



# **Redesigning Producer Responsibility**

A new EPR is needed for a circular  
economy

Executive summary

## DOCUMENT INFORMATION

This report is the summary of a comprehensive study which will be published in September 2015

Client:



### **Zero Waste Europe**

Official address

Nieuwe Keizersgracht 45  
1018 VC Amsterdam

Office in Brussels

Rue de la Pepiniere 1,  
B1000, Brussels

Date:

July 2015

Author:

**Fundació per a la Prevenció de Residus i el Consum**

**Responsible**

c. Bruc, 91. 4t 1a  
08009 Barcelona

Key contact:

Víctor Mitjans Sanz

victorm@residusiconsum.org



This document has been produced with the financial assistance of the Life+ Programme of the European Commission DG Environment

# Redesigning Producer Responsibility

## A new EPR is needed for a circular economy

### 1. EPR as a tool for Zero Waste

Zero Waste (ZW) means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Within the circular economy vision, ZW can be specified in the following targets:

- A reduction in the use of resources.
- Better reparability or reuse.
- Reduction of packaging (quantitative prevention).
- Hazardousness reduction (qualitative prevention).
- Internalization of product waste management costs.
- Improvements in the dismantlability and recyclability/compostability of products.
- Litter reduction, specially marine littering.
- Strengthen the growing EU secondary raw materials market.
- Develop new markets to treat and recycle new products/materials.
- Promote service-based economy.

### 2. Current EPR: a far less than optimal situation

#### Product waste accounts for the majority of waste...

The study has assessed waste production in 15 European cities and the performance of existing EPR schemes. The analysed cities had a total of 33 million inhabitants (6,5% of the EU population) and allow us to provide a series of indicators on EPR.

The analysed cities have an average production of municipal waste of 435 kg/inh/year, some 20 kg below national reported amounts. Out of this, an average of 70% is product waste, which means that every European produces yearly 311 kg of waste that is not food or garden waste (figure 1).

