



Change(K)now! project is co-funded by Interreg Baltic Sea Region. The project's main objective is a mindset change from single-use to circular or multiple-use of food delivery systems in cities and residents of the Baltic Sea Region.

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# Making Reuse Work at Scale – From Pilots to Systems

## Workshop Report

Tallinn, 23–24 April 2026



## Introduction

The international workshop “*Making Reuse Work at Scale*”, held in Tallinn on 23–24 April 2026, brought together municipalities, national authorities, system providers and experts from across Europe to address a shared challenge: how to move reusable food packaging systems from isolated pilots to functioning systems at scale.

Organised within the framework of the Change(K)now! project, the workshop marked a transition point. After more than two years of piloting in different contexts – ranging from institutional catering in Copenhagen, Lahti, Hamburg and Tallinn to municipal strategic framework pilots, takeaway services and large-scale public events – the focus has shifted towards system integration. The central question is no longer whether reuse works, but how systems can be designed, governed and scaled to become the new normal.

## What reuse systems do cities need? – A system perspective

In the opening keynote, **André Lang-Herfurth (Reusable Packaging Association Germany / New European Reuse Alliance / Sykell)** fundamentally reframed the discussion. His central message was clear: reuse is not about packaging, but about **system logic**.

He argued that current urban consumption systems are structurally linear – produce, use, dispose – supported by highly optimised waste management infrastructure. This infrastructure makes single-use solutions appear efficient and inexpensive, but it hides their true costs. Municipalities bear a large share of these costs through waste collection, logistics and treatment systems.

Reusable systems, by contrast, require a **completely different logic**. They depend on circulation, return flows and coordination across actors. According to Lang-Herfurth, effective reuse systems must fulfil three core criteria:

- **Simplicity:** systems must be intuitive and effortless for users; if returning is harder than disposing, participation will fail.
- **Compatibility:** systems must work across actors, locations and infrastructures.
- **Scalability:** only high-volume systems can become economically and environmentally viable.

A key insight was that reuse systems cannot develop as isolated solutions. Fragmented “system islands” increase costs and reduce usability. Instead, cities need **shared infrastructure and interoperable systems**, comparable to existing waste or transport systems.



He also emphasised that **legislation alone is insufficient**. Regulation must develop alongside functioning systems. If rules are imposed without practical solutions in place, resistance from users and businesses is likely.

## How can policy and strategy enable reuse? – The municipal perspective

The second keynote, delivered by **Liina Kanarbik (Greensession OÜ, former City of Tallinn)**, provided a concrete municipal perspective on system change.

Her central message was that **cities have more power than they often assume** – provided that political timing, administrative capacity and stakeholder alignment are in place.

Using Tallinn as an example, she described a stepwise transition:

- **2019:** ban on single-use plastic tableware at public events
- **2022:** development of sustainable event guidelines, tested with stakeholders
- **2023:** mandatory reuse at public events in Tallinn
- **2024:** national policy uptake extending reuse requirements throughout Estonia

This trajectory illustrates how local experimentation can lead to systemic change. However, the speaker also stressed the limitations of event-based regulation. While events provide controlled environments for implementation, they are not sufficient to sustain reuse markets on their own.

The key lesson is that policy must move beyond isolated measures towards **integrated systems that cover multiple sectors, including catering, takeaway, and public institutions**. Cities can initiate this transition through regulation, procurement and stakeholder coordination – but require supportive frameworks at the national and EU level.

## International experiences: From pilots to system-building

Several European case studies illustrated both the opportunities and barriers of scaling reuse systems.

**Kaisa Karjalainen (Zero Waste Europe / Mission Zero Academy)** presented the *ReuSe Vanguard Project*, which has tested reusable takeaway systems in cities including Ghent, Leuven, Rotterdam, Barcelona, Paris and Aarhus. Her key message was that **pilots often fail to scale due to structural barriers rather than technical limitations**.

Key lessons included:

- Businesses are reluctant to join without regulation
- User willingness does not translate into action if systems are inconvenient
- Lack of interoperability between providers creates confusion
- Political risk and election cycles can delay implementation



These insights informed the development of a **Reuse Blueprint**, which highlights five core principles: effectiveness, recognition, interoperability, inclusiveness, and safety.

### City case studies: Implementation realities

The workshop featured detailed insights from several cities working on system implementation.

#### Lisbon – Claudia Núñez (Municipality of Lisbon)

Lisbon's experience highlighted the **spatial and regulatory complexity** of implementing reuse infrastructure in dense, historic urban environments. Installing return points requires navigating permitting procedures, heritage constraints and negotiations with private property owners. The city is therefore exploring **flexible, semi-mobile solutions and using** existing infrastructure where possible. The case demonstrates that system implementation is as much a governance and planning challenge as a technical one.

#### Copenhagen – Sarosh Qureshi (City of Copenhagen)

Copenhagen presented a **city-wide reusable system designed for financial self-sustaining operation**. The system is based on a network of return stations, some powered by solar energy, and a clear division of responsibilities: businesses provide containers, while system operators handle logistics and washing. A key design principle is that businesses must not be disadvantaged by participation. The system aims to integrate reuse into everyday routines and reduce dependence on public subsidies.

#### Aarhus – Simon S. Rossau (City of Aarhus)

Aarhus focused on the **interaction between reuse systems and existing waste infrastructure**. Analysis shows that widespread reuse could significantly reduce the need for waste collection and bins, opening the door to rethinking urban infrastructure. The speaker emphasised the importance of **data-driven decision-making** to support investments and system optimisation.

