Ofcom's consultation last year.

Ofcom has powers under Articles 8 and 13A of the EC Access Directive (2002/19/EC) to put in place structural remedies and using the UK Enterprise Act 2002 can refer the market to the Competition and Markets Authority for investigation. However, knowing it had the ability to put in place full structural regulation directly could eliminate much of the regulatory gaming which could otherwise undermine the effectiveness of these proposals. In order to overcome any lack of clarity in the process or Ofcom's confidence in exercising its powers to put in place structural separation, we believe Ofcom should be provided with additional specific powers and duties in order to be able to fully exercise its role as a sector specific market regulator. It should be able to confidently use powers, without referral to another body to order divestment in order to address persistent competition problems or market failures. Such a power is already vested in the Payment Systems Regulator and provides that regulator with the ability to look across a wider range of remedies, all of which it is capable of delivering. More detail on this is set out in Annex B.

BT's Offer of Revised Undertakings

BT has offered[105] to Ofcom, revised Undertakings that we assume are intended to deliver something broadly approaching Ofcom's step 6: "Functional Separation with independent governance". We do not believe that BT's proposal would be effective, and even if it were we do not believe that this solution will meet Ofcom's wider objectives.

We have set out a more detailed analysis of BT's proposals in Annex A however a number of key aspects of BT's proposals mean that the overall effect of is one of little change. We agree

[104] http://stakeholders.ofcom.org.uk/binaries/consultations/dcr_discussion/responses/Vodafone_Annex_5.pdf

[105] http://stakeholders.ofcom.org.uk/binaries/telecoms/policy/bt/var25.pdf

with Ofcom's assessment that the proposal is "*insufficient effectively to change Openreach's purpose, capabilities and culture*[106]:

- The Openreach CEO will be appointed by and report to the BT Group plc CEO.
- The Openreach Executive has a duty to share Annual and Medium term plans with the BT Group CEO and CFO *before* these plans are put to the Openreach Board.
- Exceptions to the confidential consultation process including any plan which is *"of significant strategic importance"* are so widely and vaguely drafted they undermine its very purpose.
- The Openreach Executive has a duty to report its monthly performance (and any recovery plans) to the BT CEO.
- The Openreach Board is also the Openreach Compliance Committee – so it will both govern and audit its own compliance.
- And the Openreach Compliance Committee has no ability to audit or review compliance with the revised Undertakings outside of Openreach, which would not be an issue if BT had not proposed that the EAB be disbanded.
- Every single reference[107] to Equivalence of Inputs has been removed, removing any clear direction from Openreach's purpose.

Significantly this leads us to believe that BT's proposals will not lead to any independent governance of Openreach and that Openreach's very purpose and culture would actually become less clear. The combined effect of these points means that BT's proposal has little value when assessing it as a remedy for the persistent competition problems and market failures that Ofcom has set out.

BT's proposal will not deliver independent governance

The overall effect of BT's proposed Undertakings is to make it very clear that control rests with the BT Group CEO and BT Board. There is clarity that the BT Group CEO will review Openreach's business plans even before the Openreach Board sees them, clarity in that any BT employee or independent director sitting on the Openreach Board, will have an <u>overriding</u> duty *"to act in the best interests of BT plc and its shareholders*[108]". Clarity that for any *"items of significant strategic important to BT…the Openreach CEO will develop a proposal for the Openreach Board to submit to the BT Group plc board for approval."*[109] BT is essentially

[106] Proposal for Comment at 7.37
[107] One reference to EoI (but it is not defined) is included BT's amended articles of association, however we suspect this document will not be high on the reading list of the majority of BT employees.
[108] Strengthening Openreach's independence BT's Notification to Ofcom dated 18 July 2016 at Governance Proposal Part A para. 3.6 (h)
[109] Strengthening Openreach's independence BT's Notification to Ofcom dated 18 July 2016 at Governance Proposal Part B para. 1.5

codifying the behaviours and processes that are occurring today, that Ofcom is attempting to eliminate.

Thus, the proposals put forward by BT do not deliver an independent Openreach and therefore fail its objective as set out in its Initial Conclusions and this consultation. The significant overhead of an Openreach Board, or changes to the BT Articles of Association or recruiting independent Directors will do little to change any decision or outcome, due to the obligations placed upon the Openreach CEO and Board, the constraints under which they would operate and the loopholes which reserve control for BT Group whenever it really matters.

BT's proposals actually weaken Openreach's current purpose and culture

BT's proposals remove every single reference to Equivalence of Inputs from the Undertakings while the previous version of the Undertakings used the term Equivalence of Inputs 51times. We recognise that many of the references are no longer necessary (the one off obligation having been delivered), however collectively the 51 references create a strong and persistent cultural and strategic direction. Removing all references to Equivalence of Inputs leaves a void; there is no strategic or cultural direction, with one exception: the obligation to treat all customers *equally*. There is no specific definition of what 'equally' would mean in practice and the backdoor routes that have been left open in the governance arrangements mean that Openreach can still favour downstream BT businesses. It can do this, as BT Group has the responsibility to make strategic decisions on behalf of Openreach, and in doing so can capture BT's retail requirements. There is a real risk Openreach could claim to be meeting its nebulous obligation to treat customers equally, while still being overwhelmingly driven to deliver BT's retail requirements.

You might expect that changing BT's Articles of Association might include some reference to Openreach's future purpose or duties. The only one that is set out is that the Openreach Board will ensure that *"Openreach complies with its regulatory obligations in relation to equivalence of inputs as a remedy for SMP"*[110] It is interesting that within the Articles themselves, they do not mention other regulatory compliance obligations such as SMP, cost allocation and pricing.

