



# Canada, Carbon & Construction

UNECE/FAO Discussion  
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Canadian Wood Council



# Climate Change

Emissions

Renewables

Air Quality

Solar

Carbon

Embodied

Impacts

Building

Science

# Carbon

- Biogenic
- Embodied
- Operational
- Procurement / Codes



# Materials Matter – Carbon Matters

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- Opportunities for Wood in Canada
  - Codes, Legislation, Mandates, Expectations – 2030 NBC – embodied carbon
  - Government procurement will drive design sector with Whole Building Life Cycle starting 2025
  - Industry needs to gather comprehensive data



# Industry Expectations

- North American Lumber EPD
  - Expires July 2025
- Need Regional / Company / Site Specific EPDs
- National Life cycle Inventory Database Survey

## ENVIRONMENTAL PRODUCT DECLARATION

### NORTH AMERICAN SOFTWOOD LUMBER

AMERICAN WOOD COUNCIL  
CANADIAN WOOD COUNCIL



The American Wood Council (AWC) and the Canadian Wood Council (CWC) are pleased to present this Environmental Product Declaration (EPD) for North American softwood lumber. The EPD includes Life Cycle Assessment (LCA) results for all processes up to the point that planned and dry lumber is packaged and ready for shipment at the manufacturing site. The underlying LCA and the EPD were developed in compliance with ISO 14025:2006 and ISO 21980:2017 and have been verified under the UL Environment EPD program.

The AWC and CWC represent wood product manufacturers across North America. The North American forest product industry is a global leader of sustainably sourced wood products. This EPD reflects years of research and numerous sustainability initiatives on behalf of our members to continually improve the environmental footprint of North American wood products. We are pleased to present this document to show our progress.

Please follow our sustainability initiatives at [www.awc.org](http://www.awc.org) and [www.cwcca.ca](http://www.cwcca.ca).

