

- Technical Review Statement -

**Oregon Department of Environmental Quality's Waste Impact
Calculator (WIC)**

Commissioned by: Oregon Department of Environmental Quality (ODEQ)

Conducted by: Peter Canepa – ODEQ
Martin Brown – ODEQ
Jordan Palmeri – ODEQ

Reviewer: Dr. Christoph Koffler – Sphera

References: ISO 14044:2006 – Environmental Management – Life Cycle
Assessment – Requirements and Guidelines

ISO/TS 14071:2014 — Environmental management — Life cycle
assessment — Critical review processes and reviewer competencies:
Additional requirements and guidelines to ISO 14044:2006

Scope of the Technical Review

The scope of this review was not a critical review to confirm full ISO conformance, but a technical review to assess whether:

- the methods used to carry out the LCA are scientifically and technically valid,
- the data used are appropriate and reasonable in relation to the goal of the study,
- the interpretations reflect the limitations identified and the goal of the study, and
- the study report is transparent and consistent.

As the study is not intended to support comparative assertions intended to be disclosed to the public, the review was performed by a single independent expert following ISO 14044:2006, section 6.2.

This review statement is only valid for the specific report titled “Technical overview of the Waste Impact Calculator”, dated June 1st, 2021, and release 1.0 of the WIC tool itself. Any future changes to these are not covered.

The review was performed on the above document, supporting information, and the GaBi software models underlying the WIC tool.

Critical Review process

The review was conducted by exchanging comments and responses using an Excel spreadsheet based on Annex A of ISO/TS 14071:2014.

The critical review was carried out between September 2020 (online kick-off meeting) and June 2021 (delivery of the final review statement). There were two formal rounds of comments on draft versions of the technical overview document and the WIC model, online meetings to discuss and clarify those comments, as well as several email conversations in-between. A copy of the final review report containing all written comments and responses has been provided to the study commissioner along with this review statement and shall be made available to third parties upon request.

The overall review was conducted in an equitable and constructive manner. The reviewer would like to highlight the good and constructive collaboration with the authors of the WIC tool. All comments were addressed, and all open issues resolved. There were no dissenting opinions held by any of the involved parties upon finalization of the review.

General evaluation

The study is well scoped to support the goal of comparing the environmental performance of different waste management options using generic or average inventory data to be combined with primary data on waste masses. Such a proxy approach is deemed sufficiently representative and accurate to allow for meaningful conclusions. The model shows a high level of technical knowledge and methodological proficiency.

Improvement opportunities

Future versions of the WIC tool may benefit from the following:

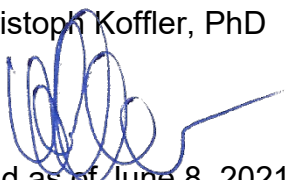
- Replacing current proxy datasets with better matching inventories, as available
- Replacing assumptions with empirical data, as available
- Revisiting the role of the use phase for the decision contexts that the WIC tool is applied to for certain waste streams (e.g., electronics) and whether reasonable estimates can be offered to those users that may want to include them.
- Refining the functional unit, should the above system boundary expansion be implemented, such that it is conformant with the definition of a functional unit pursuant to ISO 14044.

Conclusion

Based on the final version of the technical overview document and the WIC software model, it can be concluded that the methods used to create the WIC tool are scientifically and technically valid, that the data used are appropriate and reasonable in relation to the goal of the study, and that the interpretations reflect the limitations identified and the goal of the study. The study documentation is considered sufficiently transparent and consistent.

The reviewer signs this review statement as an individual expert. This signature does not imply an endorsement of the study's scope or results by the affiliated organization.

Christoph Koffler, PhD



Valid as of June 8, 2021