BT's offer is not a credible starting point

Whilst we might dismiss BT's proposal as an opening gambit, it is clear that BT's view of what level of independence and distinct accountability that Openreach should have in order to

[110] Strengthening Openreach's independence BT's Notification to Ofcom dated 18 July 2016 at Governance Proposal Part E proposed paragraph17.2.7

bring about change in the market is some way off that of other stakeholders including Vodafone and Ofcom. Ofcom sets out[111] that:

> *"One of the most important measures of success of our proposal is our ability to assess whether Openreach Board decisions are taken in an independent manner, without undue influence from BT Group. The increased transparency resulting from the new governance processes will be one of the most important aspects of this assessment. We propose also to seek evidence from customers on the responsiveness of Openreach, in particular to new investment ideas and new models of co-investment."*

On this basis BT's proposals must be rejected as the proposals specifically include several duties and processes where BT Group will unduly influence Openreach Board decisions to such an extent that Vodafone would have no confidence in bringing 'new investment ideas or new models of co-investment' to an Openreach governed in this way.

For instance:

Part A 3.6	"Each Openreach Board member will owe the following duties to Openreach…(h) to act in the best interests of BT plc and its shareholders."
Part B 1.2 (b)	the Openreach Executive will submit the draft MTP and AOP to the BT Group plc CEO and BT Group plc CFO for review, following which the Openreach Executive shall submit the draft MTP and AOP to the Openreach Board for review and approve;
Part B 1. 5	The Openreach CEO will have delegated authority from BT and the Openreach Board to authorise the capital expenditure projects as detailed within the AOP. The Openreach CEO, having consulted with the Openreach Board, to make changes to the composition of the capital expenditure projects within the MTP or the AOP capital expenditure budget…except in the case of items identified in the AOP or MTP as items of significant strategic important to BT; in such cases the Openreach CEO will develop a proposal for the Openreach Board to submit to the BT Group plc board for approval."
Part B 1.7	Where, during the Confidential Phase of the Customer Consultation Process pursuant to section 1 of Part D of this Governance Protocol, proposals for investment are considered by Openreach but (i) are of significant strategic importance to BT or (ii) cannot be financed within the agreed capital

[111] Para 6.5 http://stakeholders.ofcom.org.uk/binaries/consultations/strengthening-openreachs-independence/summary/condoc.pdf

> expenditure budget of Openreach or (iii) arise in connection with section 2.8[112] of Part A of this Governance Protocol, the Openreach CEO shall confidentially advise the BT Group plc CEO and BT Group plc CFO of the possibility of a material increment to the Openreach investment requirement. Any such proposed investment which is less than £100 million will require the prior approval of the BT Group plc CEO and BT Group plc CFO. Where the investment is in excess of £100 million or of significant strategic importance, the prior approval of the BT Group plc board will be required.

In Vodafone's view, BT's proposals will result in no meaningful change and will not deliver on Ofcom's objectives as they do not address the three key barriers to investment in the market:

Deployment risk: BT's proposals do not create the necessary trust and capability nor the improved clarity over the assets used and costs incurred to improve the likelihood of it providing a 'fit for purpose' regulated Duct and Pole Access product.

Market share risk: BT's proposals do not separate Openreach sufficiently such that an independent culture would arise for an organisation responsive to all its customers' needs. BT's proposals do not ring fence assets or people and provide such wide-ranging exemptions to the confidential consultation process that there would be no increase in trust between Openreach and its customers or partners.

Strategic overbuild risk: BT's proposals do not change any aspect of strategic decision making or Openreach's capability to set out a long-term technology strategy, leaving BT incentivised to make high-level comments about future roll-out just sufficient to 'warn off' alternative investment.

Ofcom's proposed model: Step 7: Legal Separation

Ofcom's proposed model of Openreach separation and governance is based on step 7 in Ofcom's ladder of separation. Ofcom sets out 11 aspects in its proposal, which we review in light of Ofcom's proposed objectives of "*full competition between three or more networks for around 40% of premises, with competition from two providers in many areas beyond that,*"[113] by assessing them against the same hurdles described above that need to be

[112] See 7.21.1 of the Proposal for Comment. Ofcom interpreted NPV negative cases as being a separate category of exclusions to the customer confidentiality arrangements. Our reading of BT's proposal is that *any* expenditure incremental to the MTP/AOP creates an exemption from the confidential consultation process including NPV negative plans which the Openreach Board nonetheless consider to benefit Openreach customers.

[113] Para 1.4 http://stakeholders.ofcom.org.uk/binaries/consultations/strengthening-openreachs-independence/summary/condoc.pdf

addressed in order to deliver on those objectives, namely deployment risk, market share risk and strategic overbuild risk.

Ofcom's proposal and our comments are set out below:

1. Openreach as a distinct company: We are proposing Openreach is established as a wholly owned subsidiary of BT plc, with its own purpose, board of directors and governance arrangements.

We agree that Ofcom's proposal to establish Openreach as a wholly owned subsidiary with its own purpose and governance is necessary in order to address market share risk. Market share risk manifests itself as fixed network cost base unsupported by the possible addressable market. As a result the only way to address this is to support co-investment which reduces the fixed cost base by sharing between parties. Establishing Openreach as a separate legal entity would be a precursor to any consideration of Openreach as a trusted investment partner.

We also believe that incorporation of Openreach as a distinct company would reduce deployment risk as a simpler structure would make it easier for Ofcom to monitor and ensure the delivery of a 'fit for purpose' DPA product. Finally, there could be greater disclosure of its long-term vision and technology plan which would help address overbuild risk as this plan would be central to the purpose of the independent Openreach rather than just one strategy amongst many within a wider corporate group.[114]

2. Openreach purpose and Directors' duties: The Articles of Association of Openreach will make clear that a core purpose for the company is to act in the interests of all downstream customers equally, and the Openreach Directors will have duties to act accordingly.

