INCA and Altnet response to Ofcom consultation on the Openreach Equinox Offer

Prepared for

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Content

1 Executive Summary 2
2 Legal context 8
3 Government policy 16
4 The importance of wholesale for altnets 18
5 Economic impact assessment 20
6 Consumer impact 27
7 Ofcom's Equinox assessment process 28
8 Ofcom's assessment framework 36
9 Why Equinox should be blocked or modified 47
10 Could the Equinox elements be amended to reduce their anticompetitive effects? 62
11 Interplay between Equinox and existing offers 64
Annex 1 – List of altnets 66
Annex 2 – The Equinox offer 73
Annex 3 - Economic impact assessment analysis 76
12 Economic impact assessment analysis 76
Annex 4 – GOS Consulting research 95
13 GOS Consulting research 95

1 Executive Summary

1.1 Ofcom should stop Equinox taking effect and reconsider its analysis

1. This response (**response)** to Ofcom's consultation (**consultation**) on whether to permit BT's Equinox price offer (**Equinox**) has been prepared by a group of altnets and INCA (**altnets, we** or **us**)[1]. The number of participants in this response reflects the deep concern in the altnet community that Equinox is likely to cause material harm to our ability to continue their planned FTTP deployments and call down the finance commitments made by our investors.[2] This response is supported by data collected altnets across the UK.[3]
2. The altnets do not agree with Ofcom's assessment of Equinox. Ofcom's analysis is flawed and superficial and its proposed decision to take no action is wrong. The reduced and delayed FTTP deployment resulting from Equinox is likely to cause a significant reduction in the expected economic benefits to consumers and the UK.
3. The altnets welcome the opportunity to respond to the consultation but are concerned with how Ofcom has conducted the consultation process and correspondence between Ofcom and BT/Openreach[4] prior to the publication of Equinox. Ofcom has followed a deeply unfair process to this point.
4. Ofcom's consultation shows that Ofcom has not had proper regard to its statutory duties (in particular, its duties to regulate transparently and consistently and to have due regard for the Government's Statement of Strategic Priorities (**SSP**)). As a result, Ofcom's provisional conclusion and decision to take no action in respect of Equinox is a decision that no reasonable regulator, which had followed a fair process and had due regard to its statutory duties, could reach.

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[1] Airband, Axione, County Broadband, Community Fibre, Digital Infrastructure, Fibrus, FullFibre, Glide, Hyperoptic, INCA, Lightning, Persimmon, Spring Fibre, Truespeed, WightFibre, Wildanet, Zzoomm. Details of the respondents can be found in Annex 1.

[2] draw-down of finance commitments is commonly subject to individual business case appraisals. it is therefore not certain that all current finance commitment can be drawn down if Equinox is implemented as currently proposed.

[3] Confidential details of the research and participants can be found in Annex 2.

[4] In this response we refer to BT, as it is BT that was found to have SMP and to whom Ofcom has applied the relevant ex-ante remedies.

5. Further, Ofcom in its Wholesale Fixed Telecoms Market Review 2021-2026 (**WFTMR**) defined a process for its review of commercial offers from BT which created a legitimate expectation for the altnets and their investors that such process would be followed. Ofcom's wilful disregard of its own process in the consultation (by introducing a new 'gating' question and failing to consider the tests set out in the WFTMR) is both inconsistent and breaches our legitimate expectation.
6. Ofcom should now reconsider its provisional conclusions and take immediate interim measures to stop BT from launching Equinox whilst Ofcom reconsiders Equinox and re-consults on appropriate remedial directions.

1.2 Ofcom's approach is legally flawed

7. Ofcom's approach in the consultation and other related activities[5] and its provisional decision to take no action is:
    a. **procedurally unfair**;
    b. does not take due account of its statutory **duties** of **transparency and consistency** (in particular Ofcom's approach in the consultation is inconsistent with the approach set out in the WFTMR) and does not have **due regard to the SSP**;
    c. breaches the **legitimate expectation** of the altnets and their investors created by the WFTMR as to the **process to be followed for assessing** other commercial terms (**OCT**s[6]) such as Equinox, proposed by BT,
8. all of which have consequently caused Ofcom to reach an **irrational provisional decision** to take no action against BT – a decision which no reasonable regulator could have reached.
9. In particular:
    a. Ofcom incorrectly applies its WFTMR test for whether OCTs should be allowed. In the WFTMR, Ofcom presented two criteria that must be satisfied for OCTs to be accepted:

[5] Including the Call for Information (CfI) and subsequent Requests for Information (RfIs) to ISPs.
[6] Defined in the WFTMR V III section 7.

i. **the OCTs must not cause material harm to nascent network competitors;** AND

ii. **that the OCTs must either be necessary for BT's FTTP business case or necessary to deliver benefits to consumers.**

In the consultation, however, Ofcom inserted a prior 'gating question' of considering whether Equinox potentially created barriers and argued (without presenting any evidence for why that is necessary or appropriate) that as the gating question was not satisfied there was no need for Ofcom to apply the 2-part test as presented in the WFTMR. For the reasons set out in Section 6, this is both economic nonsense in a market in which BT had already been found to have the ability to act independently of consumer and/or competitors (i.e., SMP) as well as being inconsistent with the analytic process defined in the WFTMR. Further, all stakeholders have a legitimate expectation that Ofcom will follow its own framework in the WFTMR in conducting its analysis of Equinox.

b. Ofcom does not analyse the impact of Equinox separately for the separate relevant markets it has identified in the WFTMR process. Ofcom identified Area 2 and 3 as separate geographic markets for the WLA product market, justifying the creation of the two markets by arguing that the competitive conditions in locations within each of the two definitions differed sufficiently to justify different treatment. However, in the Equinox assessment, Ofcom does not consider that Equinox could have different impacts in those two markets. By not doing so, Ofcom is in breach of its legal duties to act in a consistent and transparent manner and is acting irrationally.

c. Ofcom states that the new-to-network (**NTN**) Equinox element cannot strictly be defined as a geographic discount, and therefore concludes that this element does not cause a competition concern. This is despite the WFTMR Statement stating that geographic pricing includes pricing that has the *same effect* as specific geographic pricing. Ofcom is again here in breach of its own WFTMR Statement which stakeholders have a legitimate expectation should be followed. It does not present a clear rationale for its

decision and its conclusions in this regard are irrational, opaque and inconsistent with its earlier decisions.

d. Ofcom's consultation process has been opaque and mismanaged. Ofcom relies unduly on responses received to its 2-week Call for Information (**CfI**) and confidential Requests for Information (**RfIs**) issued only a few days prior to the consultation. It has redacted all relevant data on which it bases its conclusions, offering no aggregated data in the consultation. This process is a clear breach of Ofcom's duty to conduct itself in a transparent manner.

e. Ofcom does not take due regard of the Government's Strategic Statement of Priorities (**SSP**). The SSP makes it clear that it is the Government's policy and priority to encourage commercial and competitive investment in fibre deployment across the UK and that it considers altnets are a critical part of the market structure that will lead to the fastest and most efficient FTTP coverage in the UK. Ofcom's Equinox assessment does not prioritise altnet deployment but appears to favour short term price reductions for consumers over long term infrastructure competition. This is a direct conflict with the SSP and a breach of Ofcom's legal duties.

f. In the WFTMR, Ofcom states that it will block OCTs that could cause material harm to nascent network competitors, but in the consultation, Ofcom applies a different test – requiring proof that the OCTs will cause such harm. Ofcom's application of a different test is inconsistent with the WFTMR.

1.3 Equinox is likely to cause significant harm to nascent infrastructure competition

10. Equinox has three main elements:

a. The Product Mix element – requiring that a minimum of 80% of an ISP's[7] new BT orders nationally (where premises have been released for FTTP) are FTTP;
b. The ARPU-related element – offering ISPs a revenue share of 50% ARPU in excess of £17/month, reducing over time;
c. The NTN element – offering ISPs a connection of up to 550 Mbps for the price of a 160 Mbps connection for 1 year if the ISP introduces a new retail customer to the BT network.

11. **The Product Mix element** is likely to constitute a significant deterrent to ISPs' use of altnet infrastructure and result in wholesale market foreclosure. This is because it is likely to be challenging for ISPs to meet the 80% threshold and any FTTP connections ordered from altnets will not be available to connect to BT, once BT deploys in that location. Ofcom argues that ISPs will stop selling non-FTTP connections, but our research suggests this is not a realistic assumption. Ofcom has agreed that, if ISPs continue selling non-FTTP connections, then the Product Mix element is likely to cause harm to nascent network competitors to BT.
12. Due to the highly competitive retail broadband market, ISPs will likely pass all Equinox discounts on to consumers, resulting in a significant downward pressure on retail pricing. Whilst these prices may not make network competition unviable, they will reduce returns and make investment cases more challenging and jeopardise Ofcom's overarching objective of creating a competitive market at network level. This is especially in locations where deployment costs are higher than average and where two or three networks will be competing for retail connections.
13. **The ARPU-related element** is likely to affect both retail and wholesale broadband markets. ISPs may introduce significant temporary discounts for higher speed connections in order to accelerate their compliance with the ARPU threshold, so that may introduce additional short term price pressures on high-speed connections in addition to those resulting from the up-to 30% wholesale discounts

[7] Internet Service Provider. They are current BT wholesale customers and may also be altnets wholesale customers.

available through the Product Mix element. Once ISPs have met the ARPU threshold, they may also pass some or all of the resulting wholesale price reductions on to retail customers. This will further increase the retail price effect of the Product Mix element.

14. In the wholesale market, ISPs negotiating access to altnet networks (if they are willing to take the risk of using altnets and potentially not meeting the Product Mix 80% FTTP threshold) will anticipate a level of discount resulting from meeting the ARPU threshold and will use that reduced benchmark for negotiating access to altnet networks. This further reduces the revenue potential and increases the risks for altnet fibre investments.
15. **The NTN element** directly targets end consumers not currently connected to the BT network. By definition, this means that those consumers are connected to one of BT's competitors[8] and the discount is therefore directly targeted at BT's nascent network competitors. To defend against the NTN element, altnets will need to offer equivalent (or better) prices for products between 160 Mbps and 550 Mbps. This introduces an additional downward pressure on altnet retail (and corresponding wholesale) prices.

1.4 Altnets generate substantial economic benefits, some of which is at risk due to Equinox

16. Using existing and recognised studies into the economic benefits arising from FTTP connectivity, and data collected from Ofcom's Connected Nations reports, the INCA/Point Topic annual reports and our own research, we have estimated that the short term incremental economic value of altnet deployment ahead of BT (in locations where BT has not yet deployed) between now and 2025 could peak at around £14 billion/annum around 2024 and total more than £32 billion over the next 3 years.

[8] Some NTN connections will be from newly built premises, but the majority is likely to be from BT's competitors.

17. It is unknown what the impact of Equinox will be on altnet deployment, but at modelled levels of 10-50% delay in altnet deployment, this results in a potential loss of economic value of between £2 billion and £7 billion.
18. Additionally, if altnet deployment slows down, the competitive pressure on BT to deploy quickly is reduced so an incremental loss of benefits would result from a slow-down of BT deployment. if the BT deployment was delayed by just 8 months, the economic benefits lost over the next three years could be as much as £15 billion.

2 Legal context

2.1 Legal requirements on Ofcom

19. As a statutory body, Ofcom must ensure that its decisions are:
    a. in accordance with the law (and in particular Ofcom must have due regard to its statutory duties);
    b. rational;
    c. procedurally fair; and
    d. do not breach legitimate expectations of affected stakeholders.
20. Any decisions made by Ofcom that fall short of these requirements may be set aside on appeal.
21. Ofcom's assessment of the Equinox in its consultation and its proposal to make no direction in respect of the Equinox falls short of the legal requirements described in paragraph 12 above.
22. Ofcom's legal and procedural errors include:
    a. irrationally and inconsistently failing to consider whether BT had justified **both** why the Equinox would be unlikely to have a material impact on altnets **as well as** showing clear and demonstrable benefits;
    b. irrationally and inconsistently considering (*paragraph 2.39 of consultation, Ofcom Question 1, 2.39)* whether the Equinox potentially creates a barrier to using altnets, when that question had already been addressed in WFTMR and should not have formed part of Ofcom's consideration;

c. irrationally and inconsistently failing to consider that Equinox, and specifically the additional rental discount for "new to network" connections between 150 Mbps and 550 Mbps, is targeted at individual competitors and has the same effect as a geographically targeted price reduction. This is in direct breach of Ofcom's position in the WFTMR Statement that such price discrimination would be prohibited[9];

d. proposing to regulate in an unlawful manner inconsistent with its statutory duties, including failing to:

   i. regulate consistently and transparently;

   ii. separately consider the impact of Equinox in WLA Areas 2 and 3; and/or

   iii. have due regard to the Government's SSP;

e. as described in Section 7 below carrying out a procedurally unfair consultation and assessment of Equinox.

2.2 Interim and final remedies sought

23. Paragraphs 18-29 below describe serious procedural and legal errors in the analysis carried out by Ofcom in the consultation. Pending consideration of the points raised in this reply and a substantive reconsideration of whether BT should be permitted to proceed with the Equinox offer, Ofcom should provide an **interim direction** to BT to **suspend the introduction of the Equinox Offer**.

24. In para 2.15 of the consultation, Ofcom sets out its view that "*The Equinox Offer is a commercial mechanism to bring forward the stop sell date. Essentially, BT is offering lower FTTP prices if its customers agree to (largely) stop selling legacy services sooner than would be allowed by regulation*". However, for the reasons set out in section 3 of this response, the effect of the Equinox Offer as currently proposed will also be to exclude BT's fibre competitors (including the altnets) from the market. Ofcom should intervene and **make a direction** to address the

[9] WFTMR Vol III Para 7.72.

exclusionary aspects of the Equinox Offer. Remedies that Ofcom should consider include those set out in section 10

2.3 Illegality, irrationality and procedural unfairness of Ofcom's analysis and approach

25. Whilst Annex A5 of the consultation sets out the legal framework to be followed by Ofcom, this would appear to be a routine "mechanical" annex entirely disconnected from Ofcom's assessment of its statutory role and duties in relation to its consideration of BT's proposed Equinox Offer. As described in detail below, it is clear that Ofcom has not had regard to its statutory duties as the consultation, and Ofcom's proposal to make no direction, show that Ofcom has:
    a. irrationally and inconsistently failing to consider whether BT had justified **both** why the Equinox would be unlikely to have a material impact on altnets **as well as** showing clear and demonstrable benefits;
    b. irrationally and inconsistently considering (*paragraph 2.39 of consultation, Ofcom Question 1, 2.39)* whether the Equinox potentially creates a barrier to using altnets, when that question had already been addressed in WFTMR and should not have formed part of Ofcom's consideration;
    c. irrationally and inconsistently failing to consider that Equinox, and specifically the additional rental discount for "new to network" connections between 150 Mbps and 550 Mbps, is targeted at individual competitors and has the same effect as a geographically targeted price reduction. This is in direct breach of Ofcom's position in the WFTMR Statement that such price discrimination would be prohibited[10];
    d. proposing to regulate in an unlawful manner inconsistent with its statutory duties, including failing to:
        i. regulate consistently and transparently;
        ii. separately consider the impact of Equinox in WLA Areas 2 and 3; and/or

[10] WFTMR Vol III Para 7.72.

iii. have due regard to the Government's SSP;

e. as described in section 4 below carrying out a procedurally unfair consultation and assessment of Equinox.

26.

27. As noted by Ofcom in A5.8 and A5.11, Ofcom is under a duty to regulate transparently and consistently[11]. In paragraph 2.38 of the consultation Ofcom refers back to its own guidance in WFTMR (volume 3, section 7) as to how it would assess geographic discounts and other commercial terms. However, as explained below, it is difficult to understand how Ofcom's analysis in the consultation can be consistent with the prior regulatory decisions made, and guidance provided, by Ofcom in WFTMR and or could be reached by a rational regulator.

28. In the WFTMR (volume 3), Ofcom recognised the harm from loyalty inducing price structures and BT's incentives in that regard (emphasis added):

"7.2 […] *Openreach potentially faces a substantial erosion of its market share in areas where new networks are built, and therefore has incentives to deter new build.*

…

7.29 We recognise that commercial terms may have benefits e.g. volume discounts may provide short term benefits to access seekers and may, in turn, benefit consumers through lower prices (if cost savings are passed through). However, our objective is to promote competition and investment in gigabit-capable networks by Openreach and others, and the resulting network competition should benefit consumers in the long term. If Openreach uses commercial terms that undermine new network build, our starting point is that they are likely contrary to the interests of consumers in the long term. In this context, terms which could induce loyalty e.g. Openreach offering lower prices in return for large volume commitments, are a particular concern because this could deter access seekers from switching demand to new alternative networks.

[11] Sections 3(3)(a) and 2B(2) (read with SSP) of the Communications Act 2003.

7.23 However, we disagree with Openreach's argument that we should not be concerned with access seekers committing to purchase certain volumes FTTP from it, providing this was not contingent on maintaining volumes of existing services with Openreach. New network builders that operate a wholesale model rely on selling ultrafast services to access seekers. If Openreach uses commercial terms to induce loyalty from access seekers, meaning they purchase all or most of their ultrafast requirements from Openreach, then it will deprive these network operators of demand. Ultimately this could undermine alternative operators' FTTP investment plans.

…

7.56 We have a relatively small window of opportunity to encourage new network build. If alternative operators are unable to secure sufficient access seekers/end users over a reasonable time period then it is unlikely they will be able to secure funds from investors for their FTTP rollout plans. Competition law cases can take years to reach resolution and new network builders may be unable to secure access seekers while a competition case is ongoing (e.g., because it is unclear whether commercial terms introduced by Openreach will ultimately be deemed unlawful).

7.57 We consider that ex ante regulation makes it clearer to Openreach and others what conduct is not permitted. This ensures transparency, promotes regulatory certainty and provides alternative networks investors with confidence to invest. In contrast, ex post enforcement, which may take longer to conclude in the event of enforcement activity, would not provide the same degree of regulatory certainty which is itself an important factor in any investment decision.

…

7.60 If Openreach introduced other commercial terms that deterred use of new alternative network, then we could use our powers to direct Openreach to remove certain terms. However, this process would take time, and if the terms have already been introduced, it could create market disruption. We have identified that loyalty inducing terms e.g. where Openreach offers lower prices in return for

large volume commitments are a particular concern, because this could deter access seekers from switching demand to new alternative networks. Therefore, we have decided to adopt additional ex ante regulation (a 90-day notification period) for commercial terms where the price or other contractual conditions are conditional on the volume and/or range of services purchased. This would allow us time to investigate, and if appropriate prevent, such commercial terms before they come into force. "

29. Equinox has the effect of inducing customer loyalty and provides incentives for customers not to switch from BT to other networks. However, rather than conducting a sceptical investigation as to whether BT should be permitted to provide it, Ofcom has disregarded both its prior analysis and conclusion in the WFTMR that such terms could create market disruption and its own guidance as to how it will assess such terms. Ofcom's analysis relied unduly on responses to a 2-week Call for Information issued immediately when Equinox was published. That period of time did not allow sufficient time for altnets to present in-depth analysis and data to explain why Equinox is likely cause material harm.
30. Further, Ofcom's approach of first discussing confidentially the Equinox Offer with BT then ad-hoc calls and requests for information in very short timeframes was procedurally flawed and unfair.
31. In paragraphs 7.159 and 7.160 of WFTMR Vol III (referring back to para 7.154), Ofcom describes how they will assess other commercial terms (such as the Equinox Offer) proposed by BT. However, the consultation does not follow the approach Ofcom set out in WFTMR. Since Ofcom had already identified in WFTMR that '*loyalty inducing*'[12] terms were of particular concern, Ofcom's introduction (in the consultation) of an assessment of whether the Equinox Offer creates a barrier (para 2.39 of the consultation – "*Question 1"*) is a procedural error and not compliant with Ofcom's legal duties of transparency and consistency as the consultation does not follow Ofcom's own process which it set out in the WFTMR.

[12] WFTMR volume 3, para 7.60.

32. The Altnets submit that it is clear from paragraph 7.154 WFTMR (Vol 3) that Ofcom should only permit BT to offer OCTs (especially those with a loyalty inducing effect) to the extent that BT could justify both that they would have no material impact on nascent network competitors (such as the Altnets) and clear and demonstrable benefits:

"7.154 In the consultation we set out a proposed analytical framework for considering other commercial terms. Our starting point was that the creation of any barrier to using alternative network operators would only be justified where:

a) the impact on nascent network competitors is unlikely to be material; and

b) the arrangements will generate clear and demonstrable benefits, such as:

i) the arrangements are essential to Openreach's business case for fibre roll-out; or

ii) the arrangements are necessary to offer more efficient prices that would deliver benefits for consumers."

33. Ofcom's approach in the consultation of first erroneously considering an irrelevant gating question, and **secondly** failing to consider whether BT's Equinox Offer meets both requirements for justification is a procedural (and logical) error and not compliant with Ofcom's legal duties of transparency and consistency. Further, these errors have the effect of leading Ofcom to reach a decision which does not have regard to relevant SSP (see paragraph 30), a further breach of its statutory duties.

34. In the WFTMR Ofcom found BT to have SMP in WLA market area 2 and 3. Ofcom defined WLA markets by area and imposed (differing) SMP conditions on BT including a prohibition on BT offering geographic discounts in WLA Area 3 market. It is a legal and procedural error for Ofcom not to assess the competitive impact of Equinox by reference to the economic markets defined (by Ofcom) in the WFTMR.

35. Further, as the Equinox Offer provides discounts for areas within BT's FTTP footprint, the offering of discounts in WLA Area 3 is an unlawful modification of the relevant SMP Condition.

36. Because "SMP" is a familiar term in telecoms regulation, it is easy to forget what SMP actually means. In UK law SMP is "*a position which amounts to or is equivalent to dominance*[13]", and dominance is "*a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers*"[14]. Ofcom's prior WFTMR finding of BT's ability to prevent effective competition in WLA markets in areas 2 and 3 (two separate markets) is the correct starting point for its consideration of BT's Equinox Offer. Although Ofcom has placed certain obligations on BT, in particular Physical Infrastructure Access to address BT's SMP, Ofcom itself recognises that their effect on BT's SMP is "uncertain"[15]. Therefore, BT retains both the ability (prior SMP finding) and the incentive (maximisation of shareholder value) to seek to exclude competitors and, for the reasons set out elsewhere in this response, that is precisely the effect of the Equinox Offer. However, Ofcom's consultation does not take this starting point and is therefore inconsistent with its prior decisions and guidance in WFTMR.

37. Ofcom notes in A5.12 of the consultation that it is required by section 2B(2) of the Communications Act 2003 to have regard to the UK Government's Statement of Strategic Responsibilities (SSP), yet despite Ofcom's statutory duty to have regard to the SSP (and their direct relevance to their consideration of the Equinox Offer), the SSP and its contents are not mentioned elsewhere in the Ofcom consultation. Whilst the whole of SSP Section 1 (*World-class digital infrastructure*) is relevant, we set out below key extracts (emphasis added) that should inform Ofcom's assessment of the Equinox Offer, but which were not considered in Ofcom's consultation:

    "Para 10: In July 2018, the Government published the FTIR, which set out the changes that need to be made to the UK telecoms market and policy environment to help secure these goals.[16] *The FTIR concluded that the most effective way to*

[13] Section 78 (1) Communications Act 2003.
[14] *United Brands v Commission* [1978] ECR 207 para. 65
[15] WFTMR Vol II Para 8.50
[16] Insert reference

deliver nationwide gigabit-capable connectivity at pace is to promote competition and commercial investment where possible, and to intervene where necessary.

From para 11:

- *Supporting market entry and expansion by alternative network operators through effective access to Openreach's ducts and poles, complemented by access to other utility infrastructure, for example, sewers;*
- *Stable and long-term regulation that incentivises network investment and ensures fair and effective competition between new and existing network operators;*

Para 18: The Government's aim is to promote investment and competition in world-class digital networks, to as many people and businesses as possible. Investment in new networks by BT and alternative providers is key to improving consumer outcomes, in terms of choice, service quality, and innovation. The Government's view is that promoting investment should be prioritised over interventions to further reduce retail prices in the near term.

Para 19: We regard competition where possible as a key driver of network roll-out. It is essential that competition is fair and effective between existing network operators and new entrants, and we expect Ofcom to adopt an engaged, proactive approach to monitoring any anti-competitive behaviour. Ofcom has powers at its disposal - including information gathering, audit enforcement and penalty powers - to perform this role. "

38. Ofcom's proposal to take no action in respect of the Equinox Offer breaches its statutory duty to have regard to the SSP, and indeed runs so counter to the SSP as to be irrational.

3 Government policy

39. The Future telecoms Investment review (**FTIR**) and the subsequent SSP make it clear that fast deployment of fibre across the UK is a government priority.

