Full fibre for a digital and sustainable Europe

Response to the consultation on the 'BEREC Work Programme 2024'

6 November 2023

The FTTH welcomes the publication of the BEREC Work Programme 2024. The FTTH Council appreciates that BEREC published a less detailed outline earlier in 2023. This left room to take into consideration the responses to the call for inputs and the Council is pleased to see that several areas of concern for our work have been covered in the revised programme. This also looks to be the most ambitious programme of work that BEREC have produced in a number of years (reflecting the fact that less workflows result from legislation).

Nevertheless, the FTTH Council takes this opportunity to make further submission on the programme proposed.

The FTTH Council believes that Item 1.1, the Report on the regulation of physical infrastructure access could be extremely important. This report will inform not only Market 1 remedies (where a separate PIA market does not exist) but also how it might interact with the GIA. The FTTH Council would note that incentives to create new infrastructure access should not be undermined by imposing access to legacy infrastructures. To ensure that there are no adverse impacts it might be best that this remedy is imposed via market 1 rather than the creation of a separate PIA market. The FTTH Council welcomes and looks forward to participating in the public consultation process.

Item 1.2 which is a series of "Workshops on ex ante regulatory experience concerning commitments, wholesale-only undertakings and commercial agreements review" is highly relevant to many FTTH Council Members who have direct experience of these matters. The FTTH Council looks forward to participating in the external workshop and suggests that it might be appropriate to have a public consultation on these matters.

Item 1.3, Report on the design, enforcement and monitoring of remedies in subnational markets with multiple SMP operators, is an update to an existing report. In the FTTH Council view this is appropriate in light of a number of important cases in 2023 and those expected over 2024.

In those countries that successfully promoted FTTH/B, regulated virtual access remedies on FTTH/B were often either not available or were greatly curtailed. In contrast, each country that achieved FTTH/B took care to ensure that the cost of deployment was minimised through sharing of expensive passive infrastructure and avoiding duplication of those passive network elements.

The FTTH Council notes that certain forms of business structures such as wholesale-only operators have different incentive structures to vertically integrated operators. The regulatory approach to such operators in the EECC makes sense in the Council's view and as a result, there has been a significant growth in Wholesale-Only operators. Similarly, the proposals in the new Code concerning co-investment can be investment friendly and encourage investment and these measures sits within an overall approach which protects and promotes infrastructure-based competition by prioritising investments in VHCNs. However, co-investments should be adequately monitored by the NRAs to avoid unintended consequences.

While competitive network deployment won't happen everywhere and a way to ensure roll out in more expensive rural areas will have to sit beside a market driven approach. Good access, in all its forms will be required in those high cost areas as consumers must have access to the deepest form of competition available. The FTTH Council sees that public funding is justified given the benefits of fibre that go beyond the private considerations on operators and citizens such as enhancements to healthcare and education systems.

It is becoming clear that Europe is seeing a large number of duplicate networks delivering the infrastructure based competition that has been aimed for, even if certain areas struggle to support just one infrastructure.

There has been increasing discussion about whether it is economically efficient to have multiple networks for most of the population while some parts don't have any (the suggestion being to manage deployment to have full coverage by one network). To the FTTH Council this seems like a false dichotomy – rural areas can struggle to make a business case because costs are high or because the business case is not structured correctly. The presence of multiple networks, each with their own business case, come down to a question of static versus dynamic efficiency – from a static perspective, the cost of one network is lower and can supply the whole market but from a dynamic perspective, network competition can reveal innovative deployment methods, technical and commercial models that could be otherwise be lost. The same issues arose in a mobile context, one mobile network could theoretically supply the whole market but the loss of dynamic competition effects would have undermined that market's evolution.

The FTTH Council would like to see work from BEREC studying the impact of wholesale only operators, the effect of co-investment (which may often lead to different corporate structures), the new tendency towards separation even in integrated firms and finally, to express a view on the question of multiple network deployments.

The FTTH Council looks forward to participating in the public consultation.

Item 1.4, A Workshop on economic replicability test practices in the context of Article 61(3) of the EECC – the FTTH Council feels that this too is an important topic but wonders whether this topic would not benefit from a more fulsome treatment, including a Report and public consultation. While there is a trade off between the number of topics covered in this way against resources that can be deployed etc. this is a topic that many Members and other stakeholders would like to comment on. At a minimum, BEREC could consider making the workshop available to the public.

