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Extended Producer Responsibility for packaging – exploring different schemes

Regional training:

Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

- 1. EPR in Europe**
- 2. Alternatives to materialize EPR**
- 3. Concluding remarks**

EPR in the European Union

- The concept of Extended Producer Responsibility (EPR) has been part of the waste policy of the European Union (EU) for years.
- Included in the Waste Framework Directive.
- Mandatory for: Household electrical and electronic waste; batteries and accumulators; vehicles at the end of their useful life.
- Not mandatory, but generalized for: packaging; tires, used oils, medicines.

Alternatives to materialize EPR


- **Collective EPR**

- **Material EPR :** Producers are directly in charge of collection and treatment of the materials.
- **Financial EPR:** The Administration performs the material management (or part of it) and the producers are the ones who assume the costs.

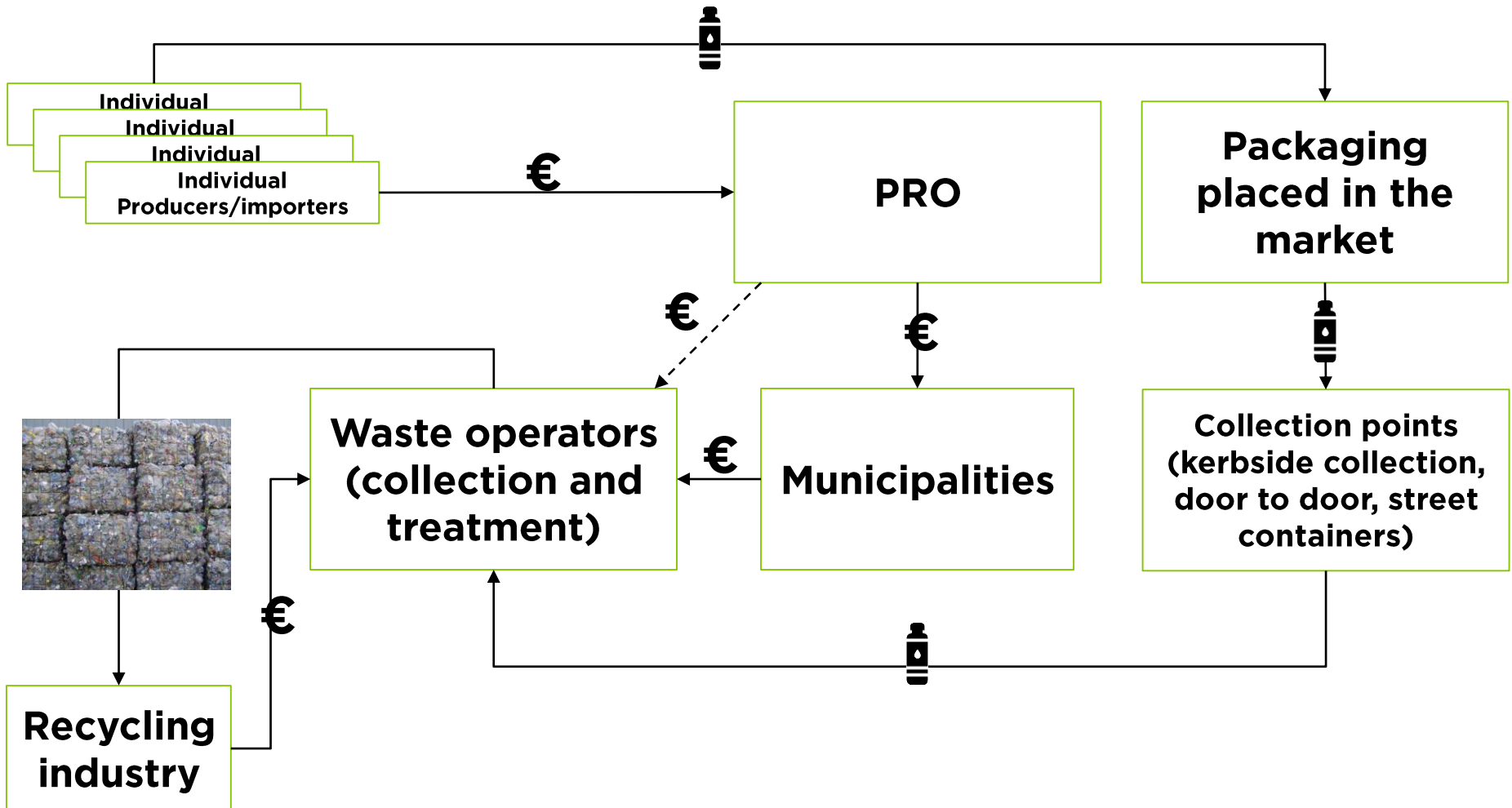
- **Individual EPR:** Each producer is responsible for the collection and recycling of waste from their own products (e.g. some toner companies collect their own waste, or a good part of the reusable packaging is collected by the same companies that they put them in the market).