40. Due to the significant effect of the first mover advantage (absent the effects of Equinox) for fibre connections, altnets and BT deploy largely in different locations, meaning that almost every premise connected by an altnet is in addition to the BT deployment and therefore accelerates the fibre deployment.
41. The 2021 "Metrics for the UK independent network sector" report produced by Point Topic for INCA[17] reported that more than 2.5m premises were passed by altnets by the spring of 2021 and that altnets collectively have ambitions to cover up to 29m premises across the UK.
42. Accepting that there is some overbuild between BT and altnets, that is still more than 2m premises with access to fibre connections that would not have happened were it not for altnet deployment. That is what Government policy seeks to encourage – competition for the market, get there first – it incentivises BT and altnets to deploy as quickly as they can.
43. This response and other submissions made by altnets in connection with the proposed Equinox terms set out clearly that it will reduce and delay altnet deployment and result in a potentially substantial slow-down in overall fibre deployment across the country.

3.1 Project Gigabit

44. The Government's commitment of public funding to deploy fibre/gigabit-capable networks to premises that are not commercially viable Project Gigabit relies on the competition for those subsidies to generate ambitious bids for the funding to accelerate deployment to those hard-to-reach locations and ensure value for money.
45. Equinox will not only have an adverse impact in areas where commercial deployment is viable, but will also, through the increased risk to altnet deployment resulting from Equinox, make it harder for altnets to produce viable bids for Project Gigabit funding, resulting in BT becoming the default recipient of that funding and

[17] https://www.inca.coop/sites/default/files/inca-point-topic-report-2021.pdf

in BT not having to produce value for money bids in order to be successful. This is likely to lead to sub-optimal use of public funds.

46. These consequences are all to the detriment of consumers and run directly contrary to Government policy. Hard-to-reach premises will once again be relegated to the very end of the line due to reduced competition for the Government funding, further expanding the digital divide that is already very much evident and largely the consequence of BT deployment decisions.
47. Further, against the backdrop of increasing pressure on public finances, Equinox's adverse competitive impact will likely lead to public funds being deployed less efficiently than would otherwise be the case.

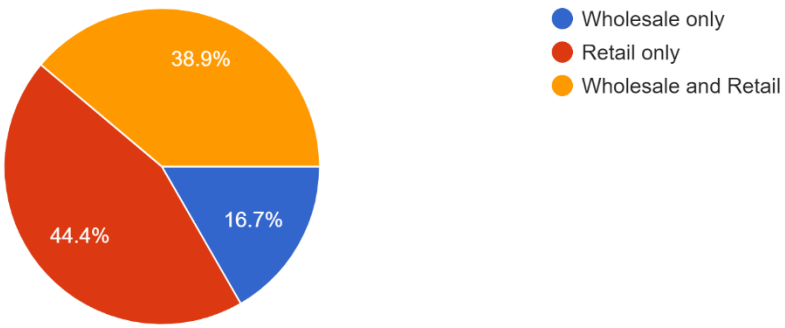
4 The importance of wholesale for altnets

48. When considering the impact of Equinox, Ofcom must anticipate that the vast majority of altnets will be affected by the wholesale market foreclosure described in this document and previous altnet submissions, as described below.
49. Ofcom will be aware that many altnets initially launch as vertically integrated operators, offering retail services only. There are many reasons for that with the two main being:
    a. Launching both retail and wholesale services on day one is complex and potentially unrealistic; and
    b. Wholesale customers use suppliers that can offer a reasonable number of connections (due to costs of onboarding new suppliers, which have been widely recognised by Ofcom), so it is unlikely that the new altnet would be able to attract any significant wholesale business until it has built out to a certain number of premises. Some large ISPs have quoted to altnets that they require a network coverage of at least 100k premises, others have mentioned a 250k premise threshold.
50. In the research conducted to inform this response, we asked altnets whether they offered retail only, wholesale only, or both. We also asked whether those that do

not offer wholesale at present plan to do so in the future. below are the main findings:

51. Of 18 responses received, 8 altnets offer retail only, 3 offer wholesale only and 7 offer both retail and wholesale.

Figure 1



52. Ten altnets that currently offer retail services told us that they plan to offer wholesale services in the future.

Table 1

Yes
Yes. But we are looking to get a big brand on board first - as a wholesale customer. We are looking to harness brand awareness.
Yes. To provide choice and additional value to customers
Yes, at the right time in order to offer consumer choice which is more attractive in multi-provider locations.
Yes, once OTS is enabled
Yes
yes
Yes, absolutely to optimise the return on capex and provide an alternative to Openreach
Yes - owing to increased in-building competition, our limited product set and opportunities for bundling (we are dual play only), and our terminal penetration, which whilst healthy, has a natural settling point.
Yes. We recognise that wholesale is vitally important to take penetration above 50% in network areas. Also, we recognise that if we do not offer wholesale, then the market will demand another provider builds to provide it

53. Significantly, the vast majority of altnets that do not presently offer wholesale stated that they plan to do so in the future and that their business plans required wholesale revenues.

54. To overcome some of the hurdles associated with the launch of wholesale services, a group of altnets have come together to create the common wholesale platform (**CWP**), which will make it possible for many altnets that are presently too small to be of interest to large ISPs to offer access to their networks across a shared platform offering sufficient amounts of premises passed to be of interest to the larger ISPs as well as common interfaces that will reduce the barriers to ISP adoption of altnet wholesale services.
55. The creation of the CWP is testament to the importance of wholesale to many altnets. Although only four altnets are in the CWP founding group, research conducted by INCA in summer 2020 showed that around 90% of altnets were supportive of the creation of this platform..

5 Economic impact assessment

56. Ofcom's analytical framework considers three questions[18]:
    a. ***Question 1:*** *Does the Equinox Offer potentially create a barrier to using altnets?*
    b. ***Question 2:*** *Is the Equinox Offer likely or unlikely to have a material impact on nascent network competitors?*
    c. ***Question 3:*** *Is the Equinox Offer likely to generate clear and demonstrable benefits?*

    With Question 1 being a 'gating question', meaning that if the answer to question 1 is 'no', then Ofcom does not need to proceed to questions 2 and 3.
57. Having considered Question 1, Ofcom arrives at the provisional conclusion that the Equinox Offer does not create a potential barrier to ISPs using altnets nor impact altnet build.[19] Ofcom, therefore, does not consider it necessary to consider Questions 2 and 3.[20]

[18] Ofcom Consultation, para 2.39
[19] Ibid. para 2.83
[20] Ibid. 2.54

58. An issue, however, with Ofcom's approach to addressing Question 1 is that the level of analysis that is applied is not commensurate with the potential scale of detrimental economic consequences of Equinox, particularly its potential impact on altnet fibre deployment. Progressing the analysis to questions 2 and 3 would have helped identify that even a small incremental reduction and/or deceleration in altnet deployment would result in a significant reduction in the economic benefits of FTTP deployment.
59. To reiterate, altnets will be affected by the wholesale market foreclosure described in Section 9.1.1 and previous altnet submissions. We show here that even if the effect of market foreclosure on the level of altnet fibre deployment is relatively small, it has the potential to significantly reduce the benefits due to FTTP availability.
60. Full Fibre commissioned an economic impact assessment, which it has made available for inclusion in this shared INCA and altnet response. The full assessment can be found in [Annex 3 - Economic impact assessment analysis], which we summarise and interpret here.

5.1 Analytical framework

61. The economic impact assessment highlights the economic value that would be at risk by the introduction of Equinox.
62. Under normal market conditions, altnets have a strong incentive to deploy FTTP ahead of BT, and the evidence shows that they currently do so in practice. However, Equinox would distort market conditions in both retail and wholesale markets, increasing investment risks and making altnet deployment significantly more challenging
63. The Government's FTIR highlights that altnets have a stronger incentive than BT to invest in FTTP, as they are unencumbered by defending a legacy network.[21] Furthermore, altnets gain a first-mover advantage by deploying ahead of BT. This is due to the competitive advantage that FTTP provides over legacy network

[21] https://www.gov.uk/government/publications/future-telecoms-infrastructure-review

technologies, and then once a customer is connected to an FTTP network the resulting cost to switch to another network.

64. Many altnets, therefore, target areas where BT has not built and has not published its intentions to build in the short term.
65. The important implication of altnets avoiding overbuild and aiming to build ahead of BT is that deployment resources are spread more widely as locations without FTTP and where BT is not planning to deploy to in the near term are targeted, thus accelerating FTTP deployment and making it available earlier.
66. However, Equinox would reduce altnets incentive to deploy FTTP and reduce the availability of funding for such deployment, resulting in a delay in the availability of FTTP where the altnet would have deployed. This would result in a loss of economic value.
67. The economic value that is assessed here is the gain in economic productivity enabled by having access to FTTP. An input to this analysis is a Cebr study that was prepared for Openreach.[22]
68. The Cebr study highlights that the timing of economic productivity gain is dependent on the timing of FTTP deployment.[23].[24]
69. Our analysis quantifies the economic value at risk in the short term as a result of Equinox reducing and/or delaying FTTP deployment by quantifying:
    a. Economic benefits of altnet FTTP deployment ahead of BT
    b. Economic loss due to a reduction in altnet FTTP deployment
    c. Economic loss from deceleration in BT FTTP deployment
70. The derivation of values of these economic benefits and losses is provided in Annex 3 - Economic impact assessment analysis

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[22] https://www.openreach.com/fibre-broadband/full-fibre-impact

[23] Ibid. For example, p. 25, Table 3 gives the estimated additional economic impacts of 100% full fibre rollout completed by 2025 compared with a rollout completed by 2033.

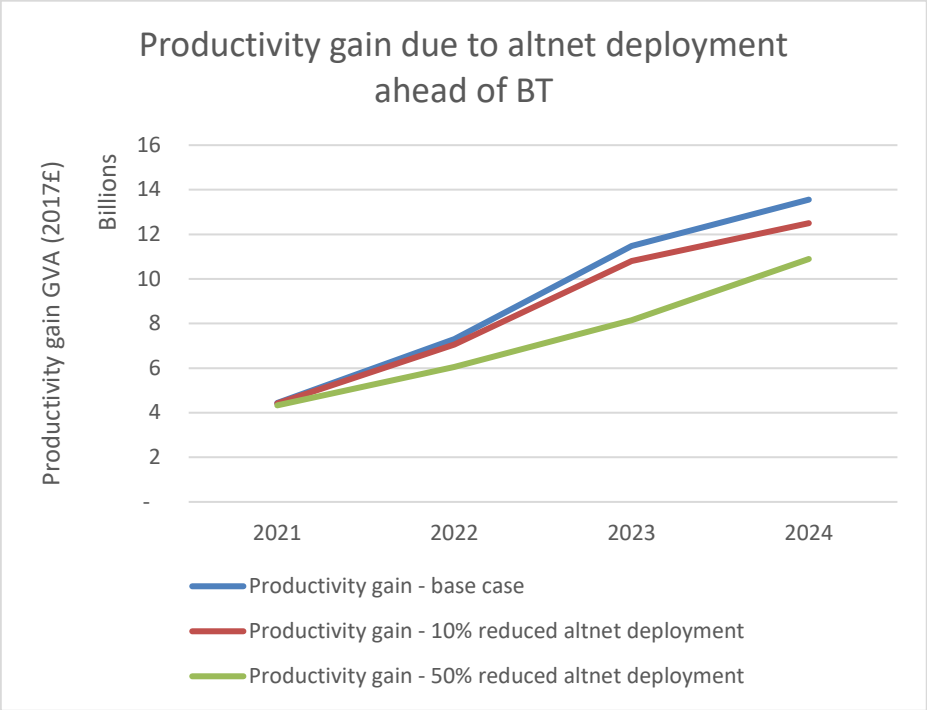
[24] The observation that the potential magnitude of the economic cost of delaying the introduction of a new service is supported by Hausman (1997) "*Valuing the Effect of Regulation on New Services in Telecommunication".* Hausman estimates the loss of consumer welfare in the US due to the regulatory delay in the introduction of cellular telephone service over the decade from the earlier 1970s to 1983 to be close US$100 billion in total, with more than US$25 billion lost in a single year. https://www.brookings.edu/wp-content/uploads/1997/01/1997_bpeamicro_hausman.pdf

71. A further consequence of altnets scaling back their FTTP deployment would be a reduction in the level of infrastructure competition in the long run. The lost economic value of infrastructure competition in the long run may also be significant. This point is discussed at the end of this section.

5.2 Economic benefit of altnets deploying FTTP ahead of BT

72. The value of the productivity gain of altnets deploying FTTP ahead of BT are presented in Figure 2. The incremental economic value generated due to altnet deployment is linked to the number of premises passed by altnets only and not by BT. Figure 2 shows three scenarios – one indicating current altnet ambitions in the next three years, in the absence of Equinox, and two scenarios where altnet deployment is reduced by either 10% or 50%, which is a reasonable range for assessing the likely impact of Equinox.
73. After 2024, the number of premises that only altnets pass would start to decline as BT begins to overbuild the premises that altnets had passed ahead of BT. It would then trend down to the point when BT has overbuilt all of the altnets' FTTP deployment. This part of our analysis focuses on the short term economic value at risk from Equinox, so it does not go beyond the point where BT would start significantly overbuilding altnets. It should, however, be noted that benefits would continue to accrue until such time that BT has completely overbuilt all altnet deployment (if that were to actually happen).

Figure 2



74. Figure 2 shows that the annual incremental economic benefits generated by altnet FTTP deployment (in addition of BT deployment) peaks at around £13 billion in 2024 for the altnet base case. This is based on current deployment trends and an "s"-shaped deployment curve that reaches 25 million premises passed by 2030.

5.3 Economic loss due to a reduction in altnet FTTP deployment

75. Figure 2 includes two scenarios that represent the impact of altnets reducing their rate of fibre deployment by 10% and 50% from the 2021 in response to Equinox.
76. The values presented in Figure 2 are summarised in the following table along with the reduction in economic values as a result of the 10% and 50% reduction in the rate of altnet deployment.

Table 2

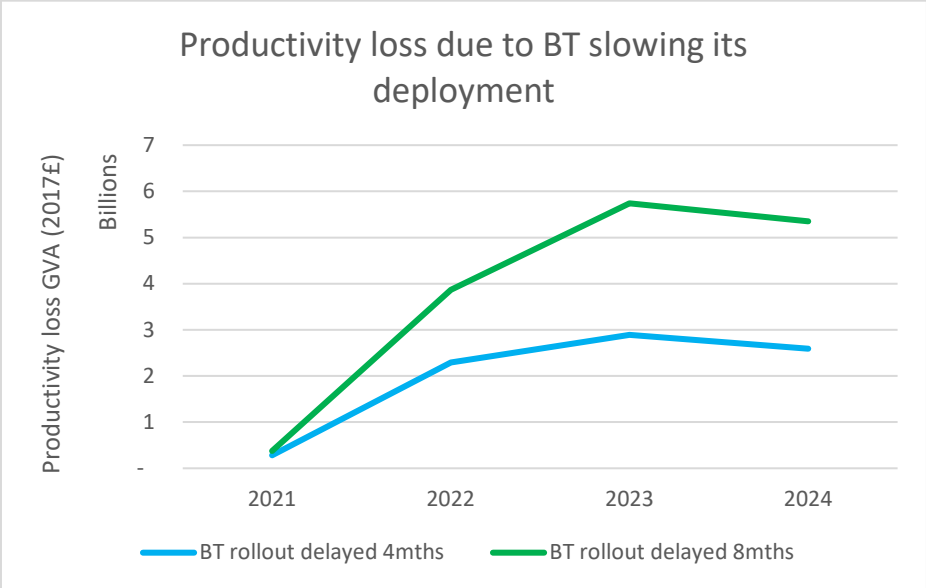
£ billion (2017£)	Peak annual benefit	Total benefit 2022-2024
Benefit - altnet first passed base case	13.6	32.3
Benefit with 10% deployment reduction	12.5	30.4
Benefit with 50% deployment reduction	10.9	25.1
Impact with 10% deployment reduction	-1.1	-2.0
Impact with 50% deployment reduction	-2.7	-7.2

77. Table 2 Quantifies the incremental reduction in economic gain from altnet FTTP deployment from the 10% and 50% deployment reduction scenarios.
78. Should altnets reduce their rate of deployment by 10% then the total loss in productivity gain between 2022 and 2024 would be around to £2 billion, 6% of the total benefit. If the rate of deployment decreased by 50%, then total the loss in productivity gain over the same period would be around to £7 billion, 22% of the total benefit.

5.4 Economic loss from deceleration in BT FTTP deployment

79. The productivity gain from FTTP deployment is also sensitive to changes in the rate at which BT deploys FTTP.
80. The process of competition between altnets and BT induces BT to speed up its investment in FTTP deployment. If this competition is removed or reduced, then BT has the incentive to utilise its legacy network rather than invest in FTTP. As a result, it is reasonable to expect a deceleration in BT's FTTP deployment.
81. We consider two scenarios, where BT delays its deployment of FTTP by 4 months and 8 months. The BT base case is an "s"-shaped deployment curve that is consistent with current deployment trends, BT’s deployment target that is to pass 25 million premises by 2025, and an upper bound that is the total number of 30 million premises nationwide in the UK.

Figure 3



82. Figure 3 shows the productivity loss resulting from a small slowdown in BT rollout. Productivity loss per annum peaks at between £5 to £6 billion for an 8-month delay and between £2 billion to £3 billion for a 4-month delay. The total productivity loss for a 4-month and an 8-month deployment delay would be around £8 billion and £15 billion respectively.

5.5 Loss of long-term benefits from infrastructure competition

83. The impact of Equinox on economic value described above is short term. In the long term, Equinox is also likely to harm infrastructure competition by reducing the number of competing networks. If altnets were to reduce FTTP deployment, then it would reduce the level of infrastructure competition in the long run.

84. The lost economic value of infrastructure competition may also be significant. In the WFTMR decision[25], Ofcom notes that for Area 2, the short-term cost to consumers of pricing continuity (as implemented in the decision) compared to cost-based pricing for FTTP amounts to £2.4 billion over five years, and that they

[25] 2021 WFTMR Volume 4: paras 1.89 – 1.97

expect the permanent long term economic benefits resulting from this infrastructure competition to be greater than this amount.

85. Ofcom also reinforces this point where it states that BT's and altnets' investment in FTTP *"… represents a very substantial injection of competition and will in [Ofcom's] view lead to permanent long-term benefits to consumers in the WLA and LL Access markets in Area 2*."[26] This long-term benefit to consumers would be placed at risk if altnets scaled back their FTTP deployment because of Equinox.

6 Consumer impact

86. Ofcom's primary responsibility is to ensure that markets function in the interests of consumers and citizens. In this response, we concentrate mainly on the effect of Equinox on altnets and their ability to compete effectively with BT, which will in turn affect consumers. However, it is important to note the direct effects on Equinox on consumers in both the short and long term.
87. Ofcom has calculated that the short-term benefits of setting prices at the lowest possible level would benefit consumers to the tune of £2.4 billion over five years. However, Ofcom also notes that over the long-term setting prices at the lowest possible level would forgo widespread fibre deployment by altnets which would lead to a reduction in the dynamic benefits from competition. Ofcom does not calculate the value of these dynamic benefits for consumers but does say they will exceed £2.4 billion[27].
88. We have explained throughout this response how Equinox is likely to exclude altnets from the market as ISPs have such a strong incentive to be loyal to BT to ensure they maximise their discounts. Whilst this may not bring prices down to the lowest possible level (BT prices may remain above cost on average), the scheme will have the same effect as it will exclude altnets from the market and so

[26] Ibid. para 1.96
[27] WFTMR Vol IV paras 189 - 197

harm competition. The dynamic benefits that exceed the short term benefits will, therefore, still be lost and it is consumers who will bear that cost.

89. We set out in detail the likely harmful effects on consumers of Equinox in our response to the CFI[28]. We stated in that a discount scheme that provides lower prices in the short term but deters competitive investment in the long term will, ultimately, have a detrimental effect on the level of competition in the market.
90. We explained that Equinox will act as a barrier to entry for altnets reducing the level of competitive invest in the market that would bring benefits to consumers from choice, price and higher quality of service.
91. Therefore, in the long term the stakeholders who will pay the price of Equinox's foreclosure effect on altnets will be consumers who will have less choice, pay higher prices and receive poorer quality of service than if Equinox is prohibited.
92. In this response, we have sought to calculate the beneficial effects of altnets deploying ahead of BT to the market, which we have calculated as a productivity gain of £32.3 billion until 2024, as shown in Section 5 above. Whilst this is not a redistribution of welfare from suppliers to consumers, it shows the level of economic benefits to society, and therefore citizens, that will come from an effectively competitive FTTP market. Any reduction in the level of competition will reduce this economic benefit and will negatively affect citizens.

    Overall, therefore, we conclude that, if Ofcom permits Equinox to be implemented as it is currently designed, consumers and the UK economy more broadly will be materially adversely impacted.

7 Ofcom's Equinox assessment process

93. In the WFTMR Ofcom concluded that BT should provide a 90-days' notice of its intention to introduce pricing or offers that contain 'other commercial terms',[29] in order that Ofcom and BT's customers and competitors would have the opportunity to review and voice any concerns about those terms.

[28] https://www.ofcom.org.uk/__data/assets/pdf_file/0023/222980/INCA-and-Altnets.pdf.
[29] WFTMR Statement V III section 7

94. BT notified the Equinox offer on July 1 2021, and Ofcom followed that notification with a CfI on July 2nd, asking interested parties to submit any concerns relating to Equinox to Ofcom by July 16th. Ofcom followed up on some responses to the CfI with calls and follow-up questions. We also understand that Ofcom issued a number of separate RfIs to ISPs – we understand that those RfIs were issued on July 26th.
95. On August 6th, Ofcom published the current Equinox consultation, which closes on September 6th. Following its review of responses received to the consultation, Ofcom will need to determine no later than the end of September whether to allow Equinox to be launched on October 1st as planned.

    A 90-day notice period is too short for complex offers like Equinox. It is certainly clear that the process followed by Ofcom to assess Equinox was rushed and (for the reasons described below) procedurally unfair which, given the very significant impact Equinox is likely to have on the sector, has resulted in Ofcom's proposal to take no action being unfair, irrational and illegal.
96. The current consultation appears to rely extensively on responses to the CfI. Those responses were produced in a 2-week period and would therefore, by definition, not be exhaustive or supported by as much analysis and evidence as would typically be the case for complex subject like this. Ofcom, nevertheless, bases its preliminary conclusions on the contents of CfI responses and on responses to RfIs that were issued 10 days before the Equinox consultation was published.[30]
97. We do not know what data Ofcom has collected (as we have not seen the RFIs, despite having asked Ofcom for this information),[31] nor can we see the responses received by Ofcom and all the relevant data included in the consultation is redacted. We have asked for ISP response data at the aggregate level, which

[30] We have not seen those RfIs so do not know how long ISPs were given to respond, but with only 10 calendar days between issuing the RfIs and Ofcom having completed its analysis of the responses we assume it must have been a very short response period.
[31] Email correspondence with Lindsey Fussell on August 13th 2021

would not be confidential as no individual ISP could be identified, but that request was also denied.[32]

98. The 30-day response period to the current consultation is extremely short. Even for consultations of much lower complexity than Equinox, this is the minimum consultation period Ofcom allows. For this very complex consultation and given the potential consequences of Equinox to BT's competitors, 30 days is not sufficient and has caused us to limit our response to what can be produced in this very short time period.[33]

99. The very short consultation time is a consequence of Ofcom's decision to issue the initial CfI (and follow-on confidential RfIs and meetings) before issuing the consultation. If Ofcom believed it could not consult meaningfully without first collecting the inputs from the CfI, RfIs and separate meetings, then it should have allowed for a longer notification period.

100. Given the limited time allowed to respond to the CfI and the RfI's, we are concerned by the disproportionate reliance Ofcom places on those responses. It may have been straight forward, for parties for whom Equinox does not present a significant threat, to welcome the offer or simply not respond. However, for altnets to produce an analysis that demonstrates the harm that is likely to result from Equinox is significantly more complex and two weeks was simply not sufficient. Ofcom's activities during the month of July could not have resulted in a sufficiently robust basis for Ofcom to fairly and rationally allow Equinox to be launched on October 1st.

101. We consider Ofcom's Equinox review process to be badly designed, resulting in a lack of transparency and inadequate opportunity for those potentially affected by Equinox to respond to Ofcom's proposals and make considered representations. This is procedurally unfair and has led to Ofcom reach flawed and irrational conclusions.

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[32] Email correspondence with Keith Hatfield on August 18th 2021

[33] This is further complicated by the consultation being run during the month of August the main holiday season. Data collection to support this response has been substantially hindered by the absence of key individuals.

102. We further note that in paragraph 7.130 of the WFTMR V III, Ofcom invites BT to bring proposals for pricing or offers for discussion with Ofcom prior to these being notified. This is procedurally flawed as such early socialisation of possible pricing terms with Ofcom could easily result in a situation where Ofcom has effectively approved an offer before it is notified. This would create a conflict for Ofcom if/when it receives submissions from BT's competitors documenting valid and significant concerns of harm resulting from that offer. Alternatively, this approach also carries a high risk of confirmation bias, in that by Ofcom having privately assessed any offer with BT, Ofcom will not give due weight to contrary views and evidence. The cursory approach Ofcom appears to have taken to concerns expressed by altnets suggests that is exactly what has happened in regard to the Equinox Offer..

