Artificial intelligence & Human collaboration.

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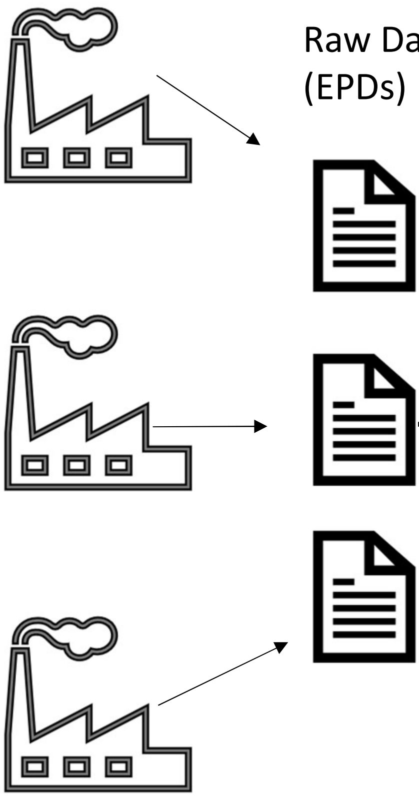
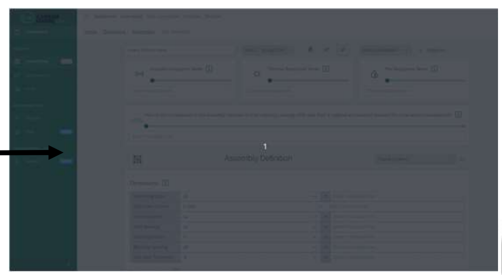
Data-led collaboration

Raw Data
(EPDs)

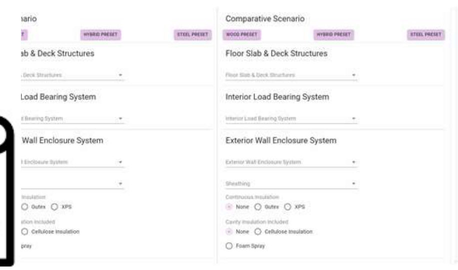


Data is aggregated into building assemblies by **regional experts** who verify all ingredients.

