

Project idea:

## A conceptual LCA model for Industrial Symbiosis

Life Cycle Assessment (LCA) is a well-known method but complicated to apply to a growing ecosystem of production sites. A simplified approach was designed and used based on data from existing industrial synergies (exchange of residual streams) in the Kalundborg Symbiosis (KS), but this approach has now become insufficient. An increase in production complexity and number of production sites requires continuous efforts to further optimize resource consumption and communication how we decouple production from resource consumption. Sustainable supplies of renewable resources are adding the need for additional KPI's, such as water, renewable energy, and secondary resources.

We would like to explore the opportunity to design and construct a generic LCA model for industrial symbiosis, representing an ecosystem of production sites.

- Evaluate the current LCA model and the data collection scheme
- Help define relevant KPI's based on a circular approach to production
- Help develop and design secure web-based data collection schemes
- Plan, design and build a conceptual model for Industrial Symbiosis

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*The present proposal from the company is an invitation to collaboration. The project will be planned, scoped and modified in close collaboration with the university supervisor in order to get the best possible project. The formal application procedure (and application deadline) for a Helix Lab Fellowship must be followed. All applications will be evaluated by the Helix Lab Board before a Fellowship may be given. Read more on our web-site, [Helixlab.dk](http://Helixlab.dk)*