

Sustainability of bio-based products: linking Life Cycle Thinking with standards, certification and labelling schemes

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Products and processes using bio-based materials play an important role in the European economy. Bio-based materials may offer potential benefits in terms of reducing fossil fuel depletion and emission of greenhouse gases and creating employment opportunities in rural areas, among others. However, their sustainability depends on the geographical and technical characteristics of each biomass-to-product value chain, which may result in trade-offs between different aspects (e.g. land use, water consumption, deforestation).

Over the last two decades, efforts to develop multi-disciplinary approaches to assess the sustainability of bio-based products have yielded a broad range of case studies. One of the uses of such assessments could be the development of sustainability criteria and standards for environmental labelling and sustainable procurement. Nevertheless, no commonly agreed approaches exist and information available in the literature seems to have only limited application in supporting these activities and therefore promoting bio-based products and processes on the market.

This session aims at gathering contributions which show how Life Cycle Thinking can be used to feed into the development of sustainability criteria, the certification and ultimately the policy making for bio-based products and processes. Applications of interest could include, but are not limited to, lubricants, cosmetics, plastics, construction materials and textiles.