Harmonisation of waste separate collection across Europe

Position Paper - July 2020

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INTRODUCTION

We acknowledge the European Commission's (EC) efforts to develop a harmonised model for the separate collection and labelling of waste, as envisaged in the new Circular Economy Action Plan (CEAP)[1], which mentions that an EU-wide harmonised model for separate collection of waste and labelling should help citizens, businesses and public authorities to better separate waste.

The EU Waste Framework Directive obliges Member States (MS) to take measures aimed at promoting high-quality recycling through the separate collection of textiles, hazardous material and biowaste, in addition to existing separate collection of paper and cardboard, glass, metals, plastic and waste oils. The separate collection of waste is a precondition for high-quality recycling and preparation for reuse. It also prevents hazardous substances from contaminating other waste streams as well as communities and the environment.

Recycling rates of municipal waste differ widely between MS. From 25% in Latvia and Croatia up to 67% in Germany[2]. Harmonising methods for separate collection of waste and labelling must require that MS collect higher quantities separately and with less impurities. Unfortunately, we can see that in the EU there is an increasing trend of waste incineration[3] of non-hazardous municipal waste. We warmly recommend the EC to ensure that new harmonised rules provide the right incentive for higher rates of reuse and recycling, and prevent more waste from being disposed of in incinerators or landfills.

Broadly speaking, we support the idea of setting up harmonised minimum requirements that inform the decision of which separate collection model to implement. However, we are not in favour of imposing one single model with a top down approach, as we believe that local authorities need flexibility to identify their preferred solution and that each solution should be adapted to the local context.

We consider that advanced separate collections measures, such as door to door collection and Pay-As-You-Throw (PAYT) models are valid schemes to keep the system cost-efficient, deliver optimal environmental and social results, and comply with the targets. In addition they often lead to increased environmental awareness of the participants, once they are tutored.

We believe that such harmonisation should be coupled with other measures strengthening the treatment capacity of poorly performing regions - e.g. in terms of separate collection, and preparation for reuse and recycling. Harmonisation should not endorse any solutions at the bottom of the waste hierarchy. Conversely, we hope that such harmonisation will enable waste management to be conducted according to the EU Waste hierarchy, putting waste prevention measures as top priority before preparation for reuse and high quality recycling.

Moreover, separate collection should enable the safety and quality of reused products and recycled materials to be tracked and monitored. Providing countries and regions with the means and capacity to manage their waste sustainably is the foundation of an effective waste management strategy. In addition, the ambition of the Circular Economy requires that materials are reintroduced into the economy to decouple growth from resource extraction and consumption.

[1] New Circular Economy Action Plan
[2] Eurostat 2018
[3] Increasing trend of waste incineration

An overarching system should not only enable safe preparation for re-use and recycling of materials and components, but it should also promote their circular reuse into the economy. This can be achieved by means of authorisation, certification, economic instruments and coordination of the value chain.

While it is true that the main driver for proper separate collection must be environmental protection, we underline that the consumers should not entirely bear the costs. A proper framework has to be set (disposal taxes, sufficient EPRs and rebates for municipalities that achieve high separate collection thresholds). A recent EEA report[4] states that an 80% average threshold within the EU is achievable. The current gap to achieve this target represents an untapped potential for improving waste management in Europe, as well as economic gains related to keeping the value of resources high, if only the proper framework would allow for such results.

Policy recommendations

Concerning the harmonisation of waste separate collection we call for:

- **Member States should introduce minimum requirements in separate collection that ensure reuse and prevention as well as high rate and high quality recycling**

  It is very difficult to establish the best system a priori, since such evaluation must consider both the costs and the objectives of separate collection, as well as the costs of the subsequent treatment. A cheaper collection scheme that does not manage to achieve a high purity ratio of the collected materials is more likely to incur higher rejection rates at the sorting facilities and higher treatment costs, as well as higher risks of harm to human health and the environment.

  High purity thresholds for collected materials are not defined at the EU level, but they could be a driver of harmonised separate collection and an enabler of high quality recycling and preparation for reuse at the local and regional levels. Setting those thresholds by the EC should be a part of the harmonisation process, as a way to increase the quality of separately collected waste while keeping the system cost-efficient in a total bill.

