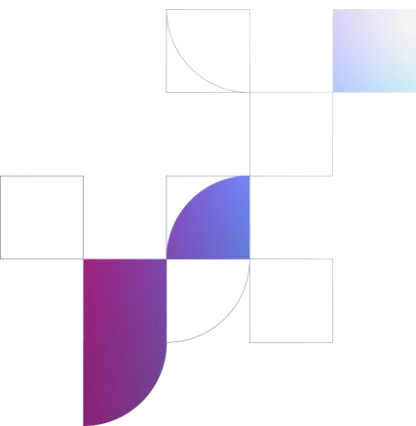


BEREC Report on the outcome of the public consultation on the draft BEREC Progress Report on managing copper network switch-off

5 June 2025



Contents

1 Executive Summary	3
2 General aspects	4
2.1 Stakeholder responses	4
2.2 BEREC response	5
3 Overview of the current status and SMPO's plans for copper switch-off.....	7
3.1 Stakeholder responses	7
3.2 BEREC response	9
4 Rules set by the NRAs	9
4.1 Stakeholder responses	9
4.2 BEREC response	12
5 Further measures taken by the NRAs	15
5.1 Stakeholder responses	15
5.2 BEREC response	15
6 Lessons learned so far	15
6.1 Stakeholder responses	15
6.2 BEREC response	16
7 Conclusions.....	17
7.1 Stakeholder responses to BEREC's conclusions as set out at Chapter 8 in Document BoR (24) 181....	17
7.2 BEREC response	18
Annex 1 List of Abbreviations	19



1 Executive Summary

Body of European Regulators for Electronic Communications (BEREC) published the draft BEREC Progress Report on managing copper network switch-off ('the draft Report') on 11 December 2024. At the same time, a public consultation was opened, running until 31 January 2025. BEREC received responses to the public consultation from the following 15 stakeholders:

- EENA (European Emergency Number Association)
- SFR- France
- AIIP (Associazione Italiana Internet Provider)
- 1&1 Versatel- Germany
- BREKO (The German Broadband Association)
- Connect Europe
- Deutsche Glasfaser- Germany
- EWE Tel- Germany
- FiberCop- Italy
- ecta (European Competitive Telecommunications Association)
- Vodafone Group
- FTTH Council Europe
- 4 iG Group
- VATM e.V (Association of the German Alternative Providers of Telecommunications and Value-added Services)
- Stakeholder 1.

This report provides an overview of the responses BEREC received during the public consultation and the BEREC response to each topic addressed by stakeholders in particular regarding the need to adapt the draft Report Document BoR (24) 181. It has a similar structure as that of the draft Report, as follows:

- **Chapter 2** on General aspects, which sets out a selection of stakeholders' general views on BEREC's draft Report;
- **Chapter 3** on Overview of the current status and Significant Market Power Operator (SMPO's) plans for copper switch-off, which sets out stakeholders' views on the contents of Chapters 3 and 4 of the draft Report Document BoR (24) 181;
- **Chapter 4** on Rules set by the National Regulatory Authorities (NRAs), which sets out stakeholders' views on Chapter 5 the draft Report Document BoR (24) 181;
- **Chapter 5** on Further measures taken by the NRAs, which sets out stakeholders' views on Chapter 6 of the draft Report Document BoR (24) 181;
- **Chapter 6** on Lessons learned so far, which sets out stakeholders' views on Chapter 7 of the draft Report BoR (24) 181 and
- **Chapter 7** on Conclusions, which sets out stakeholders' views on Chapter 8 of the draft Report BoR (24) 181).



In addition, BEREC published all non-confidential stakeholder responses received and interested readers should consult these responses for the definitive views of stakeholders.¹

2 General aspects

2.1 Stakeholder responses

All stakeholders' responses to the consultation agree that the draft BEREC report provides a valuable update on the state of play as well as lessons learned concerning the transition from copper to fibre networks. Stakeholders note the significant progress made across Member States but also the divergence in progress between different Member States and reiterate the overall importance of the topic.

FiberCop highlights the general difficulties related to the migration of customers. As regards the divergence between Member States, FiberCop sets out there is a correlation between the lack of a published switch-off plan and the pace of fibre deployment.

