

**Speaker:**

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**Title:**

Recycling PVC from Pharmaceutical Blister Packs: Developing a Collection System

**Abstract:**

This conference contribution presents the development and pilot implementation of a collection system for recycling PVC from pharmaceutical blister packs, building on the VinylPlus PharmaPack project. The study addresses current practices in hospital pharmacies that use the unit dose procedure and evaluates the feasibility of diverting this high-quality material stream into dedicated recycling channels. The unit dose procedure enables reliable emptying of blister packs, preventing the exposure of pharmaceutical ingredients to the environment, which may not be the case when they are disposed of with household waste.

A structured collection scheme was designed, including logistical arrangements for transport to the recycling partner and quality control measures to ensure material purity. In the ongoing pilot phase, eight hospital pharmacies are participating in the system and supplying post-consumer blister packs under real-world conditions. The collected waste stream is mechanically recycled, while the collection workflow is smoothly integrated into existing pharmaceutical processes. The project thus demonstrates the technical and organizational viability of a specialized collection system for pharmaceutical PVC and highlights its potential contribution to circular economy objectives and broader sustainability commitments under the VinylPlus framework.