

FREE MODEM ALLIANCE

Comments of the Free Modem Alliance to the “Public Consultation on the BEREC Draft Report on Sustainability: Assessing BEREC’s contribution to limiting the impact of the digital sector on the environment” - [BoR \(22\) 35](#)

Comments on Chapter 1 (Introduction)

Firstly, the Free Modem Alliance (also referred to as “FMA”) underlines the data, quoted by the Report, regarding the contribution of terminal equipment to GHG emissions, which “*is estimated to account for 60–80%*” (see Chapter 1.1, p. 7). This prominent environmental impact of devices suggests that they should be considered a primary target of prospective measures aimed at reducing the ecological footprint of the digital sector.

To assess and deploy appropriate measures, it is critical to have sufficiently precise and homogeneous data. In this respect, the FMA notes that, despite the existence of a legal definition of what constitutes a “*terminal equipment*” (see point (1) of Article 1 of Directive 2008/63/EC), the identification of the specific categories of equipment that falls within the definition itself varies between Member States. This lack of homogeneity, which primarily affects the qualification of modems and optical network terminals, follows from the fact that the concrete application of the definition depends on the previous identification of the network termination point (NTP), as defined by point (9) of Article 2 of Directive (EU) 2018/1972. And today the NTP is not univocally identified among Member States, even in reference to analogous network topologies.

Secondly, the FMA strongly agree that “*aside from GHG emissions, other environmental impacts associated with the ICT infrastructures are relevant to be considered, in particular the raw materials and natural resources*”, with special attention to metal resources and rare earth elements. Considering the ongoing disruption of some of the relevant supply chains, the efficiency in the use of these resources appear critical not only in respect to the environmental impact, but also to broader societal and industrial impacts, and should thus be subject to a particular focus by all the involved institutions.

Comments on Chapter 2 (Case studies)

The FMA finds particular interest in the study, published by ARCEP in July 2021, “*on mobile phones B2C distribution models and their potential impact on the renewal rate of terminals*”. While in this specific case the French NRA could not conclude that ‘subsidized’ offers, “*including the provision of a terminal with a subscription, does influence the renewal frequency of cell phones*”, the FMA would like to point out the environmental consequences of similar distribution models, common (at least) on the Italian fixed access market, involving the bundle of an Internet access offer and a subsidized terminal equipment.

Within these bundles, the end user who subscribes an Internet access contract is provided, free of charge, a customer premise equipment, either in the form of a gratuitous loan or a discount in kind. This supply, however, is free in form but not in substance, since it is the product of a practice of cross-subsidization. The FMA has already reported to BEREC this kind of commercial practices, and their negative impact

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on both end-users' rights and competition (see "*Statement of the Free Modem Alliance regarding the public consultation on the evaluation of the application of Regulation (EU) 2015/2120 and the BEREC Net Neutrality Guidelines – BoR (18) 33*"). We would now like to focus on their environmental impact.

When subscribing one of these "subsidized" offers, the end-user receives the terminal equipment, unless he specifically opts out. Even if the customer already has a perfectly functioning CPE (e.g., bought from his previous provider), he is strongly incentivized to take the one provided by the operator, since – because of the cross-subsidization – opting out does not save him any money, and requires him more effort (he has to actively opt-out from the "default" option of receiving the bundled equipment).

Thanks to the commendable political/regulatory direction (both at the national and European level) of promoting competition on the Internet access retail market by limiting lock-in practices (including many lock-in practices based on the bundle of terminal equipment), the end-users are increasingly controllable by ISPs, and allowed to switch their provider within a timeframe which is far shorter than the life cycle of a modem/router device. This competitiveness is good in itself. However, if the end user is artificially encouraged to change its equipment every time that he switches his provider, the consequence is an over-supply of modem/routers, that get used for only a portion of their possible lifespan, before being discarded on the top of a shelf, in a depot or directly turned into electronic waste.

For the avoidance of doubt, we point out that the situation described above (a market where the end-user has the right to choose his device, but some ISPs incentivize with cross-subsidization their bundled devices) is still significantly better, also from an environmental point of view, than a situation where the ISPs are allowed to force their end users to use only the operator's bundled equipment. More details on this point will be provided as a comment to the last Chapter.

Comments on Chapter 3 (Outcomes on BEREC's previous work on sustainability)

In regards of the conclusion of previous BEREC's work on sustainability, FMA supports the need to identify common methodology and data collection (see 3.2, p. 18) and to duly consider the issues of e-waste, circular economy (see 3.1, pag. 18), as well as "*the entire life cycle of the ECNs starting from the design phase of networks, to their deployment and operation, and the re-use and recycling of the network components*" (see 3.2, pag. 18).

Comments on Chapter 4 (Inputs from stakeholders)

The FMA take particular note of the study, "*Digital technologies: a life cycle approach (LCA)' assessing ICTs' environmental footprint with the support of external experts*", published by the Greens/EFA in December 2021, where it concludes, mainly in line with the data also reported in Chapter 1, that "*the greatest proportion of the environmental impacts of ICTs is related to terminals: the end user devices represent between 90% and 54% of the impacts depending on the indicator considered*" (v. 4.2, pag. 23).

We also agree with some of the public authorities interviewed by BEREC, in that "*regarding production of equipment and devices, the management of material consumption and eco-design requirements*" are relevant parameter to achieve climate neutrality (v. 4.2, pag. 24).

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Comments on Chapter 5 (Key findings of the external study)

Regarding the external study, we particularly agree with the attention given to the decommissioning phase, and with the identified actions of “*re-using, refurbishing, and recycling equipment*” and, in general, with the goal of reducing waste (v. 5.2, pag. 26).

