

Innovation Camp

May 12, 2022

Mainstreaming reusable packaging systems for shipping packaging in online retail

9.30 a.m. – 2.00 p.m. CEST (UTC +2). Online.

Summary: Key Findings

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RE•ZIP



The Packaging Revolution



resources remain resources



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Executive Summary

Starting point and reason for the Innovation Camp

Using reusable shipping packaging instead of single-use packaging in online retail has a large environmental and climate-related relief potential. An increasing number of companies and start-ups have been developing or are already offering reusable shipping packaging solutions to reduce the environmental impact induced by single shipping.

However, for online retailers, the costs for the use of reusable packaging still represent the main hurdle for substituting single-use packaging. As a result, online retailers are still engaging and investing in piloting reusable packaging solutions, but a major rollout is far from being achieved.

Lessons learned in the praxpack project indicated that especially the development, the design and the implementation of cross-provider returns and pooling logistics to tap existing environmental and economic saving potentials have not yet been systematically explored by providers for reusable packaging to resolve this situation.

Therefore, the praxpack project team organized the Innovation Camp in May of 2022 to facilitate a common understanding of the current situation of reusable packaging for online retail, discuss the potential of standardisation, and start a conversation about cooperating for cross-supplier return logistics and a joint IT solution.

Executive Summary

The Innovation Camp event

More than 50 experts participated in the Innovation Camp on May 12th, 2022, with representatives from 11 different operators and suppliers of reusable shipping packaging systems from Germany, Austria, Denmark, Norway, and Finland, key experts from GS 1 Germany, logistics service providers, providers of digital solutions for tracking and deposit processing, experts from major European NGOs, as well as the praxpack project team consisting of e-commerce experts and researchers from Avocadostore, Otto, Tchibo, and Ökopol.

The participants discussed the potentials of collaborating to achieve the needed significant cost reductions of return logistics. They worked on a predefined set of questions in break out sessions, the questions discussed were:

1. What would be the benefits of joint return logistics from your perspective?
2. What could be challenges for or downsides of such a cooperation?
3. If the return and pooling logistics were organized centrally, what impact would that have on your business model? What would be the core of your business model in that scenario?
4. How do you envision the process for getting to
 - cross-supplier return logistics?
 - a joint IT solution?

Executive Summary

Main Take-Aways

1. Reusable packaging in online retail can only become mainstream through a joint use of return infrastructure, logistics, and digital infrastructure. For this, a collaboration among suppliers and operators of reusable shipping packaging is key.
2. The Innovation camp facilitated a joint understanding of the current situation and explored the readiness of existing suppliers and operators of reusable shipping packaging systems for collaboration.
3. There is a general openness for collaboration, but also the expectation that such a joint return logistics system could deeply impact the current business model of existing suppliers and operators of reusable shipping packaging systems, shifting from system providers to packaging providers.
4. Suppliers and operators of reusable shipping packaging systems are aware of both, the mostly cost-related benefits, but also the large number of expected challenges of a joint system.
5. Besides the aspired cost reduction, the main benefits of a joint system include a quicker chance for expansion, more planning stability, further aspects of process simplification for the companies and higher convenience and thereby acceptance for consumers as well as potential savings on CO2-emissions.

Executive Summary

Main Take-Aways

6. Potential challenges of coordinating cross-supplier return logistics are multifaceted and relate to the companies directly, their products and processes, but also to all stakeholders on a market-level. They include:
 - ▶ Reduced brand differentiation, the potential of sunken costs due to already developed processes becoming obsolete by joining the system and/or standardization, and intellectual property issues
 - ▶ Difficulties of finding one process/system that suits all (for deposits, sorting and cleaning, etc.), dependencies on large players obstructing or derailing the cooperation and the risk of choosing the “wrong path”
 - ▶ A risk of differentiated economic conditions, unless the common system is non-profit and accessible to everyone on equal terms, but at the same time more competition and economic struggles due to simplified market entry
7. Currently, there are several open questions regarding the details of a coordinated cross-supplier approach that need to be discussed. These include:
 - ▶ Who owns/operates the infrastructure and takes responsibility of the costs related to coordinating and implementing a joint system?
 - ▶ How can product variations, collection of returns, but also sorting, cleaning and redistribution of packaging be handled in a streamlined joint system?
 - ▶ How can potential related issues of data safety be addressed?

