

Ontario Mass Timber Value Chain Roadmap

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Ontario



Executive Summary

- In response to lagging productivity and the scarcity of skilled labor, the global construction industry is moving away from traditional construction sites and into factories which produce manufactured building components, elements and modules. *Construction* sites are being transformed into *assembly sites*. This is the future of construction.
- Mass timber is a form of offsite construction and is an integral part of this transformation. Mass timber market share in North America is growing exponentially and shows no signs of slowing down. Canada is one of the world's leaders in this new industry.
- Mass timber is about much more than gluing and pressing pieces of lumber. It is evolving into an offsite manufacturing ecosystem that is attracting investment from some of the world's largest companies. Given that construction is the world's largest industry (\$11 trillion), offsite manufacturing could some day rival the auto industry in terms of value added.
- In terms of sustainability, mass timber is far ahead of its competition. Unlike steel and concrete, mass timber sequesters carbon. Moreover, it is one fifth the weight of concrete, which translates to faster erection, smaller foundations, and fewer fossil-fuel-burning trucks to jobsites. Mass timber is the path to sustainable construction.
- As Canada's leader in manufacturing, Ontario is ideally positioned to exploit this emerging manufacturing opportunity. But Ontario currently lags both BC and Quebec and so Ontario must not delay.
- The shift towards mass timber offers more than increasing markets for Ontario wood products. It offers tremendous opportunities for Ontario to increase value across the entire value chain, from forests to construction.
- On the next page, we list specific actions the province of Ontario can take to support its mass timber manufacturing sector.

Executive Summary Recommendations

1. Embark on a two-pronged program to (1) boost construction productivity and (2) lower embodied carbon in construction.
2. Go beyond the production of mass timber alone and capture more downstream value.
3. Ontario must accelerate the approval and adoption of the 2020 NBCC Building Code with its 12 story EMTC provision.
4. Support enhanced education for advanced wood construction for AEC, the trades and the insurance industry.
5. Support demonstration building projects.
6. Develop a Mass Timber Market Opportunity and Business Case to attract investment from for Ontario's lumber industry, as well as other investors.
7. Establish a benchmark and a formal measure of the evolution of wood use.
8. Support the development of hardwood based mass timber panels (LSL, OSB, hardwood lumber, combinations of hardwood elements with softwood lumber).
9. Support forest industry/construction industry collaboration on the production and use of "Long-Lived Wood Products".

"After decades of relatively slow change, an at-scale shift to modularization—alongside digitization—looks likely to disrupt the construction industry and broader ecosystem.

All players should evaluate the trend and impact, and assess their strategic choices, to ensure they can benefit rather than risk being left behind."

– McKinsey & Co.