BREKO, EWE Tel and Deutsche Glasfaser argue that the report should have put more emphasis on the necessity of a fair and competitive switch-off process. In their opinion, there is a risk of strategic incumbent behaviour aimed at frustrating alternative operators plans for fibre rollout. Moreover, they argue that Germany is lagging behind in the area of migration and copper switch-off and the need for action in Germany.

Connect Europe highlights the energy efficiency gains that can be achieved through copper switch-off but argue that current rules may not be adequate and procedures should be streamlined and bureaucracy should be reduced.

Vodafone and VATM argue that the report should have provided more detail in order to facilitate the evaluation of possible best practices. VATM further states that the report does not provide country-specific lessons learned or concrete best practices tailored to national or regional characteristics.

ECTA asks BEREC to include further best practices and a guidance section based on lessons learned and further asks BEREC to provide annual updates of the report. Moreover, ECTA calls on BEREC to issue an annually updated Common Position, setting out best practices and annual workshops as well as to set up a monitoring process.

The FTTH Council argues that in general more attention should be given to the different circumstances associated with copper switch off. As an example, FTTH Council asks if there

¹ <https://www.berec.europa.eu/en/public-consultation-on-the-draft-berec-progress-report-on-managing-copper-network-switch-off>



should be different approaches, where the fibre network is or is not provided by the legacy copper operator. FTTH Council sets out that the draft report tackles the issues raised under Article 81 of the European Electronic Communications Code (EECC), however notes that Article 106 of the EECC is not mentioned in the draft report. They call on BEREC to clarify the definition of copper switch-off in the final report and to reconsider BERECs assessment that the proposal for setting a common date for the switch-off at EU level may not be the most appropriate tool. They claim the matter of timing of switch off is urgent, further arguing that the processes may be overly long and that not all tools available would be currently used by NRAs to achieve swift copper switch-off.

2.2 BEREC response

BEREC welcomes the stakeholders' inputs to the draft BEREC progress report on migration and copper switch-off. BEREC notes that stakeholders consider the report very useful. BEREC further notes the demand of some stakeholders to provide more detailed suggestions in this document, and going forward, to put more emphasis on this important topic, for example in the form of more frequent reports / workshops. BEREC shares the sense of urgency of the topic, which is reflected by the large number of work items on the topic in the last few years and BEREC is committed to continuing to work with all stakeholders on this topic.

BEREC also agrees with the observation that the status of migration and copper switch-off varies widely between Member States. The draft BEREC report is intended to provide comprehensive, descriptive information on the migration and switch-off processes across Europe as governed by Article 81 EECC. The aim of the report was not to analyse a single country specific situation, such as in Germany, where according to the questionnaire, no migration and switch-off process has been formally announced or implemented by the NRA as of the time of the questionnaire.

BEREC does not agree with the view of FTTH Council that the draft report should incorporate an analysis of Article 106 EECC. Article 106 EECC concerns end-user rights in the context of provider-switching, whereas the present enquiry is focused on fibre infrastructure deployment, copper switch-off, and availability of alternative fibre in that context and not on the particulars of consumer switching. Consumer switching is however an important topic in its own right and therefore, BEREC extends a paragraph about the lessons learnt in the Executive Summary, with the main best practices acknowledging that the issues are context specific as follows:

Before:

“The key actions that NRAs have undertaken to facilitate migration and copper switch-off, concern (1) efforts around communication with the end-users, (2) ensuring the



availability of adequate alternative wholesale access products, and (3) the implementation of an appropriate notice period.”

After:

“The key actions that NRAs have undertaken to facilitate migration and copper switch-off, concern (1) efforts around communication with the end-users, (2) ensuring the availability of adequate alternative wholesale access products, and (3) the implementation of an appropriate notice period.

Regarding (1) communication, BEREC notes that several NRAs highlight that one of the main difficulties lies in the ability to get trust from the end-user, who may for instance think this kind of communication is only a commercial attempt to sell more expensive products or get new clients. Good practices observed are based on a complementary approach between operators’ communication towards their clients, and a communication with no visible link with a given operator (either State communication, or information from operators in a neutral format without any logo for instance). Besides, many NRAs point out the need to communicate not only to the end-users, but to all stakeholders, with relevant information adapted to them: alternative operators are often mentioned, but this can also include for instance city councils. Finally, special attention needs to be paid to the needs of vulnerable and older customers that may be more difficult to reach with relevant information in order to avoid a forced switch-off if possible. Regarding (2) the availability of alternative products, NRAs should take into account both the mass market and the business market, which comes with specific needs. BEREC considers that through the substitution matrix approach, the characteristics of the alternative product will be considered, as several factors need to be taken into account like technical characteristics (data rates...), Service Level Agreements (SLAs), price, etc., even though the way they have to be assessed and any target in terms of performance would require a dedicated analysis this report cannot propose. Finally, regarding (3) the implementation of an appropriate notice period, BEREC recognises that there is a wide variability across Europe, but notes that a significant correlation is made with the nature of the regulated product: the more investment the use of the regulated product requires from the alternative operator (like unbundling vs. bitstream for instance), the longer the notice period required. To preserve competition, BEREC considers this to be a good practice, even though the specific situation of each market has also to be taken into account to adapt these periods.”



