# 2024: THE YEAR OF COMMON CHARGERS\*

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Have you ever found yourself in a situation where you had three or four different mobile phone chargers at home and still couldn't charge your new smartphone with any of them? Only one year from now, you can finally say goodbye to such problems, as another segment of the European Union's internal market is being harmonized: by 2024, a common charger for mobile devices and other electronic devices will finally be introduced (European Parliament Information Office for Hungary 2022).

### Keywords

European Union, harmonisation, mobile phone chargers, environmental protection

#### Introduction

The continuous developments in the electronic communication sector have greatly contributed to the expansion of the range of electronic devices. This wider range of devices and the new possibilities they offer can satisfy consumer needs to a much greater degree. However, technological innovation is accompanied by a variety of charging solutions, which on the one hand results in the fragmentation of the market for charging interfaces, and on the other hand, chargers not being compatible with previously purchased devices can lead to consumer frustration. In 2020, for example, more than 400 million mobile phones and other electronic devices were sold in the European Union. On average, there are three types of phone chargers in customers' homes, but even so, nearly 40% of consumers reported a case where they could not charge their device due to the lack of a compatible charger. Chargers that came with older types of devices are usually no longer usable for modern devices, but at the same time, newly purchased products are sold together with compatible chargers less and less frequently. Some large companies exclude the charger from the box for environmental protection reasons, but most customers do not have the appropriate charger when they buy the product, so they have to buy it separately. EU citizens spend roughly two and a half billion euros a year on such self-contained chargers, which also come in separate packaging (Magyar Nemzet 2020). In addition, the older chargers, which thus become unusable, will be thrown away: about 11,000 tons of electronic waste can accumulate annually this way. The increase in the number of charging solutions therefore not only results in the fragmentation of the single market and the discomfort of consumers, but also puts a financial burden on customers, and what is more, it also has a negative impact on the environment.

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#### 1. The need for EU-level actions

The internal market is one of the principal areas in which shared *competence* between the *Union* and the *Member States* applies. However, the absence of harmonisation in this area can lead to significant differences between Member States' provisions on the interoperability of electronic devices and may also hinder the free movement of goods. In addition, the fact that actions at the national level are limited to the territory of the given member state also causes a problem, since the number of cross-border cases is constantly increasing. Therefore, there is a need for coordinated EU level measures, through which the objectives can be achieved more successfully and market surveillance will also become more effective.

# 2. The way leading to standardization

The European Commission has been striving for a long time to reduce the fragmentation of the market for chargers of electronic devices, yet the initiatives so far have only led to voluntary schemes between the Commission and the manufacturers that are not legally binding and thus do not ensure consistent and uniform application (European Commission 2018, 19), and as a result, the number of different types of chargers on the market was reduced from thirty to three. However, after the original agreement expired in 2014, the new proposal of the industry presented in 2018 was found not to be in line with the EU's harmonisation objectives.

The European Parliament has also encouraged the European Commission to take action on several occasions: the Radio Equipment Directive adopted in 2014 (2014/53/EU Directive), for example, ensures a single market for radio equipment by setting essential requirements, (European Commission n.d.) and among these requirements, the need for a common charger can be found (Directive 2014/53/EU, Recital (3a)). Subsequently, in its resolution adopted on January 30, 2020, the Parliament called on the Commission to deal with the issue as soon as possible and to ensure the introduction of common chargers, if necessary, through a legislative measure (European Commission 2021, 1–2). In addition, in their resolution on the new circular economy action plan adopted on February 10, 2021, the representatives urged the Commission again to implement the necessary measures for the introduction of common chargers in accordance with the provisions of Directive 2014/53/EU (European Parliament 2021b, point 52).

As a result of these, on September 23, 2021, the Commission finally submitted a legislative proposal in which it suggested new legislative measures in order to ensure the interoperability of chargers by amending the Radio Equipment Directive. On June 7, 2022, the Council and the European Parliament reached a provisional agreement on the proposal to amend the directive, which was approved by the Member States' representatives on June 29, 2022. Finally, on October 24, 2022, the Council approved the agreement, and thus the legislative act was adopted.

#### 3. The Commission's most important proposals

First of all, the Commission proposed a common charging port for electronic equipment, notably the USB Type-C connector. This allows consumers to charge all their devices, regardless of their brand, with the same Type-C charger, eliminating the need to purchase different chargers when shopping from different sellers or when purchasing a new device from the same seller (European Parliament 2020, point C). In order to prevent some manufacturers from unreasonably limiting the charging speed of their products, the proposal also covers the harmonization of fast charging technology, in other words, the charging speed will be the same for all compatible chargers.

