

CALIMERO, a European project that will provide sustainable development guidelines for European bio-based industries

CALIMERO (Industry CAse studies anaLysis to IMprove EnviROnmental performance and sustainability of bio-based industrial processes) is a project funded by the European Union, whose goal is to **improve current Life Cycle Sustainability Assessment (LCSA) methodologies of certain sectors from bio-based industries** to identify and tackle most relevant sources of pollution. Current methods lack of some important factors which will be taken into account in order to have a broader picture of bio-based industries' sustainability performance. Improving current methodologies, then, is **key towards finding greener and more sustainable solutions**.

In the **current context of the European Union in which 51% of Greenhouse Gas (GHG) emissions are produced by the continent's industries**, it is urgent to find ways to reduce them and deal with all pollutant releases without causing any other significant harm to other sustainability areas. **Transitioning to a bioeconomy or a bio-based low-carbon economy with circular material flows** is a high political priority at all levels, being part of the European Union Industrial Policy Strategy, the European Green Deal, the 2030 Climate Target Plan and the Bioeconomy strategy.

It is also necessary to assess the environmental burdens shifting produced by this transition using reliable methodologies. The **PEF (Product Environmental Footprint)**, developed by the European Union to ensure harmonization among Life Cycle Assessment (LCA) methodologies for products, **presents relevant gaps for sustainability measurements for bio-based industrial processes: biodiversity and ecosystem services impacts assessment methodologies, relevant toxicity characterization factors** as well as **dynamic systems to account GHG emissions or methods to include circularity, criticality** and **socio-economic indicators**.

The presence of bio-based industries from the **construction, woodworking, textile, pulp & paper** and **biochemicals** sectors in the consortium provides a valuable perspective of the industries' needs towards sustainability. With them committed to this frame, **it is possible to reduce environmental impacts** by identifying the main sources of pollutants and analysing potential feasible solutions, considering additionally economic and social dimensions.

In consequence, the project aims to establish a frame for bio-based industries to evolve in all PEF indicators, plus those added by **CALIMERO**. The participation of the mentioned bio-based industries in the consortium will help identifying and proposing sectorial and cross-sectorial solutions to **tackle sustainability hotspots**. With these data and analysis in hand, specific guidelines and recommendations will be developed. The objective is to **contribute to a more sustainable economy and to spread these guidelines for other bio-based industries to follow the lead**.

The project is funded in the topic HORIZON-CL6-2021-ZEROPOLLUTION-01-06 by the European Research Executive Agency. It is a Research and Innovation Action project with a budget of 3,518,900.00 €, with a 100% of funding. **CALIMERO** is coordinated by Contactica and will last for three years.

The consortium is formed by 12 partners from 7 countries: **Contactica S.L** (Spain); **Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León** (CESEFOR) (Spain); **WELOOP** (France); **NEOVILI SAS** (France); **Association TECHTERA Auvergne Rhône Alpes** (France); **European Cellulose Insulation Association** (Belgium); **Svenska Miljoeinstitutet AB** (Sweden); **ESSITY Hygiene and Health AB** (Sweden); **BIM Kemi Sweden AB** (Sweden); **Danmarks Tekniske Universitet** (Denmark); **Luxembourg Institute of Science and Technology** (Luxembourg); **EREKS Blue Matters** (Turkey).

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