3 Overview of the current status and SMPO's plans for copper switch-off

3.1 Stakeholder responses

As a general remark, some of the responses concern issues that are specific to one country. These will not be considered here as this report is intended to only give a general status overview of the copper switch off across Europe.

AIIP, Connect Europe and Fibercop are of the view, that as it appears in the report, in spite of all provisions and recommendations on copper network decommission, the large majority of EU member States (21 out of 27) are not ready for the 2028 (for 80%) and 2030 (100%) copper switch-off milestones set forth by the European Commission. Hence, the milestones envisaged by the Commission are unrealistic for the majority of the EU countries. Fibercop also mentions that, assuming that EU Member states are all able to achieve in 2030 the full gigabit coverage target set by the Commission, it would be unfeasible to fully complete at the same date the migration of all customers to the new networks and, consequently, switch off copper.

Fibercop and Connect Europe also set out that the countries where the NRAs expect a copper switch-off by 2030 (indicated in table 2) are only those with the highest Very High Capacity Network (VHCN) coverage in the EU. This indicates that each country has its own state of development of VHCNs and infrastructure-competition/market structure and investment and decommissioning choices have to remain a voluntary decision of private operators, whose economic freedom must be guaranteed. Therefore, switch-off may significantly vary across EU countries for this reason. At the same time, any new EU policy should also not distort countries where the phase-out is already well on the way.

According to AIIP, the lack of a clear regulatory framework addressing the coexistence of copper and fibre infrastructures in transitional phases raises concerns. It also appears that within the EU member States there are no uniform processes and/or deadlines for SMPO's plans for copper network switch-off nor enough information on such topic, as 14 Member States did not provide such information (see par. 4 and fn. 17) and enough information is provided only as to 14 Countries, as per table no. 3.

Connect Europe shares BEREC's view that "Uniform targets across all member states as suggested by the White Paper thus seem overly ambitious and may not be the most appropriate tool to tackle the vastly different situations across Member States".

4iG Group agrees with the Report when it concludes that the switch-off process in Europe is not expected to be fully completed before 2030, and that single deadline for the EU proposed by the White Paper does not seem realistic. In 4iG Group view the switch-off process of the



national copper networks should primarily be determined by national market competition, demand and socio-economic situation, and in this context, 4iG Group propose that the decision on the timing of decommissioning shall remain national competence.

BREKO and EWE TEL consider the transition process from copper to fibre networks is vital to ensure fair and competitive market conditions on future digital networks. Since the last report (BoR (21) 171) analysing the status of copper switch-off in 2021, a lot of progress has been made in terms of network transition in many EU countries.

BREKO, EWE TEL and Vodafone mention that in some countries (such as Germany) neither has the transition process started nor has the NRA presented a concept on how to navigate this technological change. They highlight the importance of the regulators acting timely on the copper to fibre migration process, both to maintain fair market competition as well as to meet fibre deployment targets of the EU Digital Decade. They also consider that a concept proposal by the NRA to drive this process on fair terms would considerably foster fibre roll-out and could be a significant driver to reach the EU Digital Decade goals of full fibre coverage by 2030.

Ecta is also of the view that caution is needed in EU Member States where there is no short to medium term outlook for copper switch-off.

1&1 Versatel adds that both in terms of price and available performance, existing copper-based offerings are often still sufficient or even comparable in for example Germany. 1&1 Versatel agrees with the conclusions of the draft BEREC report that a forced migration at this stage would be counterproductive.

