

Response to the Public consultation on the draft BEREC Report on a consistent approach to migration and copper switch- off

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FTTH Council Europe
Policy & Regulation Committee



Full fibre for a digital and sustainable Europe

Introduction

The FTTH Council Europe welcomes this draft report on a consistent approach to migration and copper switch off. Studies commissioned by the FTTH Council suggest that FTTH/B availability will be between 85-90% by 2026. While these are forecast based on the current economic and regulatory situation and there will still be a long way to go to reach full coverage, we can expect that large parts of the EU will be fully covered by fibre networks by that date¹⁾. There is therefore a need to consider the practical issues related to migration from the old copper networks to the new VHCN networks which are being encouraged, both in deployment and take-up by national regulators and the European Commission.

This draft report is very extensive and represents an important data source to compare both the status of the transition in Europe today and the measures that are being deployed to manage that transition.

The FTTH Council would like to see an 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. Under Article 81 of the Code which requires SMP operators to notify an NRA in advance of network closure in a timely manner. The NRA then 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. These matters are addressed in the report. On the other hand, there are other externalities, notably in terms of environmental costs of copper networks that are not included in the report but which are part of a broader consideration (and whose costs are not easily incorporated in market pricing).

Finally, the fact that the vast majority of VHCN networks built over the last 20 years have been built by the entrant community is important. This trend will continue, especially with the current entry of long-term investors from pension funds and other investment vehicles. With less than 40% of FTTH/B network paths owned by incumbent operators today, the interplay between SMPO copper networks and entrant fibre networks is critical. This dynamic, and in particular, potential strategic behaviours by SMPOs in the face of competitive fibre network deployments is largely unaddressed in the report and would warrant the inclusion of guidance in the next iteration of the report.

1) <https://www.ftthcouncil.eu/Portals/1/FTTH%20Council%20Europe%20-%20Forecast%20for%20EUROPE%202020-2026%20AFTER%20COVID19%20-%20FINAL%20Published%20Version.pdf?ver=p8LTSV2cCpbNwByeC3RjWQ%3D%3D>

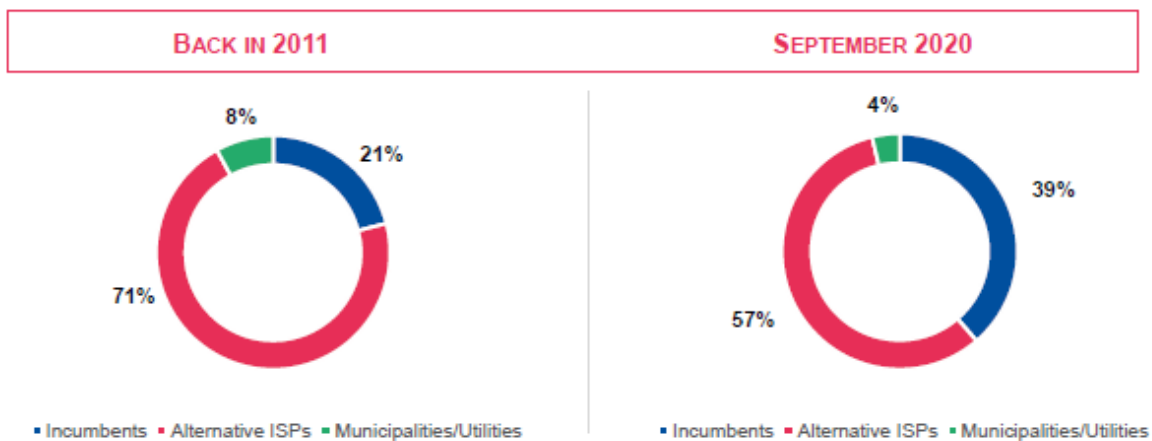
Comments

Switch-off issues where the SMPO has not invested in FTTH/B but alternative operators have.

