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COMMISSION RECOMMENDATION

of 6.10.2023

on improving the rate of return of used and waste mobile phones, tablets and laptops

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 292 thereof,

Whereas:

- (1) Waste electrical and electronic equipment ('WEEE') is one of the fastest growing waste streams in the Union, currently growing by 2% per year, resulting in severe risk for both human health and the environment, if not properly treated. In 2019, an average of 16.2 kg per capita of WEEE was generated in Europe¹ while in the Union, in 2020 about 10.5 kg per capita of WEEE was separately collected² to be properly treated in accordance with Article 8 of Directive 2012/19/EU of the European Parliament and of the Council³, and recycled. Of this separately collected WEEE, the share of small consumer electronics, such as mobile phones, tablets, laptops and their chargers, separately collected is especially low. For example, the collection rate of mobile phones in Member States is reported to be under 5% and an estimated stock of 700 million unused and waste mobile phones are stored in households across the Union.
- (2) The collection and recycling of small consumer electronics is furthermore particularly challenging because they are improperly disposed of via municipal household waste, illegally exported, or otherwise improperly treated. The recycling rate of mobile phones for instance is estimated to range between 12% and 15% in the Union.
- (3) Small consumer electronics, such as mobile phones, tablets and laptops, have a high embedded value of interest in a circular economy as they contain a large variety of materials, including important critical raw materials, which can be recycled or recovered when waste is managed effectively. Circular models such as reuse, repair or remanufacturing of small consumer electronics, as well as recycling the precious and critical raw materials contained in them, therefore contribute to waste prevention by reintroducing products, components, and secondary raw materials into the economy. Furthermore, the repair and reuse of electrical and electronic equipment as well as the preparation for reuse and recycling of WEEE can boost green jobs in the circular economy. For example, reuse activities in electrical and electronic equipment can

¹ The Global E-waste Monitor 2020: Quantities, flows, and the circular economy potential: https://ewastemonitor.info/wp-content/uploads/2020/11/GEM_2020_def_july1_low.pdf

² Eurostat: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste_statistics_-_electrical_and_electronic_equipment

³ Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (OJ L 197, 24.7.2012, p. 38).

create between 60 and 140 jobs per 1,000 tonnes collected with a view to being reused⁴.

- (4) When considering the lifetime of small consumer electronics, such as mobile phones, tablets or laptops, their environmental and social impacts are mainly associated with the production phase. The extraction of materials, including the production of metals and the mining of critical raw materials⁵ such as platinum group metals, cobalt, indium, antimony, beryllium, lithium, rare earth elements, tungsten and tantalum, is often linked with significant environmental, health and social impacts. The related environmental and public health impacts include those arising from emissions of air pollutants and greenhouse gases, the use of hazardous substances, and waste generation, while the social impacts of the mining of critical raw materials include impacts such as social conflicts, human rights violation, child labour or land dispossession⁶. Applying circularity principles to the entire lifecycle and extending longevity of small consumer electronics can therefore lead to significant benefits in terms of resource efficiency, decarbonisation, and depollution, and in supporting a market for secondary raw materials.
- (5) The recycling and the recovery of critical raw materials contained in small consumer electronics is particularly important in light of the growing global demand for such materials and of possible supply disruptions. Moreover, the Union currently relies almost exclusively on imports for many of those raw materials. Improving both the quantity and quality of collection of small consumer electronics, through well-functioning take-back schemes allowing consumers to return devices when they are waste or are no longer used, is therefore crucial for the economic recovery of the related components and materials.
- (6) The Communication from the Commission of 2019 related to the European Green Deal⁷ highlights that the transition to a circular economy must focus on resource-intensive sectors such as the electronics sector. Among the relevant actions proposed, was an assessment of the benefits of supporting take-back schemes to incentivise the return of unwanted devices, such as mobile phones, tablets and chargers. This is further detailed in the Commission Communication of 2020 on a Circular Economy Action Plan⁸, which calls for improving the collection and treatment of WEEE including by exploring options for take-back schemes to return used and waste mobile phones, tablets and chargers. In addition, the Communication from the Commission of 2021 regarding the Zero Pollution Action Plan⁹ calls for waste prevention and high

⁴ RREUSE (2021) Job creation in the re-use sector: data insights from social enterprises.

