



Council of the  
European Union

Brussels, 23 September 2021  
(OR. en)

12183/21

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**Interinstitutional File:  
2021/0291(COD)**

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**MI 695  
ECO 101  
ENT 154  
IA 155  
IND 252  
TELECOM 349  
CODEC 1251  
CONSOM 200**

**COVER NOTE**

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From: Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director

date of receipt: 23 September 2021

To: Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union

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No. Cion doc.: COM(2021) 547 final

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Subject: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment

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Delegations will find attached document COM(2021) 547 final.

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Encl.: COM(2021) 547 final



Brussels, 23.9.2021  
COM(2021) 547 final

2021/0291 (COD)

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Directive 2014/53/EU on the harmonisation of the laws of the Member States  
relating to the making available on the market of radio equipment**

(Text with EEA relevance)

{SEC(2021) 318 final} - {SWD(2021) 244 final} - {SWD(2021) 245 final} -  
{SWD(2021) 246 final}

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

- **Reasons for and objectives of the proposal**

Since 2009, the Commission has been seeking to limit the fragmentation of the market for charging interfaces for mobile phones and similar devices. However, such initiatives only led to voluntary schemes that are not legally binding and thus do not ensure consistent and uniform application.

In June 2009, following a request from the Commission, major producers of mobile telephones agreed to sign a memorandum of understanding (MoU) on harmonising chargers for data-enabled mobile phones sold in the EU<sup>1</sup>. The signatories agreed to develop a common specification based on the USB 2.0 micro-B interface, which would allow full charging compatibility with the mobile phones to be placed on the market.

The MoU reduced market fragmentation and attracted almost global alignment. Its implementation led to an effective reduction in the number of charging solutions for mobile phones from 30 to only three. However, the MoU also allowed for the use of proprietary charging interfaces, and one such solution continued to be used (and still is) by a major mobile phone manufacturer, thus preventing full interoperability. In addition, the MoU never addressed the environmental issues arising from the continued existence of those different charging interfaces and charging communication protocols.

Without EU action, this fragmentation of the market for charging interfaces and charging communication protocols is expected to persist and environmental impacts will remain unaddressed.

Ever since the MoU expired in 2014 (after two letters of renewal), the European Commission has been trying to foster the adoption of a new voluntary agreement. In March 2018, following several rounds of discussion among the relevant manufacturers and exchanges of views with the Commission, the industry proposed a new MoU on a future common charging solution for smartphones. However, the Commission did not consider the new MoU to be satisfactory as it is not in line with the EU's harmonisation objectives, which seek to limit fragmentation of charging solutions (both the charging interfaces and the charging communication protocols) for mobile phones and similar items of radio equipment. The proposed new MoU continued to allow for proprietary solutions (vendor-specific connection means), which the Commission no longer considers justified in view of the technical advantages provided by the introduction of the USB Type-C interface.

In this context, the Commission launched in 2018 an impact assessment study for a possible proposal aimed at implementing a common solution for charging mobile phones (and possibly other similar categories or classes of radio equipment). While the original objective of this initiative was to improve consumer convenience, the study concluded, that imposing a common charging interface and a common charging communication protocol on the side of the radio equipment (smartphones, but possibly also tablets, cameras, readers, etc.), while

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<sup>1</sup> <https://ec.europa.eu/docsroom/documents/2417/attachments/1/translations>.

encouraging or imposing unbundling (i.e. the supply to the end-user of the radio equipment without the charging device), would benefit consumers and reduce electronic waste (e-waste). It concluded that only harmonising the charging interface (in the case of radio equipment charged via wired charging this interface being the charging receptacle) would not achieve full interoperability of charge. In fact, currently, various charging communication protocols exist and not all ensure the same charging performance if a charging device from another brand is used. Additionally, the study concluded that having a common charging device across different types of radio equipment would be likely to increase consumer convenience overall. Regarding wireless charging (i.e. more generally charging technology other than wired charging), the study concluded that if any breakthroughs in wireless charging technology were to happen, this could undermine the rationale for a common connector solution, by significantly reducing the relevance of wired charging solutions in general. In the light of these conclusions, in October 2020 the Commission launched two complementary studies, on unbundling mobile phones and similar portable electronic devices and wireless charging technologies in order to strengthen the evidence base for the proposal.

In January 2020, the European Parliament adopted a resolution<sup>2</sup> calling for the urgent adoption of a standard for a common charger for mobile phones in order to avoid further internal market fragmentation. Specifically, the resolution called on the Commission to adopt a legislative measure, if necessary, to establish a common charger. It also urged the Commission to ensure that consumers are no longer obliged to buy new chargers with each new item of radio equipment and that unbundling measures (consisting in the supply to the end-user of radio equipment without a charging device) should be introduced with a common charging solution, as otherwise the aim of reducing the volume of charging devices produced per year and hence reducing electronic waste (e-waste) would not be achieved.

