

## **The ORIENTING project identifies promising methods and tools for Life Cycle**

### **Sustainability Assessment after a first phase of analysis and assessment**

The ORIENTING project has identified and selected promising methods and tools that will be used during the development of the future works towards the operationalisation of LCSA for products. Different methods and tools have been identified per sustainability topic: environmental, social, economic, including also material criticality, circularity and their integration. Each of these was evaluated against a set of criteria specifically developed and tailored to fit ORIENTING'S goal.

Regarding the environmental topic, the reference methodology chosen will be the Product Environmental Footprint (PEF). At the same time, the project will work to find a way of improving the assessment of land use impacts.

For the social topic, the most promising methods, to be used as a starting point in next phases, are the UNEP Guidelines for Social Life Cycle Assessment and the Handbook for Product Social Impact Assessment.

A hybrid and modular approach that considers different goals and scopes according to the user needs is instead the methodology proposed for the economic assessment.

The European Union's criticality assessment and the GeoPolRisk methods were identified as most promising methods on the material criticality topic. While for the circularity and integration topics, the analysis performed has not found yet a preferred methodology and approach that fits best for ORIENTING. Further analysis will be conducted in the next steps of the project to select useful methods.

All the analysis done were part of the first work package, led by Universiteit Gent, with the contribution of BASF, Ecoinnovazione, Ecoinvent, Eifer, Fraunhofer, PRé, Tecnalía, University for the Creative Arts and VTT Teknologian Tutkimuskeskus. The methods selected, and the ones that require further investigation, will be used in the second stage of the project (Work Package 2), that has already started (April 2021) and will develop a methodology and practical guidance for life cycle sustainability assessments of products to support decisions towards a circular economy.

#### **About ORIENTING project**

ORIENTING is a research project working to develop an operational methodology for product Life Cycle Sustainability Assessment (LCSA). Its main purpose is to integrate a life cycle approach that includes the analysis of environmental, social and economic impacts.

The methodology of this project will be demonstrated in 5 case studies to ensure its applicability in business practice. It will be applied to different products and will be validated by a broad community of stakeholders.

ORIENTING participants cover the entire value chain of life cycle evaluations and provide a critical mass of expertise and excellence in key areas. The partners are Aclima, Anthesis Lavola, BASF, Ecopreneur, Ecoinnovazione, Ecoinvent, Eifer, Fraunhofer, Leibniz, PRé, Stora Enso, Solana, Tecnalía, Ternua Group, Universiteit Gent, University for the Creative Arts and VTT Teknologian Tutkimuskeskus.

ORIENTING is funded under the European Union's Horizon 2020 Framework Programme, one of the biggest EU Research and Innovation programmes ever. The project started on the 1st of November 2020 and will run for 36 months with an overall budget of 5,997,339 euros.

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