

Application of the derogations for separate collection under article 10 (3) of the Waste Framework Directive

Preliminary remark

The European Green Deal³ and the new Circular Economy Action Plan⁴ commit the Commission to assess the feasibility of an **EU harmonized model for separate collection**.

The new CEAP states *“High quality recycling relies on effective separate collection of waste. To help citizens, businesses and public authorities better separate waste, the Commission will propose to harmonise separate waste collection systems. In particular, this proposal will address the most effective combinations of separate collection models, the density and accessibility of separate collection points, including in public spaces, taking account of regional and local conditions ranging from urban to outermost regions. Other aspects that facilitate consumer involvement will also be considered, such as common bin colours, harmonised symbols for key waste types, product labels, information campaigns and economic instruments. It would also seek standardisation and the use of quality management systems to assure the quality of the collected waste destined for use in products, and in particular as food contact material. As part of the initiative to harmonise separate collection systems, the Commission will assess the feasibility of EU-wide labelling that facilitates the correct separation of packaging waste at source.”*

In view of that, the Commission will deepen its work on separate collection and related issues, using the recent EY report as one of the building blocks. This new phase will include an intensive consultation process with Member States and relevant stakeholders in the next months, as well as further technical work carried out by JRC, building on JRC’s extensive expertise on waste management practices.

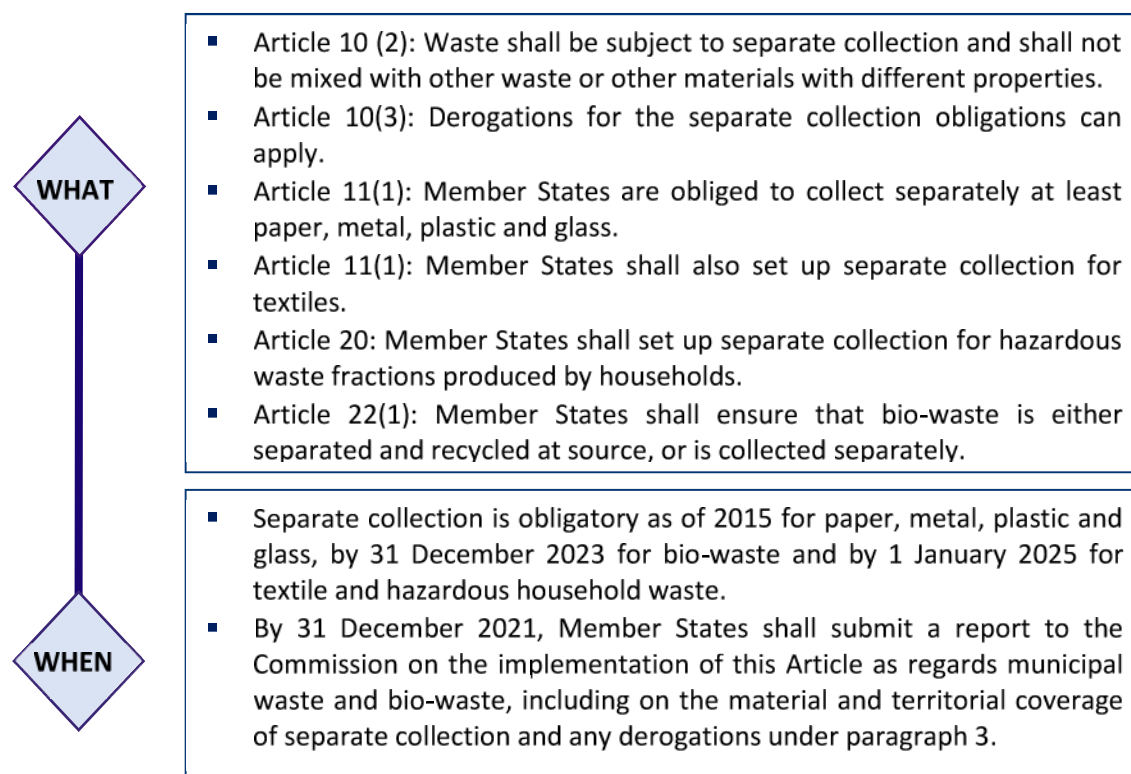
This further work will also look at the most relevant criteria and methods when assessing the use of the derogations contained in article 10 (3) of the Waste Framework Directive (WFD), discussed in the present annex.

