



Factsheet 03 | How can financial flows be managed and fees and payments be set?

This factsheet outlines how the PRO should be managed from a financial standpoint in order to ensure accountability and transparency and to prevent corruption. It considers, amongst other things, how to set the fees ‘producers’ should pay to a PRO and the payments made by a PRO to collectors and recyclers.

Financial flows from the obliged companies can significantly improve the business cases for collecting, sorting and recycling packaging waste. These flows are one way of implementing the ‘polluter pays principle’ and following the **guiding philosophy behind EPR of internalising packaging waste management costs within the price of the product**. Internalising the costs is therefore a complementary option to covering waste management costs through waste management fees or funding from state budgets.

Financing the management of packaging waste

A system in which all discarded packaging is collected, sorted and either recycled or treated in an environmentally sound way, cannot operate without sufficient funding. The market value of packaging waste is not enough to cover the costs associated with these services. A purely market-based approach relying on commercialising waste can only cover a small portion of the service costs, particularly when we consider that some waste types have little or no market value and that adequate social and environmental provisions must also be made. Depending on the costs of collecting and sorting in relation to the market prices of the raw materials, it is possible that only approx. 20% of the system costs can be covered from the sale of valuable materials.

In an EPR system, every obliged company (producer/importer) pays a fee when introducing packaged goods into the market. The costs of subsequent collection, sorting and recycling should be funded via the EPR scheme, along with expenditure associated with the provision of information and communications, administration and other costs.

In a mandatory EPR system, the PRO acts as the system operator and the most important stakeholder organisation. It is responsible for setting up, developing and maintaining all services, including the management of all fees and payments. The fees are used to fund the collection and further treatment of the packaging waste, and to cover all the PRO’s funding flows. Sound financial

management and a certain degree of transparency and accountability (i.e. the absence of corruption) are crucial for the effective management of discarded packaging.

Most countries with effective EPR schemes start with a single PRO, set up as a non-profit organisation. A non-profit PRO is not supposed to make any profits; any potential surpluses generated within a financial year have to be included in the budget for the following financial year.

However, both for-profit and non-profit PROs can use surpluses to generate accruals for future waste obligations, or reduce their prices so they can use up their reserves. Some countries put a cap on the size of the reserves a PRO can generate.



Figure 1: Revenue and expenditure (for a non-profit PRO)

In a few countries, such as Germany and Austria, there are several competing PROs. > [See Country Report Germany](#) In these countries, the PROs are obliged to collect, sort and recycle waste, as well as to provide information and handle communications and administrative work. However, they are allowed to generate surpluses. PROs can be structured as private limited companies or corporations, for instance. With a for-profit PRO, surpluses are not carried over into the budget for the following year, and are reported as profits instead.

System-relevant packaging and obliged companies

Any requirement for certain packaging types to be included in the EPR system (system-relevant packaging) must be clearly defined in the legal framework. In most countries, the EPR system covers only household packaging and packaging from equivalent places of origin. Therefore, only companies introducing these types of packaging to the market qualify as obliged companies under the EPR, and are subject to the relevant fees (see Figure 2).



Figure 2: Example of packaging which must be included in the EPR system

The category of packaging known as **service packaging** represents a special case. Service packaging is defined as any packaging that is not filled with goods until the point at which it is passed to the consumer. Typical examples are bread roll bags, butcher's paper, potato chips boxes, takeaway coffee cups or bags for fruit and vegetables. Specifically in this case, the company marketing and selling the packaging materials – not the coffee – are required to participate in the EPR system and must pay the EPR fees. Companies using and distributing service packaging, such as bakeries or snack bars, in contrast, do not have to pay EPR fees for this service packaging material. However, these companies should obtain evidence from their upstream distributor (the seller of the packaging material) that he or she paid into the EPR system. Proof could be ensured by an invoice, a delivery note or via a contractual agreement.¹

Ensuring a level playing field is very important for the acceptance of the EPR system. Therefore, **all requirements and responsibilities have to apply equally to all obliged companies**. With that in mind, it is crucial that both the definition of an obliged company and the point in the system at which the obliged companies are identified are clear and unambiguous, as they determine who pays EPR fees and how big these fees are.