103. To address our concerns above, a Freedom of Information request has been submitted to Ofcom on behalf of altnets, aiming to understand the amount, nature, and level of meetings and correspondence that have taken place between Ofcom and BT on the subject of Equinox (including early discussions prior to the offer being named Equinox).

7.1 Ofcom's approach

104. In the WFTMR, Ofcom expresses significant concern at the potential harm to infrastructure competition that could result from BT pricing containing OCTs.

105. In Paragraph 7.29 (V3), Ofcom explains that, although some discounts could deliver short term consumer benefits "*our objective is to promote competition and investment in gigabit-capable networks by Openreach and others, and the resulting network competition should benefit consumers in the long term*". Ofcom, in line with SPP was prioritising long term benefits resulting from competition and investment over short term benefits in the form of low prices.

106. Further, it is clear in the WFTMR that Ofcom is concerned with any OCTs that could cause reduced investment by competitors to BT. In particular in paragraph 7.33 Vol III, Ofcom states: "*Our objective is to promote competition and investment in gigabit-capable networks by Openreach and other operators. We*

consider that our proposed package of remedies achieves this. In particular, we consider that Openreach could promote FTTP and compete with Virgin Media without using commercial terms which ***could*** *deter access seekers from switching demand to alternative networks*." [emphasis added].

107. Ofcom here clearly refers to the risk that OCTs could deter access seekers from using alternative networks and thus deny demand to those networks, not whether it has to be proven that OCTs will definitely cause this to happen.

108. However, in the Equinox consultation Ofcom departs from that approach. Ofcom identifies two plausible scenarios[34], one in which Equinox would cause access seekers to not use alternative networks for fear of losing the Equinox rental discounts in the remainder of the country and one where it would not. Ofcom then proceeds to conclude that the latter of those two scenarios is likely to prevail. Having identified the two credible scenarios, however, Equinox could cause access seekers not to use alternative networks. Ofcom's approach to conclude that Equinox should be allowed to proceed unchanged is therefore a significant departure from it stated approach in the WFTMR and is in conflict with Ofcom's duties to act in a transparent and consistent manner.

109. Ofcom's approach to prevent BT from introducing OCTs that cause access seekers to not use alternative networks is further emphasised in paragraph 7.31: "*New network builders that operate a wholesale model rely on selling ultrafast services to access seekers. If Openreach uses commercial terms to induce loyalty from access seekers, meaning they purchase all or most of their ultrafast requirements from Openreach, then it will deprive these network operators of demand. Ultimately this could undermine alternative operators' FTTP investment plans*."

110. In addition to Ofcom's own analysis (in which it identified the two plausible scenarios), for the reasons set out in this response there is a strong probability that Equinox will result in access being denied to alternative networks. Our analysis identifies that a significant portion of consumers are likely to still prefer to

[34] Paragraph 2.47.

purchase non-FTTP services and that it is unlikely that access seekers will chose to not service that significant portion of the market.

111. In a further significant inconsistency with its WFTMR Statement (and breach of its duty to regulate consistently), Ofcom concludes in the Equinox consultation that if some harm results from the NTN Equinox element, this is likely to only be in the short term. However, in the WFTMR Statement Ofcom makes it clear that the short term is critical as "*We have a relatively small window of opportunity to encourage new network build. If alternative operators are unable to secure sufficient access seekers/end users over a reasonable time period then it is unlikely they will be able to secure funds from investors for their FTTP rollout plans*."[35]

112. We strongly agree with Ofcom's WFTMR statement, that the short term is critical and harm to investment incentives in the short term would likely result in a reduction in commercial investment in alternative fibre networks.

113. Ofcom's proposal to take no action in respect of BT's Equinox Offer is both irrational and inconsistent with its approach set in the WFTMR as well as unlawfully disregarding the Government's SSP.

7.2 The need for separate Area 2 and 3 assessments

114. Ofcom's assessment of the Equinox Offer and its possible effects on network build by competitors to BT makes no distinction between the possible effects in Areas 2 and 3: the two geographic markets identified by Ofcom in the WFTMR. Ofcom has also previously rejected the need for differential analysis of fibre offers in different geographic markets on the basis that "*The offers we consider here relate to FTTP only so we do not consider that an assessment in relation to other product markets (e.g. leased lines) would be relevant*"[36].

115. Ofcom's rationale quoted above is spurious as the Wholesale Local Access (**WLA**) market, the product market that includes FTTP, is also divided by

[35] WFTMR V3 paragraph 7.56.
[36] Ofcom (2021) *Existing Openreach FTTP Offers with Geographic Pricing: Statement* 2nd July 2021. Para 3.16

geography. Ofcom was not asked to consider other product markets, but to consider the differential effect of existing FTTP offers in WLA geographic markets.

116. It is our view that Ofcom was wrong to reject the need for assessment of the existing FTTP offers in each geographic market and that it would also be wrong if Ofcom were to do the same in relation to Equinox. We set out below why this is the case.

117. It is well known that geographic markets are defined according to different competitive conditions. A geographic market comprises areas within which competitive conditions are sufficiently homogenous and which can be distinguished from other areas with significantly different competitive conditions[37].

118. Ofcom identifies two WLA geographic markets (Areas 2 & 3) in the WFTMR, which are defined on the likely potential for material and sustainable competition to BT in the commercial deployment of competing networks[38]. Ofcom concludes that competitive conditions are different where BT is likely to face material and sustainable competition compared to where it is unlikely to face such competition.

119. The likelihood of competing networks being deployed depends on the ability of the altnet to recover the fixed and sunk costs of network deployment. This ability is itself dependent on altnets being able to attract sufficient retail customers (either directly or through wholesale supply to an ISP), which in turn will be influenced by its ability to compete with BT's prices. A new entrant will always have to price at a discount to BT to gain customers.

120. The Equinox Offer clearly affects the retail price of BT's service on the assumption that BT Retail receives the Equinox discount, and the competitive retail market means that the discount is passed on to consumers. In turn, this will affect altnets' ability to compete with BT as they have to at least match or be lower than BT's price. If that effect is so strong that it will act as a barrier to entry for altnets, as we argue it is below, then it follows that it will affect competitive

[37] European Commission (2018) '*Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services*' Para. 46 – 50.
[38] Ofcom (2021) WFTMR Vol. II, Para. 7.7.

conditions. Whilst it may not affect the likelihood of market entry in Area 3, it is very likely to affect the likelihood in Area 2.

121. If we imagine all postcode sectors distributed equally along a horizontal line (0,1), where 0 is the postcode sector where competitive entry is least likely and 1 the sector where entry is most likely. The location of each postcode sector will depend on deployment costs (point 0 has the highest deployment costs and point 1 the lowest) and those costs determine whether altnets can viably complete with BT prices in a given postcode. There would then be a marginal postcode sector (x) at some point along the line marking the boundary between Areas 2 and 3.

122. The Equinox Offer may then change the location of the marginal postcode to x' increasing the size of Area 3, so decreasing the size of Area 2. At the extreme, x' would be located at point 0, meaning that Area 2 would cease to exist and BT would be unlikely to face material and sustainable competition anywhere in the country.

123. Ofcom cannot assume that the competitive effects of the Equinox Offer will be the same across two geographic markets. To do so flies in the face of economic logic given that the prices set by BT inevitably affect the ability to altnets to develop a sustainable competitive position.

124. With regards to the impact in Areas 2 and 3, Ofcom specifically identifies the potential harm OCTs could have in Area 3: "*While in Area 3 there is unlikely to be potential for material and sustainable competition to BT in the commercial deployment of competing networks, we expect some new alternative network build in Area 3. Consequently, our concerns also apply here in that BT could use commercial terms which applied in Area 3 alone to deter such build, potentially depriving consumers of greater choice and competition*."[39]

125. Ofcom has not acted rationally by failing to consider the effects of the Equinox scheme in different geographic markets for the same product. Ofcom should undertake an analysis of the Equinox Offer for each geographic market and

[39] WFTMR V3 paragraph 7.31.

should determine whether the Equinix Offer moves the location of the marginal postcode sector and, if so, to what extent.

8 Ofcom's assessment framework

126. Ofcom sets out its analytical framework in paras 2.38 & 2.39. It explains that its "starting point" is the creation of any barrier to using alternative operators created by the Order Mix Targets and then sets out three questions:
    a. Question 1: Does the Equinox Offer potentially create a barrier to using altnets?
    b. Question 2: Is the Equinox Offer likely or unlikely to have a material impact on nascent network competitors?
    c. Question 3: Is the Equinox Offer likely to generate clear and demonstrable benefits?

127. We set out below our serious concerns with the approach Ofcom has taken in the Equinox consultation with regard to this analysis. Specifically, we make three points:
    a. Question 1 did not explicitly appear in the WFTMR Statement and has irrationally and inconsistently been introduced by Ofcom only in this consultation;
    b. Even were Question 1 to have been implicit in the Statement, it is an irrelevant question because BT has been found to enjoy a position of SMP (in part because its position is already protected by barriers to entry) even without the Equinox Offer; and
    c. Even though Question 1 is not applicable, Ofcom has incorrectly answered this question as Equinox will raise pre-existing barriers to entry and therefore, Ofcom should have addressed questions 2 and 3. Had it done so it would have found Equinox will have an adverse effect on nascent competitors and does not generate clear and demonstrable benefits.

8.1 Question 1 was not in the WFTMR Statement

128. In the WFTMR Statement, Ofcom makes reference to two conditions that it will analyse in relation to OCTs: whether the terms will have no material adverse effect on nascent competitors and whether the terms generate clear and demonstrable benefits[40]. For such terms to be allowed, they must fulfil both conditions, i.e., have no adverse effects on competitors and general clear and demonstrable benefits.

129. Ofcom does not say in the Statement that it will explicitly ask whether the terms potentially create a barrier to using altnets. At best, there is an only an implication in Vol III para 7.154 that it may examine whether an offer creates barriers to using altnets.

130. There is a lack of consistency between the Statement and the current consultation and the Statement created a legitimate expectation what are now labelled questions 2 and 3 would be answered for all new terms, including the Equinox offer.

8.2 Question 1 is not relevant

131. Although Question 1was not in the WFTMR and so should not have been asked, it is also not relevant for reasons described below.

132. In the WFTMR Ofcom has already found BT to have SMP partly on the basis that its rivals face barriers to entry which protect BT from effective competition. Although Ofcom has introduced a requirement on BT to provide Physical Infrastructure Access (**PIA**) to alleviate these barriers to entry, Ofcom recognises that the outcome of this obligation is uncertain, as we discuss late in this section. This means that there is an unquantifiable likelihood that BT will continue to enjoy the protection from barriers to entry even before Equinox is introduced to the market. It is therefore not relevant to consider whether Equinox creates a barrier to ISPs using altnets, when such a barrier to entry already exists. Ofcom's question 1 is, therefore, not one that needs to be addressed and Ofcom should

[40] WFTMR Vol III Para 7.154.

have only considered what it now calls questions 2 and 3, and their consideration of question 1 was irrational and inconsistent.

133. We explain this in more detail below where we specifically consider two questions:

a. Does a barrier to an ISP using at alternative operator translate to a barrier to entry for that operator? and

b. Is it logical for Ofcom to consider if Equinox introduces a barrier to using altnets, when BT's market power is already protected by barriers to entry?

8.2.1 A barrier to ISPs using an altnets constitutes a barrier to entry for that altnet

134. If BT already enjoys its position of SMP, in part because its market power is protected by barriers to entry, is it correct for Ofcom to ask whether Equinox creates a barrier to using altnets and therefore a barrier to entry for those altnets when such a barrier already exists? Does a barrier to an ISP using at alternative operator translate to a barrier to entry for that operator?

135. In the WFTMR Statement, Ofcom recognises that successful market entry by altnets is dependent on them being able to achieve sufficient take-up to realise economies of scale and hence be able to recover their fixed costs of market entry. This is commented on in relation to geographic Areas 2 & 3 separately in Vol. II Paragraphs 8.126 and 8.112 respectively.

a. "*In Area 2 greater density means we think that, supported by PIA, the costs of new networks are low enough that barriers to entry may be overcome, though the outcome of this is uncertain. Entry is also dependent on being able to achieve significant retail take-up in order to realise economies of scale We also recognise that (…) the extent and success of entry and expansion is dependent on our ex-ante regulation of the WLA market preventing BT from foreclosing the entry and expansion of competing network operators*" (WFTMR Statement Vol. II Para 8.126. Emphasis added)

b. *"While BT is therefore likely to face some limited infrastructure-based competition in some parts of Area 3, it is not likely to lead to material and sustainable competition to BT. This is due to the high cost of building new*

networks, high level of required take up, challenges in securing wholesale customers and risks of anti-competitive behaviour in the absence of regulation." (WFTMR Statement Vol. II Para 8.112)

136. For both geographic markets Ofcom concludes that it is difficult for altnets to achieve scale and difficulties in achieving scale to recover fixed and sunk costs is a recognised barrier to entry:

"*The higher sunk costs the less likely that entry will occur, which in turn makes it less likely that new firms will discipline the incumbents*."[41]

137. Ofcom states that the difficulty faced by altnets to achieve scale means that the outcome in Area 2 is "*uncertain*" and in Area 3 infrastructure-based competition is unlikely to have a material and sustainable effect on BT. These barriers to entry are explicitly stated as a source of BT's SMP in Vol. II Paras. 8.117 & 8.132.

138. The question to be addressed now is whether a barrier to entry and a barrier to using altnets are the same thing.

139. Ofcom recognises that network competitors in the paragraphs quoted above need to achieve economies of scale to recover the high fixed costs of building a new network and that achieving these economies of scale requires achieving a significant retail take-up, either directly through their own retail division or indirectly through wholesaling to ISPs. It must follow from this that any action that prevents a new entrant from achieving a significant retail take-up, and that is not on the basis of fair competition, is a barrier to entry. A firm contemplating market entry would consider the possibility of achieving a sustainable scale and the likely response of the incumbent to its market entry. If that firm considered that actions taken by the incumbent would make it difficult to achieve scale, it would probably not enter the market and risk losing its investment capital.

140. Thus, any action by an incumbent that makes it difficult for an entrant to achieve sustainable scale is a barrier to entry.

[41] Motta, M (2004) "Competition Policy: Theory and Practice" Cambridge University Press, page 121.

8.2.2 Barriers to altnet entry already exist – Therefore Question 1 is illogical

141.

142. We now turn to our second question and consider whether it is logical and rational for Ofcom to ask whether Equinox creates a barrier to using altnets when it has already accepted that such a barrier already exists and is a source of BT's SMP.

143. When assessing whether an undertaking enjoys a position of SMP, Ofcom takes account of competition from existing operators and the barriers to entry and expansion in the market. In doing so, it follows the process adopted by other UK competition authorities and as set out in the European Commission's guidelines of SMP[42].

144. The Office of Fair Trading (a predecessor of the Competition and Markets Authority) explained the importance of barriers to entry in assessing market dominance. It stated:

> *"Entry barriers are important in the assessment of potential competition. ... Entry barriers arise when an undertaking has an advantage (not solely based on superior efficiency) over potential entrants from having already entered the market and/or from special rights (e.g. to production or distribution) or privileged access to key inputs. Entry barriers may make new entry less likely or less rapid by affecting the expected sunk costs of entry and/or the expected profits for new entrants once they are in the market, or by establishing physical, geographic or legal obstacles to entry."*[43] (Emphasis Added)

145. The European Commission Guidelines state:

> *"An SMP finding depends on an assessment of the ease of market entry. In the electronic communications sector, barriers to entry are often high (…)*

[42] WFTMR Statement, Vol. II Para. 8.14.
[43] Office of Fair Trading (2004) "Assessment of Market Power". Paras 5.2 & 5.5

where entry into the relevant market requires large infrastructure investments and the programming of capacities over a long time in order to be profitable."[44]

146. As noted above, the WFTMR Statement explains that BT's market power in Areas 2 & 3 is derived in part by being protected by barriers to entry (WFTMR Vol. II, paras 8.117 and 8.132).

147. Despite this finding, Ofcom's gating question is whether Equinox "potentially creates a barrier to using altnets". No rational regulator could consider this to be a relevant question given that barriers to using altnets already exist whether Equinox is in place or not and that those barriers are sufficiently high that they are a source of market power for BT.

148. In the WFTMR Statement, Ofcom imposes an obligation of PIA on BT. It expects that PIA has the *potential* to reduce barriers to entry for altnets and constrain market power by reducing the time and cost involved in network expansion and reduces BT's advantages from economies of scale[45]. Ofcom also says that it assesses BT's SMP in the WLA market Area 2 using the modified greenfield approach, which takes account of PIA being imposed in the upstream, physical infrastructure, market. Despite the availability of PIA, however, Ofcom recognises that the extent to which PIA will reduce the sunk costs of network build and how it will affect the timing is "uncertain"[46].

149. The economic definition of uncertainty is "the state in which the number of possible outcomes exceeds the number of actual outcomes and when no probabilities can be attached to each possible outcome"[47]. This means that Ofcom can neither know nor even put a degree of probability on the extent to which PIA will reduce the barriers to entry that help to provide BT with SMP in Area 2. The prudent assumption that a rational regulator that has an overarching objective to see competition between FTTP providers would take must be that barriers to entry are not sufficiently reduced by PIA to constrain BT. Therefore, whether Equinox

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44 European Commission (2018) "Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services" Para. 59.
[45] WFTMR Statement. Vol II Para 8.21
[46] Ibid. Vol II Para 8.50
[47] Penguin Dictionary of Economics, sixth edition. 1998.

potentially creates barriers to entry is irrelevant as those barriers pre-exist the introduction of Equinox.

150. Further, SMP is threshold measure that an undertaking either has or does not have. Whilst barriers to entry may be high, once they are high enough to confirm SMP, any increase in those barriers to entry does not affect SMP. So, if BT has SMP due to barriers to entry, and the extent to which PIA reduces barriers is uncertain, then the effect of Equinox is not relevant.

151. Ofcom does not suggest that PIA will reduce barriers to entry in Area 3 and makes no mention of assessing BT's SMP under the modified greenfield approach. In fact, Ofcom makes the point that barriers to entry mean BT is not likely to face material and sustainable competition in Area 3[48]

152. We therefore contend that Ofcom's first question is irrelevant and irrational in both Areas 2 and 3 and one that no rational regulator would even ask. Given Ofcom's own SMP assessment that altnets already face barriers to entry, Ofcom's subsequent analysis that claims that the Order Mix Targets do not create a potential barrier to using altnets is clearly illogical. There is no need to assess the effect of Equinox given that BT is already protected by barriers to entry.

8.3 Question 1 is invalid and superfluous

153. Despite the fact that Question 1 was not in the WFTMR Statement and is anyway not relevant as BT already enjoys a position of SMP, Ofcom has incorrectly answered Question 1 but should have addressed questions 2 and 3. Had it done so it would have found Equinox will have an adverse effect on nascent competitors and does not generate clear and demonstrable benefits

154. Once it is accepted that question 1 in para. 2.39 is redundant, it follows that Ofcom must address questions 2 **and** 3 as the Equinox Offer should only be accepted if it fulfils both criteria set out in para. 2.38. Ofcom fails to undertake this analysis in the consultation document, which means that it has not shown that the Offer is unlikely to have a material effect on nascent competitors to BT and that it

[48] WFTMR Statement. Vol II Para 8.112

will generate clear and demonstrable benefits. Since question 1 is redundant because BT already enjoys a position of SMP due to barriers to entry, Ofcom's failure to address questions 2 and 3 means that it cannot judge the anticompetitive effect of Equinox.

155. Our assessment of each of the three elements against questions 2 and 3 are set out in Section 9

156. Ofcom's assessment of the Product Mix element Ofcom does not review the Product Mix explicitly but does consider whether the conditionality in this element acts as a barrier to altnet entry and expansion. Ofcom concludes it does not, primarily due to its assumptions relating to likely ISP behaviour after Equinox is launched.

8.4 ISP behaviour

157. Assumptions about ISP behaviour are critical to the assessment of potential harm caused by Equinox.

158. Ofcom's main justification for why it considers that the Product Mix element would not create a barrier to using altnets is that:

> *"ISPs are unlikely to continue to offer legacy broadband products for new sales in areas served by Openreach FTTP, including in those areas locations that are also served by an altnet. If ISPs adopt this approach, moving volumes to altnets will have no impact on whether the Order Mix Targets are met, and thus on whether the ISP receives the discounts available under the Equinox Offer."*[49]

159. Whilst Ofcom makes this assumption in relation to its new gating question, the same issue is relevant to what in the consultation appears as Question 2, namely whether the element would cause material harm to altnets.

160. Much of the evidence to support Ofcom's conjecture in this paragraph is set out in Annex 7. In this Annex, Ofcom accepts that "some consumers" will be unable or unwilling to take FTTP, either because they need functionality that

[49] Consultation Document, para. 2.51

requires a copper connection to the home or because they prefer the price and installation process of a legacy product[50]. Given the importance of the Order Mix Target in the Equinox Offer it is, to say the least, surprising that Ofcom has made no attempt to provide any quantitative data on what proportion of broadband customers these consumers represent.

161. Rather, Ofcom relies entirely on ISPs' submissions, which are completely redacted from the consultation, and on a submission from BT that, since the stop-sell process was initiated in Salisbury only 1% of the orders accepted by BT were placed as copper[51].

162. We cannot make detailed comments on Ofcom's arguments set out in Annex 7, paragraphs A7.7 to A7.13 due to the extensive redaction of the data on which Ofcom performs this analysis. However, we can say the following:

a. The 1% of orders in Salisbury are a proportion of "orders accepted by Openreach". This does not necessarily mean 1% of all orders placed by ISPs. Specifically, Ofcom does not explain on what grounds orders are accepted or rejected by BT. It is quite feasible that many orders for copper-based services were placed but rejected by BT and thus the 1% does not represent the proportion of consumers who are either unable or unwilling to use fibre services.

b. The Salisbury stop sell was introduced 12 months after 70% of relevant premises had FTTP available, whereas the Equinox 80% threshold applies immediately upon BT making a premises RFS for FTTP. It is likely that the take-up rate of FTTP would be higher 12 months after 70% of premises could access FTTP, as the local community would be significantly more familiar with benefits from FTTP than would be the case for individual premises on the day that individual premises is made RFS for FTTP by BT.

c. In the opening sentence of A7.13, Ofcom recognises that there is "considerable uncertainty about precisely how ISPs will perform against the

[50] Consultation Document, para. A7.1
[51] Consultation Document, para. A7.9

Order Mix Targets". It then says that there are plausible scenarios under which ISPs surpass Order Mix Targets and plausible scenarios under which some ISPs "struggle" to meet such targets. There is no assessment of which of these scenarios is more likely nor what the implications of this would be for the development of competition. Instead, there is only a comment that Ofcom expects the more pessimistic scenario to be "temporary". Such unsupported arguments can hardly be considered sufficient grounds to claim that ISPs will place very few FTTC/copper orders.

d. Ofcom's expectation that the "challenges will be temporary" is particularly concerning given Ofcom's overarching strategy to promote infrastructure competition. In the WFTMR Statement (Vol II, para. 8.73), Ofcom says: *"This means that the potential for wholesale deals to support entry may be greater where most customers have not yet migrated onto an FTTP network. The opportunities provided by this migration process will eventually close, creating a time window where entry is more likely to occur."*

163. This suggests that there is a limited period during which Ofcom's overarching objective can be achieved.

164. In the WFTMR Statement Vol. II, paras. 8.54 – 8.55), Ofcom presents (redacted) evidence of the time it takes for undertakings to build a market share large enough to sustain their business, this is in contrast to BT, which already has a sustainable share.

8.5 Consumer behaviour

165. In preparing this response, we have undertaken our own survey of altnets to gain an understanding from the market. A total of 15 responses were received from 14 separate altnets. The responding companies are listed in confidential annex 4.

166. The survey provides a useful insight into consumers' scepticism of the benefits of FTTP compared with FTTC and their lack of knowledge of the difference. What this implies is that ISPs may find it harder to achieve 80% sales of FTTP than

Ofcom believes and so less likely to risk missing the Equinox target by purchasing wholesale FTTP from altnets.

167. We asked altnets what they have found to be the main objections from consumers when offered FTTP compared with FTTC. Key responses were:

- 7 of 12 respondents (58%) said that the relative price of FTTP was given as a main reason not to upgrade to FTTP.
- 8 of 12 (67%) respondents said they were worried about having a new installation. In some cases, respondents told us that potential end-users may not be able to get permission from landlords to have a new line installed.
- 4 of 8 respondents told us that consumers were worried about having to get a new telephone handset.
- There was also a substantial degree of confusion as to what constitutes fibre and what the benefits are:
- 11 of 13 respondents (85%) said consumers often believed they already had a full fibre connection even where FTTP was not available.
- 7 of 13 respondents said consumers were happy with what they have and saw no reason to upgrade to full fibre.

