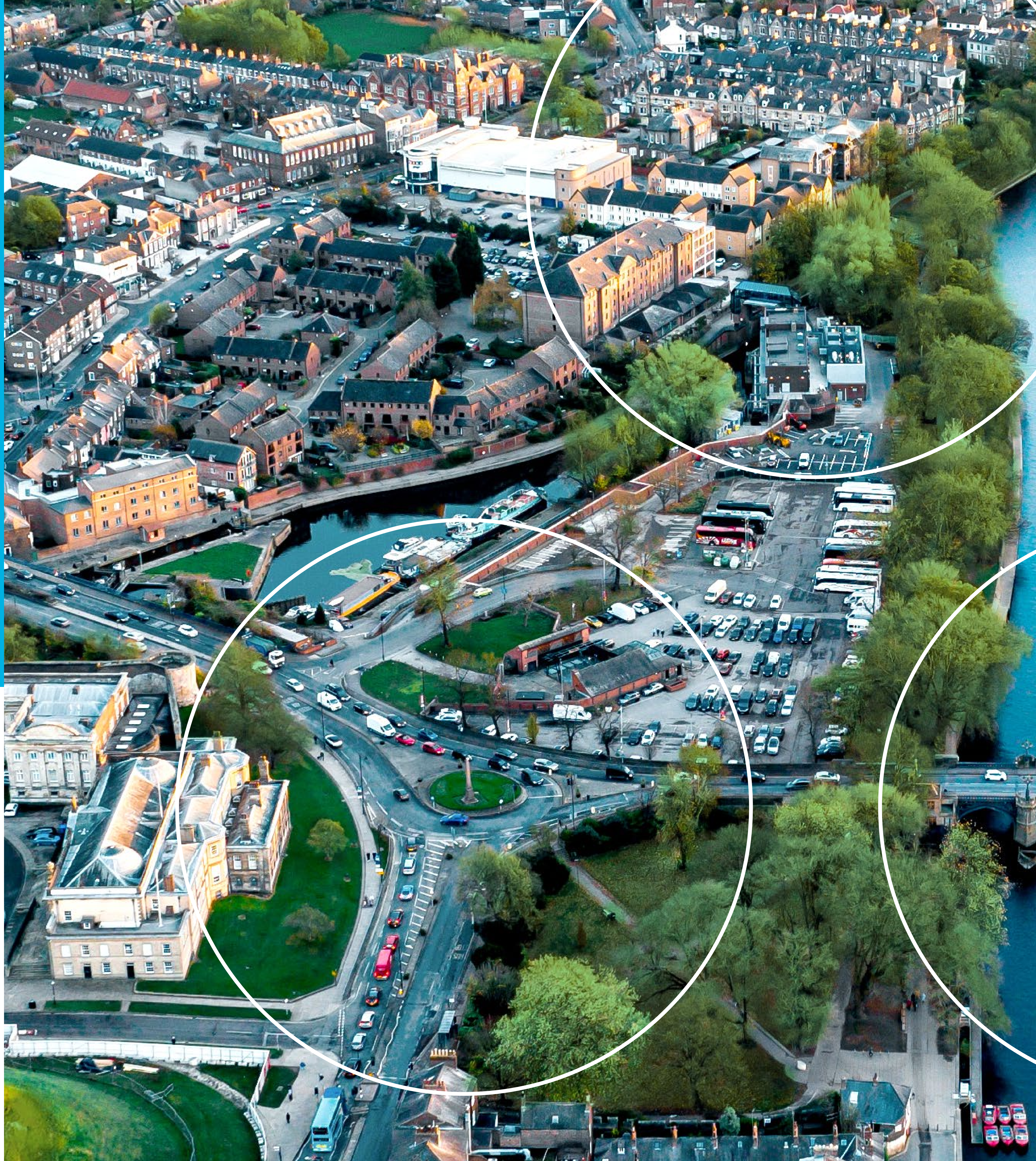
UK fibre: a fork in the road

Snapshot report



Introduction

Connectivity infrastructure underpins the UK's digital ambitions and supports every sector in achieving growth and innovation. The development of the UK's digital infrastructure is at a critical juncture and Ofcom's upcoming Telecoms Access Review (TAR) will have a profound impact on investment, competition and consumers for years to come.

