



**PUREsmart**

**PolyUrethane Recycling Towards  
a Smart Circular Economy**

## Deliverable

**D1.7 Demonstration scale synthesis (500 gram - 1kg) of two foam compatible TAD-indole based CAPU comonomers**

**WP1 – CAPU co-monomers**

### Project Information

Grant Agreement n°	814543
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## Publishable Summary

The PReSmart project targets innovative solutions for polyurethane foam recycling. With the Smart Design objectives, it is the aim to introduce innovative chemical building blocks (called CAPU comonomers) into polyurethane formulations that can substantially increase the intrinsic recyclability of these materials. In this deliverable, we report the first demonstrator-level synthesis of two such building blocks that were optimized for their compatibility with existing PU foam formulations. These monomers offer a drop-in solution for PU technologies that can improve their intrinsic recyclability potential. It is the first demonstration of the underlying chemistry at this scale level, taking the technology beyond its previous lab scale limitations.