

A common charger for electronic devices

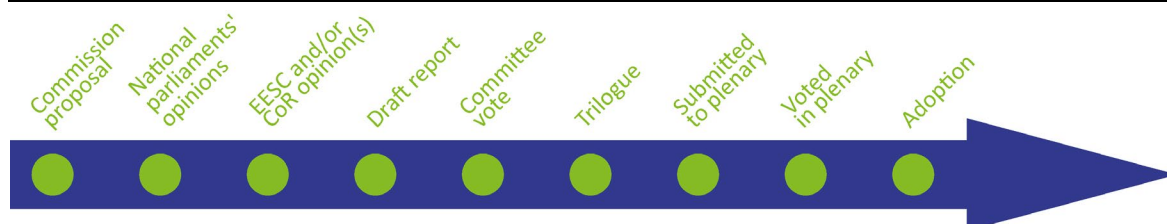
Revision of the Radio Equipment Directive

OVERVIEW

On 23 November 2022, the European Parliament and the Council signed the directive amending the 2014 Radio Equipment Directive, with the aim of mandating a common charger for mobile phones and a number of other small portable devices. The amended directive, proposed by the European Commission on 23 September 2021, will require electronic devices to be equipped with a USB Type-C receptacle and to incorporate the USB Power Delivery communication protocol. A separate initiative on the eco-design of external power supplies is expected to ensure that the receptacle and the communication protocol are used on both ends of charger cables. Consumers will have the option to buy devices with or without a charger (unbundling) and will be informed by a pictogram whether a charger is included with a device. Information on the charging capabilities and compatible charging devices will be provided on a label. By the end of 2024, the Commission will be required to request the creation of harmonised standards for wireless charging, and will have to regularly assess whether the common charger should be made mandatory for additional devices. The directive applies to all devices covered from 28 December 2024 and to laptops from 28 April 2026.

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

<i>Committee responsible:</i>	Internal Market and Consumer Protection (IMCO)	COM(2021) 547
<i>Rapporteur:</i>	Alex Agius Saliba (S&D, Malta)	23.9.2021
<i>Shadow rapporteurs:</i>	Andrey Kovatchev (EPP, Bulgaria)	2021/0291 (COD)
	Róża Thun und Hohenstein (Renew, Poland)	Ordinary legislative procedure (COD)
	Anna Cavazzini (Greens/EFA, Germany)	(Parliament and Council on equal footing – formerly 'co-decision')
	Marco Campomenosi (ID, Italy)	
	Kosma Złotowski (ECR, Poland)	
	Kateřina Konečná (The Left, Czechia)	
<i>Procedure completed.</i>	Directive (EU) 2022/2380 OJ L 315, 7.12.2022, pp. 30–43	



Introduction

On 23 September 2021, the European Commission put forward a [proposal](#) amending the Radio Equipment Directive, thereby taking a first step towards introducing mandatory requirements for a common charger for mobile phones, tablets, digital cameras, headphones, headsets, handheld videogame consoles and portable speakers. Harmonisation of chargers for portable devices across the EU – announced in the [new circular economy action plan](#)¹ – is expected to reduce consumer inconvenience as well as electronic waste ('e-waste'). According to a December 2019 [study](#) done for the Commission, 84 % of consumers said they had experienced problems relating to phone chargers in the previous two years, namely: having too many chargers taking up space in the home or workplace; not being able to charge mobile phones as fast with other chargers, or charge different devices with the same charger, or find a compatible charger; and confusion about which charger works with what device. The study also found that consumers have more chargers than they need and that, in 2018, these excess mobile phone chargers were responsible for 11 000 tonnes of e-waste and 600 kilotonnes of CO₂ emissions equivalent.

Establishing a common charger for mobile devices has been on the EU agenda for over a decade. In 2009, the Commission facilitated a voluntary memorandum of understanding (MoU), signed by major producers, which aimed to guarantee interoperability between chargers and mobile phones on the EU market. The MoU resulted in a significant reduction of available charger types and a convergence to USB Micro-B connectors on the device side:² while there were more than 30 proprietary chargers on the EU market in 2009, by 2012 (a year after the MoU started to apply), nine in ten new devices supported the USB Micro-B connection. However, the MoU expired in 2014, and a new one has not been signed.