Since Ofcom's last market review, the Wholesale Fixed Telecoms Market Review (WFTMR) in 2021, there has been significant deployment of fibre to the home broadband networks. However, there are key issues affecting competition and the sustainable development of the UK's digital infrastructure, including the continuing dominance of BT in the wholesale market, the failure of existing price regulation to effectively deter exclusionary behaviour, inadequacies in the regulation of PIA and an unsustainable number of market participants. Ofcom must address these issues in the TAR.

The significant progress in deployment of fibre, supported by major investment, has in part been enabled by the Physical Infrastructure Access (PIA) regime created by Ofcom, which has been a vital development to support investment by independent networks. However, this progress cannot be taken for granted. In 2024, investment by fibre operators in network build is slowing to a halt and there have been over 1,600 redundancies announced by altnets. This slowdown has coincided with a steep rise in interest rates, and with actions by BT that appear to have the effect of deterring market entry and expansion by rivals.

Ofcom cannot affect interest rates, but it can support the development of sustainable competition by ensuring regulatory consistency and preventing actions by the significant market power (SMP) operator that harm emerging competition. By maintaining regulation on BT, addressing exclusionary behaviour, improving the regulation of PIA and effectively regulate during the copper switch off process, Ofcom can take concrete steps to mitigate or remedy the issues facing the market.

In our view, the following must form part of the findings in TAR:

1. **Maintain current regulation on BT.** Wholesale competition to BT is nascent and its development is still fragile. BT retains its significant market power across the country. To ensure the continued development of sustainable, long-term competition, BT should not be deregulated in any area.
2. **Address behaviour by BT which harms competitors.** BT has used its position in the market to introduce unfair pricing schemes and other measures which harm competitors and could damage competition in the long term by driving others from the market.

   This is a key issue, and it is not fully addressed by current regulatory interventions. Pricing at a level that pushes competitors from the market and other exclusionary behaviours must be addressed to ensure that sustainable competition is able to develop. We propose the introduction of a new Economic Replicability Test (ERT) between PIA and the anchor price, effectively setting a price floor, which would be an effective measure to address this pricing that damages long-term competition.
3. **Effectively regulate PIA.** The uptake of PIA is one of the successes of the WFTMR, encouraging investment and enabling rollout. However, our analysis indicates significant issues with the way Openreach charges altnets to use its infrastructure, not least the lack of transparency of data, and the allocation of proportionate share of costs between Openreach and third party customers. Getting PIA right is vital for the long-term health of the market.
4. **Full assessment of the impact of copper switch off.** The migration from and ultimate closure of BT's copper network will have a profound impact on the market. It was too early in the process to fully assess it during the last market review, but it is vital that its impact is accounted for and that appropriate regulation is put in place to ensure BT does not leverage switch off to entrench its position of dominance and harm competition.
5. **Support economically sustainable competition.** Ofcom and the CMA should not seek to impose a minimum number of competing networks in a market, but allow consolidation to the sustainable number of rivals on a localised basis.

This document is a snapshot of nexfibre's detailed work examining the dynamics in the market and the regulatory steps that can be taken to support and safeguard the continued development of a sustainable, competitive market.

Further analysis can be found in our full report "**UK fibre: A Fork in the Road**" and the report "Improving the PIA Cost Model in light of the upcoming Telecoms Access Review," produced by SPC Networks on behalf of a coalition of PIA users.

1

Maintaining regulation on BT Openreach

BT Openreach is subject to regulation to limit its ability to harm competition using its position of significant market power.