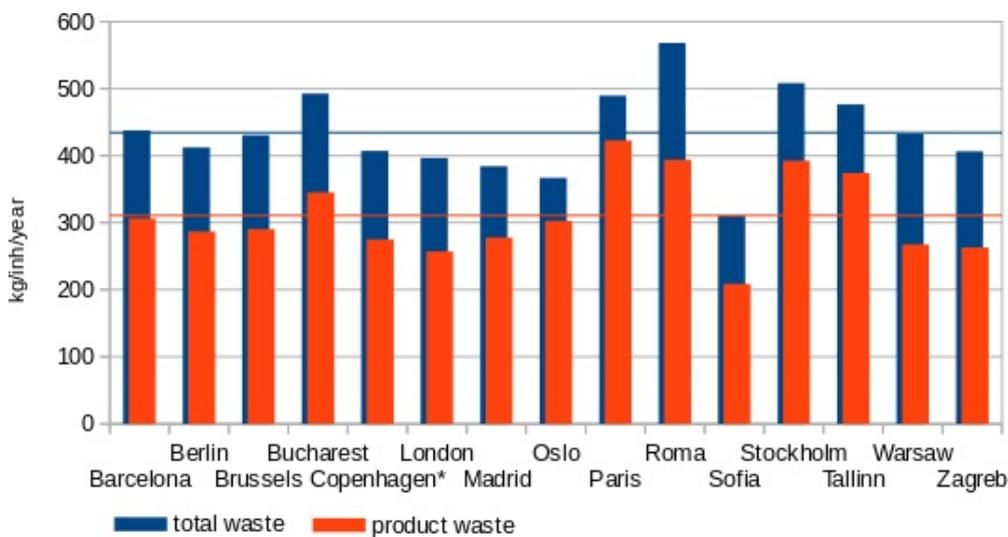


Figure 1: total waste production and product waste production

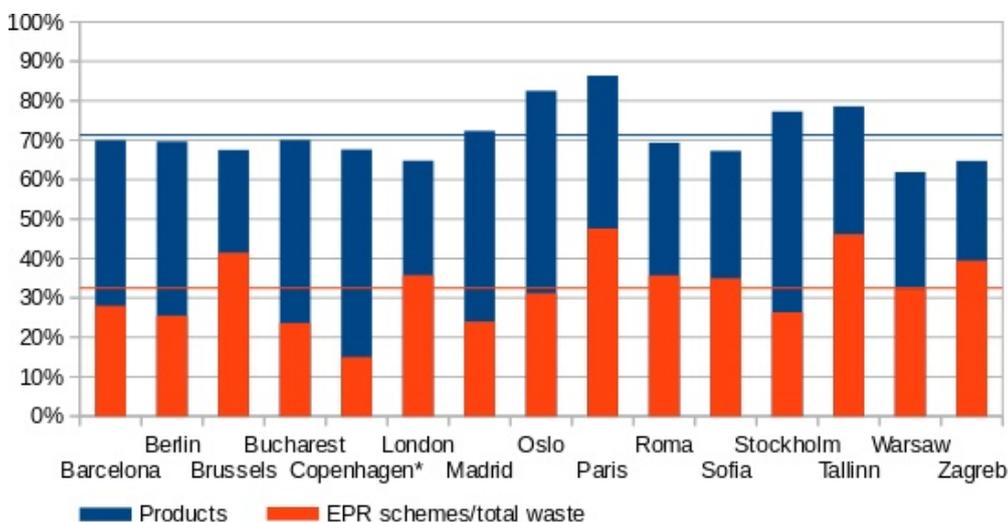


Figure 2: percentage of product waste and coverage by EPR schemes.

### ... but most of it falls outside the scope of EPR schemes...

In the cities assessed, only 45% of total product waste falls within the scope of an EPR scheme, meaning that less than one third of total municipal waste is covered by direct producer responsibility (figure 2).

### ... especially if separate collection is taken into account

A final indicator shows that, on average, less than 40% of the waste within the scope of an EPR scheme is being separately collected. As a summary, less than 18% of product waste is collected separately through an EPR scheme (figure 3).

## 3. A new approach to EPR is needed for circular economy

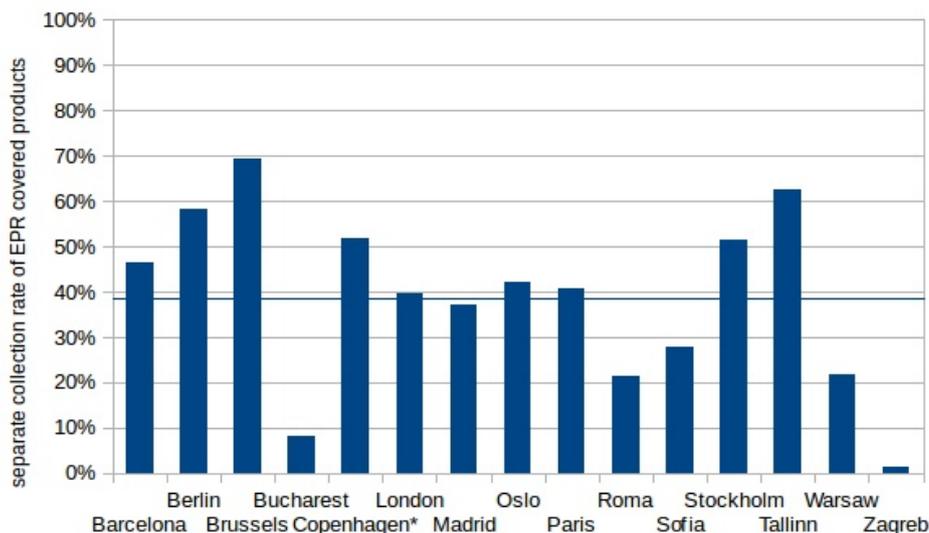
### 3.1. A broader definition of EPR is needed

The current definition of EPR is not clear enough and it differs both in scope and goals in different pieces of European and member states legislation. In order to advance towards zero waste, Extended Producer Responsibility should recover the spirit of the original definition by Lindhqvist seeing it more as "an environmental protection strategy to reach an environmental objective of a decreased total environmental impact from a product" than only its implementation through EPR schemes.

