European Committee of the Regions

Commission for the Environment, Climate Change and Energy

ENVE

A European Strategy for plastics in the circular economy
Local and regional dimension

More information on the European Union and the Committee of the Regions is available online at http://www.europa.eu and http://www.cor.europa.eu respectively.

Catalogue number: QG-01-18-624-EN-N; ISBN: 978-92-895-0964-0; doi:10.2863/734820

This report was written by Marine Briard, Sarah O' Brien and Florent Pelsy (Milieu Ltd, Belgium).

Table of contents

1 Introduction

This report was prepared to support the preparation of an Opinion of the Committee of the Regions on the European Strategy for Plastics in a Circular Economy prepared by the Commission and adopted in January 2018. This report as required by the Tender Specifications provides an assessment of the Plastic Strategy and all connected documents from the point of view of the local and regional authorities. It focuses in particular on the proposed EU measures to implement this Strategy under its Annex I (Section 2) and the measures targeting regional and local authorities under Annex II (Section 3). This report also includes a case study on deposit schemes (Section 4). The paragraphs below set the context of this study and briefly describe the EU initiatives on plastic waste, the role of local and regional authorities on management of plastic waste and the related cost for these authorities.

1.1 Plastic waste in the EU

A circular economy is defined as an economy '*where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised'*[1]. The transition to a more circular economy is a major EU priority since the launched of the EU Action Plan for the Circular Economy in 2015. Plastics and plastic waste are one of the five main areas addressed by this action plan. The Plastics Strategy[2] was adopted in 16 January 2018 as a follow-up to this plan and to the 2013 Green Paper on a European Strategy on Plastic Waste in the Environment[3].

Such policy initiatives were triggered by the need to take urgent EU action on plastics and plastic waste. The rising demand for plastics compounds in the EU economy is increasing Europe's dependence on imported raw materials, specifically petroleum products. The EU generates each year 25.8 million tonnes of plastic waste. In 2014, only 30% of post-consumer plastic waste was recycled[4]. Only six percent of new plastic materials come from recycling and failure to recycle costs around 105 billion euros each year to the European

[1] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, Closing the loop - An EU action plan for the Circular Economy, COM(2015)614 final, p.1.
[2] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of regions, "A European Strategy for Plastics in a circular economy", COM(2018)28 final.
[3] European Commission, "Green Paper on a European Strategy on Plastic Waste in the Environment", COM(2013)123 final.
[4] Commission Staff working document accompanying the document "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A European Strategy for Plastics in a Circular Economy", SWD(2018)16 final, 16/01/2018, p. 17.

economy[5]. Worldwide, 95% of plastic packaging material value is lost to the economy after a short first-use cycle, and 32% escapes collections systems[6]. Furthermore, up to 13 million tonnes of plastic waste end up in the oceans every year, devastating local economies, the fishing and tourism sectors. The total damage to marine environments globally is estimated to at least USD 8 billion per year[7]. Plastics production has surged over the past 50 years, from 15 million tons in 1964 to 311 million tons in 2014 and is expected to double again over the next 20 years, as plastics come to serve an increasing number of applications[8].

The variety of plastic types, and the complex composition of "mixed plastic" items[9], particularly for packaging, impacts recycling rates[10]. Landfilling and incineration rates of plastic waste remain high (31% and 39% respectively) in the EU, although rates vary considerably from one region to another. This is mainly explained by the absence of economic incentives to recycle plastic, in addition to the complexity of collection, sorting and treatment of plastic waste. Prices of recycled plastic pellets are primarily determined by the competing alternatives of virgin resins (which are priced according to the crude oil price). Therefore, the price differential between high quality recycled resins and virgin materials can be significantly reduced or even reversed[11]. Recycled plastic is therefore not competitive compared to virgin plastic. Finally, plastic releases in the environment present major environmental and health concerns. The production and incineration contribute to greenhouse gases emissions, landfills may contaminate soil and water with the chemicals contained in plastic waste, and microplastic pollution and ingestion by animals and humans[12] is becoming more and more problematic.

[5] European Commission, "A strong and sustainable European plastic industry – a European strategy for plastics in a circular economy", Factsheet, 16 January 2018.
[6] Ellen MacArthur Foundation, "The New Plastic Economy: Rethinking the future of plastics and catalysing action", January 2016.
[7] European Commission, "EU leading global action – a European strategy for plastics in a circular economy", Factsheet, 16 January 2018.
[8] Ellen MacArthur Foundation, "The New Plastic Economy: Rethinking the future of plastics and catalysing action", op. cit.
[9] The multiplicity of plastic products renders recycling more difficult, as one polymer can have variable formulas and is often mixed with plasticizers and additives.
[10] 39.9% of plastics used in Europe are intended for packaging purposes.
[11] Agence de l'Environnement et de la Maitrise de l'Energie and Deloitte, « Analyse de la chaine de valeur du recyclage des plastiques en France – synthèse : trois grands axes d'actions pour développer la filière », Etudes économiques, 2014, p. 9. https://www.ademe.fr/sites/default/files/assets/documents/analyse-chaine-de-valeur-recyclage-plastiques-en-france-201412-synthese.pdf, consulted online the 25/04/2018.
[12] Recent research conducted by the University of Ghent suggests that Europeans currently consume up to 11,000 pieces of plastic in their food each year. See European Commission working docs on plastic strategy.

1.2 Local and regional authorities and management of plastic waste

Since plastic is mainly used in Europe for packaging purposes[13], plastic waste accounts for a large part of municipal waste[14]. While municipal waste represents only seven to ten percent of the total waste generated in the Union (measured by weight), this waste stream is amongst the most complex ones to manage[15]. Plastic accounts for 19% of packaging waste, and due to its complex composition, it also has the lowest recycling rate. Furthermore, countries which have developed efficient municipal waste management systems generally perform better in overall waste management[16]. Overall in the EU, around 43% of municipal waste is recycled or composted, with the rest being landfilled (31%) or incinerated (26%)[17].

Across the EU almost all local and regional authorities oversee the collection, sorting, treatment and final disposal of municipal waste, either directly or through various forms of delegation to private companies[18]. Member States have adopted different approaches for the collection, sorting and treatment of plastic waste in municipal waste.

There are three main plastic waste collection schemes options for local authorities, which can be complementary:

- mixed collection of municipal waste (with or without post sorting of plastic waste through mechanical biological treatment[19]);
- separate or co-mingled collection of municipal waste;
- deposit refund schemes.

[13] From the 58 million tonnes of plastic produced in Europe every year (and 25 million tonnes of waste), 40% is used for packaging purposes and 22% for other consumer and household goods. Sources: PlasticsEurope, 2014.

