Draft WEEE Manifesto

**Introduction:**

Between 2012 and 2021, the amount of Waste Electrical and Electronic Equipment (WEEE) generated in the EU increased from 7 Mt to 8,4 Mt, making **WEEE one of the fastest growing waste streams** in Europe and globally. **WEEE recycling plays a crucial role in decarbonizing the WEEE value chain**. In 2020, a total of 2 724 facilities for the initial treatment of WEEE were operating in the EU.

Looking at the different components of electrical and electronic equipment (EEE), recycled steel in WEEE enabled 7 243 kt CO2 eq savings, recycled aluminium 2 870 kt CO2 eq, recycled copper 1 405 kt CO2 eq, recycled plastics 2 030 kt CO2 eq, recycled palladium 391 kt CO2 eq and recycled glass 285 kt CO2 eq.

However, at present only around 40% of all WEEE is recycled in the EU. When it comes to WEEE plastics, only 20% are recycled[[1]](#footnote-1). Moreover, using the placed-on-market (POM) method, only about 46% of all WEEE is collected in the EU, remaining far below the 65% target set out in the WEEE Directive. This results in a substantial loss of resources and limits the potential of the circular economy. The **current regulatory and economic context does not provide sufficient incentives to enhance circularity in the electrical and electronic equipment value chain**. Recyclers face challenges, including low demand for recycled materials, slow implementation of ecodesign rules in new products and low collection rates. EuRIC therefore calls for five key measures to boost WEEE recycling in the EU.

1. **Improving e-waste collection**
2. **Enabling free and fair trade for WEEE within the EU**
3. **Enhancing EEE recyclability through ecodesign and the Digital Product Passport (DPP)**
4. **Taking down market and regulatory barriers to effective EEE circularity**
5. **Future-proofing the WEEE recycling sector**
6. **Improving e-waste collection**

Efficient collection is the foundation of effective e-waste recycling. WEEE can only be properly treated if it reaches the recycling facilities. Most Member States currently fail to meet the collection targets set out in the WEEE Directive, resulting in the loss of valuable resources. There are several reasons for low collection rates.

Starting at household level, many households store their EEE that is no longer in use for extended periods of time. **Low consumer willingness to properly dispose of WEEE** at its end-of-life is reinforced by a **lack of collection points** **and low threshold disposal options**. **Public awareness** about the importance of sorting and proper disposal (e.g. the choice of appropriate containers) is also insufficient. This can be tackled through public awareness campaigns and by densifying the network of collection points, efforts which should be financed through the existing EPR schemes. Manufacturers should be required to invest more in consumer information to increase the environmental awareness of citizens for the correct disposal of equipment. The setting up of appropriate and properly financed take-back schemes also contributes positively to higher collection rates. Such schemes should also cover costumer information on take-back procedures, including on online sales platforms.

Moreover, collection of WEEE that cannot be reused or refurbished must be stronger geared towards recycling to achieve the best possible outcomes. Currently, recyclers often receive mixed WEEE streams which can make final treatment difficult or even impossible. **Minimum collection standards** could address issues such as weather exposure, the presence of hazardous substances and battery fire risks. As an example, containers should be better adapted to the specific types of WEEE they hold and be suited to contain fire hazards. Some countries such as Germany, have already implemented minimum standards for the collection of WEEE at municipal collection points.

Another major concern is the **lack of traceability of (W)EEE**. The high value of certain components and materials makes them easy targets for the illegal sector. In Germany, for example, an estimated 150,000 tons of WEEE are exported illegally each year, often falsely declared as used appliances. EU-wide, the proportion of WEEE treated outside the EU and not in line with the EU requirements increased from 22% in 2010 to 25% in 2020. To address this issue, moving forward, there should be a clearer distinction between exporting used EEE and WEEE in the relevant legislation.

Moreover, a significant amount of small WEEE (approximately 100 000 tons in Germany and 180 000 tons in France) is disposed of via residual waste bins and incinerated. Overall, **better traceability and accounting for the WEEE being processed is needed**. Therefore, it is crucial that responsibility is assigned to producers when it comes to fulfilling collection targets and that appropriate sanctions are being laid down in case of non-compliance with collection obligations.

1. **Enabling free and fair trade for WEEE within the EU**

As announced for the upcoming Circular Economy Act (CEA) **creating a true single market for waste and recycled materials in the EU is essential to facilitate recycling**. Thus, it is key to simplify notification procedures and to swiftly make the EU digital system for waste fully operational.