168. If these responses are typical of wider consumer attitudes towards FTTP, then it is likely to be more difficult than Ofcom believes for ISPs to withdraw from offering FTTC. Concerns about price, relative benefits and problems related to getting a new line installed into the premises (including rental properties where a landlord needs to give permission) appear likely to reduce demand for FTTP. As many consumers appear to be unclear as to the difference between FTTC and FTTP there is very likely to be a residual demand for legacy products that may challenge ISPs from reaching the 80% threshold required by Equinox.

169. If this is the case, then ISPs are likely to wish to retain connections to BT to maximise their chances of reaching the threshold and correspondingly unlikely to switch to using an Altnet if by doing so they could put Equinox discounts in jeopardy.

170. Ofcom should take account of this information in reassessing likely impact of the Product Mix element.

9 Why Equinox should be blocked or modified

171. The Equinox terms are summarised in Annex 1. it consists of three main elements:
    a. the Product Mix element;
    b. the ARPU-related revenue share element; and
    c. the NTN element.

172. Ofcom correctly identified that certain commercial terms offered by BT to its wholesale ISP customers could cause material harm to the emerging fibre networks that compete with BT's network arm, Openreach. Ofcom imposed a direct ban on geographic pricing that directly targets locations where competitors are deploying or planning to deploy and it created an assessment framework for other commercial terms (OCTs that BT could include in wholesale offers and which could also cause such harm.

173. A group of altnets submitted a response to Ofcom's CfI in early July. That response, together with a follow-up response submitted to Ofcom on 27 July 2021 after a call with Ofcom[52], presented our analysis of the likely harm to altnets from the various equinox elements. We summarise that analysis below but refer Ofcom to the full analyses presented in the two documents referenced above.

174. in the WFTMR, Ofcom specifies that in order to not be blocked, OCTs must:
    a. Not cause material harm to nascent network competitors to BT **AND**
    b. Must either
        i. be necessary for BT's business plan, or
        ii. be necessary in order to provide important benefits to consumers.

175. Below we apply that assessment framework to the three elements.

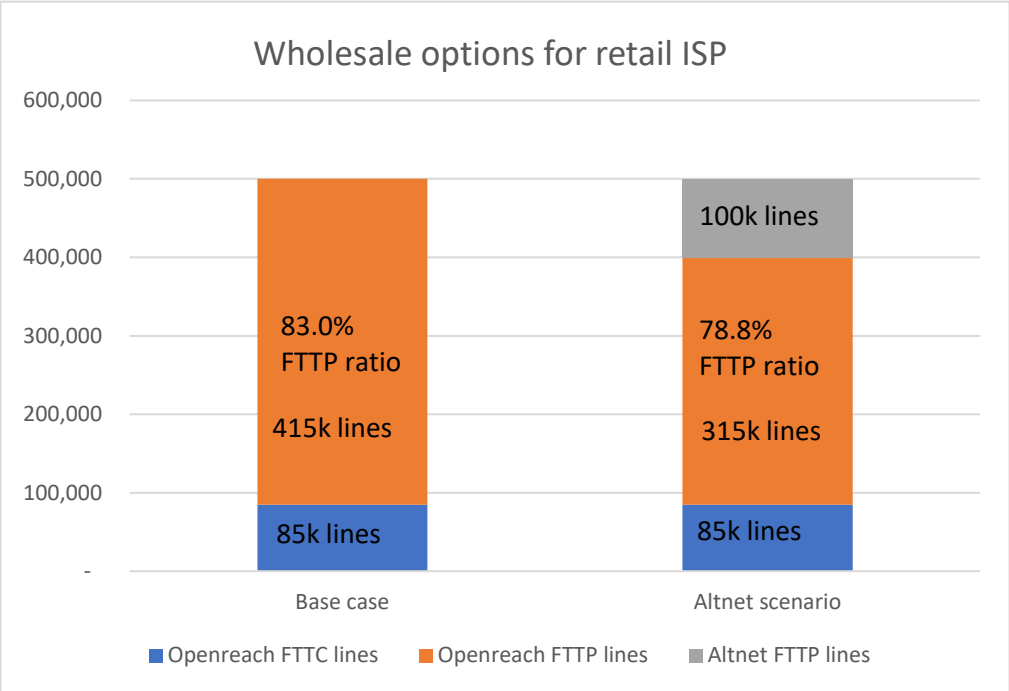
[52] https://www.ofcom.org.uk/__data/assets/pdf_file/0023/222980/INCA-and-Altnets.pdf. The follow-up submission was not published by Ofcom and has therefore been submitted as a separate annex to this response and will be published alongside this response.

9.1 Product Mix element

9.1.1 Material harm arising from the Product Mix element

176. The Product Mix element requires ISPs to order a minimum of 80% FTTP connections where the relevant premises are made ready for service (RFS) for FTTP by BT. This could cause ISPs to not use altnet connections where altnets have deployed as that would likely result in the ISP finding it difficult to meet the 80% FTTP threshold and, as a consequence, lose its Product Mix rental discounts from BT nationally.

177. The chart below illustrates an example where an ISP faces demand for 500k new broadband lines, of which 415k are for FTTP and 85k are for non-FTTP.



178. In the base case, where all lines are purchased from BT, the FTTP ratio is 83%. This means that the ISP qualifies for the Equinox rental discount on the 415k FTTP lines.

179. The ISP may consider buying 100k lines from an altnet instead of from BT (or where BT has not yet deployed FTTP)[53]. If the FTTP demand in total remains

[53] In this case the impact of the altnet lines would be deferred until the relevant premises are declared RFS by BT.

unchanged, then the CP would only buy 315k FTTP lines from BT, along with the same number of non-FTTP lines (85k) (as altnets do not offer non-FTTP connections). In this case, the FTTP ratio would fall to 78.8%; this is below the 80% Equinox threshold for rental discounts, and so the CP would not qualify for rental discounts on the FTTP lines. The discount foregone would be substantial, resulting in, for example, 80/20 FTTP rental prices 18% higher than the discounted price (increasing from £177 to £209 per line per year).

180. We can compare the potential savings an ISP might make by buying the 100k lines from an altnet with the cost of missing the 80% threshold and losing the Equinox discount. If the Equinox discounts resulted in the average price reducing from £193 to £17654 per line per year, and the altnet were offering a 5% discount to the discounted BT price on the 100k lines, this would amount to an annual saving of 100k x (5% of £176) = £880k. The annual cost to the ISP of losing the discount on the remaining 315k lines would be 315k x (£193-£176) = £5.3m. This means the ISP would lose six times the amount they could save by using the cheaper altnet; this is a clear and strong financial incentive to purchase the lines from BT, even where the altnet undercuts BT's Equinox prices.

181. The possible consequence of the Product Mix element is therefore wholesale market foreclosure as ISPs avoid using altnets in order to reduce their risk of losing the significant Product Mix rental discounts nationally.

182. At the retail market level, as the retail broadband market is extremely competitive, we expect ISPs to pass on all of the Product Mix wholesale discounts to consumers and the resulting retail prices will therefore be reduced substantially – in particular for high-speed products.

183. The impact of significantly reduced wholesale and retail prices will impact different categories of altnets differently.

    a. For altnets in locations with above average deployment costs (typically in parts of Area 3), the reduced pricing will make those deployments less viable. Although Ofcom argues that an efficient market entrant could cover

[54] The average price levels will depend on the ISP's product mix.

its efficiently incurred costs at the regulated 40/10 anchor price, that was on the assumption that BT had 100% market share in Area 3, that is clearly no longer a sustainable assumption as many altnets have plans of material deployment in Area 3. We discuss elsewhere in this response the substantial benefits arising from early altnet deployment and urge Ofcom to consider the potential impact Equinox could have on the viability of altnet deployment in Area 3.

b. For altnets deploying where two or three competing networks may be viable (Typically in Area 2), the loyalty-inducing effect of the Product Mix element will make it significantly harder to enter markets where BT already has FTTP. This is because ISPs in those locations will need to remain compliant with the 80% threshold and will not be able to 'afford the risk' of taking FTTP connection from BT's competitors. This will mean that altnets will find it very hard to achieve minimum economic scale in those locations making those investments marginal and risky.

184. The disincentive on ISPs to use altnet networks for FTTP services will slow down the FTTP adoption in the UK and result in reduced benefits from altnet deployments, to the detriment on consumers and the UK economy. It will also mean that potentially higher quality and lower cost altnet connections will not be taken up by ISPs, as this would increase their risk of not meeting the 8-% threshold.

9.1.2 We conclude that the Product Mix element could result in material harm to altnet deployment and infrastructure competition. Why the Product Mix element is not necessary for BT's FTTP business case

185. It is possible for BT to offer discounts to encourage FTTP take-up without imposing the 80% FTTP qualification threshold. By setting very high list prices and making these prices contingent on the 80% FTTP threshold, however, BT is creating an environment where ISPs risks having to pay those very high list prices and that is what results in the most significant anticompetitive effect of this element. It is clear that this structure is not necessary for the BT FTTP business case.

9.1.3 Why the Product Mix element is not necessary to deliver benefits to consumers

186. BT could offer discounts without the application of the 80% FTTP qualifying threshold. Additionally, Ofcom has stated clearly in the WFTMR that it considers the long-term benefits from infrastructure competition to be so substantial that they outweigh the £2.4bn short term benefit that would have resulted from short term price reductions[55].

9.2 ARPU-related revenue share element

9.2.1 Material harm arising from the ARPU-related revenue share element

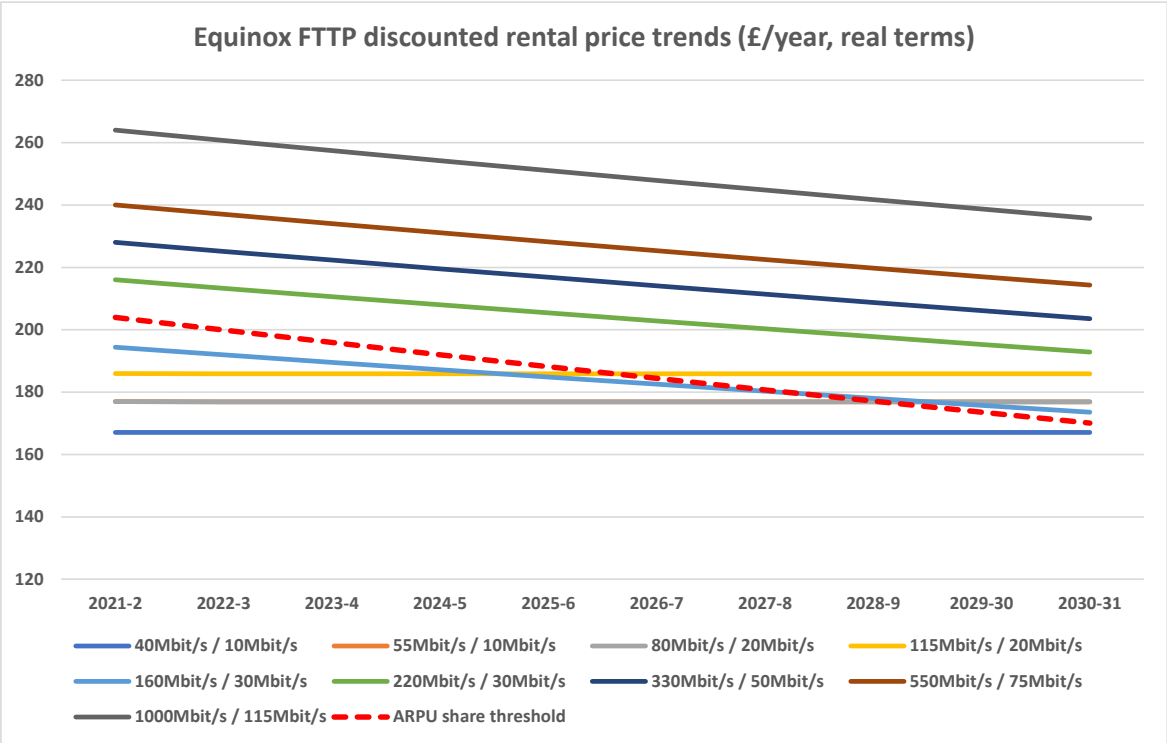
187. This element is likely to result in retail price reductions on higher speed products. Initially ISPs may reduce retail prices to reach the ARPU threshold as quickly as possible and once the ISP has reached the threshold it is also likely to pass on the discounts in order to increase its market share.

188. In the wholesale market, those ISPs that decide to negotiate access to altnet networks will most likely build in anticipated discounts from this element into the prices they expect altnets to meet in order to attract their business.

189. Both the retail and wholesale price reductions resulting from the ARPU-related revenue share element are incremental to the effects of the Product Mix element and will simply amplify the impacts described above.

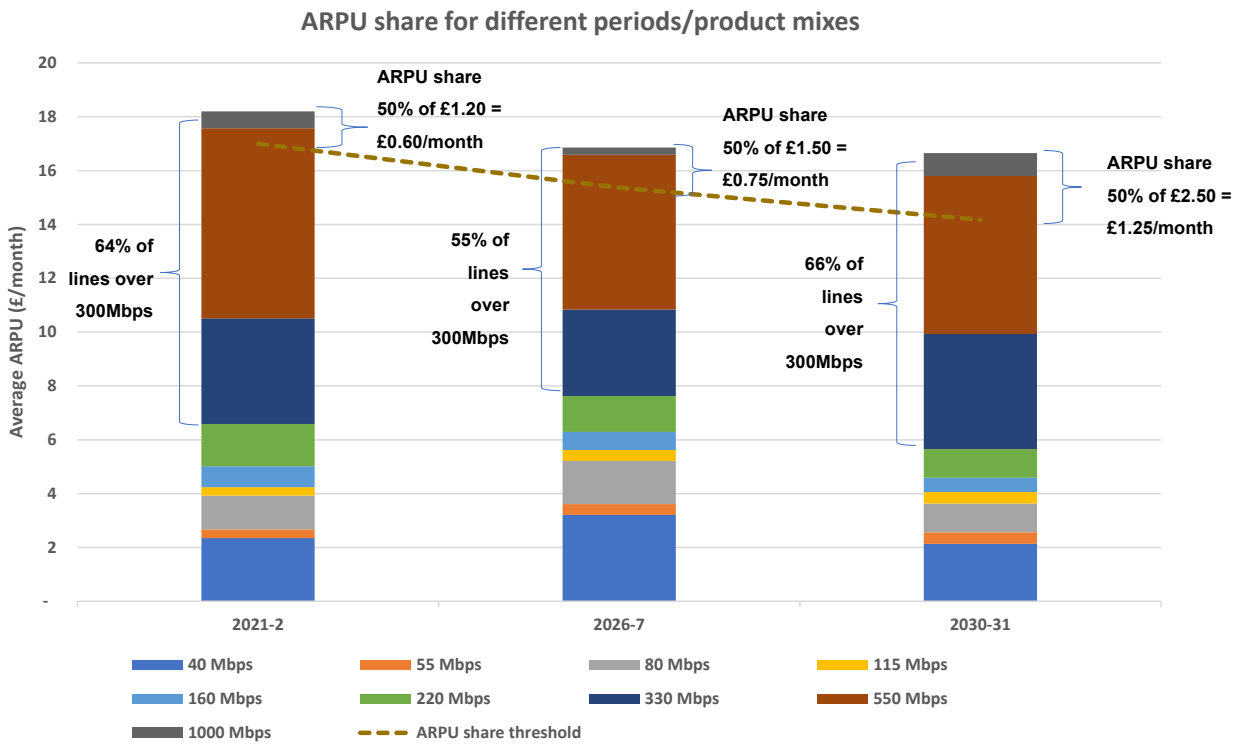
190. We note that the ARPU threshold is subject to an CPI-2% annual adjustment which causes a considerably steeper decline than the product-mix discounted product prices which are subject to either CPI-0% or CPI-1.25%. This is illustrated in the chart below.

[55] WFTMR Vol IV paras 189 - 197



191. Initially, it may be that the ARPU threshold can be met as the product mix is weighted towards higher speeds due to early adopters taking FTTP connections by choice (although volumes will be low at this stage). In later periods, the product mix will tend to include a greater proportion of lower speeds as greater volumes of lines are transferred to FTTP, driving a lower APRU share; the reducing threshold will counter-balance this to some extent. In the much longer term, the proportion of higher speeds may well increase due to consumer demand as applications increasingly require very high-speed connections.

192. The following chart shows the effect of increasing speeds combined with the reducing target for some illustrative product mixes.



193. If the ISP were to achieve these product mixes, there would be an ARPU share of £0.60 per month for 2021/22, representing an additional discount of 4% from the Equinox prices. By year 6 there would be an ARPU share of £0.75 per line per month, representing an additional discount of 5%. By year 10, the discount is £1.25 per line per month, giving an additional discount of 7%.

194. As an example of the impact of this, an ISP with 3 million lines distributed across speeds as shown in the chart above would save £26 million per year by year 6, and £45 million per year by year 10, over and above the savings due to the Product Mix rental price discounts.

195. There can be no doubt that this element would have a strong loyalty inducing effect that is harmful to competitive investment.

196.

9.2.2 Why the ARPU-related revenue share element is not necessary for BT's FTTP business case

197. Ofcom is confident that BT can cover its efficiently incurred costs through the regulated 40/10 anchor price. It is therefore clear that it cannot be essential for BT to introduce discounting structures that accelerate take-up of higher-speed

services. whilst selling more higher speed connections are likely to be beneficial for BT, it is not necessary.

9.2.3 Why the ARPU-related revenue share element is not necessary to deliver benefits to consumers

198. Whilst it may be beneficial for a very small number of consumers to be able to purchase a 1Gbps FTTP connection at a discounted price, that is not likely to be a critical requirement for consumers in general and the incremental benefits to consumers of this element are questionable.

199. The consultation does not analyse this element. It considers the impact of reduced prices on altnets but dismisses this argument as not valid due to all the Equinox discounted prices are above the regulated 40/10 anchor product price, at which level Ofcom states that BT and its efficient competitors can viably deploy new fibre networks.

200. The ARPU sharing element allows the CP to share 50% of any national average wholesale ARPU for the individual CP in excess of £17/month.

201. This provides a clear incentive to CPs to sell higher speed connections where possible, any high-speed connections from altnets would reduce the ISPs ARPU with BT and this is therefore a significant loyalty inducement. Therefore, it cannot be justified within the parameters set out by Ofcom in the WFTMR. It also, however, reduces the effective price for high-speed connections even further than indicated in the product mix price comparisons shown earlier in this document and thus further increases the wholesale price pressure on altnets. It is likely that the impact of this element would impact altnets equally in Area 2 and 3.

9.3 ISP incentives and behaviour

202. The behaviour of ISPs in response to the Equinox offer is all-important in the assessment of whether Equinox would likely cause material harm to nascent infrastructure competition. As set out above, the potential benefits to ISPs of meeting the ARPU threshold and qualifying for the ARPU-related discount are substantial and it would be natural for ISPs to attempt to speed up the point in

time when they meet the ARPU threshold and to seek to achieve the highest possible ARPU in an effort to maximise the discounts.

203. At the retail level, this may result in ISPs offering very competitive retail prices for the highest speed products in order to incentivise increased take-up by consumers of those products. This may result in a short-term margin reduction for the ISPs, but would pay back as soon as the ARPU threshold is achieved.

204. The certainty that the ARPU-related discount will be available could cause ISPs to price the highest speed products lower than would otherwise be the case and could cause a price reduction on high-speed connections that is larger than would otherwise be the case if Equinox were to be implemented without this element.

205. A 30% reduction in wholesale prices for the 1Gbps product will result in significant retail price reductions, due to the fiercely competitive retail broadband market. A further reduction of perhaps 8% in the wholesale price due to the ARPU-related discount would likely result in additional discounts.

9.3.1 Impact on wholesale market

206. At the wholesale level, ISPs will likely include their anticipated ARPU-related discounts when negotiating with altnets for wholesale access, increasing the wholesale price pressure on altnets that are yet to reach maturity and benefit from the economies of scale and scope that are available to BT today.

207. Ofcom has stated that it considers that the absolute price levels that result from Equinox are unlikely to be a major concern, as they are all above the regulated anchor price for the BT 40/10 product. Ofcom states that the 40/10 anchor price is set at a level where an efficient market entrant would be viable, but the underlying Ofcom analysis[56] for Area 3 assumed a BT monopoly and was intended only to demonstrate at a high level that the net cost to BT of its commitment to build FTTP lines in Area 3 was in line with the benefit from pricing above its costs.

[56] Including the Ofcom Fibre Model developed during the WFTMR process.

208. Given that a significant portion of alternative network deployment is not taking place in Area 3 and that BT will therefore not have a monopoly in those locations, Ofcom's assessment of the necessary wholesale price level for Area 3 is likely to be wrong and underestimate the unit price for an operator with less than 100% market share.

209. As Ofcom has acknowledged that where network competition happened in Area 3 this would benefit consumers, Ofcom needs to reconsider whether the impact of This and other Equinox components may cause serious harm to investment prospects in Area 3. Ofcom presents no such analysis in the consultation, nor does it acknowledge that this is likely to be an issue

9.4 The NTN element

210. The NTN element does not need to be assessed under the OCT assessment framework. This is because it has the same effect as a geographic pricing offer and such pricing is prohibited under the WFTMR.

211. If this element were to be assessed under the OCT framework it would be proven to cause material harm to nascent infrastructure competitors and to be neither essential to BT's business plan nor for the purpose of delivering consumer benefits.

9.4.1 The NTN element is a geographic pricing offer and should be prohibited

212. As noted in Annex A for a period of 12 months after connection, BT FTTP lines that are NTN with speeds between 160Mbps and 550Mbps will be charged at the 160Mbps discounted rental price. This means that the customer will be offered nearly three times higher speed for the same price – that is a very appealing customer proposition regardless of whether the 550Mbps product is likely to be a very popular customer choice as a stand-alone product. This applies only to lines connected before September 2026. In this case, NTN means new to BT rather than new to the BT FTTP network. Thus, an end customer who had been using BT FTTC or only had voice telephony delivered over the BT network regardless

of the retailer of the line would not count as new to the network and so the customer's ISP would not qualify for the discount.

213. Although the NTN discount is awarded to the ISP, we consider here the discount applying to the end consumer as it is the end consumer who would be new to BT, and we would expect the ISP to pass the discount on to the consumer due to competition in the retail market.

214. In the WFTMR Statement, Ofcom explicitly prohibits geographically targeted price reductions through the non-discrimination remedy. Further Ofcom states: *"The geographic discrimination prohibition we are imposing prevents differentiated prices and other pricing measures which might have the same effect"*[57] (emphasis added). We argue here that the NTN element of Equinox has the same effect as a geographic discount.

215. Then, in the Equinox consultation, Ofcom claims that the NTN rental discount Ofcom claims these discounts *"do not involve charging different prices in different geographic areas"* and are available everywhere in Area 2[58].

216. Ofcom's claim suggests that it has not understood how the NTN rental discount actually would work. the NTN discount is clearly only available where a customer switches from a altnet to BT or where a property has not previously been connected to any network. There are, therefore, many consumers for whom the discount is not available because of where they live. This means that the NTN discount has the same effect as geographic pricing for two reasons as we explain in more detail below.

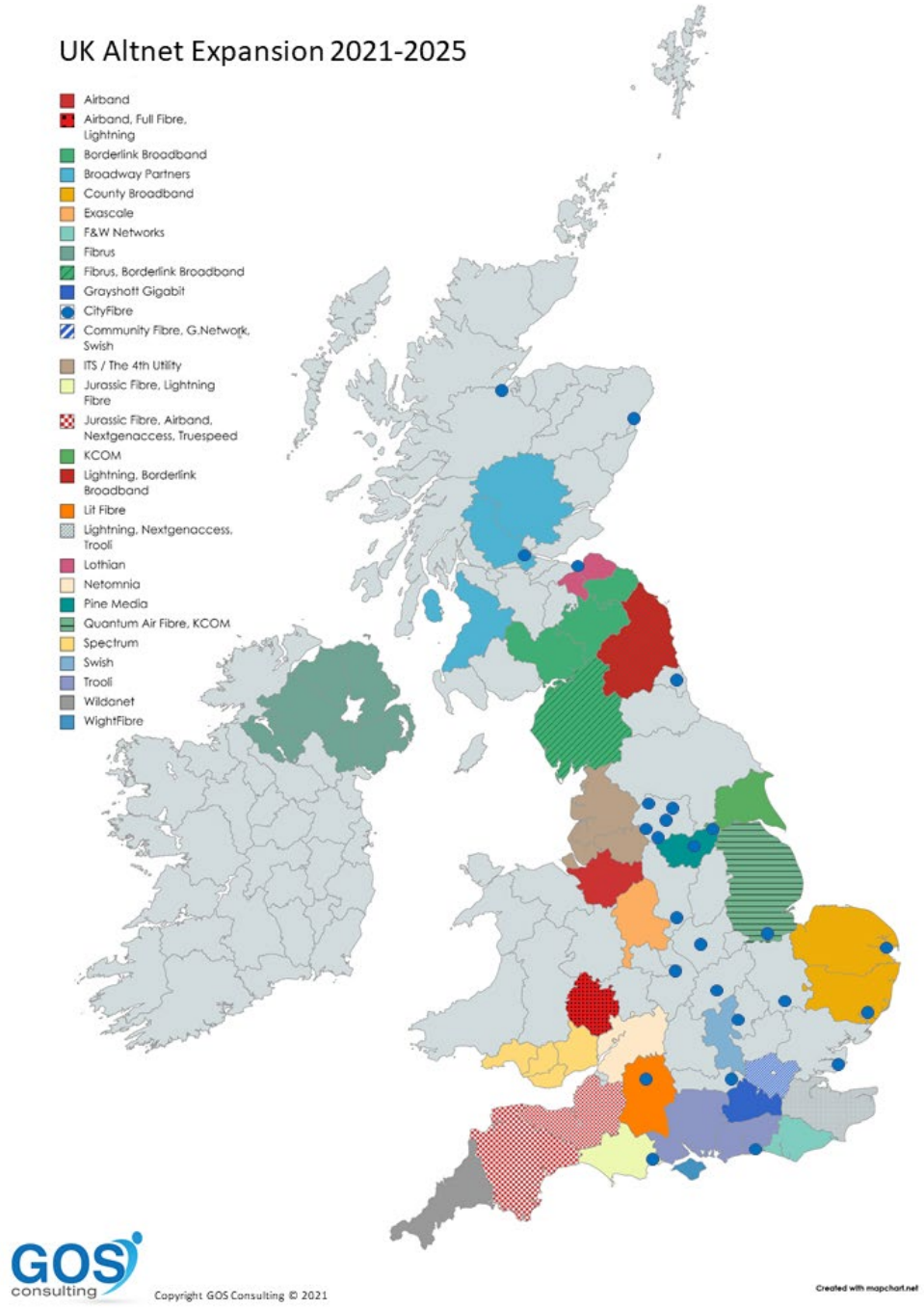
217. First, Ofcom's provisional view set out in paras. 2.65 – 2.70 of the consultation refers only to Area 2. However, the NTN discount is available in both Areas 2 and 3. Were it to be only available in Area 2 then it would be a geographically varied price and prohibited by Ofcom. It is true that more consumers in Area 2 are likely to benefit from the discount than in Area 3, but that only reinforces the geographic nature of the NTN discount.