The proposal also aims to provide better information for end-users. Manufacturers are obliged to inform consumers about the charging performance characteristics and the power delivery of the charger device that can be used with that equipment (on the packaging or on a separate label), which makes it easier for customers to determine whether their current chargers are compatible with their new device, whether they have to buy a new charger, and if yes, which one. This way, the measure contributes to the reduction of purchases.

In addition, the proposal promotes the *separation* of *charger sales* and *equipment sales*. In practice, this means that if the economic operator sells a specific product together with a charging device, then the same product must be available without a charging device (European Commission 2021b, 10); consumers can therefore decide whether they buy their new devices with or without a charger. This separation can limit the increase in the number of chargers that are not in use anymore, as well as the number of newly manufactured and de-energized chargers, and all this can reduce the amount of electronic waste by nearly a thousand tons annually. It is important to note that the electronic products will still come with a cable in their boxes, because the purpose of the cable is different from that of the charger, as it can be used for data sharing and even direct charging (for example, on trains or in hotels). Such a decision can be useful for consumers, since cables break much more often than charging heads, and moreover, their production involves less resource consumption and they are responsible for significantly less greenhouse gas emissions and electronic waste than external power supplies.

At the same time, the legislation also thought about the future, so that the spread of innovative charging solutions does not cause further trouble. Due to the rapid development of technology, for example, great progress can be expected in the field of wireless charging, which, however, may fragment the internal market again and become a source of consumer annoyance. For the purpose of preventing this process, the Commission, although it does not define the specific technical requirements of wireless charging, undertakes to coordinate the technologies and to create harmonised wireless charging solutions.

These new requirements apply to products that are commonly used by the majority of consumers and that have similar charging characteristics. Thus, the scope of the directive covers mobile phones, tablets, digital cameras, headphones without and with a microphone, handheld game consoles, and portable speakers. Other products, such as earphones, smart watches and activity meters, were not taken into account, which is mainly justified by technical reasons related to their size and conditions of use.

The rules of the adopted legislative act will become applicable 24 months after they come into force, which means that from 2024 we will finally be able to charge all our electronic devices with one common charger. The 24-month transition period provides adaptation time for the industry, as well as for consumers. In the case of laptops, this period is increased to 40 months (European Commission 2022). However, the requirements contained in the directive will not apply to products placed on the market before the start date of the application.

# 4. Evaluation of the legislative act

Overall, the decision concerning the introduction of common chargers can be evaluated as a huge victory for the internal market, the consumers and the environment.

On the one hand, it ensures the harmonisation and smooth operation of the internal market, and on the other hand, uniform requirements also provide consumers with a high level of protection. Chargers power consumers' most important electronic devices for school, work and everyday life, but from now on, they can use the same charger for all devices. With this, they can save a lot of money and say goodbye to those inconvenient situations where they run out of power due to the lack of a suitable charger. What is more, the requirement of providing better information enables them to make more sustainable decisions when purchasing new devices. At the same time, they are no longer forced to rely on the products of a given manufacturer because of the technology they have already purchased (European Parliament Information Office for Hungary 2022).

The harmonisation also supports the protection of the environment and the green transition (European Commission 2021c), as electrical and electronic devices are currently the fastest-growing amount of electronic waste by an expected thousand tons per year. Moreover, reducing the purchase of new chargers can also diminish greenhouse gas emissions (European Commission 2021c).

A critical point of the legislation is that it does not apply to all kinds of electronic devices, so smartwatches and earphones are excluded from its scope. However, these devices are used no less frequently than, for example, game consoles or portable speakers, and their battery drains much sooner and needs charging more often. These are the devices that consumers usually carry together with their phones, as smartwatches and headphones are connected to the phone. So, if they still require different chargers, consumers may find themselves again in a situation where they have to carry multiple chargers or one is not compatible.

# **Summary**

The positive consequences of the EU's new legal act cannot be denied, as the interoperability between chargers makes the use of devices easier, and reduces both the amount of unnecessary waste and costs (Directive 2014/53/EU, Recital (12)). This European innovation can even set an example for other continents and maybe one day, the USB-C port will be the standard solution worldwide. Of course, this decision would be the biggest challenge for Apple, as the American company persistently insisted on its own developed Lightning connector, but if type-C connectors will be present in all

electronics products, it is not inconceivable that they will eventually switch to the new system (Greendex 2022).

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