Since EPR fees should not be paid twice for the same packaging within the supply chain, it is important to find a point in the chain where the obliged company can be clearly identified.

The **point at which a company becomes obliged under the EPR is defined as the point at which the companies introduce packaged goods into the market** in the country covered by the EPR's legal framework. These goods are then consumed and eventually disposed of in that country. The obliged companies within this system are the packaging users, fillers and brand owners (referred to collectively as 'producers') and the importers importing the packaged goods for sale and consumption in the country concerned. Both producers and importers are obliged to fund the EPR system.

¹ https://www.verpackungsregister.org/fileadmin/user_upload/How-to-Guide_en_13072018_final.pdf



Figure 3: Simplified supply chain and the point at which obliged companies become liable for EPR fees

As a rule, the **obliged producer or the obliged importer** is the first company to distribute the goods in the country concerned, and is therefore obliged to pay EPR fees. One exception to this rule is **service packaging** (e.g. plastic bags, food containers), which is only used when the goods it carries are sold. For this type of packaging, the company selling the empty service packaging to retailers, street food outlets, and other places where the packaging will be filled is obliged to participate in the EPR system. Due to the high number of fast food and street food stalls, for instance, it would not be feasible to include them as obliged companies in an EPR system.

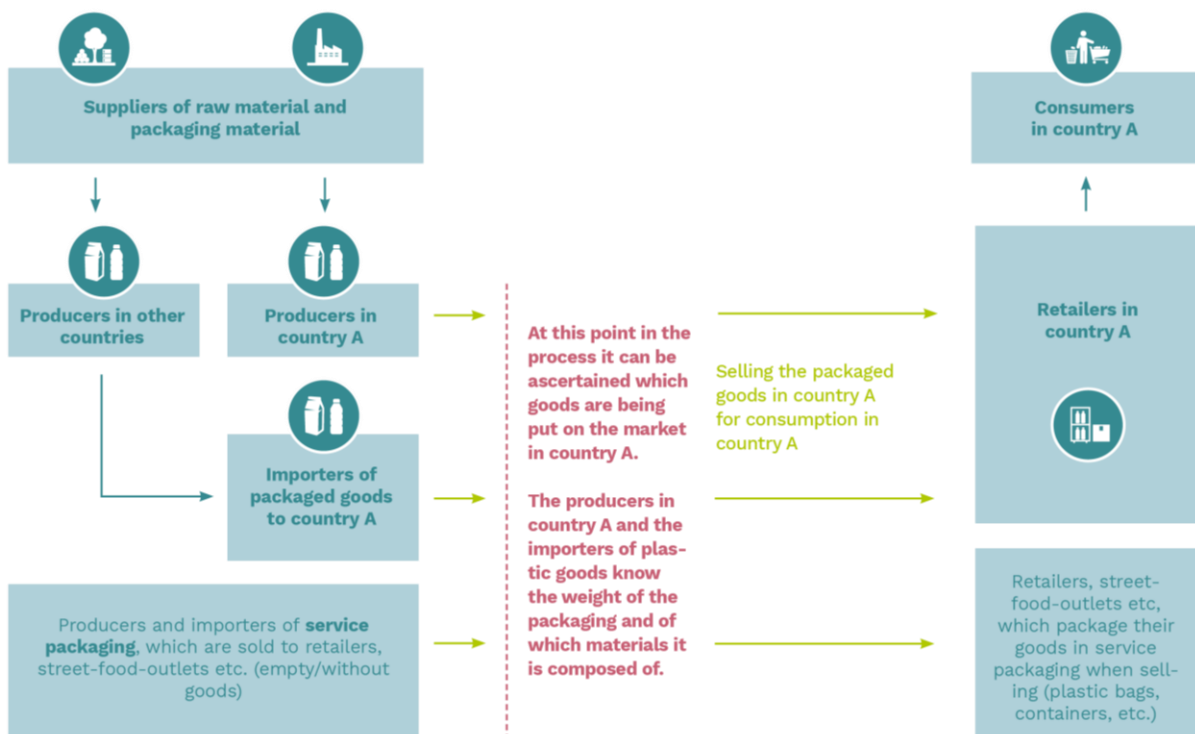


Figure 4: A simplified supply chain showing the point at which obliged companies are identified

