



EUROPEAN  
COMMISSION

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**COMMISSION REGULATION (EU) .../...**

**of XXX**

**laying down ecodesign requirements for mobile phones, cordless phones and slate tablets  
pursuant to Directive 2009/125/EC of the European Parliament and of the Council and  
amending [add reference to the revised Ecodesign Regulation on standby, networked  
standby and off mode]**

(Text with EEA relevance)

# COMMISSION REGULATION (EU) .../...

of **XXX**

**laying down ecodesign requirements for mobile phones, cordless phones and slate tablets pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending [add reference to the revised Ecodesign Regulation on standby, networked standby and off mode]**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products<sup>1</sup>, and in particular Article 15(1) thereof,

Whereas:

- (1) Pursuant to Directive 2009/125/EC, the Commission should set ecodesign requirements for energy-related products which account for significant volumes of sales and trade in the Union and which have a significant environmental impact and presenting significant potential for improvement through design in terms of their environmental impact, without entailing excessive costs.
- (2) The Commission has carried out a preparatory study to analyse the technical, environmental and economic aspects of mobile phones, cordless phones and slate tablets. The study has been carried out with stakeholders and interested parties from the Union and third countries, and the results have been made publicly available.
- (3) The steep increase in the demand for smartphones and tablets, combined their increased functionality, has resulted in increased demand for energy and materials needed to manufacture these devices on the EU market, accompanied by an increase in their associated environmental impacts. In addition, devices are often replaced prematurely by users and are, at the end of their useful life, not sufficiently reused or recycled, leading to a waste of resources. Against this background, the preparatory study identified environmental aspects to be addressed in this Regulation. Those aspects mainly concern resource efficiency and include the avoidance of premature obsolescence, repairability, reliability of the products and their key components such as batteries and display, reusability and recyclability.
- (4) Ecodesign requirements should harmonise resource efficiency requirements for mobile phones, cordless phones and slate tablets throughout the Union for the internal market to operate better and in order to improve the environmental performance of those products. In light of this aim and the environmental aspects to be addressed, the preparatory study showed that ecodesign requirements should relate to design for reliability, including resistance to accidental drops, scratch resistance, protection from dust and water, and battery longevity, to the ability to be disassembled and repaired, to

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<sup>1</sup> OJ L 285, 31.10.2009, p. 10.

the availability of operating system version upgrades, to data deletion and the transfer of functionalities after use, to the provision of appropriate information for users, repairers and recyclers as well as to battery endurance.

- (5) The total primary energy consumption of the installed base in the EU27 of mobile phones, cordless phones and slate tablets in 2020 over their lifecycle was 39,5 TWh (of which 28,5 TWh for smartphones, 1,6 TWh for mobile phones other than smartphones, 1,8 TWh for cordless phones and 7,6 TWh for slate tablets), which includes a major share of primary energy consumption in production outside the EU27. Of these 39,5 TWh, the share attributed to electricity consumption - for both production and use - is 26,6 TWh (19,2 TWh, 0,9 TWh, 1,1 TWh and 5,4 TWh, respectively, for smartphones, mobile phones other than smartphones, cordless phones and slate tablets). Without regulatory measures, those values are projected to decrease slightly to 39,3 TWh (29,3 TWh, 1,5 TWh, 1,4TWh and 7,3TWh, respectively, for smartphones, mobile phones other than smartphones, cordless phones and slate tablets) of primary energy in 2030. The combined effect of this Regulation and Commission Delegated Regulation [OP: please insert reference to accompanying energy labelling delegated act] is expected to limit this 2030 value to 25,4 TWh (18,2 TWh, 1,0 TWh, 1,1TWh and 5,2 TWh, respectively, for smartphones, mobile phones other than smartphones, cordless phones and slate tablets), saving around 33 % on the primary energy consumption of smartphones, mobile phones other than smartphones, cordless phones and slate tablets compared to what would happen if no measures were taken.
- (6) The relevant product parameters should be measured using reliable, accurate and reproducible methods. Those methods should take into account recognised state-of-the-art measurement methods including, where available, harmonised standards adopted by the European standardisation bodies, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council<sup>2</sup>.
- (7) In accordance with Article 8 of Directive 2009/125/EC, this Regulation should specify the applicable conformity assessment procedures.
- (8) To facilitate compliance checks, manufacturers, importers or authorised representatives should provide information in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC in so far as that information relates to the requirements laid down in this Regulation.
- (9) For market surveillance purposes, manufacturers, importers or authorised representatives should be allowed to refer to the product database if the technical documentation as per Commission Delegated Regulation (EU) 20XX/XXX<sup>3</sup> [OP: please insert number] contains the same information.
- (10) In order to protect consumers and to avoid that the rules laid down in this Regulation are circumvented, products that automatically alter their performance in test conditions to improve the declared parameters should be prohibited.