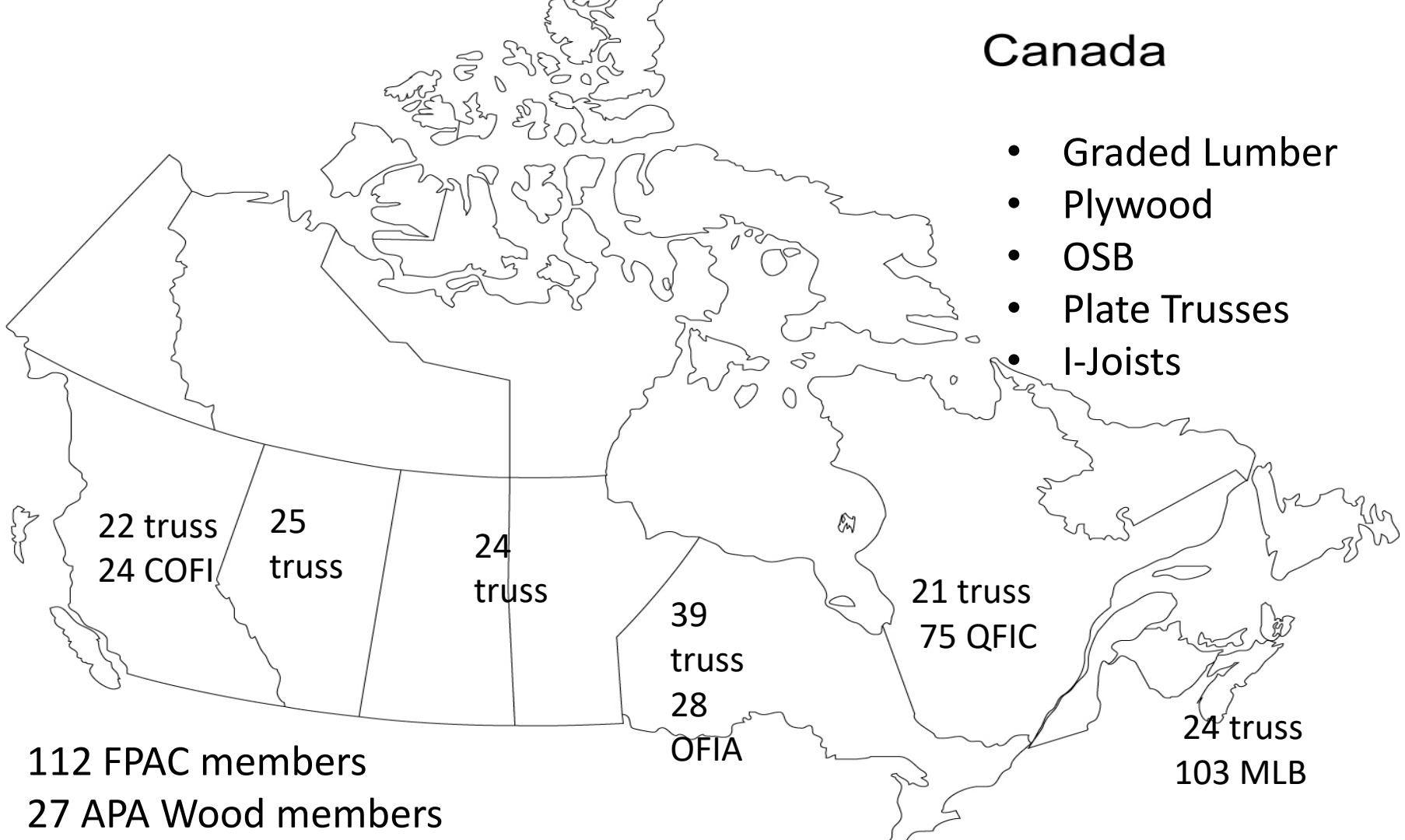






# Canada

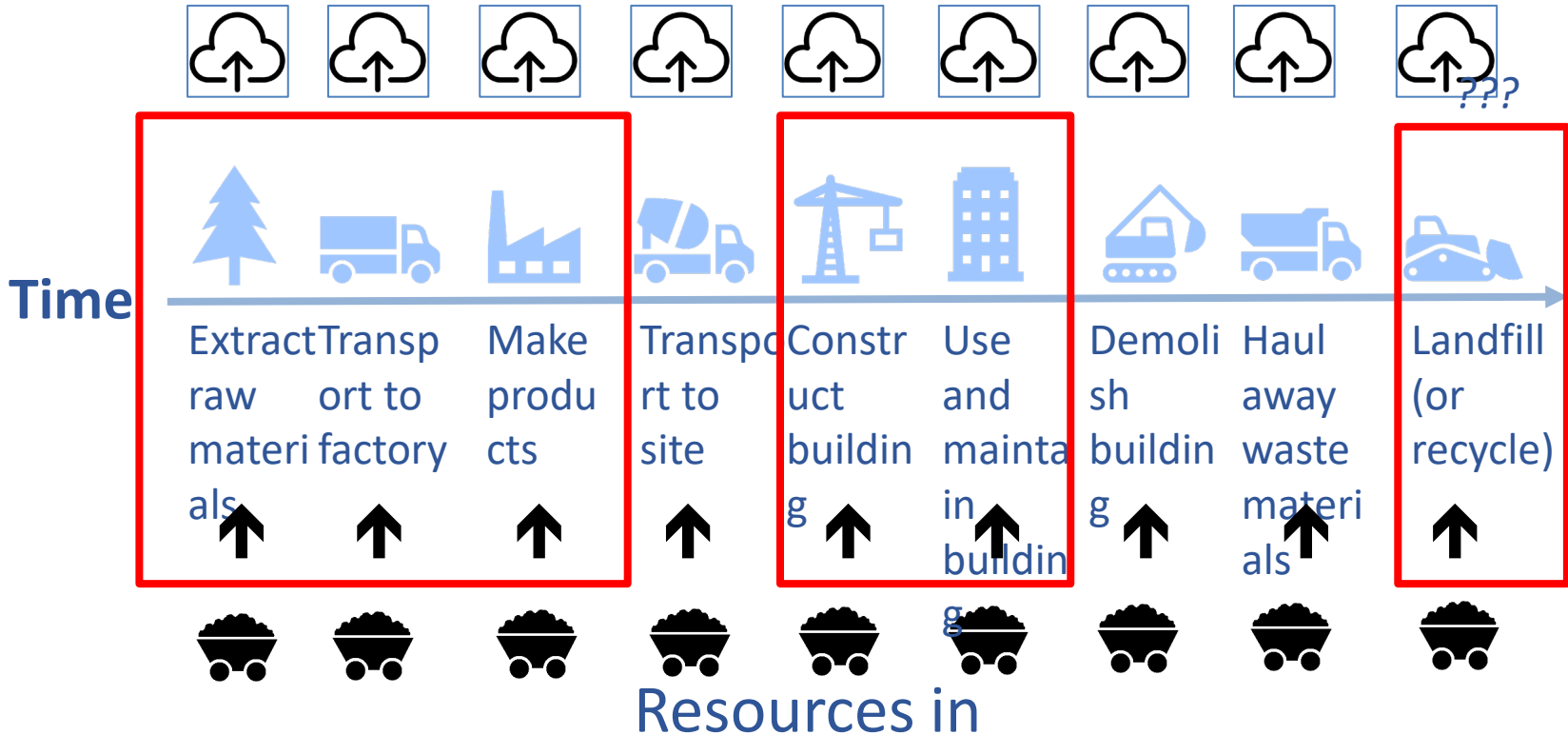
- Graded Lumber
- Plywood
- OSB
- Plate Trusses
- I-Joists



