Bio-based materials within the circular economy: opportunities and challenges?

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In a circular society, material consumption should be a circular process where renewable resources and waste streams are used for new bio-based materials. In such a society, bio-based materials are also reused, repaired, recycled, and remanufactured. Not only choices on resources, but also other life cycle choices pertaining to circularity must be done based on technological, environmental and economic basis.

In this session we suggest presentations and discussions regarding LCM of bio-based materials. The session welcomes both theoretical and practical examples, relating to a variety of industrial sectors and bio-based materials, such as building materials, textiles, plastics, etc.

Examples of questions to address include: What are the opportunities of bio-based materials in a circular economy? What are the challenges of bio-based materials in a circular economy? What are the technological, environmental and economic perspectives?

The session relates to the conference title “Designing technologies, products and policies: from science to innovation” and the objectives: “...related to the development of industrial products”. By exploring bio-based materials and the development within the circular economy it connects to several of the conference themes, including foremost "LCM and its relevance on circular economy”, but also "Integration of LCM and product development" and "Decision making based on LCM".