



Raising standards for consumers



The Consumer Voice in Europe

BEUC AND ANEC COMMENTS FOLLOWING THE ECODESIGN CONSULTATION FORUM MEETING ON COMPUTERS OF 1 OCTOBER 2024

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Summary

- BEUC and ANEC welcome the efforts made by the Commission to develop new up-to-date Ecodesign and energy labelling requirements for computers. We call on the Commission to finalise the work as soon as possible and ensure an early application of the new rules.
- Further improvements are necessary to ensure consumers can continue to use their products for longer and easily repair them, if necessary. Longer software support is key to avoid software-induced premature obsolescence of computers.
- We ask the Commission to ensure that the proposed measures on minimum power limits also increase the energy efficiency of most common computers, and not only that of high-performance ones.
- The energy label should enable consumers to clearly compare information across products. The Commission should test the label with consumers before introducing it on the market to ensure it is fit for purpose.
- We support the development of a repair score for computers, but we regret to see that it does not adequately account for the cost of repair, which remains the main barrier to repair for consumers.

General remarks

BEUC and ANEC (hereafter “we”) welcome the European Commission’s efforts to develop new up-to-date Ecodesign and energy labelling requirements for computers. Below we provide our recommendations to further improve the draft Regulations presented at the Consultation Forum meeting of 1 October 2024.

Scope and definitions

We welcome the European Commission’s clarification that the scope of the Ecodesign and Energy Labelling Regulations also includes tablet computers. This is important to ensure that these products become more energy and resource efficient, and to reflect consumers’ expectations that products with similar purposes (such as tablet computers and portable laptops) are comparable in these aspects.

To ensure clarity for all stakeholders, we urge the European Commission to clarify definitions and align them across the Ecodesign and Energy Labelling texts. In doing so, it should be ensured that tablet computers which do not already fall within the definition of slate tablets under the Smartphone and Tablets Regulation are within the scope of this Regulation on Computers.

We believe that the proposed definition of thin clients adequately includes Chromebooks. There is no need to introduce separate definitions. Chromebooks should also have an energy label, to enable comparison for consumers on aspects such as battery endurance and repairability.

OUR KEY RECOMMENDATIONS

- We urge the Commission to clarify definitions and ensure that **tablet computers are within the scope of the Regulations on Computers.**
- There is **no need to introduce separate definition for Chromebooks**, which are adequately addressed in the definition of thin clients.

Circumvention

The Commission should ensure that article 6 on Circumvention under the draft Ecodesign regulation is aligned with article 40 of the Ecodesign for Sustainable Products Regulation (ESPR). For example, it should include specifications regarding software or firmware updates that shall not lead to the worsening of product performance.

OUR KEY RECOMMENDATIONS

- We ask the European Commission to **ensure alignment** between article 6 on Circumvention and article 40 of the ESPR.

Application and review

We urge the Commission to ensure that requirements such as spare parts and repair information availability, maximum delivery time of spare parts, serialisation, etc start applying no later than 12 months from entry into force of the Regulation. Overall, the new rules should apply as soon as possible to avoid losing relevance over time.

The timeline for revision should be shortened to four years, in line with the approach for the [Smartphones and Tablets Regulation](#). Tech is a fast pace changing sector and the regulatory process should reflect this trend to maintain its relevance.

OUR KEY RECOMMENDATIONS

- We urge the Commission to **shorten the application of key repairability requirements**, such as spare parts and repair information availability, maximum delivery time, serialisation, etc. to no later than 12 months from entry into force of the Regulation.
- The revision timeline should also be **shortened to four years**.

Ecodesign: material efficiency

We very much welcome that the proposed measures aimed at improving computers' durability, repairability, and recyclability are aligned with the Ecodesign Regulations for Smartphones and Tablets. Nonetheless, we urge the Commission to increase the ambition of some of the proposed requirements, as further explained below.

Repair and reuse

Spare parts availability is key to enable and encourage longer use of computers by consumers, through repair and upgradability.