We also underline the importance of initiatives aimed at increasing customer awareness of devices’ environmental impact (v. 5.2, pag. 27). Since its inception, the FMA has put among its core tenets the empowerment and awareness of the digital end-users, that should not be relegated as passive receptacle of pre-built solution, but should be given an active role, free choices, and control in implementing, personalizing, and using digital and communication solutions in their domestic setting. By giving the end-users correct information, and allowing them meaningful choice, they will be able to independently favour environmentally friendly practices and solutions, in a decentralized way and limiting the risks of “*green washing*”.

The sensitivity of European consumers to ecological considerations has been recently confirmed by the studies conducted after the creation of a “*reparability index*” in French Legislation. For instance, according to the results of the survey “*Les Français et l’indice de réparabilité: un sondage OpinionWay pour Samsung*”¹, 86% of the respondents declared that they will consider the reparability index in their future purchases of electronic products and household appliances. And many companies, in order to address the environmental concerns of their consumers, are already enacting positive actions on a voluntary basis, even before any binding legislation. However, such a virtuous development depends on consumer freedom of choice. If the end-user is prevented from choosing its equipment, he is deprived of the possibility to favour eco-designed and energy-efficient devices.

Comments on Chapter 6 (Conclusions and outline for BEREC's future work on sustainability)

In line with its previous comments to Chapter 1 and 3, the FMA agree that standardised data and analysis are “*essential to understand the digital markets’ environmental footprint and to determine relevant indicators related to the sustainable provision of services and development of networks*” (v. 6.2, pag. 30). We welcome an involvement of BEREC in the identification and definition of indicators related to the sustainable provision of services and development of networks, as well as prospective BEREC initiatives, also in cooperation with its member NRAs, to improve data accuracy on the ICT sector’s environmental footprint.

However, the FMA believes that BEREC, and its members NRAs, can have already today, within their current functions and powers, an active role in reducing the environmental footprint of the sector. We support the conclusion that “*in addition to its contribution to the evaluation of ICT sector’s environmental impacts by harmonised indicators and standardised data, BEREC and NRAs could consider other tools under the current regulatory framework to promote sustainable networks*” (v. 6.2, pag. 31).

¹ Published in: <https://news.samsung.com/fr/sondage-indice-reparabilite>

In a variety of fields, the NRAs and BEREC already have the possibility to indirectly (and sometimes directly) promote an efficient use of telecommunication resources (including network elements and devices), support device neutrality and interoperability, thus reducing the consumption of raw materials and the creation of unnecessary waste. In particular, we invite BEREC and its members to duly consider the environmental effects of the regulation regarding customer premises equipment, including modems, routers, and optical network terminals for FTTH GPON.

In this regard, we find particularly worrying that the end-user freedom to use a modem/router of its own choice is not yet recognized and consistently applied in all Member States. This used to be the case also in Italy, before the enactment of AGCOM Decision n. 348/18/CONS, *"Implementing measures for the correct application of Article 3(1), (2), (3) of Regulation (EU) No 2015/2120 laying down measures concerning access to an open internet, with specific reference to the freedom of choice of terminal equipment"*. Because of this lack of freedom of choice, and the related (and artificial) lack of interoperability between an operator's network and all third-party (including other operators) modem/routers, the Italian end-users had to substitute these devices each time they changed their provider. Many of these users were forced to buy the bundled equipment from their provider and, as soon as they changed their ISPs, the device would become unusable. Therefore, it was not uncommon, for an Italian household, to accumulate one or more modem/routers left behind from the previous bundled Internet access contract. While the problem has been mainly solved in Italy, thanks to the intervention of its NRA, we hope that it will be analogously addressed in all Member States.

The FMA points out that a similar situation still happens today in regard to the optical network terminals, which, despite being installed at the end-user premises, are considered in various Member States to be a part of the operator network, rather than a terminal equipment. The undersigned himself has three ONT devices in his house: one is currently in use and two others (one external ONT, one SFP) are leftovers from the two changes of provider/line that occurred in the last two years. These "leftover" devices would be perfectly functional but are now sitting on a shelf waiting to be turned into electronic waste.

We recall that, in our contributions to the *"Public consultation on draft BEREC Guidelines on common approaches to the identification of the network termination point in different network topologies"* (BoR (19) 181), the FMA and its associates explicitly proposed the adoption of additional *"evaluation criteria that are important for the end-user"* including one specifically addressing the environmental impact ("eco aspects"). We hope that, in future revisions of these guidelines, environmental aspects will be given greater attention.

In conclusion, the FMA points out that the surviving limitations to the free choice, neutrality and interoperability in relation to modem, router and ONT are a perfect example of the kind of inefficiencies and environmentally damaging practices that could – and thus should – be addressed with priority by the regulatory authorities in order to reduce the ecological footprint of the digital sector.

Other comments: notes about the FMA

The Free Modem Alliance is an association established between players at different levels of the TLC chain: electronic communications operators (AIIP and ASSOPROVIDER), equipment manufacturers (VTKE), distributors (ALLNET and AIRES), installers (Confartigianato Antennisti) and consumers

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(Movimento Difesa del Cittadino and ALTROCONSUMO). Its activity is aimed at promoting the principles of open internet and hardware neutrality. Over the last four years, it has been on the frontline of the “modem libero” (free modem) campaign, defending the right of the Italian citizen to use modems and routers of their own choice, without undue constraints from the major ISPs, in accordance with the Net Neutrality Regulation (EU) 2015/2120.

The Free Modem Alliance is registered, with number 2020-69442476-85, in the transparency register of the Italian Ministry of Economic Development.

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