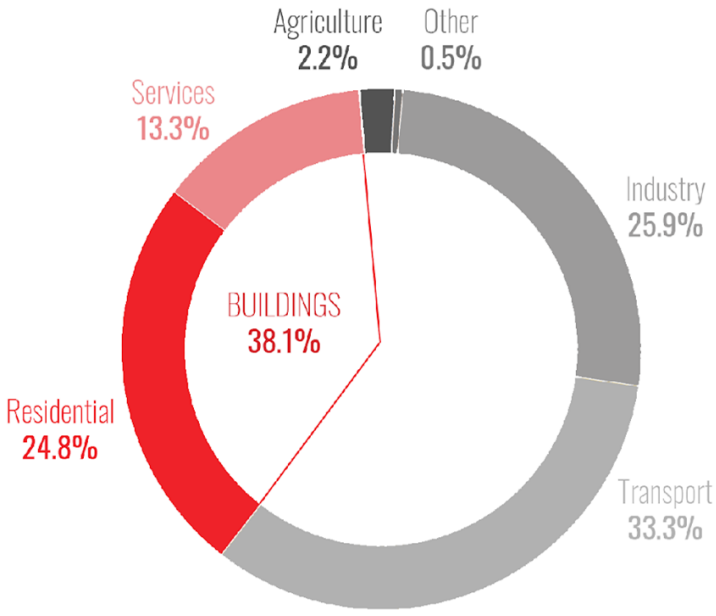
CARDINAL CALCULATOR
Percentage
Embodied Carbon
Total CO2e in kg
9000
8000
7000
6000
5000
4000
3000
2000
1000
8859.312
602.6613
378.3472
5266.944
6637.739

Building Industry contributes to

40%

of the global CO2 Emissions

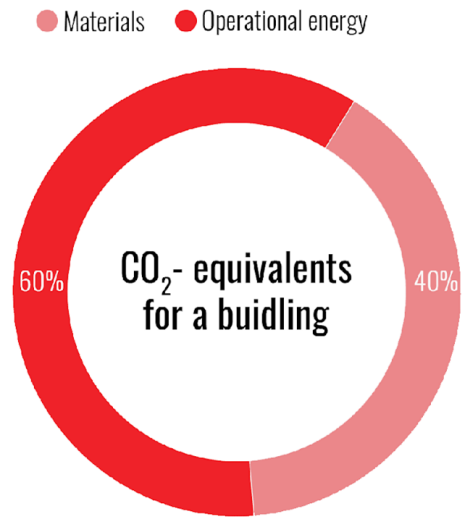


Energy Consumption by Sector
[Eurostat, 2014]

Out of this, 60% is through the operational energy, while

38%

Is through embodied energy within materials

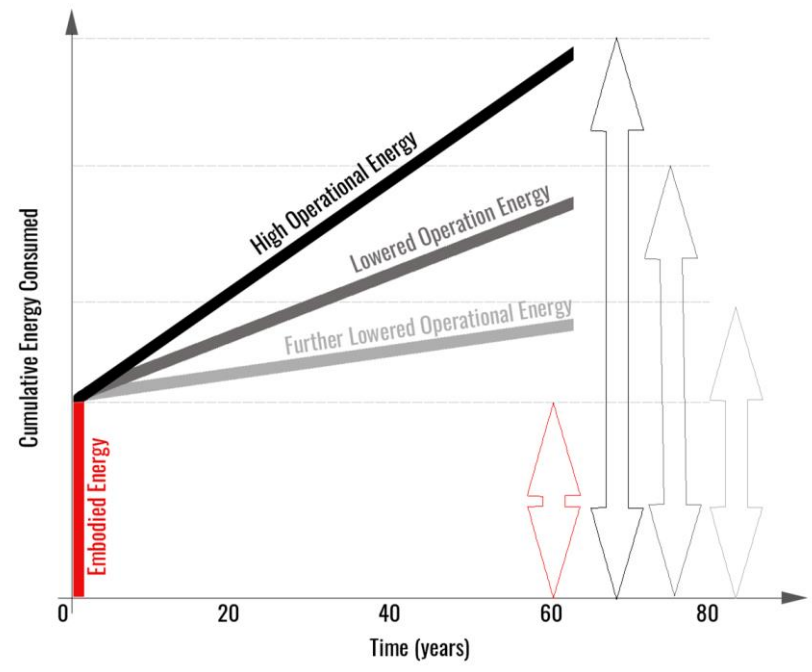


Materials v Energy
[Trafik Bygge og Boligstyrelsen, Danish Transport and Construction Agency]

The embodied energy has remained

stagnant

Throughout the years but operational energy has reduced by 50% !