The Commission adjusted 2020 work programme<sup>3</sup>, specifically states that there will be a new proposal on common chargers for mobile phones and similar categories or classes of radio equipment.

In order to achieve the ultimate goal of a common charger and as preconditions for impactful and meaningful unbundling, the three supporting studies, which were conducted found that radio equipment shall integrate: a harmonised charging interface at the radio equipment end (the charging receptacle in the case of radio equipment charged via wired charging), a minimum common interoperability of charging through a harmonised charging communication protocol, and detailed information about charging requirements of the radio equipment.

The design of radio equipment falls within the scope of Directive 2014/53/EU<sup>4</sup> on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment. On the other hand, the characteristics of the external power supply are falling within the scope of the Directive 2009/125/EC of establishing a framework for the setting of ecodesign requirements for energy-related products.<sup>5</sup>

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<sup>2</sup> 2019/2983(RSP)

<sup>3</sup> COM(2020) 440 final

<sup>4</sup> Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC (OJ L 153, 22.5.2014, p. 62).

<sup>5</sup> 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 (OJ L 285, 31.10.2009, p. 10).

This proposal is aimed at preventing fragmentation of the market when it comes to charging interfaces and charging communication protocols, enhancing consumer convenience and reducing e-waste. In particular, it will:

- harmonise the charging interface for mobile phones and similar categories or classes of radio equipment (tablets, digital cameras, headphones and headsets, handheld videogame consoles and portable speakers) that are recharged via a wired charging, so that they can be recharged by using a common charging receptacle;
- guarantee that such devices, where they support fast charging, incorporate at least the same charging communication protocol;
- allow for future harmonisation in this area in response to technological developments, including harmonisation of any type of charging interface other than wired charging;
- introduce requirements so that end-users are not obliged to purchase a new charging device whenever they purchase a new mobile phone or similar item of radio equipment and;
- introduce requirements so that, when purchasing a mobile phone or similar item of radio equipment, end-users receive the necessary information on its charging performance characteristics and the charging device that can be used with it.

An Impact Assessment was carried out to examine policy options for:

- (a) harmonisation of the radio equipment charging interface;
- (b) support for the relevant charging communication protocol on the radio equipment and informing consumers about the charging performance; and
- (c) making available on the market of at least unbundled solution.

Policy Option	(A) Harmonisation of the end-device connector	(B) Support of the relevant charging protocol on the end-device and informing consumers about charging performance	(C) Making available on the market at least unbundled <sup>6</sup> solutions
Option 0	No action	No action	No action
Option 1	Mandatory	No action	No action
Option 2	No action	Mandatory	No action
Option 3	No action	Mandatory	Mandatory
Option 4	Mandatory	Mandatory	No action
Option 5	Mandatory	Mandatory	Mandatory

For all options, there are sub-options of a narrow scope (i.e. covering mobile phones only) or a broader scope (also including certain devices with charging characteristics that are comparable to those of a mobile phone). The preferred policy option is option 5 with a broad scope as it involves the fairest trade-off between all the objectives and allow a win-win situation for the majority of stakeholders and the environment.

<sup>6</sup> i.e. devices will be sold with no charger in the box (a detachable cable will still be allowed, discretionally)

- **Consistency with existing policy provisions in the policy area**

The proposal introduces additional requirements, to be applied to mobile phones and similar categories or classes of radio equipment, in Directive 2014/53/EU, which establishes a regulatory framework for the making available on the market and putting into service in the Union of radio equipment and guarantees for that equipment the proper functioning of the internal market.

- **Consistency with other Union policies**

The proposal relates to the Commission's Circular Economy Action Plan, which announces initiatives affecting the entire product life cycle, e.g. targeting their design, promoting circular economy processes, fostering sustainable consumption, and aiming to ensure that the resources used are kept in the EU economy for as long as possible.

A proposal for legislation on common chargers for mobile phones and similar categories or classes of radio equipment is included under the second priority of the Commission's 2020 work programme ('A Europe fit for the digital age').

## **2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY**

- **Legal basis**

The proposal is based on the same legal basis as the legislative act that is being amended, i.e. Article 114 of the Treaty on the Functioning of the European Union.

- **Subsidiarity (for non-exclusive competence)**

The internal market is a competence that is shared between the Union and the Member States.

