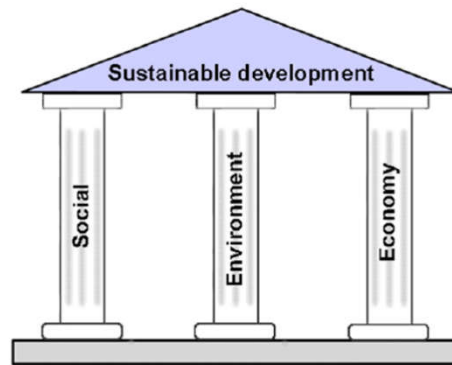


S-LCA: What for?



A step further:

- Need for **holistic assessment**: reduce environmental degradation, prevent negative social impacts and increase social and economic benefits



- Apply Life Cycle Thinking



Multicriteria analysis: Advantages



2

- Consistent framework for the three methodology
- Sharing main assumptions and hypothesis
- Common goals and scopes

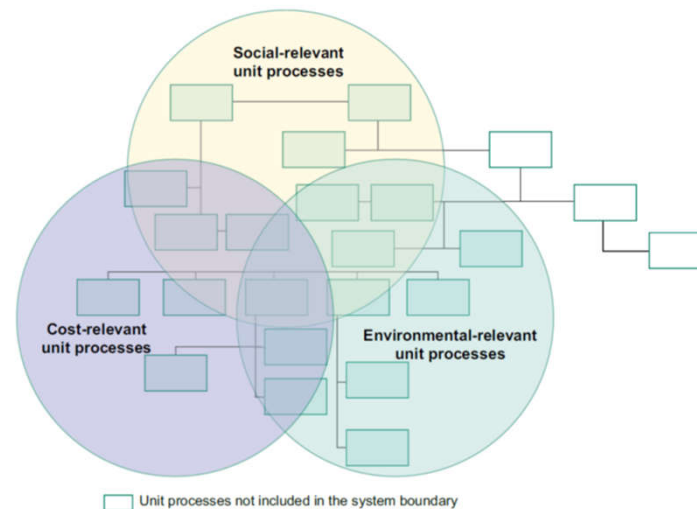
Multicriteria analysis: Challenges



3

Inventory

- Environmental, economic and social data collection
- Stakeholders identification
- System boundaries
- Different cut-off rules



Multicriteria analysis: Challenges



4

Impact assessment: to aggregate or not to aggregate ?

- Aggregation of the impact categories for each analysis ?
- Common weighting factor ?
- Aggregation of all results ?