- **Taxation**

Collective EPR

- Individual producers are organized to finance a common system, which is managed by Producer Responsibility Organization (PROs).
 - Most widespread system in the EU for the management of packaging.
 - Producers pay an amount for each container that they put on the market to the PROs.
 - PROs negotiate with the Public Administration (financial EPR) or the waste operators (material EPR) the payment of the services of collection and treatment of packaging.
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 - Packaging within this system usually identified with the "green dot".
 - Quality of recovered materials varies according to the country. In Spain, packaging containers register around 25% by weight of unsolicited materials (only 75% of what is deposited in these containers are packaging).

EPR through PROs



EPR through PROs



Packaging with green dot: shows that producer has paid the PRO tariff to cover the costs of collection and treatment



Packaging container, managed by city council, financed (partly) by PRO

Deposit refund systems

DRS apply a deposit at the time of sale of the product, which is returned when the empty container is returned, for reuse or recycling (e.g. Germany or Denmark use it as EPR for beverage packaging).

- **Single use packaging, Collective systems:** those responsible for placing on the market packaged products charge, an amount for each container in concept of deposit, to their successive customers up to the final consumer. This deposit is paid to a System Operator & Administrator (SOA), which is responsible for organizing and financing the joint collection of containers subject to deposit.
- **Reusable packaging,** collective (e.g. Norway) or individual system.

These systems recover a high percentage of the containers on which it is applied (around **80-90% recovery**, depending on the amount of the deposit).

Very high quality in the recovery of containers.