[14] In France for example, plastics represented around 10% of the total amount of municipal waste collected in 2012. Sources: Paprec Group website, https://www.paprec.com/fr/comprendre-recyclage/recyclage-plastique/collecte-plastiques, consulted online the 25/04/2018. In Spain, plastic waste accounts for 9% of the municipal waste composition. In comparison, in Cyprus, it accounts for almost 15%. Sources: country factsheet from the 'Municipal Waste Compliance Promotion Exercise' launched by the commission in 2011, available online at:
http://ec.europa.eu/environment/waste/framework/support_implementation.htm

[15] J. Malinauskaite and al., op. cit., p. 2014.

[16] Ibid.

[17] European Commission, "Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste", COM(2015)595 final.

[18] Some Member States exclude packaging waste from municipal waste. This is the case for example in Estonia, where the private operator EPP (accredited deposit organization) is the only national operator for Estonia's deposit refund scheme (recycling 90% of glass and PET bottles and 70% of metal cans)[18]. In other cases, like for example in Germany, plastic producers can also be in charge of collecting directly (or indirectly through with public or private companies in a competitive market), treating and disposing of their consumers' waste, as part of their obligations under the EPR scheme.

[19] Mechanical biological treatment of waste, or MBT, can be used to pre-sort municipal waste ahead of treatment or recycling. The term MBT covers a wide range of processes, including mechanical sorting to recover recyclable materials from mixed waste streams.

1.3 Cost of cleaning and collecting plastic waste for local and regional authorities

No up to date data is available on the cost of municipal waste management across the EU. In 2010, according to the French Ministry for Ecology, the total cost of waste management in France was EUR 377 per ton. Despite its small share in weight in the total of waste generation, municipal waste accounted for 60% of the treatment costs. Therefore, municipal waste treatment including plastic waste is an important cost for local and regional authorities.

Municipal waste treatment	Cost per ton
landfill residual municipal waste:	€180/tonne
incineration residual municipal waste	€203/tonne
treatment recyclable waste (except glass)	€343/tonne
Treatment of glass	€62/tonne

Source: ADEME[20]

The EEA estimated in a 2011 report that the turnover of seven key recycling sectors was EUR 60 billion in 2008. The financing of waste management comes from public funds (local taxes or waste fees and transfer from the national to the local level), private companies' contributions (through a producer responsibility scheme, for example the Green Dot Scheme) and by the sale of waste (sorted or unsorted) by local authorities to recycling companies.

The economic impacts of mismanaged plastic waste on the environment, health and economy are extremely high, even if they are difficult to assess. These costs are in part borne by local and regional authorities. Landfilling and incinerating plastic waste lead to the release of methane and other greenhouse gases, but also to chemical pollution from the various chemicals used by the plastic industry. The economic activities directly affected by plastic litter and microplastics in water media include shipping, fishing, aquaculture, tourism and recreation. For the EU, costs to the tourism and recreation sector (extrapolated from beach cleaning costs) have been estimated up to EUR 630 million per year; costs to the fishing industry up to EUR 57 million. The "best estimate" within this range is a total of almost EUR 470 million.[21]

[20] European Parliament, "Understanding waste management: Policy challenges and opportunities", Briefing, June 2015.
[21] Commission Staff working document accompanying the document "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A European Strategy for Plastics in a Circular Economy", SWD(2018)16 final, 16/01/2018, pp. 17.

2 Analysis of the plastic strategy commitments and recommendations

Annex I to the Plastic Strategy contains several commitments on measures the Commission plans to adopt in the coming years to achieve the main actions set out in the Strategy. Several measures have a clear impact on local and regional authorities and are therefore specifically covered in this section. These actions concern the amendments to the Packaging and Packaging Waste Directive, measures on public procurement, measures on the separate collection of waste, measures to tackle and monitor sea-based sources of marine litter, the evaluation of the Urban Waste Water Treatment Directive within the action to curb microplastics pollution.

2.1 Action to boost recycled content

2.1.1 Packaging and Packaging Waste Directive amendments

Directive 1994/62/EC on packaging and packaging waste (Packaging Waste Directive) lays down measures aimed at preventing the generation of packaging waste. It set targets for the recovery and recycling of packaging waste to reduce the disposal of such waste. In particular, it sets specific recycling targets for plastic packaging waste (22.5 percent as of 2008). Since its amendment by Directive (EU) 2015/720, the Packaging Waste Directive contains specific provisions to reduce the use of lightweight plastic carrier bags and a definition of plastic and different types of plastic bags. Within the context of the Circular Economy Package, the Commission adopted in 2015 a proposal to amend the Packaging and Packaging Waste Directive[22]. This proposal requires as of end of 2025 that 55 percent of plastic packaging waste is reused and recycled in Member States. The European Parliament adopted in April 2018 a legislative resolution on the Commission proposal and recommends a 50% target for 2025 and 55 % target for 2030 for the reuse and recycling of packaging waste[23].

2.1.1.1 Analysis of impacts and feasibility for local and regional authorities

Plastic packaging waste, as mentioned above, is a major waste stream in municipal waste. The achievement of the new targets under the Packaging

[22] Proposal for a Directive amending Directive 94/62/EC on packaging and packaging waste COM/2015/0596 final - 2015/0276 (COD).

[23] European Parliament legislative resolution of 18 April 2018 on the proposal for a directive of the European Parliament and of the Council amending Directive 94/62/EC on packaging and packaging waste (COM(2015)0596 – C8-0385/2015 – 2015/0276(COD)) (Ordinary legislative procedure: first reading).

Waste Directive will thus in a great part have to be supported by local and regional authorities in Member States through the implementation of waste plans under the Waste Framework Directive. Within the context of these new targets, some local authorities will have to upgrade their collection and/or sorting schemes of plastic packaging waste and to identify the relevant policy instruments (e.g. refund deposit schemes, awareness raising, sanctions for not sorting) to ensure that high collection rates are met in a cost-efficient manner. The main challenges for local authorities will be to identify the best combination of those instruments depending on local circumstances and conditions.

National administration or local authorities' clusters (national and transnational, like the EU Covenant of Mayors for Climate and Energy) could support local and regional authorities by providing good practice examples, guidance on separate collection, and organising information exchange workshops to share information about effective collection systems and policy instruments[24].