Executive Summary

Outlook: Kickstarting the process

- ▶ To kickstart the process of starting a joint logistics system, there is an identified need for a coordination unit of some form. The participants of the Innovation Camp discussed different options for such a coordination unit. Options include a designated NGO, a newly formed or existing industry alliance or a joint working group of logistic suppliers, e-commerce, and packaging suppliers. The next step would be considering the potential participants of such a system and deciding who should coordinate the process.
- ▶ After a coordination unit is formed or selected, a joint system would likely require partial steps, starting with joint collection points, scan codes and potentially a common database, then slowly over time transitioning into full-fledged joint logistics including a joint IT solution.
- ▶ During the process, the newly developed GS1 standardized processes and other related research and project results should be taken into account.

The Innovation Camp

Reasons for the Innovation Camp

- ▶ Using **reusable shipping packaging** instead of single-use packaging in online retail can contribute to a significant **reduction of packaging-related greenhouse gas emissions, resource consumption, and waste volumes.**
- ▶ **E-commerce companies and their customers ask for sustainable packaging solutions.** With this as well as the **environmental and climate-related relief potential** in mind, the number of companies and start-ups that are **developing or already offering reusable shipping packaging solutions** has increased significantly in the past two years.
- ▶ **However,** many suppliers and especially operators of reusable shipping packaging (RSP) systems **are still in a pilot stage** and while currently, the number of providers of reusable packaging solutions for e-commerce is growing rapidly, a **consolidation of the market** is soon to be expected.
- ▶ Despite the **diverse and intensive efforts and the variety of reusable solutions already available,** reusable shipping packaging is still only used by a few online retailers as an alternative to other packaging. Therefore, a **broad establishment and use of reusable shipping packaging systems** has **not been achieved** so far.

Reasons for the Innovation Camp

As part of our efforts for the project “praxpack - user-integrated development and testing of business models for reusable packaging solutions in online retailing” it has become very clear that:

- ▶ For online retailers, **the costs for the use of reusable packaging represent the main hurdle for substituting single-use packaging.**
- ▶ The relevance of establishing and streamlining cost-efficient return logistics has been recognized by most reusable packaging providers. But **no adequate cost-cutting effects can be achieved at the individual company level to date.**
- ▶ The potential of **cross-provider return and pooling logistics** and the need for **joint industry standards** have not yet been **systematically considered.**
- ▶ We believe that reusable packaging in online retail can only become **mainstream through a joint use of return infrastructure, logistics, and digital infrastructure.** Therefore, a **collaboration** among suppliers and operators of reusable shipping packaging **is key.**

The Innovation Camp Event

By organizing and hosting the **Innovation Camp** on May 12th, 2022, Ökopol, Tchibo, OTTO and Avocadostore were able to

- ▶ facilitate a **joint understanding of the current situation** among operators, suppliers, and users of reusable shipping packaging systems and
- ▶ explore the readiness of existing RSP-suppliers and operators of RSP systems to **collaborate on a cross-provider design of return logistics, seeking joint use of the logistical and digital infrastructure.**

In total, as many as **11 different operators or suppliers of a reusable shipping packaging systems** from Germany, Austria, Denmark, Norway, and Finland participated in event.

The debate was supported by **key experts from GS 1 Germany, logistics service providers, as well as providers of digital solutions for tracking and deposit processing.** In total, more than **50 experts** participated in the event.