An issue that is surprisingly overlooked in the report is the question of what happens where there is full fibre coverage but the SMPO has not itself invested in fibre networks. Large amounts of capital are flowing into fibre networks, typically operating as Wholesale Only but not exclusively. At September 2020, the FTTH Council's data shows that non-incumbent fibre network deployments are significantly larger than incumbent fibre network deployments. Figure 1 below shows that the extent of incumbent operators' deployments has risen over the last 10 years, nevertheless, entrant operators have approximately 50% more fibre deployed today than their incumbent competitors.

Figure 1: Incumbent vs Entrant Fibre Network Deployments

Breakdown of FTTH/B Homes Passed by type of player (%)
Data comparison between Dec. 2011 and Sept. 2020



Source: IDATE for FTTH Council EUROPE

This data highlights the fact that in many parts of Europe there are fibre networks deployed, even with 100% coverage but there are areas where there is entrant FTTH/B but no equivalent investment by the incumbent operator. While the copper network may have been upgraded to VDSL or a variation thereon, there may be no move towards a VHCN deployment. If NRAs are not involved in the switch-off process, there is a risk that the decision by the SMPO to decommission the copper network becomes one of competitive strategy, when to act to its own maximum advantage and its competitors greatest disadvantage.

The FTTH Council Europe would like to see the report from BEREC address the question of what competition considerations will be brought to the analysis of copper switch off in the presence of non-SMPO fibre networks.

This in turn gives rise to a large number of other issues that need to be addressed related to the competitive landscape.

NRAs' involvement in switch-off process is essential to preserve competition

BEREC sees the role of regulators in preserving competition in very narrow terms and beyond the requirement to see transparent timetable and conditions, competition is preserved through the availability of alternative wholesale access products of comparable quality. Some NRAs have recognised the strategic choices that could be made by SMPOs and the risks to competition that could arise. Notably, reference is made in the report to the Spanish case where the NRA initially demanded a certain level of fibre roll out as a safeguard measure, in order to avoid damage to competition by strategic exchange closures. However, this condition was removed in 2016, as the growth of FTTH was so strong that copper could no longer compete with fibre, the trend to migration to FTTH was clear and, therefore, the risk of strategic closures disappeared. The FTTH Council Europe notes that the percentage penetration in large Member States such as Germany and even Italy are somewhat behind the rate that prevailed in Spain in 2016 and are in fact, much closer to the penetration rate that existed in 2009 when the protections were introduced in Spain, the point being that FTTH is much less developed in other countries and safeguards against strategic closure could be appropriate.

In some cases, there is a risk that alternative fibre providers see the copper network switch-off process as a strategic choice by the SMP operator rather than one requested by the market. If the choice is made as a result of a strategic choice and not driven by the market, it may have negative effects on the level of competition, the level of investment and on customer's experience. Certain services may not be supported over fibre (often related to the electrical power support for certain service offered by the copper network). A more gradual transition may be appropriate in certain circumstance when it avoids the risk of anti-competitive behaviour of the SMPO. The effects on the customers may also be mitigated if only voluntary migration is allowed.

The FTTH Council Europe believes it is essential that the copper switch-off process is based on a discussion with all stakeholders involved, driven by the NRA. If the SMPOs were taking unilateral decisions about when and how to switch off their networks, it would raise important questions about who bears the cost of the copper switch-off. End user equipment is also an important aspect of that cost and a subsidised transition by the incumbent could have a distortive effect on alternative operators' ability to attract consumers in that transition.

NRAs have a number of considerations that need to be balanced and the outcome of that balancing of pros and cons will need to happen on a case by case basis. However, the concern expressed here is that the report's scope is not broad enough to fully encompass both the reasons to shut down copper network (externalities do not seem to be considered) and also the potential costs of network shutdown (in terms of impacts on competition and consumers).