Factors influencing EPR fees

The fees to be raised by the PRO differ between countries. Every PRO has its own way of setting its fees. If there is only one PRO, operating as a non-profit organisation and with a *de facto* monopoly, the fees it raises have to be enough to cover all its costs, but it is not allowed to make a profit. In most cases, the EPR fees for packaging materials are published and accessible to the public.

The total amount that obliged companies pay to the PRO in EPR fees **depends on the quantity/weight and material fraction of the packaging** they introduce to the market in the country

concerned. In almost all countries, the fees vary according to the type of packaging material used. A number of countries also have further modifications, such as:

- **Bonuses/malus for recyclability:** Packaging that is easy to recycle carries a reduced EPR fee for the obliged company (i.e. a bonus). By the same token, packaging that cannot be recycled can be penalised i.e. it carries an increased EPR fee. However, there are currently no uniform criteria as to what is and is not easily recyclable, and each country sets its own criteria and standards, meaning that standards in France are different from those in Italy, the Netherlands or Germany, for instance. This kind of bonus/malus system is easier to implement if there is only one PRO; many competing PROs complicate this process.
- **Bonuses for specific labelling or information:** A bonus is sometimes awarded if the packaging carries certain labelling, such as instructions for proper disposal or a specific marking (this system is applied in France, for instance).
- **Fee per unit:** Under a fee per unit system, a licence fee has to be paid for each unit of packaging. This fee might range from, perhaps, EUR 0.01 to EUR 0.06. Countries operating this system include Spain and Belgium.

The fees paid to the PRO (system operator) need to cover all the costs it incurs in carrying out its duties as defined in the legal framework. Depending on the exact provisions of the framework, some costs (such as a share of collection costs) might be borne by other stakeholders such as municipalities/local authorities.

The following factors influence the amount the PRO will need to raise to cover its costs:

- The type of collection system > [See Factsheet 06](#)
- The amount of waste/packaging
- The composition of the waste
- Organisational structures
- Any financial contributions made by municipalities/local authorities
- Recovery and disposal infrastructure
- Any mandatory recycling quotas
- Any contributions to litter removal
- Free riders and orphan products
- Audit costs
- Research and development spending

As EPR systems for packaging have been in place in many European countries over a number of years, we can draw on a range of experience as far as the EPR fees charged for different materials are concerned. The costs payable by the obliged companies for one tonne of plastics range from about €200 per tonne (in Italy, for sortable and recyclable household packaging waste) to around €650 per tonne (for all plastic packaging in the Netherlands), while costs for paper and cardboard usually do not exceed €100 per tonne.

Table 1: Fees per tonne in 2020

Packaging type	Belgium	France	Netherlands	Spain
Paper packaging	€59.40	€165.30	€22.00	€76.00
Glass	€40.30	€13.50	€56.00	€24.51 ¹⁾
Beverage cartons	€574.00	€246.10	€380.00	€355.00
Plastic bottles	€246.10 ¹⁾	€288.80 ¹⁾	DRS: €20.00 or €0.25 per bottle, otherwise €600.00 or €340.00 ¹⁾²⁾³⁾	€433.00 ²⁾
Recyclable plastics	€357.80 ²⁾	€309.20 – €485.70 ²⁾	€340.00 ²⁾	€377.00 ³⁾
Other plastics	€711.20 ^{3) 4)}		€600.00 ³⁾	€739.00 ⁴⁾