Diagram of the deposit flow

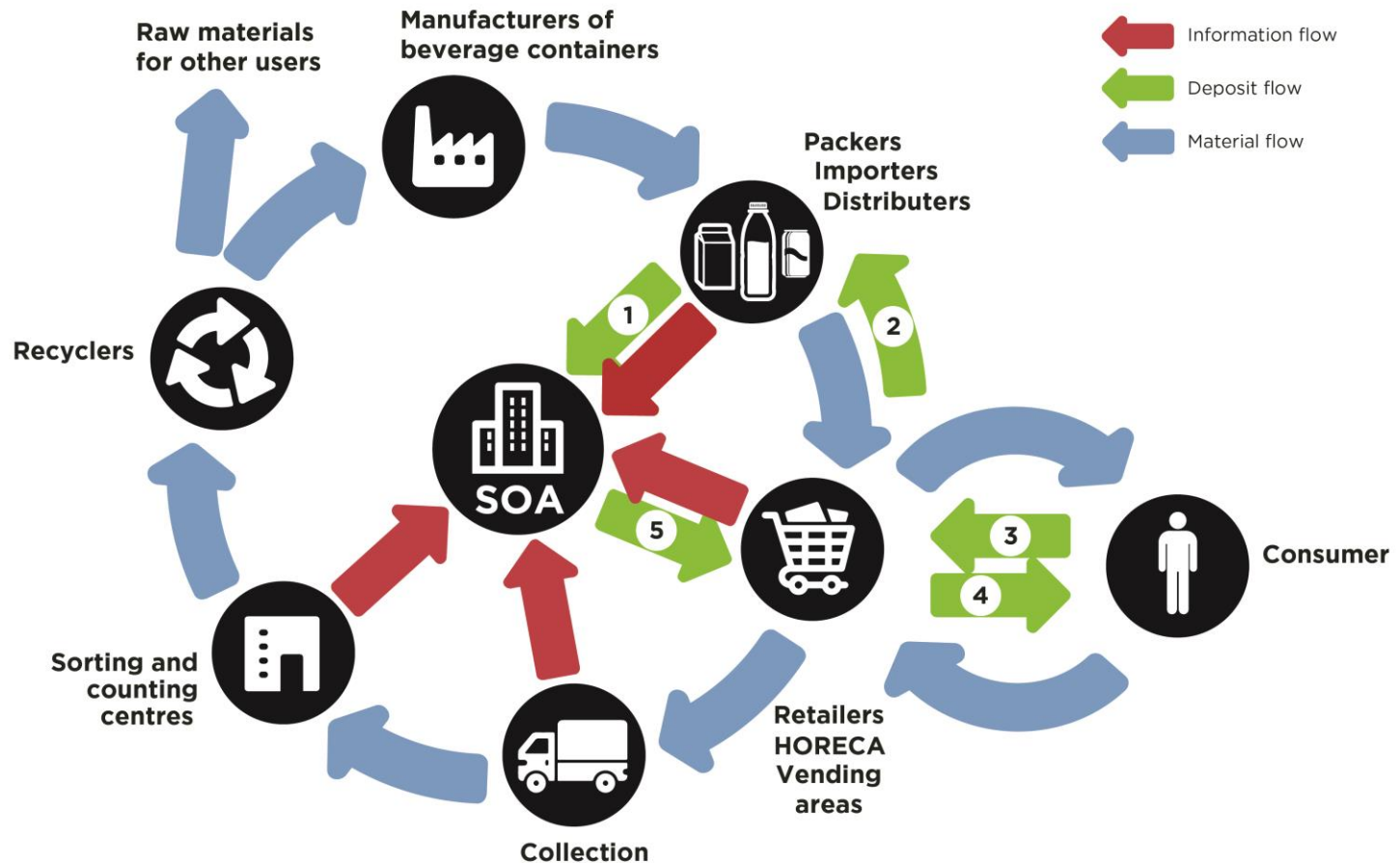