Vodafone is of the opinion that the delays in copper switch-off will further jeopardise Digital goals set by European Commission. Further, not only is a timely copper switch-off important, but the right implementation and competitive safeguards and a model for “best practice”. Vodafone also offers some suggestions such as (i) providing predictable and balanced measures, (ii) not to allow that strategic behaviour of the switch off process by the SMPO would weaken competition at wholesale or retail level, (iii) the general framework of the EECC and the Gigabit Recommendation should be complemented by additional safeguards (for example by providing a transparent timetable, planning, conditions, and an alternative access product of at least comparable quality) and (iv) ensuring that the decommissioning process does not lead to discriminatory behaviour allowing fair competition at retail and network levels, particularly if investment in VHCN by Altnets is to be encouraged.

FTTH Council is of the view that the perspective of the BEREC’s *study* could be broader and more forward-looking when it comes to its scope. They further point out that it may be that the network owner no longer has Significant Market Power (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 that 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 co-ordinated and planned



migration from copper to fibre will benefit all operators on the market, whether in the presence of SMP or not.

According to VATM fibre optics is undeniably the digital fixed network infrastructure of the future and a high level of fibre availability (among other things) is a necessary pre-requisite for the copper switch-off. Further, it must be understood that the fibre rollout and the migration from copper to fibre is a joint responsibility for all market players.

3.2 BEREC response

BEREC notes that most of the respondents agree with the outcome of the report showing that the milestones envisaged by the Commission are unrealistic for the majority of the EU countries, even if some respondents highlight the importance of the Digital Decade Policy Programme 2030² targets as well as a timely switch-off. It is mentioned that the only countries where the NRAs expect a copper switch-off by 2030 are those with the highest VHCN coverage in the EU. Further, the respondents acknowledge that the expected switch-off date largely depends on the status of the VHCN development, the specific market structure in each country and that investments in VHCN remain the choice of the individual private operators. Hence most respondents agree with the conclusions of the draft BEREC report that a forced migration set by a European cut-off date would not accelerate VHCN deployment.

However, some respondents argue that the fact that copper switch-off has not started in some countries, that it has not been planned in certain areas, or that no rules are set about switch-off at all would mainly occur in countries where an alternative VHCN is deployed by operators that are not the incumbent. BEREC disagrees and considers that the issues with copper switch-off observed by respondents are not just limited to cases where an incumbent has not deployed VHCN. BEREC further points out that in most cases migration and switch-off rules are set by the NRAs given the particular market context (sometimes using a market analysis procedure, which can be an appropriate instrument to address such concerns). With regard to the several suggestions that the final Report should include best practices, BEREC refers to its conclusion in Chapter 2 above.

4 Rules set by the NRAs

4.1 Stakeholder responses

According to AIIP, there is a lack of harmonization as the rules for switching off copper networks vary significantly among EU member states: granularity of the switch-off, minimum

² Digital Decade Policy Programme 2030, 14.12.2022 <https://eur-lex.europa.eu/eli/dec/2022/2481/oj>



coverage thresholds, varying notice periods, regulation of migration costs, alternative products differ from country to country.

BREKO's and EWE Tel consider that an NRA must ensure that the shutdown of copper networks in areas where alternative operators have deployed fibre is not carried out in less favourable conditions. BREKO believes that BEREC can play a pivotal role in defining these criteria and coordinating their application.

They acknowledge that paragraph 5.12. of the report on "non-discriminatory control" mentions the possibility of constraints on the SMPO in areas where it is itself providing fibre network infrastructure, and think that this point deserves more regulatory scrutiny. They also indicate that the requirements outlined in the report to provide for transparent timetable and conditions, and the availability of alternative wholesale access products of comparable quality alone, are insufficient in light of the regulatory objective of promoting competition.

The FTTH Council has a similar comment, and considers that there is virtually no consideration of alternative operators and how SMPOs behave when it is not the SMPO who has built the alternative fibre infrastructure. It adds that a more gradual transition may be appropriate in certain circumstances to avoid the risk of anti-competitive behaviour of the SMPO, and that the effects on the customers may also be mitigated if only voluntary migration is allowed. FTTH Council believes it is essential that the copper switch-off process is based on a discussion with all stakeholders involved, driven by NRAs.

According to Connect Europe, the most credible path for economically sustainable and pro-competitive switch-off of copper lies in the copper owner's planning and in the streamlined procedures by NRAs. It is important that all measures that enable the migration of customers to the new network allow for a commercially viable transition once the technical migration has been completed and all other conditions have been met.