[57] WFTMR Vol III Para 7.72
[58] Equinox Consultation para. 2.67

218. Secondly, no altnet has the same ubiquitous national network as BT. Virgin Media O2 has the largest network, covering 15.5 million premises[59] of a total of some 25 million residential and 5.2 million business premises in the UK. Other altnets are more geographically focussed as seen in Figure 4 below,

[59] https://news.virginmediao2.co.uk/about-us/ Downloaded 26/28/21

Figure 4: UK Altnet Coverage



Source: GOS Consulting[60]

[60] Please note that the extent of coverage depicted in this picture reflects the general locations where altnets invest, not their actual current or planned coverage areas.

219. A consumer in, say Peterborough, switching from Virgin Media to BT FTTP would benefit from the NTN element of Equinox. However, a consumer upgrading to FTTP in an area of Cambridgeshire where no alternative network exists, for example the village of Parson Drove outside Wisbech and regardless of whether Parson Drove is in Area 2 or 3, would not benefit from this discount as only BT is present.

220. In this case, the NTN discount clearly has the same discriminatory effect as the geographically targeted price reductions that Ofcom has prohibited under SMP condition 4, non-discrimination. Different consumers in the same circumstances are treated differently, with one benefitting from a discount that the other does not benefit from, but only because BT faces network competition in some areas and not in others.

221. Ofcom asserts in para. 2.68 of the consultation that the NTN discount will have the most immediate effect on Virgin Media and other established altnets. It then dismisses this effect as not being of concern because "*our competition concerns primarily relate to new network build*" and these "*discounts will not have a material impact on new network build (or ISPs using these networks) until a material volume of customers has moved to the new network and those customers are at the point of switching away*".

222. In making this claim, Ofcom appears to think that new network builders do take a forward view of the market. The NTN discount remains in place for five years until September 2026. In that time frame a property that had been disconnected from BT and signed up to an altnet (either directly or through an ISP) could switch back to BT for a variety of reasons, including a change of occupier. The occupants of this property would then benefit from the NTN discount and this discount could be enough to incite them to switch to BT.

223. Anticipating such a possibility, altnets could be deterred from building new network if they expect a large enough proportion of customers will switch back over the time period to make their investment marginal. As Ofcom has recognised that there is a short window of opportunity for new network build, we consider that

it is irrational for Ofcom to take any action that might shorten that window still further.

224. In summary, since it is clear that the NTN discount has the same discriminatory effect as a geographically targeted price reductions, and since such reductions are expressly prohibited by Ofcom, it is our view that Ofcom should prohibit the NTN discount element of Equinox.

225. The NTN discount has the same effect as a geographically targeting price reduction in both Area 2 and Area 3 as in both Areas there are likely to be premises where BT faces infrastructure competition and where it does not. The prohibition should therefore apply to both markets.

9.5 Conclusions

226. Each of the three main elements of Equinox will likely have a negative effect on altnet deployment individually. Collectively, it is our view that the impact is likely to be material.

> "this creates [..] a "land grab" event for Openreach, making life harder for other infrastructure providers [..] we expect Openreach's build in the next 2-3 years to far exceed that of its competitors. Thereafter, once a customer is "connected" to an FTTP network, we believe the chance of churn onto another Fibre network is significantly reduced [..] We believe nationwide pricing will likely make the business case for Rural AltNets harder, even if it potentially encourages build in Urban areas (rollout costs are typically much higher in Rural areas)"

227. This conclusion is supported by an experienced City financial analyst who mode the following statements.

10 Could the Equinox elements be amended to reduce their anticompetitive effects?

10.1 Product Mix element

228. The likely anticompetitive effects of the product mix element are caused by two factors in its design:

a. The ISPs have to achieve a specific portion (80%) of all new connections ordered from BT as FTTP connections, and

b. The 80% FTTP threshold is applied nationally.

229. If Ofcom wishes to assist BT in designing an offer that does not have anti-competitive effects, we believe that the following modification could help achieve this.

10.1.1 Inclusion of altnet connections in the total new connections counted to qualify

230. We note that the GEA Volume discount offer has been modified to include altnet connections and, as our primary concern is that FTTP connections contracted by an ISP with an altnet would affect the national average of that ISPs proportion of FTTP to non-FTTP new connections (if the altnet connections were excluded as currently proposed), the inclusion of altnet connections (which are all FTTP) would overcome the problem.

231. As this change has already been implemented for an existing offer, the processes, systems, and logistics are likely to be manageable, were it to be applied to the Equinox product mix element as well.

10.1.2 Applying the 80% level on a sub-national level

232. We have considered this carefully and, whilst in principle this looks appealing, the practicalities of its applications may not be realistic. This is primarily because altnets coverage areas vary and do not conform to BT exchange areas.

233. Therefore, it would be difficult to design geographic areas for the application of the 80% threshold that would not cause conflicts for ISPs wishing uses both altnet and BT connections.

10.1.3 Eliminating the qualifying FTTP threshold

234. If the discounts were available to ISPs for all FTTP connections, independently of the proportion of FTTP connections that ISP ordered from BT, then there would be no risk for the ISP of using altnet FTTP connections alongside BT connections.

10.1.4 Reducing the percentage FTTP connection required to qualify

235. We understand the 80% threshold is likely to be a stretch target for ISPs, especially in the short term until the benefits of fibre connections are more widely appreciated.

236. Ofcom has acknowledged in the WFTMR Statement that the short term is important due to the limited window of opportunity to attract commercial investment in competitive fibre networks.

237. Therefore, if the 80% threshold were to be reduced to perhaps 50% in the short term and (potentially) gradually increased to 70% over time as more parts of the UK enter the stop sell for non-FTTP connections, this would alleviate the majority of competition concerns.

10.1.5 Setting the FTTP threshold at 100%

238. Ofcom has suggested in discussions with altnets that perhaps the FTTP threshold could be set at 100% and asked whether this would make the offer more acceptable.

239. If the FTTP connection threshold were at 100%, then there would be no proportion of new non-FTTP connections that the ISP could order from BT and this would therefore also remove the risk of non-compliance with the threshold caused by use of altnet FTTP connections.

240. In principle, therefore, setting the FTTP compliance threshold at 100% would overcome the concerns set out in this response. In reality, however, this is unlikely to be a realistic option, given that Ofcom has mandated that BT can only apply a

stop sell in a location 12 months after 70% of premises in the location have had FTTP available for at least 12 months.

10.1.6 Conclusion

241. There are several options available to Ofcom and BT that would overcome the majority of the competition issues identified in this (and our previous) response.

242. The risks from the product mix element to competitive network deployment are real and material. Ofcom has the option of imposing changes to this element to overcome those risks.

10.2 ARPU-related element

243. We have not identified changes that could be made to this element and therefore urge Ofcom to block it.

10.3 NTN element

244. We do not believe that the NTN element could be amended to avoid the anticompetitive impact the currently designed element would no doubt produce. This element is squarely targeted at BT's competitors, established and nascent and should therefore be blocked.

11 Interplay between Equinox and existing offers

245. BT currently have two other significant discount schemes in operation, the GEA Volume Offer and the FTTP-Only V2 offer. The FTTP-Only V2 offer is superseded for all CPs which register for the Equinox offer and so there is no interplay to consider. Because it applies in the same locations and where Equinox will apply, GEA Volume Offer is considered below.

11.1 GEA Volume Offer

246. The GEA Volume Offer runs until September 2023 and provides substantial discounts on FTTP lines in the legacy FTTP footprint (prior to July 2018) as well

as BDUK locations and new sites. It also provides FTTC discounts in all locations. In order to qualify for discounts, all of a CP's volumes are taken into account, not only those in the offer footprint, and a threshold must be met for proportions of 80+ Mbps and FTTP/G.fast lines.

247. BT have stated that the GEA Volume offer is not affected by the introduction of Equinox, except in the following ways:

- The Ultrafast rollout area under the GEA Volume Offer will be amended to include the Equinox offer area.
- The CP's ultrafast targets in the GEA Volume Offer will not be increased if the inclusion of the Equinox offer area results in an ultrafast build which is greater than the planned ultrafast target.
- For CPs which sign up to Equinox, any discounts under the GEA Volume offer for FTTP services covered by Equinox will end.
- Orders for FTTP under Equinox which qualify for discounts can still contribute to the CP's volume commitment in the GEA Volume Offer (with the exception of the FTTP 0.5 Mbps product).

248. While the GEA volume offer does not overlap with Equinox in terms of offering discounts on FTTP lines, the fact that the volumes of FTTP a CP purchases under Equinox will contribute to that CP's volume commitment will facilitate lower FTTC prices. This gives an incentive for the CP to keep customers on FTTC in the face of altnet fibre deployment. This affects the retail market and makes it easier for CPs to wait for OR fibre deployment.

Annex 1 – List of altnets

Airband - Founded in 2009, Airband is an independent internet service provider bringing high speed broadband to homes, business, and industry in rural and hard-to-reach areas. Airband works closely with the Department for Digital, Culture, Media & Sport, BDUK, local authorities and communities to build high availability fibre infrastructure that residents, businesses, and other ISPs can access to help overcome the UK's digital divide. https://www.airband.co.uk

Axione - Axione is a key digital infrastructure player designing, building and operating telecommunications networks under an open access model. Backed by its shareholders, Bouygues group and Vauban Infrastructure Partners, Axione has raised £300m as part of the first phase of a large-scale project aiming to reach 4 million premises throughout the UK. Axione was a pioneer in the deployment of full fibre networks in France with its success residing first and foremost in a philosophy based on developing essential digital infrastructure to support local social and economic transformation.

County Broadband -

Established in 2003, County Broadband has transitioned over the past three years from a wireless operator, to a predominantly fibre operator. The company received £46m investment in late 2018 to support the deployment of circa 36,000 homes passed and is now in the final stages of closing for its next funding round in 2021 to support deployment to a further 150,000 rural premises in the East Anglian region. The company employs substantial use of Passive Infrastructure Access (PIA), as well as its own installation of ducts and poles, predominantly, but not exclusively in the market areas defined by Ofcom as Area 3.

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Community Fibre - Community Fibre is London's largest fibre only communications network provider and one of the largest users of BT's PIA product in the UK. Backed by large institutional investors including Warburg Pincus, DTCP, Amber Infrastructure and RPMI. Community Fibre is on track to expand its 100% full fibre network to one million properties by the end of 2023.

Digital Infrastructure - We are part of a new generation of Communication Providers that will invest in building this essential full fibre infrastructure bringing connectivity and connecting communities and businesses. This will improve the quality of lives in how we all work live and play in the future.

The work we do now is a catalyst to shape the future of home working, home schooling and how we will all be better equipped with reliable ,resilient, fast and secure means to communicate.

Our roll out is national and will cover 3% of the UK affecting 1 million homes over the next 5 years as we deploy at pace and scale with the delivery partners working collaboratively with the same common purpose building a legacy that will be enjoyed for many generations to come.

The Digital Infrastructure leadership team has been building and operating full fibre FTTP open access networks in the UK and Internationally for the past 20 years. The leadership team has more than 100 years experiences working in the telecommunication and utilities sector.

We are passionate about our corporate social responsibilities and in how we engage with our delivery partners and the customers we serve. We do work that is meaningful that has positive social and economic outcomes we can be proud off that affects all parts of society.

We have a strong belief in creating a sustainable business, the wellness of our people and mentoring the next generation of leaders and creating human capital development for the future whilst delivery socially responsible outcomes.

We work incredibly hard and are passionate to be the best versions of ourselves we can be and we love and enjoy the work that we do knowing the impacts it has on how society will work live and play in the future.

Fibrus - Founded in 2018 by Conal Henry & Dominic Kearns and now backed by Infracapital, Fibrus had by Q2 2021 built Fibre to over 60,000 premises across regional and rural Northern Ireland. In 2020 the company was awarded the £165m Project Stratum to bring full fibre to the 77,000 hardest to connect homes in the region, the company has also won a £24m FFNI contract to connect public service buildings. In all the company expects to connect over 40% of all homes and business in Northern Ireland by 2024.

In 2021 the company announced it was expanding into Northern England initially building in Cumbria. Already underway in Penrith, Fibrus expects to build in over 100 smaller regional towns across Northern England. The company aims to be an active participant in the Project Gigabit process.

Full Fibre - Full Fibre are building Fibre Only, Wholesale Only, Gigabit Broadband networks in the UK's under-served market towns. Owned and funded by Basalt Infrastructure, we will build to at least 500,000 homes and business by 2025. Wholesale underpins what we do – we believe in delivering long term choice and competition to the consumer. This new infrastructure will unlock economic growth, fuel social mobility, and unlock the flexible working economy as well as providing extensive dark fibre networks to support mobile cell sites.

Full Fibre builds predominantly in Area 2 geographies with fringes in Area 3, and intends, subject to the right regulatory conditions, to continue to increase our build commitment with these areas.

Glide - Glide is the UK's sixth largest ISP and a leader in infrastructure solutions for difficult-to-serve markets and multi-tenanted buildings. Futureproofing the UK with Gigabit services, serving 400,000+ customers with 300+ staff across the UK.

Supporting over 500 business parks with 670+ cabinets and 400+ channel partners, Glide challenges convention by deploying fibre infrastructure in areas that aren't seen as 'commercially attractive'. The UK relies on alternative providers and a fresh approach to reach UK connectivity targets by 2025. Glide is investing heavily in fibre deployment and aims is to play a significant role in the shift to gigabit-capable broadband that will deliver a huge leap forward in the UK - opening up infinite possibilities for business, technology, healthcare, education and more.

Hyperoptic - Hyperoptic has been leading the charge to Gigabit Britain since its inception ten years ago. It pioneered the shift to 'full fibre' broadband, which enables average broadband speeds of up to 900Mbps. With this step change in service, users can enjoy a much faster and reliable broadband experience, without having to worry about peak-time slow-downs.

Since then, it has steadily been extending its network footprint across London and the rest of the UK. It now has partnerships in place with over 250 property developers and 50 councils.

As well as leading the industry in the rollout of full fibre infrastructure, Hyperoptic is setting the bar with the delivery of social value to the communities it serves. During the lockdown, it offered free connectivity to families so that their children could access virtual learning resources. It also recently launched its social tariff - 'Hyperoptic's Fair Fibre Plan,' which enables people on specific means-tested benefits to get access to discounted rates on its monthly rolling packages.

INCA - INCA is a trade association. Its members are supporting, planning, building, and operating sustainable, independent, and interconnected full fibre and wireless networks that advance the economic and social development of the communities they serve and permit the provision of applications and services through open competition, innovation, and diversity. INCA's aims are to:

- support the development of sustainable independent networks through collaboration on the provision and procurement of products and services and adoption of common standards.
- support collaboration between members to create new, independent digital infrastructure that can be shared by operators and suppliers.
- support mutual trading between members.
- represent the interests of independent networks.
- promote the advantages and successes of independent networks.

INCA has more than 200 members, including: network owners, operators, and managers; access and middle mile networks; public sector organisations actively promoting the development of 21st century digital infrastructure; vendors, equipment suppliers, and providers of services that support the sector.

Lightning Fibre - Lightning Fibre are a cutting edge, community minded full fibre network operator and ISP based in and centred on East Sussex. Our full fibre network is tested on day one to actually deliver symmetric 10Gbps connectivity for all, so it's fully future proofed.

We're firm believers in supporting local wherever practicable, indeed our investment in East Sussex provides high quality long term local employment and supports the wider local economy in both tangible and intangible ways be it local sporting teams, events or the team taking action physically in the community in which we serve.

Persimmon - Persimmon's FibreNest is a new provider of ultrafast, full-fibre broadband and voice communication services. We deliver 100%, totally unlimited full-fibre optic internet access directly into new Persimmon Group homes across mainland England, Wales and Scotland - supported with excellent standards of customer service.

In 2018, 17.6% of new homes built within the UK received internet broadband speeds of only 10Mb/s or less1 and the Persimmon Group is determined to help improve this.

Only by taking greater responsibility for the end-to-end delivery of the broadband service can we provide certainty to our customers that they will be connected within the shortest possible timeframe and have access to fast, excellent quality services once online. FibreNest is committed to ensuring that all its customers can have access to these high standards of service and we do this by making full fibre to the home broadband available to all newly built Persimmon Group homes where ever possible across England, Wales and Scotland.

Spring Fibre - Spring Fibre is a new, ambitious wholesale FTTP provider helping underserved areas of the UK to Get to the Future, Faster.

Founded in 2020 Spring provides next generation ultrafast full fibre connectivity to consumers, businesses and public sector organisations; targeting over a million premises by 2026 in places yet to benefit from the UK's digital transformation. As a wholesale provider Spring works with ambitious ISP partners, focused on delivering high quality multi gigabit speeds to their customers. With industry leading technology, reliable service and putting great relationships with our partners at the heart of everything we do we deliver high quality, reliable services. At Spring, we believe that putting the effort into people - whether the Spring team, ISP or supplier partners will create a culture of success and enable our network to power ISP relationships with their customers to ensure they stay connected for longer.

Truespeed - Bringing world-class connectivity to hard-to-reach rural areas, and complex and historical cities, Truespeed is an independent infrastructure and internet service

provider bringing gigabit capable broadband to the South West. Founded in 2014 from a simple idea of wanting to help people struggling with poor connectivity, Truespeed are building an entirely new, ultrafast network that delivers some of the fastest broadband speeds in the world. By building a brand-new infrastructure, the firm is able to deliver multi-gigabit capable full fibre broadband directly into premises, providing a high-performance, highly reliable connection, and future-proofed connectivity. Closing the digital divide between the South West and the rest of the UK, Truespeed directly connects homes and businesses to guaranteed speed broadband that delivers truly reliable connectivity. Truespeed provides free broadband for life to local schools and community hubs passed by its network, leaving a digital legacy that will benefit the region for generations to come. Truespeed is delivering an active ethernet point to point data network to rural and very rural localities

Wight Fibre - WightFibre provides phone, TV and broadband services to homes and businesses on the Isle of Wight. The WightFibre Gigabit Island Project, a £90M+ project, will see full-fibre broadband deployed to around 60,000 homes and business across the Island by 2022 and to a total of 80,000 homes by 2025. Already (Sep 2021) 27,000 homes can receive full-fibre broadband.

WightFibre was founded as a cable company in 2001 and is owned by Infracapital Partners, part of M&G Asset Management. WightFibre was the first company to receive funding from the government's Digital Infrastructure Investment Fund in 2017.

Wildanet - Wildanet is an independent Cornish-based internet service provider, bringing high-speed broadband to homes, businesses and communities throughout Cornwall. Formed in 2017, Wildanet employs over 60 staff and is investing £50 million to build a brand new network to connect many areas of the county that are still without access to fast, reliable internet access and creating many new jobs in the process.

The solutions needed to connect rural communities are often not straightforward and require local knowledge, specialist technical skills supported by great customer service. Wildanet provides this unique service for Cornwall with the aim of helping those communities that have been digitally excluded, benefit from fast, reliable internet connectivity.

Zzoomm - Zzoomm plc ("Zzoomm") builds and operates new ducted Full Fibre networks in selected UK market towns. It delivers services to homes, businesses, and enterprises within each service area over a combination of shared XGS-PON and point-to-point fibre infrastructures. Zzoomm's Full Fibre broadband service, working with Adtran, provides next-generation multi-gigabit speeds of up to 10Gbps (10,000Mbps). Zzoomm's services start at £29 per month including VAT for 150Mbps symmetric home broadband. Business services start at £39 per month ex VAT. Zzoomm also delivers Enterprise services over dedicated point-to-point fibres for larger businesses.

Zzoomm was founded in December 2018 by experienced fibre network entrepreneur Matthew Hare OBE. Matthew previously founded ultrafast rural fibre broadband provider Gigaclear in 2010, which was acquired by Infracapital in 2018 for £270 million. Zzoomm commenced the construction of its first network in September 2019 in Henley-on-Thames, served its first customers there in January 2020 and completed construction in November 2020, serving 6850 properties in the town. Take-up of broadband and leased line services has been encouraging, with approximately 1/5 properties taking a Full Fibre service from Zzoomm.

In October 2020, Zzoomm announced plans to build a new Full Fibre network in Hereford and commenced construction in February 2021. Since then Zzoomm has started construction in Sandhurst, Crowthorne, Thirsk, Easingwold, Northallerton, Cannock and Crewe covering in aggregate 160,000 properties. Subject to the availability of capital, Zzoomm expects to build new Full Fibre networks in approximately 80 market towns over the next 5 years, providing approximately 1 million properties with access to multi-Gigabit Full Fibre services.

Annex 2 – The Equinox offer

249. Below is a summary of the components contained in Equinox.

Geographic scope	All areas where Openreach has FTTP ready for service[61]
Offer expiry	September 2031
Rental discount expiry	September 2031
Rental discount levels	Full discounts are: no discount on 40/10 product, 11-30% discount on other FTTP products depending on speed. Ramp-up discounts are: no discount on 40/10 product, 7-23% discount on other FTTP products depending on speed (these prices are the same as for the FTTP v2 offer) Full discounts apply: 1. If national ratio from Openreach of FTTP/total >80%; 2.During on-boarding period 1 (Oct-21 – Mar-22), if national ratio from Openreach of FTTP/total >75%; 3. During on-boarding period 2 (Apr-22 – Sep-22), if national ratio from Openreach of FTTP/total >80%. Ramp-up discounts apply only: 250. During the ramp-up period (Oct-21 – Mar-22), if FTTP/total >80%

[61] Except the time limited 12 months, which, by default, applies only to where altnets have network as well as to new build.

Time-limited additional rental discount	For a period of 12 months after connection, FTTP lines new to the Openreach network (NTN)[62] between 160Mbps and 550Mbps will be charged at the 160Mbps discounted rental price. This applies only to lines connected before Sep-26.
Rental indexation	From Mar-22 to Sep-26, FTTP prices for 40Mbps – 115Mbps will maintain a constant differential to the 40Mbps price, and products of 160Mbps and higher will follow a CPI-1.25% trend (subject to a floor of zero nominal price reduction).
ARPU revenue sharing	Subject to meeting the offer threshold, where the CP achieves a rental ARPU >£17 per month then 50% of the excess ARPU over the threshold will be paid back to the CP. Openreach may reduce the ARPU sharing threshold by CPI-2% each October.
Volume criteria	None
Service mix criteria	Target for FTTP new orders as % of total new orders (FTTP + legacy) –75% or 80% as outlined above. Legacy orders are defined as WLR, MPF, SMPF/WLR, FTTC/WLR, FTTC/MP. New orders (FTTP and Legacy) are defined as provides or transfers, excluding modify orders (e.g., speed), novation, and bulk moves.
Year 6 review	From Apr-2026, Openreach may: - amend rental charges and ARPU share level by up to £1.50/month

[62] According to the contract, NTN means a Premise where there have been no Openreach products and services including any FTTP and Legacy products on the relevant line at any point in the last 90 consecutive days prior to the date of an Order for the Primary Service excluding any Premise on New Sites (Greenfield / New development premises).

