

Evaluating circularity potential of various recycling technologies for biocomposites waste from the aircraft industry

THIS POSTER: Evaluation of technologies for biocomposite recycling and selection of 4 most promising recycling technologies

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Introduction & Problem

Aviation industry contributes ~2% of human-produced CO2 emissions. Biocomposites in the aircraft industry can provide significant environmental benefits compared to conventional materials and composites

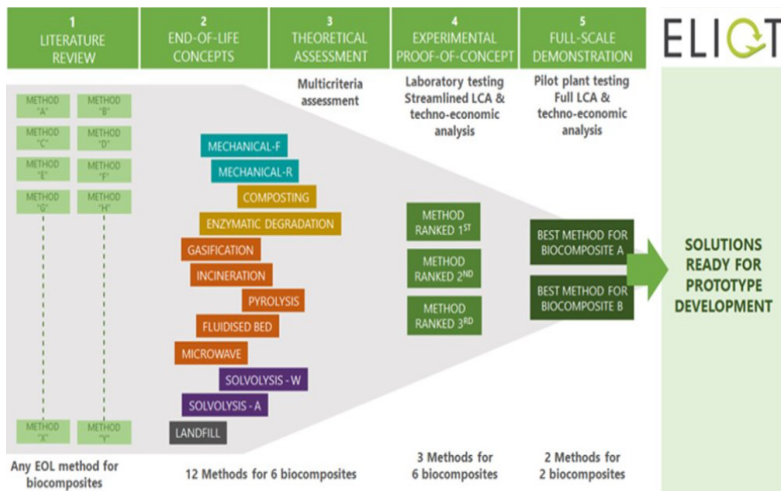
ISSUE: Non availability of technologies for recycling biocomposite

ELIOT Solution

Bridge the technology gap and develop innovative technologies at lab & pilot scale for recycling of biocomposite waste from the aircraft industry.

Perform a full-scale demonstration of two most promising recycling technologies for the biocomposite waste.

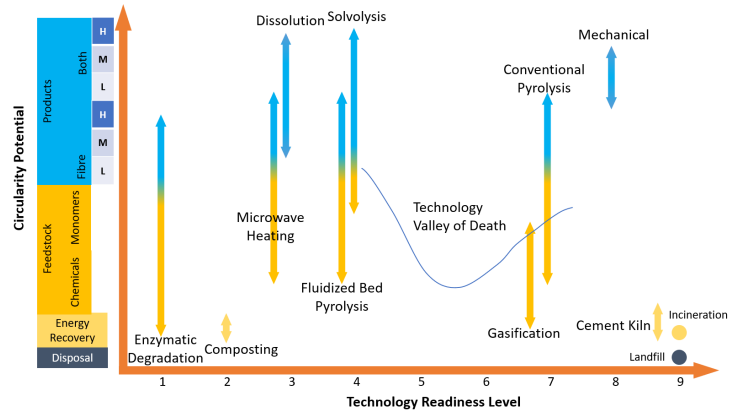
ELIOT Project Approach



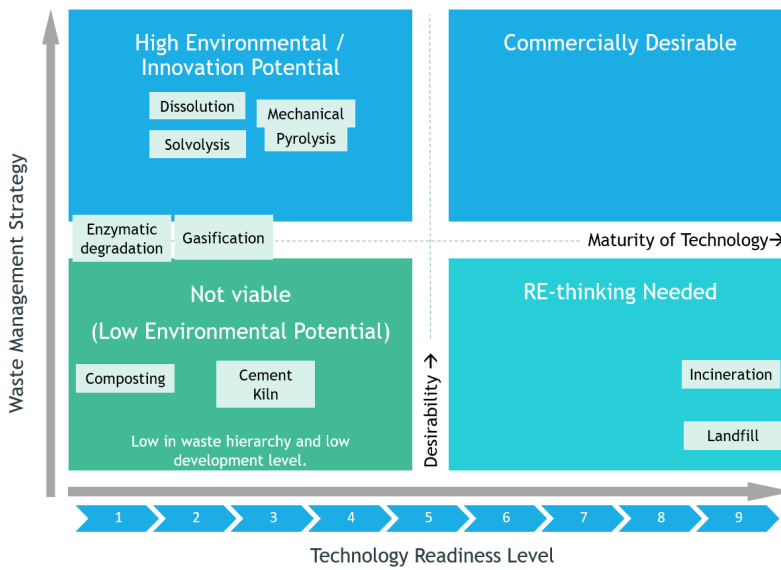
Key Assessment Parameters

- > Type and form of output products recovered
- > Potential applications of the output products
- > SWOT analysis
- > Technology readiness level (TRL)

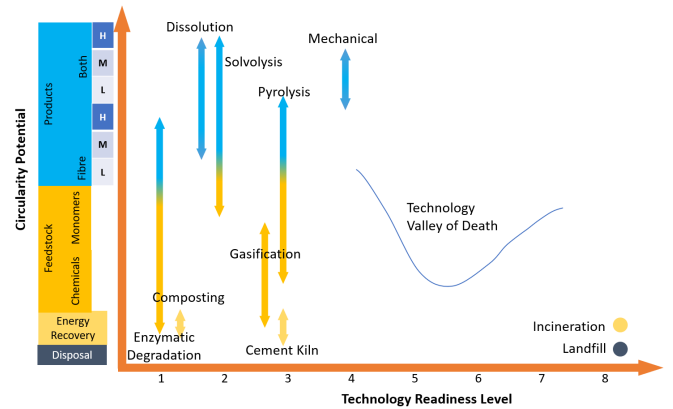
Circularity Potential Versus TRL for EoL Options for Composites



Technology Desirability Matrix



Circularity Potential Versus TRL for EoL Options for Biocomposites



CONCLUSIONS

Four technologies - Dissolution, Solvolysis, Pyrolysis and Mechanical recycling - ranked better on circularity potential analysis and technology desirability matrix. These four recycling technologies were selected for further investigation and technology development (TRL 4-5).