

# Epoxy bio composites

## Description

Bio-based recyclable, reshapable and repairable (3R) epoxy resins and fibre-reinforced sustainable thermoset composites for automotive and construction sectors.




## Objectives

- To undertake environmental analysis of textile reinforcing structures developed, to identify their impacts considering waste management and post consumption implications,
- To measure operational costs of elements developed, to optimize processes and to decide if the processes are 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.

## Activities

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

## Challenges

- 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.