  In order to ensure the effectiveness of separate collection schemes, a common quality management system (QMS) should be established, to monitor the process and give waste operators a quality target (including contamination rates) to comply with. Adopting such QMS should be made on a voluntary basis as a way to self-monitor the operations and results, encouraging more reuse and recycling rather than disposal or energy recovery. QMS should be carefully designed to avoid being detrimental to the efforts of citizens who engage in separate collection and to avoid waste fit for recycling being diverted to disposal or energy recovery, making their treatment more expensive for citizens and the producers who financially sustain extended producer responsibility schemes.

  QMS could also play an important role in gathering data for feedback to producers, by reporting the barriers of better separate collection and recycling (i.e. colouring, additives, adhesives, links and laminates). This would greatly benefit in identifying the obstacles to circularity of products and feed into eco design guidelines.

[4] The case for increasing recycling

- ## Door to door collection schemes are widely applied with good results

Door to door schemes have already been successfully implemented in many MS. In 2015[5], 25 EU Capitals had already introduced door to door separate collection of waste, although differences still exist as regard to what waste materials are collected.

Door to door delivers better results when the collection of recyclables is conducted more frequently than the collection of residual waste. For biowaste, the number of collection rounds may vary during the year – i.e. less rounds in autumn/winter, more rounds in spring/summer to enhance the participation of citizens. If recyclables and biowaste are collected more often than residuals, citizens have an incentive to better sort their waste. As the frequency of separate collection increases, the amount of residual waste declines.

Although we are not aware that a consistent study evaluating the effects of door to door on waste generation has been conducted, the general feedback from operators, volunteers, citizens and public authorities is that such a system drives a change in consumers choice because they become more aware of the waste that they produce. Therefore waste prevention behaviours are more likely to take place – e.g. buying goods in bulk or packaged in reusable packaging. Such effects are even more evident when door to door schemes are implemented together with economic incentives – e.g. PAYT tariffs – that reward waste prevention at the source, while attributing an additional cost to residual waste generation that is above a certain threshold, either in frequency, volume or weight.

It has also been reported that when operators find bins that contain non-targeted materials, they are authorised to refuse to collect them. They should communicate their refusal to households with a standardised message explaining their decision and inviting the household to sort their waste properly for the next collection round. Households could be fined if they keep sorting badly. Such a direct feedback system has usually increased citizens' willingness to take part in the separate collection with better results.

- ## Good collection schemes keep biodegradable waste separated from dry recyclable streams

Keeping organic wet materials – e.g. kitchen and garden waste – separated at source will be mandatory by the Waste Framework Directive from 2024 at the latest. The separate collection of organics allows for higher volumes of dry materials to be recycled – e.g. glass, metal, paper, plastic. It will also help promote compliance with the mandatory diversion target of biodegradable waste established in the EU's Landfill Directive. The biological treatment of kitchen and garden waste is a major component of the circular bioeconomy, as compost, an organic soil improver, is produced and sometimes biogas too.

Additionally, as of the 1st of January 2027, only biowaste collected or separated at source will be counted as recycled. In that sense, alternative processes for residual waste such as mechanical-biological treatment (MBT) and their output will not be counted as recycled anymore, hence there is a need to implement proper collection schemes for biowaste as soon as possible.

[5] Assessment of separate collection schemes in the 28 capitals of the EU

- **Separate collection systems must enable reuse and preparation for reuse to return products and materials into the economy**

  Article 11 of the Waste Framework Directive now states that:

  "Member States shall take measures to promote preparing for reuse activities, notably by encouraging the establishment of and support for preparing for re-use and repair networks, by facilitating, where compatible with proper waste management, their access to waste held by collection schemes or facilities that can be prepared for re-use but is not destined for preparing for re-use by those schemes or facilities, and by promoting the use of economic instruments, procurement criteria, quantitative objectives or other measures."

  A recent study has established that "between 13% and 16% of WEEE, used furniture, and used leisure goods in the German state of Bavaria could immediately be prepared for reuse, depending on the type of waste. A further potential of 13%–29% could be unlocked through changes to the mode of collection, storage and the overall treatment of wastes"[6].