In the WFTMR, Ofcom found three potential geographic markets with different competitive dynamics requiring different approaches to regulation. Area 1 refers to competitive areas, where regulation on BT may be withdrawn. Area 2 refers to areas where competition may emerge, but regulation on BT is necessary to allow competition to develop. Area 3 refers to those areas where competition is unlikely to develop and regulation on BT will be necessary in the long-term.

We have examined competition dynamics to assess whether competition has developed in such a way as to justify the lifting of regulation on BT. Our analysis of the competition dynamics is solely for the purpose of this market review and the application of regulation.

In the WFTMR, Ofcom found that no part of the country was competitive, i.e. there was no Area 1 and therefore regulation was placed on BT across the country. Ofcom approached this by considering that a competitive area was one in which there were "two established rivals to BT", with the specific definition of "established" left unexplored. No part of the UK met the definition and therefore no part of the country was in Area 1.

Our analysis of the market indicates that there is still no part of the UK with two established rivals to BT and which therefore meets the definition. In the TAR, Ofcom should not find any part of the country to be in Area 1 and subject to deregulation.

We contend that to be "established" for the purpose of fulfilling the Area 1 definition a rival must have a significant presence in a geographic area and that the two rivals, collectively or individually, have sufficient market share to effectively constrain BT's ability to behave independently of competitors and consumers. Our survey of the premises passed and connected by rival networks indicates that it is unlikely that any area fulfils the criteria of this definition today.

Maintaining regulation on BT Openreach

Table 1: Fibre Network Builders Indicators of Established

Company	Founded	Premises passed (Gigabit capable) ('000)	Premises connected ('000)	Take up
BT	1981	11,852	3,871	33%
Virgin Media O_2	1980s as local cable companies 1998 as ntl 2006 as Virgin Media 2021 as Virgin Media O_2	17,000	5,800	34%
CityFibre	2011	3,200	337	10.5%
Community Fibre	2013	1,100	225	20%
Hyperoptic	2010	1,000	250	25%
Netomnia	2019	850	80	9%
Gigaclear	2010	500	90	18%

Source: company reports, ISP Review, fibreprovider.net, Think Broadband

Maintaining regulation on BT Openreach is essential to ensure that nascent competition is given the chance to develop for effective, long-term sustainable competition.

There are other criteria that can be used alongside market share to determine whether an operator has SMP, even if it has a less than 50% market share. In the consultation, Ofcom rightly notes that it will examine barriers to entry and expansion, countervailing buyer power and pricing.

We believe that Ofcom should also assess absolute and relative size of the undertakings, easy or privileged access to capital markets/financial resources, economies of scale or scope, status quo advantage through established relationships with no switching costs, and the effect of highly developed distribution or sales and distribution networks. These all impact BT's ability to exert power in the market and affect the competitive dynamics between operators and thus should be considered when assessing the various Areas.

On a forward-looking basis, the financial vulnerability of altnets means it is unlikely that any part of the country will see the rise of two established competitors to BT for the purpose of the review by 2026. Therefore, Ofcom should not find any area that fulfils the criteria of Area 1, and no part of the country should be subject to deregulation.

Maintaining regulation on BT Openreach is essential to ensure that nascent competition is given the chance to develop for effective, long-term sustainable competition.

2

Addressing exclusion: Regulating anchor product pricing and the Economic Replicability Test

Effective regulation must be tailored to the specific competition issue at hand.

In the WFTMR, Ofcom regulated BT's prices for the "anchor product" in Areas 2 & 3, allowing pricing freedom on higher speed variations. This is an effective form of regulation when the competition problem is the dominant firm's ability to exploit consumers, and when pricing freedom is needed to allow the market to find the efficient price level.

However, we contend that the main problem affecting competition in the wholesale fibre market is not consumer exploitation directly, but the exclusionary effect of BT's behaviour on competitors. This exclusionary behaviour is preventing the development of sustainable competition.

