

---

# Development of a conceptual framework and its associated indicator to take the dissipation of non-energetic abiotic resources into account within Life Cycle Assessment (LCA)

Alexandre Charpentier Poncelet<sup>\*1,2</sup>, Philippe Loubet<sup>3</sup>, Bertrand Laratte<sup>4,5</sup>, Jacques Villeneuve<sup>6</sup>, Stephanie Muller<sup>6</sup>, and Guido Sonnemann<sup>1</sup>

<sup>1</sup>Institut des Sciences Moléculaires, CyVi group – Université de Bordeaux (Bordeaux, France) – France

<sup>2</sup>Arts et Métiers Paristech I2M, UMR 5295 – Arts et Métiers Paris Tech – France

<sup>3</sup>Institut des Sciences Moléculaires, CyVi group (ISM) – École Nationale Supérieure de Chimie et de Physique de Bordeaux (ENSCP) – Bâtiment A 12 351 cours de la Libération 33405 TALENCE CEDEX, France

<sup>4</sup>Arts et Métiers Paristech I2M, UMR 5295 (I2M) – Arts et Métiers Paris Tech – Esplanade des Arts et Métiers, 33405 Talence, France

<sup>5</sup>APESA – – Technopole Hélioparc, 2 Av. du Président Pierre Angot, 64053 PAU, France

<sup>6</sup>Bureau de Recherches Géologiques et Minières (BRGM) – BRGM – France

## Résumé

Life Cycle Assessment (LCA) is a tool allowing to assess environmental impacts of a product or service over its whole life cycle. It may serve as a support for product eco-design, policy-makers and decision-takers in governments and industries. LCA is relatively new, and methodological improvements are still required for it to be as robust as possible in order for it to fulfill its function and to be considered reliable and credible. A proper method to assess resource use in LCA has yet to be developed. In this regard, our work in progress is aiming at a better understanding and assessment of resource use impacts on Natural Resources Area of Protection in LCA with a dissipation approach.

---

\*Intervenant