Admin Dashboard



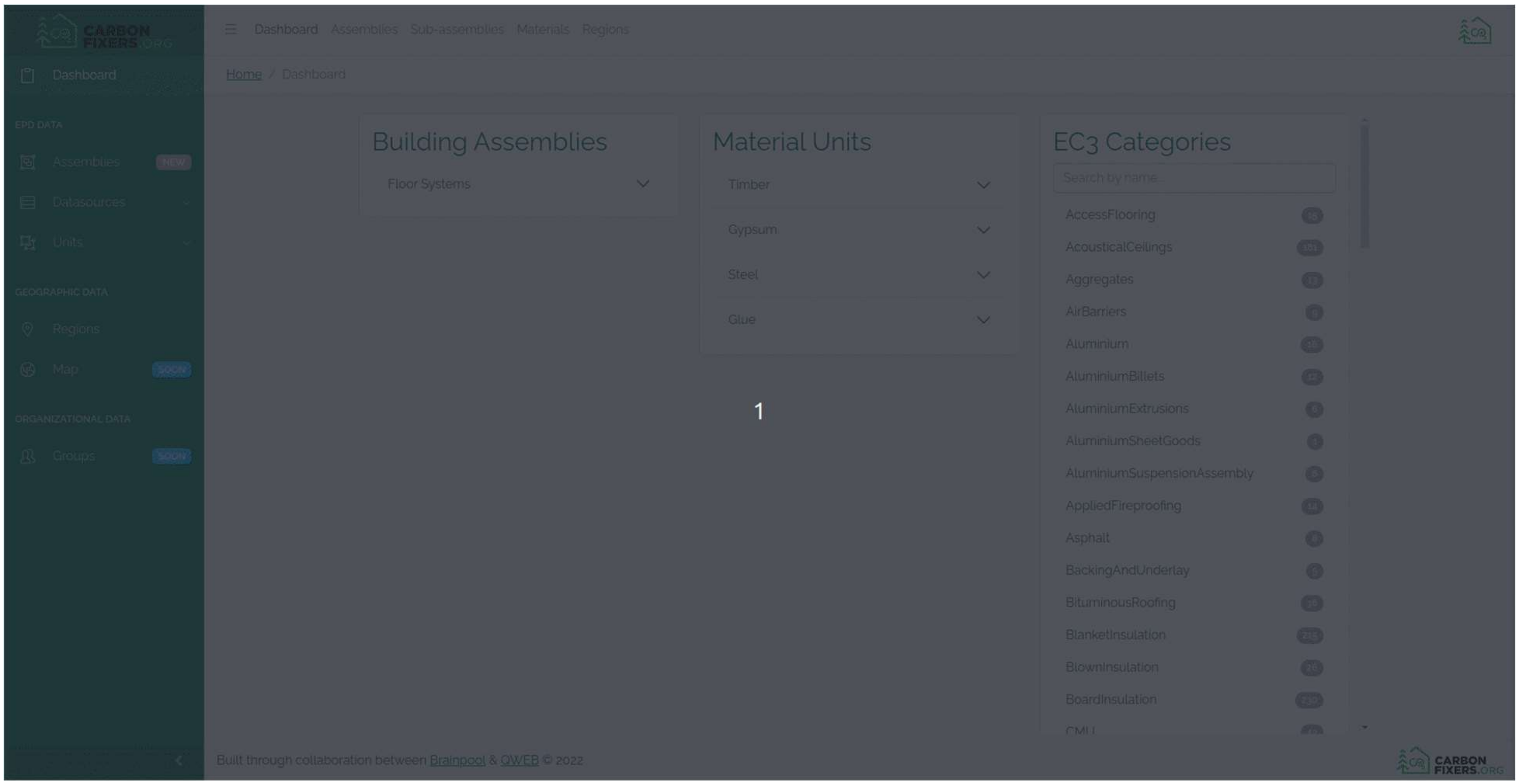
CarbonFixers.org



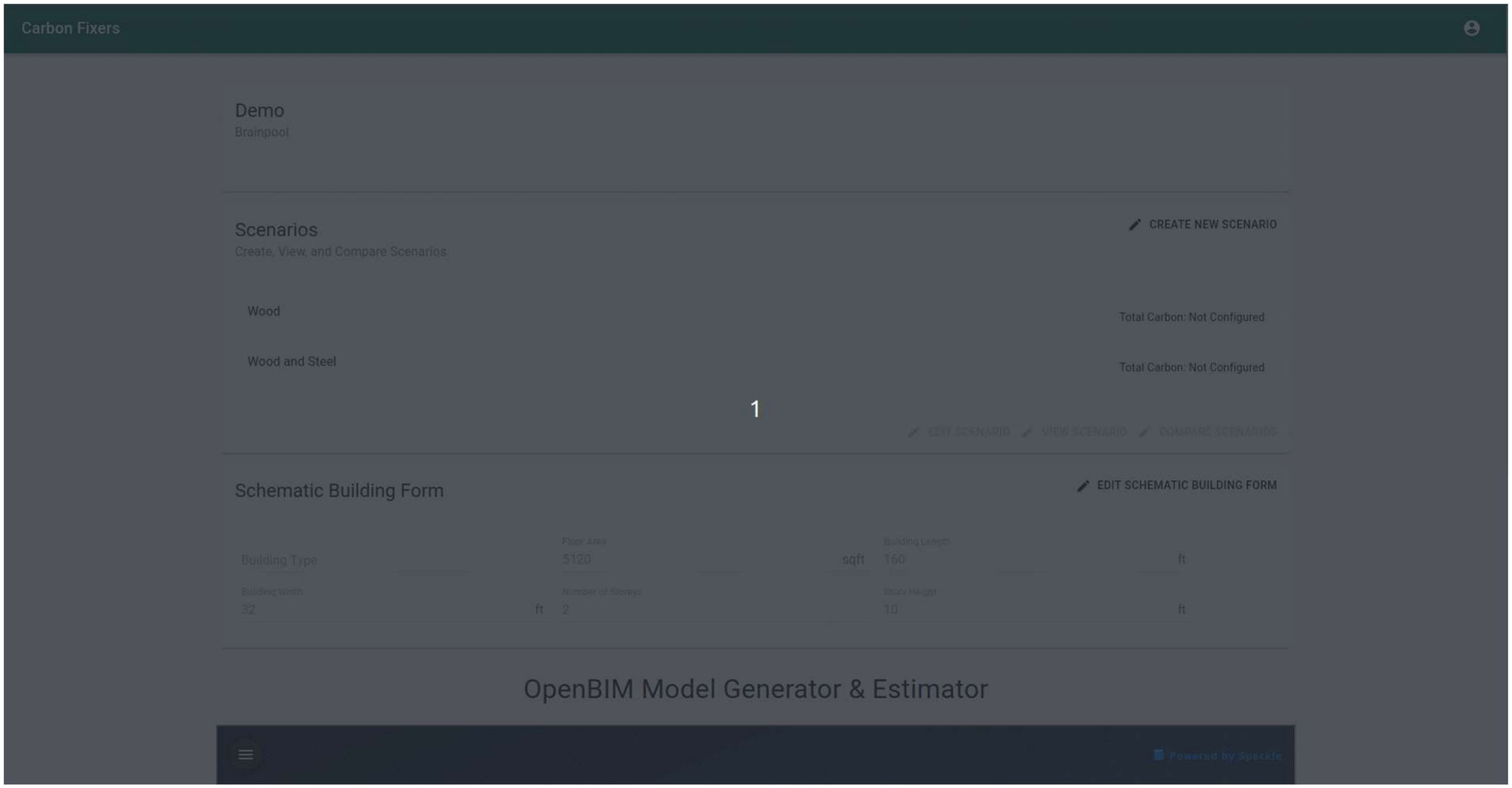
Architects can configure early-phase designs and scenarios online to make **data-led decisions**.