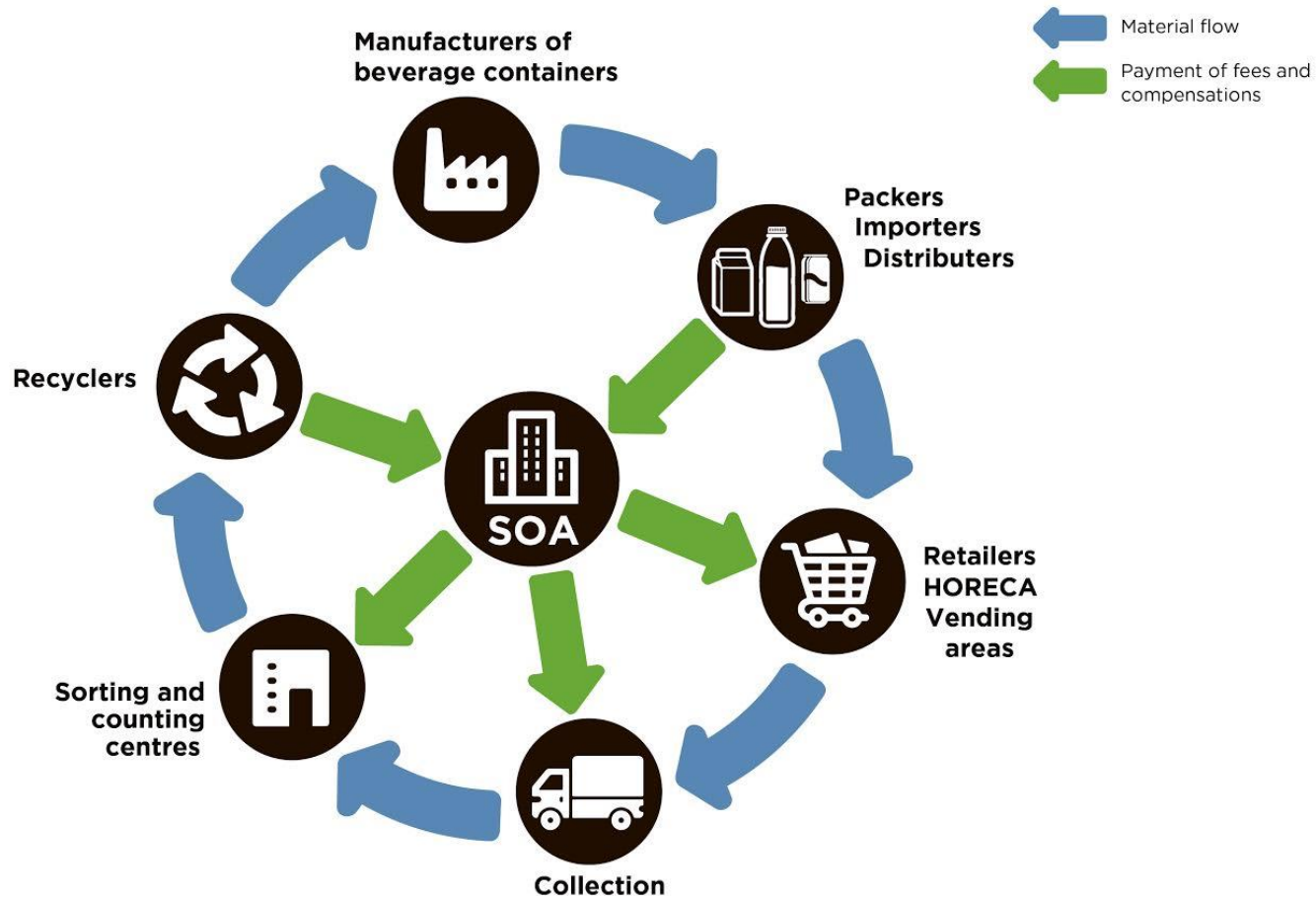


