



# sykell

## SYSTEMIC LOGIC OF REUSE

André Lang-Herfurth  
Change (K)Now Workshop  
Tallinn, Estonia  
April 23, 2026

Accelerating the Transition to  
the Circular Economy

# WHAT REUSE SYSTEMS DO CITIES NEED?

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**Takeaway**



**Events**



**Pre-packaged  
beverages & foods**

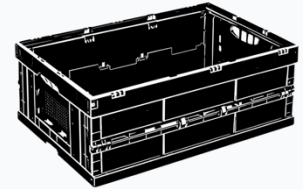


**Cosmetics**

ing



**e-Commerce**



**Secondary &  
tertiary packaging**

# WHAT CHARACTERISTICS DO REUSE SYSTEMS NEED sykell

... for cities, too?



**Compatible**



**Simple**



**Scalable**



2021

Reusable Packaging  
System for Personal  
Care

Co-Founder



2022

Reusable Association  
Germany

Co-Founder



2022

New European  
Reuse Alliance

Co-Founder



2025

Scaling reusable  
packaging

Head of  
Marketing & Sales

# TO SCALE, REUSE SYSTEMS MUST BE COMPATIBLE & SIMPLE

- Root cause: Linearity
- Simplicity above all
- Solution: Reuse Operating Model



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**WE HAVE IMAGINED & CONSTRUCTED LINEARITY**

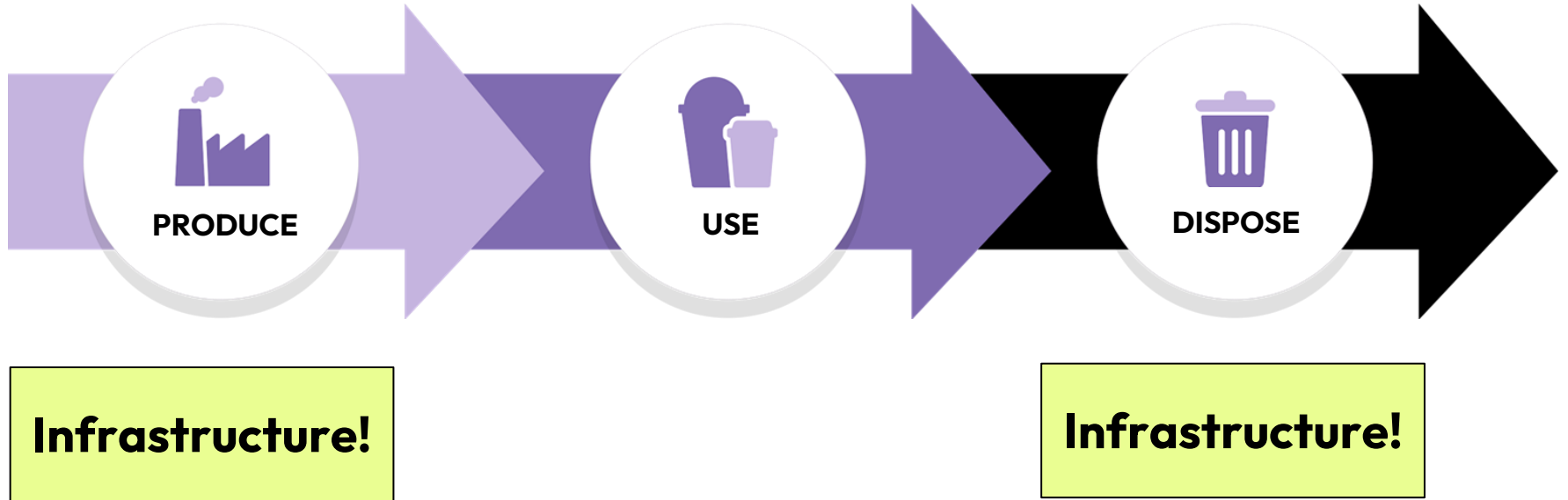
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# SINGLE-USE OPERATING MODEL:

