



System boundaries for LCA of design options

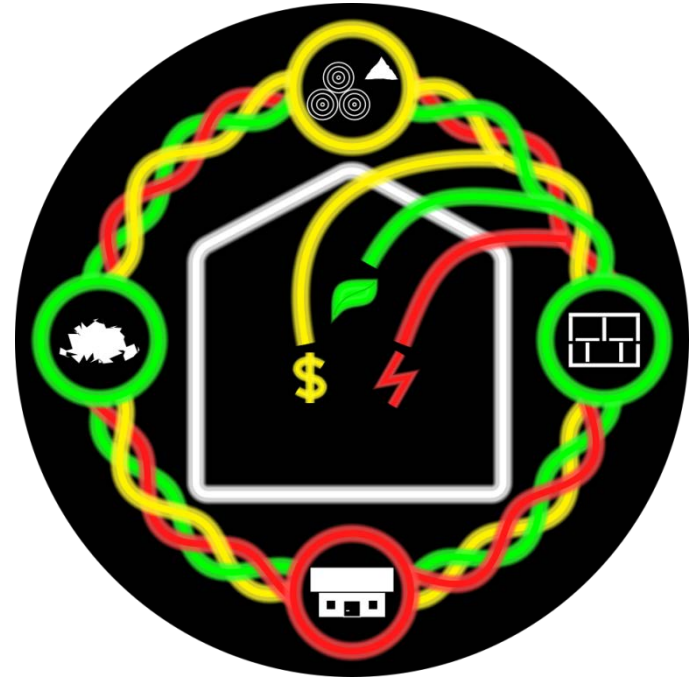
Peter Ylmén, SP

2016-10-04





- Create a tool with optimization methods for lowering environmental impact of buildings regarding material and energy, considering economic aspects.
- Provide examples of key factors for common solutions on the market regarding energy, environmental impact and economy





Project members



Work group

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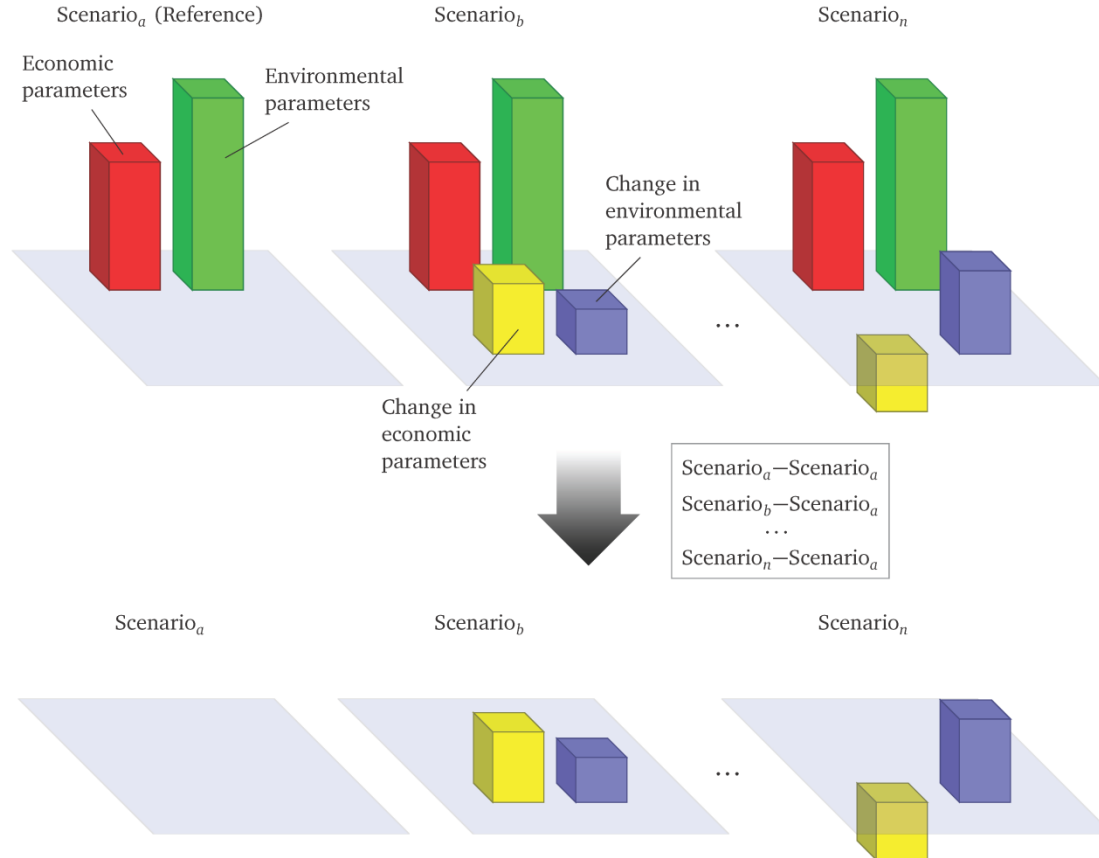
System boundary