⁵ The proposal for a Regulation of the European Parliament and of the Council establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/102, COM(2023) 160 in its Annex II includes a list of critical raw materials.

⁶ Study on Social and environmental impacts of mining activities in the EU:
[https://www.europarl.europa.eu/RegData/etudes/STUD/2022/729156/IPOL_STU\(2022\)729156_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2022/729156/IPOL_STU(2022)729156_EN.pdf)

⁷ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions – The European Green Deal, COM(2019) 640 final.

⁸ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A new Circular Economy Action Plan - For a cleaner and more competitive Europe, COM(2020) 98 final.

⁹ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions – Pathway to a Healthy Planet for All- EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil', COM(2021) 400 final.

quality of recycling supporting the Union's goals for resource efficiency while it also recognises WEEE among the fastest growing waste streams.

- (7) The proposed Regulation on a secure supply of critical raw materials¹⁰ aims at providing a framework to ensure a secure and sustainable supply of critical raw materials in the Union. It is intended to offer support to strategic projects, including in the area of recycling, and places a focus on increasing collection of both used goods and waste streams that contain relevant amounts of critical raw materials.
- (8) Commission Regulation (EU) 2023/1670¹¹ contains rules to make smartphones, mobile phones other than smartphones, cordless phones and slate tablets more energy efficient, durable and easier to repair and recycle. In particular, the requirements on the availability of operating system version upgrades, on the data deletion and transfer functionalities and on the information on the quantity of certain critical raw materials (cobalt, tantalum, neodymium and gold) and on the percentage of recycled content (if available) have, in synergy with this Recommendation, the objective of fostering the reuse and recycling of mobile phones and tablets.
- (9) WEEE including waste from small consumer electronics is regulated by Directive 2012/19/EU. Article 3(1), point (e), of Directive 2012/19/EU sets out a definition for 'waste electrical and electronic equipment', while Article 3(1) of Directive 2008/98/EC of the European Parliament and of the Council¹² defines 'waste' as 'any substance or object which the holder discards or intends or is required to discard'.
- (10) Directive 2012/19/EU obliges Member States to ensure that the disposal of WEEE as unsorted municipal waste is minimised, a high level of separate collection is reached, and the proper treatment of all separately collected WEEE is ensured. That Directive sets an annual WEEE collection target of 65%, applicable as of 2019, based on the average weight of electrical and electronic equipment placed on the market in the 3 preceding years in each Member State, or alternatively a target of 85% of WEEE generated annually on the territory of each Member State. In addition, that Directive sets minimum recovery targets including a recycling and preparation for reuse target for different categories of electrical and electronic equipment.
- (11) Directive 2012/19/EU also lays down specific take-back obligations to ensure the separate collection of WEEE. Member States are obliged to ensure that systems are set up that provide for the return of household WEEE free of charge. Distributors are to accept the return of WEEE when selling similar electrical and electronic equipment. Distributors are also to provide for the collection at retail shops of a certain size¹³ of very small WEEE from end-users, free of charge, with no obligation on the end-user to buy electrical and electronic equipment of an equivalent type, unless an assessment shows that alternative existing collection schemes are likely to be at least as effective.

¹⁰ Proposal for a Regulation of the European Parliament and of the Council establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/102, COM(2023) 160 final.

¹¹ Commission Regulation (EU) 2023/1670 of 16 June 2023 laying down ecodesign requirements for smartphones, mobile phones other than smartphones, cordless phones and slate tablets pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending Commission Regulation (EU) 2023/826.

¹² Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

¹³ With sales areas relating to electrical and electronic equipment of at least 400 m².