2.1.1.2 Green public procurement

Under the actions to boost recycled content, the Commission aims to further incentivise the use of recycled plastics through public procurement. Public procurement is the process by which public authorities purchase work, goods or services from private companies which they have selected for this purpose[25]. This can range from buying IT equipment or providing water, gas and electricity to building a state school. The goal of public procurement is to award timely and cost-effective contracts to qualified contractors for the provision of goods, work and services to support public services operations in accordance with public procurement rules. The economic significance of public procurement in Europe is considerable. Every year, over 250,000 public authorities in the EU spend around 14% of GDP on the purchase of services, works and supplies. Public procurement accounts for a large proportion of European consumption (nearly 20% of EU GDP). Public procurement would be therefore a crucial tool for local and regional authorities to boost the use of recycled plastics.

- *EU legal and policy initiatives on green public procurement*

New EU public procurement rules were introduced in 2014 through three new Directives: Directive 2014/23/EU on the award of concession contracts, Directive 2014/24/EU on public procurement and Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors Under Article 18(2) of Directive 2014/24/EU[26], Member States

[24] European commission, "Assessment of separate collection schemes in the 28 capitals of the EU", Final report, 13 November 2015.
[25] Public procurement reform Factsheet No 1: General overview
[26] Directive 2014/25/EU on sectorial public procurement includes similar provisions.

shall take appropriate measures to ensure that in the performance of public contracts economic operators comply with applicable obligations in the fields of environmental, social and labour law established by Union law. Article 67 of the Directive mentions that the contract award criteria shall take into account, inter alia, environmental and/or social aspects linked to the subject-matter of the public contract. Article 70 mentions that contracting authorities may include environmental considerations.

The Commission recently published a brochure on public procurement for a Circular Economy which contains good practices and guidance[27]. There is however no specific guidance on the use of recycled plastic via public procurements.

- *Further work needed from the Commission*

To support the increased public procurement of recycled plastics the Commission should adopt a more detailed guidance document which should contain information on the type of recycled plastics, their potential uses (e.g. construction materials, packaging materials, landscaping such as fences, bridges, walkways and jetties), and the environmental and potential economic benefits for regional and local authorities to use recycled plastics. Such guidance could be based on the LIFE project Plastic Zero manual on green public procurement on plastic waste prevention published in 2014[28].

2.1.2 Action to improve the separate collection of plastic waste

The Commission plans to issue new guidelines on separate collection and sorting of plastic waste and to ensure better implementation of existing obligations on separate collection, including through ongoing review of waste legislation. As already mentioned above local and regional authorities have a major role in the collection and sorting of plastic waste.

The European legislation on waste management is twofold. It includes a general policy framework and sectorial policies related to specific waste streams. The 2008 Waste Framework Directive sets the overarching legislative framework, defining the main concepts, including the polluter pays principle, the waste hierarchy and the end-of-waste status. It also lists disposal and recovery operations for waste and sets up binding recycling targets to be achieved by 2020 for municipal (household and similar waste) waste and construction and demolition waste (respectively 50% and 70%).

[27] Available at: http://ec.europa.eu/environment/gpp/pdf/Public_procurement_circular_economy_brochure.pdf
[28] Available at: http://www.plastic-zero.com/media/50849/green_public_procurement__manual_on_plastic_waste_prevention__final_.pdf

Under Article 11 of the Waste Framework Directive, Member States are required to set up separate collection of at least paper, metal, plastic and glass waste by 2015 where "technically, environmentally and economically practicable", and to draw up waste management plans and waste prevention programmes[29]. It also sets principles regarding the implementation of EPR schemes in Member States. The 1999 Directive on Landfill of Waste bans landfilling of untreated waste and sets objectives for the reduction of biodegradable waste. In December 2015, as part of the new Circular Economy Package, the Commission presented an action plan and four legislative proposals to amend the EU legislation. Under these new legal proposals, Member States will have to set up, by 1 January 2025, separate collection for textiles and for hazardous waste.

- *Local and regional authorities' strong involvement needed in Commission actions on separate collection of plastic waste.*

The actions the Commission plans to take to strengthen obligations on separate collection and sorting of plastic waste may have a significant financial impact for local and regional authorities. Furthermore, there is no "one-size-fits-all" system for the separate collection of plastic waste – waste collection systems must be developed based on the specific characteristics of the geographical areas where waste is collected (see Section 3.1.1.2).

It is therefore important for local and regional authorities to pay special attention to the new guidelines on separate collection and sorting of waste and the Commission guidance on the eco-modulation of EPR fees. The relevant representatives of local and regional authorities should actively participate in the elaboration of these guidelines and the adoption of potential legal requirements. Furthermore, these representatives should advocate for a better harmonisation and more efficient EPR schemes and guidelines based on empirical local studies on the use of fiscal instruments and control (see Section 3.1.1.3).

Finally, data collection in this field is fundamental to analyse and compare the different systems of plastic waste collection at the national and European level. Waste sorting analysis is the basis for planning collection systems and monitoring waste collection performance, and should be performed and published regularly; however, this is often cost-consuming and difficult to organise at local level. Local and regional authorities should therefore ensure that the Commission and Member States develop cost-efficient data collection mechanisms to monitor the separate collection of plastic waste.

[29] European Parliament, "Circular economy package: four legislative proposals on waste", Briefing, March 2018, p. 4.

2.1.3 Curbing plastic waste and littering

2.1.3.1 Tackling sea-based sources of marine litter

The Commission proposes actions to address sea-based sources of marine litter. Marine litter has specific impacts on local and regional authorities, who typically bear the costs of beach clean-ups. Marine litter has a particular economic impact on SMEs in the tourism and recreational sectors, potentially threatening the economic security of local communities that are dependent on tourism. At the same time, local and regional authorities also have a strong role to play in addressing marine litter. Local and regional authorities in most Member States are responsible for delivering waste collection and treatment services and infrastructure, including port waste reception facilities, which are critical to preventing waste from entering the marine environment.

Sea-based sources of marine litter include the fishing, aquaculture, shipping and sea-based petroleum sectors. While most litter comes from the land, plastic litter discharged at sea by the sea-based operators has a high impact on marine litter, as it is discharged directly into the marine environment and can be highly concentrated in certain areas[30]. In addition, the proportion of waste originating from sea-based sources may be significantly underestimated[31].

Enforcement of the MARPOL Convention[32] – primarily by national authorities – is the key instrument for preventing sea-based discharges of marine litter, as Annex V of the Convention prohibits the discharge of most garbage, including all plastics, from ships at sea. Nonetheless, there are a number of existing measures involving LRAs addressing marine litter originating from sea-based activities. Often, these activities include actions funded under the EMFF or INTERREG (for example, MARELITT Baltic or Circular Ocean).

