

**The U.S. LCI Database –
Moving Toward Full LCI Data by Material and Product**

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The U.S. LCI database project fills a critical need to make LCI data available for use by the public. The critical aspects of this database presented in another paper at this conference are:

A common protocol for all data inputs

Unit process data presented in a transparent way and fully documented as to source, age, primary or secondary sources, etc.

A format based on EcoSpold that makes the data consistent with international LCA/LCI databases

In the first years of this project the objective is to populate the LCI database with as much unit process data as can be submitted based on funding. The initial data priority of the Athena International team is a fuels and energy database plus basic materials manufacture - steel, wood, plastics, aluminum, etc.

At this stage the U.S. LCI database while publicly available will be usable principally for LCI/LCA practitioners or others knowledgeable enough to build complete process trees without specific guidance within the database users manual.

The purpose of this paper is to present an overview of how the U.S. LCI database can become more accessible and usable to non LCI/LCA practitioners by developing full process trees within the database itself.

The paper will present a vision of the ultimate goals that might be reached to make the U.S. LCI database usable to almost anyone namely cradle to grave process trees for all activities including products, their use, and end of life disposition.

Currently there is privately funded work underway that will result in both unit process data and process trees for about seventeen plastic resins e.g., HDPE, PET, LDPE, etc. What this privately funded work will do is to create an input to the U.S. LCI database that meets the requirement for unit process data, but that also creates the complete cradle to resin process tree for each resin in a detailed and "rolled up" format.

Finally, the paper will discuss the goal of adding product use and end of life considerations. Ultimately this should be the goal so that companies, organizations, practitioners, and others can build alternative scenarios for product design and sustainability considerations.