### From pilots to national systems: The Danish National Partnership for Takeaway Packaging

**Kia Egebæk (NORION Consult)** presented the **Danish National Partnership for Takeaway Packaging**, initiated by the Ministry of Environment. The partnership brings together municipalities, businesses, and organisations to develop a **coordinated national system**.

Its work focuses on:

- business models and incentives
- standardisation and interoperability
- regulatory frameworks



A key insight is that **no single system model fits all contexts**. Instead, scaling requires alignment across regulation, infrastructure, incentives, and user experience. The partnership is working towards a structured development pathway – from direction-setting and regulation to infrastructure and scaling.

### System providers: Market realities and technical insights

The perspectives of system providers provided insights into operational and market challenges.

**Anders Barsøe (New Loop)** emphasised structural resistance from the single-use industry and highlighted the importance of **material choice, tracking systems, and hybrid business models**. His analysis showed that reuse is not automatically environmentally beneficial if circulation rates are too low.

**Sven Hennebach (Tomra)** stressed the role of **infrastructure and regulation**, particularly automated return systems and centralised washing. He highlighted the risk of “fake reuse” in the absence of clear rules and enforcement.

**André Lang-Herfurth (Sykell)** presented an **interoperable system approach** that integrates return infrastructure, digital tracking, and retail applications. A key message was that **interoperability is the central condition for scaling**, requiring standardisation and shared infrastructure.

**Janek Balōnski (Ringo)** provided insights into **behavioural and market challenges**, including unexpected deposit dynamics and widespread market distortions. His experience showed that real-world behaviour often differs significantly from theoretical assumptions.

**Ingvar Rehbinder & Anders Johansson (Cup Nordic)** focused on **large-scale event systems**, demonstrating their potential impact but also highlighting operational constraints such as speed, cost and integration with payment systems.

### Cross-cutting insights: What holds systems back?

In all sessions, several consistent findings emerged:

- **Scaling is primarily a governance challenge**, not a technical one
- **Economic conditions favour single-use systems**, requiring policy intervention
- **Interoperability remains unresolved**, leading to fragmentation
- **Behaviour is driven by convenience, not awareness**
- **Volume and system speed are critical for performance**

A particularly important insight is that **reuse systems must be designed as infrastructure**, not as optional services.



Building on the insights from the presentations, participants worked in three thematic groups to address the perspectives of businesses, consumers, and municipalities.

In all working groups, a shared understanding emerged: the transition to reuse is not blocked by a lack of willingness or technical solutions, but by **misaligned systems**. Regulation, infrastructure, market conditions, and user behaviour are not yet sufficiently coordinated to enable reuse at scale.

### Consumer perspective: Convenience, trust and normalisation

The consumer-focused discussions reinforced a central understanding: **behaviour follows systems, not awareness**.

Participants highlighted that:

- reuse must be **easy and intuitive**
- systems must be **transparent and understandable**
- hygiene concerns must be **addressed proactively**
- systems must remain **inclusive and accessible**

At the same time, social norms and visibility play an important role in reinforcing behaviour. However, communication alone is not sufficient – **system design remains decisive**.

### Business perspective: Between market constraints and system opportunities

The business-focused discussions brought forward several messages: Europe needs interoperable reuse ecosystems, not fragmented systems; harmonisation and collaboration must be developed jointly by industry and policymakers, and economic incentives are essential to make reuse competitive with single-use.

Participants emphasised that businesses are generally open to reuse but require predictable frameworks and fair competition conditions. A recurring concern is the imbalance between reusable and single-use systems.

Key conditions for scaling identified by participants include:

- **Level playing field:** ensuring that all businesses operate under comparable requirements
- **Operational simplicity:** minimising additional workload for staff
- **Economic viability:** avoiding financial disadvantages and enabling long-term benefits

Interoperability and shared systems were identified as crucial to reducing complexity and increasing efficiency.

### Municipal perspective: Between ambition and capacity



The municipal working group confirmed the central role of cities and highlighted structural limitations.

Municipalities can act through:

- procurement
- event regulation
- infrastructure planning
- stakeholder coordination

However, they face challenges such as limited resources, fragmented responsibilities, and legal uncertainty. Participants emphasised the need for stronger support from national and European levels to enable scaling.

## Day 2: From system understanding to action

While the first day of the workshop focused on understanding system logic and learning from practical experiences, the final session translated workshop insights into policy-relevant conclusions.

## Towards policy recommendations: Structuring system change

Participants identified key priorities:

- creating stable demand through regulation and procurement
- building shared infrastructure
- ensuring interoperability
- addressing economic imbalances
- designing for convenience

A structured approach to policy development emerged, distinguishing between short-term actions, mid-term system-building, and long-term structural change.

## Conclusion: From pilots to systems

The Tallinn workshop demonstrated that the transition towards reusable food packaging systems has entered a new phase. Knowledge and experience are available. The remaining challenge is to connect these elements into coherent systems.

This requires coordinated action across governance levels, alignment between public and private actors, and a shift from pilot thinking to system building. Municipalities have a key role to play, but they cannot act alone.

The coming years will determine whether reuse remains a niche or becomes a standard urban service. The discussions in Tallinn made clear that the pathway exists – but requires decisive action, cooperation and long-term commitment.