We call on the Commission to extend the list of priority parts, including at least RAM and SSD jacks/charging ports, display hinges, touchpads/trackpads and speakers for notebook computers. A recent survey by national consumer organisations found that battery and hard disk failures are among the most reported problems by consumers, followed by failures to keyboard,

power supply, screen and USB ports.¹ A more complete list of priority parts would also increase the relevance of the proposed requirement to ban assemblies of spare parts, which we strongly support. This is very important to avoid consumers paying high prices for bundled spare parts (such as Wi-Fi cards, loudspeakers and microphones, etc.).

Computers are also often prematurely discarded to catch up with newer and better performing models. This is because most laptops are currently not easily upgradable (e.g. it is difficult to install a faster hard disk drive, and change RAM modules), making them prematurely obsolete. While we understand that manufacturers increasingly opt for soldered RAM to keep laptops thin and lightweight, [this also impacts their upgradability](#). We urge the European Commission to develop measures that improve computers' upgradability, for example by enabling changing RAM modules and memory, and ensure manufacturers inform users of when this is possible. These two components allow for significant performance improvements without the need to purchase a new device. Increasing RAM enhances multitasking capabilities and overall speed, while expanding SSD memory increases storage capacity and accelerates data access, prolonging the effective use of the computer.

The duration of spare parts availability should be extended to least 10 years after the date of end of placement on the market of the last unit. Today, computers have an average lifetime of seven years,² which means products are rather quickly discarded. Longer spare parts availability would enable and encourage longer use of computers by consumers, and in turn save resources. A longer timeline should also be the reference for new obligations to repair that were introduced by the Right to Repair Directive (Directive (EU) 2024/1799).

Relying on the date of end of placement on the market of a certain model as a reference to establish the length of these requirements is important to ensure consumers can repair their computer regardless of when they bought it. The Commission should avoid penalising consumers who choose to purchase previous versions of computers instead of the latest model. This is good for consumers' wallets, as previous versions are often cheaper, and better for the planet, as it contributes to reduce e-waste from unsold units.

The delivery time of spare parts should be five days, at least for the more critical spare parts (e.g. screen and keyboard) without which it would be impossible to use the device. A short waiting time would limit the risk of consumers opting for replacing a non-functioning laptop/computer instead of replacing it, to avoid being left without a device for too long.

We welcome the Commission's recognition that the issue of parts pairing and serialisation as potential barriers to repair. We support the proposed measures to ensure that professional repairs have access to any software tools, firmware and other tools necessary to enable replacement of serialised parts. The Commission should clarify the reason to opt for a three-days timeline to provide access to professional repairers and consider whether a shorter timeline would be more appropriate to avoid delays in repair services. We also agree with the proposed

¹ Survey conducted in 2023 by Altroconsumo (Italy), DECO (Portugal), OCU (Spain) and Test Achats/Test Aankoop (Belgium) as part of the Euroconsumers group

² Survey conducted in 2023 by Altroconsumo (Italy), DECO (Portugal), OCU (Spain) and Test Achats/Test Aankoop (Belgium) as part of the Euroconsumers group

approach to rely on the computer owner's authorisation to a professional repairer to replace the serialised part, instead of the original manufacturer's.

We support the proposed requirements on preparation to reuse, ensuring the protection of consumers' data. All personal data should be easy to erase by consumers.

OUR KEY RECOMMENDATIONS

- We call on the Commission to **extend the list of priority parts**, including at least RAM and SSD, jacks/charging ports, display hinges, touchpads/trackpads and speakers for notebook computers.
- The **duration of spare parts availability should be extended to least 10 years** after the date of end of placement on the market of the model.
- The **delivery time of spare parts should be five days**, at least for the more critical spare parts (e.g. screen and keyboard) without which it would be impossible to use the device.
- We support the proposed measures to ensure that professional repairs have access to any software tools, firmware and other tools necessary to **enable replacement of serialised parts**.
- We support the proposed requirements on **preparation to reuse**, ensuring the protection of consumers' data.

Battery requirements

Longer-lasting batteries for laptop computers should be the norm. We support the minimum requirement on battery endurance (800 cycles at 80% remaining capacity), and we ask the European Commission to consider a progressive increase to this limit under Ecodesign, to further shift the market to more durable batteries.

We do not agree with the proposed approach, where more durable batteries would not need to comply with requirements on easy disassembly. Removability and replaceability should not be traded-off with reliability requirements.