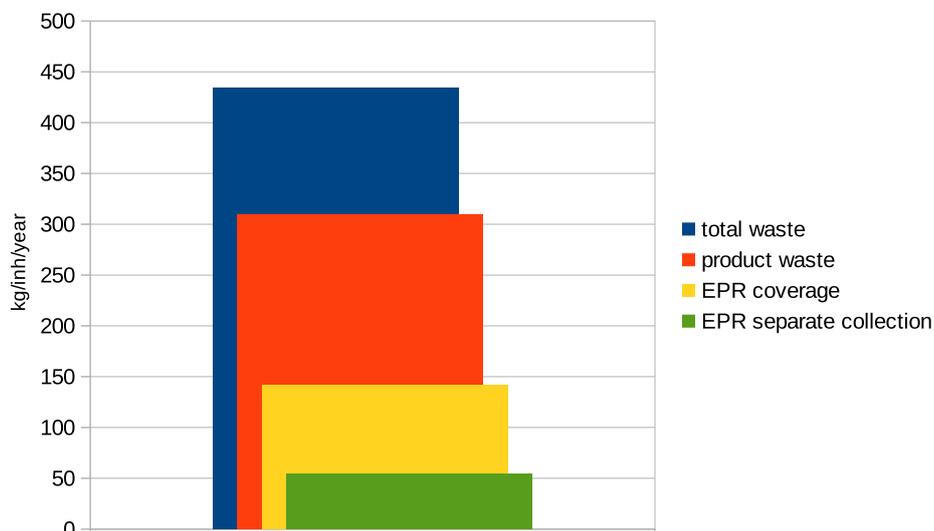
Making the manufacturer of the product responsible for the entire life-cycle of the product and especially for the take-back, recycling and final disposal of the product individually or through PROs should only be one in a set of political tools –although perhaps the most important–.

The Extended Producer Responsibility should be strengthened through the implementation of more economic instruments, although administrative and informative instruments should also be improved. The final target is to continually incorporate incentive mechanisms for industries to continuously improve their products and processes; the composition of these instruments determines the precise form of the Extended Producer Responsibility.

**Figure 3:** percentage of separate collection for EPR covered waste streams.



**Figure 4:** summary of total waste, product waste, EPR coverage and EPR separate collection.



## 3.2. A more comprehensive approach to EPR

As the sole implementation of EPR through PROs has been found to progress too slowly towards zero waste, the new circular economy package should take into account the feasibility of complementing them with more EPR instruments. Although recognizing that PROs are a cornerstone of EPR policy, there is need for a strong incentive framework outside PROs.

Economic instruments such as deposit/refund systems for liquid product containers, advance disposal fees to cover costs of non collected waste streams, raw material taxes, recycled content requirements for packaging and other products...

## 3.3. Legally binding eco-design requirements

According to recent studies, EPR programmes have had limited impact on product design. One of the main reasons for this is the relatively low compliance cost associated with financing end-of-life products when they are placed on the market compared with other business costs.

To overcome this situation, the scope of eco-design requirements needs to be expanded to cover not only energy-related products but all main product groups: packaging, batteries or disposable nappies are some products that should be part of the revision of the Eco-products directive. This revision should:

- Define minimum requirements on durability –including measures against planned obsolescence–
- Develop a set of product standards which include repairability, reusability, secondary raw material content and recyclability

## 3.4. Better EPR schemes

### 3.4.1. Integration of reuse in EPR

Although reuse is at the top of the waste hierarchy according to the WFD there is no legally binding provisions in European Legislation that establish targets solely for reuse within EPR schemes.

Such targets should be defined for existing EPR schemes and also a set of minimum requirements for reuse in order to avoid competition for collected streams between recyclers and the reuse industry; this would also support the development and consolidation of reuse and repair infrastructures and networks:

- Promotion of reuse and preparation for reuse through quantitative targets
- Logistics, collection and handling should be adequate to guarantee potential reuse.
- Priority access to the potentially reusable waste streams for approved reuse centres, avoiding abuses from involved EPR schemes (including social enterprises).
- Access to repair and service manuals, software and hardware of after sales service providers of manufacturers (For WEEE).

### 3.4.2. Full-cost coverage

The internalization of costs is one of the drivers for producers to provide better, more environmentally sound products. Therefore, fees paid to a collective system by an

individual producer should bear the full net costs of the collection and treatment of its products.

Most current EPR schemes cover only costs of separate collection and treatment of product waste –plus public communication and administrative costs–. Provisions regarding the –total or partial– coverage of costs of non separately collected waste and littering should be included within European EPR scope through compulsory external economic instruments or minimum requirements for PROs.

### 3.4.3. Individualization

For EPR to be successful at internalizing costs, an individual company should bear individual financial responsibility that fully pays for the end-of-life management of its own products. Nevertheless PROs tend to average costs among producers, thereby disincentivising individual efforts towards recyclability, use of recycled materials, toxicity reduction or repairability.

Only a few PROs introduce modulations in order to reward producers that make eco-design efforts to contribute to decreasing end-of-life environmental impacts and economic costs.

