



3 key aspects to make LCA a success

Case study of the LCA of Veolia's bottom ash recycling treatment

CEWEP Residues Conference, 25/09/2024



Agenda

Why an LCA?

3 key aspects to make LCA a success

Conclusion

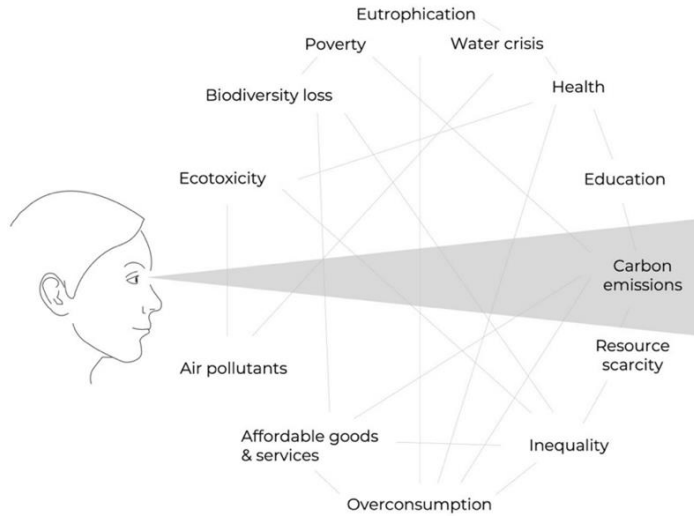


Why a multi-indicator analysis?

WHY?

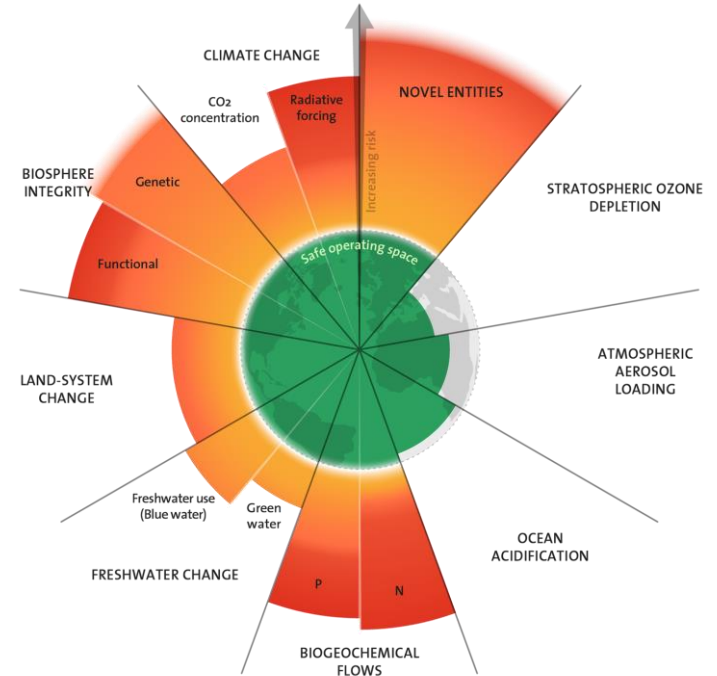
There is more than CO2 and climate change.

Carbon Tunnel Vision



Graphic by Jan Konietzko

Planetary boundaries

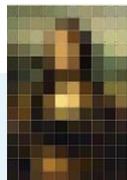


Sustainability transition

3 key aspects

1. Data quality

The higher the quality of the data is, the more reliable the results are.



**Low quality:
Secondary data**



**Increased granularity:
Primary data**



**Best practice:
Supplier-specific data**

**Average downstream
treatment of recovered metals
(proxy found in the literature)**

**Quantity of recovered metals
per ton of bottom ash and
treatment**

Umicore specific LCA

No primary data is available so
secondary data is found in the
literature

More accurate but impossible to
differentiate between two suppliers

Supplier-specific environmental
impact per kg of non-ferrous metals
recovered from bottom ash