112 FPAC members  
27 APA Wood members

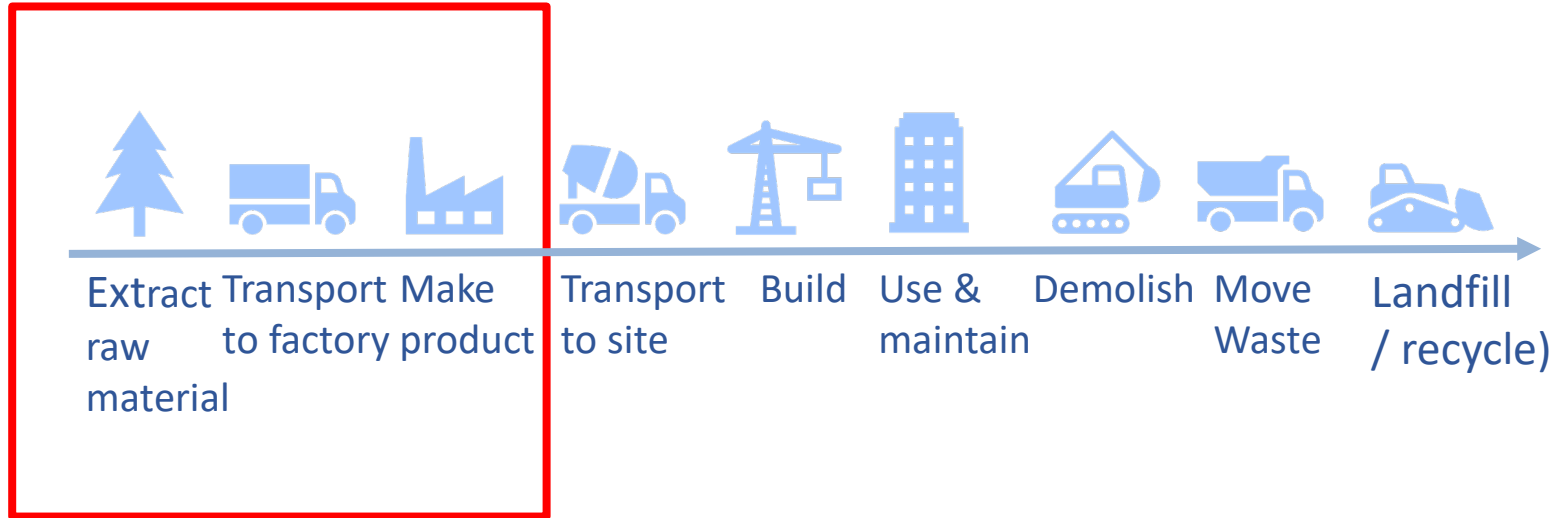
# Life Cycle Stages

Emissions and wastes out



# Life Cycle Survey Stages

CWC Primary Focus on National Research Council LCA^2

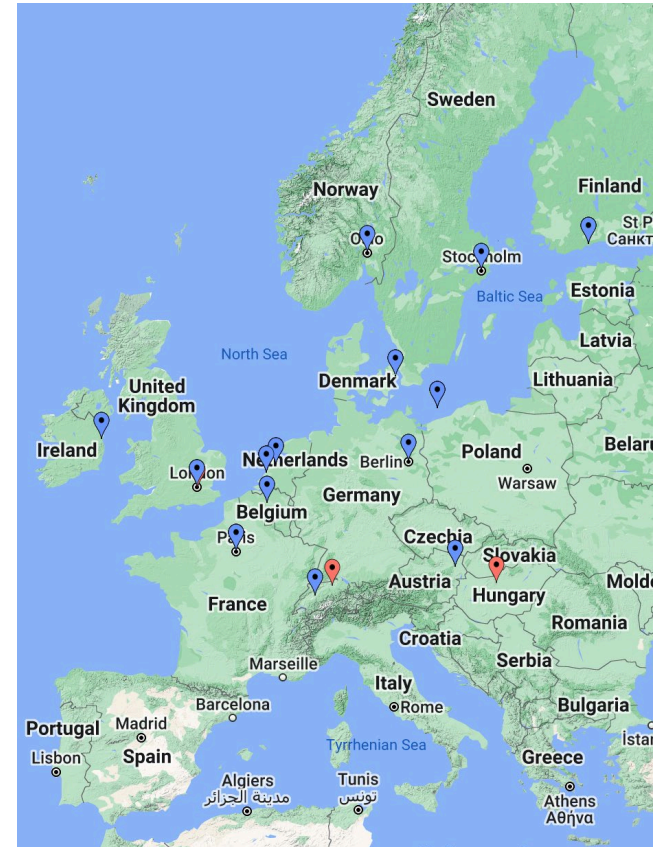
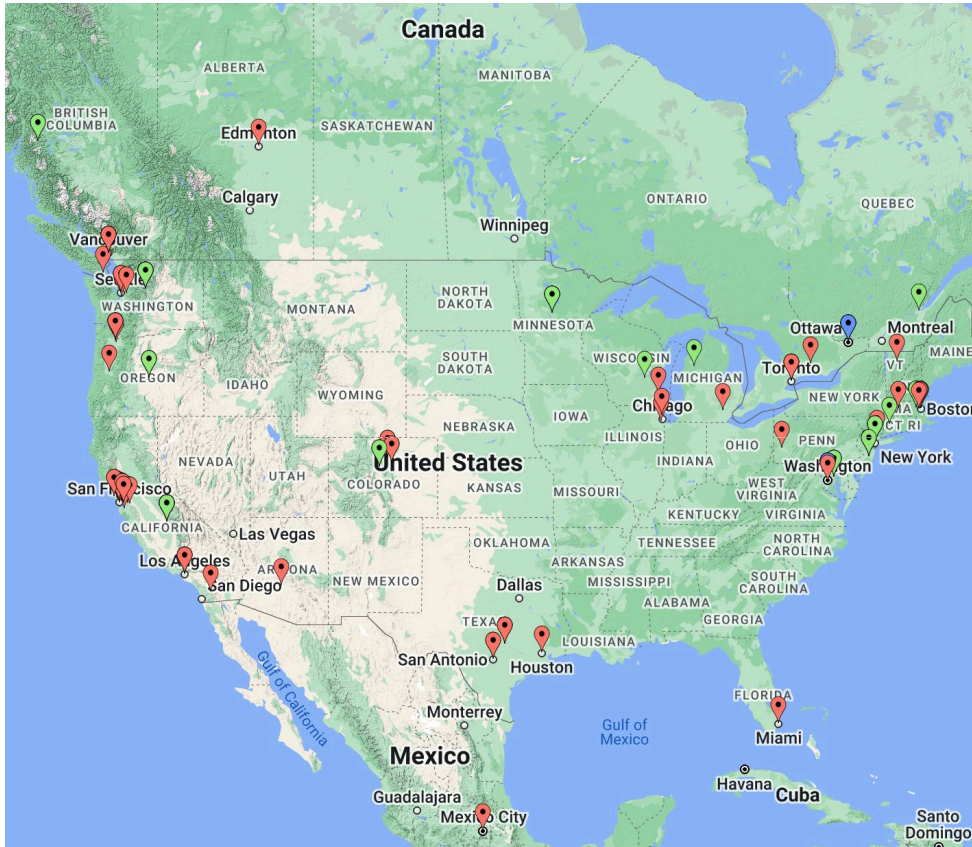