According to 1&1 Versatel, it is important to note that wholesale access products that played only a minor role with copper may be relevant for fibre optic network access (e.g. LLU), and this must be considered in setting a substitution matrix of mandatory wholesale products to be provided as part of the migration (Versatel provided a proposal of matrix).

1&1 Versatel points out that migration costs must be borne in accordance with the "cost causer pays" principle and, as the incumbent switches off its copper network to optimize its cost structure, it should bear the costs of the associated forced migration of wholesale customers; if instead the migration to an alternative network takes place, the alternative network operator must (partially) bear the costs.

Connect Europe, on one hand, finds the information on additional conditions in Table 4 of the BEREC report (p. 13) affecting the notice period useful; on the other hand, it suggests shortening the maximum notice period to one year, regardless of other conditions.



According to FiberCop, table 4 provides a useful detail on the notice periods applied across EU countries, however it considers it should be accompanied by the information on the additional conditions applied and that affect the actual period of time that the SMP operator has to wait before being allowed to switch-off.

FiberCop believes that decommissioning procedures should be in general streamlined in order not to introduce unjustified delays.

Ecta notes that, in the executive summary (page 2, para 5), the draft Report identifies that one of the most common practices of switch-off is the definition of “[...] *an appropriate alternative wholesale access product*”. Ecta underlines the need for fit-for-purpose alternative products (in plural), and for NRAs to mandate both passive (unbundling) and active type (VULA/Bitstream) alternative wholesale access products.

Ecta encourages BEREC during the forthcoming evaluation of the EECC to make a specific point that adequate alternative wholesale access products (provided over fibre) should be provided at a comparable price to the wholesale access products (provided over copper) being phased out.

Ecta is concerned that the statement at the start of Chapter 5.9 “[...] *therefore, there may be no need for further rules on migration costs*” (page 18, para 3), may be misinterpreted meaning that no action needs to be taken on migration costs. Ecta therefore asks BEREC to revise this section, so as not to suggest a conclusion leading to inaction on the need for a pro-competitive approach to migration costs. Ecta asks BEREC to identify the clear NRA best practices (e.g. the cases of France and Italy) on this matter in the Report, and potentially to include in a future BEREC Common Position document.

Ecta sets out that its members insist that technical copper switch-off should not entitle the SMPO to cease wholesale supply of copper products to alternative operators and then continue to use the copper network internally.

Ecta notes that, in the draft BEREC Report’s introduction, the concept of commercial closure is attributed to the European Commission’s Recommendation (EU) 2024/539, stating that “*It introduces the possibility to include a “commercial closure” step in the process of copper switch-off.*” (page 4, para 3). Ecta respectfully requests BEREC to modify this reference, because 12 NRAs introduced the concept of commercial closure, presumably on their own initiative or taking on board good ideas implemented by other NRAs, prior to the publication of this EC Recommendation on 6 February 2024. Furthermore, BEREC conducted the survey of NRAs in Spring 2024, i.e. prior to the adoption of the EC Recommendation.

Ecta reiterates a point made in its response to the draft 2022 Report, which is that proper stakeholder involvement is a must. Technical forums and the NRA keeping a continuous dialogue with the stakeholders are highly relevant, irrespective of the matters ultimately being determined by means of a market analysis procedure.



The FTTH Council argues that highlighting the connection between switching and termination of consumer contracts—particularly concerning potential discriminatory effects for smaller ISPs—and the progress of copper switch-off could help identify future regulatory measures.

4.2 BEREC response

Various stakeholders, including AIIP, have set out that despite having the same regulatory instruments at their disposal, NRAs have independently regulated the migration and copper switch-off processes across different countries. BEREC acknowledges this observation and notes that the report aims not only to provide an overview of the highly diverse landscape but also to facilitate comparisons among the current distinct situations and to highlight recurring aspects and decisions among European countries.

Versatel requested Local Loop Unbundling (LLU) for Fibre To The Home (FTTH) network to be provided as a mandatory wholesale product as part of the migration and also proposed a substitution matrix to be adopted in Germany. On this point, BEREC notes that this is already recommended by the Gigabit Recommendation³, and NRAs may consider the imposition of a substitution matrix as suggested under point 77 of the Recommendation. BEREC notes that the majority of NRAs do not impose provision of specific access products for migration, at least for the SMPO whose products are already imposed in the market analysis and deemed to be sufficient to solve the competition problems in the market. The imposition of a specific remedy is generally the result of the country specific market competition situation and should not automatically be considered as to be mandated by NRAs in copper switch-off processes.