Any efforts to reduce sea-based disposal of litter must consider the availability of adequate port-based waste reception facilities – if such facilities do not exist, are inadequate, or are too expensive to use, then shipping operators will be more likely to dispose of waste at sea. The Port Reception Facilities Directive[33] aims to increase the availability and use of waste reception facilities in ports, thereby encouraging shipping operators (including operators of fishing vessels) to dispose of waste in port rather than at sea. It requires the provision of waste reception facilities in ports and the use of these facilities by ships.

[30] SWD(2018) 16 final, *Commission Staff Working Document accompanying the European Strategy for Plastics in a Circular Economy*, pp49 and 57.
[31] Sherrington, C., Darrah, C., et al, *Study to support the development of measures to combat a range of marine litter sources*, Report for European Commission DG Environment, 2016, p103.
[32] International Convention for the Prevention of Pollution from Ships.
[33] Directive 2000/59/EC on port reception facilities for ship generated waste and cargo residues.

The release of the Plastics Strategy included the following proposed revisions to the Directive:

- Further alignment with the MARPOL Convention, including alignment of definitions (e.g. ship-generated waste), explicitly linking certain provisions (e.g. the mandatory delivery of ship-generated waste in port) to MARPOL provisions, and aligning notification provisions.

- Measures to improve the adequacy of port waste reception facilities. This includes a new requirement that waste received in port be managed in accordance with the Waste Framework Directive and that facilities allow for the separate collection of waste. It would also establish that parties (i.e. shipping operators) can claim compensation for damage caused by undue delay resulting from inadequate facilities.

- Measures to improve the incentives for ships to deliver waste in port, rather than at sea, including changes to the cost recovery system for port waste facilities and reduced waste fees for 'green ships' that can demonstrate reduced waste generation on board. The proposed provisions on cost recovery requires that ship-generated garbage, as defined under Annex V to the MARPOL Convention and including marine litter that has been collected by fishing vessels through 'passive' fishing for litter, be covered by an 'indirect' fee to ships. This means that all ships of the same category, type and size pay the same fee, regardless of the volume of waste disposed of in port. This helps to avoid an incentive for disposal of waste at sea and will support marine litter recovery activities by fishing vessels.

As local and regional authorities in Europe are often the full or partial owners of ports, or represented in port governance structures[34], they are likely to be impacted by the proposed revisions, particularly those relating to the adequacy of port reception facilities. Many small ports do not currently provide facilities for the separate collection of waste. Given many municipalities continue to face challenges in providing separate collection for all municipal waste[35], this is likely to be a challenge for small and remote local authorities. Nonetheless, the Waste Framework Directive – and thus the Port Reception Facilities Directive – only requires separate collection to the extent that it is technically, environmentally or economically viable.

Port authorities, including local and regional authorities where relevant, will need to ensure that waste reception facilities meet the proposed more stringent

[34] OECD International Transport Forum, *Local Governments and Ports*, 2017.
[35] SWD(2018) 21 final, *Commission Staff Working Document – Impact Assessment Proposal for revised Directive on port reception facilities*, p21.

adequacy requirements, particularly given that the proposed amendment that would allow impacted parties to claim compensation for damages arising out of delays due to inadequate facilities. This is likely to require new investment in some ports. Where local and regional authorities are not directly involved in providing waste reception facilities in port, they may nonetheless be impact by the proposed changes if they provide waste collection and treatment services to ports. Separate collection may be required, and larger volumes of ship-sourced waste may be collected. Waste management plans may need to be updated to reflect such changes.

In principle, increased costs to port authorities should be met through the cost recovery systems in place in the port, as the proposed revisions to the Directive require full cost recovery. Port authorities, including local and regional authorities, will need to ensure cost recovery systems are in line with the proposed revisions. The proposed changes may have positive financial impacts on local and regional authorities that collect and treat waste from ports, as improved separation of waste may make treatment and recycling more financially viable. Beyond local and regional authorities involved in waste management in ports, the proposed changes should have a generally positive impact due to reduced marine litter impacts on coastal regions.

2.1.3.2 Action to monitor and curb marine litter more effectively

Local and regional authorities also play an important role in raising awareness, providing information and engaging stakeholders. These authorities are often involved in organise beach clean-ups, fishing-for-litter actions, and marine litter surveys. While the impact of beach clean-up and fishing for litter activities are not considered a cost-effective instrument for address marine litter, due to their limited impact on overall levels of marine litter, they can be important for raising awareness and addressing litter hotspots[36].

The Plastics Strategy identifies improved monitoring and mapping of marine litter, including microplastics, on the basis of EU harmonised methods as a future action to support the Strategy. However, limited details are provided on this action. Local and regional authorities already participate in efforts to monitor and map of marine litter. Under the Marine Strategy Framework Directive, Member States are required to monitor marine litter and draft and implement programmes of measures to reduce litter in marine waters. In support of this, the MSFD Technical Subgroup on Marine Litter published Guidance on Monitoring of Marine Litter in European Seas in 2013[37]. These guidelines note

[36] ten Brink, P., Schweitzer, J.P., Watkins, E., and Howe, M., *Plastics Marine Litter and the Circular Economy*, IEEP, October 2016, p14.
[37] http://mcc.jrc.ec.europa.eu/documents/201702074014.pdf

the importance of local and regional authorities in monitoring activities, both as information source and user of the information (e.g. in planning beach cleaning).

Given the lack of detail in the Plastics Strategy on the actions to monitor and map marine litter, it is not yet possible to assess the impacts of this action on local and rural authorities.

2.1.4 Action to curb microplastic pollutions

2.1.4.1 Role of local and regional authorities in the implementation of the Urban Waste Water Treatment Directive

Under the actions to curb microplastics pollutions the Commission mentions that they are currently evaluating the Urban Waste Water Treatment Directive[38] (UWWTD) to assess its effectiveness as regard microplastics. UWWTD regulates the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors. It defines urban waste water as domestic waste water or the mixture of domestic waste water with industrial waste water and/or run-off rain water. The current version of the UWWTD and related technical requirements do not consider the presence of microplastics in urban wastewater and do not provide for the monitoring of microplastics in wastewater effluent. Current monitoring requirements only concern the chemical oxygen demand.

This Directive is of significant relevance for the local and regional authorities which are major actors in the treatment of urban waste water. In most EU countries, local and/or regional authorities are in charge of the treatment of urban waste water. These authorities either own and operate the urban waste water treatment plants or commission through public procurement private operators to treat urban waste water.

2.1.4.2 Wastewater treatment plants pathway for microplastics

A scientific study demonstrates that wastewater effluent is a pathway for microplastics to enter the aquatic environment. It showed that current and most common wastewater treatment plants using primary, secondary and tertiary treatment processes[39] remove a significant amount of microplastics (0.21-1.5 microplastics/L) but that there is still a large amount of microplastics that enter the environment daily. This study stresses that synthetic fibers, not microbeads from cosmetic products, were the dominant type of microplastics detected in all

[38] Council Directive 91/271/EEC concerning urban waste-water treatment.

