

praxPACK

User-integrated development and testing of practical, resource-efficient reusable packaging solutions in the mail order business



Resource-efficient Circular Economy –
Innovative Product Cycles (ReziProK)

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Online shopping is growing steadily; an additional boost resulted from the corona pandemic. Online shopping products are mostly packed in disposable packaging, which is disposed of by the end consumer. This system leads to a relevant consumption of resources and corresponding amounts of waste. Practical reusable systems for packaging in online and mail-order trade – as conceived, developed and tested in praxPACK – can make a considerable contribution to reducing the packaging-related consumption of resources and the amount of waste.



Packaging material in online shopping

Online shopping in Germany and Europe has been showing continuous growth for years. Products in online trade are mostly packed in one-way shipping packaging, which is disposed of upon receipt of the goods. This linear packaging system leads to a high consumption of resources and corresponding amounts of waste. Current studies show that private end consumers in Germany produce over 750,000 tonnes of paper, cardboard or paperboard packaging and over 50,000 tonnes of plastic packaging per year. In 2020, there has been further significant growth due to the Corona pandemic. If the trend of steadily increasing resource consumption in this area is to be broken, innovative solutions at logistics system level and adjustments to business models will be required.

Here the “praxPACK” project comes in: The aim of the project is to contribute to the establishment and distribution of reusable systems in online trade in order to achieve a substantial reduction of packaging-related resource consumption – and associated waste quantities – in the medium term. For this purpose, practical reusable concepts in online trade are being developed and tested within the framework of the project under the leadership of the network coordinator Ökopol and comprehensive knowledge is being gained about how the business models of the actors involved in online trade need to be adapted in order to make the use of reusable systems economically viable.

This knowledge is prepared and made available in a systematic and application-oriented manner in order to support further responsible companies from online trade in testing and disseminating the use of reusable systems.

Cooperation laboratory and pilot project

The central element of praxPACK is a cooperation laboratory in which the project partners will develop concrete solution elements for the construction of practice-oriented and self-supporting reusable systems. The intensive exchange of experience and learning processes in the development of possible reusable concepts and necessary business model adaptations will play an important role in this process.

Based on the solution elements and reusable concepts developed jointly by the partners, reusable systems are being tested and further developed in concrete pilot projects at online retailers. These pilot projects will be conducted under the leadership of the three participating online retailers: Tchibo, OTTO and Avocadostore. The implementation of these pilot projects is supported by the expertise of the other partners involved: Cargo Plast, RePack (Plan B) and GVM. The Institute Ökopol is responsible for the coordination of the entire project.

First results

Between August and October 2020, Tchibo, OTTO and Avocadostore carried out a first pilot test in the use of reusable shipping bags in online trade. These three online retailers shipped around 14,000 reusable packaging bags as part of this test. Customer feedback from all three online retailers was overwhelmingly positive. The reusable packaging was consistently perceived as sustainable. Between 74% and 81% of the packaging has been returned by the customers up to now.

The main challenge is the additional cost of reusable systems compared to one-way packaging. It is particularly the return logistics that are a cost driver in this case.



Reusable packaging was tested in practice at Tchibo as well as at OTTO and the Avocadostore.

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Online toolbox and recommendations for action

The findings from the cooperation are made available via praxpack.de. This is intended to support interested online retailers in initiating and implementing a reusable system.

In addition, recommendations for action in terms of technical and sector policy will be derived. This includes the identification and analysis of existing obstacles for the broad establishment of reusable systems in online trade due to legal and sub-legal framework conditions and established industry standards of logistics service providers, the development of proposed solutions to overcome these obstacles and the derivation and coordination of recommendations. The addressees of these recommendations for action are the responsible departments in Germany and the EU as well as relevant industry committees.

Funding measure

Resource-efficient Circular Economy – Innovative Product Cycles (ReziProK)

As part of the FONA Field of action 6:
The circular economy – efficient use of raw materials, avoiding waste.

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Cover-Picture: Reusable systems instead of disposable packaging: “praxPACK” develops closed-loop solutions.

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“ReziProK” is part of the research concept “Resource-efficient Circular Economy” of the Federal Ministry of Education and Research (BMBF) as part of the FONA Field of action 6: “The circular economy – efficient use of raw materials, avoiding waste” and supports projects that develop business models, design concepts or digital technologies for closed product cycles.

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