The lack of subsidiarity when deciding on strategic matters means that Openreach and BT is still at risk of discriminating towards its own retail business, whether that bias is conscious or unconscious. Therefore, in order to address this very specific risk, the Openreach Board should be empowered with specific duties and obligations to consult on investment plans, to consider and offer co-investment opportunities and be required to give Openreach-centric reasons for its decisions. Otherwise we are at risk that Openreach does not even put a recommendation to BT Group Board, especially if it felt it was wasting its time as the proposal was most likely to be rejected. We envisage that this would be partly established by creating specific duties for the Openreach Board:

[114] See the previously mentioned strategy presentation from Sean Williams of November 2015 where little detailed information on Openreach's plans and its reasoning for adopting that plan is presented in a few slides at the back of a wider strategic briefing.

- to support and set out a framework under which Openreach is willing to consider co-investment proposals for efficient investment and, in the confidential consultation process, to give detailed reasons for its decisions.
- to ensure that the Openreach Executive fully considers all investment options with specific regard to co-investment.

> 3. Openreach Board: The Openreach Board would have a majority of non-executive directors, including the Chair. They would be appointed by BT, but, crucially, they would not be affiliated to BT Group, and Ofcom would be consulted on this as part of the appointment process.

We agree with this proposal. To have any teeth, the Openreach Board must be independent and have no ties to BT. In order to guide the Openreach Board and provide it with a sense of purpose, the Directors' duties are incredibly important. Without them the Openreach Board could fall under the influence of BT Group.

> 4. Openreach Executive: The Openreach CEO would be appointed by and report directly to the Openreach Board. There should be no direct lines of reporting from Openreach executives to Group executives, with any exceptions to be agreed with Ofcom.

We agree that this is the minimum necessary to create separation between BT Group executive and that of Openreach. In order to ensure that Openreach is sufficiently incentivised to consider and offer co-investment opportunities we agree that the Openreach Executive must be guided by a specific duty to establish and operate customer and partner consultation processes that cover, not just the ability to share its own plans, but to enable the consideration of co-investment proposals.

> 5. Greater consultation with customers on investment plans: Openreach would have an obligation to consult formally with all downstream customers on large-scale investments. There would be a new 'confidential' phase where customers can discuss ideas with Openreach without this information being disclosed to BT Group.

In respect of any investment plans where Openreach has already decided that it will invest in FTTP, we believe additional regulatory rules should be imposed requiring it to offer fractional ownership IRUs on a basis similar to that in France.[115] This would directly deliver Ofcom's policy goal of three or more network providers in economically viable geographies.

In cases where Openreach is considering its own G.Fast deployment, we believe the proposed confidential consultation process is necessary but does not go far enough. We agree that in

[115] Regulatory approaches to risky bottleneck assets February 2016 at pp. 29-41.

order for consultation to deliver any tangible benefits it must do more than reinforce the existing supplier-customer relationship between Openreach and CPs. It needs to be a two-way consultation accepting proposals from CPs as well as sharing Openreach's investment proposals with CPs. We believe this obligation needs to include more detailed obligations to consider co-investment proposals from third parties and Openreach's own proposals need to (i) set out a framework under which Openreach is willing to consider co-investment; and (ii) give detailed reasons for its decisions. Otherwise how can any potential co-investor improve its proposals or even understand the target at which it is aiming?

Ofcom has said that one indication of Openreach's success as an independent entity will be whether there is "*evidence from customers on the responsiveness of Openreach, in particular to new investment ideas and new models of co-investment.*"[116] Responsiveness requires full two-way engagement not just a multi-round process of customers and partners presenting their 'new investment ideas' and being told by Openreach: "Sorry, no. Please try again."

We envisage that this would require a few amendments, as set out below, to Ofcom's proposals in para 4.36:

4.36 We are proposing to establish a formal process on this basis that would have three main elements:

> 4.36.1 An obligation for Openreach to consult formally on major investments in networks and products, and the development of new services before decisions (even in principle) are taken to invest. In practice, this would mean that Openreach has to run a transparent consultation process in the early stages of any major new Openreach developments. For example, by sharing and gathering feedback on its plans with customers through industry forums. The consultation process would be viewed in light of the duty placed on Openreach Directors to ensure the equal treatment of all its downstream customers.
>
> 4.36.2 A new 'confidential' engagement phase where customers or potential partners can discuss investment ideas with Openreach without this information being disclosed outside of Openreach employees. ~~Here the~~ In line with its duties, the Openreach Board must review and where appropriate approve and recommend to the BT Board business plans developed by Openreach executives in conjunction with downstream customers or potential partners and to give detailed reasons for its decisions. At this stage, information would only be disclosed to BT Group with the consent of the third party.

[116] Para 1.46 Propsal for Comment

4.36.3 Downstream divisions of BT Group would need to use the same process to initiate major new investments. BT Group would not be able to initiate new investment ideas outside this process. The Openreach Board must run this process for all decisions about copper network upgrade or replacement that have been made in the last 12 months including, for the avoidance of doubt, its G.Fast deployment plans announced publicly in May 2016.[117] Openreach itself would be able to initiate major network investments or operational changes where this was in the interests of Openreach. For example, where pro-active maintenance was required to ensure good quality of service over the network.

In reality our proposal is little more than the process proposed in the Access to Infrastructure regulation[118], albeit we have streamlined it so that it is more proactive and embedded it into Openreach Board and Executive duties so that it has some real meaning. The Access to Infrastructure Regulation includes:

- A right to ask Openreach for its plans by postcode – BT would be required to respond within 2 weeks. BT can of course refuse disclosure (s. 8(6)).
- The right to make reasonable request for access (s.8)
- Principles for funding, albeit in this instance referring to publicly funded works – s.9 sets out that co-investors must make a reasonable contribution to costs.

