

## Special Issue

# Application of Life Cycle Assessment (LCA) in Environmental Sustainability

### Message from the Guest Editor

Life Cycle Assessment (LCA) has become a crucial methodological framework for evaluating the environmental performance of technologies, processes, and systems across all stages of their life cycle. In the energy and industrial sectors, which are some of the major contributors to global environmental impacts, LCA provides essential insights to guide sustainable innovation and reduce resource consumption, emissions, and waste. This Special Issue invites original research, case studies, and methodological contributions that demonstrate the application of LCA in supporting the transition of energy production systems (including renewables, fossil fuels, and hybrid solutions) and industrial operations (such as manufacturing, materials processing, and infrastructure) towards the sustainable development goals. Studies addressing comparative assessments, sector-specific benchmarks, eco-design strategies, and the integration of LCA into policy or industrial decision making are particularly welcome. The objective is to highlight the role of LCA in advancing cleaner technologies, improving industrial efficiency, and fostering sustainability-driven transformation across critical sectors.

---

### Guest Editor

Dr. Andrea Mio

Department of Engineering and Architecture (DEA), University of Trieste, Piazzale Europa 1, 34127 Trieste, Italy

---

### Deadline for manuscript submissions

31 May 2026



## Clean Technologies

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.7  
CiteScore 8.3



[mdpi.com/si/251585](https://mdpi.com/si/251585)

*Clean Technologies*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
cleantechnol@mdpi.com

[mdpi.com/journal/  
cleantechnol](https://mdpi.com/journal/cleantechnol)





# Clean Technologies

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.7  
CiteScore 8.3



[mdpi.com/journal/  
cleantechnol](https://mdpi.com/journal/cleantechnol)



## 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.

---

### Editor-in-Chief

Prof. Dr. Patricia Luis Alconero

Materials & Process Engineering, UCLouvain, Place Sainte Barbe 2,  
1348 Louvain-la-Neuve, Belgium

---

### Author Benefits

#### High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, AGRIS, RePEc, and other databases.

#### Journal Rank:

JCR - Q2 (Environmental Sciences) / CiteScore - Q1  
(Environmental Science (miscellaneous))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 20 days after submission; acceptance to publication is undertaken in 10.6 days (median values for papers published in this journal in the second half of 2025).