[39] Primary treatment is sedimentation of solid waste, secondary treatment is oxidation to purify wastewater, and third treatment is to remove nitrates and phosphates.

wastewater effluent samples and were not completely removed even after advanced treatment processes[40].

Technologies to remove microplastics from wastewater effluents are all at a research and development phase and are unlikely to be applied at an industrial scale in the near future. These are examples of new technologies being developed as underlined in a 2016 scientific article[41]:

- Density difference of the individual particles to isolate microplastics by adding mineral salt allowing particles with a lower density to float to the surface and to be easily extracted.

- The principle of elutriation. In this method, a stream of gas or liquid is introduced to separate lighter from heavier particles. This technique is primarily used in marine biology and is known as 'Barnett's fluidised sand bath'.

- The synthesis of preorganised bioinspired compounds producing functionalised hybrid silica gels ability to remove stressors such as microplastics from waste water.

2.1.4.3 Impact/cost on local and regional authorities

New requirements under the UWWTD on the removal and monitoring of microplastics will most likely require the need to upgrade waste water treatment plant processes and to use new technologies with additional cost to local and regional authorities. The cost and efficiency of end-of-pipe measures to remove microplastics should be assessed taking into account the cost of removing at source microplastics in wastewater effluents (e.g. washing machine filters for plastic fibres).

[40] Ziajahromi, Shima & Neale, Peta & Rintoul, Llew & Leusch, Frederic. (2017). Wastewater treatment plants as a pathway for microplastics: Development of a new approach to sample wastewater-based microplastics. Water Research. 112. 10.1016/j.watres.2017.01.042.

[41] Adrian Frank Herbort & Katrin Schuhen, a concept for the removal of microplastics from the marine environment with innovative host-guest relationships, Environ Sci Pollut Res DOI 10.1007/s11356-016-7216-x

3 Analyses of the plastics strategy operational aspects

The Commission has developed under Annex II of the Plastic Strategy a set of measures respectively targeting industries and national and regional authorities. We have focus on the following measures where local and regional authorities have a major role to play:

- Favour reusable and recycled plastics in public procurement;
- Put in place well-designed EPR schemes and/or deposit systems, in consultation with the relevant sectors;
- Set up separate collection of plastics waste and improve the way in which this is done;
- Raise awareness of littering;
- Step up waste collection near the coasts.

3.1.1 Key measures to improve the economics and quality of plastics recycling

3.1.1.1 Favour reusable and recycled plastics in public procurement

The Commission in the Plastic Strategy suggests that regional and local authorities favour reusable and recycled plastics in public procurement. Such measures seem to be already implemented in several local and regional authorities across the EU. The box below provides some examples of measures in place that could be replicated by local and regional authorities across the EU.

Table 1: Good practices to favour reusable and recycled plastics in public procurement

Recycling and recyclability criteria for packaging in cleaning services In the Danish municipality Lolland, recycling and recyclability criteria for packaging have been included in their tender for cleaning services: 75% of material used for bags must be recycled or biodegradable; non-reusable packaging must be easy to separate into single material types; monomaterials are to be used if possible; only recyclable materials must be used; and use of dark colours must be avoided. Green criteria in public tenders can be used to increase demand and improve market conditions for recycled and recyclable plastics[42]. **Catering services and plastic** In 2013, the City of Turin introduced several measures to their school catering contract to enhance its sustainability, which included for example using tap water instead of bottled

[42] Example extracted from Ellen MacArthur Foundation: The new plastics economy, 2016.

products and favouring reusable and refillable products where packaging is unavoidable. In addition, contractors were required to shift from using plastic to reusable dishes. This one requirement alone resulted in a reduction of 157 tonnes/year of plastic waste[43].

Cleaning and polishing products

In 2016, the City of Ghent established a four-year framework agreement for the supply of cleaning and polishing products. It was required that products in certain categories, including cleaning products and hygiene products (e.g. soap) met the criteria of the C2C 'Bronze' label or equivalent. As a result, the recycled content and recyclability of waste has greatly improved: packaging uses 85% recycled cardboard, plastic bottles made from polyethylene high-density (PEHD) are 100% recyclable and consist of 10% recycled PEHD, while those made from polyethylene terephthalate (PET) are 100% recyclable and made from 81% recycled materials[44].

3.1.1.2 Set up separate collection of plastics waste and improve the way in which this is done

The Commission suggests that local and regional authorities should improve the way the separate collection of plastic waste is done.

Different factors must be considered where local and regional authorities decide to improve separate collection systems of plastic waste such as the size and density of population in the geographical area concerned and the related socio-economic conditions.

One study concluded that, in regions with a high density of population, with different communities from various socio-economic conditions, post collection treatment is potentially more efficient, in term of quantity of plastic recycled[45]. According to a EEA study, for poorly populated areas, door-to-door collection combined with a unit-based pricing is probably the most effective way[46]. In the same vein one study considers that door-to-door collection is better suited for residential areas with single houses, rather than in multi-storey houses. In this context it provides the best quality of recycling. Even if the collection costs are higher for implementing a door-to-door system the treatment costs are lower since it results in fewer rejects that must be disposed of and higher revenues from the recyclables.

Bring-point systems – where households bring their recyclable waste to a central collection point – often struggle to encourage inhabitants to separate their waste

[43] European Commission, public procurement for a circular economy, good practice and guidance, 2017.
[44] Ibid.
[45] E. Dijkgraaf and R. Gradus, "Post separation of Plastic Waste: better for the environment and lower collection costs", TI 2016-103/VI, Tinbergen Institute Discussion Paper.
[46] J. Malinauskaite and al., "Municipal solid waste management and waste-to-energy in the context of a circular economy and energy recycling in Europe", Energy 141 (2017), 2013-2044.

instead of putting all the waste in the mixed waste bin, which results in a reduced amount of separately collected waste. The separately collected wastes from bring-point systems might also contain a larger percentage of impurities; the final recycled amount of municipal waste will therefore be smaller compared with the amount of door-to-door collection, and the revenues for the recyclables might be lower, due to their poorer quality[47].

Local and regional authorities should therefore carefully assess the characteristics of the area covered by their waste services including the size and density of population in the geographical area concerned and the housing characteristics before deciding to develop a certain type and or a combination of collection systems (e.g. door-to-door, bring-point schemes, post collection).