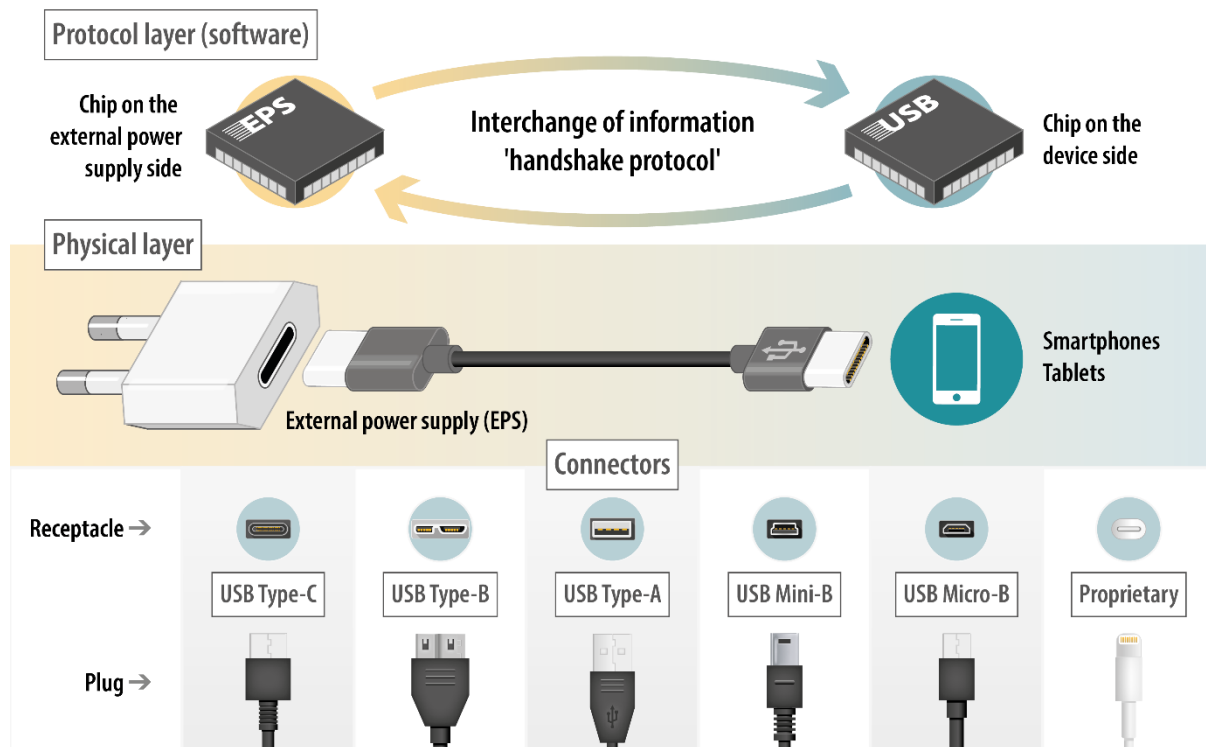
In the meantime, as USB Micro-B is unable to power new, bigger phones at reasonable speed, most manufacturers started to shift towards the faster USB Type-C ('USB-C') connectors, first on high-end and now also on mid-range phones and small portable devices. The latest attempt at an agreement on a MoU was proposed by the industry in 2018; while also promoting a shift to USB-C connectors, however it would still allow the use of proprietary connectors, which was deemed unacceptable by the Commission. A June 2021 [study](#) done for the Commission estimated that in 2019, 44 % of mobile phones sold in the EU had a USB-C connector at the device end, while 38 % (mostly older and lower-end phones) had a USB Micro-B, and 18 % had Apple's Lightning connector.³ According to the study, without any regulatory intervention, USB Micro-B is expected to be completely superseded by USB-C connectors by 2026, while the Lightning share will stay the same.⁴

Legislation on common chargers was announced in the 2020 Commission [work programme](#), under the second priority – 'A Europe fit for the digital age'. Adoption was originally planned for the third quarter of 2020, but has since been postponed several times. The legal instrument envisaged has also changed: while it was expected that the new rules would be set out in a delegated act, in line with the provisions of the Radio Equipment Directive, the Commission ultimately decided to propose amendments to the directive itself, to be adopted by ordinary legislative procedure (co-decision by Parliament and Council).

