



Brussels, 16.6.2023  
SWD(2023) 102 final

**COMMISSION STAFF WORKING DOCUMENT**  
**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the documents*

**Commission Regulation**

**laying down ecodesign requirements for smartphones, mobile phones other than smartphones, cordless phones and slate tablets pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending Commission Regulation (EU) 2023/826**

**and**

**Commission Delegated Regulation**

**supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to the energy labelling of smartphones and slate tablets**

{C(2023) 1672 final} - {C(2023) 3538 final} - {SEC(2023) 164 final} -  
{SWD(2023) 101 final}

## Executive Summary Sheet

Impact assessment on the Commission Regulation implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for mobile phones and slate tablets and the Commission Regulation supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to the energy labelling of smartphones and slates tablets.

### A. Need for action

#### Why? What is the problem being addressed?

In 2020, around 150 million mobile phones and 23.90 million tablets were sold in the European Union (EU), and the total EU primary energy consumption of the installed base of mobile phones and tablets over their lifecycle (including production, use and disposal) was 39.5 TWh (ca. 0.25% of total EU27 primary energy consumption). The widespread and increasing use of mobile phones (in particular, smartphones) and tablets results in a number of issues:

- the functionality and popularity of smartphones and tablets has been increasing over time, which resulted in increased energy demand and materials needed to manufacture them, accompanied by the increase of the associated environmental impacts;
- at the end of their useful life, the devices 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;
- these devices are on average replaced prematurely by users.

The main problem drivers that were identified were of behavioural nature (social norms and fast value depreciation of fast-moving and fashionable products, status-quo bias and inertia), market failures (missing incentives for circular business models and sustainable production and consumption, negative externalities from production and consumption not internalised and insufficient information on sustainability criteria and environmental impacts) and regulatory failures (material efficiency aspects have been, to date, not sufficiently covered by existing regulations, and there are cases of varying product legislation in EU Member States).

The initiative will concern a significant share of the EU population, as well as original equipment manufacturers, repairers, retailers and recyclers.

#### What is this initiative expected to achieve?

The specific objectives of the policy options considered in this impact assessment are to correct the problems identified in the problem definition:

- Avoiding premature obsolescence of mobile phones, cordless phones and tablets;
- Contributing towards a circular economy by facilitating repair and increasing durability of these products and key components (e.g. battery and display);
- Helping consumers making an informed and sustainable choice at the point of sale;
- Fostering product designs aimed to achieve cost-efficient material and energy savings.

#### What is the value added of action at the EU level?

There is clear added value for action at EU level: without harmonised requirements at EU level, Member States would be incentivised to lay down – as already happening in certain cases - national requirements in the framework of their environmental and energy policies. This would undermine the free movement of products and increase design, manufacturing and distribution costs.

### B. Solutions

#### What legislative and non-legislative policy options have been considered? Is there a preferred choice or not? Why?

The following policy options have been considered:

- option 1 – no action (i.e. business as usual)
- option 2 – scenario with self-regulation (either a Voluntary Agreement in the sense of the Ecodesign Directive, or other non-legislative initiatives such as the Eco Rating scheme)
- options on Ecodesign: Option 3.1 focuses on ecodesign requirements for smartphones and tablets. Option 3.2 adds mobile phones other than smartphones and cordless phones to the analysis and Option 3.3 adds a scoring

index on reparability for smartphones and tablets.

- option 4 – energy labelling
- option 5.1 is a combination of Ecodesign and Energy Label, which focuses on smartphones and tablets. It combines Option 3.1 and Option 4.
- option 5.2 combines the Ecodesign requirements with a scoring index on reparability (Option 3.3) and Energy Labelling requirements (Option 4).

The option 5.2 appears as the most suitable one, as this is the option which, in general, ranks better than the others with regard to the expected effectiveness, efficiency and coherence.

**Who supports which option?**

- Small and medium sized enterprises (SMEs), mainly working in the field of repair, refurbishment and recycling, judged as important (a game changer, in some cases) the preferred policy option, in particular with regard to the material efficiency requirements on durability, reparability, upgradability, maintenance, reuse and recycling.
- environmental and consumer NGOs welcomed the preferred policy option
- the EU Member States cautiously welcomed the preferred option, with some concerns on the testing
- Original equipment manufacturers support, in general terms, the preferred option, with some reservations, in particular on the requirements on reparability and spare parts availability.

**C. Impacts of the preferred option**

**What are the benefits of the preferred option (if any, otherwise main ones)?**

The following positive impacts of the preferred policy option have been estimated (the calculation are referred to year 2030), when comparing it to the baseline scenario (business as usual):

- environmental impacts: reduced greenhouse gas emissions, in the order of 4mtCO<sub>2eq</sub>, reduced energy consumption by 49PJ, reduced acidification by 24kt SO<sub>2eq</sub> and reduced material consumption by at least 40,000 tons of materials.
- economic impacts: reduced total annual consumer expenditure by more than 20 billion Euros, and reduced societal external annual damages estimated at more than 1 billion Euros;
- social impacts: employment creation in repair/maintenance sector, in the order of some thousands.

**What are the costs of the preferred option (if any, otherwise main ones)?**

It has been estimated that the following costs could be associated with the preferred policy option (the calculation are referred to year 2030), when comparing it to the baseline scenario (business as usual):

- reduced business revenues (linked to the increased lifetime of devices, which would imply a decrease in the demand for new products);
- increase in the repair costs in the order of 680 million Euros (due to the increased reparability of devices; this figure would be vastly outweighed by the overall consumer savings attained thanks to more durable and repairable devices, as shown with the reduced total annual consumer expenditure).

**How will businesses, SMEs and micro-enterprises be affected?**

SMEs belonging to the repair and maintenance sector are expected to strongly benefit from the initiatives, in particular thanks to the proposed Ecodesign requirements on reparability and ease of disassembly. Not only will new repairers appear in the sector, but also existing ones will grow.

**Will there be significant impacts on national budgets and administrations?**

The form of the legislation proposed under the preferred option is respectively an implementing Regulation (Ecodesign) and a delegated Regulation (Energy Labelling), both directly applicable in all Member States. This ensures that there would be no costs for national administrations linked to transposition. Market surveillance activities would entail testing and personnel costs.

**Will there be other significant impacts?**

The preferred option is expected to drive competition and innovation on energy efficiency as well as material efficiency.

**D. Follow up**

**When will the policy be reviewed?**

The review process foreseen for the proposed ecodesign and energy labelling would indicatively take place within 4 years from adoption of the measures.