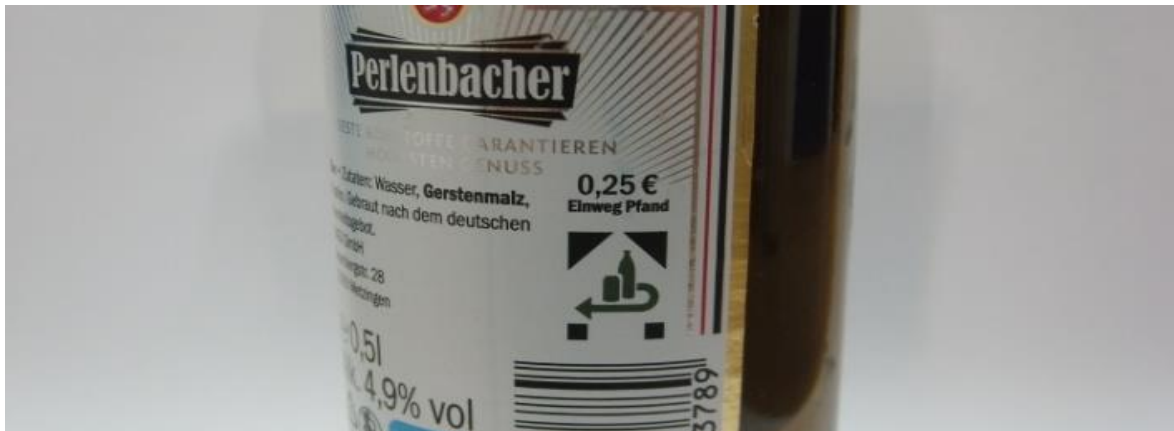
Diagram of fees and compensations



Packaging identification in DRS



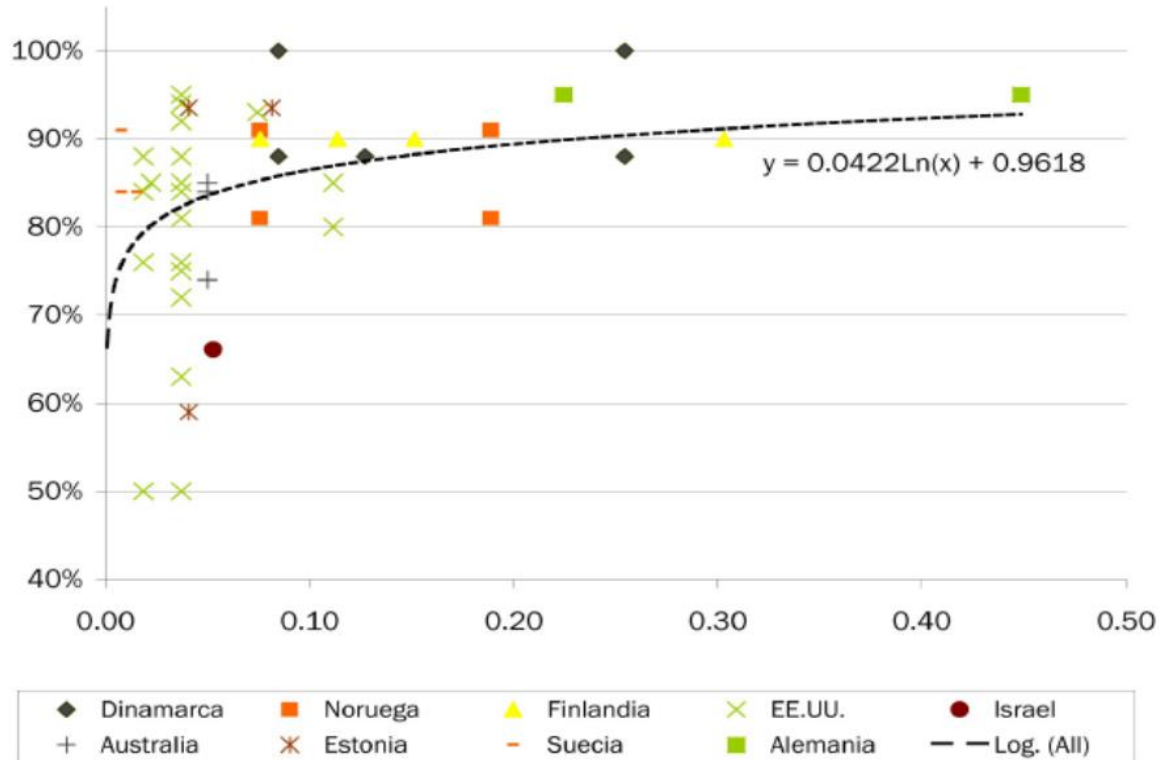
Label showing a returnable package in Denmark



Label showing a returnable package in Germany

Effectiveness of the DRS for beverage containers

% packaging
return



Deposit (€/unit)

Taxation as EPR

- **Taxation:** alternative or complementary to the EPR, tax packaging with a tax to disincentivize and with the purpose of using the revenue to improve the public waste management system.
 - Different countries have chosen to establish taxes on single-use containers, in order to discourage their consumption and favor alternatives (e.g. in Belgium, Croatia, Estonia, Hungary, Latvia, Norway, the Netherlands or Poland).
 - The effectiveness of taxes is greater the more elastic is the demand for taxed products (the more sensitive is the behavior of consumers against price rises).
 - A high enough tax can encourage producers to voluntarily implement a deposit refund system (Norway).

Taxation as EPR

- **‘Redeemable’ taxation:** Where informal collectors have an important weight in the packaging collection, a system can be articulated consisting of taxing the placing on the market with a fixed tax for each unit of packaging. This tax is returned when the containers are returned in a centralized collection center by the collectors.
- A model of this type operates in Ecuador with a tax rate of 0.02 USD.
- This system combines features of a tax-based model and a DRS.

Concluding remarks

- Application of EPR has still produced **insufficient results**.
- Producer organizations that administer the EPR **do not assume the total cost** of managing the corresponding waste fractions.
- Tariffs **do not sufficiently encourage recycling and eco-design**.
- Reasonable doubts on the results reported by PROs.
- The **lack of transparency with respect to collection and treatment data** makes it difficult for Public Administrations to assess compliance with recycling objectives.
- It has not succeed in avoiding **littering** in general.
- Much better results when implemented through DRS.

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**Thanks for your
attention**