The most significant action taken by BT consistent with an exclusionary effect was the introduction of the Equinox and Equinox 2 price packages, introduced after the WFMTR decision. In the period after Equinox 2 was announced, investment and employment by altnets declined sharply. Although this reduction also coincided with a steep increase in interest rates, we argue that Equinox 2 has had an incremental effect that is consistent with market exclusion.

As the dominant wholesale access provider, Openreach's prices affect the pricing of the retail and wholesale markets, including those of vertically integrated companies that do not offer wholesale access. Therefore, if Openreach reduces its pricing then the rest of the market needs to reduce pricing to remain competitive.

If such price reductions cannot be offset by cost reductions, then the return on investment is decreased, potentially reducing the incentive to invest, resulting in less competition. For BT, therefore, there is a strong incentive to reduce short term pricing and disincentivise investment by others to preserve its dominant position.

The WLA market has high barriers to entry, as entrants incur high network build costs, higher cost of capital and face lower economies of scale on operating costs. They are therefore at an immediate disadvantage in relation to the incumbent even if the incumbent does not price below its own costs.

BT enjoys further "status quo" advantages as the incumbent through its established relationships with ISPs. When choosing to order with other fibre providers, ISPs incur costs, including technical, operations and system change costs. To incentivise ISPs to switch from BT, altnets must absorb these costs, putting them at a financial disadvantage to BT.

Addressing exclusion: Regulating anchor product pricing and the Economic Replicability Test

Ofcom needs to tread a careful path between the long-term interests of consumers that come from effective competition and the short-term lower prices the incumbent can charge but which have the effect of excluding effective competition.

We propose that Ofcom should regulate prices based on an Economic Replicability Test between the regulated price of PIA and the anchor product. BT should not be allowed to drop WLA prices below that of the anchor product as it did in Equinox 2, nor should it be able to leverage copper switch-off to entrench its SMP position. This will prevent BT designing any future price packages that deter entry and expansion. Further detail is outlined in section 5 below.

BT is able to engage in other exclusionary behaviours, such as “drip-feed pricing”, which disincentivise switching by ISPs and prevent competition. As previously outlined by Keystone Strategy in its Annex to nexfibre’s response to the Equinox 2 consultation, there are a several steps which Ofcom could take to address this exclusionary behaviour:

- Introduce a requirement for BT Openreach not to undertake any pre-announcement of new pricing schemes before official notice is given to Ofcom.
- Ofcom to set expectations that BT should not make continued amendments to Equinox and that any further amendments must be supported by clear, evidence-based reasoning as to why they are necessary.
- Modify SMP conditions so that the burden of proof is on BT to prove that its proposals are not anti-competitive.
- Impose a “cooling-off” period following the announcement of change to prices and other commercial terms, before the changes can be implemented.

As BT begins the process of retiring its old copper network, it is vital that copper switch off is not leveraged to incentivise ISP switching to BT’s fibre network to the exclusion of other fibre networks in such a manner that entrenches its dominance on the fibre market, and pricing schemes that incentivise such behaviour must be prohibited.

Ofcom needs to tread a careful path between the long-term interests of consumers that come from effective competition and the short-term lower prices the incumbent can charge but which have the effect of excluding effective competition.

3

Regulating PIA – the issues with no undue discrimination

Physical Infrastructure Access (PIA) has been the most important regulatory change introduced by Ofcom, facilitating investment and competition.

Under the PIA regime, Openreach makes its ducts and poles available for other operators to use for their network rollout. It has become a key input for many network builders across the country. Effective regulation of PIA is vital for the future development of the market.

There are significant issues with lack of transparency of data on PIA. BT is obliged to publish a Regulatory Financial Statement (RFS) with information on PIA financials and use. However, the RFS does not give adequate information to users of PIA to adequately assess if PIA is being provided on a no undue discrimination basis, if the cost share borne by users of PIA is proportionate and extent of usage.