The Innovation Camp Event

Program

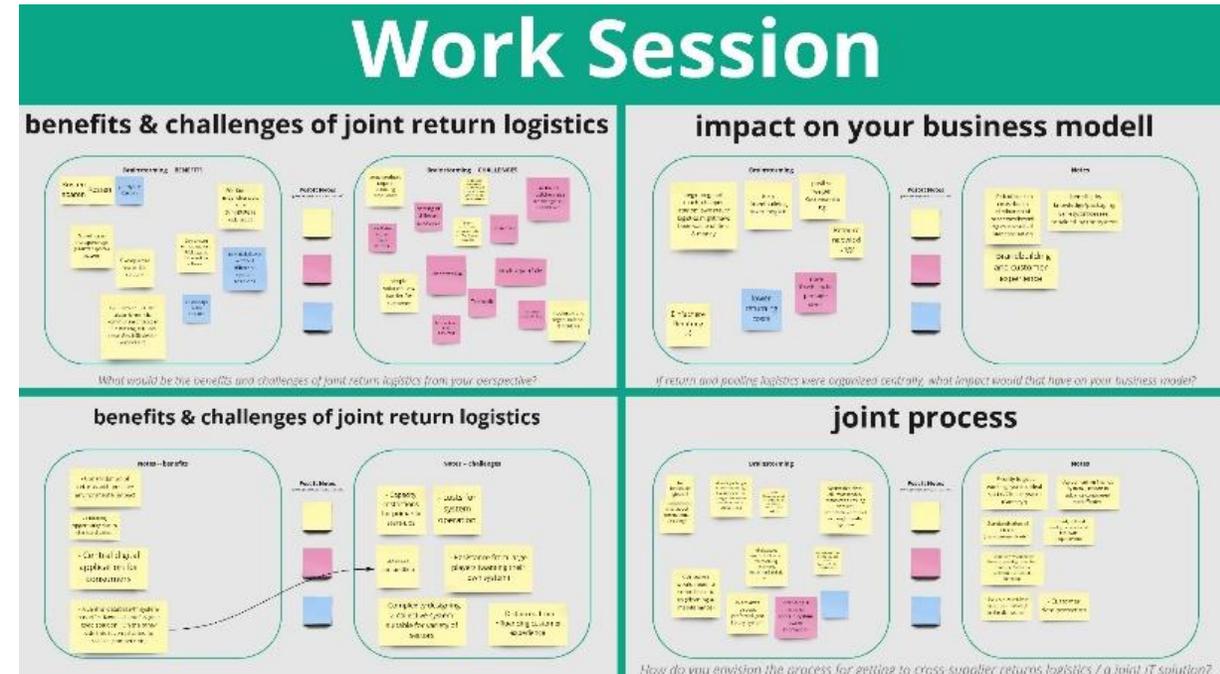
1. Introduction and goals for the day
2. Making reusable packaging systems in online retail the new normal? Where we're at – observations and lessons learnt from Ökopol
3. Cross-supplier returns logistics as a solution for mainstreaming reusable packaging systems: Key findings and questions
4. Standardisation as a lever for enabling any large-scale uptake of reuse systems in online retail: Introduction to the GS 1 standardization project for reusable shipping packaging systems (Matthias Haubenreißer, GS 1 Germany)
5. Developing and establishing joint return logistics: Exploring current challenges and possible chances for realization breakout sessions
6. Presentation of key results from the breakout sessions & questions and additions from the floor
7. Feedback Session, conclusion and way forward

The Innovation Camp Event

The break out sessions – conducted via miro

The Innovation Camp participants worked on a set of questions in break out sessions and collected their answers on miro boards. The questions discussed were:

1. If the return and pooling logistics were organized centrally, what impact would that have on your business model? What would be the core of your business model in that scenario?
 2. What would be the benefits of joint return logistics from your perspective?
 3. What could be challenges for or downsides of such a cooperation?
 4. How do you envision the process for getting to
 - cross-supplier return logistics?
 - a joint IT solution?
- ▶ The following slides give an overview of the findings discussed by the participants of the Innovation Camp.



Findings from the break out sessions

The following slides give an overview of the findings discussed by the participants of the Innovation Camp. They were collected on miro and presented to all participants after the break out sessions. These findings do not necessarily mirror a consensus found between all participating parties.

Findings from the break out sessions – collected via miro

Possible impacts of a joint system on existing business models

- ▶ Switch from system provider to packaging provider
 - no service elements anymore
 - no/less influence on process optimization
 - No impact on brand building/customer experience
- ▶ Potentially drastic changes to individual systems due to different joint ID system or other mandates by the coordinating stakeholder
- ▶ Shifting efforts on coordination process instead of own products

Findings from the break out sessions – collected via miro

Perceived potential benefits of joint return systems

Simplification

- Customer convenience forms routine/habits and leads to broader acceptance
- Easier entry for new suppliers of reusable packaging + quicker market rollouts
- Easier to acquire partners together
- More pressure on KEPs
- Simpler framework

Costs and scaling

- Cost reduction/efficiency
- Shared capital investment/cost sharing across the value chain (IT, logistics)
- Quicker to scale & chance to expand
- Bigger market, more customers
- Planning capability/more stability

Additional benefits

- Broader use of own IP e.g., software
- Ability to shift focus on other aspects, e.g., more specialized packaging solutions, if no need to worry about logistics
- Potential savings on CO2-emissions
- Possible standardisation

Findings from the break out sessions – collected via miro

Perceived potential challenges of joint return systems

Company-related

- Reduced brand differentiation
- Risk of not recouping investment of building own network
- Risk of sunken costs due to elimination of processes/branding as a result of standardization
- Intellectual property issues
- Sharing “corporate secrets”