Apart from collection schemes, fiscal tools, both at the national and regional level, can create economic incentives for individuals to better sort their waste, and for private companies to invest in new technologies and enhance new product designs which will improve the quantity and quality of recycled plastics. The main challenges for local authorities in the near future will be to identify not only the best policy instruments for municipal waste management but also the best combination of those instruments, based on local circumstances and conditions.

3.1.1.3 Put in place well-designed EPR schemes and/or deposit systems, in consultation with the relevant sectors

The EU legislation sets out an Extended Producer Responsibility (EPR) Scheme for three specific waste streams (end-of-life vehicles, batteries and accumulators, waste electrical and electronic good) and such schemes cover multiple waste streams in Member States. EPR involves a shift in responsibility in the treatment of waste from the public authorities to manufacturers that are in charge of the treatment and disposal cost of the waste generated by their products. In most cases and in most Member States, Producer Responsibility Organisations (PROs) are set up to implement the EPR principle in the name of all the adhering companies. PROs can have three main functions:

- Financing the collection and treatment of the targeted solid waste.
- Organising and supervising these activities.
- Managing the corresponding data.

[47] European Commission, "Assessment of separate collection schemes in the 28 capitals of the EU", op. cit.

The extent to which net operational costs are assumed by PROs (and therefore covered by producers' fees) is highly variable and depends on the share of organisational and financial responsibilities of the various stakeholders, as well as on the national framework for EPR. Member States usually impose producer responsibility for separate collection. In some Member States, 100 percent of net costs for separately collected waste are covered. However, in other Member States, the percentage of net costs covered is far lower.

There are several implementation issues with EPR schemes with impede the cost-effective collection of plastic waste and impact the waste services of local and regional authorities:

- Few or no quantitative targets or indicators on eco-design and waste prevention have been developed within EPR schemes, which focus mainly on waste collection and recycling objectives.

- The pooling of individual producers' responsibilities may entail a risk of "averaging" costs among producers, thereby deterring individual efforts for improvement in eco-designs of products

Therefore, plastic packaging that is difficult to recycle or even not recyclable, is still widely used within the context of EPR schemes since there is no need for each individual participating company to reach individual targets. Few collective EPR schemes have developed mechanisms to lower the fees for eco-designed products and ensure that producer fees incentivize prevention, reparability and recyclability. France experienced a "bonus-malus" system which increased charges to products containing materials disrupting the recycling process. However, the results of this "bonus-malus" system and its impacts on eco-design efforts are not known yet.

Table 2 EPR Schemes for packaging in eight Member States in 2014[48]

Countries	Description of EPR schemes
Germany	– Expensive system – High recovery, recycling and re-use rate (96%). – The system covers 100 percent of the total collection and treatment costs. – Individual or collective producer responsibility; – Nine competing PROs and a deposit refund scheme is also in place. – Household, commercial and industrial packaging covered

[48] European Commission – DG Environment, "Development of Guidance on Extended Producer Responsibility (EPR)", Final report, 2014, p. 149.

Belgium	– High recovery, recycling and re-use rate (96%). – Highly cost efficient – 100% of the total collection and treatment costs covered – Individual or collective producer responsibility – Kerbside collection, with no deposit refund system in place for non-reusable packaging. – Two non-competing PROs one for household packaging and one for industrial packaging
The Netherlands	– High recovery, recycling and re-use rate (97%). – One PRO, which works in partnership with executing organisations. – Collection schemes differ among municipalities (kerbside collection, bring system or often no separate collection but mechanical sorting from residual waste) – A voluntary deposit scheme for single use beverage packaging.
Austria	– Relatively high recovery, recycling and re-use rate (92%). – 100 percent of the total collection and treatment costs covered – Relatively high cost efficiency. – Individual or collective producer responsibility. – One PRO and no deposit refund scheme is in place. – Household, commercial and industrial packaging covered
Czech Republic	– Relatively high recycling, recovery and re-use rate (78%). – Individual or collective producer responsibility; – One PRO – A well performing bring system (containers) for collecting household packaging waste. – No deposit refund system for non-reusable packaging. – Mature system in spite of its relatively recent introduction.
France	– Moderate recycling, recovery and re-use rate (70%). – 57% of total collection and treatment costs for household packaging waste covered – Individual or collective producer responsibility. – Additional voluntary systems for professional packaging.

To ensure that the "polluter pays principle" is implemented in waste management, local and regional authorities should cooperate to share best practices, advocate for more detailed guidelines at the EU level, and reflect on the possibility to also include financial contribution for plastic packaging sorting and recycling in residual municipal waste.

3.1.2 Key measures to curb plastic waste and littering

The Commission identifies several measures targeting regional and local authorities to curb plastic waste and littering such as awareness raising of littering and waste collection near the coast.

– *Awareness raising on litter*

In the 2015 MARLISCO Project, all the participant fora identified public outreach, education and awareness as key to addressing marine litter, which highlights that a lack of knowledge in the public domain needs to be addressed across Europe. Several awareness raising campaigns were developed by regional and local authorities, including:

- Online games such as Don't Feed Simon[49]
- Theatre performance and sketches to explain the ban of plastic bags[50]
- Campaigns in local newspapers and social media
- Cleaning beaches/rivers days at schools

Local and regional authorities should coordinate to identify the best and more efficient awareness raising campaigns to curb plastic littering in their jurisdictions.

– *Waste collection near the coast*

Even if most people recycle their waste at home and at work, they often fail to do so while on-the-go, because of lack of awareness and often a lack of available recycling bins. Most of this waste stream consists of lightweight plastic items. In these conditions, the MARLISCO Guide for reducing marine litter recommends that municipalities and local authorities:

- establish recycling on-the-go by providing an adequate number, size and type of waste bins and recycling receptacles in all public spaces, including on beaches;

- ensure that all public waste bins and recycling receptacles are emptied frequently and regularly.

However, the development of such waste collection schemes near the coast are not sufficient to limit littering and should be accompanied by the ban of single-use plastic items.

– *Ban of single-use plastic items*

In its working document accompanying its Plastic Strategy, the Commission identifies single-use plastic items (SUP) as a major problem for marine litter. Such items, once disposed of, need to be collected and sorted, implying costs for

[49] http://dontfeedsimon.walesonline.co.uk/index.html
[50] https://www.surfrider.eu/en/le-blog/top-10-of-initiatives-against-plastic-bags/

public authorities, including local authorities responsible for municipal waste managed. Although such items could be recycled often they are not, due to insufficient public waste management infrastructure or food and organic material contamination. Several Member States are therefore already taking action regarding single use items under the Marine Strategy Framework Directive, through restrictions or bans of the use of several of SUP, or provision of portable washing stations to allow users to wash reusable containers.