One of the objectives of Directive 2014/53/EU is to guarantee the proper functioning of the internal market. Article 3(3)(a) of the Directive, which applies if relevant Commission delegated act is adopted, refers to common chargers.

Recital 12 of the Directive states that interoperability between radio equipment and accessories such as chargers simplifies the use of radio equipment and reduces unnecessary waste and costs.

The absence of harmonisation in this area will lead to substantial differences between Member States' laws, regulations, administrative provisions or practices on the interoperability of mobile phones and similar categories or classes of radio equipment with a common charging device and on unbundling.

Action at national level to address the problems could create obstacles to the free movement of goods. Furthermore, action at national level is limited to the territory of the Member State(s) in question. In view of the increasing internationalisation of trade, the number of cross-border cases is rising constantly. Coordinated action at EU level will achieve the agreed

objectives much more efficiently, and, in particular, will render market surveillance more effective. It is therefore appropriate to take action at EU level.

- **Proportionality**

In accordance with the principle of proportionality, the proposed amendments do not go beyond what is necessary to achieve the objectives set.

The new or amended requirements do not impose unnecessary burdens and costs on industry (especially on small and medium sized enterprises) or administrations. Where negative impacts have been identified, the analysis of the preferred option proposes the most proportionate response.

- **Choice of instrument**

The relevant provisions of Directive 2014/53/EU can be amended by means of a Directive of the European Parliament and of the Council amending Directive 2014/53/EU. The amending Directive should be transposed by Member States by way of national legal instruments.

### **3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS**

- **Stakeholder consultations**

The following consultation activities were conducted between May 2019 and April 2021 in order to assess potential areas for revision and the impacts of the suggested policy option in various areas:

- an inception impact assessment (2018-2019) targeted citizens, consumer associations, non-governmental organisations (NGOs), manufacturers' associations, and individual manufacturers;
- a public consultation (2019) targeted member states, citizens, consumer associations, NGOs, manufacturers' associations, and individual manufacturers;
- two consumer surveys (2019 and 2021) targeted citizens;
- a stakeholders survey (2020-2021) targeted Member States, citizens, consumer associations, and manufacturers;
- targeted interviews (2021) targeted consumer associations, environmental associations, market surveillance authorities, NGOs, manufacturers' associations, and manufacturers;
- expert group meetings targeted consumer associations, Member States, market surveillance authorities, NGOs, manufacturers' associations, and manufacturers.

- **Collection and use of expertise**

The Commission launched an impact assessment study supported by three studies for a possible legal proposal aiming at: removing fragmentation and addressing the consumer convenience; reducing e-waste; being forward looking and monitoring the state of play of future charging technologies (e.g. wireless), aiming to both preventing fragmentation yet without hampering innovation. The three supporting studies are: an impact assessment study on a common solution for charging mobile phones and possibly other small and medium portable devices (“the first study”)<sup>7</sup>; an assessment of the status of wireless charging technologies used for mobile phones and similar devices (“the second study”); and an impact assessment study on Unbundling of Chargers (“the third study”).

- **Impact assessment**

The *first supporting study* found that the 2009 MoU had been effective in harmonising charging solutions (both the charging interface and the charging communication protocols) and improving consumer convenience. However, it had not achieved full harmonisation of the charging solutions. In addition, unbundling had not been achieved to any significant extent, with only some manufacturers in the Union offering consumers the option of buying a phone without a charging device, hence limiting the expected benefits for the environment.

The first study found that a majority of EU citizens who participated in the Commission’s public consultation on mobile phone chargers were dissatisfied (41%) or very dissatisfied (22%) with ‘the current situation regarding mobile phone chargers and their seamless interconnection’, and 76% agreed or ‘strongly’ agreed that the current situation results in inconvenience for mobile phone users. There also appeared to be support among respondents for a common charger. 63% were in favour of the Union exercising its regulatory power to mandate a charger standard, while 31% considered that the Union should promote an industry-wide agreement. Only 6% of the citizens surveyed suggested that the Union should refrain from any form of intervention. Public authorities, NGOs and consumer organisations also expressed support for a common charging solution.

The first study also found that the consumption of raw materials to produce charging devices has environmental impacts as well as impacts in terms of generating e-waste at the end of product life. It estimated that mobile phone charging devices were responsible for around 11000 t of e-waste in 2018 and the associated life-cycle emissions were around 600 ktCO<sub>2</sub>e. Those amounts are expected to increase in the coming years, driven mainly by the trend towards heavier fast chargers.

