Tool4Life
A Life Project

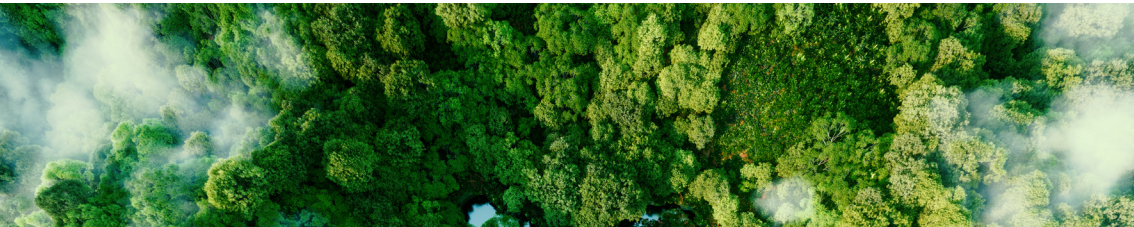
TOOLing materials, design, and process engineering, leading to improved sustainability and wider applications for the composites of tomorrow

WHY TOOL4LIFE

Composites are currently the materials of choice for any application where low weight, high mechanical performances and precise, near-net-shape production is required. The fields of application range from sporting goods to racing cars, aeronautics, space vectors and structures, windmills, boats, where the achievement of specific features is critical to improve the performances. However, the sustainability of these materials is still a major concern, as they are mainly composed of thermosetting materials, inherently non-recyclable and typically landfilled once their function is over.

MISSION

TOOL4LIFE was conceived to address the issues of sustainability in a fundamental pre-processing step for the composite manufacturing, actively contributing to the effective reduction of CO_2 emissions, energy savings, inferior landfilling, and the creation of healthier world for citizen.
The project aims to design and manufacture tooling completely recyclable in thermoplastic materials with hybrid technology (AM followed by milling and in-mould coating).

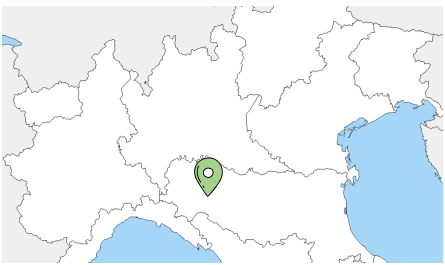


OBJECTIVES

- To develop, adapt and positively demonstrate a hybrid (Additive Manufacturing and Milling) technology for manufacturing tooling for composites with minimum dimension of 1000 x 2000 mm, capable of producing virtually any 3D surface
- To reduce up to the 80% the volume of material used
- To cut energy consumption by 33%
- To reach a target of 9,2% CO_2 equivalent emission
- To develop fully retrofittable and complete recyclable product

LOCATION

BERCELLA S.r.l. FACILITIES
Varano dè Melegari (Parma, Italy)



PROJECT PARTNERS

BERCELLA

MARBO
Chemical specialities for industry

CENTEXBEL

RINA

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