

The Challenge and Opportunity of Housing People with Wood

How can we provide much-needed homes in BC and beyond, while addressing the global climate crisis? By building with wood, of course! The Canadian Mortgage and Housing Corporation (CMHC) estimates the country will need 5.8 million new housing units by 2030 (doubling the current output) in order to meet growing demand and achieve affordability. Whole Building Life Cycle Assessments show that wood buildings have a much lower carbon footprint than their concrete or steel counterparts.

While wood construction used to be limited to smaller homes, new building technologies such as mass timber now enable us to use wood in larger buildings such as residential towers above six storeys. The forest industry in British Columbia can play an important role in providing affordable, climate-friendly housing. The challenge is to realize this potential.

Exposed to natural disturbances from fire and insects, the unpredictability of commodity markets, trade disputes, and changing public policy, the BC forest industry is facing major headwinds challenging its competitiveness and ability to grow and diversify. How can the BC forest industry, and especially the wood products sector, overcome these issues so it can provide more low-carbon building materials, both locally and beyond provincial borders?



How Can BC Grow Its Wood Products Supply Chain?

In order to explore the challenges and opportunities of growing the supply chain in BC for manufactured wood products for housing, the BC Council of Forest Industries (COFI) organized a day long workshop on April 10, 2024 in Vancouver, BC. One hundred participants, representing primary and secondary forest products manufacturers, building developers, the design community, First Nations organizations, municipal governments, and other decision makers and stakeholders met to discuss the supply chain for wood products. Discussion focused on factors impacting investment decisions, the mass timber market, and the barriers and advantages across the BC value chain from the forest to the construction site.

What emerged from the discussions was a picture of the current state of the wood products supply chain in BC, the challenges facing companies in their attempts to grow, and opportunities to overcome these challenges.

COFI would like to thank the BC Office of Mass Timber Implementation, Canadian Wood Council, and Natural Resources Canada for their support in developing the Forestry Solutions for Housing and Climate: Growing the BC Value Chain workshop.







Photos: Mat Lo

Who We Heard From

Attending were 100 representatives from across the wood products and buildings value chain.

Architects Research & Education First Nations Provincial Gov & Crown Corp Primary Manufacturing Total Participants: 100 Consultant

Workshop Demographics

Figure 1. Workshop demographic survey

What We Heard

Mass Timber Has a Long Way to Grow

- Market interest and enthusiasm is growing for factory-based construction methods including mass timber, among builders and wood products manufacturers alike.
- Mass timber is at an early point on its growth curve: it currently makes up 1% of the market for construction materials in North America.
- The small size of the industry can cause challenges, such as production bottlenecks and the risk of a business interruption disrupting the supply chain.
- More industry growth is the solution, but it must progress at a sustainable pace. Participants indicated they were watching for more non-government projects as a sign the market is maturing and becoming less risky.
- Demand-driving initiatives—such as recent building code changes that allow the use of mass timber in more and taller buildings up to 18 storeys—are working but need time to scale demand. Municipal incentives and Timber-First policies were also seen as effective.
- Mass timber industry knowledge is still evolving and more education is needed for users and the public alike.

BC's Forest Industry Faces Barriers to its Competitiveness

- · Lack of access to economic fibre supply, among other issues, is eroding BC's competitiveness.
- With higher costs, when markets decline, BC sawmills are among the first to go down, threatening the supply of raw materials for secondary manufacturers.
- To attract investment, BC forest policies must support a predictable and stable timber supply.
- BC's diverse geography presents a transportation challenge: long distances and sparse rail infrastructure mean higher costs. This is true for getting both raw inputs to mills and finished products to customers.
- Manufactured wood products, and mass timber in particular, have specific raw material and supply chain needs requiring an evolution of the wood product market ecosystem.

Which of the Following Presents the Most Interesting Opportunity to your Organization at this Time?



Figure 2. Workshop survey

Complexity Across the Value Chain

Workshop participants described being sometimes overwhelmed with complexity, including ongoing policy changes affecting access to economic fibre for manufacturing and increasingly customized relationships across supply chains.

- There is more opportunity and greater need for industry and First Nations to work together; relationship building will be key to advancing new partnerships and business models.
- Vertical integration could improve industry competitiveness, but would further increase complexity
 a daunting prospect for many specialized companies. Instead, inter-company partnerships could
 help integrate the supply chain while allowing each company to focus on what they do best.
- Mass timber is still a niche market. Standardization of processes and products could help reduce system complexity and enable economies of scale.

Recommendations

BC's Strategy of Creating Market "Pull" Is Working; Keep It Going

- Collaborate with other jurisdictions to expand market "pull" initiatives beyond BC's borders.
- Create a BC-based community of practice (or "knowledge hub") to share information between members of the mass timber and offsite construction supply chain and beyond.
- Continue to champion trades education.
- Explore ways to better utilize residual fibre throughout the supply chain.
- Explore innovative transportation solutions such as truck convoys and low-carbon fuels to reduce costs and help get wood products to market.

Create a Predictable Policy Environment to Reduce Risk and Encourage Investment

- Expedite the establishment of regional tables for forest landscape planning.
- Address delays in developing and issuing harvesting permits.
- Build a two-year inventory of ready-to-harvest timber.
- Review the current business model for BC Timber Sales to ensure it is evolving to meet changing conditions and priorities.
- Further boost BC's timber supply through the adoption of innovative forest management practices, such as intensive silviculture (i.e., thinning), cultural and prescribed burning, and salvage harvesting.
- Advance development of a long-term economic strategy for the BC forest sector linked to environmental and social objectives.
- A more measured pace of policy change would give forestry companies, First Nations, communities, and workers time to adapt.

Build Relationships to Help Navigate Supply Chain Complexity

- Advance co-development of the First Nations Revenue Sharing Framework and secure agreements with First Nations that advance progress on forest stewardship and management.
- Build on BC's Value-Added Accelerators initiative to support business-to-business (B2B) relationship-building.
- Support supply chain integration through contracts, equity partnerships and other mechanisms between parties in the value chain.
- Explore standardization throughout the mass timber supply chain:
 - Develop standard building layouts for use in social housing.
 - Work with manufacturers, builders, and researchers to identify which dimensions and strength properties would work best for standardized CLT panels.
 - Identify potential supply chain partners who would be willing to work together, either creating the standardized panels or using them.