Moreover, **harmonizing the classification of certain waste types (“green-listed” waste) to facilitate cross-border shipments within the EU** is crucial. In this regard, it must be ensured that non-hazardous e-waste can continue to move in the EU without notification as of 2027 to enable economies of scale for recycling critical materials such as copper, steel, and plastics. In the EU, the number of facilities that recycle critical raw materials from e-waste is limited. They are present only in a few Member States, meaning that e-waste shipped to these facilities has to go a long way geographically but also administratively, following the shipment procedures described in the Waste Shipment Regulation (WSR).

Currently, the non-digitalized shipment system (e.g. original signature on paper or even sending documents by fax) is an inefficient tool to make the single market for waste and recycled materials a reality. It is therefore crucial to fulfil Art. 27 of the new Waste Shipment Regulation (2024/1157) and **make the EU digital system for waste shipments fully operational as soon as possible**.

In terms of shipments of hazardous e-waste, the notification procedure is the right way to go, however, notifications are burdensome and overly complex and need to be streamlined as well. For example, to obtain a new notification, it takes on average 3-6 months and can go up to 1 year for intra-EU shipments. To renew notifications, it takes on average 6 months up to 1 year, depending on the competent authorities.

Additionally, recycled materials produced from WEEE that face insufficient EU demand, namely recycled steel and aluminium, need an access guarantee to international markets. This is important to ensure stable market conditions for recyclers, which in turn allows for investment in new technologies and an upscaling of WEEE recycling in Europe.

1. **Enhancing WEEE recyclability through ecodesign and the Digital Product Passport (DPP)**

**Ecodesign is key to improving the recyclability of WEEE**. Design choices such as the use of adhesives, multi-layer plastics or plastics with reinforcing fibers hinder recycling operations. On the other hand, to boost recycling, products should be free from harmful substances, avoid adhesive bonds and limit the variety of plastics used. Moreover, batteries must be easily removable, also to limit fire hazards.

Moving forward, it is thus crucial to **ensure a strong alignment and coherence between the revised WEEE Directive and the ESPR**, both in terms of requirements and implementation timelines. The Ecodesign for Sustainable Products Regulation (ESPR) has set the goal to make sustainable products the norm in the EU. To achieve this goal, a focus on the design phase is key, as this stage will largely impact the recyclability and repairability of products.

As part of the ESPR, the **Digital Product Passport (DPP) can be a useful tool** to support WEEE recycling. However, several aspects need to be taken into account to ensure that the DPP is actually valuable to recyclers.

Depending on the type of EEE, the relevant information for recyclers to be contained in the DPP differs. At the very least, the product's digital passport should include disassembly instructions, information about the presence or absence of batteries, critical raw materials, and a list of any hazardous substances, along with their concentrations and location. As a general rule, it must be ensured that the DPP is still readable at the end-of-life. This can pose a challenge, as for example DPPs in the form of QR codes a very likely to be damaged during the product life and thus won’t be readable anymore.

Moreover, given the high volume of WEEE processed at recycling sites, it is generally not possible to scan DPPs individually. Thus, the information contained in the DPP must be made available in a simplified and where possible aggregated manner. Keeping this in mind, the DPP can be particularly useful in the B2B sector, where structured, homogeneous take-back systems exist. Information should also be accessible via an online platform in addition to the DPP placed on the specific equipment. In short, to benefit recyclers, the **implementation of the DPP should not overburden operational processes and should integrate with existing practices**.

1. **Taking down market and regulatory barriers to effective WEEE recycling**

For WEEE recycling to thrive in Europe, additional demand for recycled materials is crucial. As of today, the uptake of recycled materials in new EEE is very low. As an example, in 2021 only 4.5% of recycled plastics were used for the production of new EEE. Next to strong ecodesign requirements, **the modulation of extended producer responsibility (EPR) fees** based on a product’s recyclability and recycled content (‘ecomodulation’) is a relevant tool to increase the uptake of recycled materials. Until now however, this tool has not had a relevant effect on product design for EEE. **Thus, requirements for the ecomodulation of EPR fees must be strengthened and harmonized at EU level.**

To promote the uptake of recycled materials in EEE and to track the progress made in this regard, disclosure about recycled content included in EEE per material should be made mandatory.

