

LAVERE CO2 AFTRYK MED ONE CLICK LCA & NAVIATE ZERO

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AGENDA

ACTIONS

Symetri's mission
towards decarbonization

ONE CLICK LCA

Introduction to One Click
LCA

NAVIATE ZERO

Introduction of the first
version of Naviate Zero
for Revit

AI INITIATIVE

High-level investigation
and POC

01

ACTIONS TOWARDS DECARBONIZATION



Symetri's mission towards Decarbonization

OUR ACTIONS DO THE TALKING

SYMETRI

ADDNODE GROUP

+

One Click **LCA**

Symetri Partnerships

This is an exclusive partnership that benefits our clients directly



NAVIATE[®]

ZERO

POWERED BY
ONE CLICK LCA

Symetri Technology

Make smart, sustainable material selections in an easy way directly in your Revit model.



Partners



Research



Client Centric Solutions
& services

Symetri R&D

Co-Innovation Practice

Developing sustainable, innovative solutions to meet the future needs of the communities we serve; while working smarter.

02

ONE CLICK LCA

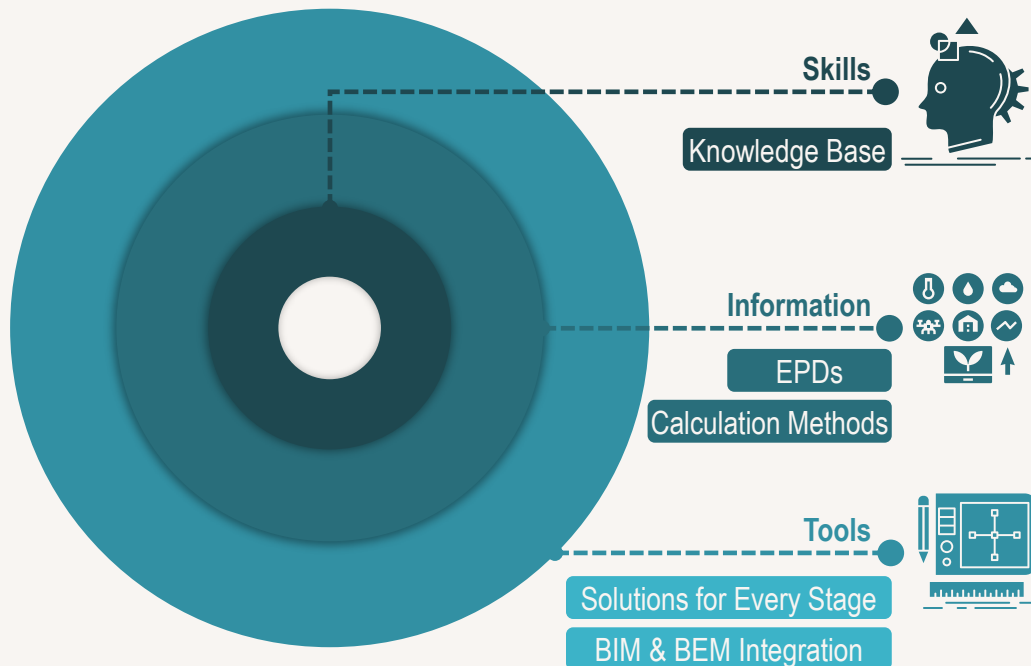


Introduction to One Click LCA

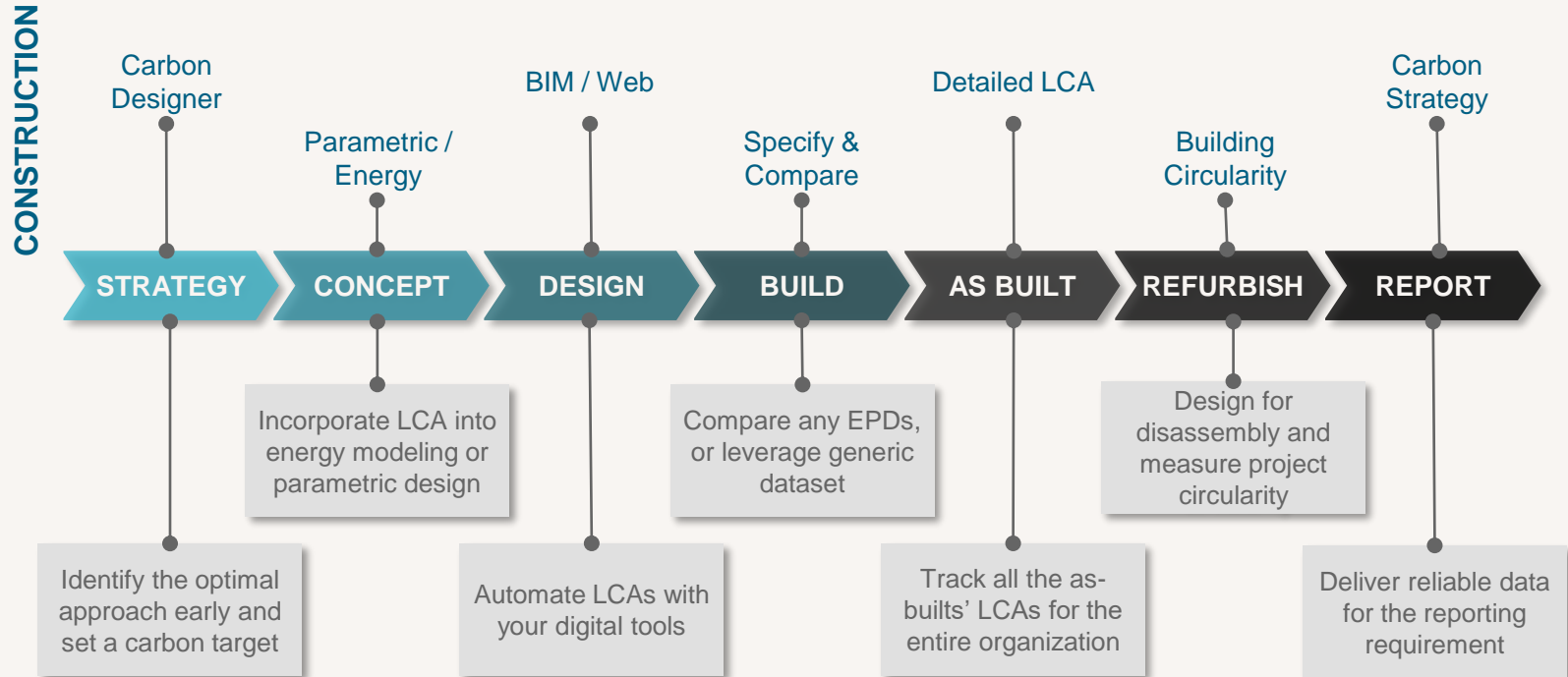
WHY ONE CLICK LCA?

A platform that bridges

- **Skills gaps:** provide comprehensive knowledge base
- **Information gaps:** no certification & database mapping required
- **Tool/platform gaps:** BIM & BEM integrations for all design stages



PROJECT PHASES



CONNECTING THE ENTIRE INDUSTRY

Supporting Everyone's Needs

- **Architects:** Net Zero Design Strategies
- **Engineers:** Material Identification & Detailed LCA
- **Builders:** Product Specifications
- **Manufacturers:** Products' Life Cycle Impact
- **Investors:** GHG Portfolio & Reporting
- **Institutes:** Carbon Tracking & Benchmarking



DIFFERENTIATORS AND BENEFITS



EASY TO USE



HOLISTIC SET OF TOOLS



INTEGRATES TO ANYTHING



GLOBAL EPD DATABASES



GLOBAL COMPLIANCE STANDARDS

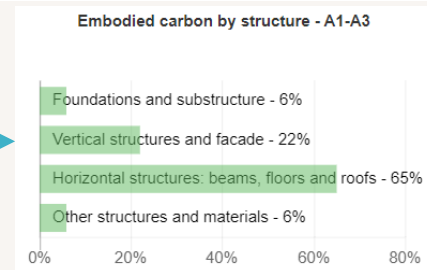
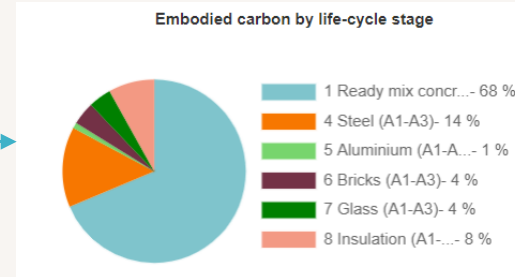
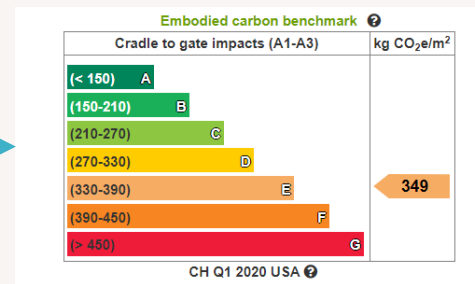