Universally compatible, simple, scaled

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# **SINGLE-USE @ SCALE IS CHEAP**

because of automatisation and infrastructural support

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**Manual:  
> €20**

vs

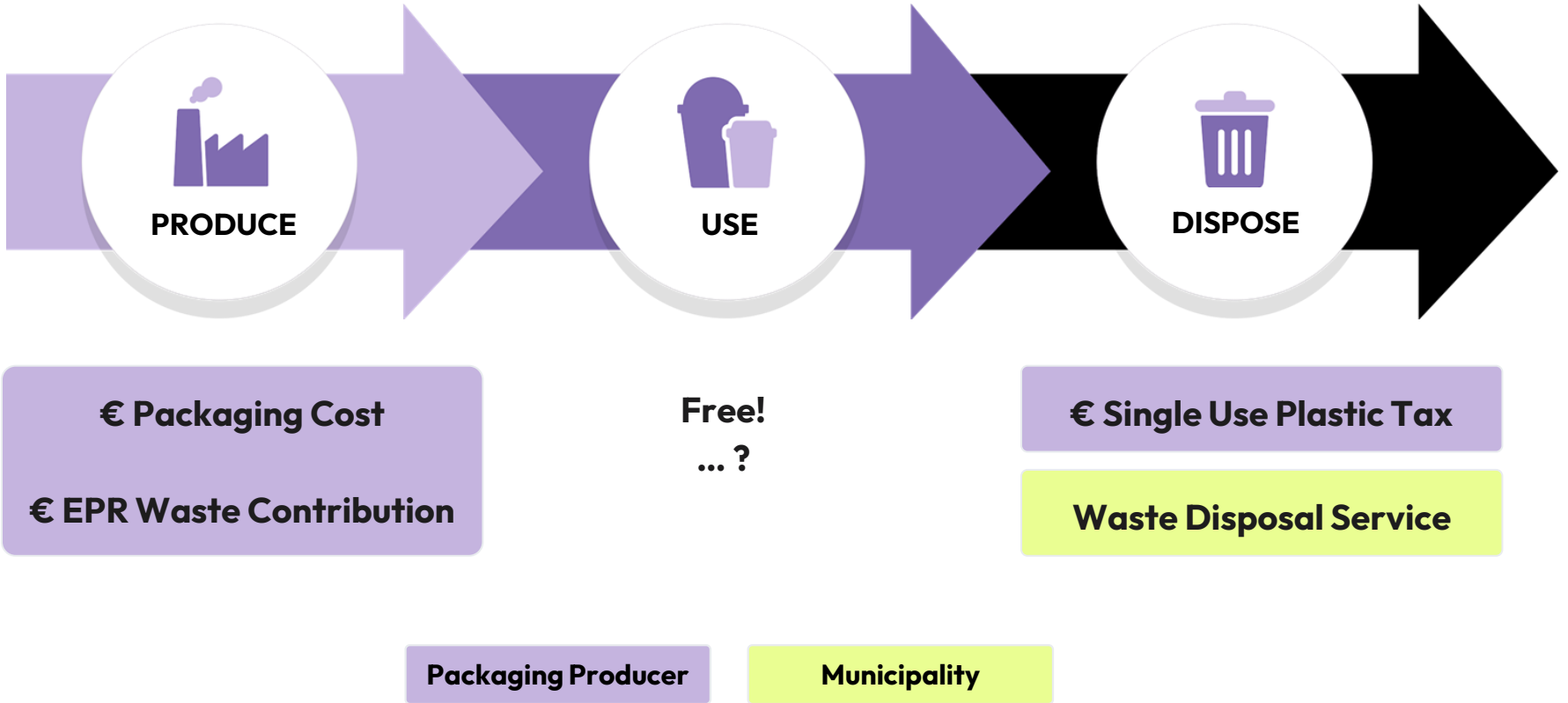


**Industrialized:  
< €0.1**

# ECONOMICS OF SINGLE-USE

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End-of-Life infrastructure NOT producers' responsibility



