

# Welcome to the Global Action Partnership for EPR Technical Webinar

Part I: Common EPR set-ups and architectures



We will start in a few minutes!



# During the event, please:



Mute yourself



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# GAP for EPR Technical Sessions with EPR Experts

## Part I

Common EPR set-ups  
and architectures

05<sup>th</sup> December 2023

## Part II

Data needs and  
monitoring

11<sup>th</sup> December 2023

## Part III

Costs, fees, and eco-  
modulation

20<sup>th</sup> December 2023

Find more events and news here: <https://gap-epr.prevent-waste.net/events-news/>

# Today's speakers



**Fred Adjei**  
Researcher  
Oeko-Institut e.V.



**Andreas Manhart**  
Senior Researcher  
Oeko-Institut e.V.

# Common questions (also raised on GAP for EPR launch event on 19.10.2023)

1. **EPR costs on product prices:** How serious are impacts on consumer prices and how to deal with it?
2. **EPR scope:** Plastic? Plastic packaging? All packaging? What about other products?
3. **Enforcement:** How to implement EPR in situations with limited enforcement capacities and resources?
4. **Upfront costs:** How to cover the costs to set-up an EPR system?
5. **Informal sector:** How to integrate informal sector players (collectors) in EPR systems?
6. **Stakeholders:** How to reconcile different interests of the various stakeholders?

# Why EPR?



- **Waste is a burden to societies:** Pollution, nuisance, flood risks, vector diseases...
- **Sound management of municipal solid waste costs money:** Material and energy content is by far insufficient for sound management
- **Impacts on human health & livelihoods if not managed properly:** Particularly affecting urban poor

# Why EPR?

Sustainable waste management requires reliable organisational structures and stable financing. There are a number of different approaches for meeting these requirements, which can be broadly summarised as follows:

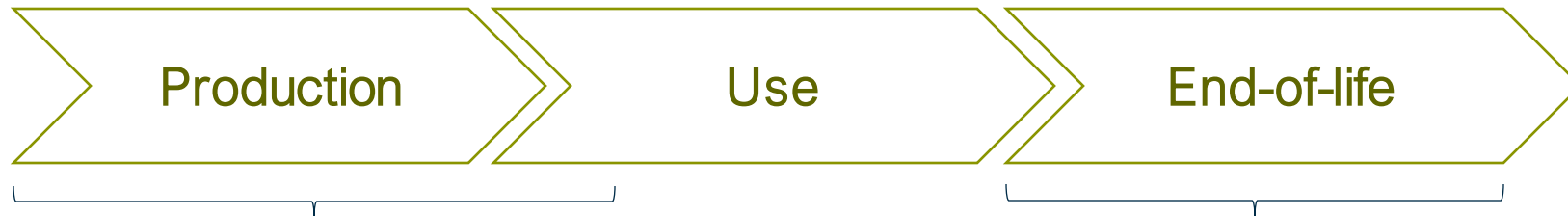
Approaches	Description	Challenges	
<b>The free-market economy-based approach</b>	Can be applied to managing waste where the market for the waste concerned generates enough revenue to cover the costs associated with collection, sorting and marketing.	Depending on local situation this applies to not more than ~20% of generated waste (metals, paper, cardboard, few plastic types)	<b>insufficient</b>
<b>Voluntary initiatives</b>	Usually initiated, implemented and funded by private companies, charitable organisations and/or NGOs.	Very limited in geographical scope & frequency	
<b>Municipal fees</b>	Such charges are essential for financing the management of certain types of waste that cannot be attributed to any specific polluter.	Municipal fees have their limits and cannot be increased infinitely	<b>limited</b>
<b>Taxes</b>	Used as a source of funding of various public services (and may also have a steering function).	Tax revenues limited in most countries	



# EPR basics...

## Extended Producer Responsibility (EPR):

Based on obliging producers to assume full responsibility for their products, both during their useful life cycle and during the end-of-life phase once the products and packaging become waste.



“Traditional” Producer Responsibility:

- Sound production
- Functionality
- Product safety
- ...