Context

A typical wired mobile charger is made up of an **external power supply (EPS)**, which plugs into the electrical outlet, and a **cable**⁵ (see Figure 1 below). The cable has plugs at either end. One connects to the receptacle on the EPS and the other to the receptacle on the device that needs to be charged. Both the EPS and the device also need to include an **interoperable communication protocol** ('handshake protocol') that enables the EPS and the device to communicate, so that the EPS does not provide more power than the device requires and does not damage the battery.

Figure 1 – Charger components



Source: EPRS, based on the Commission [impact assessment](#), pp. 9 and 121. Graphic by Samy Chahri.

The 2009 MoU defined the common charger using the USB Micro-B connector, which provided 7.5 watt (W) power. However, this is either insufficient for charging some of today's phones with larger batteries or would charge them too slowly. The USB-C connector and the USB Power Delivery (USB PD) communication protocol can deliver fast charging with power up to 100W, while at the same time supporting adaptive charging. This means that they can adjust the power to the charging requirements of a specific device and can therefore be used for charging a wide range of products. According to the 2019 Commission study mentioned above, modern fast-charging technologies typically provide 15 W of power or more.⁶

Existing situation

Requirements for the placing on the market of different charger parts are laid down in several pieces of EU legislation.

Mobile phones and other wireless devices are subject to the 2014 [Radio Equipment Directive](#), which lays down rules for the placing on the EU market of radio equipment (i.e. electric or electronic products that can emit or receive radio waves for the purpose of radio communication or determining position or speed – in other words, products that can work wirelessly).⁷ The main aim of the directive is to prevent the growing number of wireless devices from interfering with each other, and to ensure that they meet essential health and safety requirements.⁸ The directive provides for rules on the essential requirements for radio equipment; manufacturers' obligations; radio equipment conformity; notification of conformity assessment bodies; and market surveillance and control of radio equipment entering the EU market. The directive also empowers the Commission to adopt delegated acts specifying which categories of radio equipment are concerned by each of the essential requirements (Article 3(3), second subparagraph). This includes a requirement that radio equipment 'interworks with accessories, in particular with common chargers' (Article 3(3)a). In addition, recital 12 calls for a 'renewed effort to develop a common charger for particular categories or classes of radio equipment', in particular for mobile phones, noting that

'interoperability between radio equipment and accessories such as chargers simplifies the use of radio equipment and reduces unnecessary waste and costs'.

The **external power supply** does not fall under the scope of the Radio Equipment Directive (unless it works wirelessly), but under the 2014 [Low Voltage Directive](#), which covers health and safety risks of electrical equipment operating with an input or output voltage between 50 and 1000 volts (V) for alternating current, and between 75 and 1500 V for direct current. Rules on eco-design of external power supplies are laid down in [Commission Regulation](#) (EU) 2019/1782, in line with the 2009 [Ecodesign Directive](#), but currently focus on energy efficiency only.

Characteristics of **detachable cables** are not regulated under EU harmonisation legislation. Where safety is concerned, cables intended for consumers therefore fall under the [General Product Safety Directive](#).

Parliament's starting position

In its [resolution](#) of 30 January 2020 on a common charger, Parliament called on the Commission to adopt a standard for a common charger 'as a matter of urgency in order to avoid further internal market fragmentation'. It called for either a delegated act or a legislative measure to be adopted at the latest by July 2020. Parliament criticised the Commission for repeatedly postponing the adoption of rules on the common charger, despite the fact that 'for more than 10 years Members of the European Parliament have been demanding a common charger for mobile radio equipment, including mobile phones, tablets, e-book readers, smart cameras, wearable electronics and other small or medium-sized electronic devices'. Parliament noted that the new measure should be scrutinised regularly to take into account technical progress, and should ensure interoperability of different wireless chargers with different mobile radio equipment. Parliament considered that the aims of introducing a common charger would not be achieved without unbundling (meaning the sale of a device without a charger), but that this should be done in a way to avoid potentially higher prices for consumers. It warned that voluntary agreements between industry players, although bringing about substantial improvement, have proved unsuccessful in achieving a common charging solution, and that consumers still have to buy 'different chargers when buying new devices from different sellers, and are obliged to buy a new charger when purchasing a new device from the same seller'.