Product-related

- Packaging becomes a commodity
- Less specialized products possible

Market-related

- Unless common platform is non-profit and accessible to everyone on equal terms, it could create risk for differentiated economic conditions
- Threshold for pre-competitive vs competitive cooperation can be blurry
- More competition due to easy market entry

Process-related

- Developing one process/system that suits all (e.g., deposit, sorting and cleaning)
- Risk of “wrong path”
- Could hinder innovation
- Lack of internationally agreed standards
- Long process

Logistics-related

- Redistribution of jointly collected packaging
- Limited space for collection points in stores and in cities
- IT & data sharing/storage
- Hard to facilitate variations across companies

Stakeholder-related

- Getting all stakeholders on board
- Resistance from larger players wanting their own system
- Dependence on biggest player/provider

Findings from the break out sessions – collected via miro

Potential requirements and elements needed for a collaborative process

General

- Early communication of requirements of collaboration to joining companies
- Clearly defined ecological objectives and therewith requirements of joint logistics for all stakeholders

Return logistics

- Ability to handle big variety of packaging
- Unified logistics service provider
- Large network of return points
- Automated collection points
- Interim storage in lockers/“Packstationen“

Joint IT/App

- Common coordination platform (IT system) & interfaces
- Single entry point from the consumer perspective (App) with overview of collection points
- White-label solution for app
- API for tracking process
- Common ID system for the packages and return locations - ID must contain info of system owner
- Standard similar to TCP/IP (e-mails)

➔ *Partial steps: first collection points, scan code & database; then full-fledged including IT solution*

Other observations, ideas, and questions from the participants – collected via miro

Findings & observations

- Joint process would speed things up, but is not crucial for success of mainstreaming reusable packaging
- Key issue is not the return system, but to get the return rate up to above 85%
- Lots of advantages but also risk of losing USP - joint system needs clear boundaries!

Ideas & potentials

- Collection points & waste management: municipalities offer reusable garbage cans and existing recycling centers sort reusable packaging
- If successfully implemented such a system can act as a 'lighthouse', proving that reusable packaging is cost effective, thus reducing our dependence on single-use packaging
- Reuse focused legislation could have a large impact

Open questions

- ▶ Who owns/operates the infrastructure? NGO, ZSVR, joint working group of logistic supplier, ecommerce, stationary trade, packaging suppliers?
- ▶ Who takes responsibility of the costs related to coordinating and implementing a joint system?
- ▶ Should packaging design focus more on logistics/process requirements? How could it maybe be environmentally beneficial after 1-2 uses?
- ▶ Does the solution work internationally?
- ▶ Could it be more complex for customer?

“Everyone is building a car and wants to use a road together - but the road doesn't exist yet”

Lessons learned & outlook

Lessons learned

- ▶ **Cross-provider return solutions and pooling logistics need to be established.** To do so, reusable packaging providers see value in cooperating with each other for a more cost-efficient return system. For this **“some sort of coordinating institution”** to support these joint efforts and for a successful outreach to logistics providers is believed to be key.
- ▶ **Joint return points**
 - ▶ There is a need for a **close-knit network** of low-threshold return points.
 - Easy to find with minimum effort for the customer.
 - Easily accessible and/or potentially automated.
- ▶ **Return incentives**
 - ▶ There is a need for return incentives. Most likely, a **DRS** (deposit return scheme).
 - Some prefer a “library system” with payment only required if packaging is not returned after a defined time.
 - Some prefer payment in advance.
- ▶ **Joint IT solutions**
 - ▶ There is a need for a joint platform as well as **joint interfaces**.
 - Ideally one ID system and API.
 - Solutions to open questions related to data storage, sharing & safety.

Outlook

- ▶ Various reusable packaging providers who participated in the Innovation Camp share a common understanding of the current bottlenecks and limitations of individual take-back solutions for reusable packaging in online retail.
- ▶ They consider **a joint approach regarding return logistics** which can be used by multiple packaging providers to maximize its economic and ecologic efficiency **is worth exploring** while the current individual take-back solutions hinder the scaling of reusable packaging in e-commerce.
- ▶ Such an exploration would require to continue and deepen the exchange among interested market actors.
- ▶ For a possible subsequent establishment and consolidation of a joint working process to further pursue and concretize the idea of a jointly usable return system, the process requires a proper management and coordination.
- ▶ The participants of the Innovation Camp discussed different options for such a coordination unit. Options include a designated NGO (such as the “Mehrwegverband” (<https://mehrwegverband.de/>)), a newly formed or existing industry alliance, a joint working group of logistic suppliers, e-commerce, and packaging suppliers and/or consulting institutes.

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