- ✓ Data open and transparent, accessible to anyone globally
- ✓ Version control system
- ✓ Centralised environmental databases
- ✓ REST API accessible (internally and externally)
- ✓ Real-time data analytics
- ✓ Instant like-for-like comparison

Continuous learning process:
Admin dashboard



Like-for-like comparison:
User friendly interface



Like-for-like comparison:
User friendly interface

CARBON FIXERS APP

SUB ASSEMBLIES | MATERIALS | DIMENSIONS | TRANSPORTATION

Bar Joist & Wood Sub-floor (CA-QC)
1,192 kgCO2e

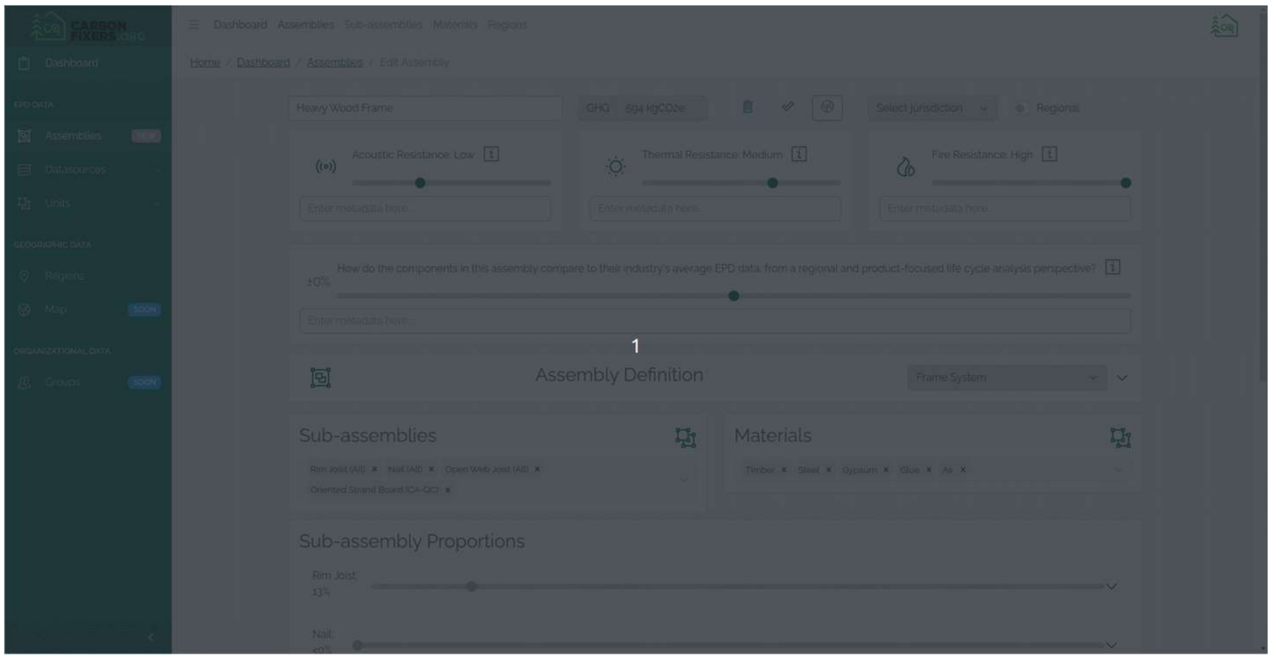
Bar Joist and Metal Deck (None)
2,211 kgCO2e