On 10 February 2021, in its [resolution](#) on the new circular economy action plan, Parliament repeated its call for a common charger for smartphones and all small and medium-sized electronic devices to be introduced 'as a matter of urgency'. It said measures should include wireless charging; a 'decoupling strategy that ensures consumers are not obliged to buy new chargers with new devices to allow for greater environmental benefits, cost savings and convenience for consumers'; and informing consumers on relevant features of chargers through harmonised labelling.

Parliament was already a strong advocate for harmonisation of mobile phone chargers in previous terms. During the negotiations leading to the Radio Equipment Directive's adoption, it managed to negotiate the inclusion in the directive of a number of its demands, including: a call for a 'renewed effort to develop a universal charger for particular categories of radio equipment', in particular for mobile phones and the listing of compatibility with a universal charger among the essential requirements for radio equipment.⁹

Preparation of the proposal

In preparing the proposal, the Commission carried out several consultations: a public consultation; two consumer surveys; a stakeholder survey that included citizens, consumer organisations, Member States and manufacturers; targeted interviews with consumer and environmental organisations, market surveillance authorities, non-governmental organisations, manufacturers and their associations; and meetings of the [expert group on radio equipment](#).

The [public consultation](#) from 14 May to 6 August 2019 received 2 850 responses. An overwhelming majority (96 %) came from EU citizens, with all Member States being represented. Most citizens indicated that they were not satisfied with the current situation: 76 % agreed or strongly agreed that it was a source of inconvenience (because of multiple chargers for different devices taking up space in their homes or generating confusion, or difficulties finding a suitable charger when away from home); 93 % expressed serious concern about the amount of e-waste generated by old chargers; and 80 % stated that unbranded chargers may potentially be unsafe. Conversely, 34 participating businesses and business organisations and associations were generally more satisfied with the current situation: 30 % said different chargers had no environmental impact, and 47 % said they caused no inconvenience, while 56 % indicated that the variety in types of chargers was a positive factor. Nevertheless, 63 % were in favour of mandating a charger standard.¹⁰

The 2019 consumer survey included respondents from 10 Member States. It showed that, on average, consumers owned three chargers, of which two were used, and that accumulating chargers at home was the most common way of dealing with old chargers. The 2021 consumer survey showed that consumers were not in favour of unbundling: 61 % said it was very important to find the external power supply in the box (with a further 21 % saying it was quite important), and 71 % said it was very important for them to find the cable (and an additional 17 % saying it was important).¹¹

In addition, the Commission requested three studies. An [impact assessment study](#) on harmonising chargers for mobile phones and other compatible devices was published in December 2019. An April 2021 [technical supporting study](#) on wireless charging technologies concluded that these technologies were in early stages of development, with no worrying levels of fragmentation, at least in the case of smartphones. Following on from the 2019 study, a June 2021 [impact assessment study](#) on unbundling of chargers for mobile phones and similar devices found that unbundling would have significant environmental benefits, but would at the same time imply significant financial cost and loss of convenience for consumers. It also noted that unbundling could cause more consumers to buy stand-alone chargers, which are more likely to be counterfeit and unsafe.¹²

All of the above fed into the Commission [impact assessment](#) (with its [executive summary](#)) accompanying the proposal, which analysed five options. Option 1 would introduce a requirement for a harmonised USB-C receptacle at the device end; option 2 would mandate a communication protocol on the device side only; option 3 would combine mandating the communication protocol and unbundling; option 4 would mandate both the USB-C receptacle and the communication protocol; and option 5 would combine a harmonised receptacle, a harmonised communication protocol and unbundling. The preferred option was option 5, as it was deemed to provide the best balance between benefits for consumers, economic operators and the environment.

An EPRS [initial appraisal](#) of the Commission impact assessment concluded that, while the IA is based on sound evidence, it would have benefited from a more thorough discussion of the impacts on SMEs.

