



ETNO position paper to the European Commission's public consultation on "potential measures for regulating the environmental impact of mobile phones and tablets"

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ETNO welcomes the European Commission's (EC) initiative to look into two new initiatives aimed to make mobile phones and tablets more energy efficient and to improve their material efficiency.

European telecommunication companies have high ambitions to include sustainability and circular economy measures as essential core elements into their business.

Mobile phones and tablets are important parts of the business through which connectivity services become useable by customers. Here the telco industry needs to rely on the supply chain, and it has been requesting to its partners in the supply chain to include more sustainability features into their hardware design. This encompasses several aspects which include, inter alia, durability, longevity, and reparability, and which are also defined as objectives by the EC in its EU Circular Economy Action plan.

Market transparency is the first step to establish these sustainable design aspects in the industry. The leading companies Deutsche Telekom, Orange, Telefónica, Telia Company and Vodafone are the founding members of the **Eco Rating consortium** (more info here <https://www.ecoratingdevices.com/>). The ambition is to create a holistic methodology that combines the various aspects of the ecological performance into an easy to understand score plus sub-scores related to durability, reparability, recyclability as well as climate and resource efficiency.

The Eco-rating is based on several years of development that were necessary to find out the most optimal way to evaluate the environmental footprint of numerous mobile phones, thanks to the life cycle assessment method (LCA), without having to spend the several months usually required for full LCAs. For instance, the Eco-rating features algorithms to evaluate the environmental footprint of complex components such as cameras or integrated circuits, by using technical specifications such as the area of semiconductor or the size of the sensors. These algorithms are improved and updated versions of the ones developed in [1].

The Eco-rating calculation methodology was also design with the latest LCA related standards in mind, such as the ITU-T L.1410 [2], L.1015 [3] and the European PEF (product environmental footprint). Likewise, for the indicators related to circular economy, the Eco-rating is based on standards recently developed on the question. For instance, for reparability and recycled content the documents from the CEN/CENELEC JTC10 where used [4][5].



The idea was not to look at a few aspects in isolation but to cover all relevant aspects. More specifically, the energy consumption in the use phase is misleading as it covers only a single digit percentage of the overall lifetime impact of this product category. The extensive existing bibliography on life cycle assessment of mobile phones, smartphones and tablets, shows that energy consumption is a minor concern within the whole life cycle of these type of devices:

- Relative to large consumer goods (like Washing Machines or TVs) mobile devices have over hundred times lower energy consumption.
- The energy labelling will only be a key purchasing decision for end users if it makes a material impact. For very small battery-driven consumer goods (consumption of <3 kWh/a) it is almost negligible in volume and cost, relative to total energy use.

We believe that the discussed “EU Energy Label” (alone as a *quick win*, or together with the Eco-Design) for the mobile phones, smartphones and tablets sector, would be misleading and counterproductive if we consider the following:

- Customers might use Energy Label as an immaterial buying decision
- There is a threat that comparing between a smartphone labelled A++ with one labelled C smartphone is seen as green-washing as has limited to no positive impact for the environment, compared with design, manufacture and disposal.
- Furthermore, as electricity grids decarbonise the relative proportion of energy use phase reduces dramatically.

There are stronger effects which need to be adequately represented in the methodology to provide a realistic view, and Eco Rating does so. We know from market research that consumers are willing to consider sustainability as a purchase criterion. **With Eco Rating we enable consumers, for the first time, with a conscious choice.**

We are convinced that such transparency will increase the leverage of our sustainability requirements as it establishes sustainability as a competitive factor. We support our partners in introducing sustainability features into their hardware design. Thereby, we will contribute with our experience in hardware robustness, harmful substance management, and circular economy to make this industry more sustainable throughout the value chain.

The mobile phone and tablet business is global, with most of the production and development located outside of Europe. It is common that the devices are being built with a limited number of adaptations to markets which are mostly in the band coverage and software. It needs to be seen whether regulation in Europe can enforce hardware versions that are more sustainable than those for the rest of the world as Europe is a market limited in volume compared to others.

Instead, there could be other commercial or technical side-effects.



The industry approach is to work closely with the development teams in Asia to achieve a change of mindset with the ambition to create an intrinsic motivation to make the world-wide production more sustainable.

The transparency we are creating with Eco Rating on mobile phone environmental performance is just a first step of a long journey. **We aim to make this methodology an industry standard and we therefore propose that the European Union would be able to accept Eco Rating as an eco-label.**

These are our main **expectations**:

- the recommendation of the Eco design study should not be made only on the energy consumption, but it should be designed in a more holistic approach.
- this holistic view is achieved by the Eco Design and the Eco Rating where we see a perfectly complementary fit, according to the Task 7 of the preparatory study ([Planning & Meetings - Ecodesign smartphones and tablets \(ecosmartphones.info\)](#)). This combination of Eco Design and Eco Rating is missing as one of the possible scenarios to evaluate.

References:

[1] Andrae, A.S.G.; Vaija, M.S. Precision of a Streamlined Life Cycle Assessment Approach Used in Eco-Rating of Mobile Phones. *Challenges* 2017, 8, 21. <https://doi.org/10.3390/challe8020021>

[2] ITU-T; L.1410: Methodology for environmental life cycle assessments of information and communication technology goods, networks and services; 2014; <https://www.itu.int/rec/T-REC-L.1410/en>

[3] ITU-T; L.1015: Criteria for evaluation of the environmental impact of mobile phones; 2019; <https://www.itu.int/rec/T-REC-L.1015/en>

[4] EN 45554:2020 - General methods for the assessment of the ability to repair, reuse and upgrade energy-related products

[5] EN 45557:2020 - General method for assessing the proportion of recycled material content in energy-related products as basis for definitions and calculation methods