The battery endurance requirements currently envisaged should also be carefully assessed considering the specifications of laptop computers and their lifetime (currently seven years on average). The proposed requirements seem to be based on data related to smartphones, rather than laptop computers.

We support the proposed battery management requirements meant to prolong batteries' lifetime.

OUR KEY RECOMMENDATIONS

- **We support the minimum requirement on battery endurance** (800 cycles at 80% remaining capacity).
- We call on the European Commission to ensure removability and replaceability of batteries are **not traded-off with reliability requirements**.

- We support the proposed **battery management requirements** meant to prolong batteries' lifetime.

Operating system updates

We strongly support the proposed requirements on operating system updates. Software updates are essential to ensure the continued interoperability of products and address new security and privacy risks.

Extended software support is also necessary to avoid software-induced premature obsolescence. This is a situation where functioning hardware does not support a new operating system and therefore can no longer be used. An example is the decision of Microsoft to end its support for Windows 10 as of October 2025. Contrary to what the industry suggests, neither can all products be upgraded to newer versions (e.g. older hardware is often not equipped or able to upgrade to a new operating system), nor can consumers simply ditch their products and buy new ones, especially those who are most vulnerable.³

We urge the Commission to indicate a timeline for software support, which should match the timeline for the availability of spare parts (at least 10 years from end of placement on the market.) This is aligned with the recently adopted Cyber Resilience Act (CRA), which introduced a requirement for manufacturers of connected devices to ensure that security updates remain available after being issued for a minimum of 10 years, or for the remainder of the respective product's support period, whichever is longer (Art. 13 (9)). Moreover, security and operating systems updates should be made available for the same amount of time. Failure to ensure that operating systems remain viable for the same length of time as spare parts would make the spare parts requirements redundant.

Following the latest cybersecurity rules adopted in the CRA, we also recommend that security and functionality updates are provided separately, to allow consumers to decide whether they are interested in new functionalities and therefore accept or decline a functionality update, while still ensuring that they are supported by security updates. The CRA expressly states that manufacturers should ensure, where technically feasible, that new security updates are provided separately from functionality updates (Recital 57, Annex I, Part II, 2). Users should always have the option to install or uninstall an operating system version update to re-install the operating system version running on the device prior to the update. Any security vulnerability or potential impact on performance linked to such a decision should be clearly communicated.

Consumers must also always be clearly informed about their computer's software status. For instance, any potential performance loss due to a security or operating system update should be explained to consumers. Information on security vulnerabilities (if the consumer decides not to upgrade, or even to downgrade) should also be clearly explained.

³ [BEUC-X-2023-006_The_Cyber_Resilience_Act_Proposal.pdf](#)

OUR KEY RECOMMENDATIONS

- We urge the European Commission to **indicate a timeline for software support**, which should match the timeline for the availability of spare parts (at least 10 years from the end of placement on the market.).
- **Security and operating systems updates** should be made available for the same amount of time.
- Users should always have the option to **install or uninstall an operating system version update** to re-install the operating system version running on the device prior to the update.
- Consumers must also always be **clearly informed about their computer's software status**.

Reliability requirements

We agree with introducing minimum requirements on resistance to accidental drops, resistance to water and dust ingress, and resistance to abrasion. We call on the Commission to specify a minimum number of drops in the Regulation, following the approach taken under the Ecodesign Regulation for Smartphones. The testing procedure currently proposed for computers risks being confusing for consumer, as it measures the number of units that survive a specific set of drops, as opposed to the more traditional number of drops that a device survives.

Failures to keyboards are also reported as common reasons to prematurely discard an otherwise functioning laptop. We support the proposal to introduce an abrasion test for the keyboard, but we also recommend testing mechanical problems that could occur at the same time. Replaceability of single keys in a keyboard should be enabled.

We would also like to see durability testing conducted on the power jack/charging port of notebook computers, as a failure in this area renders the product unusable. The IEC 60512-9-1 standard provides a method for assessing the wear over time from repeated plugging in and unplugging of power connectors. A requirement could be built around this standard to develop a minimum number of connections and disconnections before failure. IEC 60512 also facilitates the measurement of the amount of force required to disconnect power cords from a power jack/charging port. This could be used to set a minimum value to indicate a reliable connection after a determined number of connections/disconnections.