Extended Producer Responsibility:

- Sound end-of-life management

# Data on EPR system prices

Material	PET bottle	Plastic bottles	Other plastics	Non-recyclable plastics	Liquid packaging board
<b>Item</b>	0.5l PET beverage bottle	0.5l PET bottle for cleaning detergent (non-beverage)	0.5l LDPE stand-up pouch for cleaning detergent (recyclable)	0.5l multi-layer PET/PP stand-up pouch (non-recyclable)	0.5l beverage carton
					
<b>EPR fees per kg</b>	0.2888 €	0.3092 €	0.3092 €	0.4857 €	0.2498 €
<b>Weight of examined packaging</b>	17.0 g	26.63 g	11.59 g	11.5 g	16.06 g
<b>EPR fee for examined packaging per item</b>	0.0049 €	0.0082 €	0.0036 €	0.0056 €	0.004 €
<b>Product prices (approx.)</b>	1.30 €	1.20 €	1.80 €	1.40 €	1.50 €
<b>Product price incl. EPR fees</b>	1.3049 €	1.2082 €	1.8036 €	1.4056 €	1.505 €
<b>Increase product price through EPR fee</b>	0.38 %	0.68 %	0.2%	0.4 %	0.33 %

# Summary on question 1

1. **EPR costs on product prices:** How serious are impacts on consumer prices and how to deal with it?

- **Yes, EPR has impacts on consumer prices:** EPR is based on the idea that producers (those earning money with the sale of products) take over the financing of sound waste management. Typically, the obliged companies recover these additional costs by (slightly) higher product prices.
- **If EPR is not introduced, related cost must be covered by other means.** Options:
  - Higher municipal waste management fees
  - Higher taxes
  - Accepting unsound waste management (health and environmental costs)
- **Compared** to these options, EPR represents the fairest cost distribution model
  - The more you consume, the more you pay...
  - Producers have some incentives to reduce packaging volumes and improve designs

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# Why packaging?



Photo 1:  
Trash can in Indonesia

Majority of municipal solid non-organic waste is packaging...

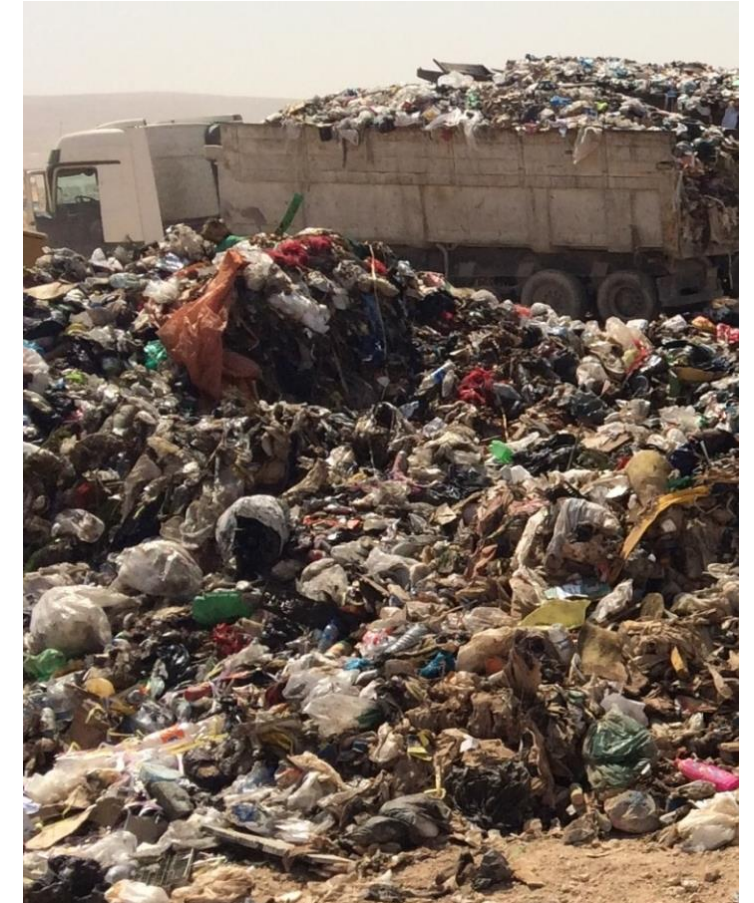


Photo 2:  
Waste landfill

In many countries a significant share of the dumped waste consists of packaging waste...



# Why packaging?



▲ Photo 3: Indonesian packaging waste with plastic and non-plastic packaging types

## Why not only focus on plastic or plastic packaging?

- A focus on all products containing plastic would be too complex.
- A focus on plastic packaging may cause shifts to other materials with similar (or even higher) environmental impacts (e.g. single-use aluminium or glass).
- On the highest level of scope, EPR systems should be based on the product functions (not the material)



Food for thought:  
What about problematic  
specific plastics or products...