The Commission also identified a concrete risk for the internal market if Member States continue to take individual actions to address different items. Currently neither legal definition nor official statistics regarding single use plastic production and littering exist. Such definitions are however crucial to define measures to be taken to move to address plastic waste. Given that plastic packaging is almost exclusively single-use, especially in business-to-consumer applications, such items should therefore be defined in the Packaging and Packaging Waste Directive. An enhanced definition of plastic packaging in the Directive could therefore contribute to reducing plastic litter.

Contribution of single-use non-packaging and packaging plastics to marine litter[51]

Item	% of SUP	Packaging
Cigarette butts	19%	No
Drinks bottles, caps and lids	18%	Yes
Cotton bud sticks	10%	No
Crisps packets / sweets wrappers	8%	Yes
Sanitary applications	7%	No
Bags	5%	Yes
Cutlery, straws and stirrers	4%	No
Balloons and balloon sticks	2%	No
Food containers including fast food	2%	Yes
Cup and cup lids	3%	Yes
Total	77%	

[51] Source: Eunomia (2017), based on JRC data.

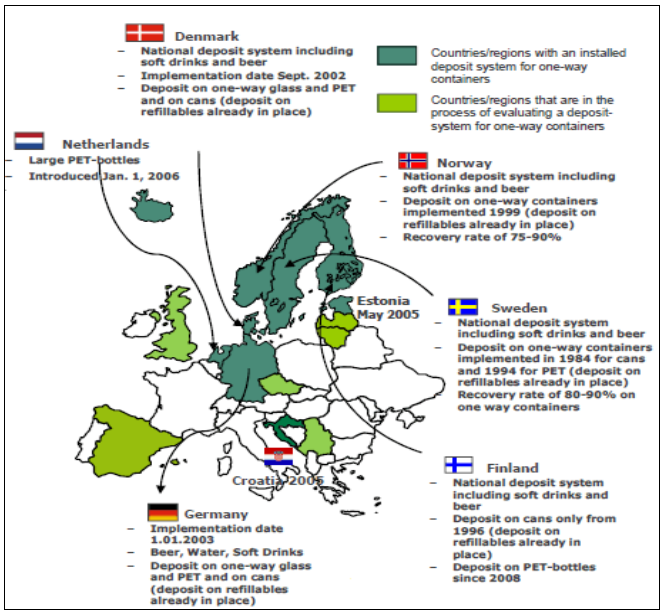
4 Case study on deposit schemes

4.1 Overview of deposit-refund schemes for plastics in the EU

According to the OECD a deposit-refund scheme is the surcharge on the price of potentially polluting products. When pollution is avoided by returning the products or their residuals, a refund of the surcharge is granted[52]. Such schemes are used for various products (e.g. beverage containers, lead-acid batteries, motor oil, motor oil)[53]. The collection points are often located in retail outlets and centralised locations or places where such products are usually consumed.

As mentioned by an EU Parliament study[54], deposit-refund schemes aim to increase the share of empty packaging returned by consumers to take-back/collection points allowing the reuse of packaging products and/or the recycling of packaging material. They also prevent littering since they give consumers an incentive to return empty packaging.

According to Zero Waste Europe[55], refund-schemes for beverage packaging are implemented and well established in northern EU countries such as Denmark, Sweden, Finland Germany and Netherlands. These countries first developed refund-schemes for glass and metal beverage packaging and then initiated similar schemes for plastic PET bottles.



Source: Zero Waste Europe

[52] https://stats.oecd.org/glossary/detail.asp?ID=594
[53] http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-11-47.pdf
[54] European Parliament, A European Refunding Scheme for Drinks Containers 2011 available at: http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL-AFET_NT(2011)457065
[55] https://zerowasteeurope.eu/2010/09/beverage-packaging-and-zero-waste/

A successful example is Finland where a deposit refund scheme for glass bottles exists since 1950. Finland introduced a refund scheme for PET bottles in 2008, this year the return rate was 71 percent raising to 90 percent within two years. This is largely attributed to the close co-operation between parties involved in the schemes (i.e. beverage industry and retailers)[56]. For example, PALPA[57] operates in Finland the largest deposit refund system and it is a non-profit organisation owned and operated on equal part by the beverage industry and the retail industry.

Several EU countries as part of their plastic waste plans and/or EU local and regional authorities are considering and/or started launching deposit-refund schemes for plastic beverage containers. For example, according to the Roadmap on the Circular Economy published in April 2018, the French Government is planning to implement, in local authorities that wish to do so, 'solidarity' reposit-schemes for aluminium cans and plastic bottles where the material collected will contribute to fund a great cause for the protection of health or the environment. Local communities would be able to launch calls for projects to select the operators of the refund scheme and to choose the most appropriate solutions for their needs, especially in the densest urban areas. These solutions will be based on digital technologies, on social innovation, on the collaborative economy or on automatic machines for the recovery of bottles and cans. To finance these operations, local authorities will receive specific support per tons collected from approved eco-organizations in the packaging sector[58]. In March 2018, the UK Government announced that they are planning to introduce a deposit return scheme for plastic drink bottles in England subject to consultation in the coming months[59].

Most EU countries do not have such systems in place and only rely on the local authority waste services to collect packaging plastic waste. Note that several Member States have a very high collection rate of plastic packaging without setting up such schemes (e.g. Belgium with 87.3 percent of packaging waste recycled[60]). On average in the EU the collection-for-recycling rate of PET bottles was around 60% in 2014[61].

[56] Eunomia and IEEP, Deposit Refund System (and Packaging Tax) in Finland. Available at: https://ieep.eu/uploads/articles/attachments/9d526526-d22b-4350-a590-6ff71d058add/FI%20Deposit%20Refund%20Scheme%20final.pdf?v=63680923242

[57] Suomen Palautuspakkaus Oy.

[58] Available at: https://www.consultation-economie-circulaire.gouv.fr/la-feuille-de-route-economie-circulaire

[59] https://www.gov.uk/government/news/deposit-return-scheme-in-fight-against-plastic

[60] http://focusonbelgium.be/en/international/belgium-european-leader-recycling-packaging

[61] http://www.petcore-europe.org/news/over-66-billion-pet-bottles-recycled-europe-2014

4.2 Potential impacts of the introduction of deposit-refund schemes for plastics on regional and local authorities

As mentioned above, several countries are considering implementing deposit-refund schemes for plastic beverage packaging. During the consultation phase launched in these countries, associations of local authorities' waste services expressed some concerns about the relevance of such schemes and the related impacts on their collection systems and related resources.