Item 1.5. Managing copper network switch-off. The FTTH Council appreciates the work that has already been done by BEREC on the issue of copper switch off but notes that it is an evolving areas where concerns arise. This is particularly the case where entrant operators have deployed fibre networks but the incumbent operator continues to operate its copper network in parallel. The FTTH Council would like to see the orderly transition to FTTH/B that is managed by, and supervised by the NRA in cooperation with all stakeholders. On the one hand, there are obligations regarding the shutting down of copper networks (e.g. Article 81 of the Code requires SMP operators to notify an NRA in advance) and the NRA has to ensure that the decommissioning process includes a transparent timetable and conditions, including an appropriate notice period for transition. The NRA also has to establish the availability of alternative products to safeguard competition and the rights of end-users. On the other hand, by leaving the SMP to decide the timing, this ignores other externalities, notably in terms of environmental costs of copper networks but which are part of a broader consideration (and whose costs are not easily incorporated in market pricing).

The fact that the majority of VHCN networks built over the last 20 years have been built by the entrant community is important and the fact that many of these adopt a wholesale-only model is also very important. While this trend will continue, especially with the current entry of long-term investors from pension funds and other investment vehicles, it creates an important consideration for copper switch-off.

In the presence of a wholesale-only operator, the SMP operator does not need to delay its copper switch off while it builds out its own network. With less than 35% of FTTH/B network paths owned by incumbent operators today (and this share is shrinking)[1], the interplay between SMP copper network operators and entrant fibre networks is critical. This dynamic, and in particular, potential strategic behaviours by SMPs in the face of competitive fibre network deployments is largely unaddressed to date and warrants urgent attention. The proposed work by BEREC could point to strategies NRAs could deploy to accelerate copper switch off and the measures NRAs can take to ensure a level competitive pitch.

The FTTH Council is disappointed that there is no public consultation associated with this work and calls on BEREC to reconsider this approach. The FTTH Council believes that the report proposed could go further and could benefit enormously from public input.

Item 1.9, an Implementation report on the BEREC Guidelines on Geographical surveys of network deployments is important to the FTTH Council. From the FTTH Council's perspective there are three main uses of geographic segmentation which can be classified as (a) the current Article 22 calculation with the attendant implications in the Code (b) determining geographic markets for the application of SMP analysis and remedies and (c) the application of State Aid rules. The FTTH Council believes that there should be a consistent methodology used and applied for all three contexts and believes the draft guidelines push strongly in this direction. This is entirely appropriate and in line with the theme of the code and good regulatory practice generally. Article 22 of the code explicitly sees the geographic delineation of markets as being used to designate areas where VHCN will not become available in the foreseeable future.

The FTTH Council is disappointed that there is no public consultation associated with this work and calls on BEREC to reconsider this approach. The FTTH Council believes that the report proposed could go further and could benefit enormously from public input.

Item 1.11, BEREC Report on the evolution of private and public 5G networks in the Europe. Work by Boston Consulting Group suggests that each individual will generate over 1 terrabyte of data within 10 years – this suggests in turn that consumers will generate data from virtually every event in their daily lives – from shopping to parking to entry in a restaurant to what they eat et cetera.

Everything will be connected all the time. Critical devices will be unseen in a given area and then will need connectivity or devices in a particular area that are silent for long periods but on occasion, spring to life and need connectivity.

There are a number of trends happening in the communications space and while consumer trends are apparent and the driver of the market changes, There are a series of important network evolutions and changes underlying these market changes.

In practice, telecom operators across Europe are putting networks in place to deliver this ubiquitous connectivity (albeit at very different speeds). One of the features of these new networks is their ability to offer differentiated forms of access depending on the service requirements. In practice this means that one physical network is capable of offering connectivity with radically different QoS parameters in terms of bandwidth, latency, jitter etc. Network security can also be guaranteed in a way that was not possible in the past with the ability to use network slicing to (virtually) create separate networks. In theory then, there is very little rationale for maintaining separate networks for specific purposes

[1] IDATE data for FTTH Council Europe

(emergency services for instance) since these services can be delivered with ring-fenced and guaranteed parameters that ensure the level of reliability required.

Other technologies are also emerging in networks which portend big changes in the future. For instance Software Defined Networks (SDN) and Network Function Virtualisation (NFV) may change the very way we understand networks and undermine basic concepts such as interconnection and network ownership (for instance the GSMA Connected Gateway initiative uses APIs to extend network boundaries virtually rather than pass traffic from one network to another). Essentially, network functionality and network services becoming separated from the network itself (disintermediated from the network like earlier OTT services).