Sufficient to assess a first order of
magnitude but low reliability

**Low granularity, High
uncertainty**

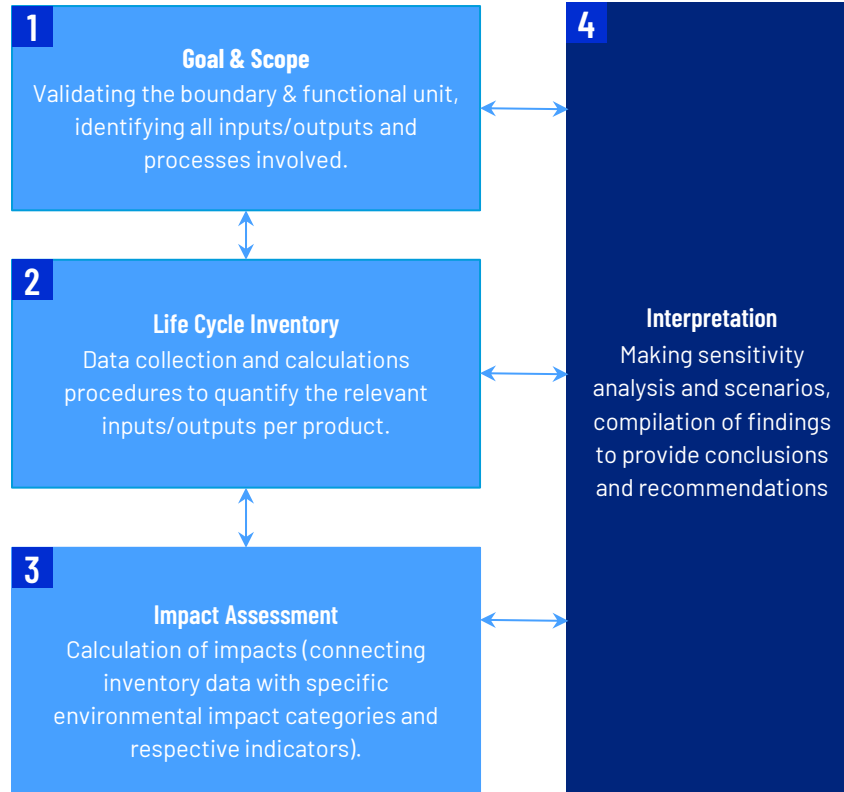
**Medium granularity, Medium
uncertainty**

**High granularity, Low
uncertainty**

Example
based on
Veolia's case
study

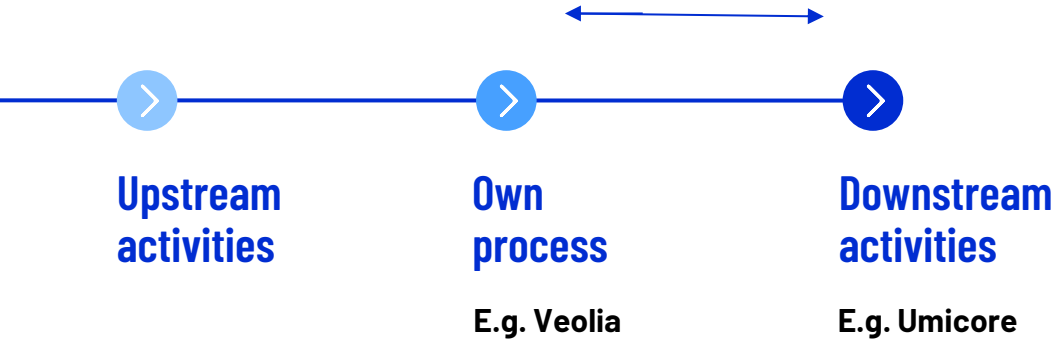
2. Iteration

LCA is an iterative process and it is a snapshot in time.



3. Collaboration in the value chain

Collaboration in the value chain is key to improve data quality.



Your LCA results can help to improve your supplier/client's LCA and vice versa. LCA results sharing increase trust among tiers, transparency while protecting confidentiality.

Conclusion

A person is seen from behind, climbing a steep, snow-covered mountain slope. They are leaving a trail of footprints in the snow. The sky is clear and blue. The overall scene conveys a sense of a long, challenging journey.

// Data quality, iteration and collaboration

are 3 key aspects to make LCA a success in your sustainability journey.

Thank you



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