In addition, we would like to see durability requirements added for notebook hinges. There are several standards that could be referenced to support the cycle testing of hinges (i.e. repeatedly opening and closing notebook lids to simulate years of use). The MIL-STD-810 (U.S. Military Standard) standard is often used by notebook manufacturers to test hinge durability. IEC 60068 also includes mechanical stress tests that could be applied to hinge durability.

Trackpad durability testing is also routinely conducted by some manufacturers. As such, we would like to see durability criteria added for these trackpads.

OUR KEY RECOMMENDATIONS

- We agree with the proposed minimum requirements on reliability. For resistance to accidental drops, **minimum number of drops should be specified in the Regulation.**
- We recommend **testing also mechanical problems on keyboards, power jacks/charging ports, hinges and trackpads.** Replaceability of single keys in a keyboard should also be enabled.

Ecodesign: energy efficiency

We support the introduction of maximum power limits under Ecodesign. Our understanding is that the proposed approach would set very strict limits for high-performance computers, while most used computers by consumers would be left largely untouched. We ask the Commission to consider whether there are suitable alternatives to also increase the efficiency of common computers. For example, further categorisation of computers could allow for the development of more realistic power demand limits.

We also ask the Commission to clarify the method for measuring power demand and include a reference for a suitable test procedure. Verification tolerances should also be addressed.

OUR KEY RECOMMENDATIONS

- We ask the Commission to consider whether suitable alternatives exist to the proposed approach to setting power limits, with a view of **increasing the efficiency of common computers too.**
- A reference for a **suitable test procedure** and adequate **verification tolerances** should also be included.

Energy Label

We support introducing an energy label for computers. However, we identified some weaknesses in the draft proposal, which risk making the label confusing for consumers.

The “product family” definition appears to be too weak, leaving room for manufacturers to autonomously decide which configurations to group together, therefore making it difficult to compare across individual products. Consumers should trust that the values on the energy label refer to the characteristics of the computer they have bought. Consumers also expect to be able to compare across products that have the same functionalities.

The proposed formula for energy efficiency currently only focuses on computers’ active state. As it was reported that computers generally spend only 10-15% of time in this mode, we question

whether the formula is representative enough to adequately inform consumers about computers' energy efficiency. We ask the Commission to consider whether valid alternatives exist that would possibly enable further savings and clearer understanding for consumers. We would suggest that an EEI based on performance (measured using the indicated test procedure) over total dynamic typical energy consumption or 'DTEC' (active, short idle, long idle, sleep and off) would provide a better indication of computer energy efficiency.

We note that neither Table 9 nor Table 10 in the Energy Label Annex document include a reference to DTEC despite this being a measured attribute on the proposed Energy Labels. A reference to DTEC in the tables is required to ensure that manufacturers are reporting on this important metric. We also note that Table 11 (also labelled as Table 10 in the text) in the Energy Label Annex document does not contain verification tolerances for computer performance or power demand testing. These verification tolerances will be required for any market surveillance activity against the requirements in the proposed Energy Labelling Regulation.

We support the proposal to use linear scales rather than non-linear ones. This enables consumers to clearly understand which product is more efficient and also provides a good incentive for manufacturers to improve the efficiency of their products that may currently fall under lower classes.

We very much welcome the introduction of reliability and repairability information in the lower parts of the label, as this information can help consumers make more sustainable choices.

The pictogram on resistance to drops can be useful information for consumers, as this is amongst the main reasons why computers break. It would facilitate consumers' understanding of the label, as similar information also exists for smartphones and tablets. However, we question the appropriateness of the methodology chosen to measure resistance to drops for computers. We ask the Commission to calculate robustness based on the number of falls without defects, which is an easy-to-understand methodology for consumers.

We also call on the Commission to introduce a pictogram on battery endurance per cycle, following the approach of the energy label for smartphones. This value identifies the real autonomy of a laptop per cycle and is very closely related to battery endurance.

Battery failures are the most reported issue by consumers.⁴ Batteries degrade with usage cycles. More battery autonomy in the first place is always more important for consumers. For computers with 200 minutes of autonomy, remaining capacity of 80% would mean 160 minutes of use after five years of use. While remaining capacity of 80% for a computer with an initial autonomy of 1000 minutes would still mean 800 minutes of use.