Cardinal LCA – a holistic solution to reduce the embodied carbon

Allows Architects to incorporate embodied carbon consideration in early stage of design

Has several KPIs which make it easy to compare and see trade-offs

Dynamic Experience

User Friendly

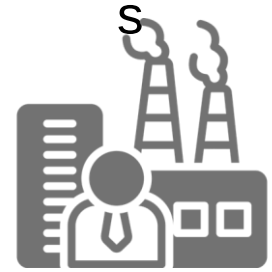
User Group

Architect

Municipalities/Policy Makers

Construction Manager

Product Manufacturers

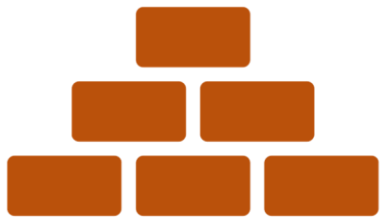


Client

Student

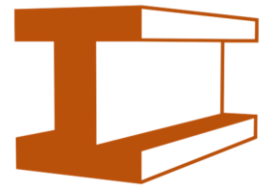
Key Performance Index

Embodied carbon



Operational carbon

Structural Analysis



Utility Cost

Optimization

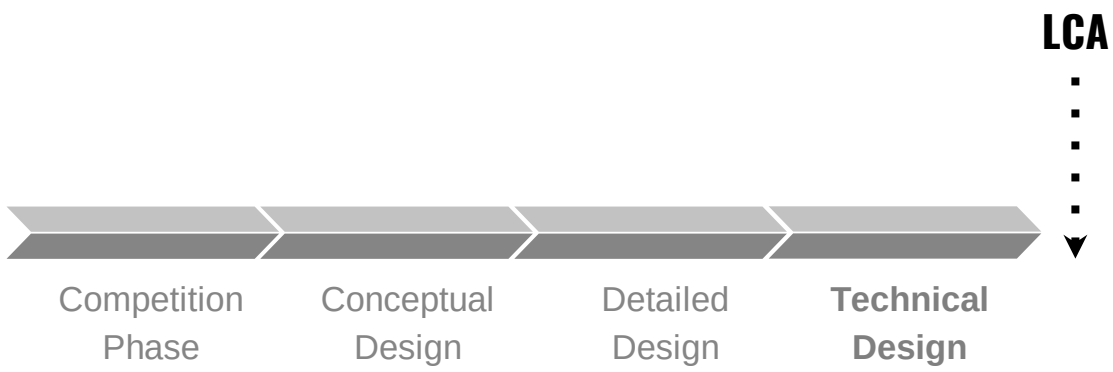
Impacts

Direct Industrial Impact

Current Workflow

LCA at **the end** of design stage

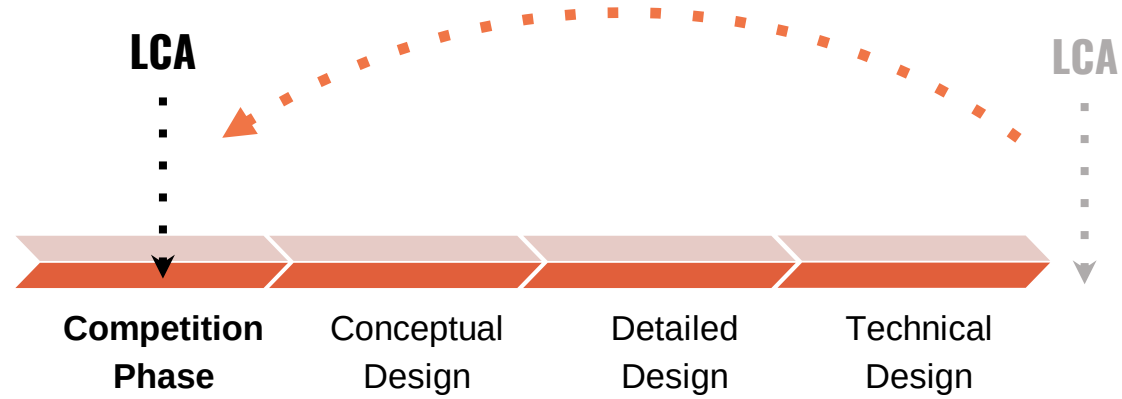
Finalized Design **LITTLE CARBON REDUCTION**



