RECOTRANS project will integrate unconventional manufacturing technologies such as (microwave) MW radiation and laser joining in current RTM and pultrusion production lines to be able to obtain cost-effective recyclable multi-material composites suitable for the transport sector at high production rates; 2 m/min for pultrusion and 2 min/cycle for RTM (up to 50% reduction in polymerization time), reducing cost and energy consumption compared to current composites materials.

> Production time reduction from 10 to 50% by means of the reduction in polymerization time.

Energy saving by at least **10**% because of the reduction in the temperature losses and the reduction of cycle time.





Cost reduction up to **35%** due to weight reductions which involve a reduction in operational costs, reduction in raw materials needed for joining metal structures and reduction in maintenance cost.

An intelligent process monitoring system will be integrated in production line for the efficient quality and process control of the innovative processes, including a maintenance predictive systems and securing in-process inspection of parts quality. All equipment will be selected from list of standard available industrial automation equipment for economic and practical reasons (fastest integration time with optimal costs). The integration of MW and laser technologies in current RTM and pultrusion processes, only involves auxiliary equipment allowing solutions available for SME uptake.

























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