

Promoting a paradigm shift

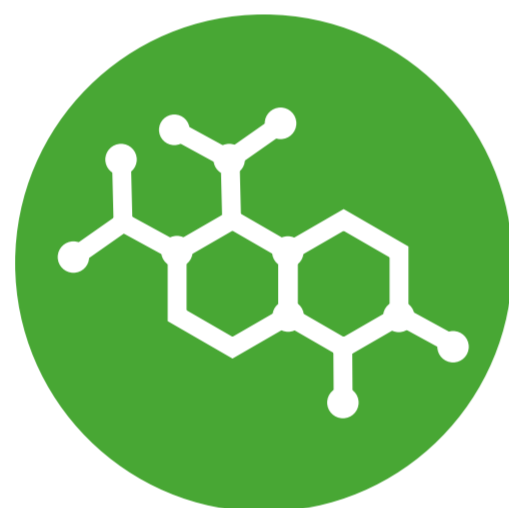
- in the way high-performance composites are manufactured and recycled
- from current linear composite value chains to circular ones

Objective

Reducing environmental impact of new lightweight high performance composites, not only during their production but also during their operational life and after achieving their final lifetime due to inherent recyclability properties, while providing improved mechanical properties, weight reduction and new functionalities

Approach

To achieve this objective, r-LightBioCom is following a multidisciplinary approach researching and developing innovative technologies in the areas:



MATERIALS

New advanced bio-based and recycled high-performance materials with inherent recyclability properties



PRODUCTION TECHNOLOGIES

Efficient processing techniques combined with recycling technologies



METHODS & TOOLS

for a standardised, holistic sustainable high-performance composite design, modelling and systematic optimisation

Validation



Results will be validated based on use cases in the sectors:

- Automotive: Spoiler (exterior), Trunk floor (interior)
- Infrastructure: Composite pultruded profiles for tunnel lining
- Aeronautics: Leading edge panel of a control surface

Consortium



Coordinated by AITEX, the project combines efforts of 15 multidisciplinary actors from research institutions, academia and industry from across Europe