  It is absolutely essential therefore, that any harmonisation of separate collection models meaningfully prioritise the protection of reusable waste items. It is especially important for waste streams that encompass a significant proportion of potentially re-usable items (WEEE, textiles, furniture, leisure goods, books, CDs, etc.). Given the role that social economy reuse operators play in the collection, sorting, treatment, repair and resale of these goods, always prioritising reuse over recycling, they should be given priority access to these waste streams. This would ensure these activities not only remain as local as possible (from the collection to the resale), but that they prioritise reuse over premature recycling and allow disadvantaged groups within society to have access to employment[7],training opportunities and low-priced goods.

  The "EU-wide take back scheme to return or sell back old mobile phones, tablets and chargers" suggested in the new Circular Economy Action Plan is an example of a EU measure to collect high value reusable items, and it could be extended beyond ICT. It will be essential to design these collection models in a way which truly preserves the reusability of the collected items, during both the collection and the transportation processes. At any collection points, bins, where discarders drop their used goods and potentially damage them, should be avoided. The pre-selection of potentially reusable goods must happen at the earliest stage possible and discarders should be informed about the existence of this pre-selection the moment they enter waste collection points. If Extended Producer Responsibility schemes are set up for the target waste streams, they should be used to improve collection models for reuse and help finance preparing for reuse and reuse activities.

[6] Potentials of preparation for reuse: A case study at collection points in the German state of Bavaria

[7] Briefing on job creation potential in the re-use sector RREUSE (2015)

- **The harmonisation of separate collection systems for waste should drive improvements in treatment infrastructure upwards, towards reusing, high quality recycling and composting, rather than towards poor infrastructure imposing lenient collection patterns**

  We invite the Commission to be cautious when assessing the most effective combinations of separate collection models. The density and accessibility of collection points, including public spaces, regional and local conditions ranging from urban to rural areas and outermost regions, are only some of the factors that influence the choice of the collection system.

  Principles of self-sufficiency and proximity - art. 16 of the Directive 2008/98/CE - still play a big role in the design and implementation of waste management systems, meaning that the availability (or lack of) appropriate waste treatment facilities will continue to greatly influence the available options. When harmonising the rules for separate collection, MS should also upgrade their downstream facilities for high quality recycling and preparation for reuse.

- **The only way to ensure the highest quality of food-grade contact materials is to separate waste at source, before collection**

  Food-grade materials should be collected separately to help maintain their chemical quality and allow for recycling into food contact products, while avoiding mixing and fouling. Co-mingled collection of recyclables does not ensure purity at all, which often results in a high rate of rejected residuals. That has its consequences for large amounts of "non-recyclable recyclables", which often end up being burned, buried or even exported outside the EU, causing much damage to communities and the environment far away from the source of consumption.

- **Deposit Return Systems (DRS) deliver the purest material fractions[8]. They are the most efficient collection system for bottles, and result in net cost savings for public authorities because they no longer need to collect, process, transport and pay for landfilling/incineration of a voluminous segment of packaging waste**

  DRS are typically separate collection systems which use a refund as an incentive for high return and subsequent collection rates. The collected plastic, glass and aluminum are all suitable for closed loop recycling into new beverage containers, because their quality remains so high. The standardisation of beverage container formats and types across the EU could help drive refillables in addition to facilitating high-quality recycling. There are currently DRS operating in 10 MS, as a complement to the household separate collection systems also in place. Several MS passed new laws to enact more DRS in the coming years. These include Portugal, Slovakia, Latvia, Romania, and Scotland, and of course the recent expansion of the existing DRS in the Netherlands on all small plastic bottles.

[8] Reuse better than one-way containers with deposit better than curbside col-lection schemes (Green Dot systems) Deutsche Umwelthilfe

- **Advanced measures and financial instruments should be used in order to make separate collection more efficient**

  The "open roadside containers" system results in stagnating separate collection rates and it doesn't incentivise waste reduction. Therefore, we recommend that the Commission consider the best way to provide guidance and common criteria for MS to design and implement advanced well-functioning collection systems.