# SOLUTION: DESIGN CIRCULAR SYSTEMS

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LINEAR



DOWNCYCLING



CIRCULAR



# TO SCALE, REUSE SYSTEMS MUST BE COMPATIBLE & SIMPLE

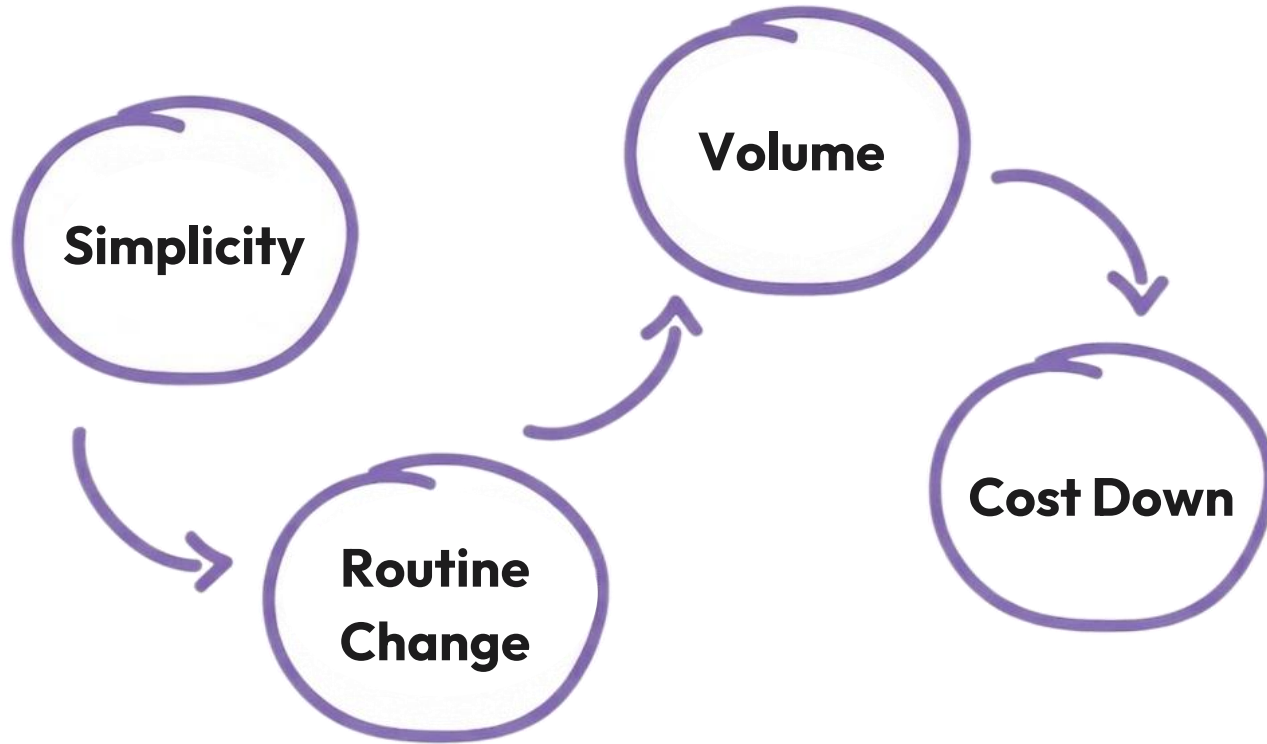
- Root cause: Linearity
- **Simplicity above all**
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# SIMPLICITY FOR ALL STAKEHOLDERS

must be the overarching objective

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# FIRST STEP TO SIMPLIFY: Glas vs Plastic - either or

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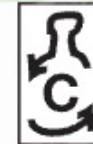
or