The study refers to another major technological development: the non-electrical contact (wireless) charging. This technology relies on a charging interface that does not use a dedicated charging receptacle (unlike with radio equipment, which is charged via wired connection). Since the introduction of wireless charging-enabled phones, their consumer take-up has grown steadily. Between 2016 and 2018, sales increased six-fold, to around 44 million units, or around 28% of sales in 2018<sup>8</sup>. However, this technology is not seen as a replacement for wired charging at the moment because of the efficiency rates of such chargers.

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<sup>7</sup> <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/c6fadfea-4641-11ea-b81b-01aa75ed71a1>

<sup>8</sup> Note that these figures refer to wireless enabled phones, that is not to phones that come with a wireless charging device, but those that can be recharged with a wireless charging device that needs to be purchased separately.

Furthermore, given the current coexistence of wireless charging and conventional wired charging, the potential for e-waste reduction is limited as wireless chargers make more intensive use of materials than wired chargers.

The first study also considered the extent to which an initiative on a common charger could support the current trend of voluntary unbundling (i.e. economic operators offering phones without charging devices) in order to secure environmental benefits and give customers that option. It concluded that such an initiative, accompanied by other measures to stimulate unbundling, could contribute to the EU's environmental objectives. The higher the rate of unbundling, the greater the benefits for the environment and for consumers, in terms of cost savings and convenience.

According to the *second study*, wireless charging is still a developing technology showing low fragmentation of the charging interfaces and a good level of interoperability among charging solutions, it would therefore seem premature to introduce mandatory requirements for that technology. However, as the technology develops and it is incorporated into more products fragmentation may develop if different charging interfaces and charging communication protocols are used.

According to the *third study*, the unbundling options involve very clear and obvious trade-offs, most importantly that of environmental benefits versus a financial cost and loss of convenience for consumers. The majority of stakeholder survey respondents, (public authorities, civil society organisations and private citizens), preferred the option of obliging manufacturers and distributors to give customers the choice of whether or not to purchase a new external power supply (EPS) and/or cable with a new mobile phone. However, six out of ten industry respondents felt that each mobile phone manufacturer or distributor should be free to choose how they sell their phones and chargers (i.e. what to include in the retail box).

The third study indicated that, as of October 2020, some manufacturers (accounting for 30-40% of market share) had announced the removal of the EPS (and other accessories) from the retail box for certain new models. Others are considering their options, and it seems highly likely that at least some will also begin to offer unbundled solutions in the near future. However, those manufacturers that have invested heavily in proprietary charging technology appear less keen, since the high charging performance of their bundled phones and EPS is an important part of their marketing strategy. However, manufacturers that have developed these solutions fail to demonstrate that this is because of the development and not because their solution blocks or limits the efficiency of using other chargers.

A harmonised charging interface at the radio equipment end (i.e. in the case of radio equipment charged via wired charging, this being the charging receptacle), minimum common interoperability of charging through a harmonised charging communication protocol, and the provision of information on charging requirements of their radio equipment are therefore preconditions for an impactful and meaningful unbundling.

An impact assessment has been carried out which examined the policy options that combine the three (3) different measures of: (a) harmonisation of the radio equipment charging interface; (b) support for the relevant charging communication protocol on the radio equipment and informing consumers about the charging performance; and (c) making available on the market of at least unbundled solution.

For all options, there are sub-options of a narrow scope (i.e. mobile phones only) or a broader scope (certain devices with charging characteristics that are comparable to those of a mobile phone). The preferred policy option is option 5 with a broad scope as it involves the fairest trade-off between all the objectives and a win-win situation for the majority of stakeholders and the environment.

Option 5 is expected to generate environmental benefits by reducing the greenhouse gas (GHG) emissions by around 180 ktCO<sub>2</sub>e yearly, material use by about 2 600 t yearly, and reducing e-waste by 980 t yearly. The unbundling of the EPS contributes the most thanks to less extraction of resources, manufacture, transport, use and disposal of the chargers.

As regards consumer convenience, the preferred option will ensure interoperability through a common interface and charging performance, reducing sales of standalone EPS and cables and promoting their reuse. Regarding the harmonisation of the charging interface, imposing a USB type C charging port on the radio equipment is sufficient to address the inconvenience faced by the consumers that are not capable of charging their device because there is no compatible charger at their disposal. This will also translate into a reduction in consumer spending on those items by around EUR 250 million yearly.

The preferred option is expected to improve the economic operators’ turnover overall by EUR 105 million yearly. The turnover benefits for retailers and distributors (EUR 457 million yearly), of charging devices not being included in the retail box and therefore being bought more often standalone outweigh the negative impact on the turnover of device manufacturers (EUR 352 million yearly) incurred by the implementation of the common connector for device manufacturers and also the loss of profit for EPS manufacturers.