CROSS ENTIRE VALUE CHAIN

WORKFLOW



- For Construction Projects**
- 🔋 Life Cycle Assessment
 - 💰 Life Cycle Costing
 - 📄 Early Design Optimization
 - 👤 Site Designer
 - 🔍 Embodied Carbon Calculation
 - ♻️ Circularity Assessment
 - 🏗️ Carbon Benchmarking
 - 🔧 Infrastructure LCA



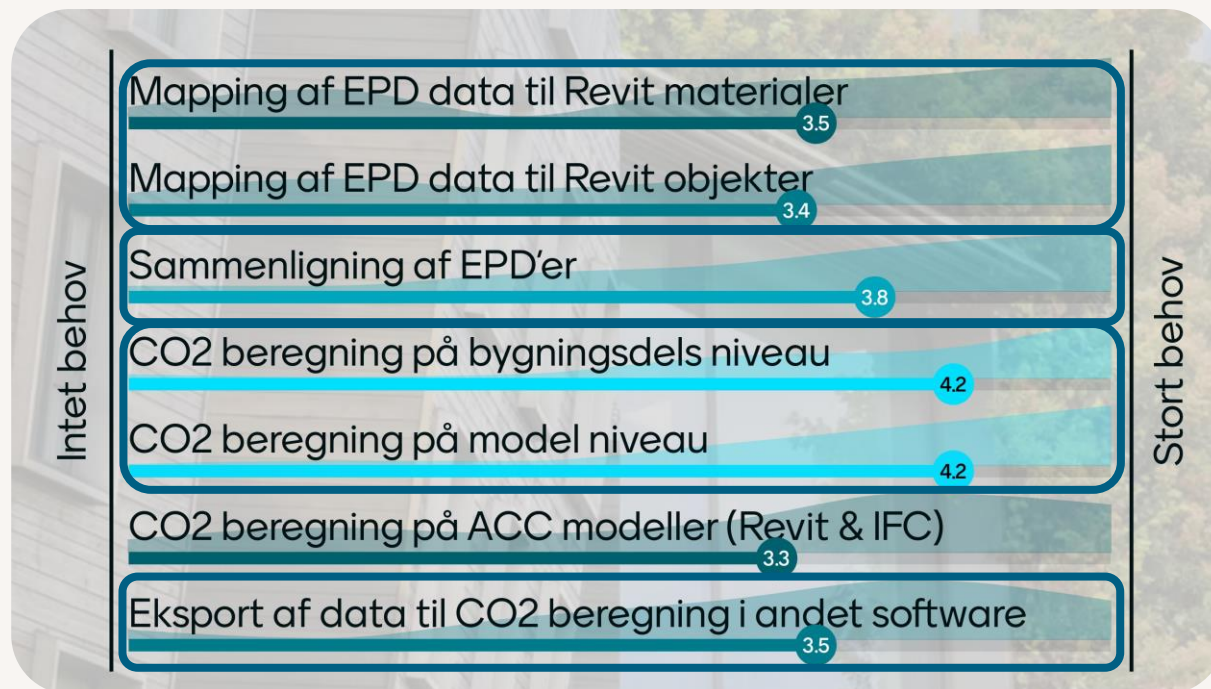
03

NAVIATE ZERO



Introduction of the first version of
Naviate Zero for Revit

BIM FORUM 2022 SUSTAINABILITY POLL





NAVIATE ZERO MVP*



I would like to access a repository of generic and specific resources with CO2e values to do an early assessment based on my design.



I would like to write data from a resource repository to my Revit families and/or materials.



I would like Naviate to help me choose resources within the correct category based on the elements in my model.