Name	% of Volume	Volume	% of Carbon	Carbon Cost
Rim Joist	12%	1.44 m3	22%	262 kgCO2e
Nail	0.1%	0.01 m3	8.1%	96 kgCO2e
Metal Bar Joist: K2oxx	24%	2.89 m3	44%	521 kgCO2e
Oriented Strand Board	5.4%	0.64 m3	26%	314 kgCO2e

Name	% of Volume	Volume	% of Carbon	Carbon Cost
Rim Joist	8.4%	1.01 m3	8.3%	183 kgCO2e
Nail	0.1%	0.01 m3	3.3%	72 kgCO2e
20K3 - Steel Joist	17%	2.02 m3	41%	911 kgCO2e
Concrete Slab on Deck over Bar Joists	5.6%	0.67 m3	47%	1,044 kgCO2e

Collective Intelligence:
Sharing & learning together

CARBON FIXERS APP



- ✓ **Data verification portal** for engineers, LCA, and other regional experts
- ✓ **Trusted platform** to interact with US architects, respecting client confidentiality
- ✓ **Interact with other open-source databases** (EC3 & MapBox in this visual).
- ✓ **More accurate carbon calculations** through collective contribution to better data.
- ✓ Ability to **share market insight** with Canadian producers and public sector

AI & Human collaboration

CARBON FIXERS APP

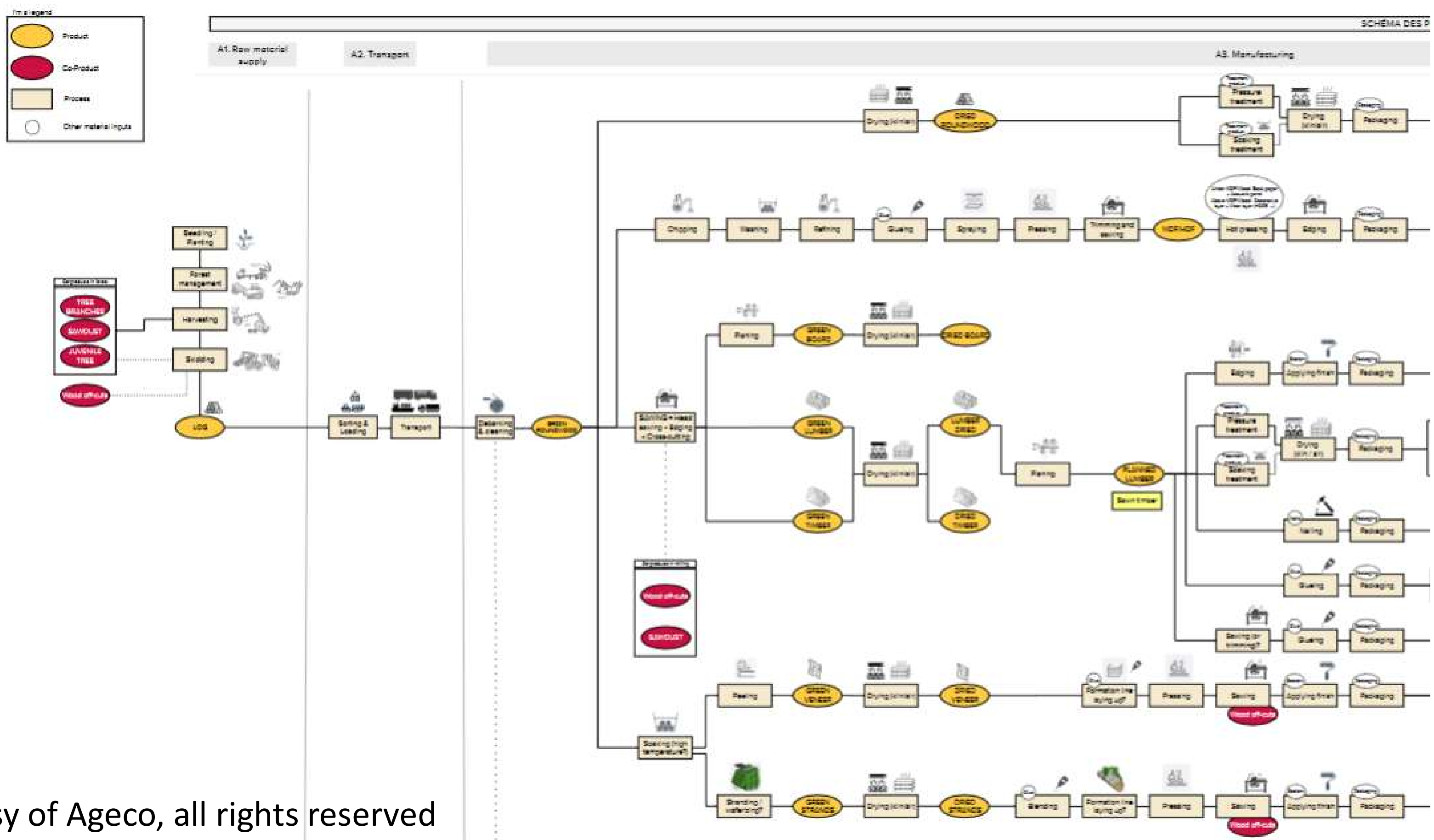
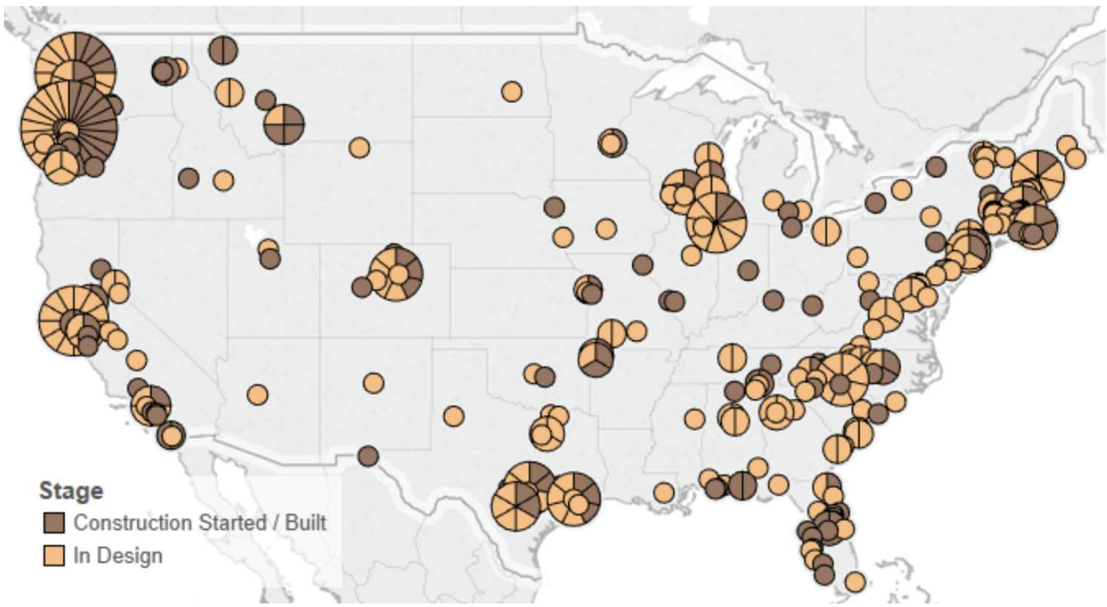


Image courtesy of Ageco, all rights reserved

Predictive modelling:
Future of AI in service of the value chain

Future use cases for AI in service of sustainable regional timber industries are being assessed through an ongoing scoping process with QWEB and its funders. **Your suggestions are always welcome!**



Using insight to qualify more investment in Canadian value-added timber system market development.*

*Image courtesy of The Softwood Lumber Board.