While in the past, firms have constructed and managed their own networks where there was a need, banks, for instance or retail chains, created Virtual Private Networks (VPNs) using leased lines or buy the VPN as a service that will allow them to ensure a level of security and reliability that enables their services to be delivered as required either internally or externally. Today, there is a growing evolution of Private Networks – which appear to be driven by a number of factors the most important of which are (a) the availability of 5G spectrum dedicated to 'verticals', (b) the dramatic shift of network intelligence into the Cloud also for RAN as well as core functionality and (c) widely available fibre connectivity to backhaul the data. The result is radically different cost structure for private networks and a resultant boom in private networks across Europe. What is changing, or about to change, is that the number of economic areas or markets where economic actors will want to have their 'own' network is likely to increase. At the same time, the parameters associated with those 'own' networks are likely to be quite specific and diverse.

An important aspect of this development will be the ability to ensure consumers have access to services wherever they are, whenever they are there and at a specified QoS. From a technology perspective, this is becoming possible and will likely become, if not trivial, then at least relatively easy as 5G is deployed and as networks become SDN enabled. In these circumstances, and again from a technology perspective, network services could be delivered in a way that they pop up whenever and wherever required and disappear after the event (a lot like mobile roaming today whereby operators can buy access when they need it but have no obligations when they don't).

The FTTH Council Europe believe it is important to know whether there are sufficient enablers of these network developments in place. For instance, while integrated operators will be able to co-ordinate FTTH network and Mobile network investments (mobile being dependent on fibre backhaul), whether network investments by non-integrated operators can be co-ordinated may need an external intervention. Whether there is sufficient over-provisioning of fibre networks to support the growth of private networks is not obvious. There may also be implications for 5G SA coming from the growth in private networks and this may need to be addressed or at least monitored.

The FTTH Council welcomes the proposed work report and looks forward to participating fully in the public consultation.

Item 2.6, BEREC Report on Infrastructure sharing as a lever for ECN/ECS environmental sustainability. From the FTTH Council perspective, infrastructure sharing can be an important component in lowering the cost of network deployment (and also the environmental cost of deployment). However, in certain circumstances, network sharing can actually increase the environmental costs – this is particularly the case where there is appropriate access to virtual access products.

Access-seeking operators generally prefer to take virtual access products when they are provisioned correctly and priced appropriately – this is particularly true when an area is less densely populated

and the economics are more challenging. A second reason for encouraging virtual access products is environmental, reopening and deploying new network is unnecessary where appropriate virtual wholesale access products are available. There are also competition concerns because most network infrastructure investments in Europe are being made by alternative operators who are sometimes Wholesale Only and sometimes not but who are always committed to an Open Access business model to cover their costs. Some wholesale only providers have based their business case around providing virtual access products. For these providers an obligation to provide dark fibre or fibre unbundling would have a negative impact on their incentives to invest. Incumbent operators can use this provision to crowd out competitors in markets that they wish to dominate.

The FTTH Council welcomes the proposed work report and looks forward to participating fully in the public consultation.

Item 3.1, BEREC Report on Member States' best practices to support the defining of adequate broadband Internet Access Service (IAS). Welcome public consultation.

It appears to the FTTH Council that one major gap in the work programme is the lack of emphasis on demand side measures. While the Council is concerned with demand for gigabit access over fibre networks in particular, the paucity of demand is not limited to fixed networks but is also true of mobile services. Many of the problems identified in the sector (e.g. low returns) can be traced back to the lack of demand for VHCN capacity.

Demand-Side Interventions

While the FTTH Council has consistently sought and promoted policies that would accelerate the deployment of VHCN networks since the Council's inception – that positioning is reflected in the EECC and more recently in the GIA and GCR and the FTTH Council believes that, barring a major shock to the market, Europe is well on its way to achieving full FTTH coverage or its equivalent by 2030 or very shortly thereafter.

However, despite the success in putting the necessary network in place, little or no attention has been paid to what drives take-up when VHCN is available and more importantly why demand for VHCN is so subdued. The range of factors are enormous and diverse – misleading advertising can be an issue (to the point where certain Member States have taken action), the cost differential between copper based access and fibre based access products may be an issue, the lack of VHCN specific services (so all services perform adequately over copper networks or even VHCN networks). It may be related to one off connection costs, the availability of equipment, the extent of VHCN availability, the length of time that VHCN is available, it may be related to education and skill levels, general income levels and so on. To date in Europe, the only serious attempt to understand the weighting of the drivers of demand to explain the differences in take up rates has been conducted by the FTTH Council in 2022[2].

The FTTH Council believe that this issue is very important and deserves to be a policy priority area for European policy makers.

As noted recently, where gigabit networks are available, take up is less that 50% and worse that that, take up of gigabit service is less than 10%. This relates to many other issues in the market currently including concerns about rates of return.

[2] https://www.ftthcouncil.eu/knowledge-centre/all-publications-and-assets/1669/ftth-adoption-drivers-and-hurdles-in-europe