The changes the proposal would bring

The proposal for amending the Radio Equipment Directive (RED) contains the following main elements:

- **Included devices:** new rules would apply to handheld mobile phones, tablets, digital cameras, headphones, headsets, handheld videogame consoles and portable speakers capable of being recharged through wired charging (new annex I, part I). The Commission decided not to include laptops or radio-controlled toys, as their charging characteristics significantly differ from mobile phones', while smart watches and fitness bands were excluded for reasons related to, for instance, their size and conditions of use.¹³

- **Device-side connector:** the included devices would have to be equipped with a USB-C receptacle on the device side (as described in the European standard EN [IEC 62680-1-3:2021](#)) and, in cases of charging power lower than 60 watts, be rechargeable with cables that complied with the same standard (new annex Ia, part I).
- **Charging communication protocol:** the devices should incorporate the USB Power Delivery (USB PD) standard (as described in the European standard EN [IEC 62680-1-2:2021](#)) and ensure that any additional charging protocols allow for full USB PD functionality (new annex Ia, part I).
- **Essential requirements:** Article 3 of the directive would be adapted so that charging interface(s) and charging communication protocol(s) would be considered as essential requirements for the included devices.
- **Wireless charging:** while the technology for wireless charging would not be harmonised, the Commission would be empowered to amend annex Ia by delegated acts for future wireless solutions to account for technological progress (new paragraph 4 of Article 3 and amended Article 44 RED), both regarding the categories of devices that are covered and the technical specifications.
- **Unbundling of devices and chargers:** whenever end-users are offered the possibility to buy a device with a charging device, they would also have to be offered the possibility to buy it without a charger (new article 3a RED). Cables could still be offered with every device.
- **Information for end-users:** on the packaging or a label, manufacturers would have to provide information on specifications relating to charging capabilities, in line with annex Ia (amended Article 10(8) RED). This includes a description of the wired chargers' power requirements (the text displayed should read: 'The minimum power delivered by charger shall be equal or higher than [xx] watts') and specifications on charging capabilities ('USB PD fast charging' and an indication of any other supported charging protocols).
- **Conformity assessment and market surveillance:** rules would be amended by references to the new essential requirements for the conformity assessment procedures (Article 17(2) RED). Manufacturers would have the choice of which conformity assessment procedures to follow, and would be able to choose the internal product control procedure. References to new essential requirements would also be added to Articles 40 and 43 RED on market surveillance and formal non-compliance.
- **Transposition and application:** Member States would have 12 months to transpose the provisions of the directive into national laws, and would be required to apply those laws from 12 months following that (article 2 of the proposal). The new rules would not apply to devices placed on the market before the date of application.

While the proposal would harmonise the receptacles and communication protocols on the device side, a separate initiative on the **eco-design for the external power supply (EPS)** would harmonise the EPS-side receptacle and the communication protocol. The EPS initiative is included in the Commission's [roadmap](#) for the 2020-2024 eco-design and energy labelling working plan, and is expected to be adopted in time for its requirements to start applying simultaneously with those from the revised Radio Equipment Directive.

Advisory committees

The European Economic and Social Committee (EESC) adopted its [opinion](#) on 8 December 2021 (rapporteur: Christophe Lefèvre, Workers – Group II, France). The EESC recommends that the obligation to work with a standardised charger be extended to all radio, electronic, connected and

rechargeable devices, including laptops, and that buses, aeroplanes, shopping centres, conference rooms and other public spaces in future be equipped with ultra-fast chargers. It also called on the Commission to encourage consumers only to purchase devices with a USB-C interface in future.

The European Committee of the Regions (CoR) is not expected to issue an opinion.

National parliaments

The [deadline](#) for the submission of reasoned opinions on the grounds of subsidiarity was 19 November 2021. No subsidiarity concerns were raised.

Stakeholder views¹⁴

During the public consultation, the European Consumer Organisation ([BEUC](#)) advocated the mandatory introduction of a universal charger that would work with many different appliances, as it considers that having a different charger for each device is inconvenient and contributes to e-waste generation. BEUC warned that consumers currently do not have financial incentives to purchase only the product without the charger, and that 'purchasing a single charger comes on average at a higher price than when it is delivered with the product'. BEUC called on the Commission to work with manufacturers and retailers to adopt different marketing models in this regard.