# SIMPLICITY IN USER NAVIGATION:

Categories in Scope

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KORDUS-  
KASUTATAV

**MEHRWEG**

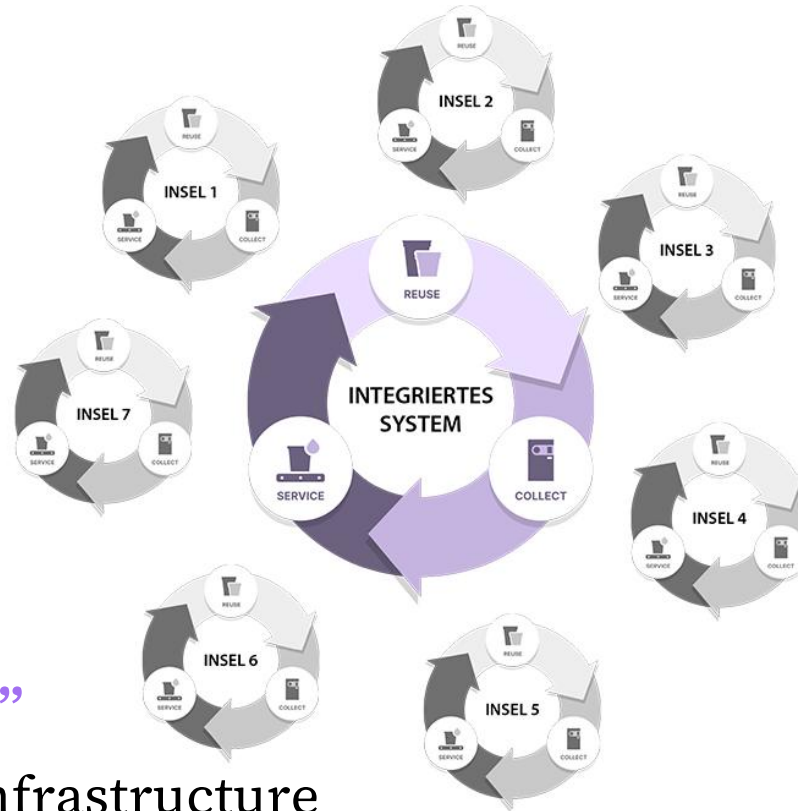


... European Reuse  
Logo is coming

# SIMPLICITY IN USER NAVIGATION:

## Reuse Islands vs Ecosystem Design

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“Monopoly” vs

“Pre-Competition”

to define shared Infrastructure

# SIMPLICITY IN USER RETURN:

## Which Collection Points are in Scope?

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# **SIMPLICITY IN CONSOLIDATION:**

Minimize effort & complexity to pre-sort @ collection point

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# SIMPLICITY IN SERVICE:

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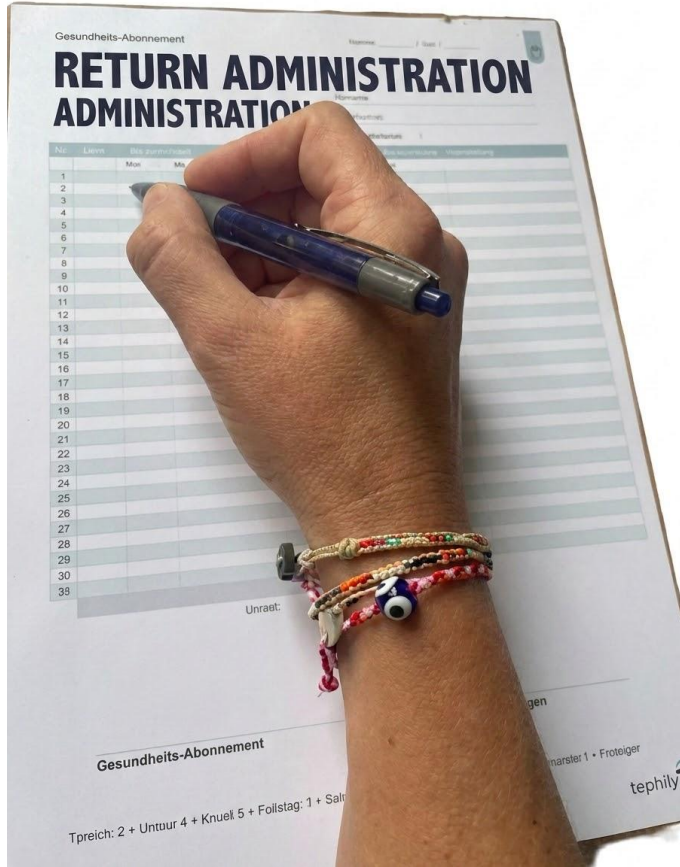
Process design that allows for workflow automation



