

WasteFootprint

a flexible tool for analysing
supply-chain waste flows in LCA

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Why?

To promote 'circularity' we must understand waste,
but supply-chain waste in LCA is not well under-
stood as most focus is on downstream waste

What?

We've written an extension to the brightway2 LCA
framework that calculates the waste footprint of a
product or service. It finds upstream waste flows
in a supply chain, categorises waste flows into 14
types and finds hotspots in waste generation.

How?

It explodes the database, identifies upstream waste
exchanges, edits them and writes custom Waste-
Footprint methods. The waste flows then become
pseudo-biosphere flows and the waste footprint can
be calculated as an LCIA method.

Challenges?

Data completeness: ca. 95% of waste has no EoL

Waste is not all the same: Sometimes 'inert-waste'
is just moving some rocks around

LCA system models: both attributional and conse-
quential models make a mess of this

What next?

The method will be refined and also extended with
case studies and ex-ante exploration.

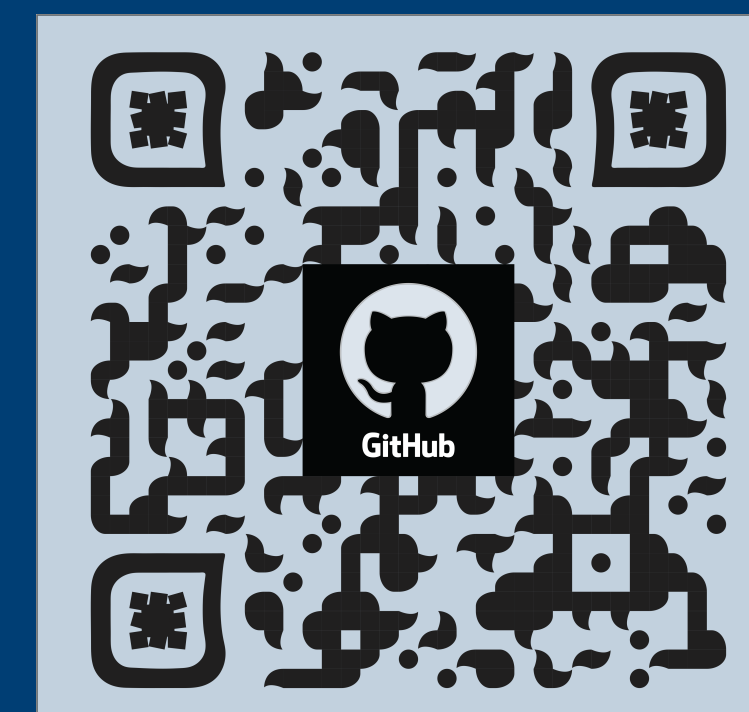
The WasteFootprint tool can be easily applied to
calculate the 'footprints' of other supply-chain flows
such as water, gas, and critical raw materials.

o waste! o waste, wherefore art thou?

*With code our guide,
we seek to find,
hidden hotspots,
where waste entwined.*

We created the WasteFootprint tool
to track supply-chain waste in LCA

View the WasteFootprint code
in our GitHub repository



Step by step through the code