Copper switch-off is not only an issue in the presence of SMP

The perspective of the study could be broader when it comes to its scope. We understand that the perspective is that the SMP network operator wishes to close its copper network and in that circumstance, what rules and obligations can be seen, and then how can Europe move to a more consistent approach. However, it may be that the network owner is no longer SMP in a region or even in a Member State and yet, it is still important to envisage co-ordination and facilitation of the network shut down. The economic obligations and the rules that might apply to an SMPO might not be available, but ensuring a plan is in place and that there is transparency of the switch off process might still prove beneficial to all operators in the market. A transition plan might include provisions concerning the migration to an alternative service delivery method for consumers. This can be especially important because many end-users services can rely on power supply via the communications network, for example in lifts and security cameras where migration needs to be anticipated and planned.

The need for a migration plan is also necessary beyond the need of consumers and is important for third party access seekers regardless of whether the copper network operator is SMP in a given region or not. In the event that a SMP copper network operator is supplying third party operators access services, the move to fibre from copper may undermine the ability to supply the exact same services for some residue users. While contractual obligations may cover immediate business continuity issues, a co-ordinated and planned migration from copper to fibre will benefit all operators on the market, whether in the presence of SMP or not.

There are significant negative externalities associated with copper networks

Section 2.2. indicates that cost reduction is “the main reason why the SMPOs switch off their copper-based access networks”. The reasoning is that “it is not economically viable to keep both the copper-based access network and the next generation access networks. The copper network is becoming increasingly obsolete, has progressively fewer active end-users and, therefore, high maintenance costs per active end-user. In addition, the SMPO may sell assets (e.g. central sites buildings, copper cables) which generates income. The reasons why the SMPO migrates from the copper-based access network to next generation access networks are primarily the demand for high speed services and the modernisation of their access network.” While this is logical and makes sense from an SMPO perspective, it is only one part of the consideration since there are important environmental externalities to be considered.

In economics, an externality of an economic transaction is an impact on a party that is not directly involved in the transaction. In such a case, prices do not reflect the full costs or benefits in production or consumption of a product or service. Producers and consumers in a market may either not bear all of the costs or not reap all of the benefits of the economic activity. In telecom markets, positive externalities are the norm. The best known network externality is the case of the standard

telephone where the more people that own telephones, the more valuable the telephone is to each owner. Over time, positive network effects can create a bandwagon effect as the network becomes more valuable and more people join, in a positive feedback loop. Externalities of this sort are commonplace in network industries. Another, even more classical example of an externality is that of a coal plant where the negative effects of pollution are not priced into the price of electricity (although carbon taxes start to address this issue).

In a competitive market, the existence of externalities would cause either too much or too little of the good to be produced or consumed in terms of overall costs and benefits to society. If there exist external costs such as pollution, the good will be overproduced by a competitive market, as the producer does not take into account the external costs when producing the good. If there are external benefits, such as in areas of education or public safety, too little of the good would be produced by private markets as producers and buyers do not take into account the external benefits to others. Here, overall cost and benefit to society is defined as the sum of the economic benefits and costs for all parties involved.

The environmental cost is an externality that should be taken into account

The environmental benefits of moving to fibre networks are well-known. In a study²⁾ for the European Commission, it is noted that “The replacement of copper networks by more energy-efficient fibre networks fits within the environment objective of incentivising the deployment of electronic communications networks with a reduced environmental footprint. The Polish authorities for example estimate that replacing “the existing copper internet networks with fibre-optic networks results in a several-fold reduction in the energy consumption of telecommunications networks, in particular, it reduces the amount of energy needed to transmit the same data volume several times (a five-fold reduction according to estimates), the production of which in Poland is based on coal. 74% of the dismantled copper cable components can be reused for non-telecommunications products and services, and the remaining components are recycled”. Other studies have made similar findings, also showing that fibre networks use vastly less energy than their copper equivalents and indeed, enhanced copper using VDSL and other techniques normally increase the energy use of the copper network.

There is therefore an important environmental benefit from shutting down copper networks where fibre is sufficiently available in a market or put differently, maintaining a copper network where there is fibre available presents a cost to society as well as to the copper network operator (whether SMP or not). This environmental cost is an externality that cannot be easily internalised by the market.