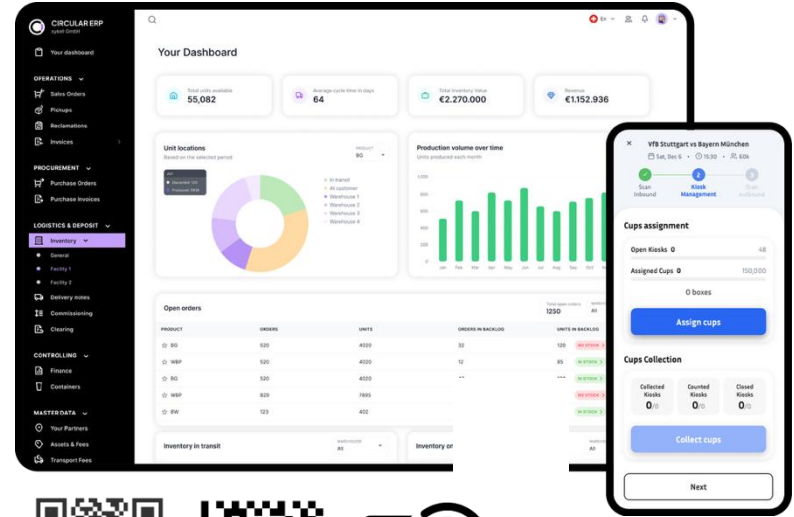
# SIMPLICITY IN SYSTEM ADMINISTRATION:

## Manual vs automated Workflows

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VS



# TO SCALE, REUSE SYSTEMS MUST BE COMPATIBLE & SIMPLE

- Root cause: Linearity
- Simplicity above all
- **Solution: Reuse Operating Model**



# REUSE OPERATING MODEL: FOUR VALUE SPACES

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interdependent for efficient circular system design

## Reuse:

Packaging meets product & process requirements for use



REUSE

## Pool Management:

Automation of circular workflows



MANAGE

## Collection Network:

Easy return & reverse operations



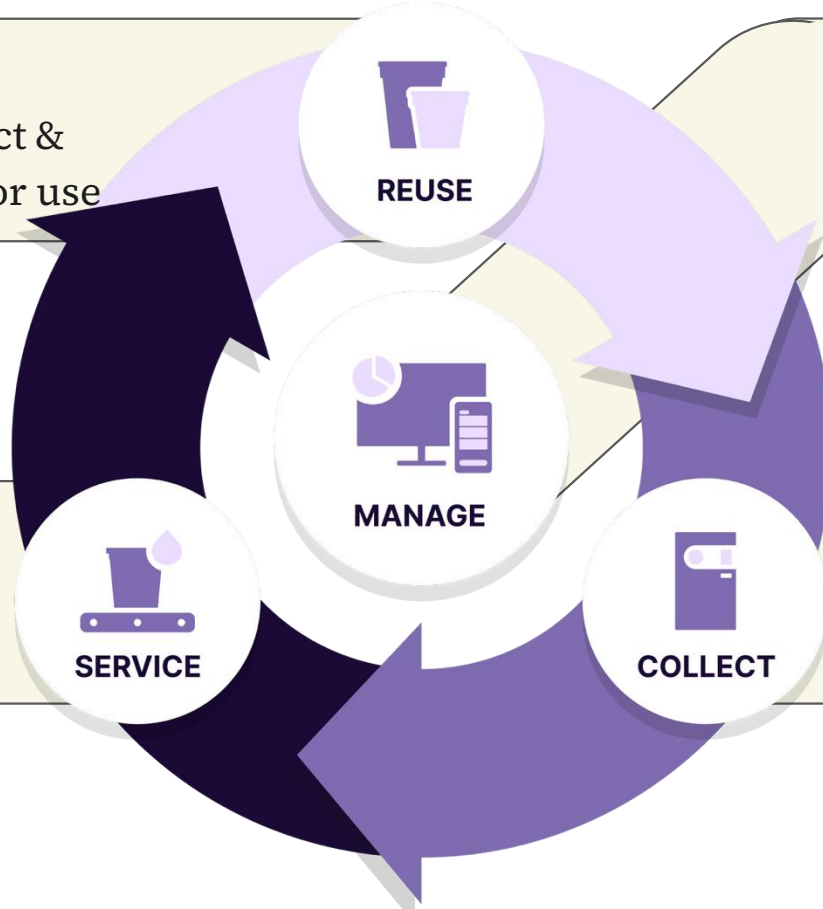
COLLECT

## Pool Maintenance:

Sorting, cleaning & end-of-life recycling



SERVICE



# OPERATING MODEL @ BEVERAGES IN GERMANY

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Open, passively managed pool- & private pool- system