# Why packaging?

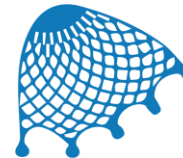


▲ Photo 4: Collected waste fishing nets in Ghana

Additionally, further relevant (plastic) items can be added to the scope if they fulfil the following criteria:

- The items must be clearly identifiable in the waste stream
- Sound management of these wastes is associated with cost
- Unsound management is a significant burden to the environment and society

## Examples



Fishing nets



Cigarette filters



Single-use plates and cutlery

# Summary on question 2

## 2. **EPR scope:** Plastic? Plastic packaging? All packaging? What about other products?

- **Focus on packaging is recommended:** Packaging waste makes up a high share of the municipal solid waste stream. Better management (segregation at source, sorting, recycling...) requires stable financing.
- **A focus on plastic packaging carries the risk of unintended material substitutions.** Single-use glass and metal packaging is not better than plastic...!
- **A focus on a wide range of (plastic) products (incl. durable products) would be very complex!**
- **Selected further items may be added to the scope:** e.g. fishing gear, cigarette filters, single-use plates & cutlery. Nevertheless, bear in mind this will increase system complexity



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# Sample set-up (1/2)

## Objective:

1. The EPR system shall ensure that packaging waste is managed in an environmentally sound manner
  - significant reduction of littering and disposal
  - increase of high-quality recycling

## Requirements:

1. Producers (obliged parties) shall ensure that the packaging used for their products is collected and environmentally sound managed at their end-of-life
2. Obligated parties shall gradually increase the level of source segregation on a household level

Second step:

Identify packaging types with particularly high end-of-life management challenges



# Sample set-up (2/2)

## Legal obligations:

1. Producers shall report their amount of packaging brought onto the market
2. And build up collection & recycling systems for these wastes

## Mandatory targets:

### Phase 1 (year 1 & 2):

- Regular reporting of packaging brought onto the market (differentiated into pre-defined sub-types)
- Collection & sound management of 40% of composite materials

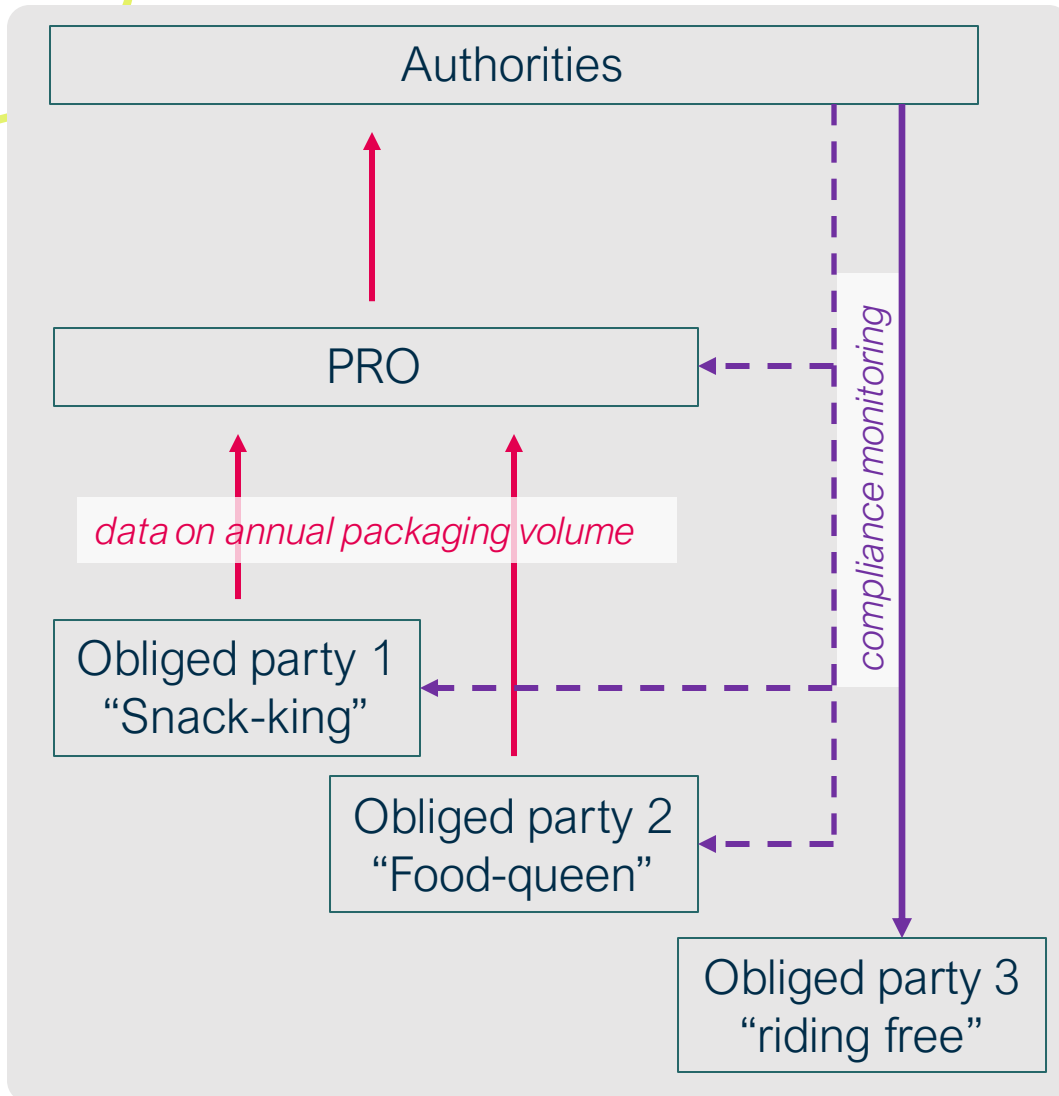
### Phase 2 (year 3 & 4):