# Embodied Carbon

# Embodied Carbon Policy in Canada, USA & EU



City/County National State/Province

[Current Embodied Carbon Policy Map \(Carbon Leadership Forum 2023\)](#)

# Embodied Carbon Policy in Europe

Country	Methodology	In force	Applies to renovations	Timing of assessment	Applicable buildings	Acceptable data	Preference of EPDs	Compliance type	Compliant tools <sup>15</sup>
Denmark	Bygningsreglement	2023	No	Single assessment – Post construction	All	EN 15804 <sup>16</sup>	Yes	Limit value	Open <sup>16</sup>
Finland	Finnish method / RakL	2024 Expected	Yes	Single assessment – Planning Stage (Building permit)	All Buildings requiring an energy declaration	EN 15804+A2, CO2data	Yes	Limit value	Open
France	RE2020	2022	No	Multiple assessments (Building permit & Post construction)	Residential Offices Education	INIES database	Yes	Limit value	Approved tools
Netherlands	MPG	2013	No	Single assessment – Planning Stage (Building permit)	Offices and residential	NMD only	Yes	Limit value	Approved tools
Norway	NS 3720 / TEK 17	2022	Yes	Single assessment – Planning Stage (Building permit)	Residential and commercial buildings	EN 15804	Yes	Declaration	Open
Sweden	Klimatdeklaration av byggnader	2022	No	Single assessment – Post construction	>100 m <sup>2</sup> <sup>17</sup>	EN 15804, Boverket	Yes	Declaration	Open
UK	London Plan / Part Z <sup>18</sup>	In force / Proposed	Yes	Multiple assessments (Prior and post construction)	>1000m <sup>2</sup> Or >10 dwellings	EN 15804 and other standards	Yes	Declaration <sup>19</sup>	Open
EU	Level(s) via EPBD	2027/2030 Proposed	Yes	Multiple assessments (Conceptual / detailed / as-built)	All	EN 15804	Yes	Declaration	Open

# Embodied Carbon – Regulation and Certifications



## CoV Rezoning (since 2017)

- WBLCA reporting disclosures on Rezonings

## CoV VBBL – Building Permit (July 2023)

- Disclosure for all Part 3 buildings
- Must **NOT** be more than **100%** (i.e. worse) vs functionally equivalent baseline

## CoV VBBL – Building Permit (Jan. 2025)

- Reductions for all Part 3 buildings
- **>=20%** reduction for low-rise wood framed buildings compared to concrete baseline
- **>=10%** reduction for all other Part 3 buildings
- Must meet criteria for Responsible Sourcing Category



## LEED v4.1 MRC1

Up to **5** points achievable via WBLCA

- 1 point for disclosure,
- 2 points for **>=5%** reduction,
- 3 points for **>= 10%** reduction,
- 4 points for **>= 20%** reduction & reuse,
- +1 regional priority point if **>=10%** reduction



## CaGBC ZCB Design v3

- Minimum Requirement:
  - **>=10%** reduction OR **<=500** kgCO<sub>2</sub>e/m<sup>2</sup>
- Two *Impact and Innovation* strategies req'd, such as:
  - **>=20%** reduction OR **<=350** kgCO<sub>2</sub>e/m<sup>2</sup>
  - **>=40%** reduction OR **<=240** kgCO<sub>2</sub>e/m<sup>2</sup>



## ILFI Zero Carbon Certification

- **>=10%** reduction AND **<=500** kgCO<sub>2</sub>e/m<sup>2</sup>
- Offset remaining emissions