Grocery Stores

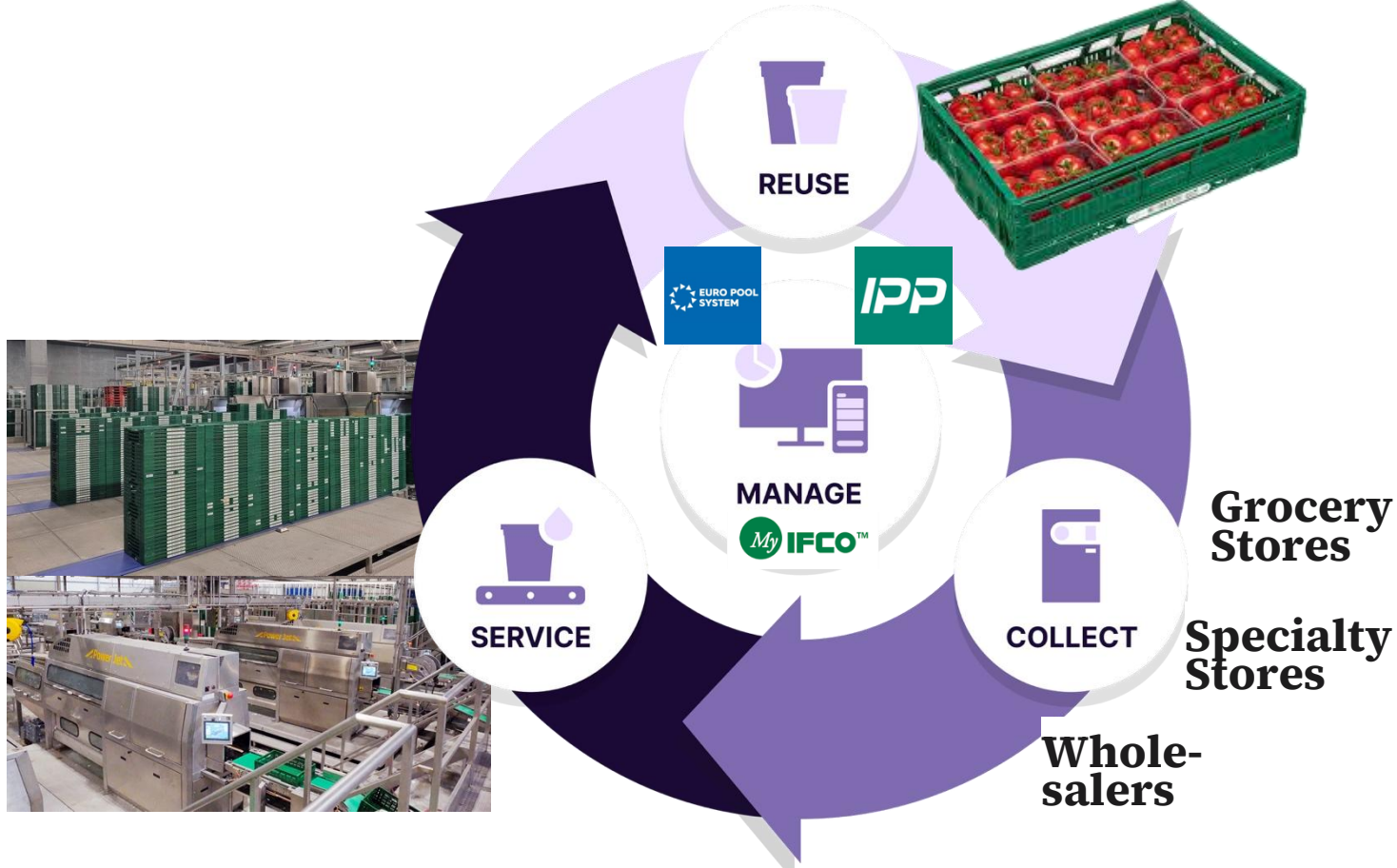
Specialty Stores

Wholesalers

# OPERATING MODEL @ SECONDARY TRANSPORT

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Closed, actively managed pools