- Regular reporting...
- Collection & sound management of 60% of composite materials packaging
- ...

### Phase 3 (year 5 - X):

- ...

# Once kick-started...



- It is important that (limited) enforcement capacities are used to capture free riders!



# Summary on question 3

3. **Enforcement:** How to implement EPR in situations with limited enforcement capacities and resources?

- Consider focusing on worst problematic packaging types (in the beginning)
- Apply a phased approach: (Review & extend the scope in later phases)
- Focus limited enforcement resources on capturing free riders

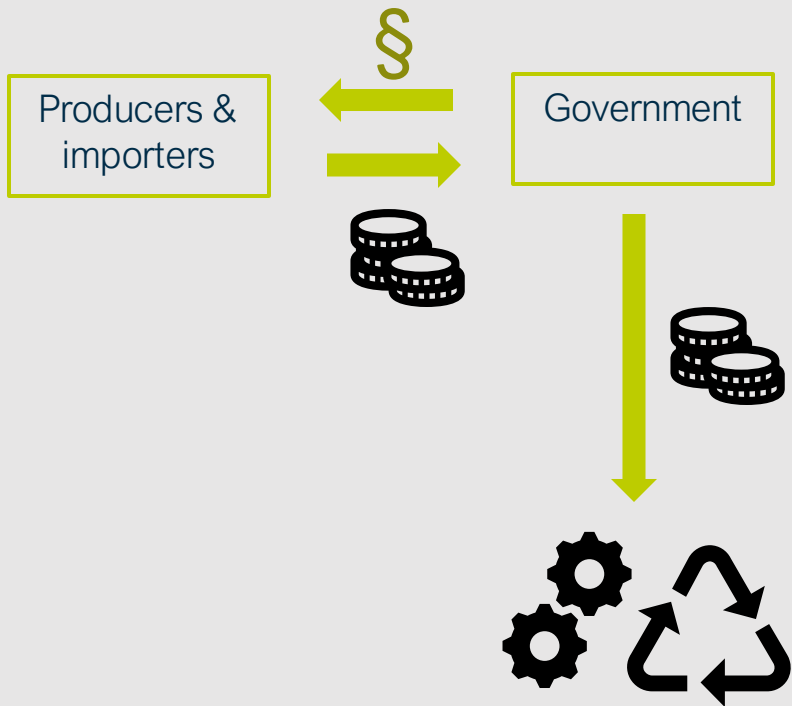
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# EPR basics...