- (12) Pursuant to Article 14(2) of Directive 2012/19/EU, Member States are to ensure that users of electrical and electronic equipment in private households get the necessary information about the return and collection systems available to them and are also to encourage the coordination of information on the available collection points.
- (13) While some progress has been made since the first Directive dealing with WEEE, Directive 2002/96/EC of the European Parliament and of the Council¹⁴ was adopted in 2003, and even more so since the adoption of Directive 2012/19/EU, the rates of preparation for reuse, collection and recovery of waste from small consumer electronics remain low in Member States. Significant amounts of such small consumer electronics, both functional and waste, are kept in households due to their small size, to be used as a back-up or as data storage, or for their resale potential. The lack of awareness on the take-back options available, along with concerns regarding personal data privacy when returning such devices for possible reuse or preparation for reuse, also contribute to low return rates.
- (14) To identify issues relating to WEEE management in the Member States and to support them in addressing such issues, the Commission conducted a WEEE compliance promotion initiative, providing recommendations to Member States to help increase the collection of WEEE¹⁵. Those recommendations include, in particular, that Member States develop sufficient infrastructure for consumers to discard WEEE and to inform consumers about the take-back options available to them. That includes ensuring that distributors comply with their take-back obligations under Article 5 of Directive 2012/19/EU and providing consumers with the option to return devices free of charge.
- (15) A study conducted for the Commission in 2022 to explore options in the Union for return schemes of mobile phones, tablets and other small electrical and electronic equipment¹⁶ identified a set of policy measures to improve the return rate of such used and waste small consumer electronics, notably through financial incentives, regulatory measures and improving convenience for consumers. Such measures either individually or in combination are likely to improve the effectiveness of take-back schemes to recover small consumer electronics.
- (16) Take-back schemes should be allowed to be operated by distributors, telecom providers, private businesses, social enterprises and social economy entities, charities, producers of electrical and electronic equipment or organisations implementing extended producer responsibility obligations on their behalf (producer responsibility organisations), and online platforms.
- (17) The use of financial incentives in the form of discounts, vouchers, deposit-return schemes and monetary rewards offered to consumers when returning their devices has been identified as an efficient measure for improving the return rate of waste and used devices. As observed in existing take-back schemes, the financial reward is dependent on whether the device is fit for reuse or is to be recycled. Used devices which are fit for reuse, repair and refurbishment have a higher resale value and are thereby distinguished from those that have become waste and are collected for recycling.

¹⁴ Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (OJ L 37, 13.2.2003, p. 24).

¹⁵ WEEE compliance promotion initiative: <https://op.europa.eu/en/publication-detail/-/publication/09c7215a-49c5-11e8-be1d-01aa75ed71a1/language-en>.

¹⁶ Study on options for return schemes of mobile phones, tablets and other small electrical and electronic equipment in the EU: <https://op.europa.eu/en/publication-detail/-/publication/f049cf4f-ed23-11ec-a534-01aa75ed71a1/language-en>.

Targeted offers of financial rewards facilitate the efficient collection and recovery of both used and waste devices and are expected to incentivise consumers to return the small consumer electronics they no longer use but store at home. Experience has shown such schemes usually to be more effective and efficient when designed for a limited period.

- (18) Where a financial reward for the return of small consumer electronics is provided through a buy-back option, appropriate tools and arrangements should be allowed to assist consumers in making informed decisions, for instance by providing the means of calculating the buy-back value of their devices.
- (19) Positive experiences have been gained in some Member States when making use of the infrastructure and door-to-door network of postal and shipping services to collect either used or waste electrical and electronic equipment within their territory. Where such arrangements exist in a Member State, consumers in that Member State are able to use post offices as drop-off points or postal and shipping services to send their used or waste small consumer electronics to collection points established in that Member State by take-back operators or producer responsibility organisations. Such arrangements have been found to greatly improve the convenience for the consumer of returning small consumer electronics.
- (20) Targets for reuse and preparing for reuse have been identified as key enablers and indicators of a circular economy. Setting such targets can encourage reuse through appropriate measures. The targets might be set either as a national objective linked to monitoring or as a mandatory target being set for specific operators of take-back schemes, such as distributors or producer responsibility organisations.
- (21) Prioritising reuse over recycling is key due to its potential to reduce greenhouse gas emissions and resource use, as well as having the potential to create jobs. Directive 2008/98/EC lays down an obligation for Member States to take measures to encourage reuse as part of their waste prevention programmes, and to monitor and assess the implementation of the related measures by measuring reuse in accordance with a common methodology established under Commission Implementing Decision (EU) 2021/19¹⁷. Electrical and electronic equipment is one of the product categories included in that Implementing Decision and for which Member States should measure reuse at least once every 3 years.
- (22) The recovery targets set out in Annex V to Directive 2012/19/EU are set up as a combined target for both preparing for reuse and recycling for the respective categories of electrical and electronic equipment. Commission Implementing Decision (EU) 2019/2193¹⁸ requires Member States to report to the Commission the quantities of WEEE prepared for reuse, in addition to the quantities recycled. Reporting separately on preparing for reuse enables Member States to have an overview of the relevant quantities and possibly to take initiatives to set separate targets on preparing for reuse in order to promote this recovery operation and also in order to increase the combined targets for both preparing for reuse and recycling.