As for comments received from Connect Europe and FiberCop about the length of the notice period, BEREC underlines that the Report only reflects the current situation among the Member States and the choices adopted by the NRAs, depending on their specific national competition situation and the regulated products available. NRAs typically decide on the adequate notice period for the migration process and the copper switch-off after careful consideration of the particular market context or in a market analysis procedure. BEREC also points out that the draft Report (section 5.5) offers insight on the factors, which have an impact on the notice period, such as the nature of the regulated product, the fibre coverage and the number of lines to be switched off.

Regarding the information in table n. 4, it is worth mentioning that it refers to the duration of the notice period, which precedes the start of the decommissioning, but it does not in general account for the entire length of the decommissioning process. This point has been specified in the final version of the Report in a specific footnote.

³ Commission Recommendation on the regulatory promotion of gigabit connectivity, C(2024) 523 final of 6.2.2024. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI_COM%3AC%282024%29523



Ecta claimed that only a few EU NRAs have ensured multiple alternative access products, and few ones have included a passive access product (table 5); on this point, BEREC recalls again that the Report only reflects the situation detected among the Member States and the choices adopted by NRAs, depending on the national circumstances.

Ecta also commented on the need to better reflect that adequate alternative wholesale access products (provided over fibre) should be provided at a comparable price at legislative level in the EECC; this comment regards the assessment of the EECC which, in BEREC's view, is out of scope of the present Report⁴.

Regarding the comment by Ecta on the migration cost, BEREC amended such sentence in the final version of the Report, clarifying that *"The majority of NRAs currently apply price regulation to the legacy copper-based wholesale access products and the alternative wholesale access products in a market analysis procedure, and did not yet approve further rules on migration costs"*.

Regarding additional regulatory scrutiny and a more prominent focus in the BEREC progress report for the possibility of constraints on the SMPO in areas where it is itself providing fibre network infrastructure, BEREC notes that the Progress Report on managing copper network switch-off aims to provide a broad view of all the issues that can be considered by the NRAs in their decisions and how they have been handled in the different Member States. However, BEREC considers that the issues raised could be suitable for further investigation, but only when more granular data would be available. As for other mentioned aspects like sufficiency of transparent timetable and conditions, and the availability of alternative wholesale access products, it must be noted that they originate from article 81 EECC, and therefore they are considered by NRAs when defining the copper switch-off framework. As mentioned previously, NRAs do take this into consideration including in market analysis procedures. Therefore such competition aspects are taken into account by NRAs and this report does not therefore need to be amended in this respect.

Regarding Ecta's comment about unequivocally ruling out that the SMPO be entitled to cease wholesale supply to alternative operators and then continue to use the copper network internally, it must be noted that it was already addressed in the previous Report of 9th June 2022, BoR (22) 69, as an example of the non-discrimination obligation under point 5.10. BEREC also stated, under point 8 in the Report on the outcome of the public consultation that it understands that the copper switch-off needs to apply equally to both SMPO and Alternative Network Operator (ANOs). The remark has also been added to this report.

⁴ One NRA, ComReg has set out that adequate alternative wholesale access product must comply with the price controls applicable to that SMP market(s). In particular, as substitutes for the legacy products which they will replace, the alternative wholesale access products will be subject to any price control that applies to the relevant market concerned (See ComReg Decision D09/23).



BEREC's response to Ecta's proposal to explicitly state that stakeholders must have the ability to express their views on migration rules is that, as already pointed out in BoR (22) 68⁵, national circumstances determine which stakeholder involvement at which stage in the migration process is most appropriate. BEREC points out that, if the rules for the migration process and copper switch-off are already considered by NRAs in the course of their work on relevant market analysis procedures, the views of the stakeholders will also be taken into account. Ecta's observation has been incorporated into Section 2 of the Report as follows: *"... many NRAs point out the need to communicate not only to the end-users, but to all stakeholders, with relevant information adapted to them: alternative operators are often mentioned, but this can also include for instance city councils."*

The FTTH Council is of the opinion that the issue of non-discrimination, as well as its dependency also on the process of customer contracts switching, is not sufficiently addressed in the report, lacking competition considerations in the presence of non-SMPO fibre networks. BREKO and EWE Tel also mention the risk of discriminatory behaviour. BEREC points out that, as mentioned, this document is a report reflecting actual findings and not a common position or collection of advices, and takes note of the requests for future documents. As previously mentioned, non-discrimination is a measure that NRAs can impose and tailor to the specific needs for their specific country.