Demand for recycled Critical Raw Materials (CRMs) in Europe is also low due to limited EU refinery and smelting capacity and low domestic production of electric appliances. To boost recycling, the first step must thus be to increase demand for recycled CRMs. Furthermore, it is important to promote research and the development of treatment methods. In that regard start-up **financing for such R&D projects** must also include SMEs.

Regarding the recycling process itself, establishing a **minimum set of treatment requirements at European level** to ensure a level playing field within and among Member States and to increase the environmental benefits through optimized recycling, is welcome. However, due to the costs associated with certifications, mandatory certification may not be the best path forward unless financial incentives were provided, especially to SMEs. If mandatory standards should be introduced, the costs associated to ensure compliance, in particular auditing, shall thus be continuously covered by EPR schemes to ensure that treatment operators are not subject to a disproportionate administrative and financial burden and that there is an even playing field accessible also to SMEs.

Another problem recyclers are facing is **competition with cheaper virgin materials**, which is especially the case for plastics and CRMs. To strengthen the recycling industry, **recycled content targets** are an important tool for these materials which currently do not have a well-functioning market. Additionally, strong mechanisms for verification and traceability of recycled polymers, and the application of EU-equivalence rules are needed to protect the European plastics recycling industry.

In addition to competition with virgin materials, recyclers are confronted with challenges due to the **recent limits introduced under the** **EU’s chemicals legislation** (REACH, POPs, CLP Regulations). These limits have considerably increased the costs of sorting, to an extent that recycling is sometimes less viable compared to energy recovery. Especially the recycling of plastic waste from WEEE risks halting altogether, if thresholds of restricted substances are reduced to levels, at which the recycling industry is incapable to prove compliance with available industrial-scale analytical tools and quality control methods. To ensure that recycling remains viable in the future, chemicals in waste should be regulated not only based on the hazardous properties but also on the level of risk they pose. Given the presence of hazardous “legacy” substances and the prolonged life of certain products within an evolving regulatory framework, such a “risk-based” instead of “hazardous-based” approach must be considered.

1. **Future-proofing the WEEE recycling sector**

The EEE sector is currently experiencing several trends that negatively affect recyclers. As more and more EEE is put on the market, the number of cheap, usually small domestic appliances is also growing. For economic reasons, the share of plastics used in such products has been increasing, to the detriment of more valuable materials and especially metals. For recyclers, this is challenging as it results in a higher proportion of materials that are difficult to recycle or are not at all recyclable, thus putting at risk the economic viability of recycling. Such developments must also be taken into account when revising recycling targets under the WEEE Directive.

Moreover, the number of products containing lithium-ion batteries, which are often difficult or impossible to remove, is also rising. Consequently, the related **risk of battery fires has increased significantly with detrimental effects for recyclers**. In France, for example, the number of fires in recycling and waste treatment facilities linked to lithium batteries doubled between 2019 and 2023. In Germany, up to 30 fire incidents occur every day in waste collection vehicles and treatment facilities, with 80% attributed to lithium batteries. To address the issue of battery fires, Producer Responsibility Organisations (PROs) should be required to finance awareness campaigns on how to properly sort waste containing lithium-ion batteries. They should also help cover the additional costs associated with the safe removal of these batteries prior to mechanical processing in recycling plants.

When looking towards the future of WEEE recycling, addressing the **design of EPR schemes** is another relevant topic. In this context, recyclers’ representation should be guaranteed in the governance boards of EPR schemes to ensure fair decision-making, balanced interests and a holistic approach. Moreover, recyclers must at all times retain ownership of recycled materials. This ensures recycling remains a viable business model and limits unnecessary burdens and costs for producers and consumers, and thus, encourages investment in research and development which is critical to materialising the EU’s environmental, climate and strategic autonomy objectives.

Finally, to future-proof the WEEE recycling sector, its framework legislation, namely the WEEE Directive needs to be fit for purpose. To be more coherent with the developments in the WEEE sector, the scope and categories of the legislation must be revised. Such a revision should:

* Create a new category for PV panels to prevent distortions in the current category 4, as factors such as the volumes of PV panels placed on the market and their life span are not aligned with the rest of the WEEE collected in the category
* Group together ITC appliances with small appliances
* Merge categories 5 and 6

Overall, product classification should focus more on product composition and treatment requirements rather than size. More coherence is also needed with other relevant legislation, such as the Batteries Regulation and the End-of-Life Vehicles Regulation to clarify the current “open scope” approach under the WEEE Directive.

1. Plastics Europe, 2023 [↑](#footnote-ref-1)