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# Getting Reusable Packaging Out of Its Niche – Lessons from Pilot Projects on Three Continents

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**Testing reusable packaging systems in cities**

- Albania
- Colombia
- Georgia
- South Africa

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

## Monitoring and Evaluation

- Environmental impacts: GHG reductions
- Social impacts: women´s empowerment
- Economic impacts: potential impacts for both business and customers

Impacts can only be measured if the environmental action (the shift to reusables) actually takes place!

What are the factors facilitating / hindering environmental action?



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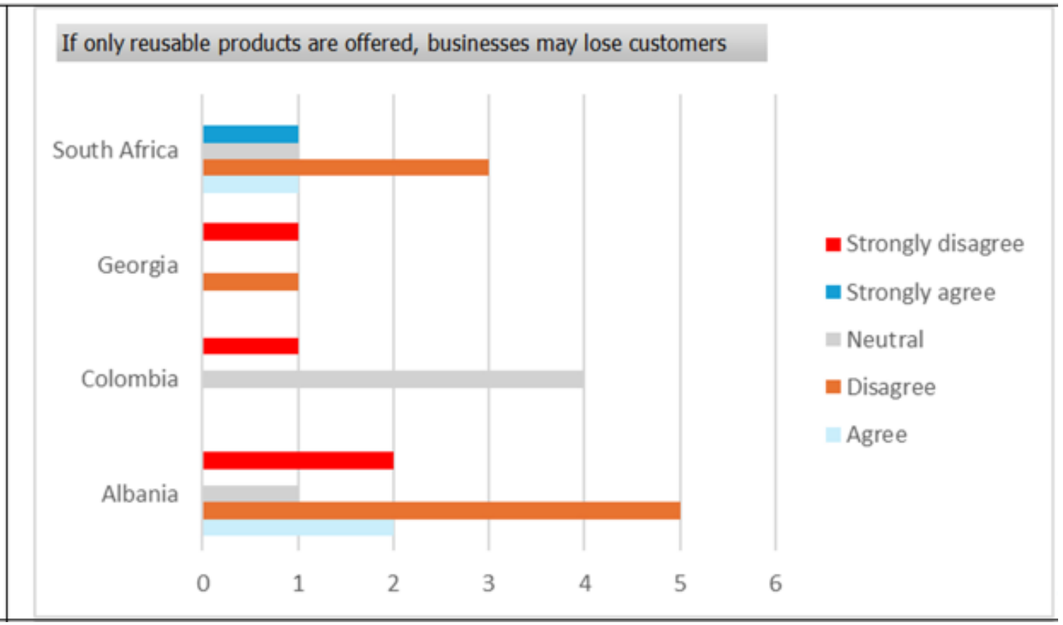
# Results

PERCEPTIONS ON (Convenience) FACTORS FACILITATING / HINDERING ENVIRONMENTAL ACTION

PRODUCT ADOPTION: Uncertainties and lack of awareness




The success of environmental action (The shift to reusable products)  increases when the identified barriers are addressed!