## ILFI Living Building – Energy Petal

- **>=20%** reduction in embodied carbon
- Offset remaining emissions





Carbon  
Leadership  
Forum  
**British  
Columbia**

Powered by **zeic**

**600+ Local Industry Professionals**

**30+ Past Events**

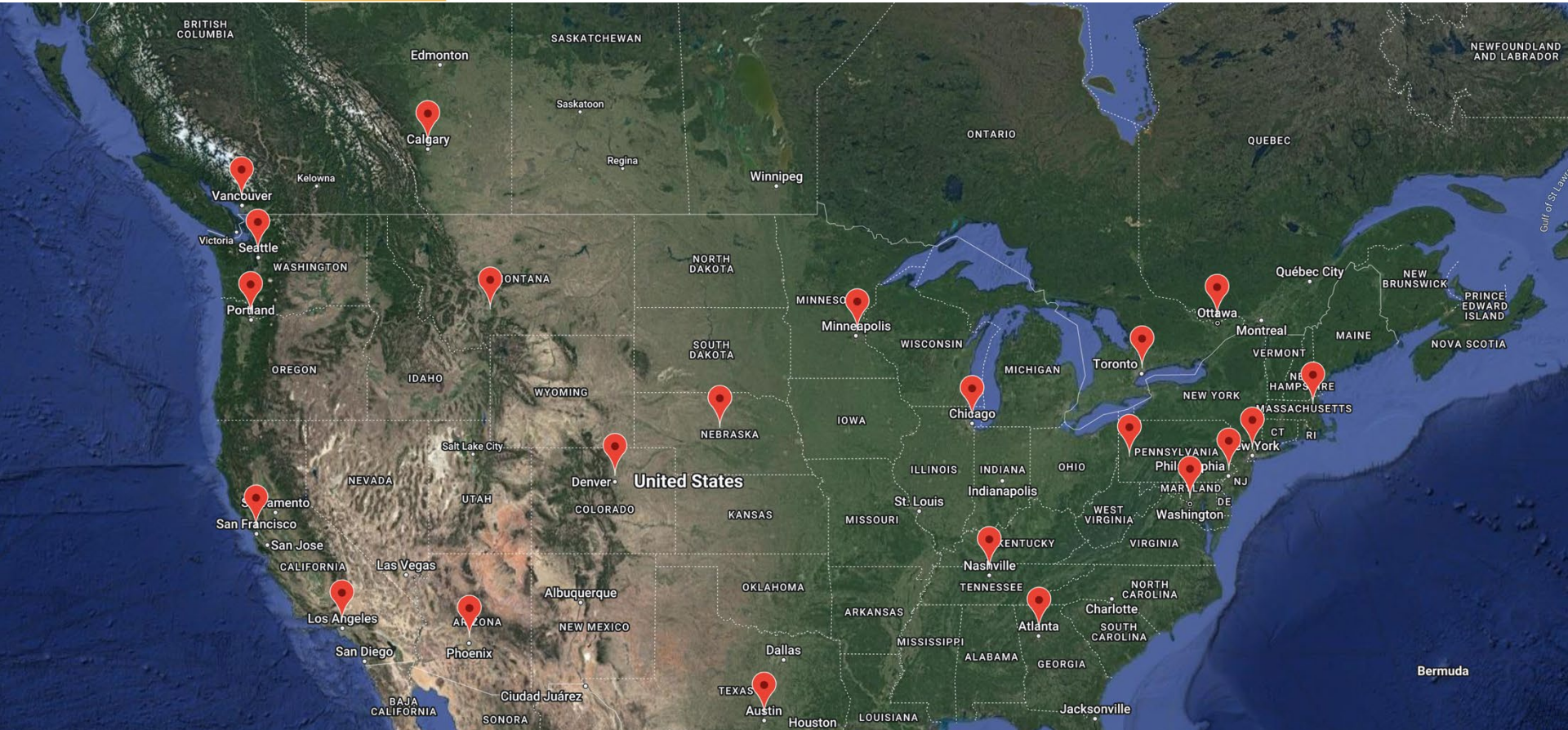
**30+ Cities Inspired to Start Local Hubs**

[www.CLFBritishColumbia.com](http://www.CLFBritishColumbia.com)



