




T-ReX

software in  python™ building on the  framework — source code on  Stew-McD/T-reX



Stewart Charles McDowall — Elizabeth Lanphear — Stefano Cucurachi — Carlos Felipe Blanco

SIMPLIFYING FOOTPRINT TRACKING OF WASTE AND MATERIALS IN LIFE CYCLE ASSESSMENT (LCA)

Context

- Boost circular economy with 're-X' strategies
- Secure CRM supply for energy transition
- Track hidden waste and material flows
- Improve LCA waste assessment
- T-reX automates waste and material tracking.

BRIGHTWAY LCA PROJECT



LCA DATABASES



INCORPORATION OF FUTURE MODELS



DATABASE DECONSTRUCTION

SEARCH AND CATEGORISATION OF WASTE AND MATERIAL FLOWS

(OPTIONAL USER-SPECIFIC CONFIGURATION)



ANALYSIS

FOOTPRINT CALCULATIONS

T-REX PROJECT IN BRIGHTWAY

CREATION OF 'PSEUDO-BIOSPHERE' EXCHANGES AND METHODS

Outcomes

- Adapted Brightway databases for inventory tracking.
- T-reX streamlines footprint calculations.
- Promotes re-X & supply chain visibility in LCA.
- Li-ion case study reveals T-reX's utility.
- Case study critiques carbon capture focus over waste recovery solutions.

Methodology of the T-reX software for LCA