

THE CIRCULAR POLYBAG

INDUSTRY-WIDE IMPLEMENTATION

THE PROBLEM

Approximately 180 billion polybags are produced every year to store, transport and protect garments, footwear and accessories. Existing recycled polybags mostly use pre-consumer off-cuts and shrink wrap waste, and currently this is not a fully circular solution as it depends on the sourcing of this high-quality waste. Resultantly roughly less than 15% of all polybags in circulation are collected for recycling*.

THE CIRCULAR POLYBAG PILOT: TRIALING A SOLUTION

In December 2019, Fashion for Good launched The Circular Polybag Pilot, which explored a solution aiming to reduce the use and impact of virgin polybags in the fashion industry.

Orchestrated by Fashion for Good in partnership with adidas, C&A, Kering, Otto Group and PVH Corp., with Cadel Deinking, an innovator from the Fashion for Good Accelerator Programme, the pilot was a first in the apparel industry to trial a truly circular solution for polybags produced at a quality/clarity acceptable to the industry and consumers.

Using post-consumer polybag waste, Cadel Deinking's innovation facilitates the creation of high quality, recycled content polybags; a solution that brings us closer to creating a truly closed loop system.

THE PILOT SUCCESS STORY

The Circular Polybag Pilot achieved three key goals:

1. The “bag-to-bag” concept is truly circular. Waste was collected from the brands and used as an input for Cadel Deinking's recycling process to produce polybags that met the Pilot stakeholder's specifications.

2. The polybags incorporated 100% recycled content: 80% post-consumer & 20% post-industrial.

3. Fast-track LCA conducted using the eco-cost methodology (Delft University of Technology methodology) indicated that circular polybags may have 1/5 the impact of virgin polybags.

CALL TO ACTION: SCALING THE PILOT

- Cadel Deinking sold their technology in: UK (Mainetti), USA, France, Italy & Brazil ('Deink Brazil')
- Mainetti launched Polyloop - a global Clear Polythene Recycling Process which enables Mainetti to provide a closed loop recycling system for all clear polythene sourcing requirements. Cadel Deinking technology was acquired as a part of the global solution
- A well organised collection system is essential to circular polybag implementation success and should be orchestrated as part of the process

KEY STATS

Brand stakeholders: adidas, C&A, Kering, Otto Group and PVH Corp.

Project Length & Geography: 12 months in Europe

Innovator: Spain-based innovator Cadel Deinking has developed a patented technology that is able to deink and remove adhesives from post-consumer polybag waste, producing high-quality Low-Density Polyethylene (LDPE) pellets which can be used to manufacture new polybags.

Press release & Report: [Press Release](#) | [Polybags in the Fashion Industry: Evaluating the Options](#)

CONTACT

Cadel Deinking: **Pepi Mayordomo** | pepi@gaviplas.es & **Rafael Garcia** | rgarciav@gaviplas.es

Mainetti: **Michael Hantke** | Head of EU Office | Michael.Hantke@mainetti.com

Fashion for Good: **Kathleen Rademan** | Innovation Platform Director | Kathleen.Rademan@fashionforgood.com

*An approximate figure derived from the EMF New Plastics Economy 2016