

INCEPTION IMPACT ASSESSMENT

Inception Impact Assessments aim to inform citizens and stakeholders about the Commission's plans in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.

TITLE OF THE INITIATIVE	<i>Environmental impact of mobile phones and tablets</i>
LEAD DG (RESPONSIBLE UNIT)	GROW.C1 (Circular Economy and Construction)
LIKELY TYPE OF INITIATIVE	<i>Commission implementing regulation (ecodesign) Commission delegated regulation (energy labelling)</i>
INDICATIVE PLANNING	<i>2nd quarter 2022</i>
ADDITIONAL INFORMATION	https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12797-Environmental-impact-of-mobile-phones-and-tablets-Ecodesign

The Inception Impact Assessment is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Inception impact assessment, including its timing, are subject to change.

A. Context, Problem definition and Subsidiarity Check

Context

In 2020, to support the European Green Deal, the EU adopted a new [Circular Economy Action Plan](#), announcing initiatives along the entire life cycle of products, and aiming to ensure that the resources used are kept in the EU economy for as long as possible.

This entails avoiding unnecessary waste and obsolescence by designing products that are energy efficient and durable, can be maintained, repaired and upgraded throughout their lifetime, and then reused or recycled at the end of it.

The action plan provides for the introduction of legislation to ensure mobile phones and tablets are designed to be resource efficient (circular) in this way. This legislation will build on 2 existing EU acts, on:

- **ecodesign** – promoting the durability, reparability and recyclability of products
- **energy labelling** – promoting energy efficiency in products.

This initiative accompanies a parallel initiative – [Consumer policy – strengthening the role of consumers in the green transition](#).

Problem the initiative aims to tackle

The widespread and increasing use of mobile phones (in particular, smartphones) and tablets results in a number of issues:

- the **functionality** of these devices has been increasing over time, with resultant increases in power demand, storage capacity and materials needed to manufacture them. Some of these materials, although used in very small quantities, are of global concern because of their social, economic and geopolitical impacts (critical raw materials such as tantalum and tungsten¹)
- at the end of their useful life, smartphones and tablets are typically left 'hibernated', i.e. **unused at home**. This is a waste of resources that could, with the right processes, be reused, recycled and/or recovered
- smartphones are on average **replaced by users every 2 or 3 years**, their lifetime being linked to a number of factors, such as:

¹ The EU Regulation on conflict minerals [(EU) 2017/821] applies to EU importers as of 1 January 2021, covering tantalum, tungsten, tin and gold.

- the user wanting a new model/software (not related to the device malfunctioning)
- the (limited) availability of the most commonly damaged spare parts (the screen, battery and sometimes the back cover)
- the (limited) availability of updated versions of the operating system, firmware or software
- (linked to the previous) cost and ease of repair
- reduced battery endurance over time. A battery that will hold a charge for longer means better energy performance and efficiency, thanks to less frequent charging and longer overall battery lifetime (total number of charging cycles).

Similar problems related to mobile phones (in general) and tablets (such as the availability of the most commonly damaged parts and the battery endurance over time) should be also investigated.

Basis for EU intervention (legal basis and subsidiarity check)

Legal basis

- The basis for measures to promote energy efficiency is the **Energy Labelling Regulation** (based on Article 194(2) of the Treaty on the Functioning of the European Union)
- The basis for potential implementing measures under the **Ecodesign Directive** is Article 114 (internal market) of the same Treaty.

Through these 2 acts, the European Parliament and the EU Council have given a legislative mandate to the Commission to regulate the environmental performance of energy-related products.

Subsidiarity check

The environmental performance of mobile phones and tablets could potentially be regulated at national level, in the absence of shared requirements at EU level.

However, this would create regulatory obstacles to the free movement of such goods within the single market. Action at EU level therefore appears necessary, and offers added value over national action.

B. Objectives and Policy options

EU policy needs to help keep climate and environmental impacts linked to resource and energy use, and production and use of products, within planetary boundaries.

This means reducing the carbon footprint of products placed on the EU market over their total life-cycle, by achieving longer product lifespans. Methods for doing this include making products that are more durable and easier to repair, reducing waste and achieving higher rates of recycling and reuse of the materials used to make the original product.

The objective of this initiative is to make mobile phones and tablets more energy efficient and with improved material efficiency (i.e. less prone to damage and premature obsolescence), and so less environmentally harmful. All while ensuring they can still circulate freely in the single market.

More specifically, under the 2020 Circular Economy Action Plan, the objective is to develop regulatory measures for these devices under the Ecodesign Directive, so they are designed to be energy efficient and durable, repairable, upgradable, easily maintainable, reusable and recyclable.

There is also potential for an energy labelling scheme to indicate the likely battery life of mobile phones and tablets.

The impact assessment will consider different policy options for achieving these objectives, such as:

- option 1 – **no action** (i.e. business as usual)
- option 2 – **self-regulation** (if proposed by stakeholders)
- option 3 – **mandatory specific and/or generic ecodesign requirements** (according to Annex I and/or Annex II of the Ecodesign Directive 2009/125/EC)
- option 4 – **energy labelling** according to the Energy Labelling Regulation 2017/1369
- option 5 – a combination of **ecodesign** requirements and **energy labelling**.