¹⁷ Commission Implementing Decision (EU) 2021/19 of 18 December 2020 laying down a common methodology and a format for reporting on re-use in accordance with Directive 2008/98/EC of the European Parliament and of the Council (OJ L 10, 12.1.2021, p. 1).

¹⁸ Commission Implementing Decision (EU) 2019/2193 of 17 December 2019 laying down rules for the calculation, verification and reporting of data and establishing data formats for the purposes of Directive 2012/19/EU of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE) (OJ L 330, 20.12.2019, p. 72).

- (23) Partnerships between reuse organisations and operators of take-back schemes, such as distributors, private businesses, producer responsibility organisations, social enterprises and social economy entities and charities, should help maximise preparation for reuse by, for instance, encouraging the separation of WEEE that is to be prepared for reuse from other separately collected WEEE and by granting access to separately collected WEEE to personnel from reuse centres. Such partnerships should also encourage the measurement of reuse flows of small consumer electronics.
- (24) Improving the convenience and visibility of collection and take-back points can influence consumers to return small consumer electronics they no longer use but store at home. Databases should facilitate and improve the visibility of take-back points for both waste and used electrical and electronic equipment, by providing information on the nearest take-back points through user-friendly maps and search tools. Databases should also be used to encourage reuse by mapping reuse, repair or refurbishing points for electrical and electronic equipment.
- (25) To address data security concerns and ensure that all personal data stored in small consumer electronics is managed and deleted correctly for any subsequent reuse or recovery operation, some take-back schemes are certified as meeting certain data handling standards. Examples of standards include but are not limited to the European standard EN50614 on requirements for the preparing for reuse of WEEE and the “R2/Ready for Reuse” standard.
- (26) Targeted communication efforts or information campaigns at national, regional or local levels have been identified by various studies as a useful means to raise awareness of the importance of returning small consumer electronics that contain critical raw materials, to inform consumers about the return options available to them, as well as their potential benefits (e.g. financial incentives), and to improve the overall return rate of small consumer electronics.
- (27) Member State experience in the implementation of the take-back obligations established by Article 5(2), points (b) and (c), of Directive 2012/19/EU has shown that compliance and return rates can be improved through stricter monitoring, and inspections of whether distributors, including online distributors, selling electrical and electronic equipment provide such take-back arrangements.
- (28) Operators of take-back schemes for used electrical and electronic equipment should be able to cover several brands and models and information about take-back and the possibility to return small consumer electronics needs to be visible and communicated to the consumer at the point of sale, including for online sales.
- (29) Sharing knowledge and best practices between Member States allows to identify and compare the most appropriate and effective approaches for addressing particular challenges to the collection of WEEE, notably in relation to small consumer electronics. Initiatives and programmes are provided, notably by the Commission, to facilitate peer-to-peer learning between environmental authorities and to provide tailored support to Member State authorities implementing environmental policy and legislation. The Commission established a peer-learning programme¹⁹ that might be used for the exchange of best practices regarding WEEE collection and treatment, along with exchanges on measures that incentivise the take-back of used small consumer electronics,

¹⁹ The TAIEX-EIR PEER 2 PEER programme.

HAS ADOPTED THIS RECOMMENDATION:

