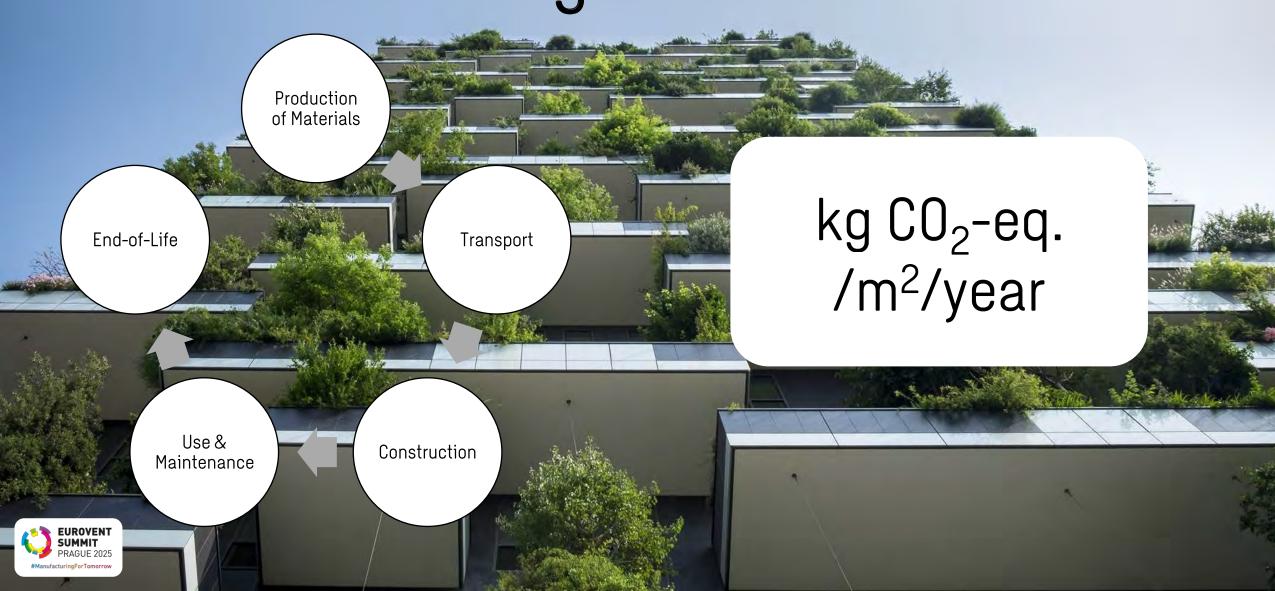
Preserving the complexity of EPD's in a building-LCA context

