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ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL

New Approach Industries, Tourism and CSR
Mechanical, Electrical and Telecom Equipment

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Standardisation mandate to CEN, CENELEC and ETSI on a common Charging Capability for Mobile Telephones

1. Background

Incompatibility of chargers for mobile phones is an inconvenience for users and leads to unnecessary waste of resources. Currently, specific external power supplies (EPSs) are sold together with specific mobile phones. A user who wants to change his/her mobile phone must usually acquire a new EPS and dispose of the current one, even if this is in perfect condition. This unnecessarily consumes raw materials and creates important amounts of electronic waste.

The environmental impact related to production, distribution and disposal of EPSs can be substantially reduced by ensuring the compatibility of EPSs by standardising the electrical characteristics of its low voltage output and by requiring that mobile phones can be charged from such standardised EPSs.

Following a request from the European Commission and in close co-operation with the Commission services, major producers of mobile phones have agreed in a Memorandum of Understanding “**MoU regarding Harmonisation of a Charging Capability for Mobile Phones**”¹ (in the following “the MoU”) to harmonise EPSs for data-enabled mobile phones sold in the EU. Industry commits to provide EPSs compatibility on the basis of using the Micro-USB connector on the EPS². Once the commitment becomes effective, it will be possible to charge data-enabled mobile phones from any charger compatible with the common specifications (a Common EPS), bringing in significant practical, economic and environmental benefits. The MoU already envisages a possible update in order to accommodate future innovation in this area.

The implementation of the agreement involves the development or the modification of European standards, which shall ensure compatibility and safe functioning of the new Common EPS's with the different mobile terminals. It is expected that the first generation of new inter-chargeable mobile phones will reach the EU market from 2010 onwards.

2. Aim and legal context

¹ <http://ec.europa.eu/enterprise/rtte/chargers.htm>

² In case a mobile phone does not have this connector integrated in the device, an Adaptor may be available to ensure compatibility. An "Adaptor" is defined as a device with a Micro-USB receptacle/plug connecting to a specific non Micro-USB connector. An Adaptor can also be a detachable cable.

The above mentioned MoU agreeing on the harmonisation of EPSs for data-enabled mobile phones will allow significant reductions in the amounts of EPSs produced and disposed of, bringing **important savings in use of raw materials and reduced recycling needs**. By way of this standardisation mandate, the Commission is entrusting to the European Standards Organisations, CEN, CENELEC and ETSI, the development of voluntary standards which are necessary to make the potential environmental benefits of the MoU a reality.

Safety risks due to the use of EPSs and mobile phones produced by different manufacturers should be addressed. Where EPSs are not proprietary to the mobile phone it is charging, the EPS needs to individually comply with the **Low Voltage Directive** (LVD³) and the Electromagnetic Compatibility Directive (EMC⁴), whereas under the **Radio Equipment & Telecommunications Terminal Equipment Directive** (R&TTE⁵) the mobile phone must be capable of ensuring both safe charging from chargers with standardised characteristics and functionality in electromagnetic environments that may differ from one phone to another. The EMC, LVD and R&TTE directives provide for the development of **harmonised standards** giving presumption of conformity with essential requirements.

Requirements for consumption of EPSs established in Commission Regulation (EC) 278/2009⁶ are fully relevant to this standardisation mandate.

Prior standardisation mandates having addressed EPS or handheld batteries are:

- § M/362 (24.2.05) “Harmonised standards for ensuring the safety of batteries in hand-held radio and telecommunications terminal equipment”
- § M/439 (17.12.2008) “Standardisation in the field of standby and off modes power consumption measurement for energy using products”
- § M/450 (8.9.2009) “Standardisation in the field of measurements of no-load condition electric power consumption and average active efficiency of external power supplies”

3. Objective

The objective of this standardisation mandate is to develop or update European standards in order to:

- § Ensure interoperability between data-enabled mobile telephones and a Common EPS
- § Appropriately consider safety risks and electro-magnetic disturbances which could arise from the combination of chargers and mobile telephones produced by different manufacturers
- § Ensure that Common EPSs have sufficient immunity to operate with mobile phones

³ Directive 2006/95/EC

⁴ Directive 2004/108/EC

⁵ Directive 1999/5/EC

⁶ Of 6th April 09, implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies

- § Ensure that manufacturers of mobile phones can design the charging functions in their phones to efficiently and safely charge batteries using this Common EPS.

4. Description of the mandated work

The Commission requests CEN, CENELEC and ETSI to perform the following work:

1. To develop a **European standard(s) enabling interoperability between a Common EPS and data-enabled mobile telephones**, on the basis of the technical specifications to be annexed to the MoU
2. To check the existing body of standards for EPS and charging functions of mobile phones in order to, by way of revision or development, make available **European standards that may provide presumption of conformity of the Common EPSs and of mobile telephones with EMC, LVD and R&TTE Directives**

The standardisation work developed under this mandate shall allow the implementation of the MoU. It shall comply with Commission Regulation (EC) 278/2009, and complement standardisation mandates M/362 “Harmonised standards for ensuring the safety of batteries in hand-held radio and telecommunications terminal equipment”, and M/439 “Standardisation in the field of standby and off modes power consumption measurement for energy using products”.

5. Execution of the mandate

Upon acceptance of this standardisation mandate:

1. CEN, CENELEC and ETSI are requested to communicate to the Commission within 2 months of the acceptance of the mandate a work plan for the execution of the abovementioned standardisation tasks, indicating the standards requiring revision or amendment, the new standards to be developed and the planned approval procedures
2. CEN, CENELEC and ETSI are requested to communicate to the Commission within 6 months of the acceptance of the mandate an interim report on the progress of the tasks set out in this mandate, indicating any eventual difficulties encountered
3. CEN, CENELEC and ETSI are requested to communicate to the Commission within 12 months of the acceptance of the mandate a first list including:
 - a. the European standard(s) referenced in 4.1
 - b. the harmonised standards supporting EMC, LVD and R&TTE Directives when available by modification of existing standards
4. CEN, CENELEC and ETSI are requested to communicate to the Commission within 24 months of the acceptance of the mandate the complete list of European standard(s) referenced in 4.1 and the harmonised standards supporting EMC, LVD and R&TTE Directives

The lists of harmonised standards shall include the titles of the standards in all the official languages of the EU.

CEN, CENELEC and ETSI are requested to draw up the work plan and execute the abovementioned tasks in close cooperation in order to ensure consistency and avoid overlapping standards.

The standardisation work shall include the necessary coordination with international standardisation bodies, in particular with IEC and ITU-T.

The standardisation work shall endeavour, where appropriate, to make the interoperable elements accessible by as many users as possible.

Standards intended to support the EMC, LVD and R&TTE Directives shall include an indication of the relationship between the clauses of the standard and the essential environmental requirement of the Directive.

CEN, CENELEC and ETSI are requested to make available to the Commission the texts of the standards developed on the basis of this mandate (including the European standards based on international standards) in English, French and German.

Acceptance by CEN, CENELEC and ETSI, as applicable, of this mandate starts the standstill period referred to in article 7 of the Directive 98/34/EC of 22 June 1998.

6. Organisations to be involved

As appropriate, CEN, CENELEC and ETSI will invite representatives of Digital Europe, the USB Implementers Forum, MoU Signatories, GSMA, ANEC, ECOS and NORMAPME to take part in the standardisation work.