Under existing regulation, Openreach is required to make PIA available under a no undue discrimination obligation. Examining BT's Regulatory Financial Statements, we see a material disparity between the internal cross charge for PIA within Openreach and the price paid by competitors. This disparity, a result of the construction of the cost model which guarantees Openreach a particular level of return on capital, makes the assessment of whether the product is available on a no undue discrimination basis very opaque.

Table 2: Internal and External PIA Price and ROCE 2022-2023

Product	Measure	Average internal price	Internal ROCE	Average external price	External ROCE
Lead-in duct	Lead-ins	(1.23)	6.80%	9.94	50.7%
Spine duct – 1 bore	km	(6.25)[1]	6.80%	310.00	30.5%
Spine duct – 2 bore	km	(3.35)	6.80%	200.00	33.7%
Spine duct – 3+ bore	km	(2.92)	6.80%	140.00	29.7%
Facility hosting (per manhole entry)	entries	(1.92)	6.80%	9.43	10.8%
Facility hosting (per joint box entry)	entries	(0.33)	6.80%	2.24	321.8%
Poles – multi-end user attachment	attachments	6.74	6.80%	5.65	11.6%
Poles – single-end user attachment	attachments	1.84	6.80%	2.21	16.5%
Pole top equipment	attachments	1.90	6.80%	1.66	17.5%
Cable up pole	attachments	1.50	6.80%	1.10	21.3%

Source: BT Regulatory Financial Statements 2023 (Extract from Table 6.1.1)

[1] Although not material to our argument here, we note that there is a mathematical error in the calculation of the spine duct single internal price, which should be: $\frac{\text{(Total Internal Revenue)}}{\text{(Total Internal Volumes)}} = \frac{\text{(-42.8m)}}{\text{(0..756m)}}$ =-£56.6

Regulating PIA – the issues with no undue discrimination

For example, Table 2 shows that Openreach is charging itself a negative price for the duct elements of PIA, whereas it is charging nexfibre and other external customers the regulated price set in the 2021 WFTMR, adjusted for the charge control. On its internal transfer charges, Openreach earns the ROCE of 6.8%, slightly below the WACC of 7% set by regulation. On external prices the ROCE ranges from 10.8% to 321.8%.

There is no justification for this difference in treatment on usage, given that Openreach is using exactly the same infrastructure as third parties and in the same manner. This issue requires more detailed investigation, and Ofcom should examine the existing cost model to ensure the inputs and assumptions are accurate. Usage on the same PIA is in some cases higher than predicted, allowing for over-recovery. The accounting method used in the model also makes it particularly sensitive to inflation spikes, creating further anomalies. These should be addressed in the TAR.

We propose that the supply of PIA by Openreach should be more transparent and, if necessary, made available under an Equivalence of Input (EOI) basis, rather than no undue discrimination. It is an anomaly of the current structure that PIA is self-supplied by Openreach to itself and to rival operators as an input to fibre networks that compete with Openreach WLA. PIA is an essential input for BT's competitors, and it is vital that they get it under the same terms as Openreach itself and that these terms are fully transparent.

Together with All Points Fibre, Community Fibre, Gigaclear and Netomnia, we have commissioned a report "Improving the PIA Cost Model in light of the upcoming Telecoms Access Review", from SPC Networks on the functioning of the PIA regime which develops this analysis in detail.

> *Effective regulation of PIA is vital for the future development of the market.*

4

Assessing impact of copper switch off

The migration from copper network to fibre is a necessary step in the evolution of the market, driven by demand for highspeed, quality connectivity by consumers and industry.

The process of switching off BT's existing copper network is complex and requires appropriate regulatory oversight to ensure that it is not leveraged to entrench BT's position of dominance on fibre, which would harm consumers in the long-term.

There are a number of stages in the copper switch off process, as defined under the WFTMR decision. Although this decision laid out requirements on BT to publish notice of intention to close exchanges, with set timelines, further transparency is necessary to ensure that other fibre operators have the opportunity to prepare for exchange closure and to compete for ISPs' business in these areas.

