How digitization empowers a smarter circular economy for industrial packaging

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- Short introduction of speaker incl. name, occupation history, current occupation, fields of expertise and how the speaker became aware of the high potential regarding the reuse of industrial packaging subsequently founding the Packwise GmbH.
- Short introduction of Packwise GmbH incl. scope of application namely Intermediate Bulk Containers and drums, target industries, goals and approach:

"We aim altering the way we use industrial packaging by connecting all participants across the value chain, creating an efficient market and increasing transparency."

Market overview of Intermediate Bulk Containers (IBCs) and drums in Germany

Size of market, number of units in circulation, CO2 savings through reuse

Why the properties of IBCs and drums are perfectly suited for digitization

Product properties:

- Standardized design enables frictionless usage across value chains of different companies
- Regulatory pressure lead to higher product stability enabling multiple usage
- Worldwide usage accepted
- Quick and complete specification of product possible

Market properties:

- Well established and specialized reconditioning industry
- Clear regulatory framework
- Well established and accepted return conditions

The way IBCs and drums are used today

A) Linear model:

IBCs and drums are filled with product -> product incl. packaging is sold and sent to customer -> emptied -> returned to packaging manufacturer for free for reconditioning

Problems:
- Addressing only one service provider for the collection leads to long transport routes
- Inefficient reconditioning methods of packaging

Solution:

A digital marketplace for used packaging that allows addressing the whole reconditioning industry with only a few mouse clicks. Therefore helping to find the buyer to whom the packaging has the highest value.

(Screenshots of Packwise Marketplace)

B) Closed Loop System

Filler keeps the ownership of packaging -> product and packaging is sent to customer -> emptied -> collected by one service partner -> reconditioned -> returned to filler

Problems:

Addressing only one service provider for the collection leads to long transport routes
Even uneconomical small loads will be collected
Highly complex system difficult to manage and monitor

Solution:

Packwise Services provides a web application that manages the loop system for the customer highly automated. For each collection request Packwise Services automatically checks if a sale to a buyer close by is more economical than returning the packaging to the sender. Therefore, guaranteeing the optimal solution for the filler, the buyer and the environment. Packwise Services provides full transparency on locations, costs and CO_2 footprint of the system in real time.

Summary

Q&A