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Materials, Minerals
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Challenges in Life Cycle Assessment (LCA) for Composites

25 January 2024 | 13:00 – 14:00 (GMT)



Chair: Prof. John Summerscales *CEng, CEnv, CSci, FIMMM*
University of Plymouth, UK

Fibre-reinforced composites are essential to efficient transport and renewable energy systems. However, these materials do incur environmental burdens both in greenhouse gases (climate change) and the broader environment (loss of biodiversity). The route to minimise those impacts is Life Cycle Assessment (LCA). This seminar will review LCA and consider what needs to change to achieve robust assessments.



Challenges in Life Cycle Assessment for composites: LCI data quality assessment

Badr Moutik
University of Plymouth, UK

The assessment of environmental impacts of composites materials through Life Cycle Assessment (LCA) is increasingly crucial for sustainable development. Central to this is the integrity of Life Cycle Inventory (LCI) data. This presentation addresses the challenges in ensuring data quality within LCI, a key factor affecting the validity and the overall reliability of LCA studies for composites. The presentation delves into the assessment of data quality for major composite materials, drawing from principal sources in the field. The discussion extends to practical approaches aimed at refining data accuracy and enhancing the integrity of environmental impact evaluations for composites.