	- if Ofcom changes the anchor product to a different speed, or no longer applies the CPI limit to the 40/10 product, then Openreach may change the rental charges and indexation mechanism.
Forecasting accuracy criteria	Forecasts are required from the CPs as a condition of the offer. Inaccuracy in the forecast may affect connection discounts, but not rental.
Connection charges	**For Area 2:** NTN lines, the connection charge is £25, indexed at CPI-0% per year (cf £99.39 standard price) Non-NTN lines, the connection charge is £50, indexed at CPI-0% per year (cf £99.39 standard price) Where CPs do not meet the fibre-only target, but do meet the fibre-only threshold, the above discounted prices are increased by: - For NTN until Mar-2022, £7.50 for every percentage point downwards deviation from the fibre-only target - For non-NTN until Mar-2022, £5 for every percentage point downwards deviation from the fibre-only target - For both NTN and non-NTN, for every percentage point downwards deviation from the fibre-only target, 10% of the difference between the discounted price and the standard price list. **For all Areas:** NTN bandwidth modify from 550Mbps to a lower speed is £0 (£5.64 standard) NTN bandwidth modify from any speed to a higher speed is £0 (£5.64 standard)

Annex 3 - Economic impact assessment analysis

12 Economic impact assessment analysis

12.1 Introduction and summary of findings

12.2 Summary of findings

251. The introduction of Equinox is likely to cause reduction and delays to altnet deployments due to the strongly loyalty-inducing elements included in Equinox. This analysis has been commissioned to assess the likely economic impact of that reduction and slow-down.

1. The analysis presented here quantifies the potential loss in economic value exposed if Equinox is introduced. The level of exposure is based on a valuation of the difference between an FTTP deployment current scenario that is based on current trends absent Equinox and a base case scenario that is based on BT's target to deploy to 25 million premises passed by 2025.[63] The analysis also draws on the valuation of the productivity gain from FTTP deployment provided by Cebr in its report for BT[64].

2. The analysis highlights that the level of gain in economic value enabled by FTTP deployment is related to the timing of investment. The results presented in Section 12.5 show that, based on current trends, altnet deployment of FTTP may enable a gain in annual productivity that is in the region of £14 billion[65] in 2024, by deploying ahead of BT's planned deployment to 25 million premises by 2025 and offering FTTP connectivity in locations that would otherwise not (at that point in time) have had access to FTTP. Over the next three years, this annual productivity gain sums to a value that is in the region of £32 billion.

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[63] https://www.openreach.com/news/openreach-focuses-broadband-build-plans-on-upgrading-millions-more-rural-homes/

[64] Full fibre broadband: A platform for growth A CEBR report for BT October 2019. We have not attempted to validate the value of an FTTP connection generated by Cebr, but focus on the potential loss in benefits that could result from the introduction of Equinox as currently proposed.

[65] Modelled values reported in this annex are denominated in 2017 £ and are undiscounted.

3. A reduction in deployment by altnets would reduce the level of these productivity gains. As discussed in Section 12.7, the Equinox is likely to foreclose the wholesale market for altnets and will reduce retail process to make deployment in locations with above average build cost less viable. Likewise, for altnets deploying where two or three competing networks may be viable, Equinox will make it significantly harder to enter markets. The results presented in Section 12.6 below highlight the sensitivity of the reduction in economic benefits to a reduction in altnet deployment. It indicates that a 10% to 50% reduction in altnet deployment over the three year period from 2022 to 2024 would result in a reduction in total economic benefits from altnet deployment of between £2.0 billion to £7.2 billion.

4. If altnets scale back their FTTP deployment, then this would reduce the competitive pressure on BT to deploy FTTP, which in turn would likely cause BT to slow its rate of FTTP deployment. The results presented in Section 12.6.2 show that if BT were to slow its deployment by, for instance, an average of 8 months compared with its current target, then the reduction in annual productivity gain for 2022 and 2024 sums to a value that is in the region of £15 billion.

5. A further consequence of altnets scaling back their FTTP deployment would be a reduction in the level of infrastructure competition in the long run. The lost economic value of infrastructure competition in the long run may also be significant. Ofcom's WFTMR decision[66] gives an indication of the potential magnitude of this lost value. Ofcom notes that for Area 2, the short-term cost to consumers of pricing continuity (as implemented in the decision) compared with cost-based pricing for FTTP amounts to £2.4 billion over five years. Ofcom expects that the permanent long term economic benefits resulting from this infrastructure competition to be greater than this amount.

6. Ofcom also reinforces this point where it states that BT's and altnets' investment in FTTP "*… represents a very substantial injection of competition and will in [Ofcom's] view lead to permanent long-term benefits to consumers in the WLA and LL Access markets in*

[66] 2021 WFTMR Volume 4: paras 1.89 – 1.97

Area 2."[67] This long-term benefit to consumers would be placed at risk if altnets' scaled back their FTTP deployment because of Equinox.

7. These analyses give an indication of the magnitude of the value that Equinox would put at risk, should it result in altnets scaling back their deployment of FTTP.

12.3 Background

8. Evidence for a range of economic indicators, presented in Section 12.4, supports the view that the deployment of FTTP is expected to result in significant economic gains. It suggests that even relatively small changes in the rate, the pace and the geographic scope of FTTP deployment has the potential to stimulate or reduce economic gains across a range of indicators such as consumer surplus, residential property values, and through to gains in worker productivity. The evidence also indicates that delays in the deployment of FTTP will result in loss of economic value that cannot be recovered once FTTP is deployed.

9. This analysis quantifies the economic value of two effects that the Government's Future Telecoms Infrastructure Review (**FTIR**)[68] recognised as important for accelerating FTTP deployment.[69]

10. Firstly, the FTIR notes that altnets have a stronger incentive than BT to invest in FTTP, as they are unencumbered by defending a legacy network. Furthermore, altnets gain a first mover advantage by deploying ahead of BT. This is due to the competitive advantage that FTTP provides over legacy network technologies, and then once a customer is connected to an FTTP network, the cost to switch to another network. Altnets are therefore strongly incentivised to build in areas where BT has not built and has not published its intentions to build in the short term.

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[67] Ibid. para 1.96

[68] https://www.gov.uk/government/publications/future-telecoms-infrastructure-review

[69] Ibid. Annex A, pp. 40 to 45, addresses the impact of infrastructure based competition, where Section 4, pp. 29 to 51, covers a range of factors influencing investment decisions which include: reducing costs and other barriers; stimulating demand; reducing the risk of investment; reducing profitability of alternative options; and the level of competition.

11. Secondly, the FTIR notes that altnets' FTTP investment places a competitive pressure on BT to invest in FTTP in order to defend its market share. This interaction between the first and second effects results in a process of dynamic competition that consumers ultimately benefit from through having access to progressively better-quality services.

12. Our economic assessment considers:

    a. Results of other studies on the economic value of FTTP

    b. Impact of competition on speed of network deployment

    c. Forecast of premises passed by altnets only

    d. Quantification of economic benefit of altnets deploying FTTP

    e. Quantification of economic loss of reduction in altnet FTTP deployment

    f. Quantification of economic loss from deceleration in BT FTTP deployment

12.4 Results of other studies into the economic value of FTTP

13. A number of studies, using different economic indicators, show that FTTP deployment is expected to result in substantial economic gains. Studies that have taken different approaches to assessing and measuring the economic impact of FTTP deployment have arrived at the same general conclusion that the economic impact is positive and material – for example:

    a. National Infrastructure Commission's 2017 research estimates the present value of the economic benefit over 30 years for a set of use cases involving 100% FTTP deployment and finds that it is in the range of £13.2bn to £28.2bn.[70]

    b. City Fibre's 2018 study estimates of the economic benefits of 100% FTTP deployed to 100 towns and cities over a 15 year period includes: £2.2bn in business productivity gains; £2.3bn in innovation; £1.9bn in flexible working benefits; £2.3bn from new start-ups; and £7bn increase in housing wealth.[71]

[70] https://nic.org.uk/app/uploads/Benefits-analysis.pdf pp 109 to 111

[71] https://www.cityfibre.com/wp-content/uploads/2018/03/The-Economic-Impact-of-Full-Fibre-Infrastructure-in-100-UK-Towns-and-Cities-12.03.18.pdf p. 8

c. BT's 2019 report, prepared by Cebr for Openreach (**Cebr study**) forecasts that under a baseline scenario with nationwide deployment of FTTP across the UK by 2025, there would be an incremental increase in gross value added (**GVA**) of £59bn in 2025 increasing to around £71bn in 2038 (these results are reproduced in the Table 1 below).[72]

14. The Cebr study is of particular relevance for the present analysis, because its results highlight how the timing of the gain in economic productivity is dependent on the timing of the deployment of FTTP.[73] It shows that the earlier FTTP is deployed the earlier the productivity gains can be realised. Furthermore, it shows that a delay in FTTP deployment would result in an economic loss over the period of the delay that is not recovered after FTTP has been deployed.[74]

15. The Cebr study results are used in this analysis to assess the impact of altnets on productivity. In particular, values for *FTTP impact on worker productivity* derived by Cebr and reproduced in the following table are used in the present analysis.[75]

Table 1.

		2025	2028	2030	2033	2038
FTTP impact on worker productivity	GVA/worker (£)	£ 1,748	£ 1,789	£ 1,814	£ 1,854	£ 1,931
Total workers passed by FTTP	workers passed (million)	33.8	34.5	35.0	35.7	36.7
FTTP impact on total productivity	GVA (£ million)	£59,030	£61,694	£63,472	£66,264	£70,881

16. The above table presents Cebr's estimates for the total productivity gains in 2025, 2028, 2030, 2033 and 2038 for a nationwide FTTP rollout completed in 2025. This is one of three scenarios reported for in the Cebr study. It represents their "baseline" scenario,

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[72] https://www.openreach.com/fibre-broadband/full-fibre-impact p23, Table 1. An update to the paper released in 2021 maintained the forecast GVA of £59bn for 2025.

[73] Ibid. For example, p. 25, Table 3 gives the estimated additional economic impacts of 100% full fibre rollout completed by 2025 compared with a rollout completed by 2033.

[74] The observation that the potential magnitude of the economic cost of delaying the introduction of a new service is supported by Hausman (1997) "*Valuing the Effect of Regulation on New Services in Telecommunication*". Hausman estimates the loss of consumer welfare in the US due to the regulatory delay in the introduction of cellular telephone service over the decade from the earlier 1970s to 1983 to be close US$100 billion in total, with more than US$25 billion lost in a single year. https://www.brookings.edu/wp-content/uploads/1997/01/1997_bpeamicro_hausman.pdf

[75] https://www.openreach.com/fibre-broadband/full-fibre-impact p23, Table 1 reports the incremental increase in productivity and the GVA/worker shown in the table, where the values for workers passed have been calculated by dividing the productivity gain by the

with the other two scenarios (based on more optimistic assumptions about the impact of FTTP) resulting in greater gains in total and worker productivity.

17. We use Cebr values for *FTTP impact on worker productivity* reproduced in Table 1 in order to provide a realistic and more conservative estimate, compared with the other two scenarios, of the impact of deferring FTTP deployment. For the avoidance of doubt, our analysis does not assume that FTTP rollout is completed nationwide by 2025 as Cebr assume. The modelled deployment scenarios developed for the present analysis are discussed below.

18. We are not able to comment on the Cebr estimation of the benefit values resulting from FTTP deployment, our focus is on the possible incremental change in economic benefits caused by Equinox. Other studies have confirmed that the economic benefits from FTTP are significant (as quoted above), so there is little benefit from producing yet another estimate of the quantum of that benefit. What is at stake in relation to Equinox is the incremental change to the economic benefits caused by likely reduced altnet deployment.

19. An assumption made regarding the Cebr results is that the number of 'workers passed' reported in the above table approximates the number of premises passed by FTTP. This assumption is supported by the observation that the Cebr study states that there are around 30-32 million premises in the U.K., which is in the region of the number of workers for 2025 (33.8million) as noted in the above table.[76] This assumption allows the values of the FTTP impact on worker productivity to be used as proxy for the impact on altnet deployment on productivity by premises passed, as discussed below.

12.5 Impact of competition on speed of network deployment

20. As noted above, the FTIR highlighted the importance of dynamic competition between altnets and BT in stimulating the deployment of FTTP.[77] This involves rivalry between firms that compete for first-mover advantage by investing in new technology that enables

[76] Ibid. page 62, footnote 4.
[77] Ibid. Annex A, p. 41

them to supply better quality services and win market share before another provider potentially overbuilds.[78]

21. FTIR notes that, all things being equal, altnets have a greater incentive to invest in FTTP deployment as they are unincumbered by an investment in a legacy network, and they have a positive incentive to invest in a superior technology, FTTP, in order to be able to win market share.

22. Recent investment is placing competitive pressure on BT. For instance, it seems likely that this investment was a factor in influencing BT's recent announcement of the target to deploy to 25 million by 2025. Another indicator of this competitive pressure is Deutsche Bank's recent downgrade of BT to sell, which was influenced by publication of the 2021 INCA/Point Topic state of the sector report.

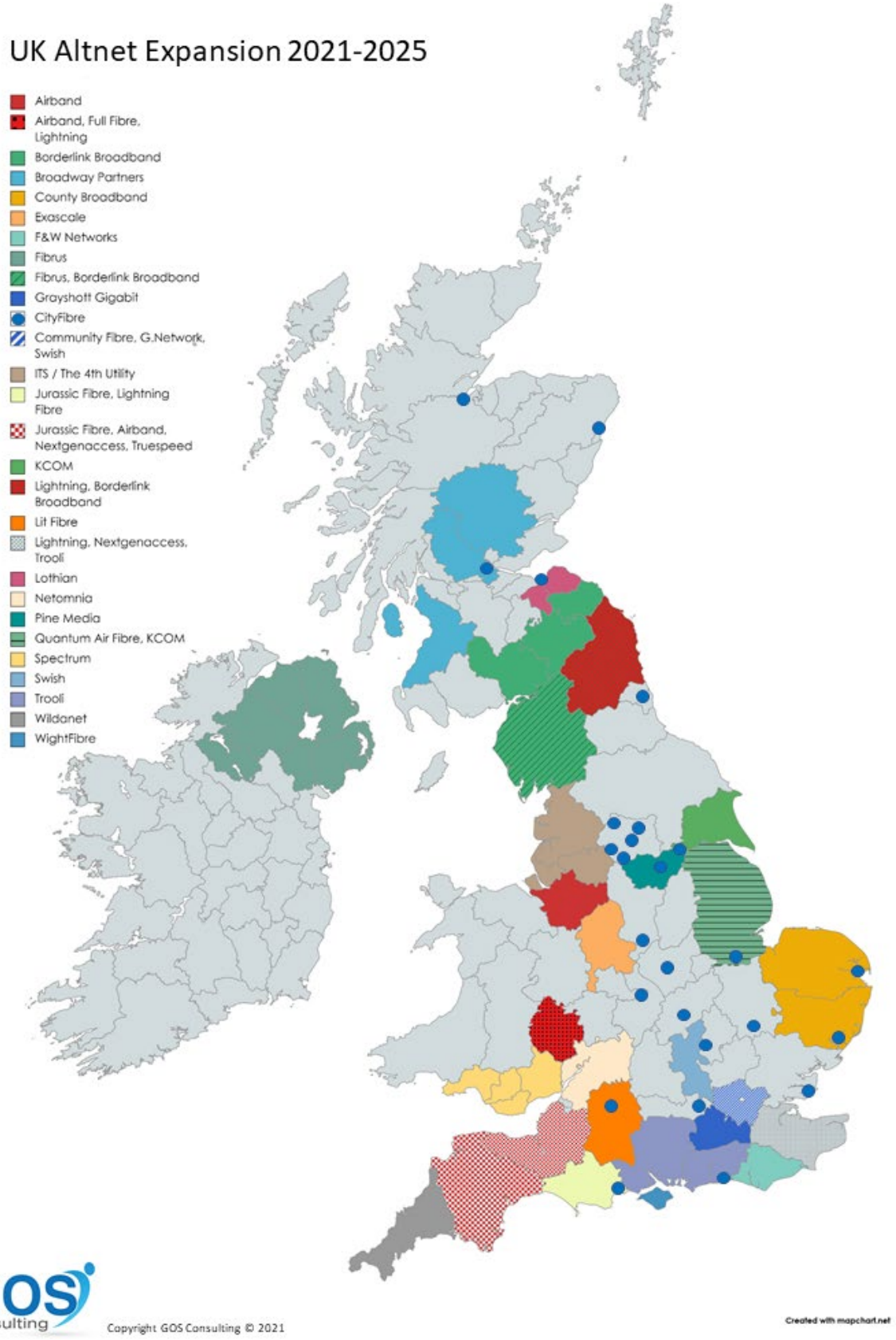
23. Deployment of FTTP in the UK is characterised by a large number of altnets focused on investing in specific regions and avoiding overbuild by BT and each other.[79] That is, this is not rivalry between approximately equally sized operators, but it is between many small altnets and BT, with the altnets collectively driving the process of dynamic competition. The result is the observed process of competition and the growing deployment of a large number of regional networks, as illustrated by the following map.[80]

Figure 1

[78] https://www.gov.uk/government/publications/future-telecoms-infrastructure-review Annex A, pp. 40 to 45, addresses the impact of infrastructure based competition, where Section 4, pp. 29 to 51, covers a range of factors influencing investment decisions which include: reducing costs and other barriers; stimulating demand; reducing the risk of investment; reducing profitability of alternative options; and the level of competition.

[79] https://www.inca.coop/sites/default/files/inca-point-topic-report-2021.pdf p.18

[80] Note that this map illustrates the regions a selection of altnets currently deploy in or plan to deploy in. It does not attempt to show their actual or planned network coverage.


UK Altnet Expansion 2021-2025
Airband
Airband, Full Fibre, Lightning
Borderlink Broadband
Broadway Partners
County Broadband
Exascale
F&W Networks
Fibrus
Fibrus, Borderlink Broadband
Grayshott Gigabit
CityFibre
Community Fibre, G.Network, Swish
ITS / The 4th Utility
Jurassic Fibre, Lightning Fibre
Jurassic Fibre, Airband, Nextgenaccess, Truespeed
KCOM
Lightning, Borderlink Broadband
Lit Fibre
Lightning, Nextgenaccess, Trooli
Lothian
Netomnia
Pine Media
Quantum Air Fibre, KCOM
Spectrum
Swish
Trooli
Wildanet
WightFibre
GOS consulting
Copyright GOS Consulting © 2021
Created with mapchart.net

24. A feature of the impact of competition on network deployment that this map illustrates at a high level is that many altnets have a local focus. This local focus is a consequence of altnets seeking to avoid overbuild and often having local roots arising from frustration that the BT services are not fit for purpose. This point is highlighted by a proportion of INCA members which indicated that they aim to be the first operator to deploy in a location. Furthermore, in recent GOS Research, altnets indicate that in some cases they aim to build up to 5 years ahead of Openreach, but generally in the region 6 to 36 months ahead.[81]

25. The important implication of altnets avoiding overbuild and aiming to build ahead of Openreach is that it means deployment resources are spread more widely as locations without FTTP (and not on the BT published FTTP deployment lists) are targeted, thus accelerating FTTP deployment and making it available earlier. This aim of having the first-mover advantage and avoiding overbuild is a feature of the following analysis.

12.6 Forecast of premises passed by altnets only

26. This analysis provides an estimate of the magnitude of the economic benefit that altnets enable by deploying FTTP ahead of BT. It is, therefore, necessary to prepare forecasts of the number of premises that altnets might be expected to pass ahead of BT, which involves the following steps:

    a. *Forecast BT and altnets FTTP rollout* –

        i. Altnets' forecast is based to trends derived from INCA/Point-Topic data and altnets aspiration to collectively pass 29 million premises.[82] [83]

        ii. BT's forecast is based on its public statement that it is aiming to pass 25million premises by 2025;[84] and

[81] This point is also supported by recent survey of altnets that highlighted overbuild by Openreach or other operators as a key sector challenge. https://www.inca.coop/sites/default/files/inca-point-topic-report-2021.pdf p. 18

[82] https://www.inca.coop/sites/default/files/inca-point-topic-report-2021.pdf p. 11

[83] In our analysis we have used assumed a total altnet ambition of 25m premises, reflecting that some altnets may be planning to cover the same locations.

[84] https://www.openreach.com/news/openreach-focuses-broadband-build-plans-on-upgrading-millions-more-rural-homes/

iii. That there are approximately 30 million premises in total in the UK at present time.

b. *Forecast total premises passed* – assumes that altnets act rationally and focus their deployment on locations where BT has not deployed and has not announced its intention to deploy. That means that there is no overbuild between altnet and BT, which is unlikely to be the case, but as noted above, our understanding is that altnets are striving to build outside BT's stated target areas, so it is likely to be a reasonable approximation for present purposes.

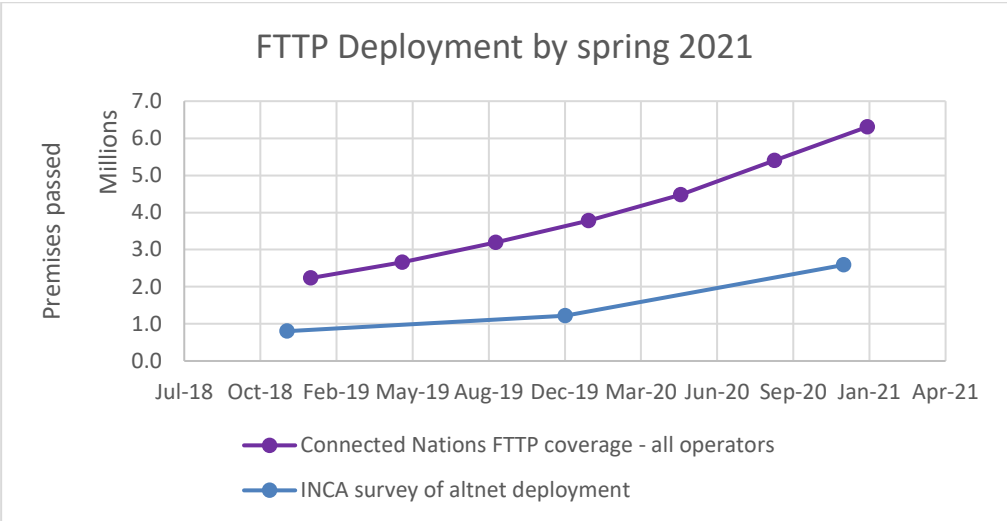
c. *Forecast premises passed by altnets only* – assumes BT starts to overbuild altnets once nationwide deployment is completed by altnet and BT deployment.

A description of these steps and the results will be provided following a brief description of the FTTP deployment data and assumptions.

12.6.1 Overview of current FTTP deployment

27. As noted above, a key challenge highlighted by altnets is the timing of overbuild by BT and other operators. An altnet has maximum competitive advantage while it has the only FTTP network in a region, which, in the absence of the presence of artificial market constraints such as those included in Equinox, enables it to gain market share. This motivates altnets to be the first to deploy network in a region as well as focus on the timing of the subsequent overbuild.

Figure 2



28. The above graph shows the total premises passed by FTTP, which includes the FTTP actually deployed by altnets and BT, along with the altnet deployment. 85 It also indicates that altnets deploy FTTP to a significant proportion of total premises passed and that both altnet and BT FTTP rollout is accelerating.

29. Given that FTTP deployment is at a relatively early stage, it seems reasonable to expect that the level of overbuild at this point in time is not material for the present purposes. As a result, it is assumed that the number of premises that BT passes is the difference between Connected Nations FTTP coverage and the INCA survey of altnet deployment. However, this situation will change as BT and altnets deploy their networks and pass an increasing number of premises.

30. Recent statements by altnets and BT regarding aspirational or proposed deployment targets would suggest, if met, that most premises would eventually be passed by at least two FTTP networks. That is, altnet aspirations are collectively to pass *circa* 29 million premises, and BT has announced a deployment target of 25 million premises passed for the end of 2025. As there are around 30 million premises in total, this means there would be substantial overbuild once most premises are passed by the first FTTP network. It also suggests that altnets and BT would engage in FTTP-based infrastructure-based competition where they overbuild each other.

31. The above assumptions are based on data and statements made before Equinox was announced.

12.6.2 Forecast of BT and altnet rollout

32. Altnet and BT forecasts are derived using logistic growth "S" curves with parameters estimated from the data and assumptions noted above.