# OPERATING MODEL: B2C TO-GO COFFEE CUPS

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Closed, passively managed floating pool



# CENTRALIZED VS DE-CENTRAL CLEANING

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Hybrid approach to increase ease-of-return & lower cost per reuse

## Central Service



- + Simple for seller
- + Simple for user
- **Service fee everytime**

## Decentral Cleaning



- + Service fee only at delivery
- **Effort for seller**
- **No simplicity for user**

## Hybrid Approach



- +/- Optional effort for sellers
- + Simple for users
- + Service fee distributed

# VALUE SPACES CREATE VALUE & DRIVE COST

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## COST DRIVER 1: Return Rate (rr)

Higher rr = higher productivity

80% rr = 5 x reusable

98% rr = 50 x reusable

## DRIVER 3:

### Service Process

Service streets behave like production lines.



REUSE



MANAGE



SERVICE



COLLECT

## DRIVER 4:

### Workflow Administration

To minimize admin cost, minimize manual steps.

## DRIVER 2:

### Collection Process

Maximize units/ pallett at minimal effort.

# COMPATIBILITY DRIVES COST DOWN & VOLUME UP sykell

across the Reuse Operating Model

@ Existing filler, retail  
& user processes

@ System administration



REUSE



MANAGE



SERVICE



COLLECT

@ Collection points &  
reverse logistics process

@ Service points



# WHAT REUSE SYSTEMS DO CITIES NEED?

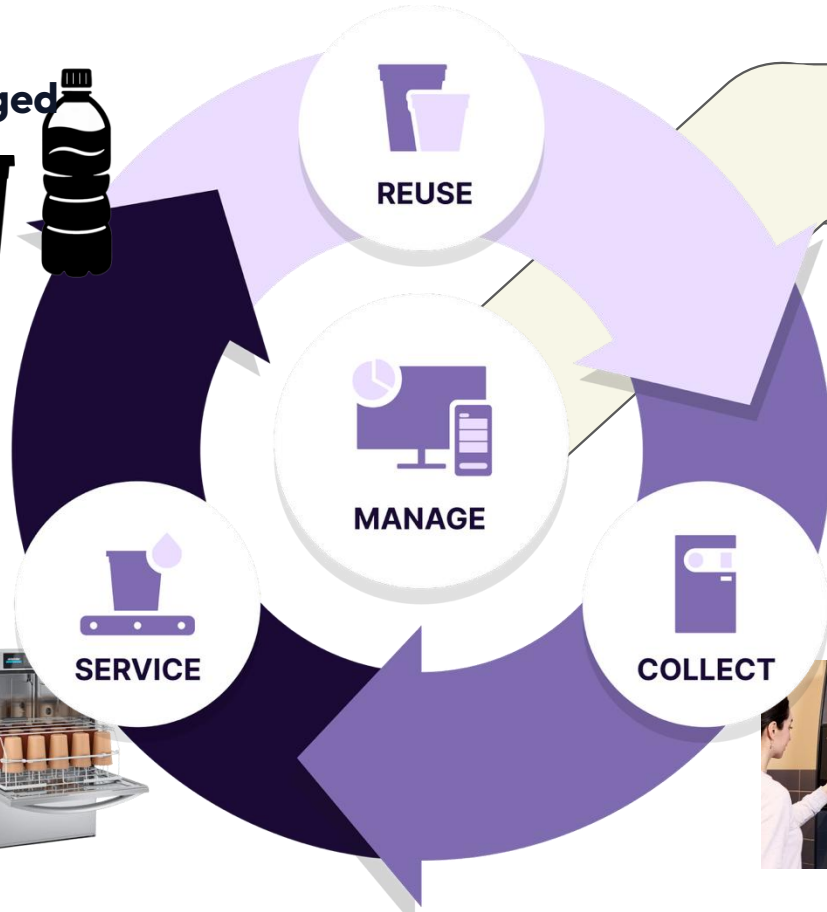
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Ones designed for compatibility, simplicity and scale

