





Epoxy bio composites

<p>Description</p> <p>Bio-based recyclable, reshapable and repairable (3R) epoxy resins and fibre-reinforced sustainable thermoset composites for automotive and construction sectors.</p>	<p>Objectives</p> <ul style="list-style-type: none"> To undertake environmental analysis of 3R bio-based epoxy resins and composites adapted to the manufacturing processes to identify better impacts compared to commercial counterparts, To measure the capital to use bio-based thermosets for recyclability and reshapability, to decide if the project is economically feasible, To identify social and economic benefits of applying composite-based elements to constitute inputs to stimulate preferences and to design a strategy to increase consumers & end-users acceptance.
<p>Activities</p> <ul style="list-style-type: none"> Sustainability assessment: <ul style="list-style-type: none"> – Life-Cycle Assessment LCA, – Life-Cycle Costing LCC, – Social Life-Cycle Assessment SLCA. 	<p>Challenges</p> <ul style="list-style-type: none"> Input data complex to collect  Technical knowledge required  Legal & legislation barriers  Technology readiness level 

Expected outcomes

- Usage of raw materials coming from renewable sources,
- Implementation of recycling and reuse of materials,
- Implementation of green chemistry principles.