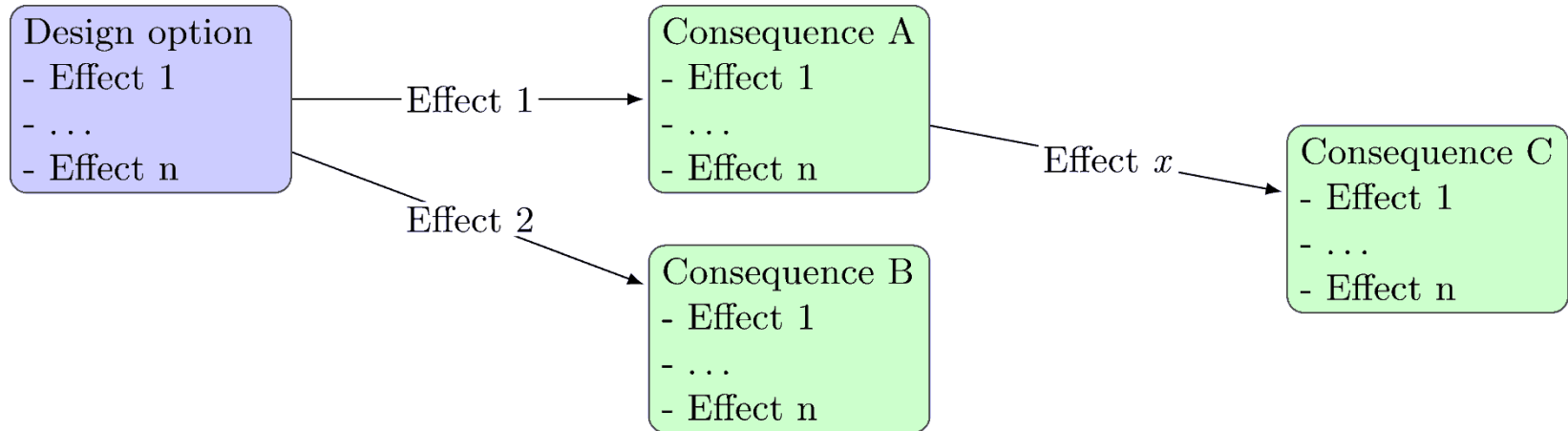
Purpose of the case study



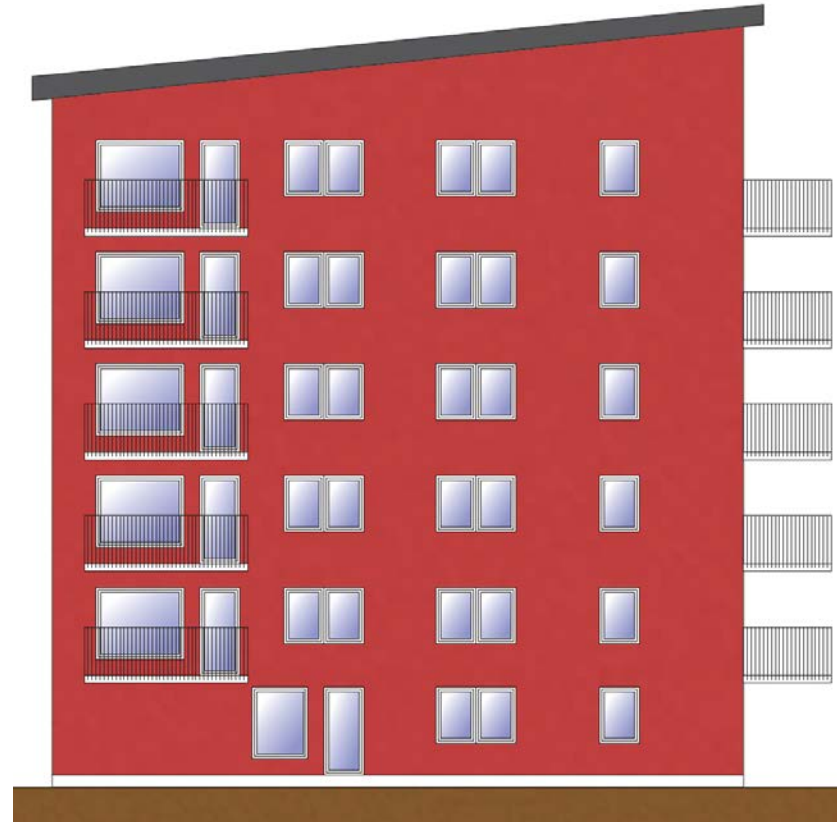
- Shows the importance to consider (unforeseen) consequences of design options.
- Proposes a method (ECE) how to handle it in a systematic and consistent way.
- Shows some possible consequences for increased external wall insulation.