Proposed Workflow

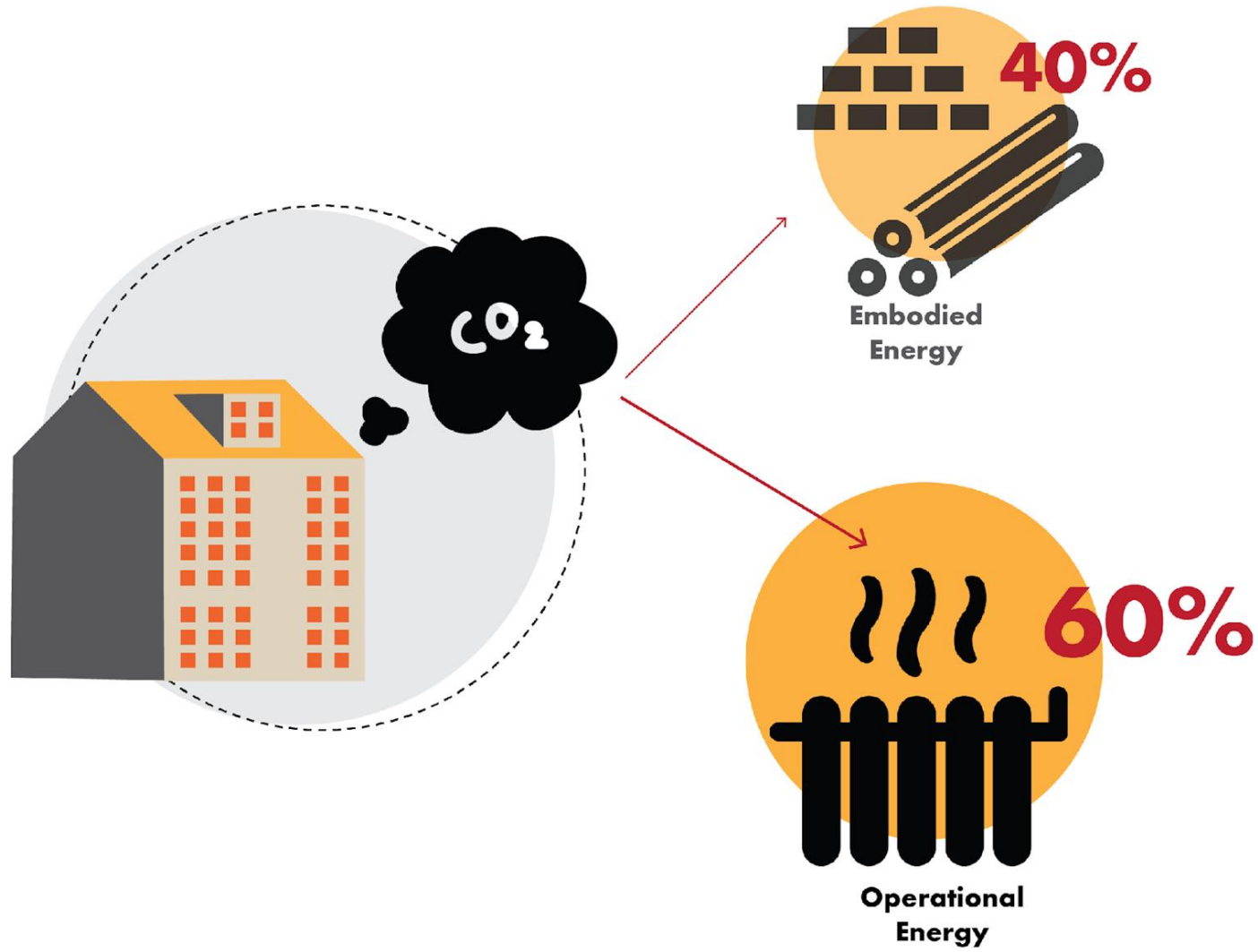
LCA at **the initial** design stage

Fexible design **MORE CARBON REDUCTION [30+ %]**

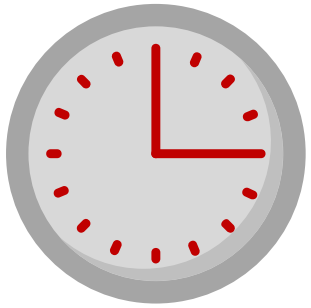


Indirect Industrial Impact

Through Cardinal, we empower architects to make healthy material choices from the start, **to tackle climate change and reach the goals set by 2015 Paris Climate accord !**



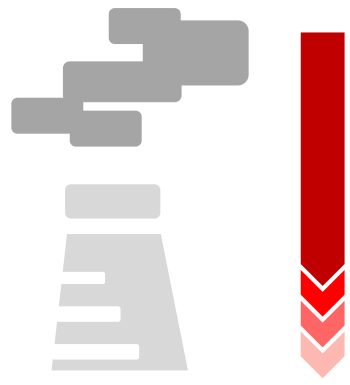
Early Phase Tool for Quick Estimation



Global Material Database

Easy User Interface

More Carbon Capture



Compliance with LEED

Benchmark your Projects