

# RECYCLING & WASTE MANAGEMENT

March 05-06, 2018 | London, UK

## Exploring new horizons and sustainable technologies for recycling and waste management

Philip Sinclair

Eco-Design and Policy, UK

The life cycle of recycling and waste management proceeds from arisings through separation, collection and transportation to recovery and treatment or disposal. Any such life cycle should be assessed as an aggregate, “a whole formed by combining several separate elements”. Life Cycle Assessment (LCA) can be used to assess environmental impacts, and Cost-Benefit Analysis (CBA) to analyse economic costs, but these are both sums of separate values. Such sums of separate values are not the same as the value of the aggregated whole. There is currently no method to aggregate qualitative elements. Assessing aggregated qualities implies expressing their values in terms of the qualities of a whole frame, a basic structure. The frame enables all aggregated representations of scientific knowledge to be expressed, and the assessment of sustainable technology using “ecoputation”, by maintaining the values of frame qualities at a given rate or level. The frame can include qualities, among others, that are variable, local, spatial and temporal;

in waste management, in which local and variable transport is significant, assessing these aggregates has historically been a failure of decision support. An experimental methodology and trialing program is therefore proposed, to assess and manage sustainable household waste in agreement with several waste authorities in a country to be determined. Each authority will develop a (qualitative-and-quantitative) narrative to express local practice. The narrative may include both variable and fixed qualities, to be used with a prototypical frame to generate alternative representations with the same value. By repeated use, a sustainable technology will be attained. The frame and method will be fully evaluated within a participatory process to be carried out with authorities, local waste management contractors and a representative sample of members of the public. The report will be open, transparent and agreed in consultation with all parties involved.

e: [philip@eco-designandpolicy.co.uk](mailto:philip@eco-designandpolicy.co.uk)