³ *“To simplify waste management for citizens and ensure cleaner secondary materials for businesses, the Commission will also propose an EU model for separate waste collection.”* (https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en)

⁴ <https://ec.europa.eu/environment/circular-economy/>

1. Summary of legal obligations

1.1. Key obligations for separate collection in the revised WFD



1.2. Definition and objectives of separate collection

Article 3 (11) defines separate collection as *“the collection where a waste stream is kept separately by type and nature so as to facilitate a specific treatment.”*

The term ‘waste stream’ is not defined by the WFD. However, it is a term that is widely used and that can refer to the waste materials (e.g. plastics, metals) or to the products that originated the waste (e.g. packaging, electronics). The waste streams can be linked to the ‘types of waste’ that have been codified in the List of Waste (LoW), Decision 2000/532/EC.

Article 10 (1) and (2) define the objectives and modalities applicable to separate collection:

“1. Member States shall take the necessary measures to ensure that waste undergoes preparing for re-use, recycling or other recovery operations, in accordance with Articles 4 and 13.

*2. Where necessary to comply with paragraph 1 and to facilitate or improve preparing for re-use, recycling and other recovery operations, **waste shall be subject to separate collection and shall not be mixed with other waste or other materials with different properties.***

...”

Article 11 provides additional elements regarding the objectives pursued by separate collection in link with the preparing for re-use and recycling targets:

“1. Member States shall take measures to promote preparing for re-use 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.

Member States shall take measures to promote high-quality recycling and, to this end, subject to Article 10(2) and (3), shall set up separate collection of waste.

Subject to Article 10(2) and (3), Member States shall set up separate collection at least for paper, metal, plastic and glass, and, by 1 January 2025, for textiles.

...”

Bearing in mind that recycling is a specific case of recovery, Article 11 is ‘lex specialis’ in comparison with Article 10, meaning that in cases where separate collection is needed to facilitate waste recycling, Article 11 shall apply.

It has to be noted that high quality recycling is not defined in the Directive. It could be understood as reprocessing of waste:

- into materials which are used in products or applications which are similar or have a similar or higher economic value in comparison to products or applications from which the waste originates; or
- into materials which are used in products or applications which have a similar or higher economic value than the average economic value of products or application using virgin materials similar to those originating from the waste
- or in general, that does not (or only marginally) causes the recycled resources to lose value over time.

2. Derogations

2.1. General principles

Article 10 (3) refers to the derogations to the principle of separate collection contained in article 10 (2): “...

3. Member States may allow derogations from paragraph 2 provided that at least one of the following conditions is met:

(a) collecting certain types of waste together does not affect their potential to undergo preparing for re-use, recycling or other recovery operations in accordance with Article 4 and results in output from those operations which is of comparable quality to that achieved through separate collection;

(b) separate collection does not deliver the best environmental outcome when considering the overall environmental impacts of the management of the relevant waste streams;

(c) separate collection is not technically feasible taking into consideration good practices in waste collection;

(d) separate collection would entail disproportionate economic costs taking into account the costs of adverse environmental and health impacts of mixed waste collection and treatment, the potential for efficiency improvements in waste collection and treatment, revenues from sales of secondary raw materials as well as the application of the polluter-pays principle and extended producer responsibility.

Member States shall regularly review derogations under this paragraph taking into account good practices in separate collection of waste and other developments in waste management.”

WFD sets out strict conditions for the use of the derogations by the Member States under article 10 (3). Even if waste management practices vary across Europe taking into account local circumstances, articles 10(2) and 10(3) clearly state that separate collection is the rule. The derogations must be interpreted strictly, be justified and be communicated to the Commission by means of Waste Management Plans and Article 10(6)WFD.

In addition, **article 10 (3)** stipulates that MS shall **regularly review derogations** taking into account good practices and other developments in waste management. Technological progress in collection,

sorting or recycling techniques may make derogations for separate collection unjustified or conversely generate arguments for new derogations. Moreover, several factors could trigger the need for a full revision of the waste collection system in place, for example, structural changes in the EPR set-up, obligations for separate collection on new waste streams or the introduction of a deposit-refund system that has cross-stream impacts. Any major change of this kind might lead to a review and, in any case, on the occasion of the revision of the waste management plans as foreseen in article 30 (1) of the Waste Framework Directive.