Whilst the principles have been established, we do not believe the Access to Infrastructure Regulation sets up the necessary commercial arrangements to ensure that deployment risk and market share risk has been adequately addressed. A legally separate Openreach that was measured on these deliverables and with primary duties to consider co-investment would be more likely to achieve Ofcom's objective of "*full competition between three or more networks for around 40% of premises, with competition from two providers in many areas beyond that.*"[119]

We accept that there are situations where an Openreach decision to reject co-investment would be rational:

- If Openreach believed the co-investment offer was not credible it might refuse to co-invest.

[117] www.btplc.com/news/index.htm#/pressreleases/bt-to-invest-billions-more-on-fibre-4g-and-customer-service-1394948
[118] http://www.legislation.gov.uk/uksi/2016/700/regulation/11/made
[119]http://stakeholders.ofcom.org.uk/binaries/consultations/strengthening-openreachs-independence/summary/condoc.pdf"

- If Openreach believed that there were sound business reasons based upon cost and end-customer willingness to pay which made another technology more attractive for its customers.
- If Openreach had other plans that it was financing and deploying, it might not have the operational capability or be able to stretch to additional investment.

This is why detailed reasons from Openreach for its decisions are required. What is more, it is clear that Openreach's ability to consider and offer co-investment offers must exclude any consideration of strategic overbuild. In order to remove this ability, Ofcom must also put in place obligations and duties that require Openreach to declare its plans and to stick to them.

6. Greater independent financial control within an agreed budget: BT Group would set a 'financial envelope' (a set spending capacity). Openreach would develop its own strategic and annual operating plans within that financial envelope, and be able to make recommendations to the BT Group Board for increased spending.

Ofcom states that "BT Group would set a 'financial envelope' (a set spending capacity). Openreach would develop its own strategic and annual operating plans within that financial envelope, and be able to make recommendations to the BT Group Board for increased spending". Whilst we agree with this, the proposal then goes on to state that a number of matters will be reserved for the BT Board, with a recommendation from the Openreach Board required. Matters reserved include:

- Major access network investments where there is significant demand side risk, in the form of uncertainty on customer take-up or pricing, and where this risk would be borne by BT Group. An example would be a large-scale FTTP investment with returns dependent on high take-up or significant price premiums, or with no offsetting volume, revenue or capital expenditure commitments from downstream customers.
- Major network transitions and closures where BT Group might bear the risk to overall asset values or claims of failure in delivering network services. For example, the closure of BT's traditional voices telephony network and a move to a new broadband based voice service.
- Co-investment or minimum revenue guarantee business models where there is a risk that the third parties involved could fail, leaving BT Group bearing investment risk.
- Co-investment business models, which resulted in shared ownership of new network assets.

As a result, all major matters require a strong level of support from the Openreach Board to stand any chance of being approved by the BT Board. If Openreach doesn't have the ability to make strategic decisions without approval from the BT Board, then the risk is that the BT Board will always take a retail centric view point. Therefore the Openreach Board needs to be subject to a primary duty to consider co-investment and to make co-investment proposals, in order that it does not assume, in the absence of direction, that its objectives are the same as BT Group. Moreover, we see no reason to assume that the BT Group Board will be better placed to take a view on issues like what constitutes 'high take up' or 'a significant price premium'. In fact, Openreach by virtue of its interaction with other customers and business models may well have better projections or an understanding of 'best in class' business models than BT Group.[120] The same is true of the credit-worthiness of co-investment partners. Openreach will be best placed to make these decisions and will be equally incentivised not to conclude a deal with a partner which is too risky. Openreach's view should not be 'second guessed' by the BT Board which will necessarily be further removed from the detail.

7. Openreach employees: Our strong preference is that people who work for Openreach would be employees of the new company, rather than employees of BT Group. This is to ensure that there is no conflict of interest, actual or perceived, and to ensure that Openreach is able to develop its own distinct culture.

As we set out in section 3, Openreach employees are a key aspect of the success of any governance changes. At the moment, Openreach employees are paid by BT, have access to BT Sharesave schemes and are provided with free BT Consumer broadband. Jobs are advertised across BT, so individuals move in and out of Openreach as opportunities arise and their careers progress. This creates a culture and a bond of one-BT. In order to fully deliver the governance and culture changes being proposed, Openreach should employ its own staff. Deployment risk manifesting itself through subconscious bias can only be possibly eliminated if people are employed by Openreach, not by BT.

We know that any corporate reorganisation is not without some upheaval. Ofcom has identified that costs are a consideration and that one of the costs identified is the impact on the BT Pension Scheme (BTPS). Together with Sky and Talk Talk Group, Vodafone commissioned Mercer to provide some insight and thought on the likely impact of Ofcom's proposal on the BTPS.

Mercer concludes that the BTPS should not present a barrier to the legal separation of Openreach and their experience shows that where there is sufficient corporate will, issues can be adequately addressed and that there are many mechanisms that are frequently-used and accepted in the pensions industry that can be used to mitigate any adverse impact. Mercer's full report can be found at Annex D.

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[120] Take, for instance, Hyperoptic's approach of seeding demand prior to rolling out FTTH and, according to public reports, achieving very high take-up rates as a result. This is a fundamentally different approach to BT Retail. Why then should the BT Board rather than the Openreach Board decide whether proposed take up rates in a proposal are 'too high.'

Two aspects of the BTPS are affected by the proposal for Legal Separation: the Crown Guarantee and the impact on the covenant due to structural subordination. Both are these issues can be mitigated with a variety of standard industry mechanisms. For instance in order to address the impact on the Crown Guarantee due to the establishment of a legally separate Openreach that becomes a participating employer in the BTPS, Mercer proposes that a number of options are available to the BTPS:

[CONFIDENTIAL]

This range of options means that whilst the Trustee is likely to consider that some action is required, the range of industry standard options available provides sufficient scope from which to find an appropriate solution.

