

## Special Issue

# Multidisciplinary Applications of Life Cycle Assessment (LCA) in the Development, Optimization, and Validation of Sustainable Solutions

### Message from the Guest Editors

Sustainability is a core concept in today's world. Across all disciplines, it is essential to ensure that new solutions are environmentally, socially, and economically sustainable. However, following general sustainability criteria is not enough. Sustainability demands a holistic perspective, one that avoids solving one problem at the expense of creating another, and considers the interrelationships of systems. For example, removing pollutants from wastewater may reduce ecotoxicity; however, it may require energy-intensive processes that increase the global warming potential or lead to resource depletion. Similarly, switching to raw materials may shift burdens to other life cycle stages, such as end-of-life. Life Cycle Assessment (LCA) plays a vital role as a standardized method for evaluating and supporting sustainability claims. It helps identify trade-offs between impact categories and life cycle stages. The integration of LCA into research and development introduces analytical complexity [...] for further reading, please follow the link to the Special Issue Website at: [https://www.mdpi.com/journal/cleantechnol/special\\_issues/47AN08ES6K](https://www.mdpi.com/journal/cleantechnol/special_issues/47AN08ES6K)

### Guest Editors

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### Deadline for manuscript submissions

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## Clean Technologies

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## About the Journal

### Message from the Editor-in-Chief

*Clean Technologies* (ISSN 2571-8797) is an international, open access journal of novel scientific research on technology development aimed at reducing the environmental impact of human activities. *Clean Technologies* publishes reviews, regular research papers, communications and short notes which show a significant advance in the development of sustainable technology that reduces energy consumption, environmental pollution and/or the use of water and nonrenewable resources. Our aim is to encourage scientists to publish their experimental and theoretical research in detail as open access, serving a trustable base of advance for the scientific community.

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### Editor-in-Chief

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