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<sup>2</sup> Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12).

<sup>3</sup> Commission Delegated Regulation (EU) 2022/XXX *[full OJ-L references of Regulation EL smartphones/tablets]*

- (11) In addition to the legally binding requirements laid down in this Regulation, indicative benchmarks for best available technologies should be identified to make information on the environmental performance of products subject to this Regulation over their life cycle widely available and easily accessible, in accordance with Directive 2009/125/EC, Annex I, part 3, point (2).
- (12) The requirement concerning a functionality for secure erasure of the encryption key could be implemented by means of technical solutions such as, but not limited to, a functionality implemented in firmware, typically in the bootloader, in software included in a self-contained bootable environment, or in software installable in the supported operating systems provided with the product.
- (13) A review of this Regulation should assess the appropriateness and effectiveness of its provisions in achieving its goals. The timing of the review should take into account, among other factors, whether all provisions have been implemented and show an effect on the market.
- (14) Commission Regulation [OP: please insert number of revised Ecodesign Regulation on standby, networked standby and off mode] should be amended to exclude cordless phones from its scope in order to prevent any overlap with the same products in the scope of this Regulation.
- (15) The entry into application of ecodesign requirements should be 12 months after the entry into force of this Regulation, in order to give manufacturers sufficient time to redesign their products subject to this Regulation. The requirements aimed at allowing repair operations by end-users, should have an entry into application 18 months after the entry into force of this Regulation, i.e. 6 months after the other requirements, as it is expected that these requirements entail the most significant design changes.
- (16) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 19(1) of Directive 2009/125/EC,

HAS ADOPTED THIS REGULATION:

*Article 1*  
***Subject matter and scope***

- 1. This Regulation establishes ecodesign requirements for the placing on the market of mobile phones, cordless phones and slate tablets.
- 2. This Regulation does not apply to the following products:
  - (a) mobile phones and tablets with a flexible main display which the user can unroll and roll up partly or fully;
  - (b) smartphones designed for high security communication.

*Article 2*  
***Definitions***

- 1. For the purposes of this Regulation, the following definitions shall apply:
  - (1) ‘mobile phone’ means a cordless handheld electronic device, which has the following characteristics:

- (a) it is designed for long-range voice communication over either a cellular telecommunications network or a satellite based telecommunications network, requiring a SIM card, eSIM or similar means to identify the connected parties;
  - (b) it is designed for battery mode usage, while connection to mains via an external power supply and/or wireless power transmission is mainly for battery charging purposes;
  - (c) it is not designed to be worn on the wrist.
- (2) 'smartphone' means a mobile phone, which has the following characteristics:
  - (a) it is characterised by wireless network connection, mobile use of internet services, and the ability to accept original and third-party software applications;
  - (b) it has an integrated touch screen display with a diagonal size of 4 inches or more but less than 7 inches;
  - (c) where the device has more than one and/or foldable displays, at least one of the displays falls into the size range in either opened or closed mode.
- (3) 'smartphone for high security communication' means a smartphone, which has the following characteristics:
  - (a) it is accredited, or otherwise formally approved by the designated authority in a Member State or is in the process of accreditation or other formal approval to transmit, process or store classified information;
  - (b) it is intended for professional users only;
  - (c) it is capable of detecting physical intrusion to the hardware; including for intrusion detection at least a controller, related wiring, flexible printed circuit board circuitry for drill protection integrated to the device chassis and integrated tamper loops on the main printed circuit board.
- (4) 'cordless phone' means a cordless handheld electronic device which has the following characteristics:
  - (a) it is designed for long-range voice communication over a landline telecommunications network;
  - (b) it is connected to a base station through a radio interface;
  - (c) it is designed for battery mode usage, while connection to mains via an external power supply is mainly for battery charging purposes.
- (5) 'slate tablet' means a device that is designed for portability and has the following characteristics:
  - (a) it has an integrated touch-sensitive display with a viewable diagonal size greater than or equal to 7,0 inches and less than 17,4 inches;
  - (b) it does not have an integrated, physically attached keyboard in its designed configuration;
  - (c) it primarily relies on a wireless network connection;
  - (d) it is powered by an internal battery and is not intended to work without battery;
  - (e) it is placed on the market with an operating system designed for mobile platforms, identical or analogous to smartphones.

2. For the purposes of Annexes II to V, the definitions set out in Annex I shall apply.

#### *Article 3*

##### ***Ecodesign requirements***

The ecodesign requirements set out in Annex II shall apply from the dates indicated therein.

