

Furniture components recycling

Description

Circular processes for eco-designed bulky products to close the loop of composite materials in the automotive, furniture and building sectors by promoting greater re-use, upgrade, refurbishment and recycle.

Objectives

- To define and quantify potential environmental impacts caused by the design, repairing, remanufacturing and reusing process system proposed for furniture and building component solutions,
- To outline and optimise costs of the new circular economy models to enhance economic feasibility and improve competitiveness,
- To evaluate the social impacts and public receptivity for long-lasting, reusing and recycling of the new products components and the impact on the organisations and employees involved.

Activities

- Sustainability assessment:
 - Life-Cycle Assessment LCA,
 - Life-Cycle Costing LCC,
 - Social-economic assessment,
- Regulatory assessment.

Challenges

- Input data complex to collect
- Technical knowledge required
- Legal & legislation barriers
- Technology readiness level



Expected outcomes

- 75% material recovery target,
- 200M tonnes GHG saved,
- 90% reduction of non-renewable energy sources.