Comparing LCA

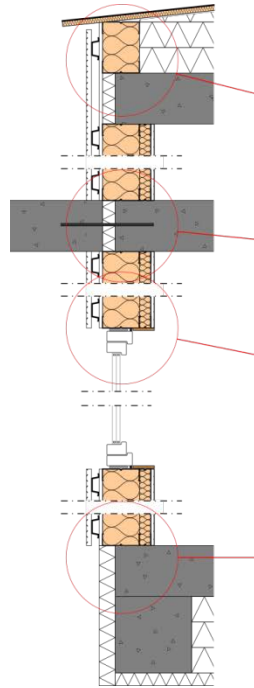




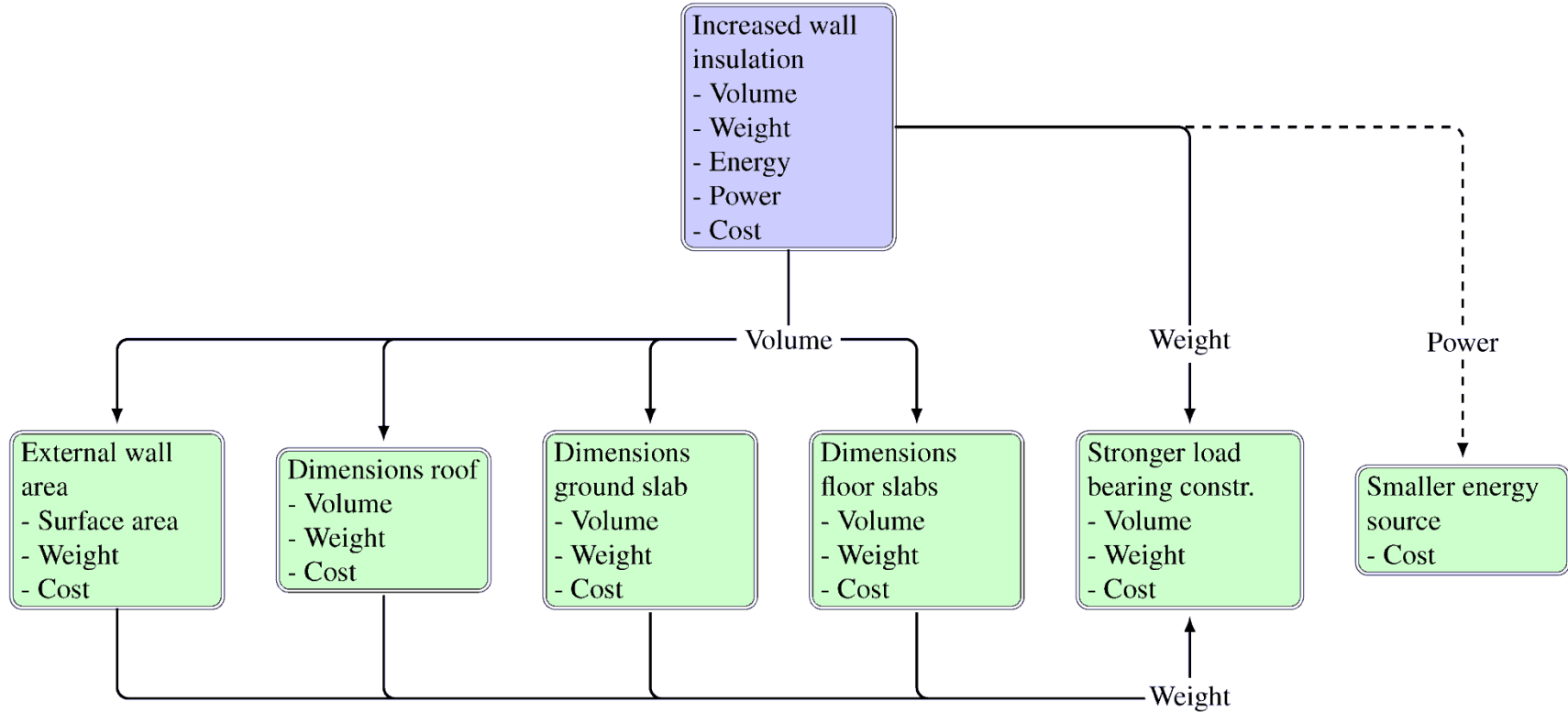
The building



The construction



Final system for the case study



System boundaries are unique for each case



Depends for example on:

- Functional unit
- Site location
- Construction type
- Installations
- Local regulations and infrastructure



Thank you!

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