According to the French association of local authorities' waste services, AMORCE, the deposit would apply on packages that are already well sorted and have value. This packaging waste represents a financial resource for communities to fund public waste services. They fear that such deposit-refund schemes would undermine the waste services of local authorities[62]. In the same vein an association of Scottish Local Authorities (COSLA) considered that such schemes would remove valuable materials (e.g. plastic PET) from recycling collections, increasing the net costs to municipalities of service provision[63].

However according to a 2017 Eunomia study, the impact of such schemes, within the UK context, on local authorities' waste services should be positive even though valuable material may be removed from existing recycling services.

The study outlines that even high performing recycling authorities despite the reduced amount of higher value materials in kerbside recycling collections would be net beneficiaries as a result of the introduction of such scheme. The study considers that is due inter alia to:

- A reduction in residual waste requiring treatment;
- The possibility of reduced material recovery facility costs;
- More efficiencies in collection;
- Reduction in street cleansing costs.

The study also concludes that authorities with low recycling performance could potentially make greater savings since a larger proportion of the materials captured within such schemes are diverted from what is currently collected as residual waste. The study foresees an annual net saving to local authorities under such a scheme close to GBP 35 million (around EUR 40 million) due to savings on collection (less material to collect and quicker collection operations), on

[62] Actu-environnement, *Le gouvernement veut remettre la consigne des emballages à la mode, 06 February 2018* available at: https://www.actu-environnement.com/ae/news/consigne-emballages-plastique-canette-piles-economie-circulaire-30604.php4

[63] Eunomia Impacts of a Deposit Refund System for One-way Beverage Packaging on Local Authority Waste Services (2017).

sorting and on street-level services (e.g. less manual litter pickers).

Another Eunomia study on implementing a deposit-refund scheme in the UK considers that, within the UK context, such a scheme would likely to deliver strong environmental benefits such as reduced greenhouse gas (GHG) emissions and air pollutants, mainly from increased recycling and the reduction in the disamenity associated with litter[64].

In the same vein, a report prepared by the independent Voluntary and Economic Incentive Working Group at the request of DEFRA on the feasibility to develop a deposit-refund scheme in the UK[65] considers that well-designed deposit-refund schemes could lead to a rise of 20 percent in the material (e.g. beverage containers) collected to be recycled and less contaminated material compared to the current situation in the UK. It however stresses that some deposit-refund schemes in place achieve the same level of collection and recycling rates than the current ones in the UK that does not have such scheme. It concludes that the benefits of setting-up and implementing such scheme will rely on the specific type of scheme developed and the outcome that it is seeking to achieve (e.g. compliment or replace the current household system of collecting drink containers, to capture mainly materials consumed outside the home).

This report recommends, inter alia, that '*any potential scheme must be designed in consultation with businesses, consumers, local governments and other interested parties, to ensure that it is well-designed, that the costs and benefits of the specific design have been fully assessed and that the risks of potential unintended consequences are minimal and that such scheme should seek to avoid diverting high-value material from existing kerbside and household collections where that is possible'*

4.3 Assessment of the feasibility of a unified common system at the EU level

Several studies reported some concerns related to the lack of full harmonisation of collection and recovery systems for packaging[66]. This lack of harmonisation could result in internal market disruptions in particular in cases of parallel trade or private imports in border regions. According to these reports, such disruptions would come from the lack of compatibility of refund systems used to stimulate

[64]Eunomia, Have we got the bottle? Implementing a deposit refund scheme in the UK.
[65]Voluntary and Economic Incentive Working Group, Voluntary and economic incentives to reduce littering of drinks containers and promote recycling, February 2018 Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/694916/voluntary-economic-incentives-working-group-report-drinks-containers-final.pdf
[66]For instance, Eunomia Options and Feasibility of a European Refund System for Metal Beverage Cans, 2011.

the return of used packaging. Some environmental NGOs also advocate for a unified common system at the European level to effectively fight against negative consequences of packaging waste[67].

There are no studies on the feasibility of the implementation of unified deposit-refund schemes for plastic packaging. However, such a study was carried out in 2011 for an EU unified metal beverage deposit scheme[68]. This study concluded that:

- The magnitude of the problem caused by a lack of interoperability of systems is small in relation to the total quantity of material being handled as waste metal beverage packaging across the EU.

- Implementing any EU-wide measure in response to what is essentially a localised problem seems inappropriate to its scale in particular under the EU waste legislation that has been designed to provide enough discretion to Member States to implement the relevant national measures to meet the targets specified in Directives, taking national circumstances into account and based on the principles of subsidiarity and proportionality.

- Bilateral discussion/agreement between Member States where major cross-border trade exist seems the appropriate level to resolve cross-border issues.

It is most likely that such conclusions would also apply to the development of unified deposit-refund schemes for plastic packaging.

To conclude, it is unlikely that a unified deposit-refund scheme at the EU level would be an efficient and relevant tool to reduce plastic littering and to increase recycling rates of plastic bottles. Deposit-refund schemes should be tailored to the specific circumstances and needs of the geographical areas they cover. As mentioned by a European Parliament Report on the Plastic Strategy (Draft version March 2018) there are various options to achieve high collection and recycling rates and a reduction in litter. Therefore, selecting a specific scheme should remain under the competence of Member States, which can take into account local situations and ensure that any existing well-performing and cost-efficient system is not jeopardised[69]. Instead the Commission could request Member States without such schemes in place to assess (e.g. within their waste management plans), based on Commission guidelines, the relevance and the cost and benefits of implementing deposit-refund schemes or other collection systems for plastic waste.

---

[67] https://www.surfrider.eu/en/le-blog/the-deposit-refund-system-a-system-to-be-re-introduced/

[68] Eunomia Options and Feasibility of a European Refund System for Metal Beverage Cans, 2011.

[69] European Parliament, Committee on the Environment, Public Health and Food Safety, Draft report on a European strategy for plastics in a circular economy (2018/2035(INI)) available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2F%2FEP%2F%2FNONSGML%2BCOMPARL%2BPE-619.271%2B01%2BDOC%2BPDF%2BV0%2F%2FEN

EN

ISBN 978-92-895-0964-0
doi:10.2863/734820

QG-01-18-624-EN-N

European Committee of the Regions

Created in 1994 following the signing of the Maastricht Treaty, the European Committee of the Regions is the EU's assembly of 350 regional and local representatives from all 28 Member States, representing over 507 million Europeans.

Rue Belliard/Belliardstraat 101 | 1040 Bruxelles/Brussel | BELGIQUE/BELGIË | Tel. +32 22822211
www.cor.europa.eu | @EU_CoR | /european.committee.of.the.regions
/european-committee-of-the-regions