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Recycling thermoset-based composites presents both technological and economic challenges due to the degradation of fibre properties (such as length and strength) and energy-intensive processes in common methods like mechanical recycling and pyrolysis. Thermochemical recycling, which extracts reinforcing fibres from depolymerized matrices, offers an advanced solution that can recover high-quality fibres. However, additional processing is needed to use these fibres in new composites, particularly due to the removal of the fibre surface sizing, which impacts fibre-matrix compatibility, especially with glass fibres. This seminar addresses the re-sizing of recycled fibres, introduces novel micromechanical testing methods for evaluating the fibre-matrix interface, and presents case studies demonstrating the use of recovered fibres in industrial applications, while emphasizing the need for further improvements in the recycling process.

JANUARY 29TH 2025, H.14:30-16:30

IN SEMINAR ROOM (POLO FERRARI 2) AND ON ZOOM
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Insights in fibre reinforced composite recycling

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