In addition Mercer sets out a range of options available to BT and BTPS Trustee to address any concerns with structural subordination of Openreach including:

[CONFIDENTIAL]

In other words, transferring relevant employees into a legally separate Openreach has a cost and is likely to require additional work as a result of BTPS Trustee engagement, however the issues of structural subordination of Openreach and the Pension Guarantee are clearly manageable.

On the other hand, the benefits of addressing the cultural ties and bias towards BT plc are fundamental to the very success of Ofcom's reforms.

8. <u>Openreach assets</u>: Our starting position is that Openreach should own those assets that it already controls under the current Undertakings, subject to any costs that might arise. We are open to proposals that would mitigate such costs by means of agreements between Openreach and BT.

Openreach must be given operational, strategic and financial responsibility for its core assets in order that strategic decisions can be made consistently and without regard for consulting with other parts of BT. If Openreach is not given such responsibility, it would be possible for BT to use its control over these assets to influence Openreach strategic decisions. For instance a need to exit an exchange in a hurry might mean one form of network access is preferred to another. Or the decision to remain in an exchange might determine that a solution that requires exchange space is used to justify that lease. Openreach must have control of strategic assets to make informed strategic decisions.

Similarly, for Openreach to provide a 'best in class' DPA product it is vital that it has control over the assets it needs to do so. Otherwise, as pointed out in our Ten Point Plan proposal from May 2016, Openreach could be 'squeezed' by BT Group representing a downstream competitor to its other customers as well as Openreach's 'landlord'.

Furthermore for any reasonable consideration of co-investment in order to address market share risks, those assets must be clearly identified by the assets being controlled by Openreach.

9. Increased Openreach resources and capability: Openreach would have enhanced internal capability to ensure it has the capabilities required to develop strategy and manage operational delivery in the interests of all its customers, without relying overly on BT Group.

We agree, Openreach should be fully resourced and in particular must be able to carry out its own developments and thinking. To this end the relevant parts of BTTSO should be moved into Openreach in order that technical and strategy development are independent of decisions made in and by the rest of BT. Otherwise the Openreach Board will simply not have the independent competency necessary to make decisions on co-investment proposals or long-term technology strategy. TSO's budget must also be moved into Openreach.

10. Openreach to have its own brand, independent of BT: Openreach would have its own brand, not affiliated with BT Group, to help embed the organisational culture of an independent company enabled by the other changes set out.

This is an important aspect of reinforcing the cultural separation, for customers, users and employees to ensure that Openreach both is and is seen by its customers and partners to be truly independent.

11. Regulatory compliance ensured by the Openreach Board: Responsibility for monitoring compliance would be a duty of the independent Openreach Board, potentially discharged by a sub-committee of independent members.

This will only work if there is clarity about compliance and therefore the Board duties and Articles are of paramount importance. Entrusting the Board to effectively monitor itself, rather than the current arrangement of an independent Equality of Access Board that reports through the Company Secretary to the Group Board feels as if there is likely to be some level of conflict of interest. We have no doubt that the Openreach Board would in all likelihood put in place an audit sub-committee, however Ofcom is best placed to assess compliance of regulation obligations.

Conclusion

The goal is an Openreach, that behaves like, and is seen to behave like an independent company that is responsive to new investment ideas and new models of co-investment, and therefore could become a trusted investment partner and/or supplier with a role in delivering Ofcom's vision of full competition between three or more networks for around 40% of premises, with competition from two providers in many areas beyond that.

This requires Ofcom to implement not just its proposal for the legal separation of Openreach, but also to improve the proposals for customer consultation such that it captures the obligation to make co-investment offers and to consider co-investment proposals. In addition Ofcom must address the risk of over-build by requiring Openreach to publish and stick to investment roll out plans. A pick and mix approach will not work: it is not possible to deliver half of the benefits by only implementing half of the measures.

BT's current approach of withholding information but investing just enough to fix yesterday's problems whilst preventing alternative infrastructure entry, rather than setting out a vision and seeking to work with the rest of the industry to deliver a step change in UK infrastructure, results in incremental upgrades to its copper network, a postcode lottery of service, speed and quality and no choice. Unless true Openreach independence can be delivered none of this will change and the UK will fall further behind our peers and competitors in other countries which are accelerating their roll out of future-proof fibre networks.

Annex A: Vodafone Review of BT's Proposed Undertakings (including Governance Protocol in Annex 1)

BT has made a proposal[121] to Ofcom to put in place a new set of Undertakings including a Governance Protocol set out in Annex 1. The proposals raise a number of significant issues which are set out below, following which we comment on the text in BT proposals.

BT's proposals fall very short of Ofcom's step 7: legal separation with effective governance and step 8: structural separation. In order to maintain the readability of our comments, we only refer to these fundamental shortcomings where it specifically impacts on the proposed text, for instance, Annex 1 Part A para 2.1.

Overall intent and purpose

It is hard to review BT's proposed Undertakings without taking account of the fundamentally different views of the direction of their intent and purpose between BT and Vodafone. BT is proposing some changes to current Openreach governance (although when reviewing the proposals in detail we find that little will change in practice given *inter alia* the Openreach CEO will be recruited by and will report to the BT CEO), but has not embraced the fundamental problems or put forward solutions to address them.

However what is astonishing is that whilst BT may disagree with us on the need for structural reform, its proposed revised Undertakings and Governance model offer no cultural, strategic or commercial direction for a future Openreach. They do however provide a significant amount of quasi-governance that gives the appearance of independence but is then undone with other obligations that creates conflicts of interest or loopholes. For instance the Openreach Executive has a *duty* to put all its business plans to the Group CEO and CFO before it shares them with its *own* Board, so does this mean its own Board only sees plans that have been signed off by the BT Group CEO?