Belgium

1) Colorless, blue or green PET bottles, 2) HDPE-bottles and HDPE-closures, 3) All other packaging elements made exclusively of plastic such as: PET trays, other PET-bottles, HDPE trays, hard plastics (PP, PS), flexible plastics (films, bags), with the exemption of those listed under 4), 4) Styrofoam (EPS), expanded polystyrene (XPS) trays and compostable plastics. The tariff is EUR 0.8535/kg; (source: Fost Plus (2020). <https://www.fostplus.be/en/enterprises/your-declaration/rates>)

France

Contribution by weight + units + bonus/penalty. This table lists the nominal prices of each material. The total price actually paid can be affected by penalties and bonuses. 1) Bottles made of clear PET, 2) bottles made of colored PET, PE or PP are €309.20/t, Rigid packaging made of PE, PP or PET: €333/t, Flexible PE-packaging: €360.80/t, PS rigid packaging: €388.50/t, Complex packaging or other resins excluding PVC: €416.30/t; Packaging containing PVC: €485.7/t.; (source: Citeo (2019). https://bo.citeo.com/sites/default/files/2019-10/20191008_Citeo_2020%20Rate_The%20rate%20list.pdf)

The Netherlands

1) If bottles are part of a deposit refund system, the fee is €20/t. If bottles legally fall under the scope of deposit (>750 ml with soft drinks or water), but producers/importers do not comply with the DRS, a fee of €0.25 per bottle applies. For all other bottles, the regular fee applies, unless companies have successfully applied for fee differentiation. In that case, the lower fee applies. 2) This reduced fee only applies if the producer has successfully applied for fee differentiation and Afvalfonds Verpakkingen has granted it. This means that the packaging is both recyclable and generates a positive market value. There are many other types of packaging that are fully recyclable, but that do not have this positive market value and therefore have the regular fee. 3) This is the standard fee for plastics, including biodegradable plastics. If the company is unable or unwilling to specify the material composition of the packaging, a general rate may be applied (€770/t); (source: Afvalfonds (2020). <https://afvalfondsverpakkingen.nl/en/packaging-waste-management-contribution>)

Spain

1) €24.51/t reflects the weight; a unit factor (as of 2020, €0.00348/ud) is charged in addition, 2) PET, 3) HDPE only (rigid body and UNE bags), 4) also applies to other materials that do not belong to any specific group; (source: Ecoembes (2020). <https://www.ecoembes.com/en/companies/member-companies/green-dot-fees>)

If the fees paid are spread across all the individual items affected, the additional cost per item is insignificant and unlikely to be noticed by individual consumers. Based on an EPR fee of €300 per tonne, **the EPR fee for a single 25g plastic bottle is EUR 0.0075.**

Setting fees to be paid by the obliged companies

There is no ‘one-size-fits-all’ approach for setting the EPR fees that the obliged companies need to pay. The EPR instrument(s) that is/are most appropriate for the prevailing market conditions should be selected.² In most cases, the fees paid are proportional to the quantity of each material fraction introduced to the market. As costs associated with the collection, sorting and recycling of plastic

² Basel Convention: “Draft practical manuals on Extended Producer Responsibility and on financing systems for environmentally sound management”; 16 July 2018

packaging are higher than those associated with paper and card, the EPR fee per tonne for plastic is usually higher than for paper and card. **As long as each company has to pay the same prices as all the others for each type of packaging they introduce to the market, the EPR system maintains a level playing field that applies equally to domestic companies and importers based outside the country concerned.**

EPR systems are primarily intended to close any gaps in funding for waste management by commercialising the waste material; this is necessary because the expenses associated with collecting and sorting the waste exceed the revenues generated. EPR fees can also have a steering function, as fees can be modulated to incentivise certain behaviours. For instance, if a given type of packaging is not recyclable, it is usually priced with a significantly higher EPR fee than easily recyclable packaging.