The direct costs for manufactures that do not use the common connector and have to redesign their equipment will be mitigated by a transition period and therefore are deemed negligible. The direct costs for manufactures who currently use proprietary fast charging communication protocols not compatible with the common solution is estimated at EUR 30 million. The indirect costs are difficult to estimate (because of the manufacturers’ unwillingness to divulge such information) and will come only from the loss of royalties for manufacturers that do not already use the common connector for their products.

	<b>Benefit (yearly)</b>	<b>Cost (yearly)</b>
GHG emissions	180 ktCO <sub>2</sub> e	
Material use	2600 tonnes	
E-waste	980 tonnes	
Consumer spending	250 m€	
Turnover for retailers and distributors	457 m€	
Turnover for worldwide manufacturers		352 m€
Redesign of equipment to implement common connector		Included in the above. Mitigated by the transition period as more and more manufacturers will head towards the

		common connector even in the baseline
Implementing of common charging communication protocol		Included in the above.
Implementing of unbundling solution		Included in the above.
Royalties loss		Not estimable

- **Regulatory fitness and simplification**

Directive 2014/53/EU already requires manufacturers to ensure that radio equipment placed on the Union market is designed and manufactured in accordance with the essential requirements set out therein and that it is accompanied by information (e.g. on safety, intended use of radio equipment and usage restrictions). The new requirements will apply only to some categories or classes of radio equipment and are therefore not expected to create an additional burden.

The amendments are not extensive and do not significantly alter the current legal framework on radio equipment.

- **Fundamental rights**

Harmonising the interface for mobiles phones and other similar devices, in so far as they are recharged via wired charging, so that they can be recharged by using a common charging receptacle and a common charging communication protocol, and unbundling those devices from their chargers will increase the level of environmental protection (Article 37 of the Charter) and the consumer protection (Article 38 of the Charter).

It is estimated that mobile phone chargers were responsible for around 11 000 tonnes of e-waste in 2018 and the associated life-cycle emissions were around 600 ktCO<sub>2e</sub>. These amounts are expected to somewhat increase in the coming years, driven namely by the trend of shifting to heavier fast chargers.

The proposal will thus reduce environmental waste and ensure consumer convenience.

#### 4. BUDGETARY IMPLICATIONS

This proposal does not have any implications for the Union budget.

#### 5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

The proposal is to amend Directive 2014/53/EU which already requires in its Article 47:

- the Commission to review the operation of the Directive and report thereon 2 years after the date of applicability of the Directive and every five years thereafter; and

- the Member States to send to the Commission a report on its application one year after the date of applicability of the Directive and every two years thereafter.

Article 2 of the proposal provides that Member States shall inform the Commission on the transposition of the amendments.

- **European Economic Area**

The proposed act is of relevance to the EEA and should therefore extend thereto.

- **Detailed explanation of the specific provisions of the proposal**

Article 1 of the proposal amends certain provisions of Directive 2014/53/EU.

The main amendments to be introduced to Directive 2014/53/EU by the proposal are the following.

- (1) A new paragraph is added in Article 3 (which sets out the essential requirements) and a new Annex is inserted.

New paragraph 4 (Article 3): This paragraph requires items of radio equipment, listed in a new Annex (Part I) added by the proposal, to comply with the charging interface and charging communication protocol described in that new Annex. The same paragraph empowers the Commission to amend, via delegated acts, the contents of the new Annex, which can also allow in future, if needed, to address any additional type of charging technologies other than wired charging

New Annex (Part I): It requires that mobiles phones and the similar radio devices, if they are capable to be recharged via wired charging, are equipped with the USB Type-C receptacle and, if they also require charging at voltages higher than 5 volts or currents higher than 3 amperes or powers higher than 15 watts , incorporate the USB Power Delivery charging communication protocol.

- (2) A new Article 3a is inserted on the supply of certain categories or classes of radio equipment without charging devices.
- (3) This new Article requires that if an economic operator supplies to the end-users radio equipment together with a charging device, the economic operator shall be required to also offer to supply to all end-users the same radio equipment without any charging device.
- (4) Article 10 (8) is amended so that a new information requirement is added.
- (5) More specifically, in the case of radio equipment to which the new requirements of the proposal will apply, information shall be provided on its charging performance characteristics as well the power delivery of the charging device that can be used

with that radio equipment. The details of the information are specified in the new Annex (Part II) and the Commission is empowered to amend, via delegated acts, the contents of that new Annex (part II).