BT's proposals do not create a framework that would give Openreach a cultural identity or purpose of its own; that would empower it not to rely on BT to set its strategic direction, but it would continue to be beholden to a BT Group strategy. For these reforms to be effective, Openreach must feel empowered by what it owns and controls and where it takes it business forward. The proposed model of running some products and network on behalf of BT Group,

[121] http://stakeholders.ofcom.org.uk/binaries/telecoms/policy/bt/var25.pdf

unless and until BT plc decide otherwise in a reorganisation or personnel reshuffle, is not the future Openreach that is independent where it can set its own priorities based on serving all its customers equally.

All References to Equivalence of Inputs have been removed from the Undertakings. So what are Openreach's operating principles now?

We have already discussed the lack of strategic, commercial or cultural direction that the proposed Undertakings offer. This is illustrated by the removal of every single reference to Equivalence of Inputs from the Undertakings. All 51 references, including the definition, have been deleted. The Undertakings originally covered not just Openreach governance, structure and establishment, but also the need to treat products and business processes on an Equivalence of Inputs (EoI) basis. The number of references to Equivalent of Inputs reflected its primacy, not just as a regulatory compliance standard, but as an organisational behavioural requirement. Much was and has been said about the spirit of equivalence. By removing the letter, the spirit has also disappeared.

Many of the references that BT removes are rightly obsolete or need updating to refer to changes in products. However removing *every single reference* appears to be a reflection of BT's proposals to limit regulation and carry on regardless. If the proposed Openreach is not based on Equivalence, but treats EoI as a regulatory overlay, what are its operating principles? How will it treat its customers? Is regulation now solely the preserve of the regulatory team? Has BT decided that the concept of behavioural regulation applying to the whole organisation and all of its people is now redundant?

We note that BT proposes in its new governance code a single line in para 2.19 setting out the duties of the Openreach Board to ensure that it treat all of its customers '*equally*'. However 'equally' is undefined and therefore unclear as to its aim or likely application.

Will Openreach be in control of its own strategy?

Openreach does not have its own Research and Development capability

Despite claiming to give Openreach more delegated control and authority, BT makes no attempt to enable Openreach to operate with its own research, design or planning expertise, instead it will continue to rely on the central BT TSO function. We do not see how Openreach can be in charge of its own strategy when it does not control or define its own R&D agenda. This is simply illustrated by the fact that TSO personnel could on one particular day work on a project for Openreach and on the next day be working on a project for another part of BT. For instance if a team in TSO was work on two projects:

(1) A project commissioned by Openreach to assess long term options for future broadband services looking at a variety of technical options including speed of deployment, cost etc.
(2) The same team, or another one working into the same line management in TSO could be looking at a project to assess what bandwidths are required to deliver a new TV service that requires increased bandwidth but it needs to be available nationally in the next 2 years.

Whilst both projects require the same technical expertise to do the assessment and analysis, the success criteria and objectives are likely to be different. It would be very tempting; working in TSO with a requirement to support the whole of BT, to find solutions that met both sets of objectives, or choosing which objectives to prioritise. However a TSO team inside Openreach would look at just Openreach defined requirements and would not feel influenced, formally or informally by wider BT needs (other than those defined by Openreach as it understands customer requirements).

This may sound like a theoretical concern, one that is not material or perhaps does not happen in practice. This is not true. The Equality of Access Board (EAB) 2016 annual report[122], describes a breach (in their view, trivial) where an individual in TSO has access to both Openreach and downstream BT's Dark Fibre plans and sent the information to a party who should not have received such information. Whilst the breach is assessed in light of existing Undertakings (information sharing), it highlights the fact that TSO, as it stands today, has control of the information and knowledge of the strategic direction of the whole of BT. Openreach must have control of its own strategy-setting by moving the relevant TSO parts into the Openreach organisation.

CEO-CEO reporting lines

BT's proposal sets out that the Openreach CEO will both be appointed by the BT Group CEO and report to the BT Group CEO (Part A Para 3.3). Furthermore the Openreach Executive (which the Openreach CEO leads) has duties set out in Part B Para 1.2(b) to submit Annual and Medium Term Plans to the BT Group CEO and CFO before it submits it to its own Openreach Board. These close relationships between BT Group CEO and CFO and the Openreach Executive, purposefully excluding the Openreach Board, will result in little change compared to today. We would argue that is exactly what happens today, without the effort of involving a new Openreach Board to rubber stamp pre-made decisions.

[122] https://www.btplc.com/Thegroup/Ourcompany/Theboard/Boardcommittees/EqualityofAccessBoard/Publications/EAB_Annual_Report_2016.pdf

Independence of the Openreach Board

The Openreach Board as set out by BT is not independent but is a mere fig leaf.

1. It operates as a committee of the BT Group plc Board

The Openreach Board is not an independent Board, but a committee with powers and duties delegated from BT Group plc Board. Delegated powers are a standard form of governance; however the Articles of Association which should set out the level of delegation merely state that 'the Openreach Board will ensure that Openreach complies with its regulatory obligations in relation to equivalence of inputs as a remedy for SMP. Note, there are no other mentions of other SMP obligations. In addition, the Openreach Board will ensure that Openreach treats all customers equally'. 'This obligation relates to the process followed not the outcome.' This scope seems particular narrow, not even extending to cover all of Openreach's SMP obligations.

2. Its duties are limited and all material decisions will have been taken before the Board has been engaged.

As previously discussed, the Openreach CEO - BT Group CEO relationship and the duties of the Openreach Executive to directly submit plan (Part B 1.2(c) and review progress (Part B 1.6) will nullify any Openreach Executive or Board independence and leave the Openreach Board doing little more than rubber stamping decisions that that the BT Group CEO has already made.

These proposals do not constitute any material delegation of decisions making or control into Openreach despite creating an illusion that Openreach will have delegated powers. It leaves Openreach with no clear strategic purpose (such as Equivalence) nor any ability to define itself without sign off by the Group CEO and CFO. It puts in place a puppet Board which has no ability to act independently; and in fact has a duty not to act independently, as set out in Part A para 2.6 (h): "*3.6 Each Openreach Board member will owe the following duties to Openreach:... (h) to act in the best interests of BT plc and its shareholders*".