Taking into account the periodic nature of the review, it is advisable that Member States put in place effective and transparent procedures to assess and revalidate derogations invoked.

Finally, when assessing the need to use any of the derogations described below:

- the narrowest scope should be taken into account, looking specifically at the different parts of the municipal areas.
- the derogation should only apply to the area where the local circumstances so require, not for the whole administrative region (municipality/district).

2.2. Derogation under article 10 (3)(a) “Commingling”

“Member States may allow derogations from paragraph 2 provided that ... collecting certain types of waste together does not affect their potential to undergo preparing for re-use, recycling or other recovery operations in accordance with Article 4 and results in output from those operations which is of comparable quality to that achieved through separate collection...”

2.2.1. Principles

This derogation refers to commingled waste collection, i.e. collecting different types of waste together in one bin, bag, truck or container with the aim to use sorting techniques that induce high quality recycling in a later step. Commingled waste collection can refer to various types of collection: door-to-door, bring and reception systems.

The use of the derogation to deviate from the separate collection by collecting certain types of waste together is not automatic and needs to be duly justified taking into account the following elements **in combination**:

- define the exact types of waste that will be collected together (see positive and negative examples below);
- ensure it does not affect their potential to undergo preparing for re-use, recycling or other recovery operations in accordance with Article 4, which can include post collection sorting operations leading to the highest level of recovery in respect of the waste hierarchy;
- guarantee that the results in output from those operations are of comparable quality to that achieved through separate collection. This also refers to the concept of high-quality recycling included in articles 11 and 11a.

2.2.2. Assessment criteria

In order to support the analysis, the following criteria should be looked at to assess the compliance of the proposed derogation:

- the commingling cannot have a negative effect on the quality, price and availability of products, components or spare parts that can be prepared for reuse.
- the quality of the secondary materials separated and recovered from commingled collection processes should be equal or higher than for recovered resources from separate collection schemes. The use of common quality standards for reference are recommended (alternatively or complementarily price can be used as a proxy). When looking at quality, articles 11 and 11a should be taken into account, i.e. high-quality recycling.

2.2.3. Illustrative cases

Commingling is frequently used for the joint collection **of plastics and metals**, if it is followed by a sorting process and quality checks that reaches a quality similar to the quality reached when these types of waste are collected separately (see above). The same applies for the collection of **beverage cartons** jointly with either plastics, metals or paper & cardboard⁵.

On the contrary, **extensive** commingling where waste types with different properties, such as paper and cardboard, plastics, glass, metals and textiles are collected together would **not** reach the high quality of secondary raw materials that can be achieved by collecting the separate streams separately. More precisely, the following recommendations should be applicable:

- To avoid a degradation of the quality of recycled paper & cardboard (e.g. by commingling it with other recyclables such as plastics/metal/glass which may be contaminated with food), paper & cardboard should be collected separately as a (joint) stream⁶.
- The end-of-waste criteria for glass cullet, as defined in Regulation 1179/2012, specify strict levels for the impurities in the glass and exclude collection of glass with other streams of municipal waste in order to be accepted as end-of-waste. Moreover, glass can break during collection which complicates sorting of commingled streams and causes pollution that downgrades the quality of the other recyclables. Therefore, glass should be kept separate to allow recycling in high-quality (i.e. closed-loop) applications.
- Bio-waste is wet and difficult to remove from other recyclables. Mixing biowaste with dry waste types would contaminate them. Furthermore, separate collection of bio-waste at source is necessary to achieve a high-quality compost/digestate. Impurities such as plastics, glass and metals are difficult to extract during treatment and reduce the value of the compost or digestate and result in pollution of the soils.
- Reuse of high quality clothes is driving the economic feasibility of separate collection of textiles and the reusability of clothing is highly affected by the quality of the collection. Therefore, dedicated collection facilities that only collect waste textiles will generate a better outcome.
- The collection of several types of waste mixed in the residual bin then going through advanced sorting systems would not satisfy the necessary criteria of quality compared to separate collection.