- (6) Article 17, which sets out the applicable conformity assessment procedures, for demonstrating compliance with the essential requirements set out in Article 3 of Directive 2014/53/EU, is amended in order to add references, in its paragraph 2, to those new requirements that are proposed to be inserted in Article 3 of Directive 2014/53/EU (essential requirements).
- (7) The manufacturer will thus always have the choice to follow the internal product control procedure in order to demonstrate compliance with those new requirements (essential requirements).
- (8) Articles 40 and 43 are amended in order to align them with the new requirements added by the proposal.
- (9) In this way, Member States will have the powers to take measures against those products, which are not compliant with the new requirements.
- (10) Article 44, which is on delegated powers is amended in order to add references to the delegated powers conferred on the Commission via the proposal.

Article 2 requires Member States to transpose the amendments by [*PO please insert date – 12 months after adoption*] and apply them from [*PO please insert date 12 months after the end of the transposition period indicated in the paragraph above*].

Any requirements to be introduced by the proposal will not apply to any radio devices placed on the Union market before that date of applicability of the present Directive.

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee<sup>1</sup>,

Having regard to the opinion of the Committee of the Regions<sup>2</sup>,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) One of the objectives of Directive 2014/53/EU of the European Parliament and of the Council<sup>3</sup> is to guarantee the proper functioning of the internal market. Pursuant to Article 3(3), point (a), of that Directive, one of the essential requirements that radio equipment must fulfil is that it interoperates with accessories, in particular with common chargers. In that respect, recital (12) of Directive 2014/53/EU indicates that the interoperability between radio equipment and accessories such as chargers simplifies the use of radio equipment and reduces unnecessary waste and costs.
- (2) Since 2009, efforts have been deployed at Union level to limit the fragmentation of the charging interfaces for mobile phones and similar items of radio equipment. Recent voluntary initiatives do not fully meet Union policy objectives to reduce electronic

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<sup>1</sup> OJ C , , p. .

<sup>2</sup> OJ C , , p. .

<sup>3</sup> Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC (OJ L 153, 22.5.2014, p. 62).

waste (e-waste), ensure consumer convenience and avoid fragmentation of the market for charging devices.

- (3) The Union is committed to boosting the efficient use of resources by moving to a clean, circular economy through the introduction of initiatives such as Directive 2012/19/EU of the European Parliament and of the Council<sup>4</sup> and more recently through the introduction of the European Green Deal. This Directive aims to reduce the e-waste generated by the sale of radio equipment and to reduce the extraction of raw materials and the CO<sub>2</sub> emissions generated by the production, transportation and disposal of chargers, thereby promoting a circular economy.
- (4) The Commission's Circular Economy Action Plan provided for initiatives along the entire life cycle of products, targeting their design, promoting circular economy processes, fostering sustainable consumption, and aiming to ensure that the resources used are kept in the Union economy for as long as possible.
- (5) The Commission completed an impact assessment study, which has shown that the internal market is not exploiting its full potential as continuing fragmentation of the market for charging interfaces and charging communication protocols for mobile phones and other similar radio equipment results in a lack of consumer convenience and an increase in e-waste.
- (6) The interoperability between radio equipment and accessories such as chargers is hampered as there are different charging interfaces for certain categories or classes of radio equipment that use wired charging such as handheld mobile phones, tablets, digital cameras, headphones or headsets, handheld videogame consoles and portable speakers. In addition, there are several types of fast charging communication protocols for which a minimum level of performance is not always guaranteed. As a result, Union action is required to promote a common degree of interoperability and the provision of information relating to the charging characteristics of radio equipment to end-users. It is therefore necessary to introduce suitable requirements in Directive 2014/53/EU regarding the charging communication protocols, the charging interface (i.e. charging receptacle) of certain categories or classes of radio equipment, as well as the information to be provided to end-users regarding the charging characteristics of those categories or classes of radio equipment.
- (7) The absence of harmonisation in this area may lead to substantial differences between the Member States' laws, regulations, administrative provisions or practices on the interoperability of mobile phones and similar categories or classes of radio equipment with their charging devices, and on the supply of radio equipment without charging devices.
- (8) The size of the internal market in rechargeable mobile phones and similar categories or classes of radio equipment, the proliferation of different types of charging devices for such radio equipment and the significant cross-border trade of those products calls for stronger legislative action at Union level rather than either national level or voluntary measures, so as to achieve the smooth functioning of the internal market.

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<sup>4</sup> Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38).