Asger Wendt Karl
Senior Sustainability Specialist
Sweco



LCA at the Building Level



EPD's and Building-level-LCA relationship

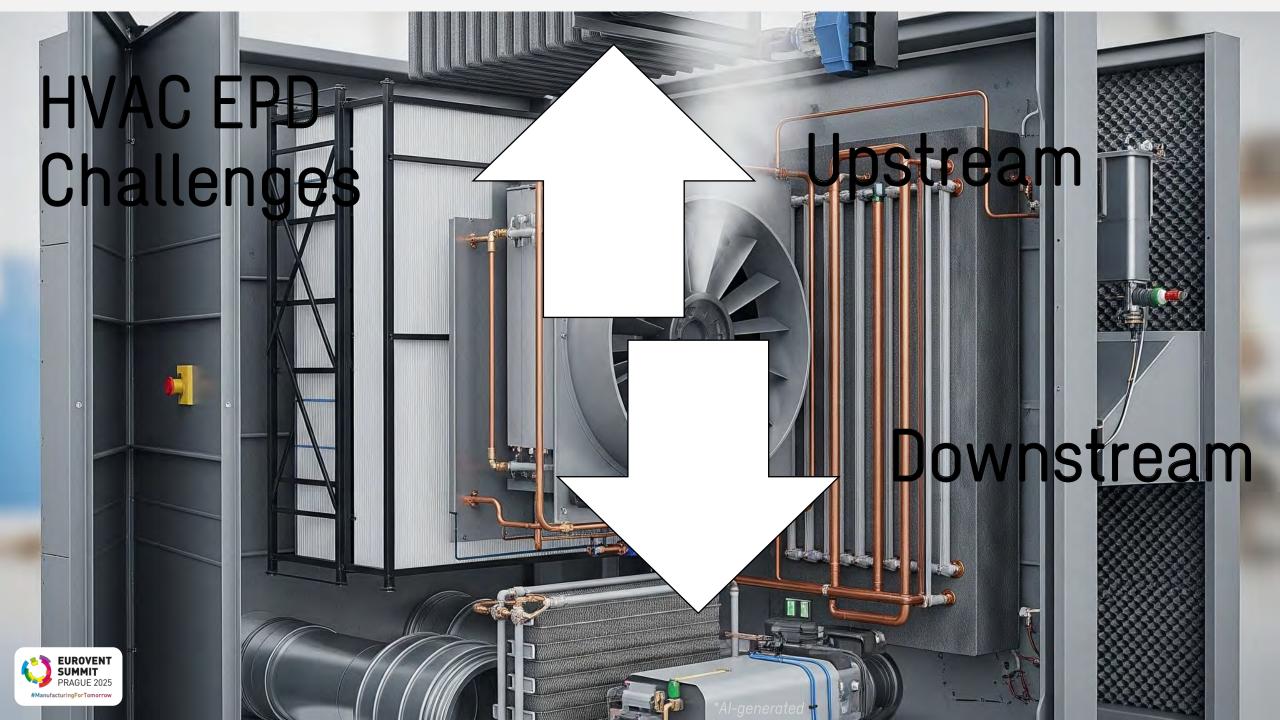
Specific EPD's

Industry data

Generic data







Current practice on HVAC in building LCA: How much air?









From Generic to Specific – Data and Procedures

Generic data

- Probably Inaccurate
- Not representative of actual scenario

Industry Averages

- Represents the actual industry
- Limited design choices
- Nuances not included

Specific data

- Competitive performance
- Improved accuracy
- Design and optimization matters

Generic Procedures

- Potentially Inaccurate
- Quickly performed
- Low requirements

Rules of Thumb

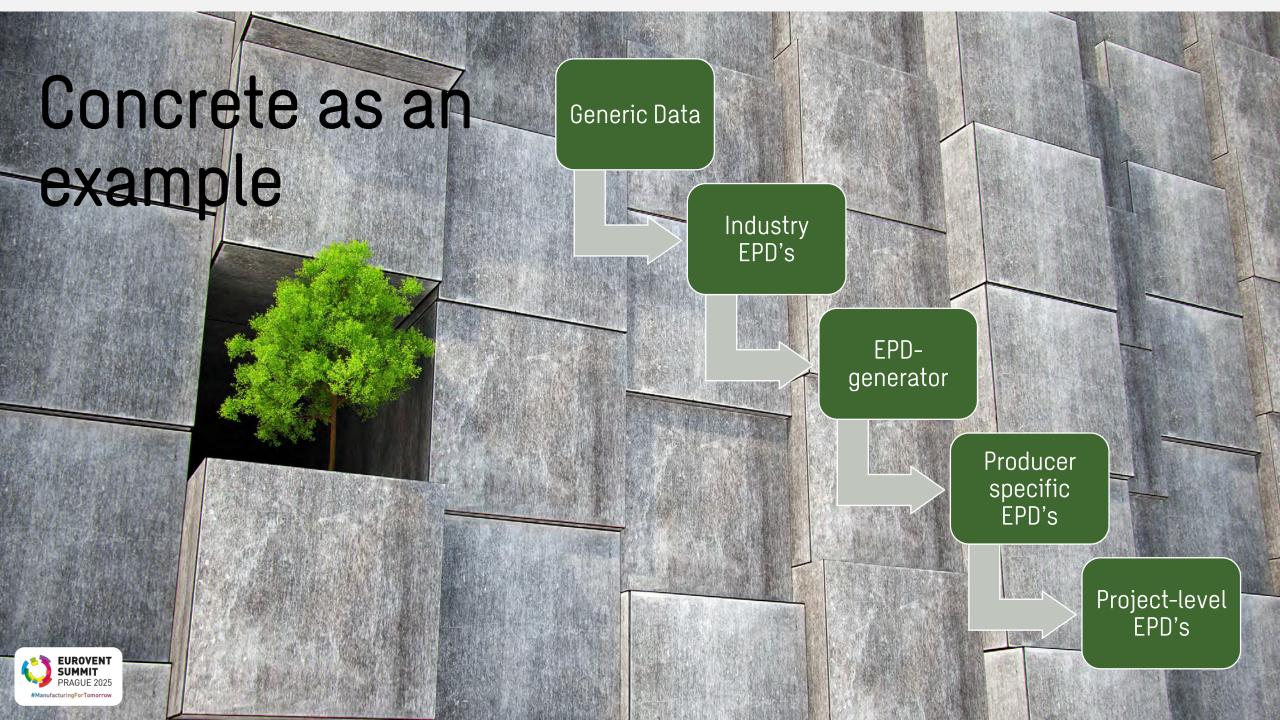
- Based on previous knowledge
- Best estimate
- Useful when precise data is missing