In EPR schemes with a non-profit PRO, EPR fees are usually published and clearly broken down (usually on the PRO's website). However, if multiple PROs are operating in competition with each other, fees are not generally disclosed, and the obliged companies are free to select a PRO of their choice as part of a tendering process.

Financial flows from the PRO to the waste management companies

The EPR fees are used to finance operational activity, as illustrated in Figure 5. There are two distinct models for EPR financial flows:

1. The PRO directly contracts companies to collect, sort and recycle the packaging (this is the system used in e.g. Germany and Austria).
2. The local/provincial authorities contract companies to collect, sort and recycle the packaging, or carry out one or more of these tasks themselves. In return, the PRO pays a fee to the local/provincial authorities (this system is used in the Netherlands, Japan and South Korea, for example).



Figure 5: Models for financial flows from PROs to waste management companies

There are a number of other variations that incorporate elements from both models to reflect circumstances in specific countries. Examples include:

- Municipalities/local authorities being held responsible for collection only, and being paid accordingly by the PRO. The PRO then contracts companies for sorting and recycling the waste (this system is used in France, Belgium and Spain, for example).
- The PRO may set up its own project-specific sorting centres or may conclude contracts with recycling companies.

The informal waste management sector can also be integrated into this process at a variety of different points.

Paying for waste management (who gets paid for what)

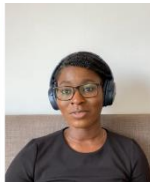
The waste management companies are paid for the services they carry out in accordance with their agreements with the PRO or the municipalities/local authorities. Contracts are usually concluded following a tender procedure. The payments made to these companies also include revenues that are expected to be generated from selling the collected packaging to recyclers. Other waste management actors might also include waste banks, community-based organisations or formalised informal sector associations, such as cooperatives of waste pickers, provided they can fulfil certain reporting, accountability and financial management criteria.

Transparency and monitoring

As with other contract-based interactions, monitoring mechanisms are imperative for checking whether all the services required under an EPR system are actually being provided. Specifically, monitoring systems should oblige the waste management companies involved to verify their activities. For this to work in practice, all companies, facilities and plants involved in the system must be registered, and each plant must keep records of inputs and outputs. > See Factsheet 04

As far as monitoring the PRO's (system operator's) finances is concerned, it is very important to ensure that records of all revenues and expenses are published, along with annual reports and audits done by external auditors.

Key readings and other sources



PREVENT Waste Alliance (2021).

Video series:

EPR Explained! (03) Finance

Fost Plus (2020). <https://www.fostplus.be/en/enterprises/your-declaration/rates>

Citeo (2019). https://bo.citeo.com/sites/default/files/2019-10/20191008_Citeo_2020%20Rate_The%20rate%20list.pdf

Afvalfonds (2020). <https://afvalfondsverpakkingen.nl/en/packaging-waste-management-contribution>

Ecoembes (2020). <https://www.ecoembes.com/en/companies/member-companies/green-dot-fees>

Stiftung Zentrale Stelle Verpackungsregister (2019). How-To Guide to the Packaging Act for Manufacturers.



Imprint

Published by:

Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH
PREVENT Waste Alliance
Friedrich-Ebert-Allee 32 + 36
53113 Bonn
Germany

Tel. +49 61 96 79-0
Fax +49 61 96 79-11 15

info@giz.de
contact@prevent-waste.net
www.giz.de
<https://prevent-waste.net/en/epr-toolbox/>

cyclos GmbH
Westerbreite 7
49084 Osnabrück
Germany
<https://cyclos.de>

Authors:

Agnes Bünemann, Jana Brinkmann, Dr. Stephan Löhle and Sabine Bartnik.

Credit design cover photo & figures: creative republic Frankfurt

For more details on copyrights:

https://prevent-waste.net/downloads/PREVENT_EPRToolbox_Distribution.pdf

Bonn, Germany 21 September 2020 (video series: EPR Explained! published in July 2021)