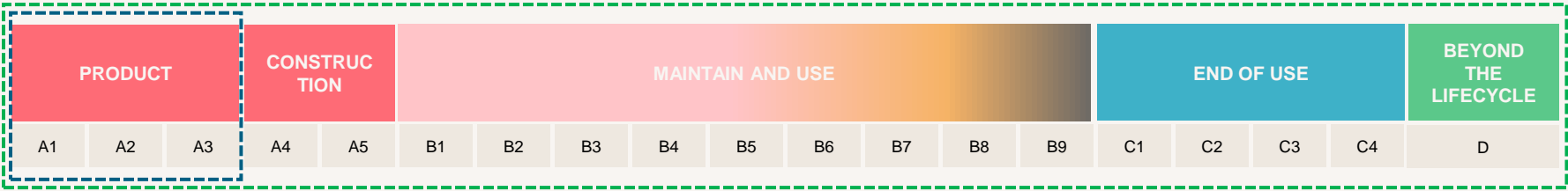
I would like to visualise the CO2 impact per category in my project.



I would like to be able to compare different resources while adding data to my Revit families and/or materials.

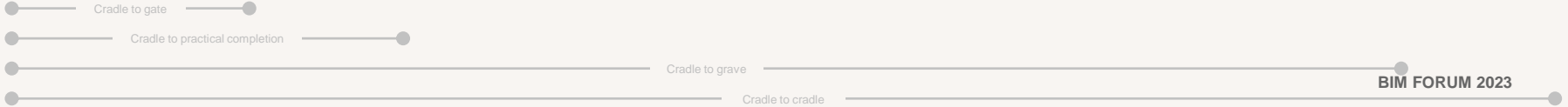
THE SCOPE OF NAVIATE ZERO

■ UPFRONT CARBON INPUT CARBON FOOTPRINT
 ■ IN-USE EMBODIED CARBON FOOTPRINT
 ■ IN-USE OPERATIONAL CARBON FOOTPRINT
 ■ OUT OF SCOPE USER CARBON
 ■ END-OF-LIFE EMBODIED CARBON FOOTPRINT
 ■ BEYOND BUILDING LIFECYCLE CIRCULAR ECONOMY



TIME →

Extract raw material Transport Manufacturing Transport Construction Use Maintenance Repair Refurbishment Replacement Operational energy Operational water Other operational processes Demolition Transport Waste processing Disposal Benefits and loads Reuse/recovery



NAVIATE ZERO FOCUSES ON SMART AND SIMPLIFIED MATERIAL SELECTION & AIMED FOR THE REVIT USER WITHOUT EXTENSIVE KNOWLEDGE OF LCA AND EPD'S

The screenshot displays the Naviate Zero software interface. The top menu bar includes File, Architecture, Structure, Steel, Precast, Systems, Insert, Annotate, Analyze, Massing & Site, Collaborate, View, Manage, Add-Ins, [N] Zero, [N] Nexus, One Click LCA, and Modify | Walls. The main workspace shows a 3D model of a building structure. A dialog box titled "CO2 data on Elements" is open, displaying a pie chart and a list of resource categories with their respective CO2e values and percentages. Below the dialog, a table lists resources with columns for Category, Family, Type, Resources, and Unit. The table is currently empty, showing "0 Item(s) checked".

CO2 data on Elements

Distributed of Embodied Carbon by Resource Categories

Total CO2e: 255.49

- Concrete slabs (hollow and solid) 89,11 ton CO2e 34,88%
- Concrete wall elements 82,31 ton CO2e 32,22%
- Sandwich panels, metal 21 ton CO2e 8,22%
- Laminate flooring 19,71 ton CO2e 7,72%
- Suspended ceiling systems 16,84 ton CO2e 6,59%
- 10,97 ton CO2e 4,29%
- Regular gypsum board 7,25 ton CO2e 2,84%
- PVC frame windows 6,28 ton CO2e 2,46%
- Other 2,02 ton CO2e 0,79%