  Such systems can vary from door-to-door, closed smart containers, user identification and PAYT schemes. Common financial instruments should incentivise citizens to better separate waste. PAYT usually charges households on the basis of the actual amount of waste generated and provides incentives for separation at source of recyclable waste and for the reduction of the mixed waste fraction - i.e. residual waste. Well implemented PAYT systems might have an additional impact on overall waste prevention as well, by nudging consumer choices towards reusable packaging. Before applying PAYT, governments must introduce a first step that ensures the system is personable and accountable for each household, most notably through a methodology of user identification.

- **Separate collection targets should be adopted at EU level**

  Targets are usually a good incentive for MS to implement more ambitious policies as they exist for WEEE for example. However it is always challenging to identify the right calculation method and it is not clear whether the target should be best measured at municipal, regional or country level. We recommend the EU to coordinate the establishment of a cascading system to monitor the target setting mechanisms from national to regional and municipal level, which might be the solution to the challenges of such a system, as outlined above.

- **Harmonising the colour of waste bins, as well as product labels, is not crucial to achieving recycling targets or landfill targets, nor to drive the consumption of sustainable products**

  Harmonisation of colors of bins at the national level might be useful, but at the EU level it could make sense only when it is certain that the product/waste that will be collected is exactly the same across Europe, or that it differs only to an insignificant extent. If in Brussels, households sort their plastic waste into PET bottles, metal cans and milk cartons, while in Milan it is possible to include other items, harmonisation won't be useful or impactful. The harmonisation of bin colours should be aimed at easing the collection of similar waste streams across Europe. The only similar streams are for paper, biowaste and glass. Harmonised bin colours are likely to be useful therefore only for such streams. The collection of packaging waste is usually organised on the basis of the available treatment capacity, decided regionally or nationally. What could be more useful than harmonising bin colours is a harmonised labeling system for the bins, for example by using pictograms that need no translation and are clear for everyone.

Covering the cost of separate collection

An overall approach that should be applied is that the costs of waste collection are covered by the producers, through extended producer responsibility (EPR) schemes, which should include more groups of products in their scope. Article 8a (4) [WFD] states that the costs of separate collection and transport for items covered by such schemes are fully covered by the producer that puts the specific products on the market. This will bring additional funding for municipalities to comply with separate collection obligations. The EPR fee should be sufficient to cover all the costs of collection, including in remote areas. It makes sense to have eco-modulated EPR fees including minimum ecodesign essential requirements linked to environmental impacts, in order to incentivise better design and waste prevention[9]. This kind of bonus-malus, or "no claims bonus" system for separate collection could also address some key variables, such as the collection for reuse and repair, a potential risk of littering or such products ending up only in the residual waste stream. EPR systems could also be subordinated to help the achievement of separate collection goals of specific product groups, for example leading to higher separate collection results where no malus fee is applied. It is important that the criteria for modulation is transparent and clear, as well as ensuring that the reporting done by producers' responsibility organisations (PROs) is accessible to authorities and the public. The funds collected through a sufficient malus fee should be put back into the waste management system to support improvements in separate collection and ultimately help the transition towards greater reuse and prevention methods.

[9] Study to Support Preparation of the Commission's Guidance for Extended Producer Responsibility Schemes, Eunomia, April 2020.

For more information:

1. Explained: Europe's new laws for separate waste collection European Environmental Bureau
2. Zero Waste Cities best practices Zero Waste Europe

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European Environmental Bureau & Zero Waste Europe, July 2020

Zero Waste Europe is the European network of communities, local leaders, businesses, experts, and change agents working towards the same vision: phasing out waste from our society. We empower communities to redesign their relationship with resources, to adopt smarter lifestyles and sustainable consumption patterns, and to think circular.

The EEB tackles Europe's most pressing environmental problems by agenda setting, monitoring, advising on and influencing the way the EU deals with these issues. The EEB is the largest network of environmental citizens' organisations in Europe. It currently consists of over 160 member organisations in more than 35 countries (all EU Member States plus some accession and neighbouring countries), including a growing number of European networks, and representing some 30 million individual members and supporters