Remark: waste types separated at source and collected **in one truck** but kept separate per material in different bags/containers to facilitate a specific treatment can be considered as separate collection.

⁵ <http://www.ace.be/beverage-cartons/recycling/collection>

<https://www.fostplus.be/en/sorting-recycling/all-about-recycling/recycling-drinks-cartons>

⁶ See CEPI (2018)

2.3. Derogation under article 10(3)(b) “Environmental outcome”

“Member States may allow derogations from paragraph 2 provided that ... separate collection does not deliver the best environmental outcome when considering the overall environmental impacts of the management of the relevant waste streams”

2.3.1. Principles

This derogation refers to a situation where the ecological benefits are not sufficient to compensate for the negative environmental effects of separate collection. For example, in scarcely populated areas, remote communities, small islands and mountainous regions, the additional emissions from door-to-door collection could exceed the environmental benefits of more recycling via separate collection.

The derogation for separate collection should be duly assessed for each material stream and local situation. Moreover, all externalities have to be taken into account. Even in remote, scarcely populated, mountainous regions or an island, separate collection can deliver the best environmental outcome. There are plenty of examples where such regions have successfully set up separate collection schemes.⁷

The Directive stipulates that separate collection can be organized by ‘door-to-door collection, bring and reception systems or other collection arrangements’. Therefore, customizing the system to the local circumstances would in most cases allow to implement efficient separate collection.

An in-depth assessment of the local environmental impact is needed: Life Cycle Analysis (LCA), as described in the norm ISO 14040, would be a suitable methodology to assess whether separate collection achieves the best environmental outcome for a specific situation. Taking into account the local context, the choice for the assessed scenarios with the different waste management options may affect the conclusions of the LCA. Therefore, a well-motivated and transparent selection of the input data and assumptions is needed as well as an external quality review.

2.3.2. Assessment criteria

In order to support the analysis, the following criteria should be looked at to assess the compliance of the proposed derogation:

- whether there are municipalities or regions with similar characteristics (e.g. population, density, location, infrastructure, etc) have successfully implemented separate collection,
- the analysis should prove that suitable bring or reception systems do not offer a better environmental performance to organize separate collection.
- an LCA or other structured environmental assessment that does an in-depth and quantified analysis to justify the use of the derogation. The scenarios taken into account for comparison should be appropriate and contain potential policy measures that give incentives for behavioral change (e.g. Pay-

⁷ See for example:

- <https://zerowasteurope.eu/downloads/case-study-10-the-story-of-sardinia/>
- <https://zerowasteurope.eu/2013/09/the-story-of-capannori-a-zero-waste-champion/>
https://www.researchgate.net/publication/312575792_Waste_management_on_small_islands_A_case_study_from_Samothraki_Greece
- https://ec.europa.eu/regional_policy/en/projects/major/romania/improved-waste-management-leads-to-better-quality-of-life
http://www.academia.edu/35130829/The_implementation_of_a_plan_of_the_integrated_municipal_solid_waste_management_at_T%C3%A2rgu_L%C4%83pu%C8%99_Maramure%C8%99_County

as-You-Throw). The difference in results of the scenarios should be significant to confirm that deviating from separate collection leads to a better environmental outcome.

2.3.3. Illustrative cases

For instance, dry recyclables such as paper and cardboard, plastics, metals, textiles and glass can be easily stored and even compacted such that households can return them when it is convenient. For such materials, bring systems with street containers at central locations such as town halls, supermarkets or gasoline stations can also offer suitable alternatives to door-to-door collection for sparsely populated regions.

2.4. Derogation under article 10 (3)(c) “Technical feasibility”

“Member States may allow derogations from paragraph 2 provided that... separate collection is not technically feasible taking into consideration good practices in waste collection”

2.4.1. Principles

‘Technically feasible’ means that the separate collection may be implemented through a system which has been technically developed and proven to function in practice.

Separate collection under the WFD covers a variety of collection schemes including door-to-door, bring and reception systems. As a consequence, situations where separate collection is not technically feasible will be rare and be related to specific local conditions. The section below presents some illustrative cases.

