


FURHY

 Fully recyclable hybrid
bio-composite for transport application

FURHY General presentation



Funded by
the European Union



FURHY PROJECT FACTSHEET



Full title: FULLY Recyclable HYbrid bio-composite for transport applications

Type of action: RIA

Project period: 42 months (from 01.07.2023 to 31.12.2026)

Funded call: HORIZON-CL4-2022-RESILIENCE-01

Grant agreement no: 101091828

Estimated budget: EUR 3.860.178.50

Total maximum grant amount: EUR 3.860.178.50

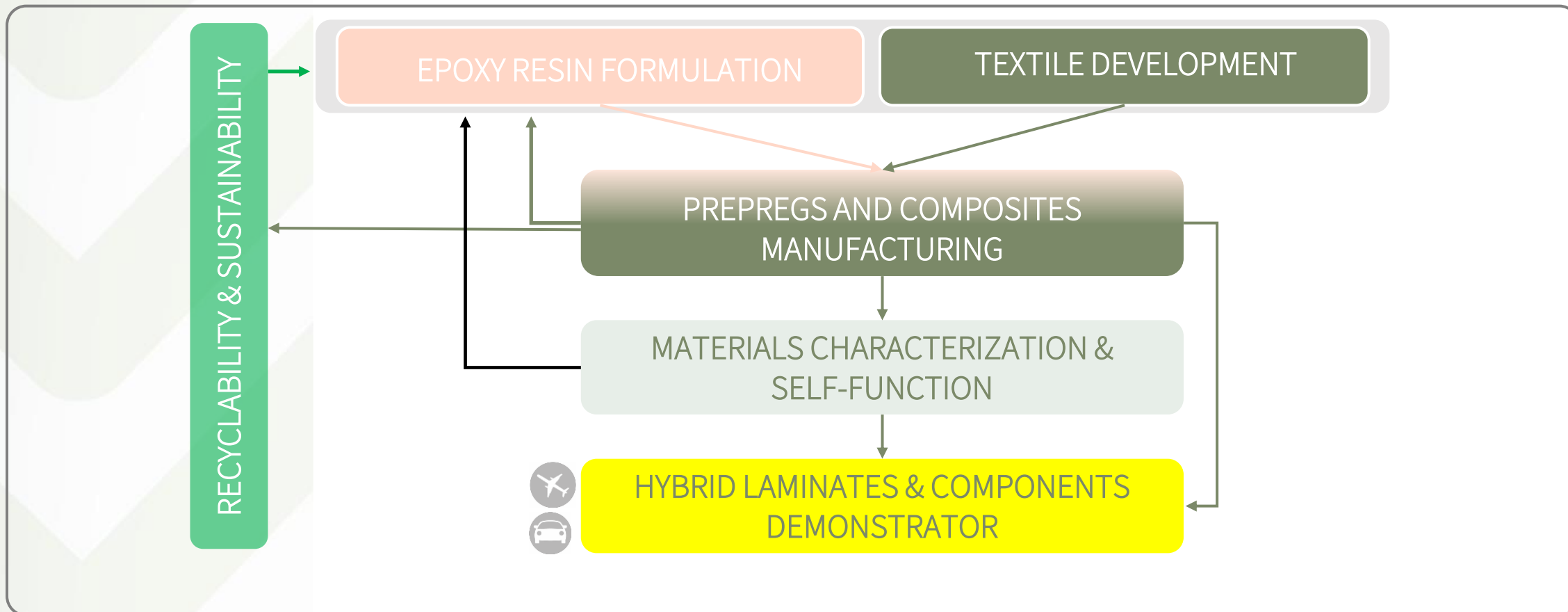
Project consortium: 9 partners from 5 countries (IT, ES, BE, TR, UK)

Partners: 1. CETMA-Coordinator (IT), 2. ONYRIQ LABS SL (ES), 3. LEONARDO SPA (IT), 4. RINA Consulting SPA (IT), 5. OLGUN CELIK SANAYI VE TICARET ANONIM SIRKETI (TR), 6. Università degli Studi di Salerno (IT), 7. NANO TECH SPA (IT), 8. CENTRE SCIENTIFIQUE & TECHNIQUE DEL'INDUSTRIE TEXTILE BELGE ASBL (BE), 9. GEN2CARBON LIMITED (UK)



Development of a new, bio-based, smart and completely recyclable composite material, obtained by fast and low energy consumption out-of-autoclave process. The matrix will be made by a new bio-based epoxy resin formulation filled by expanded graphite (EG), that will have a multiple role in the enhancement of both material and manufacturing process, providing smart-functions. A hybrid composite will be developed, by the use of hemp and recycled carbon fibers (rCFs), thus maximizing the environmental benefits with a life-cycle perspective.

CONCEPT



OBJECTIVES

OB1 To develop an optimized bio-based, fast curing, recyclable epoxy resin

OB2 To develop hybrid reinforcing fibres textiles

OB3 To develop an energy saving, high performance prepreg compression moulding (PCM)

OB4 To design and develop a set of new composites to tailor functionality for a range of possible applications.

OB5 To design components, 2 aeronautic and 2 automotive applications, with the new materials

OB6 To develop a new recycling technology suitable for the recovery of all the constituents of the composite structure

OB7

To demonstrate the validity of the proposed business case

IMP

Reduced cost for production of renewable lightweight materials, 25% lower cost than materials currently used

Lightweight products containing >50% sustainable, bio-based materials

Up to 30% lightweight potential through tailored functionality for a range of extreme environment

CO₂ emission reduction (LCA) of at least 20%

Business models and circular value chains for bio-based lightweight components

Industrial leadership and increased autonomy in key strategic value chains with security in raw materials supply

Consortium

Cooperation of 9 partners from 5 countries:

- LEs
- SMEs
- RTO
- University

Italy, Spain, Belgium, Turkey, UK





Contacts & Social media

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 www.furhy-project.eu

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Thank you!

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