#### *Article 4*

##### ***Conformity assessment***

1. The conformity assessment procedure as referred to in Article 8 of Directive 2009/125/EC shall be the internal design control system set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.
2. For the purposes of conformity assessment pursuant to Article 8(2) of Directive 2009/125/EC, the technical documentation shall contain a copy of the product information provided in accordance with Annex II to this Regulation, and the details and the results of the calculations set out in Annex III to this Regulation.
3. Where the information included in the technical documentation for a particular model has been obtained:
  - (a) from a model that has the same technical characteristics relevant for the technical information to be provided but is produced by a different manufacturer, or
  - (b) by calculation on the basis of design or extrapolation from another model of the same or a different manufacturer, or both,

the technical documentation shall include the details of such calculation, the assessment undertaken by the manufacturer to verify the accuracy of the calculation and, where appropriate, the declaration of identity between the models of different manufacturers.

The technical documentation shall include a list of all equivalent models, including the model identifiers.

4. The technical documentation shall include the information in the order and as set out in **Annex VI to Delegated Regulation (EU) 20YY/XXX [EL smartphones/tablets]**. For market surveillance purposes, manufacturers, importers or authorised representatives may, without prejudice to point 2(g) of Annex IV to Directive 2009/125/EC, refer to the technical documentation uploaded to the product database which contains the same information laid down in **Delegated Regulation (EU) 20YY/XXX [EL smartphones/tablets]**.

#### *Article 5*

##### ***Verification procedure for market surveillance purposes***

Member States shall apply the verification procedure laid down in Annex IV to this Regulation when performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC.

#### *Article 6*

##### ***Measures against circumvention***

1. Manufacturers, importers or authorised representatives shall not place on the market products designed to be able to detect they are being tested, and to react specifically by automatically altering their performance during the test with the aim of reaching a

more favourable level for any of the parameters declared by the manufacturer, importer or authorised representative in the technical documentation or included in any documentation provided.

2. The energy consumption of the product and any of the other declared parameters shall not deteriorate after an operating system software update or a firmware update when measured with the same test standard originally used for the declaration of conformity, except with the explicit consent of the end-user prior to the update. No performance change shall occur as a result of rejecting the update, except for third-party application software.
3. A software update shall never have the effect of changing the product's performance in a way that makes it non-compliant with the ecodesign requirements applicable for the declaration of conformity.

#### *Article 7* ***Indicative benchmarks***

The indicative benchmarks for the best-performing products and technologies available on the market [OP please insert date at the time of adopting this Regulation] are set out in Annex V.

#### *Article 8* ***Review***

The Commission shall review this Regulation in the light of technological progress and present the result of this assessment to the Consultation Forum established pursuant to Article 14(1) of Regulation (EU) 2017/1369 of the European Parliament and of the Council<sup>4</sup> by *[OP please insert the date = 4 years after the entry into force of this Regulation]*.

The review shall in particular assess:

- (a) the need to revise the scope of this Regulation to reflect market evolution;
- (b) the appropriateness of including smart wearables in the scope of this Regulation and of laying down generic and specific requirements for these;
- (c) the appropriateness of setting specific ecodesign requirements on the resistance of slate tablets to accidental drops;
- (d) the feasibility of increasing the stringency of the specific requirement on battery endurance in cycles;
- (e) the feasibility of defining a standardised battery that could be used interchangeably across a range of mobile phones and slate tablets;
- (f) the need to set out requirements to enable or improve repair with used and/or third-party spare parts;
- (g) the need to revise or extend the list of spare parts, of spare parts availability per target group (professional repairers, end-users) and of repair information, for which requirements are set out;

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<sup>4</sup> Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

- (h) the need to revise the reparability score, considering additional reparability criteria and/or to extend the score to other relevant aspects, such as durability in general;
- (i) the inclusion of further chemical elements in the information requirements in Annex II;
- (j) the need to include reliability requirements related to foldable devices;
- (k) the feasibility to impose requirements on the recycled content of materials.

#### *Article 9*

##### ***Amendment to [OP add reference to the revised Ecodesign Regulation on standby, networked standby and off mode]***

Regulation [OP: please insert number of **revised Ecodesign Regulation on standby, networked standby and off mode**] is amended as follows:

In point 3 of Annex II the entry ‘other equipment for the purpose of recording or reproducing sound or images, including signals or other technologies for the distribution of sound and image other than by telecommunications, but excluding electronic displays covered by Regulation (EU) 2019/2021 and projectors with mechanisms for exchanging the lenses with others with different focal length’ is replaced by the following:

‘other equipment for the purpose of recording or reproducing sound or images, including signals or other technologies for the distribution of sound and image other than by telecommunications, but excluding electronic displays covered by Regulation (EU) 2019/2021, cordless phones covered by Regulation [OP: please insert the number of this Regulation], and projectors with mechanisms for exchanging the lenses with others with different focal length.’

#### *Article 10*

##### ***Entry into force and application***

This Regulation shall enter into force on the twentieth day following its publication in the Official Journal of the European Union.

It shall apply from [OP please insert date =12 months from the date of entry into force of this Regulation]. This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the Commission*  
*The President*  
*Ursula VON DER LEYEN*