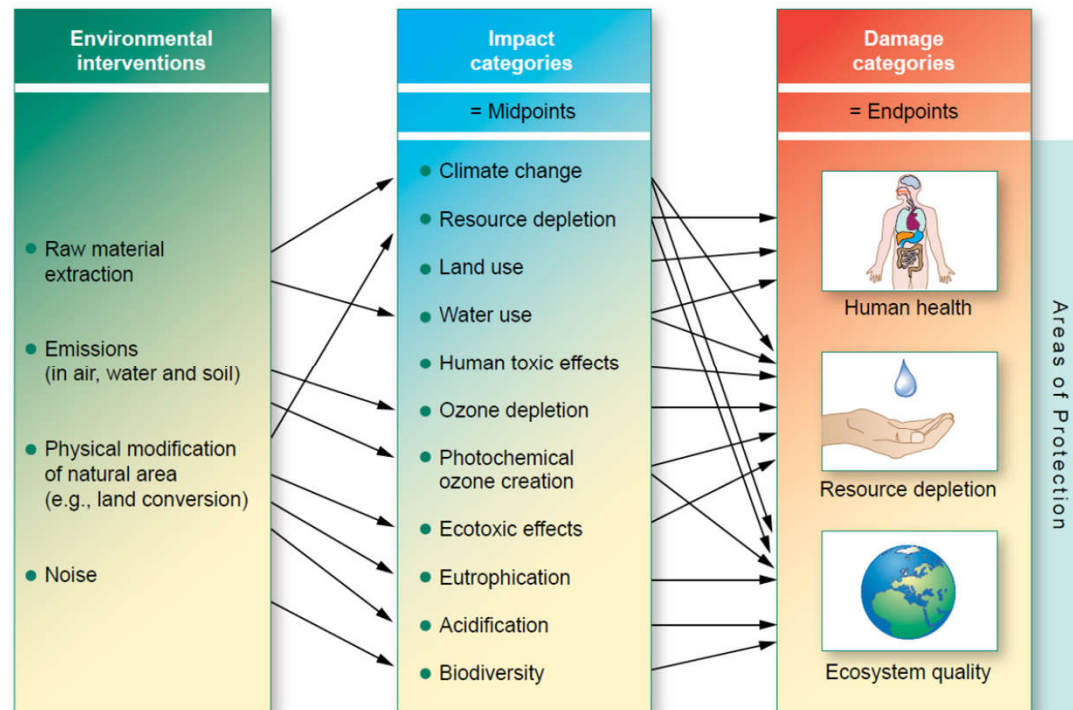


Multicriteria analysis: Challenges



5

Environmental LCA: The value of aggregation

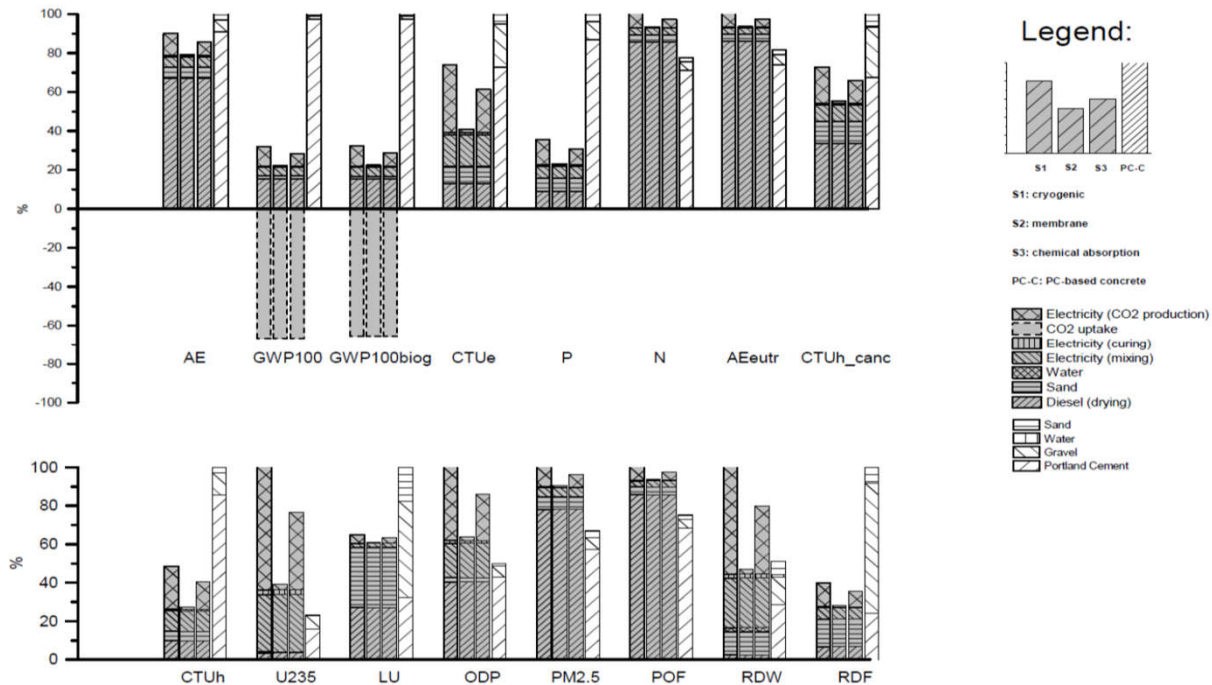


Multicriteria analysis: Challenges



6

Environmental LCA: The value of aggregation

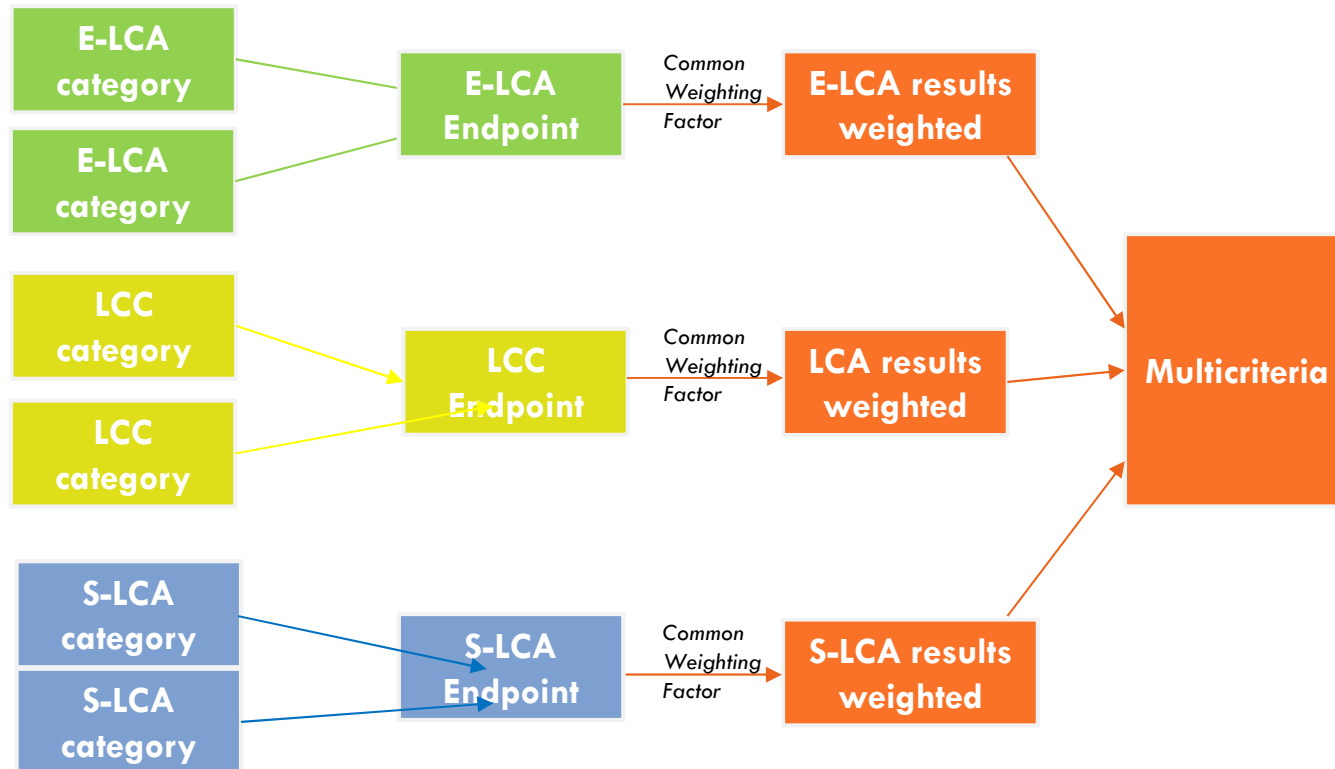


Multicriteria analysis: Challenges



7

Different levels of aggregation



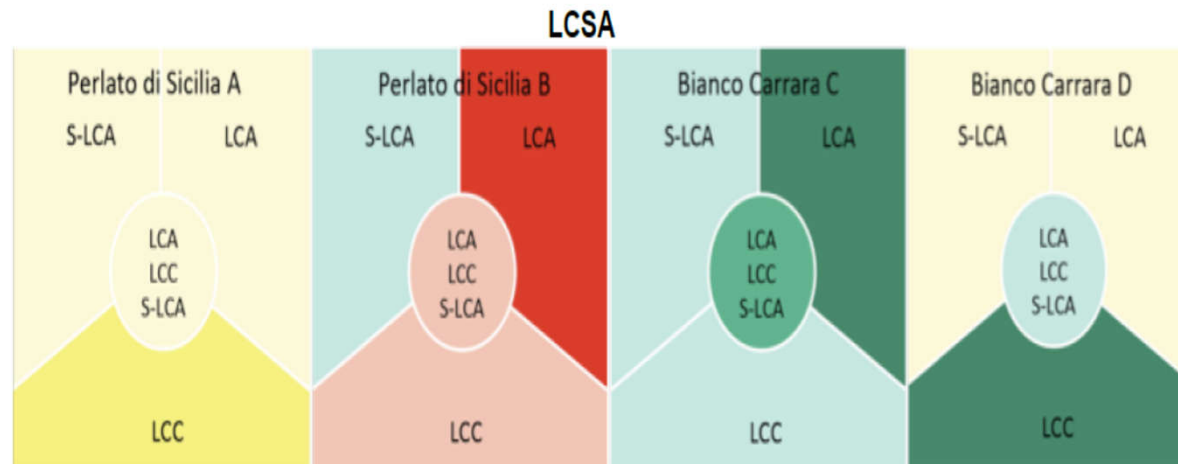
Multicriteria analysis: Challenges



8

Aggregation: any alternative?

- Evaluating the trade-off between economic benefits and social and environmental burdens



Presentation of LCSA results for comparison of marble slabs production (Capitano et al. 2011)



Beyond an equivalent modelling structure

“E-LCA, LCC and S-LCA represent different ways of extracting indicators from the same system”

Heijungs, Huppes and Guinée, 2010