As the FTTH Council is aware, copper switch-off conditions are context specific, frequently defined in relevant market analysis procedures, and as a result aspects such as non-discrimination, competition, and possibly end-user circumstances are taken into account and stakeholders views are also considered, so that stakeholder issues should have been already addressed by NRAs in the normal course of their work. Market specific issues (such as voluntary migration only, cost of switch-off, and restrictions on SMPOs to choose switch-off areas) do not allow a one-size-fits-all solution and are therefore best addressed at NRA level. The different frameworks (as AIIP mentions) defined by the Member States are also due to this: NRAs decide in each market analysis which measures and aspects are needed in each country.

⁵ BoR (22) 68, "Report on the the outcome of the public consultation on the draft BEREC Report on a consistent approach to migration and copper switch-off", 09.06.2022. <https://berec.europa.eu/en/document-categories/berec/reports/report-on-the-the-outcome-of-the-public-consultation-on-the-draft-berec-report-on-a-consistent-approach-to-migration-and-copper-switch-off>



5 Further measures taken by the NRAs

5.1 Stakeholder responses

Ecta would like to stress that the right tool to avoid forced migration is appropriate communication toward end-users, and not the use of economic incentives, which have proven to be ineffective. For instance, in Italy, one of the difficulties on the part of end-users to migrate to fibre is the fear of fraud or deceit. Ecta agrees with BEREC that one of the key actions that NRAs should undertake to facilitate migration and copper switch-off should be “efforts around communication with the end-users”.

5.2 BEREC response

As stated in the report, a key lesson learnt by the NRAs is that a broad and effective communication strategy, through a variety of public and private actors, seems to be relevant in order to anticipate and avoid migration issues and to reach end-users reluctant to migration. BEREC shares this view and stresses the importance of proper and timely communication to help users and minimize, if not avoid, forced migrations or disconnections. However, it can prove difficult to completely avoid these cases, and each NRA should define the switch-off conditions with this target in mind, fostering adequate information from operators and possibly the NRA itself.

The report also shows that most NRAs monitor the switch-off process, with several of them taking additional measures. This confirms the importance assigned to a proper functioning of the process, which in order to be a success needs to increase awareness in the public and include feedback to operators and NRAs.

6 Lessons learned so far

6.1 Stakeholder responses

EENA emphasises that the lessons learned from the copper switch-off should be considered by NRAs, governments and network operators when implementing future switch off plans, including the ongoing switch off of legacy 2G and 3G networks. In particular, EENA notes that effective communications with alternative network operators and end users during the copper switch-off were effective in avoiding active connections being cut off. This is all the more important for copper switch-offs which have an impact on access to emergency communications, such as the upcoming switch off of the 2G and 3G networks, which are



regularly used for emergency communications, including by users of older handsets, security alarms or health devices, and owners of vehicles using legacy eCall.

SFR observes that regarding the forced migration, checking the availability of an alternative product prior to switch-off is essential on the business-to-business market, where clients have specific needs and require a multi-access offer.

According to SFR, despite the announcement in 2019 by Orange of its plan to switch off the copper network, in the public sector, some invitations to tenders still ask for copper-based services, which implicates a later migration on fibre services.

SFR thus points to a need for an institutional communication in France to facilitate. Currently, the neutral communication is directed by the operators and the local elected officials. But this direct communication demonstrates its limits to reach some end-users, notably the ones that are unwilling to subscribe to a fibre offer.

4iG Group emphasises that the Report has noted that the notice period used to reduce forced migration ranges from 6 to 24 months in the Member States, but in certain cases it can be much longer. 4iG Group is committed to protecting the interests of its consumers and is actively working to minimize forced migration and believes that the most effective approach is to ensure a continuous and consistent disconnection process in line with the speed of VHCN deployment of each national operator, rather than imposing a specific cut-off deadline. This approach, coupled with the use of continuous communication, is key to ensuring consumer satisfaction and effectively minimizing involuntary migration issues.

According to FTTH Council, one important observation is the lack of recommendations coming from the BEREC report. With a full analysis, BEREC could make recommendations where it sees good (or bad) outcomes in a switch-off process. The lessons learned so far and conclusions could morph into something more substantial and operational that can be shared across Europe.