[ANEC](#), the organisation that represents consumers in the process of adopting EU standards, said consumers should have the choice of whether to buy a new charger with new devices, and should be informed about the possibility of using a charger they already have at the moment of sale. While welcoming the Commission's proposal, ANEC noted that the legislation should also introduce harmonised wireless charging systems; a 'consistent and common design' of chargers to help consumers with disabilities and older consumers identify the right charger and use it properly; and strong market surveillance provisions to ensure that unsafe chargers are taken off the market.

The European Electronics Recyclers Association ([EERA](#)) considered the harmonisation of chargers to be a great opportunity for re-use, repair and re-manufacturing of chargers, and suggested widening the scope for the harmonisation of chargers. EERA stated that increased resource efficiency and recycling could be achieved if all chargers were made of the same material. For instance, 'one type of plastic with one type of flame retardant would increase the possibility for material recycling significantly'.

Industry associations were more likely to prefer non-regulatory measures. [Digital Europe](#) favoured a voluntary approach, especially on unbundling of chargers. It considered that 'mandating a limitation of the available charging solutions, in particular on the device side rather than on the charging block, would neither be suitable nor necessary to achieve interoperability, waste reduction and greater consumer convenience'. It also noted that a regulatory option would risk stifling innovation.

Mobile & Wireless Forum ([MWF](#)), an international association of companies with an interest in mobile and wireless communications including the evolution to 5G and the internet of things (IoT), noted that the voluntary approach has so far produced positive results. It favoured allowing gradual migration from USB Micro-B to USB-C, as it would be good for consumer convenience and avoiding e-waste. MWF expressed concerns that mandating a universal charger and unbundling could lead to an increase in the volume of unsafe, substandard and counterfeit chargers on the market.

The Apps Association ([ACT](#)), which represents more than 5 000 small and medium-sized application developers and connected device companies, called on the Commission to avoid applying technology-specific common charging requirements. It noted that 'device space is at an absolute premium for any hardware designer' and that prescribing the technology at charging ports 'would disrupt the ability to design these IoT devices in the most efficient way'. ACT said this could be especially detrimental to small business innovators, and warned of a risk of 'locking in certain charging technology that is already being surpassed by more efficient and innovative solutions'.

[Apple](#), which uses a proprietary device-side connector for its mobile phones, warned that proposals to prescribe the type of connector would 'freeze innovation', and be 'bad' for the environment and 'unnecessarily disruptive' to consumers. Apple stated that a billion of its devices and associated accessories with a Lightning connector would require external adaptors or be rendered obsolete, thus generating a huge volume of electronic waste and inconveniencing consumers.

Legislative process

In the Council, examination of the file took place in the working party on technical harmonisation. On 26 January 2022, the Council's Permanent Representatives Committee (Coreper) approved a [negotiating mandate](#) for the French Presidency to start negotiations with the Parliament. The mandate, which seeks to improve consumer information and conditions for the delegation of powers to the Commission, has the following elements:

- **Pictogram indicating unbundling:** information on whether or not a charger is included with a device would have to be displayed in a graphic form using a pictogram, which is described in a new part III of annex Ia. The pictogram does not include any text as the Member States insisted on making it linguistically neutral. The pictogram would have to be printed on the packaging or attached on the packaging as a sticker. It would also have to be displayed close to the price indication in both offline and online shops (Article 3a RED).
- **Label on charging capabilities and compatible charging devices:** in addition to being included in the user manual, information on charging capabilities and compatible charging devices would also have to be displayed on a label, also without text, which is laid out in a new part IV of annex Ia. The label would have to be printed on the packaging; attached on the packaging or on the device as a sticker; or, if the size or nature of the device do not allow this, it could be printed as a separate document. In shops, the label would have to be displayed close to the price indication (Article 10(8) RED).
- **New obligations for importers and distributors:** the obligation to display the label and the pictogram close to the price indication would also apply to importers (Article 12(4)) and distributors (Article 13(2) RED).
- **Delegation of powers:** When preparing the delegated acts on the devices covered and wireless charging, the Commission would be required to take into account the degree of market acceptance of the technical specifications under consideration, the resulting consumer convenience and the extent of the reduction of environmental waste and market fragmentation that can be expected from such technical specifications. In exceptional cases, the Commission would be able to reference standards other than European and international standards (recital 9, Article 3(4) RED). The directive would explicitly mention that the Commission is to consult experts designated by each Member State when preparing the delegated acts (Article 44 RED).
- **Date of application:** Member States would be required to apply the new provisions a year later than proposed by the Commission (article 2 of the proposal).