Detailed comments on BT's Proposed Revised Undertakings

Old para 5.3/New para 3.6 BT proposes that Downstream BT can offer SMP products. However if Openreach is not a separate legal entity from rest of BT, then SMP regulation would also apply to those products (as SMP regulation applies to the whole of BT as a single legal entity).

Old para 5.13.3/new para 3.10.1 the words 'and property' should be included in the first line after 'network'.

Old para 5.13.4/new para 3.10.2 ''due account' cannot be measured.

Old para 5.9 BT's portability functionality should sit where the WLR product sits.

Old para 5.14/new para 3.11 this section should capture the requirement to transfer over all TSO people who are engaged in any work for Openreach, such that Openreach does not have to commission any work from TSO. All R&D, strategy development, vendor management and specification, design, plan, build and delivery of technical or network developments should be carried out by Openreach's own TSO reporting into Openreach. As a result **old Para 5.15/new para 3.13** should be struck out.

Old para 5.20 and 5.21/new para 3.13 and 3.14 these plans need to be agreed with Ofcom in advance.

New para 3.23 This paragraph sits incongruously here, given that one would hope that the proposed Openreach Board would set incentives on its management that are far more stretching that Minimum regulatory Service Levels. We question why a bonus should be paid to Executives for essentially keeping the business out of trouble with Ofcom. This should be a job standard, not worthy of a bonus payment. Bonuses should be paid when customers' expectations are met or exceeded.

Old para 5.36/new para 3.24 Openreach staff should not be allowed to participate in BT-wide BT share save schemes. The BT share price is heavily weighted towards the perception of BT's retail business in the marketplace, therefore any gains are to be made by helping BT's retail businesses. This fundamentally undermines any concept of serving the whole market.

Old para 5.37/new para 3.25 should include a requirement that any person transferring from outside of Openreach into Openreach to take up a new job must be subject to the notice terms and conditions in their contract, as if the transfer was from an external employee.

Old para 5.42/new para 3.30 Whilst Openreach has been able to rely on services supplied from the rest of BT in the past, a newly formed Openreach should surely be able to support its own expertise. Relying on the rest of BT should be an exception that is approved in advance by Ofcom.

New para 3.31 This should reflect a structure where the relevant parts of TSO are moved to Openreach and therefore Openreach does not need to rely on TSO except in exceptional circumstances and in doing so cannot avoid it (eg the technology is legacy and spans BT) or does so under competitive tender processes.

Old para 5.48/new para 3.35. Given that Openreach is now over 10 years old, any requirement for consumers to understand that Openreach is part of BT should already have been taken. Therefore we fail to see why Openreach continues to rely upon being "a BT group business" – these words (and the corporate device) should be removed from BT vans and other branded items.

Old Para 5.49 Space and power allocation has been subject to some problems, where BTWholesale (having acquired the space and power it needed for its own services) then rejected other orders from external CPs. Space and Power allocations should be subject to EOI and as per our mark up of *Old para 5.13.3/new para 3.10.1*, should be moved to Openreach.

Old Para 7.7 This is not just still required, but as exchanges are now starting to be removed, will be required much more in the future.

New para 10.1 appears to reflect BT's approach and commitment to material change.

Detailed comments on Annex 1 Governance Protocol

Part A Para 1.1 sets out that the Openreach Board will be a sub-committee of the BT plc Board. However any delegation is undermined by the direction relationship between the Openreach CEO and the BT Group plc CEO and the obligation that all Directors (including independent directors) find themselves to BT Group plc.

Part A Para 2.8 sets out a right offered to the Openreach Board to request incremental capital to carry out investments that are NPV negative for that organisation. We would be most surprised if Openreach did in fact request further funding for an Openreach NPV negative business case unless it was felt there was a BT Group wide benefit. Therefore it would appear as if this process has been included in order to support internal BT customers, rather than Openreach or the market at large.

Part A Para 2.10 sets out that the Board only needs 'to ***aim*** to ensure that Openreach delivers a high quality of service…', not to actually ***be accountable*** for delivering a high quality service. This paragraph also says that the 'Board will ensure that the AOP and MTP take account of this aim'. Whilst this is useful, including high quality service in a spreadsheet plan will not make it happen. What is more likely to deliver high quality service is a specific target included in the scorecards of the Openreach Executive.

Part A Para 2.12 We fundamentally disagree with the status of Openreach as a functionally separate, rather than legally separate entity.

Part A Para 2.13 and Para 2.14 It is not clear why these two paragraphs essentially cover the same issues.

Part A Para 2.15 It is interesting that the OCC will report to the body that it is auditing. This surely creates a significant conflict. This is a retrograde step, when compared with the current EAB, who's reporting lines into the Company Secretary means it has significantly more independence [from BT] operational divisions We do not know how the any member of the OCC could do its duties when it is effectively auditing itself.

Part A Para 2.19 The proposal to 'treat all its customers equally' may sound fair, but is nebulous and impossible to comply with or monitor.

Part A Para 3.3 sets out that the BT Group plc CEO will appoint the Openreach CEO. We would expect that Openreach Board to appoint the Openreach CEO. We are further surprised to find that BT proposes that the Openreach CEO reports to the BT Group CEO. Does this make any changes compared to today's structure?

Part A Para 3.6 sets out that the Openreach board has a duty to promote the success of Openreach, but without any particular duties towards the market or consumers.

We were further surprised to see that **Part A para 3.6 (b) (ii)** gives the Board duties towards employees, but there is no similar mention to have any regard towards customers or end users.

Part A Para 3.6 (h) states '***to act in the best interests of BT plc and its shareholders***' this creates a substantial conflict for independent members of the Board.

Part A Para 6.2 does not restrict the minutes or the information contained within from being circulated further within BT.