Minimum requirements for PRO should include a fee scale which reflects the real full costs of end-of-life management based on the waste hierarchy. This scale should include:

- Bonus-malus for use of recycled materials
- Recyclability
- Reusability
- Detoxification of waste

In order to be easily adopted by industry, modulation of the fees should be based on a limited number of simple to implement and easy to monitor rules.

### 3.4.4. Separate collection as a target

Recycling targets have always been the major drivers of EPR policies. Although achieving high recycling rates is one of the main goals of EPR schemes, when it comes to internalisation of costs, this is not the best indicator nor the only desirable target.

As most EPR schemes cover only those costs induced by separate collection, in order to steer a real internalization of costs, collection targets should be added to existing recycling targets, for instance in packaging directive. Moreover, different collection targets could be set for some waste streams that have special impacts such as littering –in the case of beverage containers– or risk of losing strategic materials –the case of mobile phones.

### 3.4.5. More products with EPR schemes

The current 45% coverage of products by EPR schemes is not enough to steer properly a circular economy transition. Specific European-level regulated EPR schemes are those for packaging, WEEE, batteries and end-of-life vehicles. For other waste streams some countries have set EPR schemes for tyres, graphic paper, oils, medical waste or agricultural films.

But some European countries have gone further and set EPR schemes for other products. A very interesting EPR scheme could be that for graphic paper, that complements paper/cardboard packaging waste collection very well.

Also, EPR schemes for furniture or household hazardous waste –only implemented in France– or textiles –currently only in France but under study for Nordic countries– should be assessed and regulated at European level.

In some countries, implementing EPR schemes for graphic paper, textiles, furniture could duplicate the scope of EPR when it comes to coverage.

### **3.4.6. Ban on landfilling and incineration of EPR covered recyclables**

As the primary goal of EPR policies is to encourage better product design, and reuse and recycling of products and materials, EPR should be constructed to avoid that reusable or recyclable materials end up in landfills or incineration in any of its forms (pyrolysis, gasification, cement kilns). A ban on landfilling and incineration should be enforced gradually, in order to promote redesign of products and materials that currently cannot be recycled, despite their separate collection; a starting point for this could be forbidding incineration of any waste that is collected through an EPR scheme.

### **3.5. Economic reform that pushes for service instead of products**

In the same way that Eco-design cannot be properly enforced solely through PROs, current implementation of EPR does not provide enough economic incentives for companies to promote services that would help reduce waste production.

An environmental tax reform (ETR) would help provide incentives for such transition by shifting tax burden from labour to environmentally harmful production and consumption. Currently, labour taxes account for 53,3% in the Eurozone Area (% of total tax revenue) against 5,7% Environmental taxation (European Union, 2014).

In parallel with this move, a phase-out on subsidies to environmentally harmful activities should be implemented. A typical example is that fossil fuels are subsidised by up to EUR 68.8 billion annually on the EU level (OECD, 2013); but also the partial coverage of waste collection and management costs can also be considered a sort of subsidy to waste production. Also, grants from cohesion funds for building new landfills or incineration plants should be seen as subsidies to waste production and should disappear.

## **Glossary**

### **Ecodesign**

According to the Directive, ecodesign means the integration of environmental aspects into product design with the aim of improving the environmental performance of the product throughout its whole life cycle.

### **Environmental tax reform (ETR):**

A combination of an environmental tax with a reduction in one or more existing taxes. If the ETR is revenue-neutral it can also be called an environmental tax shift.

### **Extended producer responsibility (EPR)**

EPR is an environmental protection strategy to reach an environmental objective of a decreased total environmental impact from a product.

### **EPR scheme**

Any system set up by one or several producers to implement the EPR principle. It can be an individual system when a producer organises its own system, or a collective system when several producers decide to collaborate and transfer their responsibility to an independent organisation (a PRO).

### **Fee**

Tariff paid by a producer to have its products dealt with through a PRO.

### **Household hazardous waste (HHW)**

There is no clear definition of "household hazardous waste (HHW)" but it can be defined as "waste products that increase the hazardous properties of municipal solid waste when landfilled, incinerated or composted".

### **Producer responsibility organization (PRO)**

Is an organization set up in collective EPR schemes to implement the EPR principle in the name of all the adhering companies.

### **Product waste**

Any municipal waste that is not kitchen or garden waste.

### **Service-based economy**

A service based economy is an economy that lowers demand for energy and/or materials by designing durable and upgradable products with a long-life span. Companies with such a business model shift their business to delivering customer service rather than the products themselves.