Specific calculations

- Best representation of actual scenario
- High degree of accuracy
- Complex and time consuming







Estimates

- Suggestions
- Experience from previous projects

Early design stage

Qualified calculations

- Aggregate calculations
- Project proposal

- Energy requirements
- LCA calculation
- Close to as-built

Final design

Measured values

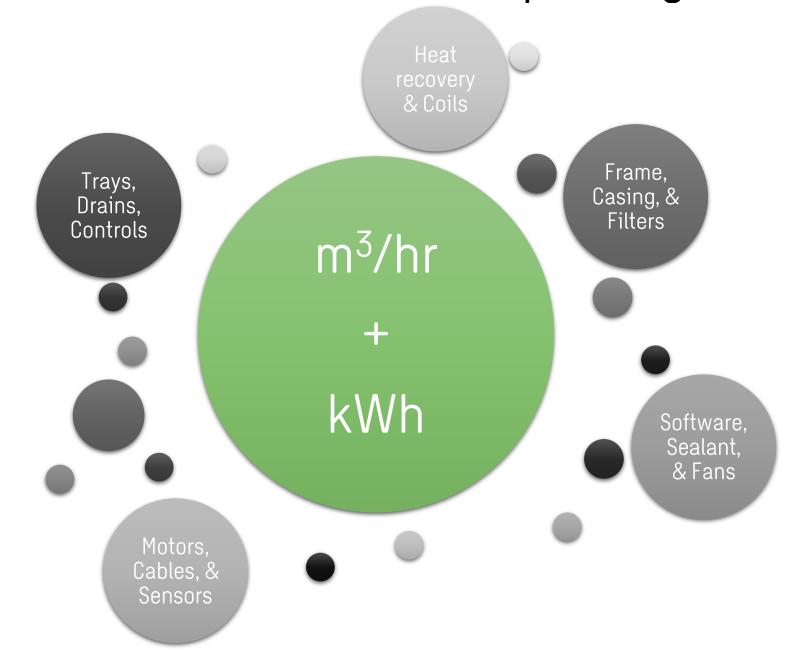
- Regulation reports
- Energy marking
- Final documentation
- Approval

Early LCA

Final LCA



EPD choices made that are not impacting building-LCA

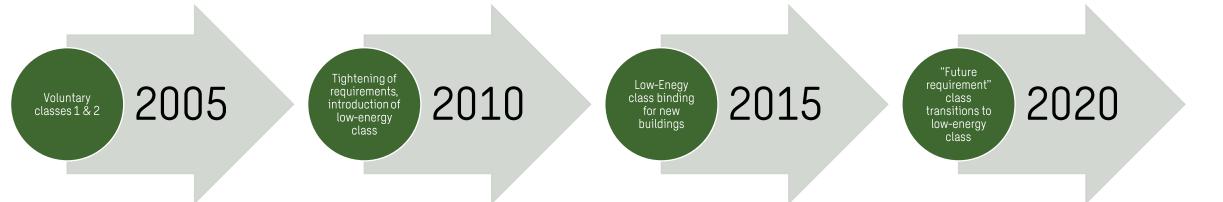




Data, or requirement of data?



Energy design



Climate change design