- (9) It is therefore necessary to harmonise the charging interface and charging communication protocols for specific categories or classes of radio equipment that are recharged via wired charging. It is also necessary to provide the basis for adaption to any future technological progress by introducing a harmonisation of the charging interfaces and the charging communication protocols with respect to radio equipment that may be charged via any means other than wired charging including charging via radio waves (wireless charging). Such harmonisation should reduce environmental waste, ensure consumer convenience and avoid fragmentation of the market among different charging interfaces and charging communication protocols as well as among any initiatives at national level, which might cause barriers to trade in the internal market.
- (10) Such harmonisation would be however incomplete, if it is not combined with requirements regarding the combined sale of radio equipment and their chargers and information to be provided to end-users. A fragmentation of approaches among the Member States with respect to the marketing of the categories or classes of radio equipment concerned and their charging devices would hamper the cross-border trade in those products, for example by obliging economic operators to repackage their products depending on the Member State, in which the products are to be supplied. This would in turn result in increased inconvenience for consumers and would generate unnecessary e-waste thus offsetting the benefits derived from the harmonisation of the charging interface and charging communication protocol. It is therefore necessary to impose requirements to ensure that end-users are not obliged to purchase a new charging device with each purchase of a new mobile phone or similar item of radio equipment. To ensure the effectiveness of such requirements, end-users should receive the necessary information regarding the charging characteristics when purchasing a mobile phone or similar item of radio equipment.
- (11) It is technically feasible to define USB Type-C as the common charging receptacle for the relevant categories or classes of radio equipment. The USB Type-C technology, which is being used globally has been adopted at international standardisation level and has been transposed into the European system by the European Committee for Electrotechnical Standardization (CENELEC) under the European Standard EN IEC 62680-1 series<sup>5</sup>.
- (12) USB Type-C is a technology that is already common to many categories or classes of radio equipment as it provides high-quality charging and data transfer. The USB Type-C charging receptacle, when combined with the USB Power Delivery charging communication protocol, is capable of providing up to 100W of power and therefore leaves ample room for further development of fast charging solutions, while allowing the market to cater for low-end phones that do not need fast charging. Mobile phones and similar radio equipment that support fast charging can incorporate the USB Power Delivery features as described in standard EN IEC 62680-1-2:2020 ‘Universal serial bus interfaces for data and power - Part 1-2: Common components - USB Power Delivery specification’.
- (13) With respect to charging by means other than wired charging, divergent solutions may be developed in the future, which may have negative impacts on interoperability,

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<sup>5</sup> Universal serial bus interfaces for data and power - Part 1-3: Common components - USB Type-C™ Cable and Connector Specification

consumer convenience and the environment. Whilst it is premature to impose specific requirements on such solutions at this stage, the Commission should be able to take action towards harmonising them in the future, if fragmentation on the internal market is observed.

- (14) Article 3 of Directive 2014/53/EU should be amended in order to cover charging interfaces and charging communication protocols. The categories or classes of radio equipment specifically covered by this new provision should be further detailed in a new annex to Directive 2014/53/EU.
- (15) Directive 2014/53/EU should also be amended in order to insert a new Article which will relate to the requirements on the supply of certain categories or classes of radio equipment without charging devices. The categories or classes of radio equipment concerned as well as the specifications in relation to charging solutions should be specified in a new annex to Directive 2014/53/EU.
- (16) Article 10(8) of Directive 2014/53/EU provides for information to be included in the instructions for use and so additional information requirements should be inserted in that Article. The details of the new requirements should be specified in the new annex to Directive 2014/53/EU. Those information requirements would enable consumers to determine the most appropriate external power supply (EPS) needed to charge their radio equipment. It should be possible to adapt those requirements in the future in order to reflect any changes to the labelling requirements for EPS, which may be introduced under Directive 2009/125/EC of the European Parliament and of the Council<sup>6</sup>.
- (17) Article 17 of Directive 2014/53/EU, which sets out the conformity assessment procedures, should be amended in order to add references to the new essential requirements to be inserted in Article 3 of that Directive. The manufacturer should thus have the choice of following the internal control procedure in order to demonstrate compliance with those new essential requirements.
- (18) Articles 40, 43 and 44 of Directive 2014/53/EU should be amended in order to adapt the references that they contain to the new provisions that are introduced by this Directive.
- (19) In order to address any future developments in charging technology and to ensure the minimum common interoperability between radio equipment and the charging devices for such radio equipment, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission to amend the categories or classes of radio equipment and the specifications regarding the charging interfaces and charging communication protocols, as well as the details on the information in relation to charging. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Inter-institutional Agreement on Better Law-Making of 13 April 2016<sup>7</sup>. In particular, to ensure equal

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<sup>6</sup> 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 (OJ L 285, 31.10.2009, p. 10).