Takeaway, pre-packaged foods, beverages



Hybrid Approach



Standardized approach to capture data



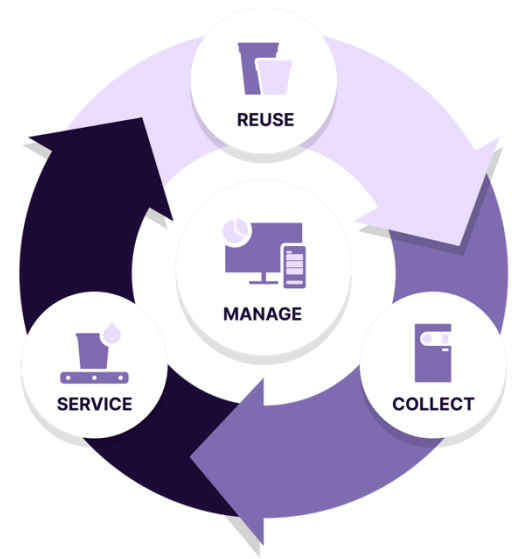
Grocery stores & delivery, in public, cafes



# SUMMARY: COMPATIBILITY, SIMPLICITY, SCALE

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- Reuse systems follow the **Reuse Operating Model**
- **System design delivers infrastructure**
- Reusable **packaging must be compatible** across all value spaces
- **Simplicity** will yield **volume**





EINFACH  
MEHRWEG

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PREFILL

sykell  
TO-GO

**Let's accelerate the transition to  
the Circular Economy together.**

Your contact partner:

André Lang-Herfurth

Head of Marketing & Sales



# REUSE BECOMES COMPETITIVE

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when system design is compatible, simple & scaled

## ECONOMICS OF SINGLE-USE

Sum



€ Packaging Cost:

€0,0X

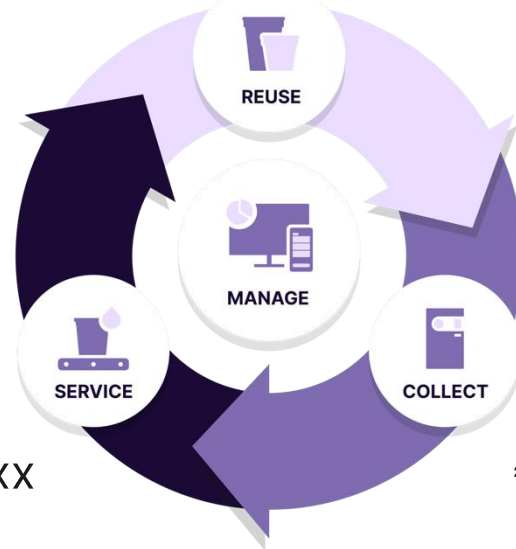
€ EPR Waste Contribution: €0,0X

€ Single Use Plastic Tax €0,0X

## ECONOMICS OF REUSE

Sum

€0,XX  
€ Mfg Cost / x Rounds: €0,xx



€0,xx

€0,xx

# CORE FUNCTIONALITIES OF CIRCULAR ERP

to automate circular workflows



## Circular Asset Tracing

Serialised Digital Product Passes for circular tracing, quality management and regulatory reporting



## Circular Finance

Automated circular workflows incl. financial system incentivization such as deposit management



## Circular Intelligence

Proof of compliance & impact at system- & partner- levels for e.g. return rate, loss rate and active pool size



## Circular Partner Integration

Standardized data capture across all actors, connecting brands, retailers, logistics and service partners



## Circular Inventory Management

Operational inventory control at scale from procurement to end-of-life incl. circular forecast to optimize pool size



## Circular Process Integration

Flexible integration of operator requirements incl. retail and logistics operations via standard interfaces

