



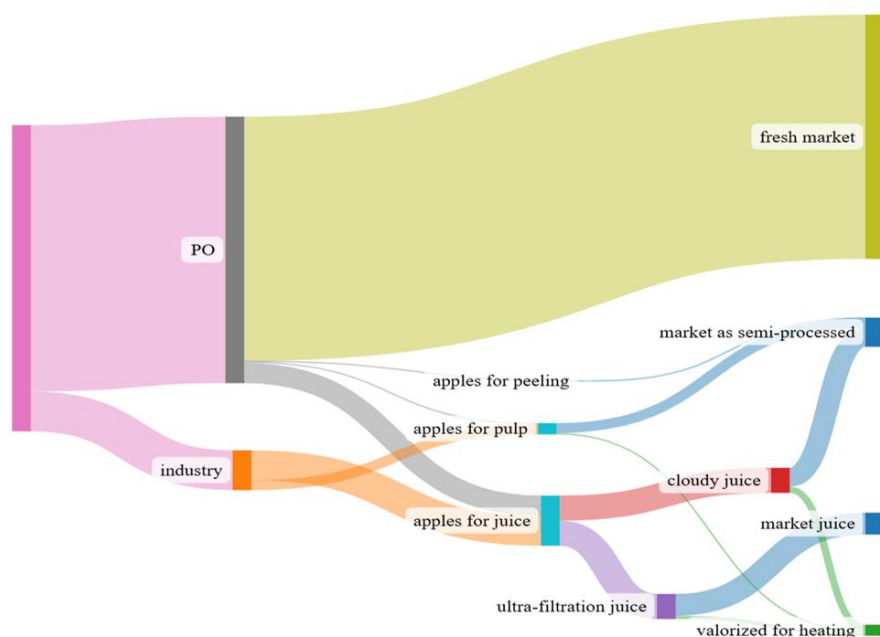
Practice Abstract #8:

A (Nearly) zero Waste supply chain: the case of apple in Northern Italy



WASTEWISE
Waste Avoidance Strategies for
Environmental Sustainability

The apple sector of Northern Italy (concentrated in the Trentino Alto-Adige region) represents one of the most organised and efficient fruit supply chains in Europe. Nearly all apples produced are valorised through differentiated market channels based on quality and size. Apples from this region are sold not only in the national market, but also in all the world! This area produces 900,000 t/year of apples, corresponding to 30-40% of the Italian production.



In Trentino Alto-Adige, the cooperation between actors of the apple supply chain, i.e. farmers, cooperatives, processors, and industries, achieves a **(nearly) zero waste supply chain!** Most apples are sold for fresh consumption but, even when they aren't, they are processed in food industries to produce juices or puree. During the process, all by-products from the transformation process are reused as biomass fuel for heating, resulting in near-zero waste! Additionally, products as apples, juice or puree can be stored, thus minimizing losses.

"The cooperation between actors achieves a (nearly) zero waste supply chain"

To study this supply chain, WASTEWISE researchers conducted an assessment between October and November 2025 at three companies of apple production and processing, located in the Trentino Alto-Adige area. The focus of this study was the post-harvest phase of the supply chain. In-depth interviews with key informants and quantitative data from the companies were recorded to effectively analyse the flow of apples from field to market, and the amount of waste. As a result, the apple supply chain that is built in Northern Italy is a near zero waste supply chain!

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