We also note that the proposed Energy Label for desktop computers and integrated desktop computers includes the resistance to drops symbol but the text of the document states that the test is for laptops only. We suggest that the resistance to drops test is not relevant for desktop

⁴ Survey conducted in 2023 by Altroconsumo (Italy), DECO (Portugal), OCU (Spain) and Test Achats/Test Aankoop (Belgium) as part of the Euroconsumers group.

computers and so the resistance to drops symbol on the desktop Energy Label should be removed.

Finally, we urge the Commission to test the new energy label and its icons with consumers before introducing it on the market, to ensure a broader level of understanding.

OUR KEY RECOMMENDATIONS

- We **support introducing an energy label for computers**.
- The Commission should **ensure that the definition of “product family” does not risk leaving too much autonomy to manufacturers** when deciding which configurations to group together. These risks increasing confusion for consumers, making it difficult to compare across families.
- We ask the Commission to **consider whether valid alternatives exist to the proposed formula for EEI**, that would enable further savings and clearer understanding for consumers. We suggest that **performance over DTEC would be a more appropriate EEI metric**.
- We support the proposal to **use linear scales rather than non-linear ones**, which enable consumers to clearly understand which product is more efficient.
- We ask the Commission to **calculate robustness based on the number of falls without defects**, which is an easy-to-understand methodology for consumers. For the desktop computer label, drop resistance may not be so relevant.
- We also call on the Commission to **introduce a pictogram on battery endurance per cycle**, following the approach of the energy label for smartphones. This value identifies the real autonomy of a laptop per cycle and is very closely related to battery endurance.
- We call for a **reference to DTEC in Table 9 and 10 of the Energy Label Annex document** and that **verification tolerances are added for power demand and performance in Table 11** of the same document.
- We urge the Commission to **test the new energy label and its icons with consumers** before introducing it on the market, to ensure a broader level of understanding.

Repair Score

We support the development of a repair score for computers, as, if correctly designed and implemented, it can be a useful tool for consumers who currently lack any adequate means to compare the reparability of products.

We welcome that the Commission took inspiration from the methodology used for the reparability score of smartphones. Nonetheless, we believe some improvements are still necessary.

We call on the Commission to further align its proposal with the Smartphones and Tablets Regulation, which also includes a criterion on “software updates (duration)”. This is a key parameter to enable consumers to use computers for longer, without encountering a lack of

software support. The duration of availability of software updates should be adapted to the expected lifetime of computers and aligned with the criterion of “spare parts duration”. Even for the latter, we urge the Commission to increase the ambition, to motivate manufacturers to ensure spare parts availability for longer.

We also wish to underline that the costs associated to repair (including the cost of repair services, spare parts, installation, etc.) is often the main driver influencing whether consumers choose to replace or repair a product.⁵ According to a [survey conducted by BEUC’s German member vzby](#), 88% of consumers expect that a repair score with a high rating would mean that the cost of repair of a product would be significantly lower when buying a new product. It is therefore crucial to examine integrating the cost of repair in the score, or the tool risks losing relevance and effectiveness for consumers.

As shown in a [dedicated study by the French consumer organisation UFC-Que Choisir](#) on the French repair score, consumers struggled to find information on the criteria behind the score. For this reason, we believe it would be important to include information on the specific criteria and weighting behind the EU score also in the public interface of EPREL. While not all consumers might be interested in this additional information, we believe more transparency on these aspects would be beneficial for the tool’s trustworthiness and could be useful for third-party organisations (such as national consumer organisations) when advising consumers on the best choice to make.

OUR KEY RECOMMENDATIONS

- We **support the development of a repair score for computers**, as, if correctly designed and implemented, it can be a useful tool for consumers.
- We call on the Commission to further align its proposal with the Smartphones and Tablets Regulation and **includes a criterion on “software updates (duration)”**.
- We urge the Commission to **examine integrating the cost of repair** in the score, or the tool risks losing relevance and effectiveness for consumers.

⁵ This is reflected in the findings gathered by consumer organisations, such as through the webtool *trop vite use'* where consumers can directly report this data. This is a bottom-up approach that provides valuable insights into consumers’ frustrations when products break down as well as whether they attempted repair and how their experience went.

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