

O Waste, O Waste

O waste, O waste, wherefore art thou?
In circular dreams, we seek thy trace.
To quantify thy flow, we must avow
Life Cycle Assessment, a tool of grace.

With eyes upon hotspots, we aim to find
The impact lurking through each product's span.
To guide us, Ecoinvent 3.9 we bind,
For waste's score, a measure in our plan.

Yet, lacking methods, flexibility wanes,
Hazardous materials, pathways unknown.
To prioritise research, our effort strains,
Circularity's opportunities to own.

In Python's realm, a tool we create,
To aggregate waste's mass and volume's fate.

With flexible categories, waste we define,
End-of-Life handling, types to discern.
Through ecoinvent's embrace, our hope aligns,
To calculate footprint, lessons we learn.

Hotspots revealed, contributions clear,
Sankey diagrams and analysis guide.
In this crucial step, we persevere,
To evaluate circular potential's stride.

Ecoinvent's exchanges, waste they produce,
Categorized and mapped with great care.
As biosphere clones, their impact we deduce,
Matching footprints for products to compare.

Battery types, our test case shines,
Unveiling waste's hotspots, their origins known.
Uncertain EOL pathways, future designs,
Algorithm's prediction, a path to be shown.

O waste, O waste, we seek your grace,
To capture circularity's rightful place.