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# Results

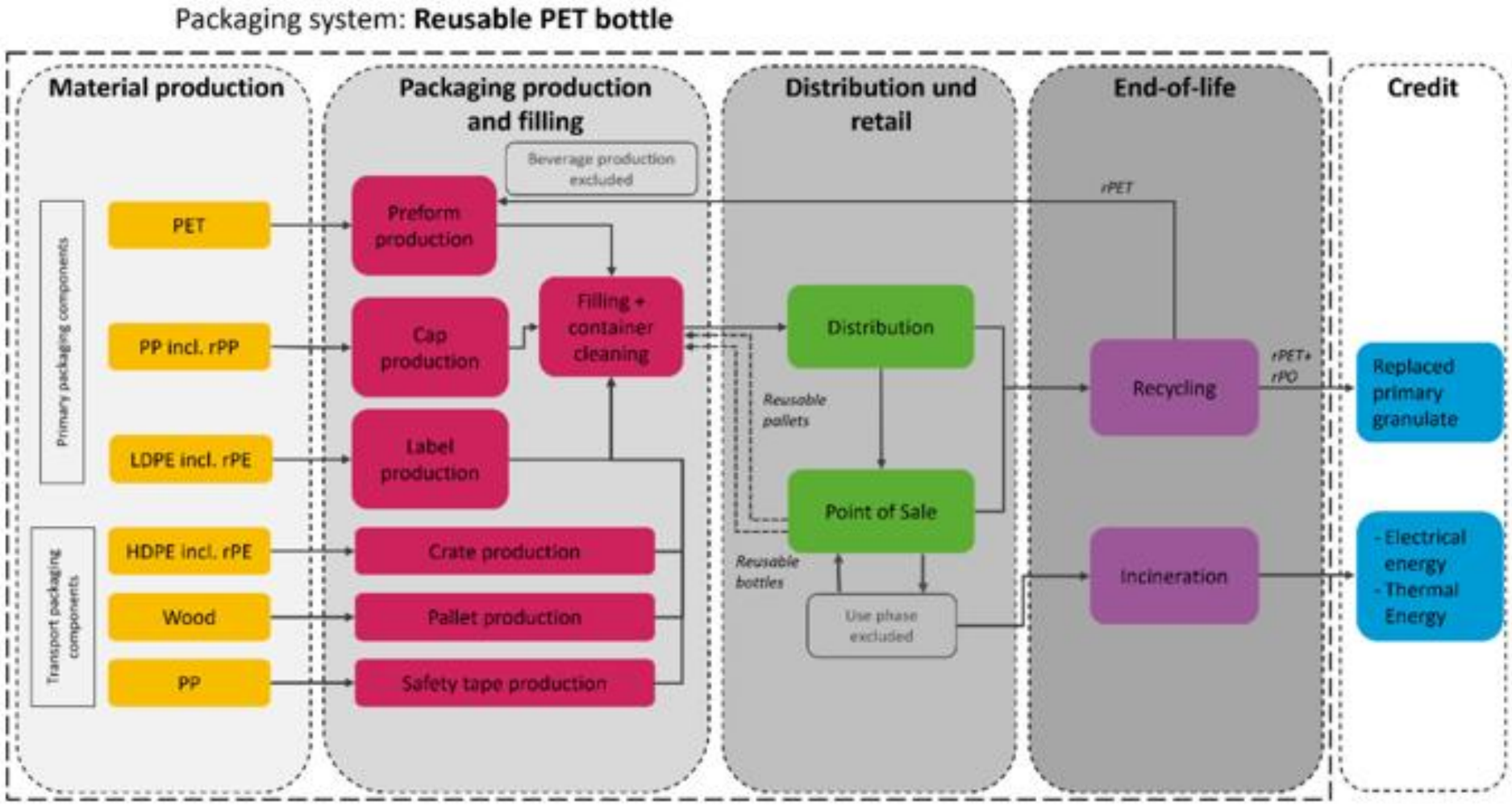
## PERCEPTIONS ON (Convenience) FACTORS FACILITATING / HINDERING ENVIRONMENTAL ACTION

## INFRAESTRUCTURE/LOGISTICS

| FACTORS FACILITATING ACTION | FACTORS HINDERING ACTION (BARRIERS) |
|---|---|
| | Uncertainty regarding the **cost** of sanitization **equipment** |
| | Uncertainty about the **ease of integrating reusable products** into the existing waste collection system |
| | Lack of clarity about how **easy** it would be **to find** suitable **reusable products to replace** current ones |
| | Uncertainty about the **ease of launching** the project |
| | Uncertainty surrounding the effectiveness, **ease of implementation, and usability** of the **tracking system** |



The success of environmental action (The shift to reusable products)  increases when the identified barriers are addressed!