Category	Family	Type	Resources	Unit
Roofs				
<input type="checkbox"/>	Roofs	Basic Roof	Betong Isolert - 333mm	[Multi-materials] Area
<input type="checkbox"/>	Roofs	Basic Roof	Stål Isolert - 450mm	Roof sandwich panel with pir core Area
Stairs - Interior				
<input type="checkbox"/>	Stairs - Interior	Precast Stair	Prefab Betongtrapp	Concrete staircase (Block Berge B) Volume
Walls - Exterior				
<input type="checkbox"/>	Walls - Exterior	Basic Wall	Yttervegg - 433mm Pusset betong	[Multi-materials] Area
<input type="checkbox"/>	Walls - Exterior	Basic Wall	Yttervegg - 514mm Pusset betong	Area
<input type="checkbox"/>	Walls - Exterior	Curtain Wall	Glassvegg	Area
<input type="checkbox"/>	Walls - Exterior	Curtain Wall	Glassvegg Inngangsparti	Fibreglass-framed double glazed v Area
Walls - Interior				


0 Item(s) checked

Please check items in the type list

THE MAIN DIFFERENCES BETWEEN NAVIATE ZERO AND ONE CLICK LCA WEB AND REVIT INTEGRATION


- ❑ **Naviate Zero summarises CO2 emissions (GWP) for the manufacturing (A1-A3) of the Resource chosen for elements in the model.** OCL can do a full Life Cycle Assessment on a building, calculating the environmental impact. This includes considering all needed stages, the location, and any certifications.
- ❑ **In Naviate Zero, you don't need an additional OCL license to select Resources and calculate GWP in Revit.**
OCL allow you to select Resources for your building components, but a separate license is needed to calculate the results.
- ❑ **Naviate Zero calculates and stores data from the Resources within Revit.**
OCL transfers data from the Revit project to OCL to do the calculation; no data is saved in Revit.
- ❑ **In Naviate Zero, you can "instantly" get the GWP values for a specific building element.**
- ❑ **Naviate Zero is a standalone Revit add-in for material selection (A1-A3) and a supplement to OCL for importing Resource mapping and quantities. Resources added with Naviate Zero can be imported into a project in OCL.**

APPLY FOR ACCESS TO NAVIATE ZERO



Naviate Zero

Overview
What's new
Features
Explore
Apply for access
Sign me up for launch information



Apply for access to Naviate Zero

The trial will work for 30 days with full access to all features. There is an application process involved.

First name*

Last name*

Phone number*

Email*

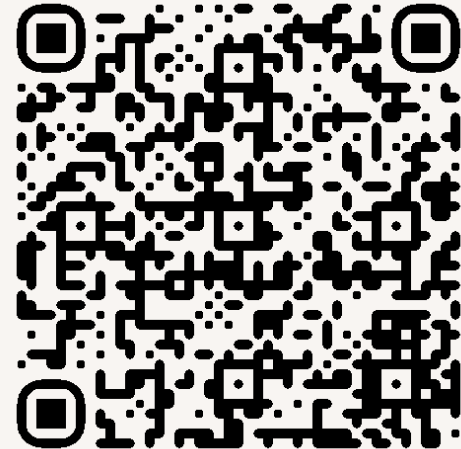
Company name*

Country/Region*

What solutions are you using today for Sustainability work?*

What are currently your biggest challenge(s) on the topic of Sustainability?*

Are you currently using any Naviate products?*



04

AI INITIATIVE



High-level investigation and POC

CHALLENGES AND QUESTIONS



Current models do not have a full understanding of the Built Environment


Current models do not have a technical understanding of BIM models

Do we have the right resources?

What is the Cost? \$\$\$

How and where to start to ensure success?

PROOF OF CONCEPT WITH BRAINPOOL.AI

- To ensure starting right, Symetri have engaged with Brainpool.AI
 - Our first POC will cover the use of AI to transition from manual mapping of Revit Categories, Resources Categories and EPDs.
 - This is the first step of many to leverage AI in Naviate and other Symetri technologies.
-  BRAINPOOL.AI is recognized as the world's leading AI consultancy and services provider for businesses in the construction industry.
 - With over 500 artificial intelligence and machine learning experts creating cutting-edge AI algorithms and years of industry experience to develop and implement bespoke AI solutions, Brainpool.AI is on hand to offer the skills and expertise to automate our construction processes for a future-proof competitive edge.

**WE CHALLENGE PEOPLE
TO WORK SMARTER
FOR A BETTER FUTURE**