BT enjoys absolute discretion in the selection and timing of exchange closure. This may allow it to select areas for migration based on where knowledge of where competitors are present, reducing the development of competition. This risk is acknowledged in the WFTMR but not engaged with, on the basis that other commercial factors reduce the likelihood. While we recognise that a variety of factors are taken into account when determining switch off strategy, it is important that Ofcom carries out a full assessment of the risk to competition, rather than relying on other factors to reduce this risk. A clear regulatory strategy for how Ofcom intends to manage this risk over the course of the switch off process should form part of the TAR decision.

The effect of copper switch off on price regulation must be carefully assessed. Under the regulation set out in the WFTMR, when full fibre has been in an area for a certain period of time, the pricing control on copper can be lifted. This would allow BT to charge whatever it likes for the copper product. It is important that the effect of this on the pricing control on fibre is properly assessed. In particular, it is important that BT is not allowed to engage in further pricing reductions on fibre which undercut competitors, preventing it from competing for wholesale customers.

It is important that Ofcom carries out a full assessment of the risk to competition, rather than relying on other factors to reduce this risk.

5

Supporting economically sustainable competition – assessing consolidation

The market today is characterised by a high number of altnets with unsustainable business plans, which in any event will be unlikely to deliver successful investment returns for existing investors.

Looking forward, we expect consolidation to be a key feature of the market over the next few years as companies seek to become economically sustainable.

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Analysis by many market commentators and analysts points to the unsustainable nature of altnet business plans, most recently the comprehensive report by Enders Analysis. Analysis by SPC Network shows that cost and demand conditions differ across different geographic areas. The number of economically sustainable competitors also differs.

Based on this analysis, our view is that when Ofcom and the Competition and Markets Authority (CMA) and other policy makers and stakeholders assess consolidation in the market they should not focus on a perceived minimum number of competitors needed, but should instead allow mergers so that competition is sustainable according to specific circumstance of the area where the merger will occur.

So, what needs to change?

As outlined, though aspects of market regulation are functioning well, some changes are necessary to protect the development of competition and to safeguard the UK's digital future.

1

Ofcom should ensure regulatory consistency where regulation is working well and only make changes to the regulatory framework where that is justified by circumstances. For example, this means maintaining the same geographic market criteria as used in 2021 while recognising that conditions do not yet justify finding any area of the UK to be effectively competitive in the WLA market. This means that the UK will continue to be comprised of only Areas 2 and 3.

2

Though the anchor product pricing regime Ofcom introduced in 2021 to encourage investment in higher speed access products was justifiable at the time, recent experience has shown that the main competition problem in the wholesale market is BT's ability to set exclusionary prices. We therefore propose that Ofcom complement the anchor product price with an Economic Replicability Test (ERT) between PIA and the anchor price, effectively setting the anchor as the price floor.

3

Ofcom needs to address certain issues in the regulation of PIA, including transparency and allocation of costs. If necessary, Ofcom should change the terms under which PIA is supplied from no-undue discrimination to Equivalence of Input (EOI).

4

Ofcom needs to adequately assess the impact of copper switch off on the dynamics in the market. The migration from copper to switch off should not see an entrenchment of BT's dominance on the market and appropriate regulation should be put in place to prevent this.

5

Finally, to support economically sustainable competition, Ofcom and the CMA should not seek to impose a minimum number of competing networks in a market but allow consolidation to the sustainable number of rivals on a localised basis.

Thank you

About nexfibre

nexfibre is a joint venture between InfraVia Capital Partners, Liberty Global and Telefónica and is financed with £4.5 billion of equity and debt investment.

nexfibre's investment will provide a major boost to the UK's digital economy and make a significant contribution to the Government's gigabit broadband ambitions.

Virgin Media O2 is nexfibre's anchor wholesale tenant.

nexfibre intends to make its network available to other internet service providers.

Additionally, nexfibre and Virgin Media O2 together intend to wholesale their networks to other internet service providers creating a national-scale operator, boosting choice and competition in the market.

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