Figure 3

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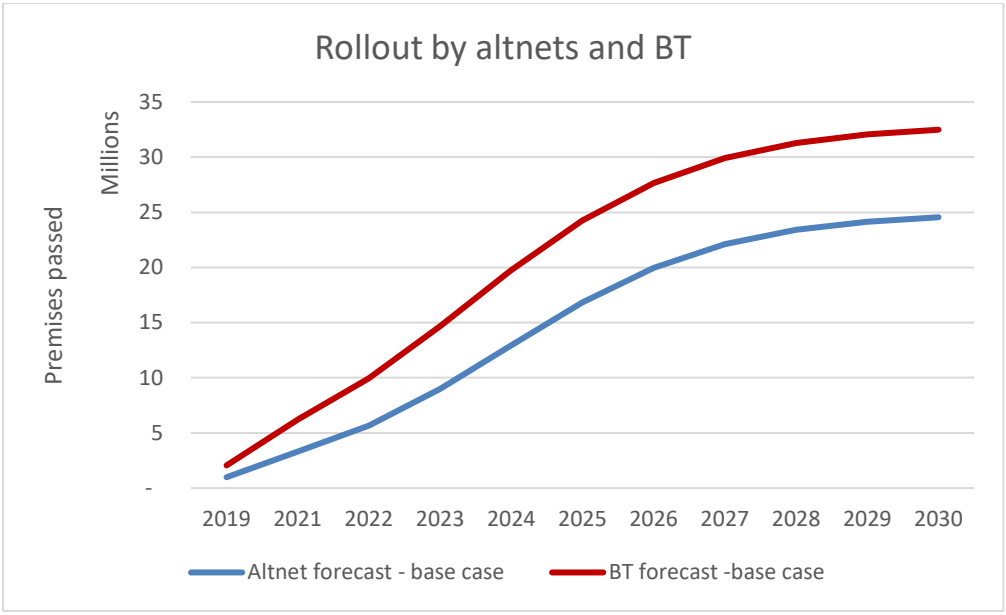
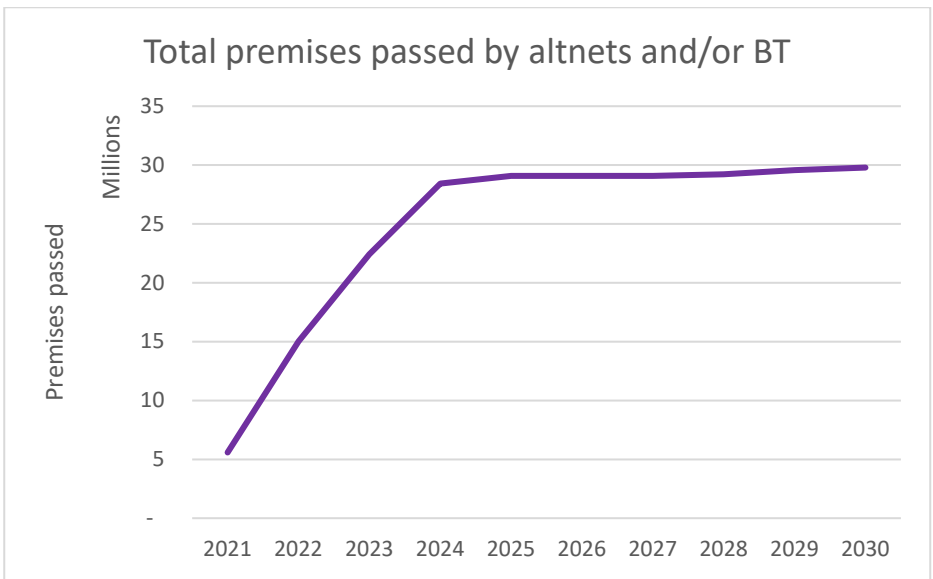
85 https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-update-spring-2021/interactive-report and https://www.inca.coop/sites/default/files/inca-point-topic-report-2021.pdf p. 11. These results are also consistent with BT's Q3 2020/21 trading update in which it reported having passed 4.1m premises with FTTP as at the end of December 2020.



33. The left-hand end of both forecasts aligns with the Connected Nations and INCA/Point Topic data, and the right-hand aligns with BT's statement that there are 30 million premises. In addition, BT's announcement that it is aiming to deploy to 25million premises by 2025 is also included in its forecast, with an assumption that BT will deploy to the remainder of the country by the end of the decade.

34. The following graph presents the forecast for the total premises passed by altnets and/or BT FTTP.

Figure 4



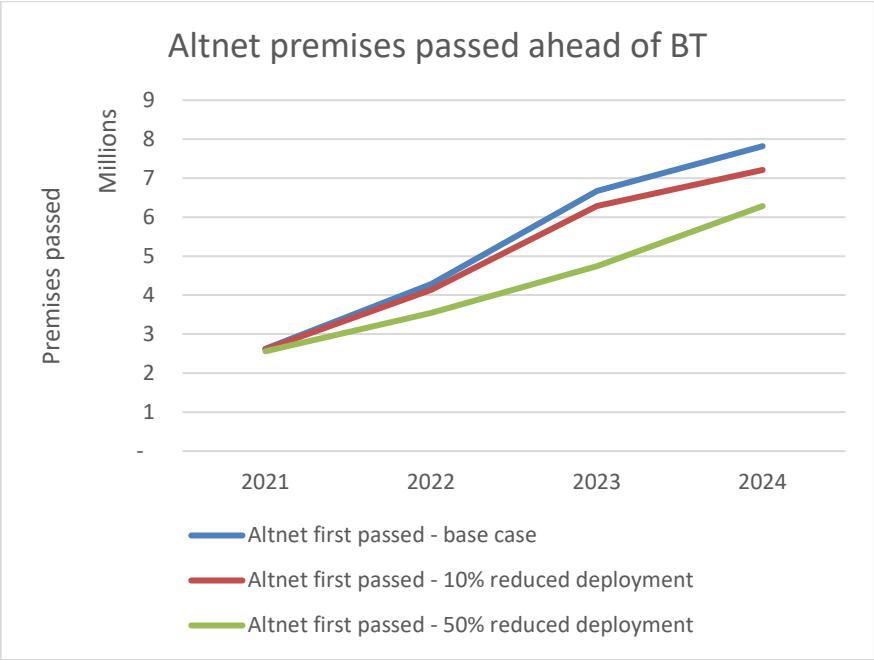
35. This forecast is based on the sum of BT and altnet forecasts until it reaches 30 million premises passed when it is capped. Once the cap is reached, altnets and BT are assumed to overbuild each other, which in the graph is from the point of inflection in 2024.[86]

36. The incremental economic value generated due to altnet deployment is linked to the number of unique premises passed by altnets only but not by BT.

37. After 2024, the number of premises that only altnets pass would start to decline as BT starts to overbuild the premises that altnets had passed ahead of BT. It would then trend down to the point when BT has overbuilt all of altnets' FTTP deployment. Our analysis does not include a forecast of this decline, due to the level of uncertainty as to how this will develop, and also because it is not relevant for the short-term economic valuation of altnets' FTTP deployment.

38. This is illustrated in Figure 5 below for three scenarios where the number of premises passed only by altnets increases until 2024.

Figure 5



[86] It is assumed that a small number of premises are not commercially viable, so around 2m premises have been excluded from this analysis.

39. The scenario entitled "*altnet first passed – base case"* shown above is derived from the BT and altnet forecast base cases shown in Figure 3. The other two scenarios represent the impact of altnets' reducing their rate of fibre deployment by 10% and 50% from 2021 in response to Equinox.

40. The reduction of 10% and 50% represents an indicative range within which the impact of Equinox may fall. We have not attempted to estimate the actual level of impact on altnet deployment from Equinox so this range is intended to be illustrative only

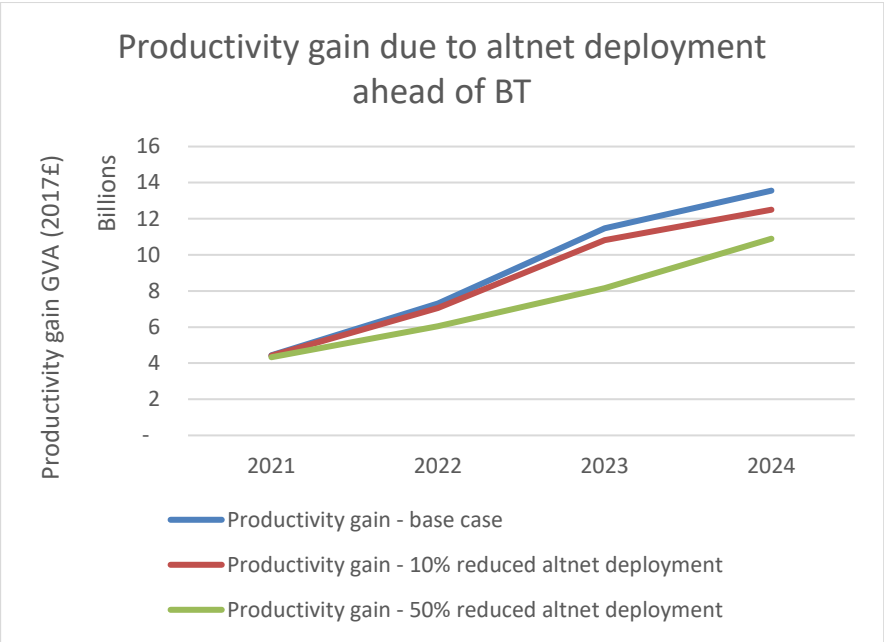
12.7 Quantification of short term economic benefit of altnets FTTP deployment

41. The productivity gain of altnet FTTP deployment, presented in Figure 6 below, is the product of the premises passed scenarios presented in Figure 5 and the value of the productivity gain per premise passed which is provided in Table 2 (from Cebr). The values in Table 2 are derived from the value of FTTP impact on worker productivity reported in Table 1, with the assumption the number of workers passed is equivalent to the number of premises passed, as discussed above.

Table 2.

		2021	2022	2023	2024	2025	2026	2027	2028
Product. gain per prem. passed	GVA/premises (£)	£ 1,692	£ 1,706	£ 1,720	£ 1,734	£ 1,748	£ 1,762	£ 1,775	£ 1,789

Figure 6



42. Figure 6 shows that the annual incremental economic benefits generated by altnet FTTP deployment (in addition to BT deployment) peaks at around £14 billion in 2024 for the altnets base case. It also shows the 10% reduced altnet deployment scenario would peak at £12 billion and the 50% reduced altnet deployment scenario would peak at around £11 billion.

12.8 Quantification of economic loss of reduction in altnet FTTP deployment

43. A key concern here is the potential for Equinox to detrimentally impact of productivity gains. Figure 4 illustrates the sensitivity of the productivity gains to altnets changing their rate of deployment. The values in Figure 6 are summarised in Table 3 along with values of the sensitivity in productivity gain to the altnets reducing their rate of deployment.

Table 3.

£ billion (2017£)	Peak annual benefit	Total benefit 2022-2024
Benefit - altnet first passed base case	13.6	32.3
Benefit with 10% deployment reduction	12.5	30.4
Benefit with 50% deployment reduction	10.9	25.1
Impact with 10% deployment reduction	-1.1	-2.0
Impact with 50% deployment reduction	-2.7	-7.2

44. The above table highlights that productivity gains from fibre deployment is sensitive to reductions in the rate of altnet FTTP deployment over a short 3 year period. It notes that, should altnets reduce their rate of deployment by 10% then the sum of the loss in productivity gain over the next three years would be close to £2 billion. If the rate of deployment decreased by 50%, which we consider to be plausible, then the sum of the loss in productivity gain over the next three years would be around £7 billion.

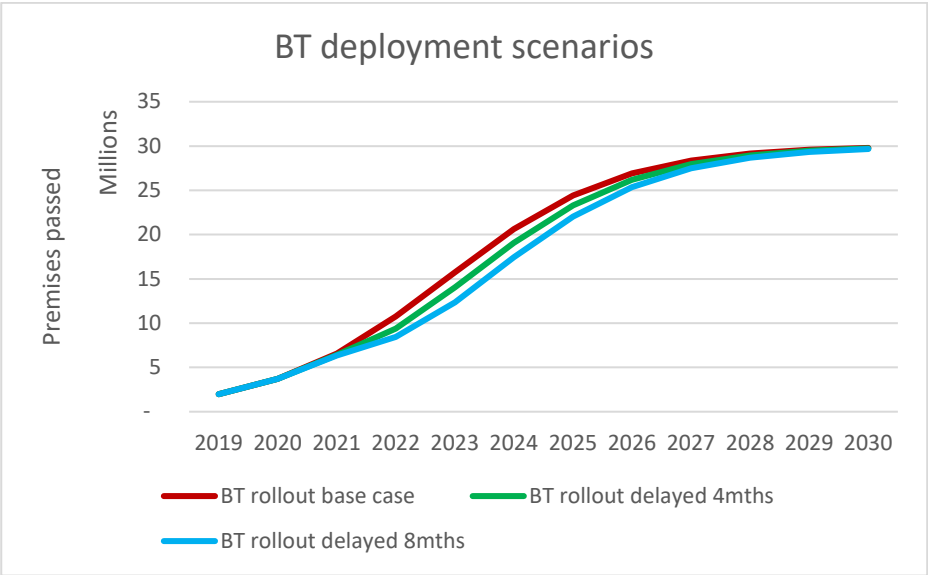
12.9 Quantification of economic loss from deceleration in BT FTTP deployment

45. The productivity gain from FTTP deployment is also sensitive to changes in the rate at which BT deploys FTTP.

46. To reiterate, the process of competition between altnets and BT induces BT to speed up its investment in FTTP deployment. If this competition is removed or reduced, then BT has the incentive to utilise its legacy network rather than invest in FTTP. As a result, it is reasonable to expect a deceleration in BT's FTTP deployment. The following analysis considers two scenarios, where BT delays its deployment of FTTP by 4 months and 8 months, compared with its currently published ambition of passing 25 million premises by 2025.

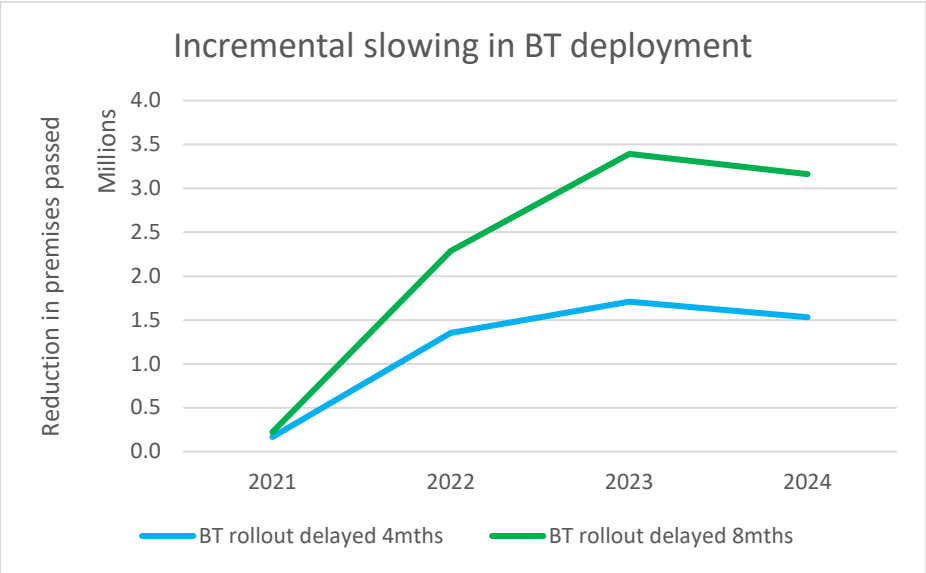
47. Figure 7 presents the BT rollout that was used in the analysis above and is the baseline for here. In addition, there are two scenarios where BT is assumed to delay its deployment by 4 months and 8 months with respect to the BT's base case from the end of 2021.

Figure 7



48. Figure 8 presents the incremental reduction in the number of premises passed if BT were to delay its deployment by 4 months and 8 months over the 2022 – 2024 period.

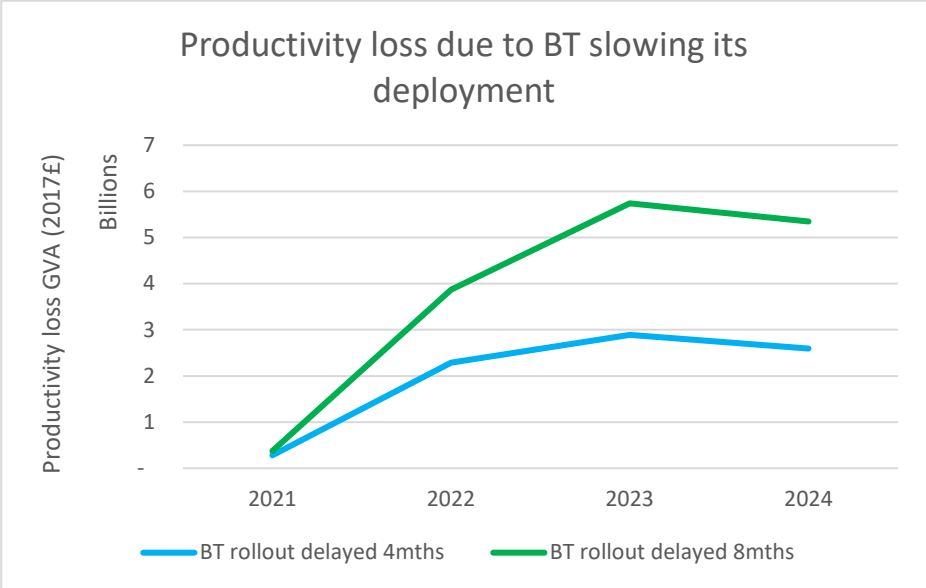
Figure 8



49. Figure 8 shows that during the period from 2022 to 2024 a 4-month and 8-month delay would result in over 1.5 million and 3 million premises respectively not being passed by BT.

50. The loss in value from the delay in deployment is calculated as the product of the incremental change in the number of premises passed and the value of the productivity gain provided in Table 2. Figure 7 shows the result of this calculation.

Figure 9



51. Figure 9 highlights the sensitivity of productivity loss to a small slowdown in BT rollout. It shows that the productivity loss per annum peaks at between £5 to £6 billion for an 8-month delay and between £2 billion to £3 billion for a 4-month delay compared with the BT base case. Should BT delay its deployment by 8 months, then the sum of the loss in productivity gain over the next three years would be around £15 billion. Should BT delay its deployment by 4 months, then the sum of the loss in productivity gain over the next three years would be over £7 billion.

12.10 Summary

52. The analysis presented in this annex highlights the economic value that is being put at risk by the introduction of Equinox.

53. As discussed, under normal market conditions altnets have a strong incentive to deploy FTTP ahead of BT, and the evidence shows that they currently do in practice deploy ahead of BT. However, for the reasons set out in the body of this submission, Equinox will distort market conditions which will foreclose opportunities in the wholesale market. This in turn will reduce altnets' incentive to invest in FTTP.

54. The analysis shows that even a slight reduction in altnet rollout would have a significant detrimental effect on the timing of productivity gains, delaying them until BT deploys its network. If altnets were to reduce their FTTP deployment 50%, the sum of the loss in productivity gain over the next three years would be close to £7 billion. For a 10% reduction in FTTP deployment the loss would be close to £2 billion. In addition, if BT slows its deployment of FTTP by 8 months compared with its current target, because of the reduction in competitive pressure, then the loss in annual productivity gain over the next three years sums to value that is in the region of £15 billion.

55. The analysis presented here has focused on the loss in short term productivity gains from FTTP deployment as a result of Equinox. However, an additional consequence of altnets scaling back their FTTP deployment would be a reduction in infrastructure competition in the long run. In this regard, Ofcom's WFTMR decision[87] gives an

[87] 2021 WFTMR Volume 4: paras 1.89 – 1.97

indication of the potential magnitude of this lost value, noting that it expects the permanent long term economic benefits resulting from this infrastructure competition to be greater than the £2.4 billion gain that would come from FTTP prices being set at the lowest possible level.

Annex 4 – GOS Consulting research

13 GOS Consulting research

252. Two pieces of research were conducted by GOS Consulting to support the production of this response. One contains confidential information and will be shared separately with Ofcom. below are the results from the second piece of research, which has been anonymised to ensure that individual responses cannot be assigned to individual respondents.

253. Ofcom in its Equinox consultation has made the assumption that ISPs will be able to sell almost 100% FTTP to premises that are FTTP ready by Openreach. We surveyed a number of altnets as we do not believe that to be realistic. This document contains the questions we asked and the responses received.

13.1 List of participants

18 responses were received from the following 17 companies

Airband	Full Fibre	Spring Fibre Ltd
Axione UK Ltd	Grayshott Gigabit Limited	Wessex Internet
Community Fibre Ltd	Hyperoptic	WightFibre
County Broadband	Jurassic Fibre	Wildanet Ltd
Digital Infrastructure	Lightning Fibre	Zzoomm plc
Fibrus	Persimmon	

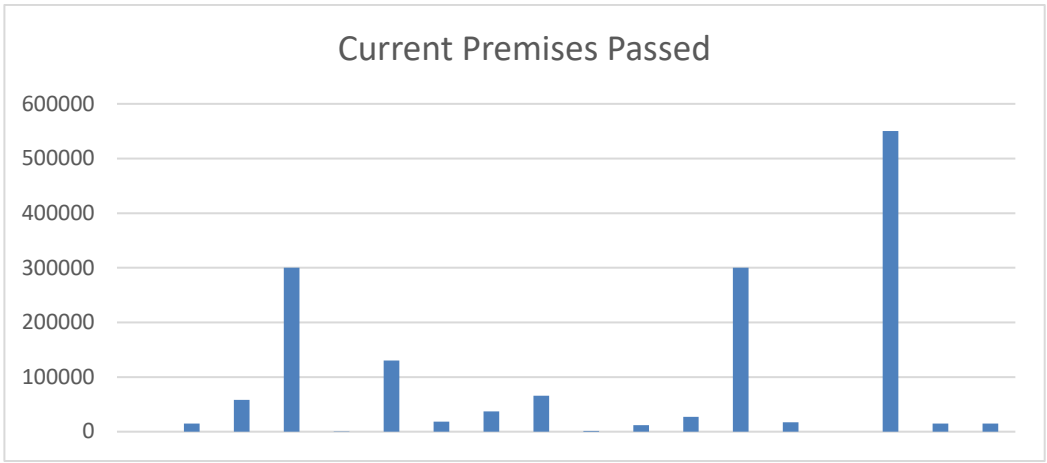
13.2 Anonymisation

Numeric responses have been aggregated where possible and narrative responses have had contributor names removed.

13.3 General Questions

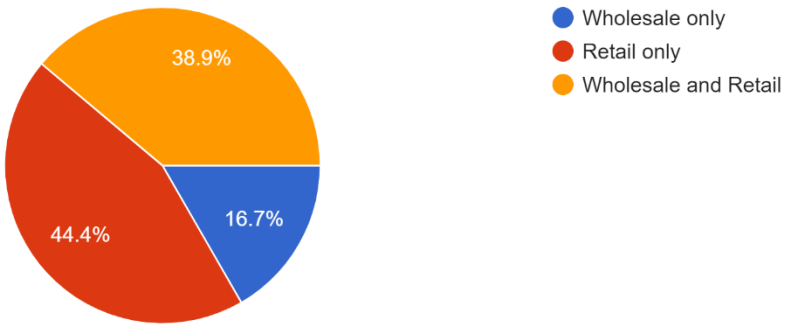
13.3.1 How many premises does your network currently pass?

17 responses



13.3.2 Do you offer wholesale only or both retail and wholesale?

18 responses



13.3.3 If both wholesale and retail, which did you offer first? Why?

7 responses

Retail first. Two reasons (1) Retail revenue for our investment case = funded FTTP build. (2) Premium customer experience.
Retail, more control of the go to market
Retail. Corporate history. We've had a wireless network for 10 years that has been sold retail.
Retail, as our plan is to serve the areas we are passing.
Wholesale we will provide, once we have the OTS enabled through Ofcom mandate.