2.4.2. Assessment criteria

In order to support the analysis, the following criteria should be looked at to assess the compliance of the proposed derogation:

- if there are municipalities or regions with similar characteristics that have implemented separate collection in a cost efficient way.
- evidence (e.g. through a specific study) should be provided that none of any alternative collection systems (door-to-door, bring or reception systems) offer a feasible solution. This analysis should incorporate the potential use of innovative technologies or policy measures along the value chain.

2.4.3. Illustrative cases

The many successful schemes for separate collection in Europe, highlight that most practical, technical and operational constraints can be overcome by good management and focus on the target groups. For example, underground street containers at central locations with narrow streets in dense historical city centres or under- or overground street containers nearby apartment blocks.

See also examples and good practices in reference in section 2.3.1. for islands, scarcely populated areas, remote communities, small islands and mountainous regions.

2.5. Derogation under article 10 (3), d) “Disproportionate economic costs”

Article 10, 3, d : “Member States may allow derogations from paragraph 2 provided that... separate collection would entail disproportionate economic costs taking into account the costs of adverse environmental and health impacts of mixed waste collection and treatment, the potential for efficiency improvements in waste collection and treatment, revenues from sales of secondary raw materials as well as the application of the polluter-pays principle and extended producer responsibility.”

2.5.1. Principles

This derogation applies in a similar way as the derogation of article 10, 3, b) 'Environmental Outcome'.

Recital 42 of the revised WFD provides additional background : *"...When assessing any cases in which economic costs might be disproportionate, Member States should take into account the overall economic benefits of separate collection, including in terms of avoided direct costs and costs of adverse environmental and health impacts associated with the collection and treatment of mixed waste, revenues from sales of secondary raw materials and the possibility to develop markets for such materials, as well as contributions by waste producers and producers of products, which could further improve the cost- efficiency of waste management systems..."*

This derogation can concern scarcely populated areas, remote communities, small islands and mountainous regions, where the costs from transport, especially for door-to-door collection, could be excessive compared to the collected volumes. Moreover, in such regions there is ample place for home or community composting. Therefore, this derogation might concern cases where separate bio-waste collection would be completed or substituted by mandatory controlled home or community composting, accompanied with sufficient and continuous training.

In order to invoke this derogation for other circumstances than the management of bio-waste in sparsely populated regions, Cost Benefit Analysis (CBA) would be a suitable methodology to assess the economic impact. A CBA requires strong assumptions and a choice of scenarios for comparison. A transparent approach is needed as well as an external quality review of the results.

Short-term constraints such as availability of treatment facilities should not determine the medium or long term policy scenario. The CBA should take into account the effects of the implementation of Pay-As-You-Throw (PAYT), deposit-refund schemes or extended producer responsibility (EPR).

2.5.2. Assessment criteria

In order to support the analysis, the following criteria should be looked at to assess the compliance of the proposed derogation:

- if there are municipalities or regions with similar characteristics that have implemented separate collection in a cost efficient way, then this derogation cannot apply;
- a CBA or other structured economic analysis should be carried out, taking into account all internal and external costs/benefits. The cost difference needs to be significant to justify an exception to the rule;
- evidence (e.g. through a specific study) should be provided that none of any alternative collection systems (door-to-door, bring or reception systems) offer a feasible solution. This analysis would incorporate the potential use of innovative technologies or policy measures along the value chain.

2.5.3. Illustrative cases

- In scarcely populated areas, remote communities, small islands and mountainous regions, the costs from transport, especially for door-to-door collection, could be important compared to the collected volumes. For instance, in such regions there is ample place for

home or community composting, which always needs to be operated with sufficient training and control.

- Especially for dry recyclables, solutions exist to collect waste separately even in challenging areas. Those types of waste can be easily stored and even compacted such that households can return them when it is convenient. For such materials, bring systems with street containers at central locations such as town halls, supermarkets or gasoline stations can offer cost efficient alternatives to door-to-door collection for sparsely populated regions. EPR has a key role to play to financially support separate collection by providing universal service and avoiding cherry picking.
- See section 2.3.1. for examples where islands and remote areas have successfully set up separate collection schemes by customizing the system for separate collection to the local circumstances, instead of omitting it.