

New strategy for Multilayers packaging recycling

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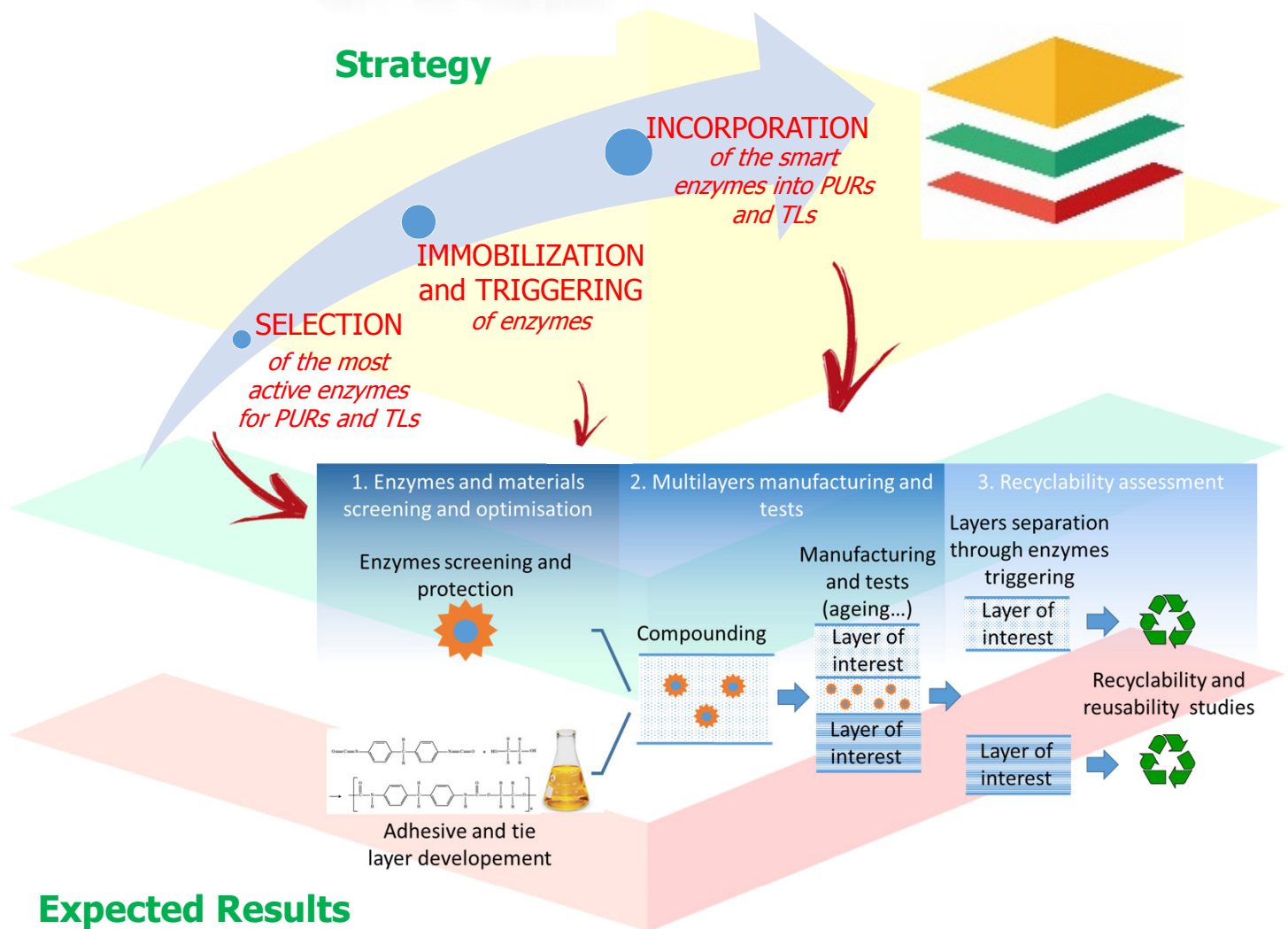
Background

Multi-layer packaging are widely used for food, beverages, cosmetics, etc. because they extend the lifetime of goods, helping to reduce food waste, but due the multi-material structure, these material are unrecyclable and currently 100% of multi-layer packaging is incinerated or landfilled.

Objective

TERMINUS addresses the challenge of unlocking the recycling and reuse of flexible multi-layer and multi-compound packaging through the design of new formulations with smart enzyme-containing adhesive or tie layer polymers. After a specific trigger, the enzyme will start degrading the polyurethane-based adhesive (PUR) or tie layer (TL), thus enabling the delamination of the different layers of packaging, which can then be recycled.

Strategy



Expected Results

- 15% improvement in economic efficiency of end-of-life management
- 80% reduction of landfilling for multi-layer plastic packaging
- 55% reduction of overall plastic landfilling
- 65% decrease in the overall CO₂ footprint