## Model 1: Government organised systems

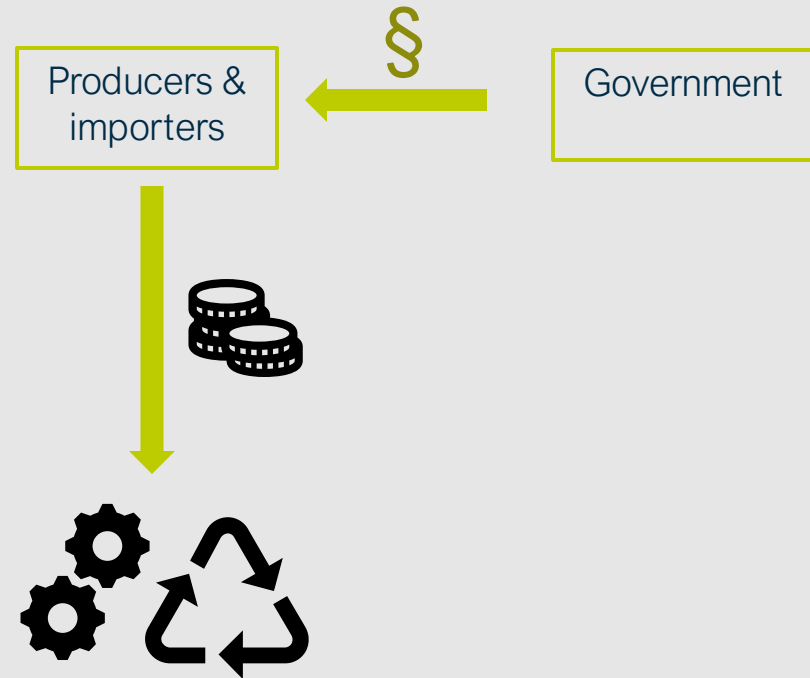
Eco-levies / Eco-fees / eco-taxes...