Courtesy Anthony Pak, Priopta









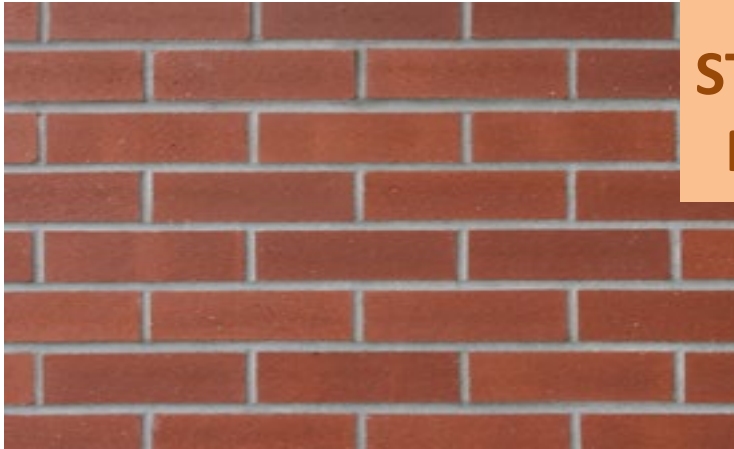


Steel



Wood

**4**  
BASIC  
STRUCTURAL  
MATERIALS



Masonry



Concrete

# COMPETING MATERIALS



## EPDs

Made Easy

For Concrete Masonry Producers

### Concrete Masonry EPD Generator

The Concrete Masonry EPD Generator is the first and only system that



## EPDs Made Easy™

Partner with the trusted industry leader

Climate Earth is the first and only global provider of on-demand, digital EPDs and business intelligence tools for the concrete industry.

Learn More

Request a free consultation

- 50,000 + CONCRETE EPDS
- ~200 WOOD EPDS

### One Click LCA's Concrete EPD Generator

Create EPDs, easily & affordably

Concrete is the most used material on the planet. It causes 4 gigatons of carbon emissions a year. Buyers know this and are looking for ways to reduce their impact. Concrete EPDs provide the reliable environmental data that buyers value.

One Click LCA Concrete EPD Generator allows you to create Environmental Product Declarations (EPD) at low costs, without compromising quality.





# CONSTRUCTION DRIVERS AND WOOD

**Regulations**

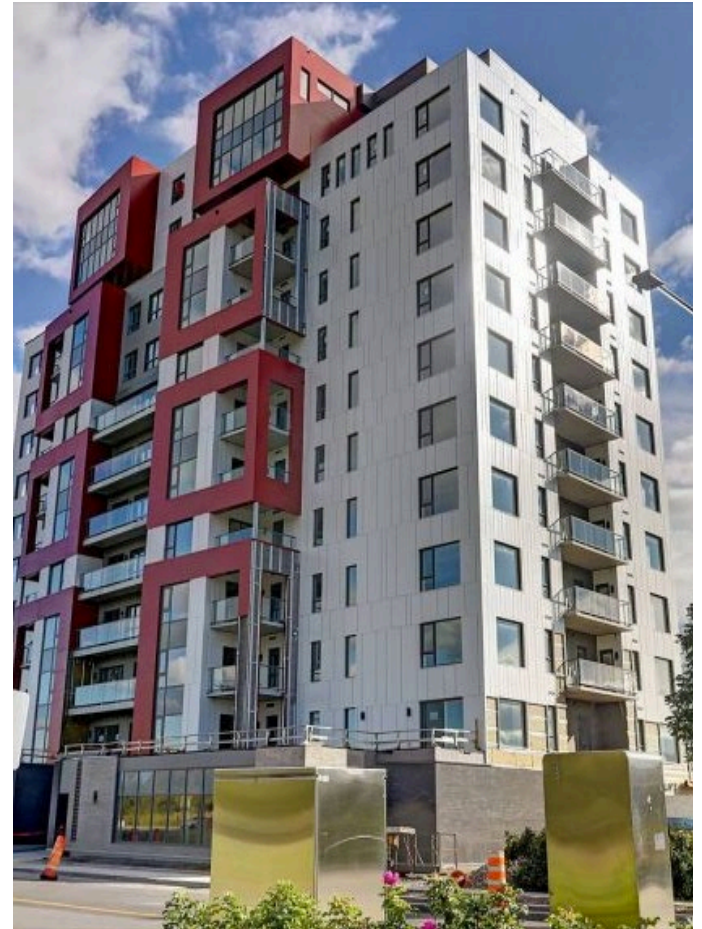
**Construction Capacity**

**New Wood Processes**

**Housing**

**Health /Biophilia**

**Circularity**



# Thoughts

- Carbon –not an option
- Opportunity
  - Define or be defined