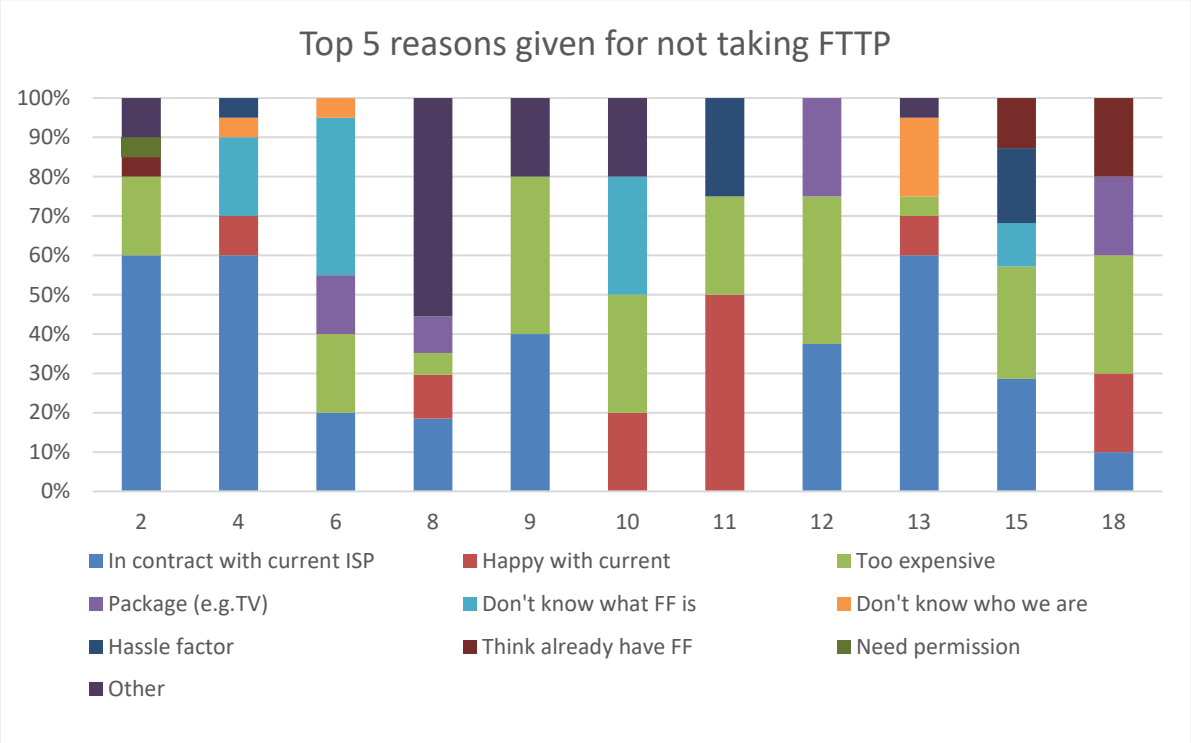
Retail, Wholesale is difficult to get significant traction on a network that is still scaling, customer experience is also important to the build process and that is easier to manage with direct sales.

retail = wholesale market for altnets is nascent - not very many customers

13.4 Retail Services

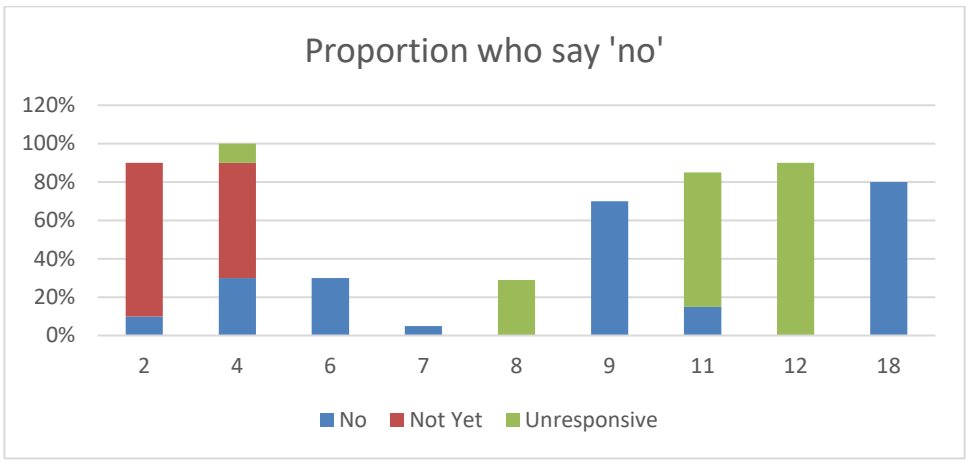
13.4.1 What are the five most common reasons potential customers use for not taking your fibre service? Can you estimate what percentage of rejections they each represent?

14 responses



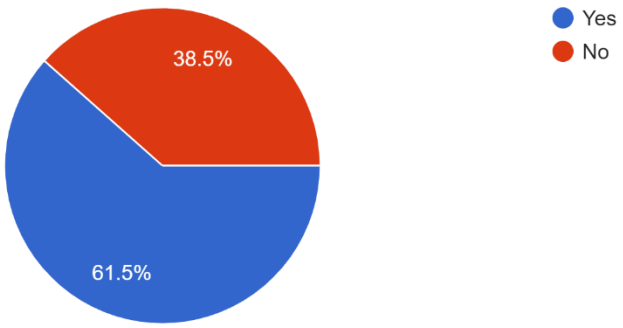
13.4.2 What proportion of residents where you build typically say 'no' to your fibre services and what proportion just do not respond to your marketing and sales efforts?

13 responses



13.4.3 Is the price of FTTP compared with copper-based services (FTTC) stated as a reason for not upgrading to FTTP?

13 responses



13.4.4 How do your prices compare to those offered by ISPs using the Openreach FTTC or pure copper network?

15 responses

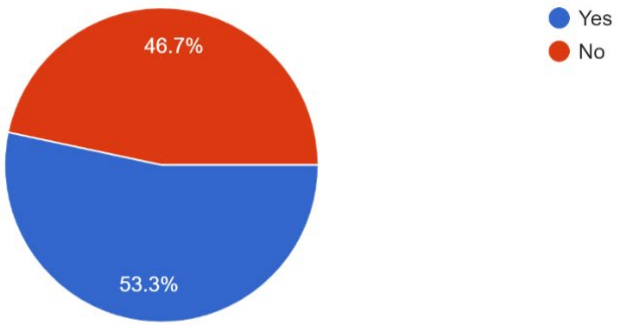
Our lowest package is 100Mbps symmetric - this is £29pm, which is largely in line with the higher end copper ISP connection rates which generally offer lower speeds, reliability and lacks responsive local service.
Launch offer below copper then £7-£10/month higher
Ours FTTP prices are cheaper than BT / equivalents FTTC
Higher because of the way in which the bundling has been done historically.
Marginally cheaper
Recently addressed and now cheaper than combined landline + FTTC service
about 20% higher
Our packages start at 100Mbps symmetric speeds
FTTC customers can undercut the lowest fibre price (esp. where all of our products have to be over 100Mbps to allow efficient use of vouchers) where 100Mbps is really good enough for all of todays need and so you would never differentiate customers if you offered a 100Mbps package that competed with the cheapest FTTC product on 40:10. if you offered a 40:10 package you would have a sales nightmare of explaining why that isn't an option for voucher customers that need a doubling of existing speed.
Competitive. Below BT pricing for FTTC above TalkTalk's pricing
Typically, 40% cheaper
Proposed packages are competitive
Prices vary for customer acquisition from the primary ISP's from circa £22/£30/month for FTTC products although bundling opportunities can appear to reduce these. Post offer pricing for a single FTTC products normally in the region of £30+/month

[…] pricing strategy has been to anchor our tier pricing to the equivalent tier point of the Openreach FTTC product set. As such, our 50Mbps pricing is generally anchored to (or slightly undercutting) the 40/10 FTTC average resale price, our 150Mbps is generally anchored to (or slightly undercutting) the 76Mbps product, and our 1Gb pricing is generally anchored to historic top tier products on the Openreach G.Fast/FTTP product set or Virgin Media's 362Mbps product.

Our pricing is generally higher

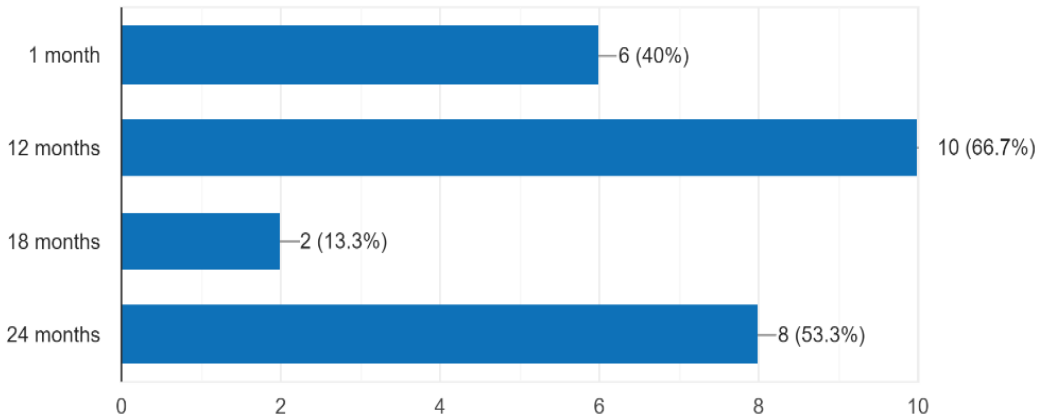
13.4.5 Do you charge a connection fee as well as the monthly rental?

15 responses



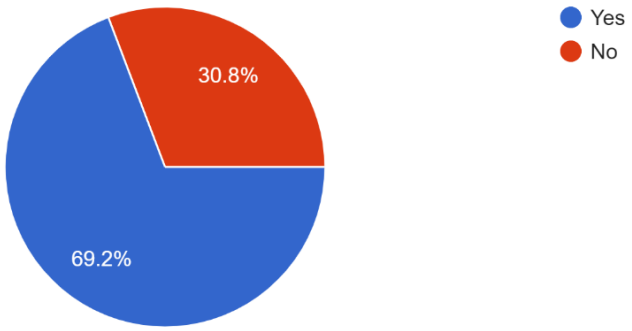
13.4.6 What contract periods do you offer?

15 responses



13.4.7 Are potential customers worried about having to have a new connection installed?

13 responses



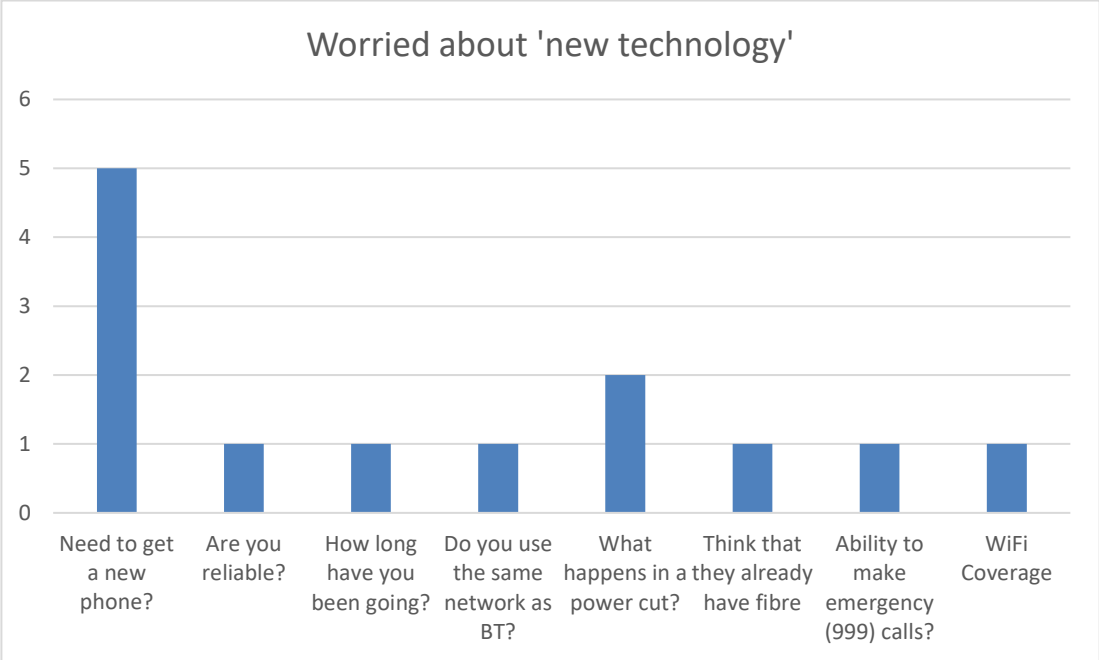
13.4.8 If you answered yes, then what are they typically worried about?

8 responses

Some are concerned but ultimately very few customers do not proceed with the install because of this.
Damage to property. Landlord agreements.
Various - some don't want overhead, some don't want new ducting, some just don't want the hassle of switching.
Laying cable in their driveways
This only applies to around 10-20% of potential customers, worried about disturbance, don't understand what will be done and how it will differ from BTO, recently done improvements and don't want walls drilled, don't want garden work done during winter
Time to install, disruption to property, potential damage and landlord approval
There can be some disquiet about additional cabling laid on the facade of a building or affixed to internal walls. Additionally, residents do and have queried what the value of competing FTTP infrastructure to a building is.
Often do not understand that the service needs a new connection to the premises

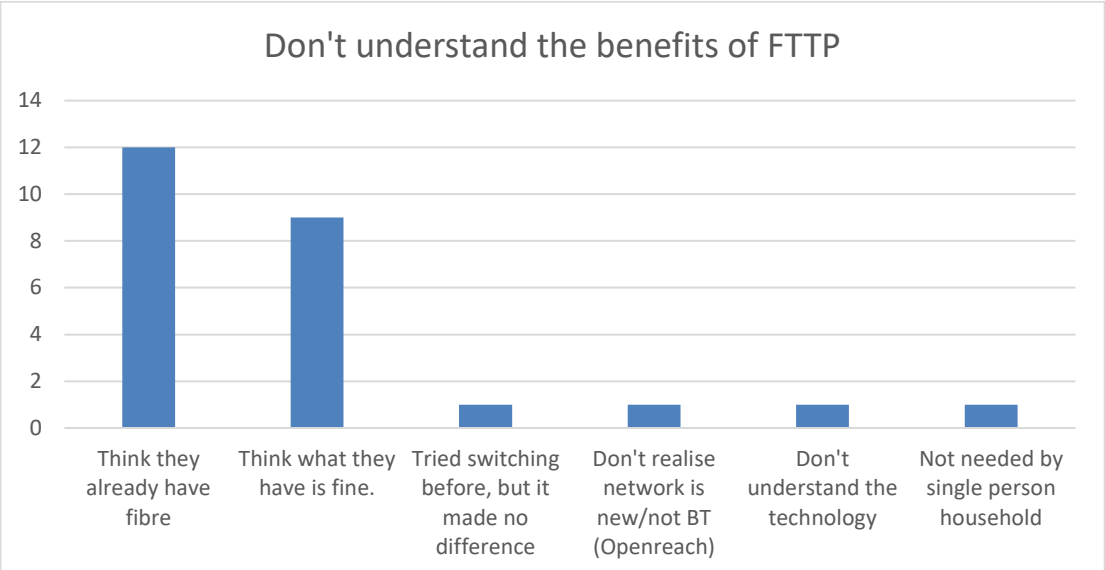
13.4.9 Are potential customers concerned about the 'new technology'?

6 responses



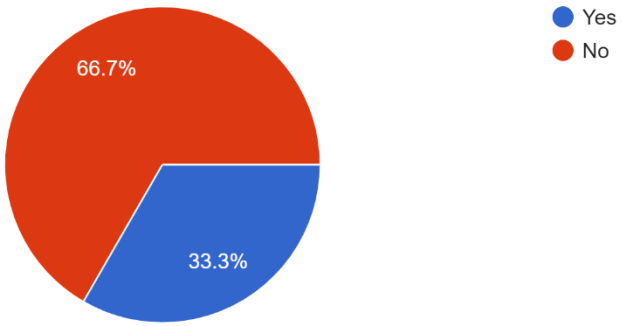
13.4.10 Are potential customers confused or do not understand the need for/benefits of full fibre compared with copper-based services?

14 responses



13.4.11 *Do you aggregate demand before building?*

15 responses



13.4.12 *If so, what percentage take-up do you require to sign off the build?*

7 responses

20%	40%	n/a	n/a	25%-40%	n/a	~ 20%

13.4.13 *What percentage penetration do you typically achieve after 1 year, 2 years, and 3 years?*

13 responses

15, 20, 30
Commercially sensitive. 1 year 10%, 2 years 20%, 3 years 30-40%
10%, 20%, 30% - bearing in mind we aim to be sole provider in a locale
95%
Varies by location
15%, 25%, 30%
30% (y1), 40% (y2), 60% (y3)
50-80%
15%, 25%, 35%
10, 20, 30 (strictly confidential)
We would look to achieve towards 25% penetration, one full year post the build being completed. We have a business plan which builds upon this through the following years
This has been a continually improving picture over our […] operation. We now achieve 30% average penetration after 12 months […]. 24 months = c.40%; 36 months = c.45-50%
25%, 35% and 45% respectively

13.4.14 If you do not currently offer wholesale, do you plan to do so in the future? If so, why?

10 responses

Yes
Yes. But we are looking to get a big brand on board first - as a wholesale customer. We are looking to harness brand awareness.
Yes. To provide choice and additional value to customers
Yes, at the right time in order to offer consumer choice which is more attractive in multi-provider locations.
Yes, once OTS is enabled
Yes
yes
Yes, absolutely to optimise the return on capex and provide an alternative to Openreach
Yes - owing to increased in-building competition, our limited product set and opportunities for bundling (we are dual play only), and our terminal penetration, which whilst healthy, has a natural settling point.
Yes. We recognise that wholesale is vitally important to take penetration above 50% in network areas. Also, we recognise that if we do not offer wholesale, then the market will demand another provider builds to provide it

13.4.15 How important do you think wholesale will be to the long-term viability of your business?

13 responses

Very.
Very unclear on that
Not essential
Once we reach critical mass it will be extremely important. Especially when large ISPs use more than just OR.
Critical - need to fully utilise the sunk assets - the business will need to offer customers choice of full fibre providers
Not critical
Important, but likely becoming a separate BU
Very important to AltNet Credibility with Ofcom and Consumers, Important to us to drive additional take-up
Not very important, it is not part of our business plan
Critical

If we deliver against our retail growth plans then wholesale does not predicate the success of […], building the best retail business and servicing our customers better than the competition is our primary objective
Of lesser importance than our ability to reach more market by geographic expansion, but of greater importance than expanding our product verticals or inorganic expansion of the business e.g. partnering with […].
Very important - extremely so.

13.5 Wholesale Services

13.5.1 If you offer wholesale services only – why have you chosen that business model?

3 responses

We believe it will allow for greater overall penetration and focus on building an efficient, quality network from both a cost and effort perspective.
This is our core company experience and our preferred commercial positioning. We aim to contract with large retail player and want to be seen as a neutral wholesale operator.
1. Consumers like choice within the market, and that choice provides competition leading to higher levels of service / quality. This combined with the option for consumers to churn 'on net' reduces churn risk with in our model and helps provide some overbuild protection. 2. Consumer's expect a high level of service and products (tv, sport etc) that it is harder for a new entrant to provide competitively. We take the view that CPs are experts at delivering and supporting these services so we should facilitate them to do so, and to innovate with in them, rather that trying to compete. 3. Wholesale allows us to focus all our capital into build. Innovation / R&D is focused purely on deployment, which is where we specialise. We would not be able to build at the same rate if establishing direct to consumer business at the same time.

13.5.2 Has the new Equinox pricing scheme from Openreach caused you to consider offering your own retail services? If so, why?

3 responses

No
No
"Yes. The ratio requirement: a) provides a significant disincentive for CPs to sell over alternative fibre networks; and b) makes the stickiness of customers lower as CPs are incentivised to move to OR at the point OR overbuild. Combined these effects considerably increase risk in the short to medium term. Equinox will also have a significant short to medium term impact on margins, with without Area 1 build, which we don't do, have a significantly higher negative impact on our margins. Mitigation options revolve around offering direct to consumer services alongside wholesale services, but it is anticipated this will reduce wholesale take-up in the medium term. Direct to consumer is regarded more as protection against churn than an ARPU protection Modeling / intentions will be to return to pure wholesale in the late mid to long term.incentivised to move to OR at the point OR overbuild. Combined these effects considerably increase risk in the short to medium term.

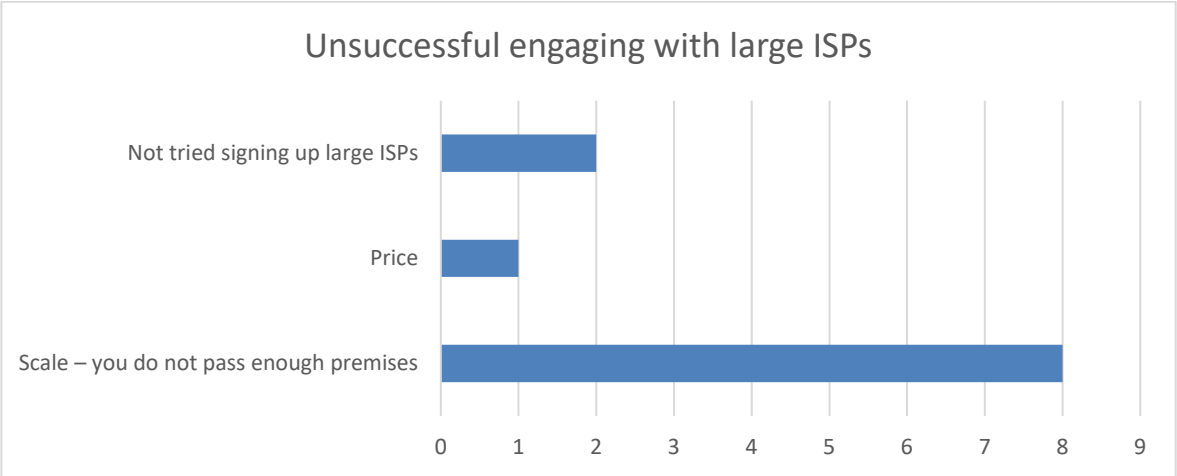
13.5.3 How many wholesale customers do you have?

6 responses

2	7	1 we are only starting	0 at the moment	c. 200	11

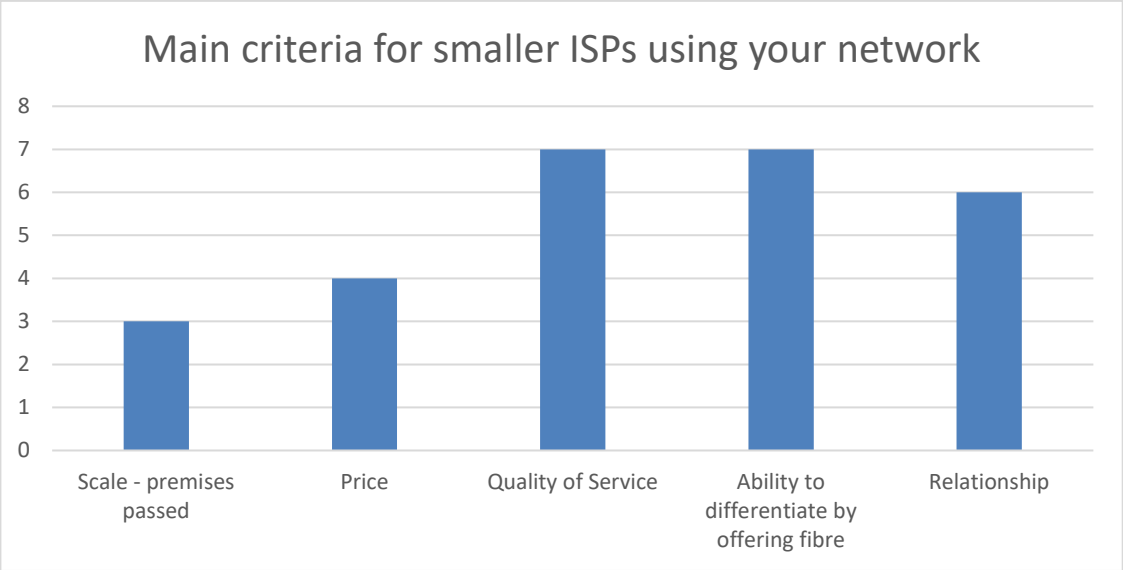
13.5.4 If you have tried and have been unsuccessful in signing up large ISPs, what are their main reasons for not taking your services?

8 responses



13.5.5 If you have smaller ISPs using your network, what were/are their main criteria for using your network?

7 responses



13.5.6 Have you had any conversations with your wholesale customers about Equinox? If so, have you noticed any change in how they engage with you since Openreach started negotiating the Equinox offer with ISPs during the spring of 2021?

7 responses

Yes, they are looking to use it to reduce our pricing.
Yes, price expectations are changing, Openreach prices will be seen as the benchmark
No
No
One major potential ISP has slowed down discussions
Yes. Some negotiations on hold whilst output and our response determined. Other's we are expecting to see a shift in marketing focus with more directed at OR FTTP footprint than our own.
The resellers who we are able to work with do not offer scale provision = we have not yet been able to access reseller that do, due to scale restrictions, reaching scale and being able to do so is a vital part of our strategy. We are supporting the Common Wholesale Platform in order that we can join with other AltNet operators to collectively offer the major resellers the Scale they need to onboard new network operators

13.6 Finally

13.6.1 Is there anything else you'd like to tell us?

6 responses

Education and awareness is the biggest barrier to take-up With FTTC current broadband speeds are sufficient for the vast majority of households. However, broadband requirements are only going one way, and Equinox is going undermine the business cases and therefore continued investment. It will reduce customer choice and leave only OR options available.
Exact responses not to be shared and paraphrased instead.
No
Reducing the pricing by OR is an anticompetitive move to take advantage of their existing infrastructure. Some of the bulk discounts that they plan to offer to existing ISPs for exclusivity is an absolute scandal and should be referred to the CMA. Regulation of pricing should force investment in fibre networks not be used as a defence mechanism for old copper networks.
It seems this survey assumes that ISPs charge more for FTTP services that what is currently charged for FTTC. I don't believe this is true. […]. The customer is technology agnostic, they do not understand nor care about the difference. They simply want 'good' broadband. VDSL can still be 'good' broadband in the absence of a 'killer app' requiring speeds in excess of 100Mb, for example, 8K video streaming. In many of our network areas our market share is 45-50%, sometimes as high as 60%.
Equinox will significantly limit our ability to attract resellers to our network and reduce the opportunity to build competitive operator networks. We consider it a significant threat to our ability to expand the build of sustainable networks