Part A Para 6.3 This absolute lack of safeguard of Openreach or market information means that customers will be reticent to share any plans with Openreach and that Openreach's plans can be shared with their downstream customers inside BT.

Part A Para 7.3 We presume that the *authorisation* of a Conflict refers to the 'prior written *approval'* set out in para 7.2?

Part A Para 8.2 is a ridiculous statement. By saying that someone is independent does not make them independent. How can the Chairman of an audit body (the OCC) be independent of the body that it is auditing (the Openreach Board) when both positions are occupied by the same person?

Part A Para 8.6 Suggests that the OCC will have no role in auditing compliance with the Undertakings that relate to the Rest of BT. This is a significant reduction in the scope, when compared to the EAB's role and remit at the moment.

Part B Para 1.2 appears to codify the very behaviour that we are seeking to stop. It obliges the Openreach Executive to have their plans signed off by the BT Group plc CEO and CFO and only then can they be submitted to the Openreach Board for rubber stamping. This certainly will not change any outcomes when compared to today and will not even provide any transparency of decision making, given the real decisions are made in the informal meetings which are not minuted.

Part B Para 1.6 reinforces the lack of independence of Openreach Executive and Board. Every month the Openreach Executive has to create a new plan to deliver any shortfall to be agreed with the BT CEO and/or CFO. This means that the Openreach Executive is being micro-managed by the Group CEO and CFO. This effectively removes any level of theoretical independence.

Part C Para 1.1 refers to BT Governance Policies but these appear not to have been published.

Part D Para 1.3 permits Openreach to share Customer investment plans with BT Group plc without prior agreement with the customer.

Part D Para 2.1 Whilst greater disclosure by Openreach is welcomed, greater disclosure in and of itself will not change outcomes. What is needed is a different approach to thinking about investments. We have discussed elsewhere the need for co-investment and co-build but more than that a different approach to working with customers. Setting out a plan and then consulting on it still means the original plan is the plan. It doesn't mean that another plan will be formed or that customers' needs are taken into account. As set out, this looks like little more than window dressing.

Part E Paragraph with the proposed para 17.2.7 of the BT plc Articles This sets out an attempt to limit the extent of Equivalence of Inputs to SMP products only, which is a novel way to be regulated – through one's own Articles of Association, rather than a regulator's decision. In addition it sets out only a duty for the Openreach Board to ensure compliance with EoI obligations and no other SMP condition.

Annex B: A new disposal power for Ofcom

As explained in Section 5, fortifying Ofcom's range of powers with the ability to implement structural remedies without reference to another regulatory body would be a pragmatic step. Structural separation is the "first best" solution to deliver Ofcom's stated aim of addressing "discrimination". And whilst Ofcom has set out that it believes that it must implement the least intrusive remedy to address the issues (which of course has a cost in itself), it of course would be easier if it had specific direct powers that it could use without either reference to the EC or the CMA.

The need to strengthen Ofcom's powers

Vodafone agrees that Ofcom has the power to require full structural separation if required under the current telecoms framework. However, there are compelling reasons why it would be preferable for Ofcom to have an additional express regulatory power to address structural competition problems in the market. In particular:

- The absence of an express power may open the door to legal challenge regarding the scope of Ofcom's powers. BT has stated publicly its position that there is no mechanism for structural separation of a telecoms company under EU rules and threatened to pursue "10 years of litigation and arguments" should Ofcom seek structural separation. Even if Ofcom were not to utilise an express disposal power, it is vital that Ofcom is given this power in order to pre-empt BT's ability to threaten (and pursue) lengthy and costly legal challenges.
- Express clarity of its powers gives Ofcom the confidence to use, or to consider using them. Making a referral to another body or using a third party process creates a level of uncertainty, both as to the outcome, the timing and the underlying ability to consider any other policy in any related areas in the meantime.

A simple solution based on precedent

The existing powers of the Payment Systems Regulator (**PSR**), which, like Ofcom, is a sectoral regulator which acts as a concurrent competition regulator alongside the Competition and Markets Authority, provides a straightforward and useful precedent for how such an express disposal power would work. The PSR was given a power to require disposals under section 58 of the Financial Services (Banking Reform) Act 2013.

"*58 Power to require disposal of interest in payment systems*

(1) The Payment Systems Regulator may require a person who has an interest in the operator of a regulated payment system to dispose of all or part of that interest.

(2) The power conferred by subsection (1) may be exercised only if the Payment Systems Regulator is satisfied that, if the power is not exercised, there is likely to be a restriction or distortion of competition in (a) the market for payment systems; or (b) a market for services provided by payment systems.

The introduction of this power for the PSR was prompted by concerns regarding the impact of ownership arrangements on competition in the market. In its 2013 consultation paper, the Treasury noted that additional powers, including an express disposal power, were needed to allow the PSR to address properly "*all the potential ill-effects of vertical integration and common ownership*". Although the PSR has not yet exercised this power, it is currently consulting on a proposal to do so having concluded that divestments are needed to remedy a lack of competition for the provision of payment system infrastructure. There are clearly parallels with the concerns regarding the vertical integration and ownership of Openreach by BT Group in the telecoms sector, making this a particularly appropriate precedent on which to base a new disposal power for Ofcom.

The Digital Economy Bill offers a simple and efficient route for introducing a new disposal power for Ofcom to address persistent competition problems and market failures that cannot be effectively addressed by less intrusive forms of regulation.

We anticipate that the proposed power would also need to incorporate an appropriate appeal mechanism. This could also be based on the provisions for the PSR's disposal powers, which allows for appeals to the Competition and Markets Authority.

Annex C: FTI Consulting report for Vodafone: The impact of fibre: assessing the impact of incumbency advantages

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Annex D: Mercer Report on Pensions for Sky UK Ltd, Talk Talk Group Plc and Vodafone Ltd

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