The rationale for copper shut off is wider than the sole economic considerations of the SMPO and the FTTH Council Europe believes that the role of NRAs should not be restricted to facilitate

2) Summary Report of Best Practices Outcome of phase 1 of the work of the Special Group for developing a common Union Toolbox for connectivity pursuant to the Commission Recommendation (EU) 2020/13071, 16/10/2020-20/12/2020, p.191.

the unilateral decision of that SMP operator. There are important environmental considerations to which the NRA is also an agent and participant. Where the SMPO continues to rely on copper but alternative (non-SMPO) fibre deployments exist then the NRA should play a major role regarding the timeline and the management of copper switch-off. This is in addition to important competition considerations where a parallel fibre network exist- - a question arises as to whether the strategic termination of the copper network is a question for the SMP operator alone or whether it needs to be a more collaborative and organised decision made by a broader stakeholder group.

The implications of copper shut down for the BCRD

The retirement of copper networks will also affect the availability of duct capacity in the SMPO network and will potentially facilitate the deployment of alternative fibre networks. The orderly shutdown of copper networks where copper wires are harvested could be accompanied with an obligation to indicate availability of ducts or at least map those parts of the network where copper has been harvested.

It is noticeable that after copper switch off, the experience to date in Europe suggests that there is a significant inconsistency of wholesale access products and that there is a far greater reliance on duct access and other passive remedies (see figure 5 of this report). While the FTTH Council believes that a move to remedies that incentivise investment in alternative fibre infrastructures is appropriate, it does mean that a more targeted implementation of the BCRD to towards preserving the first-mover incentives becomes even more important to competition.

The interaction between copper switch off and the effective implementation of the BCRD could be highlighted and merits consideration and potential guidance.

Evaluation of implementation of switch-off process

As indicated by the report, some countries are already quite advanced on copper switch-off and migration to fibre and the FTTH Council Europe believes that important lessons can be learnt from the experience of these countries. It would be essential to add to the scope of the Draft Report an evaluation of how (and whether) the national switch-off plans have actually been implemented in order to understand what the challenges were and how they were overcome. The extended role of NRAs in defining and supervising the switch-off process should therefore also include an analysis of its implementation.

Conclusion

The FTTH Council Europe believes that there is a broader economic rationale and basis for managing copper switch off that goes beyond the market analysis procedure.

That rationale can be (a) the simple consumer and operator co-ordination needed even where there is no copper based SMP operator present (b) the presence of significant environmental externalities arising from a migration to fibre networks. This is particularly important in a context where most fibre access paths in Europe have been deployed by alternative operators and when, SMPOs do not have their own fibre network even though alternative fibre networks exist.

If not managed properly and supervised by the NRA, the strategic decision of the SMPO in those circumstances is likely to impose significant costs on society for their own benefit. This should be considered in the report as it is one of the most important issues that arises today.

Regarding the FTTH Council Europe

The FTTH Council Europe is an industry organisation with a mission to advance ubiquitous full fibre based connectivity to the whole of Europe. Our vision is that fibre connectivity will transform and enhance the way we live, do business and interact, connecting everyone and everything, everywhere. Fibre is the future-proof, climate-friendly infrastructure which is a crucial prerequisite for safeguarding Europe's global competitiveness while playing a leading global role in sustainability.

The FTTH Council Europe consists of more than 160 member companies.

Please visit our website for more information: www.ftthcouncil.eu

About the Policy & Regulation Committee

The Policy and Regulation Committee is the cornerstone of the FTTH Council's strategy on Public Affairs. It brings together all members interested in shaping the Council's positions on public policy and regulation, and is under the supervision of the Executive Board and fully aligned with the vision and mission of our organisation.

Public vision and action are essential to progressing towards a sustainable and digital European society. We encourage policy makers to facilitate, through regulation, a fair and competitive market and to support investments in areas where the private business case does not exist.

For more information about our positions on policy and regulation, please visit the [dedicated section](#) of the website.

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