

Textile recycling in Europe: does that mean end of waste?

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Solely looking at the apparel industry, about 97% of the feedstock originates from virgin with only 1% being recycled in a closed-loop and a few percentages recycled feedstock derived from other industries. Globally, the majority of fibers used for textile industry are man-made with 55% being polyester and around 15-20% polyamide. Clothes became true fast moving consumer goods; they are easily accessible in great quantities, replaced frequently and ultimately end up piling up in landfills or incinerated for energy production across the EU, or being exported outside the EU under the excuse of being 'potential second hand clothes for developing countries'.

In this presentation, first, a detailed Material Flow Analysis of textiles is presented with a focus on Belgium. It includes collection, sorting, recycling, but also the destinations for export outside EU will be mapped together with the end-use in the receiving countries. After this broad MFA, the presentation will focus on the types of textiles and their chemical composition, including how this composition complicates recycling. This will be linked to the new initiatives from the European Commission to define End-of-Waste criteria for textiles. Finally, the presentation will deliver insights in the potential of different recycling technologies for different types of textile, including mechanical recycling, solvent based recycling and chemical recycling.