- (1) Member States should support the setting-up of financial incentives for the return of small consumer electronics, namely mobile phones, tablets and laptops, through either dedicated funding to operators of take-back schemes or requirements on operators of take-back schemes, notably producer responsibility organisations, to provide for such incentives, or both. The financial incentives, which might consist of discounts, vouchers or monetary rewards, should target any of the following:
 - (a) non-functional small consumer electronics that are waste, especially those stored in households, to be collected for recycling and recovery of the components and materials they contain;
 - (b) functional small consumer electronics that consumers no longer use but are fit for resale, reuse, repair or refurbishment.
- (2) Member States are invited to examine, through dedicated studies and pilot projects, the feasibility of implementing a deposit-refund system for both functional and non-functional small consumer electronics.
- (3) Member States should encourage the establishment and use of tools that enable consumers to calculate the value of their small consumer electronic device for buy-back by operators of take-back schemes. Calculation of the buy-back rate of such devices should be facilitated and made available to consumers by various tools such as calculations made in stores, online, in an automated way through a scanning process, or by using a product passport system. The criteria used to calculate the buy-back rate should be made transparent and should be based on the condition and model of the device.
- (4) Member States are encouraged to promote and support the inclusion of postal and shipping services in measures contributing to the separate collection and take-back of small consumer electronics within their territory. The return and collection of small consumer electronics should be facilitated through targeted measures whereby operators of take-back schemes cooperate with postal and shipping services with the following aims:
 - (a) to establish post offices as drop-off and collection points for used and waste small consumer electronics.
 - (b) without prejudice to Article 33 of Regulation (EC) No 1013/2006 of the European Parliament and of the Council²⁰, to provide consumers with the option to send, through postal and shipping services, their used or waste small consumer electronics to specific operators or collection points established within the territory of each Member State by the take-back operators or the producer responsibility organisations who are authorised to collect or treat used and waste electrical and electronic equipment. The shipping option provided to consumers may take the form of pre-paid shipping labels, envelopes or packages enabling consumers to return devices free of charge or may consist in offering reduced shipping rates for consumers who send used or waste small consumer electronics for reuse or recycling.

²⁰ Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste (OJ L 190, 12.7.2006, p. 1).

- (5) Member States are invited to establish reuse and preparing for reuse targets for mobile phones, tablets and laptops. Such targets might be established for individual product groups or more broadly relating to Category 6 ‘Small IT and telecommunication equipment’ in Annex III to Directive 2012/19/EU. Reuse targets should be included in national waste prevention plans and be directed towards repairers, refurbishers or reuse organisations. Targets on preparing for reuse should be included in waste management plans or in authorisations or other requirements set for producer responsibility organisations. When setting reuse and preparing for reuse targets, Member States need to use the common methodology for the calculation of reuse set out in Implementing Decision (EU) 2021/19 and the rules for the calculation of preparing for reuse set out in Implementing Decision (EU) 2019/2193.
- (6) Member States should encourage and support operators of take-back schemes to establish partnerships with reuse organisations to give them access to collected small consumer electronics, to enable the separation of those that can be prepared for reuse from those that are sent for recycling.
- (7) Member States are encouraged to enable, through making available appropriate resources, the development and improvement of databases and search tools directed at consumers regarding collection and take-back points of used and waste electrical and electronic equipment. This might include requiring producers, through producer responsibility organisations or their own extended producer responsibility arrangements, to cover the costs for such action. Databases and search tools should be open to all take-back points and repairers in accordance with Union law, should be available free of charge to the consumers and should be user-friendly. The action should include both the development of new databases and improving the functionality of existing databases. Databases and search tools currently providing information only on WEEE collection and take-back points should include places where consumers can repair, reuse and remanufacture their small consumer electronics.
- (8) Member States should conduct, or require producer responsibility organisations to conduct, regular consumer awareness campaigns at national, regional and/or local level, aiming to increase the separate collection of small consumer electronics. Campaigns should focus on improving the visibility of both take-back and collection points for used and waste electrical and electronic equipment as well as on potential direct benefits for consumers (e.g. financial incentives). The objective should be to raise public awareness on the options available for returning, reusing or discarding small consumer electronics, and on the importance of separate collection and recovery of these valuable devices considering environmental and resource implications.
- (9) Member States should encourage operators of take-back schemes to use certification schemes that ensure that all personal data stored in small consumer electronics is managed and deleted properly. When returning devices, consumers should be informed that such a certification scheme, or equivalent arrangements to be specified, will be used to manage personal data.
- (10) Member States should increase the implementation of the take-back obligation laid down in Article 5(2), points (b) and (c), of Directive 2012/19/EU through systematic and periodic inspections and monitoring of distributors.
- (11) Member States are invited to require distributors to inform consumers purchasing small consumer electronics of the possibility to return used or waste electrical and

electronic equipment. This information should be provided at the point of sale, in a clear and visible way, or, in the case of online sales, through information provided with the offer.

- (12) Member States are encouraged to make use of tools, including those set up by the Commission, that facilitate peer-to-peer learning between environmental authorities and provide tailored support, in particular by exchanging best practices with other Member States regarding the collection of waste from small consumer electronics and the take-back of used small consumer electronics.

Done at Brussels, 6.10.2023

For the Commission

SINKEVICIUS Virginijus

Member of the Commission