# Environmental assessment

- Global background system vs local implementation



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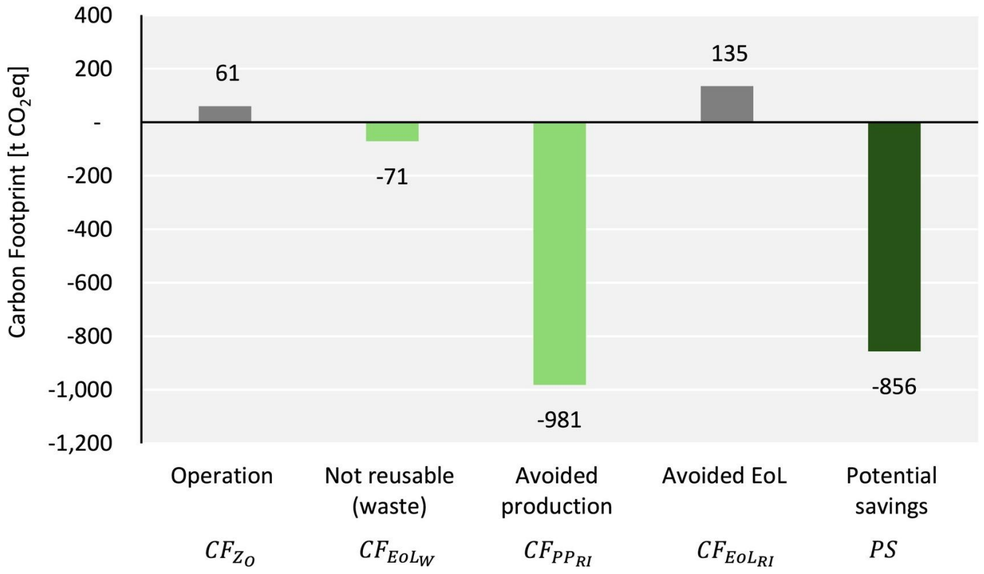
# Preliminary results of the individual assessments

- 50% of the pilots show immediate GHG savings after initiating the reuse system
- All (!) pilots have the potential for net-positive environmental benefits assuming an iterative learning curve after three months
- Key challenges with realistic options for improvement: return rates, transport distances




Source: Bubinek et al. 2025



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# Optimization potentials

For reusable glass and PET containers, the filling and **cleaning of the containers** is an important stage in their life cycle.

Converting energy sources from oil and gas to electricity therefore offers high optimization potential for reusable containers.

➢ Industrial cleaning, e.g. CAMPA




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# Optimization potentials

The results of single-use containers are essentially determined by the primary packaging weight and the **secondary material content**. Weight reduction, increasing the proportion of secondary material, and optimizing the ratio of filling volume to packaging material are therefore important internal levers.


- PANJA – high share of recycled material



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**High impact levers**
for reducing environmental impacts of the packaging group

Transition to **renewable energies**

Especially transition to renewable electricity in **cleaning of packaging**

**Use of electrified trucks** in distribution

**Further levers**

Reduction of **distribution and redistribution distances**

Further increase of **use cycles**

Use of **secondary material** in cap and label, bottle

**Use of PtX plastics** based on renewable energy sources

**Weight reduction** cap, label

**Optimization of energy use** in production and filling

## Significant differences in estimated use-cycles

- E.g. Bio Cosm with over 60 use cycles
- Average break-even for positive GHG savings: 12

# Key learnings – to be discussed

- **Comparison of reuse pilots:** With regard to environmental benefits, the pecific implementation of reuse as a business models seems to  more important than the spatial context

- Replacing single use systems increases the level of **complexity, specifically the number of transactions and partners** to be involved

- Conclusions/ recommendations for future reuse pilot activities: The lack of harmonized standards undermines the economic opportunities of packaging reuse (e.g. packaging size, hygiene standards)

# thank you

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