<sup>7</sup> OJ L 123, 12.5.2016, p. 1.

participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

- (20) Directive 2014/53/EU should therefore be amended accordingly.
- (21) Economic operators should be provided with sufficient time to proceed with the necessary adaptations to radio equipment falling within the scope of this Directive, which they intend to place on the Union market.

HAVE ADOPTED THIS DIRECTIVE:

### *Article 1*

Directive 2014/53/EU is amended as follows:

- (1) Article 3 is amended as follows:
  - (a) in paragraph 3, first subparagraph, point (a), the comma and the phrase ‘, in particular with common chargers’ is replaced by the phrase ‘other than the charging devices for the categories or classes of radio equipment, specified in Annex Ia, Part I, which are specifically referred to in paragraph 4 of this Article’ ;
  - (b) the following paragraph is added:

‘4. Radio equipment falling within the categories or classes specified in Annex Ia, Part I shall be so constructed that it complies with the specifications on charging set out in that Annex for the relevant category or class of radio equipment.

With respect to radio equipment capable of being recharged via wired charging, the Commission is empowered to adopt delegated acts in accordance with Article 44 to amend Annex Ia in the light of technical progress, and to ensure the minimum common interoperability between radio equipment and their charging devices, by:

- (a) modifying, adding or removing categories or classes of radio equipment;
- (b) modifying, adding or removing technical specifications, including references and descriptions, in relation to the charging receptacle(s) and charging

communication protocol(s), for each category or class of radio equipment concerned.’

With respect to radio equipment capable of being recharged via means other than wired charging, the Commission is empowered to adopt delegated acts in accordance with Article 44 in order to amend Annex Ia in the light of technical progress, and to ensure the minimum common interoperability between radio equipment and their charging devices, by:

- (a) introducing, modifying, adding or removing categories or classes of radio equipment;
- (b) introducing, modifying, adding or removing technical specifications, including references and descriptions, in relation to charging interface(s) and charging communication protocol(s), for each category or class of radio equipment concerned.’;

- (2) the following Article 3a is inserted:

*‘Article 3a*

**Possibility for end-users to acquire certain categories or classes of radio equipment without a charging device**

Where an economic operator offers to end-users the possibility to acquire radio equipment falling within the scope of Article 3(4) together with a charging device, the end-user shall also be offered the possibility to acquire the radio equipment without any charging device.’;

- (3) in Article 10(8), the following subparagraph is added:

‘Radio equipment falling within the scope of Article 3(4) first subparagraph shall be accompanied by information on specifications relating to charging capabilities and to its charging device, as described in Annex Ia, Part II. The Commission is empowered to adopt delegated acts in accordance with Article 44 in order to amend Annex Ia, Part II, by introducing, modifying, adding or removing any details in relation to that information or the way that such information shall be indicated.’;

- (4) in Article 17(2), the phrase ‘Article 3(1)’ is replaced by the phrase ‘Article 3(1) and (4)’;

- (5) Article 40 is amended as follows:
- (a) the title is replaced by the following:
- ‘Procedure at national level for dealing with radio equipment presenting a risk or not in compliance with essential requirements’;
- (b) in paragraph 1, first subparagraph, the words ‘or does not comply with at least one of the applicable essential requirements set out in Article 3’ are added after the words ‘public interest protection covered by this Directive’;
- (6) Article 43(1) is amended as follows:
- (a) in point (h), the words ‘information on the intended use of radio equipment’ are replaced by the words ‘the information’;
- (b) point (j) is replaced by the following:
- ‘(j) Article 3a or 5 is not complied with.’;
- (7) Article 44 is amended as follows:
- (a) in paragraph 2, the following sentence is inserted after the first sentence:
- ‘With respect to delegated acts referred to in Articles 3(4) and Article 10(8), third subparagraph, the power to adopt delegated acts is conferred on the Commission for a period of five years from [*OP please insert date of entry into force of this Directive*]’;
- (b) in paragraphs 3 and 5, the phrase ‘Articles 3(3), 4(2) and 5(2)’ is replaced by the phrase ‘Article 3(3), Articles 3(4), 4(2) and 5(2), and of Article 10(8), third subparagraph’;
- (8) the text set out in the Annex to this Directive is inserted as Annex Ia.

## *Article 2*

1. Member States shall adopt and publish, by [*OP please insert date – 12 months after adoption of this Directive*] at the latest, the laws, regulations and administrative

provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.

They shall apply those provisions from [*OP please insert date 12 months after the end of the transposition period indicated in the preceding subparagraph*].

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

### *Article 3*

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

### *Article 4*

This Directive is addressed to the Member States.

Done at Brussels,

*For the European Parliament*  
*The President*

*For the Council*  
*The President*