In the European Parliament, the file was referred to the Committee on the Internal Market and Consumer Protection (IMCO). Alex Agius Saliba (S&D, Malta) was appointed rapporteur. On 11 January 2022, the rapporteur put forward his [draft report](#). The committee adopted its [report](#) on 20 April 2022, with the following elements:

- **Included devices:** a larger range of small and medium-sized devices with power delivery up to 100 watts would be included under the scope of the directive, including e-readers, low-powered laptops, keyboards, mice, earbuds, screens, printers, portable navigations, smart watches, personal care devices and electronic toys (annex Ia Part I

RED). Some products, such as smart watches, health trackers and personal care devices, could be exempted if they are too small to have a USB Type-C receptacle. By the end of 2026, the Commission would be required to assess and include other devices that can be charged with the USB Type-C under the scope of the directive.

- **Devices that cannot be charged by USB Type-C:** by the end of 2028, the Commission would be required to come up with a harmonised technical solution for wired charging for devices that cannot be charged with the USB Type-C, with application starting in 2030. Should the Commission fail to do so, it would be required to justify the decision not to do so to the Parliament and Council.
- **Wireless charging:** by the end of 2026, the Commission would be required to adopt delegated acts harmonising wireless-charging solutions. This should be preceded by the Commission's assessment on the wireless charging technologies available on the market to ensure that devices can be charged quickly and in an energy efficient and safe way (article 3(4) RED).
- **Regular updates:** the Commission would be required to regularly review and amend requirements for wired and wireless charging, 'in line with scientific and technological progress, consumer convenience and environmental developments' (article 3(4)4a RED).
- **Label on charging characteristics:** an easily legible, accessible and understandable label with information on the charging capabilities of a particular device would have to be placed in a prominent position on the packaging; affixed on those devices that are sold without packaging; displayed on instructions for use; and clearly visible to the end-user before purchase, including online. The label, whose characteristics are specified in part IIb of annex Ia, would specify the minimum and maximum power required to charge a device. Member States would be able to require that the label has to be written in a language easily understandable to consumers on their territory (article 10(8)3a RED).
- **Unbundling graphic:** a new graphic indicating whether a charging device is included with the device would also have to be placed in a prominent position on the packaging; attached to the device if there is no packaging; and be clearly visible before purchase, including online. The characteristics of the graphic are specified in part IIa of annex Ia. Member States would be able to lay down rules on the language of the graphic (article 10(8)3b RED).
- **Market surveillance:** the relevant market surveillance authorities would be required to perform specific checks on information requirements, including the new label and graphic, as well as checks about compliance with the provisions on unbundling and applicable safety and interoperability requirements (Articles 40 and 43 RED). The directive would also explicitly mention the obligations regarding the displaying of the new label and the graphic for different economic operators.
- **Reporting:** the Commission would be required to report to the Parliament and Council on the application of the directive regarding new charging technologies every three years, starting from three years after the date of entry into force of the directive (article 47(2a) RED). By the same date, it would also be required to report on the impact of the possibility to acquire devices without any charging device and cable (article 3a(1) RED).
- **Transposition and application:** the date of transposition and of application would be shortened, so the new provisions would apply 12 months earlier than proposed by the Commission (article 2(1) of the proposal).