Carbon Fixers has the potential to place embodied CO2 as priority alongside other data points that influence decisions on building materials, e.g.:

- Price of timber
- Predicted population growth per location
- Market dynamics
- Global events (e.g. pandemics)
- Inflation
- Demand forecasting per building types

With a help of AI we can ensure this information is available to decision makers at their fingertips.

CARBON FIXERS APP

Thank you.

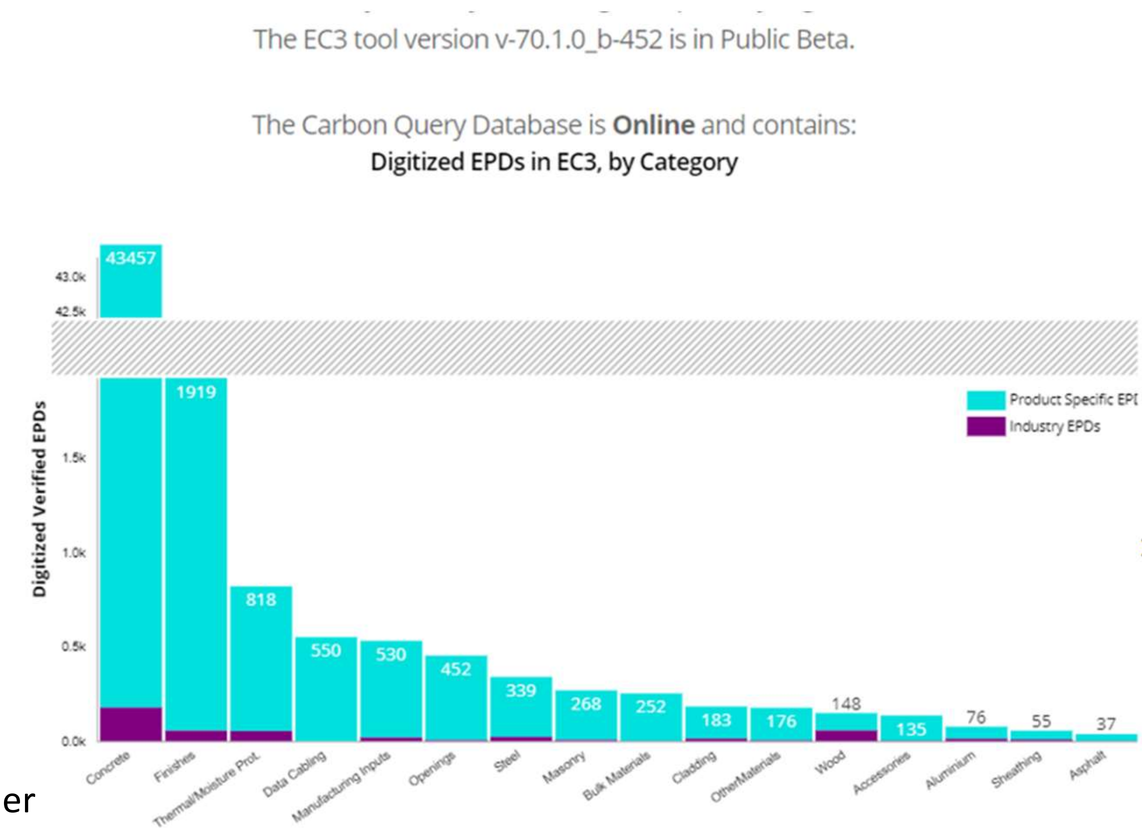
AI & Human collaboration:

CARBON FIXERS APP

Comparison of 5000 psi ready mix concretes in a region

*Image cc

Predictive modelling:
Potential AI in service of the value chain



Scaling up wood industry EPDs to compete with other industries that have EPD generators.*

*Image courtesy of EC3 Tool & BuildingTransparency.org