High upfront costs for government

## Model 2: Privately organised systems

Often considered the “real” EPR systems



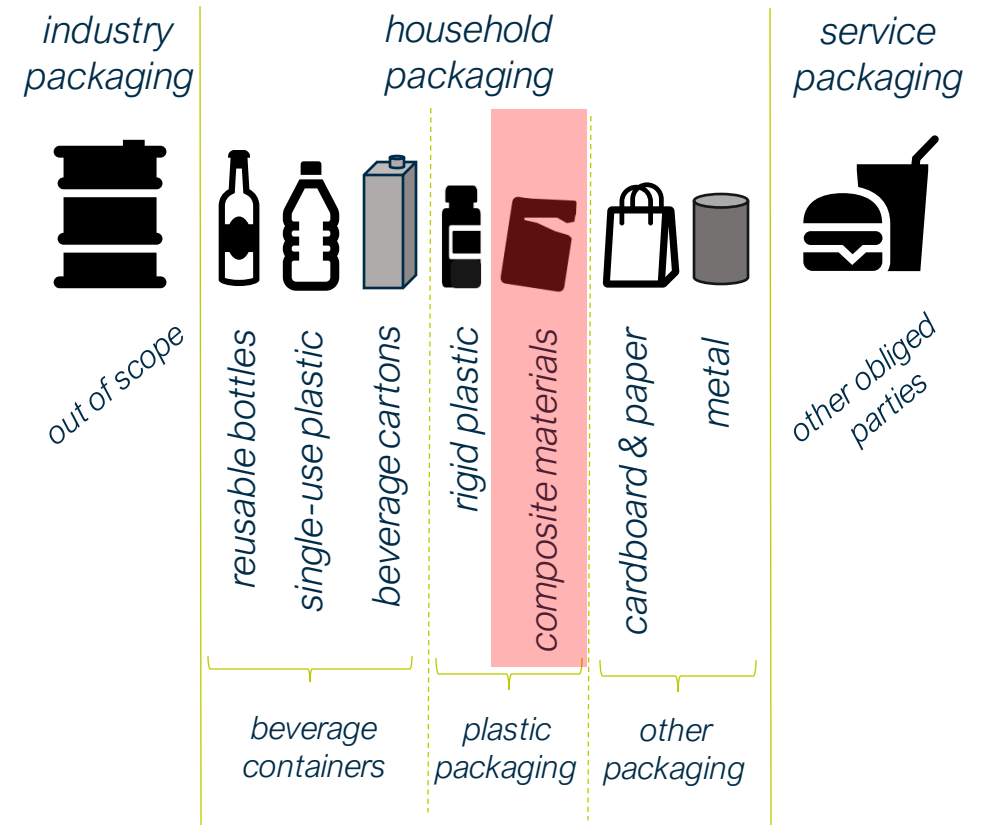
Lower upfront costs for government

# Focus on selected packaging types



◀ Photo 5:  
Waste landfill

Focus on packaging types that cause the biggest problems and societal costs





# Summary on question 4

## 4. **Upfront costs:** How to cover the costs to set-up an EPR system?

- **Chose an EPR model that does not overwhelm authorities:** Make sure authorities can focus on their core tasks of policy development, monitoring & enforcement
- **Focus on packaging types that cause the biggest end-of-life management problems and societal costs:** In the initial phase of EPR implementation → possible scope extension at a later stage

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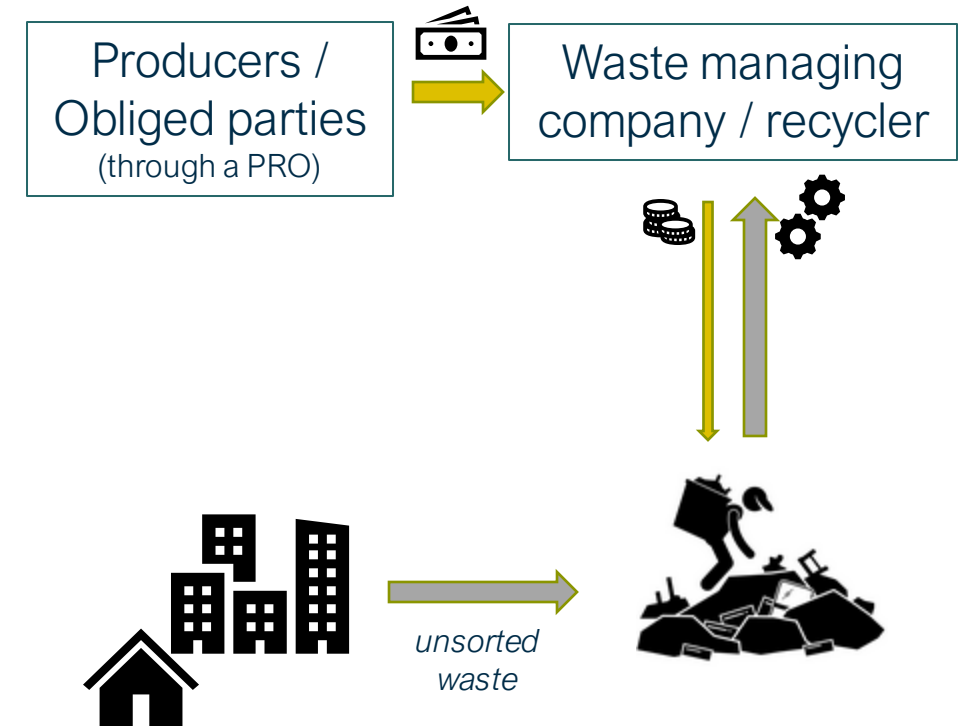
# Sample set-up 1 (focus on collection targets)

## Requirements:

1. Producers (obliged parties) shall ensure that the packaging used for their products is collected and environmentally sound managed at their end-of-life

## Targets:

1. Collect & soundly manage at least X% of the amount of what was brought onto the market





# Sample set-up 1 (focus on collection targets)

- + Informal collectors are integrated and get a monetary premium for (selected) packaging types
- + Collection targets can be fulfilled quickly and in a non-bureaucratic manner
- No structural changes and investments in the waste collection systems
- No improvements in working conditions of (informal) collectors
- No source segregation → limited quality of collected packaging waste