On 4 May 2022, Parliament endorsed the mandate for negotiations with the Council based on the IMCO report. The first trilogue meeting took place on 10 May. At the second trilogue meeting, on 7 June, the co-legislators reached a [provisional agreement](#). The agreement was adopted by Parliament on 4 October 2022 and by the Council on 24 October. The legal act was signed on 23 November 2022 and was published in the Official Journal as [Directive \(EU\) 2022/2380](#). It has the following elements:

- **Devices included:** from 28 December 2024, the USB Type-C receptacle and the USB PD communication protocol will be required for mobile phones, tablets, digital cameras, headphones, headsets, handheld videogame consoles, portable speakers, e-readers, keyboards, mice, portable navigation systems and earbuds. They will be required for laptops from 28 April 2026 (Annex Ia, Part I RED and Article 2 of the directive).
- **Wireless charging:** by the end of 2024, the Commission will be required to request one or more European standardisation organisations to come up with harmonised standards for the charging interface and communication protocols for wireless charging (Article 3(4)).
- **Regular updates:** the Commission will be empowered to adopt delegated acts amending the list and the technical specifications in light of scientific and technological progress or market developments, to improve consumer convenience, avoid market fragmentation and reduce environmental waste. It will also be required to continuously assess whether adding other devices to this list would significantly improve consumer convenience and reduce environmental waste. The first report on this assessment is due by the end of 2025, and every five years afterwards (Article 3).
- **Unbundling pictogram:** a pictogram indicating whether a charging device is included with the device will have to be displayed on the packaging or close to the price indication, both offline and online (Article 3a).
- **Information on charging characteristics:** specifications relating to charging capabilities and compatible charging devices will have to be included in the usage instruction, as well as displayed on a label set out in Annex Ia, Part IV. The label will have to be printed in the user manual and on the packaging and displayed close to the price indication, online and offline (Articles 10(8), 12(4) and 13(2)).
- **Market surveillance:** the lack of an unbundling pictogram and a label on the charging characteristics will constitute formal non-compliance (Article 43(1)).
- **Reporting:** by the end of 2026, the Commission is required to submit a report on the impact of unbundling of the charging device and cable and, if necessary, a legislative proposal requiring devices to be sold without any charging device or cable (mandatory unbundling) (Article 47).
- **Transposition:** Member States have until 28 December 2023 to transpose the provisions of the directive into national laws.

The adoption of an [implementing regulation](#) harmonising the use of USB Type-C receptacles on the external power supply is expected in the third quarter of 2023.

EUROPEAN PARLIAMENT SUPPORTING ANALYSIS

Sabbati G., [Living in the EU: Circular economy](#), EPRS, European Parliament, March 2021.

Dalli H., [Common chargers – Revision of the Radio Equipment Directive](#), EPRS, Initial Appraisal of the Commission Impact Assessment, February 2022.

Šajn N., [Sustainable consumption: Helping consumers make eco-friendly choices](#), EPRS, European Parliament, October 2020.

OTHER SOURCES

[Radio equipment: harmonisation of the laws of the Member States relating to the making available on the market](#), European Parliament, Legislative Observatory (OEIL).

ENDNOTES

- ¹ The initiative on the common charger is also mentioned in the Commission's [new consumer agenda](#) and [new industrial strategy for Europe](#).
- ² USB stands for [universal serial bus](#), a technology used to connect computers with peripheral devices.
- ³ Apple has been using the Lightning connector on its phones since 2012, while on some other devices, such as tablets and computers, it has moved to the USB-C.
- ⁴ See p. 25.
- ⁵ In older wired chargers, and in some still occasionally used today, the EPS and the cable are not detachable.
- ⁶ See p. 59.
- ⁷ The directive does not apply to radio equipment used for public security and defence activities (Article 1(3)) or to activities listed in Annex I (radio equipment used by radio amateurs, provided that it is not placed on the market; marine equipment; airborne aviation products, parts and appliances; custom-built evaluation kits for professionals to be used solely at research and development facilities for such purposes).
- ⁸ This is becoming especially pertinent as an increasing number of devices are capable of wireless communication.
- ⁹ Parliament entered into negotiations with Council based on the Committee on the Internal Market and Consumer Protection [report](#).
- ¹⁰ For more information on the results of the public consultation, see Annex II of the Commission impact assessment.
- ¹¹ More on the surveys in Annex II of the Commission impact assessment.
- ¹² See p. 22.
- ¹³ See Commission impact assessment, pp. 98 and 101.
- ¹⁴ This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under 'EP supporting analysis'.

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