C. Preliminary Assessment of Expected Impacts

Likely economic impacts
<p>A thorough cost-benefit analysis will be undertaken.</p> <p>The impact on users (e.g. prices, demand, social costs) and industry (profitability, investment level, etc.), will be assessed, covering the whole value chain of the products in question (original equipment manufacturers, repair/upgrade operators, recycling sector, etc.).</p> <p>Moreover, the criteria referred to under Article 15.5 of the Ecodesign Directive will be screened, in particular product affordability, functionality and the life cycle cost of the product, industry's competitiveness and non-imposition of proprietary technology on manufacturers.</p> <p>The assessment will also look at any impacts on the effectiveness of the proposed regulatory approach deriving from intellectual property issues – for instance, reparability aspects.</p>
Likely social impacts
<p>The impact assessment will assess in detail if there are specific social impacts linked to this initiative, e.g. from the employment point of view throughout the whole value chain (original equipment manufacturers, repair/upgrade operators, etc.).</p> <p>The criteria referred to under Article 15.5 of the Ecodesign Directive on impacts on health and safety aspects will be screened.</p>
Likely environmental impacts
<p><u>Preliminary estimations</u> (to be confirmed by further analyses) indicate that a market with more environmentally-friendly products could have tangible effects on environmental impact. For example:</p> <ul style="list-style-type: none"> - extending the average lifetime of devices by approximately 1 year could reduce the climate impact by 25% at the level of the whole mobile phones market - additional reductions in environmental impacts (up to another 20%, at the level of the whole mobile phones market) should be achievable through other measures, such as improved information on the impacts of the manufacturing phase - improving the material efficiency of products (see section D below) could reduce raw material consumption by up to 30% at the level of the whole mobile phones market.
Likely impacts on fundamental rights
No impacts expected.
Likely impacts on simplification and/or administrative burden
The regulations would be directly applicable in all Member States, resulting in no costs for national administrations for transposition into national legislation. The impact assessment will investigate possible impacts on administrative burden (as referred to under Article 15.5 of the Ecodesign Directive), for instance by assessing the extra work/cost (e.g. for testing) for original equipment manufacturers entailed by <u>market-driven initiatives</u> tackling some of the products' environmental aspects.
D. Evidence Base, Data collection and Better Regulation Instruments
Impact assessment
To support the preparation of this initiative and to inform the Commission's decision, the Commission will carry out an impact assessment.
Evidence base and data collection
Two recent reports from the Joint Research Centre ^{2, 3} assessed the relevance of material efficiency aspects for smartphones and tablets, with the aim of compiling a list of possible measures to improve their performance in terms of durability, reparability, upgradability, use of materials and recyclability.

² Cordella, M., Alfieri, F., Sanfelix Forner, J., 2020. Guide for the Assessment of Material Efficiency: Application to Smartphones. Publications Office of the European Union, Luxembourg, 2020. ISBN: 978-92-76-15411-2, doi: 10.2760/037522

Areas for potential regulatory intervention have been identified, related to:

- a) resistance when accidentally dropped
- b) protection from water and dust
- c) battery accessibility and longevity
- d) availability of software/firmware/operating system updates
- e) product durability
- f) ability of the product to be disassembled
- g) availability of priority spare parts
- h) data deletion and transfer functionalities
- i) provision of appropriate information for users, repairers and recyclers.

These findings are being further investigated in a [preparatory study](#) for this initiative, on behalf of the Commission.

Consultation of citizens and stakeholders

A mix of targeted and public consultation tools and activities will be used, as described below:

- As part of the [preparatory study](#), **2 stakeholder meetings** will be organised. The main participants are from relevant industrial sectors, standardisation bodies and environmental organisations
- During the impact assessment, a meeting of the **Ecodesign Consultation Forum** (as required by Article 18 of the Ecodesign Directive) will be convened.

This Forum is composed of 30 Member States and 30 stakeholder organisations (business, environmental NGOs, consumer organisations, standardisation bodies and additional expert observers when required).

The documents with the draft policy proposals will be sent, with sufficient notice, to all Forum members and all legitimate stakeholders (via CIRCABC), and this consultation process will continue until the planned meeting of the Forum, and beyond, as the policy measures are progressively refined.

- A **public consultation** will be launched to collect stakeholders' views on issues such as the expected effect of potential legislative measures on product performance and on businesses and on users. This consultation will be announced on <https://ec.europa.eu/info/consultations>.
- **individual (ad hoc) consultations** will be also held with selected stakeholders (e.g. on specific technical aspects) on a continuous basis

For more details – including a summary of the responses to the public consultation and an analysis of all the consultation activities – see the [dedicated webpage for this consultation](#).

Will an implementation plan be established?

No, the regulation is directly applicable in all Member States.

Uniform implementation of ecodesign and energy labelling measures is facilitated by several initiatives, especially European administrative cooperation on market surveillance.

³ Tecchio P., Ardente F., Marwede M., Clemm C., Dimitrova G. Mathieux F., 2018. Analysis of material efficiency aspects of personal computers product group. Luxembourg: Publications Office of the European Union. ISBN 978-92-79-64943-1 doi:10.2788/89220