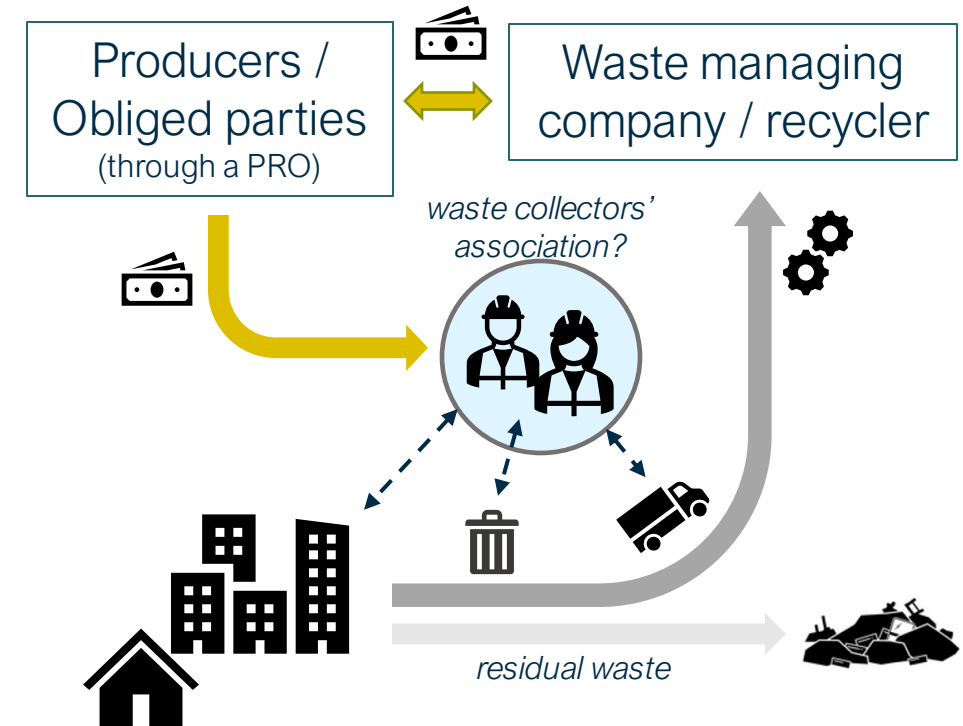
# Sample set-up 2 (focus on collection & source segregation)

## Requirements:

1. Producers (obliged parties) shall ensure that the packaging used for their products is collected and environmentally sound managed at their end-of-life
2. Obligated parties shall gradually increase the level of source segregation on a household level

## Targets:

1. Collect & soundly manage at least X% of the amount of what was brought onto the market
2. Obligated parties shall ensure that at least X% of all households have a regular door-to-door collection for their packaging waste





# Sample set-up 2 (focus on collection & source segregation)

- + Source segregation → substantial quality increase of collected packaging waste
- + Investments in improved waste collection systems
- + Possibility to formalise & upgrade informal collection networks
- Implementation is time and resource intensive
- Involvement of municipalities / local authorities necessary

# Summary on question 5

## 5. **Informal sector:** How to integrate informal sector players (collectors) in EPR systems?

- A strong EPR focus on collection volumes will likely lead to implementation models where informal collectors are incentivised to collect & supply packaging waste from mixed municipal solid waste
  - Additional EPR focus on source segregation & door-to-door collection will require effective structures in residential areas. This can open opportunities for (organised) waste collection networks
- ! Simplified here - more detail on this in the PREVENT SWG Social Inclusion. For more, please reach out to Maren Jäger

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# Why EPR?



- Waste is a burden to societies !
- If no one carries the costs for sound waste management, the citizen will “pay” with their health and livelihoods
- If EPR is chosen as a financing mechanism, costs will be shifted to producers
- Producers interests:
  - Ensure they are not disadvantaged (higher costs than the competition)
  - Have a reliable action corridor

# Typical interest structures

Citizens & consumers	• Affordable product prices
	• No increase of taxes and municipal fees
	• A clean and healthy environment
Municipalities	• Sound municipal services with reasonable efforts & costs
Waste managers & recyclers	• More business & value addition
(Informal) collectors	• Stay in business
	• Improve situation
Producers	• Fair competition (no disadvantages compared to their competition)
	• Have a reliable action corridor (no back-and-forth in rules and policies)

# Summary on question 6

## 6. **Stakeholders:** How to reconcile different interests of the various stakeholders?

- **Effective EPR systems allocate responsibilities (incl. financial responsibilities) to producers:** Such an allocation is not always welcomed by all parties → different interests (and partly even conflicts) are a logical consequence.
- **When designed well, producers will not have disadvantages:** For this, all producers must be captured and obliged equally (level playing field).
- **It is important that EPR obligations are clearly allocated and politically reliable.**
- **Although EPR costs are (most likely) passed-on to consumers, it must be communicated that alternative financing approaches are limited:**
  - With EPR producers have some incentives for less packaging & better design
  - With EPR, consumer cost correlate with consumption (the more you buy, the more you pay)

# Thank you for your attention!

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