Life Cycle Sustainability Analysis of Resource Recovery from Waste Management Systems in a Circular Economy Perspective

Message from the Guest Editors

The circular economy (CE) is attracting interest and attention from international science and policy communities to help maintaining products, components and materials at their highest levels of utility and value. In practice, CE is aimed at minimising waste and excessive resource utilisation by turning goods at the end of their lifespans, as well as the wastes from manufacturing and usage, into resources for the production of other commodities. Integrated strategies should be implemented for the prevention of waste, and for more sustainable manners of managing and recovering already generated waste. Affordable, effective and sustainable waste management is essential for sustainable development. For waste management systems to be sustainable, the environmental, economic and social aspects need to be computed. Methodologies like the life cycle sustainability assessment (LCSA) are powerful tools to address trade-offs.

This SI was designed to motivate prominent researchers to investigate this field and share their results. Doing so will enable the creation of a reliable and up-to-date picture of the state-of-the-art of LCSA applications for waste management systems in a CE context.