6.2 BEREC response

BEREC agrees with EENA that the lessons learned so far and in the future regarding copper switch-off could enlighten the drafting of future switch-off plans.

BEREC further agrees with EENA on the need for effective communication as pointed out in the Report and which is even more crucial where access to emergency communications services is challenged. As said, BEREC agrees that this learning should be considered for future switch-offs in order to avoid cutting off accesses without an effective information of end-users and alternative network operators.

BEREC also agrees with SFR on the need to check the availability of an alternative solution prior to the switch-off which is also identified in the Report. BEREC notes that SFR points out



that this is specifically important for business-to-business markets, where the delay to obtain business tailored offers can be longer and could lead to a loss of service in the interim.

BEREC notes that 4iG Group recommends a continuous disconnection process in line with VHCN deployment rather than a specific cut-off date in order to minimize the risk of forced migrations. However, BEREC considers that certainty about the cut-off date is also highly important to protect the interest of end-users.

With regard to FTTH Council suggestion that the final Report should rely on the lessons learned so far and make recommendations to guide potential outcomes of copper switch-off processes across Europe, BEREC wants to point out that a significant number of NRA could not identify main learnings and share their experience so far due to the very early stage of the copper switch-off locally. BEREC considers that the final Report will offer main learning points which could be used by NRAs as recommendation for the future of copper switch-off processes and even for future switch-off processes.

7 Conclusions

7.1 Stakeholder responses to BEREC's conclusions as set out at Chapter 8 in Document BoR (24) 181

Several respondents, though they usually found the lessons learnt section useful, believe that more recommendations or best practices should be highlighted in the report, and especially in the conclusion. The various stakeholders differ in their views on what these recommendations should be, the main points are the following:

- some respondents stress the importance of protecting end users, and thus ask to strengthen in the report the importance of transparency obligations, long notice periods and strict control of the equivalency of the alternative products.

- On the contrary, other stakeholders call for an acceleration of copper switch-off, with manageable goals, and limited regulatory constraints slowing down the process.

Similarly, some stakeholders support BEREC's view on the projected 2028 and 2030 milestones for copper switch-off suggested by the European Commission, while some others would rather get a more uniform European market and a speed-up of migrations to fibre, and as a result support the Commission's initial proposal.

Some respondents suggest topics which are not covered in the report:

- AIIP suggests that BEREC also considers the broader implications of copper switch-off on network resilience and redundancy



-Ecta suggests works on more operational topics, including involvement of third parties, definition of Key Performance Indicators (KPIs) and Service Level Guarantees (SLGs), non-discrimination control in practice, reference offers or price control stability

-Vodafone suggests that article 81 of the Gigabit Recommendation should be updated based, among others, on the findings of this report

Finally, some operators describe the specific case of Germany and ask for a more detailed analysis of it.

7.2 BEREC response

Regarding lessons learnt, BEREC refers to the modification of the executive summary in the main report, described above in chapter 2.2.

Regarding the position on the 2028 and 2030 milestones, BEREC notes there is no unanimous view in the stakeholders' answers. The arguments provided have already been considered in BEREC's analysis, consequently there is no amendment to the original text on that topic. Interested parties should recall that the present view aligns with BEREC's position set out in its input to the European Commission's White Paper.⁶

Finally it should be noted that BEREC plans to conduct further work (workshops, reports, etc.) in the coming years about the topic of migration to VHCN and copper switch-off, which will provide more opportunities to broaden the scope of the analysis in light of stakeholder responses.

⁶ BoR (24)100, BEREC's input to the EC public consultation on the White Paper "How to master Europe's digital infrastructure needs?", 28.06.2024. <https://www.berec.europa.eu/en/document-categories/berec/others/berecs-input-to-the-ec-public-consultation-on-the-white-paper-how-to-master-europes-digital-infrastructure-needs>



Annex 1 List of Abbreviations

ANO	Alternative Network Operator
BEREC	Body of European Regulators for Electronic Communications
EECC	European Electronic Communications Code
FTTH	Fibre To The Home
KPI	Key Performance Indicator
LLU	Local Loop Unbundling
NRA	National Regulatory Authority
SLA	Service Level Agreement
SLG	Service Level Guarantee
SMP	Significant Market Power
SMPO	Significant Market Power Operator
VHCN	Very High Capacity Networks

