

The Mass Timber Network

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The Mission for a National Mass Timber Research Network

- Pan Canadian consortium /collaborative network of research partners and other stakeholders
- Coordination of research and making it more industry oriented
- Building on achievements, interests and alignments of the key stakeholders

Who are we?

Mass Timber Institute founding partners:





The Arbour, George Brown College



Goldring Centre, University of Toronto





Education

- University of Toronto Engineering
 - #1 Engineering School in Canada, and among the best in the world at Canada's most innovative university



Archetype: TallWood Design Institute

Oregon State University College of Forestry & College of Engineering University of Oregon College of Design





College of Carpenters and Allied Trades

- The OMTP received much feedback related to a lack of skilled trades workers capable of working with mass timber
- CCAT offers training to over 4,500 students/year and is perfectly positioned to help train new tradespeople and offer skills upgrading for existing tradespeople
- The OMTP has provided support to CCAT for the development of a mass timber module curriculum and capital investments for equipment, materials and facility upgrades
- Curriculum will be shared across Ontario through 15 Carpenters' Union training facilities













The Globe: Canada becomes powerhouse mass timber exporter The Economist: International students flock to Canadian colleges and universities to study mass timber design and construction Der Spiegel (English edition): Pesky Canadians displace Germany and Austria as #1 mass timber producer Crihnne NY Times: The Pritzker prize is awarded to architect who creates with mass timber

About SWECO

Europe's leading architecture and engineering consultancy

Structural Engineering Architecture Building Service Systems Infra Structures Water & Environment Energy Industry Project Management

offices in 14 countries and we carry out projects in 70 countries annually throughout the world

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co has

in Europe

17 000

experts

1,9 BILLION €

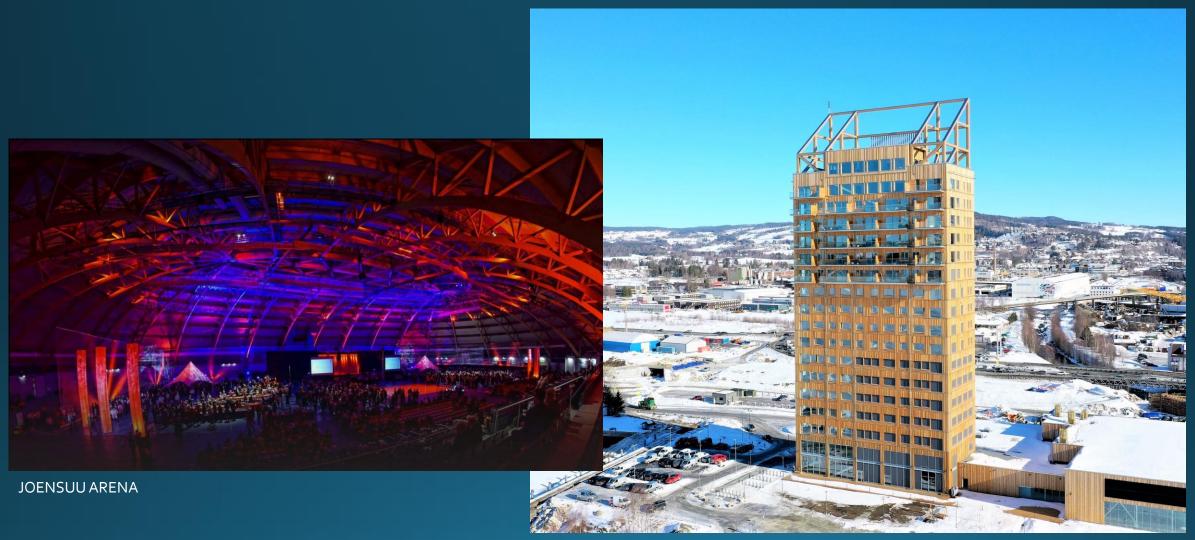
net sales in 2018

1889 established

1111

SWECO

World's tallest timber building



MJÖSTORNET

Forest Resources of Ontario

- Ontario has 71 million hectares of forest
- 27.7 million hectares of managed Crown forests
- Southern Ontario has 1.2 million hectares of private forests





What are the "research priorities" of the mass timber end users In Canada?

CAPSTONE RESULTS

	Not a Priority		Low Priority		ium Priority	High Priority		
	14%		54%			32%		
	4% 4% 50		50%			43%		
	29%		43%			29%		
	32%		36%			32%		
]	7%	21%	18%		54%	6		
	14%		43%			43%		
	4% 18%			54%		25%		
	29%		46%			25%		
	4%	36%			43%	18%		
	14%		39%			46%		
	18%		36%			46%		
	36%			39%		25%		
1	4% 32%				64%			
		n = 28						

Size of the market and future demand Impact on insurance - both during construction and post construction A pathway to developing a standardized "kit of parts" approach Long term durability and maintenance considerations Wood supply for mass timber manufacturer Procurement issues (e.g. merits of different procurement models, supply chain and. Aggregating and simplifying existing knowledge for mass timber end Compile lessons learned Build an online central repository/library Interaction between industry and researchers Environmental (i.e. climate change) impact/benefit Social impact/benefit Total project cost comparison with concrete & steel

What are the "major barriers" that may be hindering widespread adoption of mass timber in Canada?

CAPSTONE RESULTS

Not a barrier at all ■ May be a barrier ■ Large barrier

Higher cost of mass timber products than concrete/steel	7%	32%		61%		
High/uncertain insurance premium		57%		43%		
Product availability (i.e. lack of local production)	11%	32%		57%		
Poor technical databases and knowledge	18%		50%	32	2%	
Poor awareness of mass timber and its benefits	11%		64%		25%	
incentives/support for implementing mass timber projects	25%	%	50%		25%	
Lack of carbon sequestration incentives/carbon tax	14%	43%		43%		
Poor standardization of codes and regulations	14%	36%		50%		
erest among various stakeholders in adopting mass timber	25%	%	649	%	11%	
Resistance to changing from concrete and steel	7%	39%		54%		
er regarding concerns over fire and the building's longevity		36%		64%		
Difficulties in providing mass timber training to project staff	259	%	50%		25%	
Too few demonstration projects	259	%	39%	36%	0	
			PERCENT OF RESPON	DENTS	n = 28	
	L					

Produ Poo Lack of government incentives/sup Lack of Po Conflicts of interest among v Res Misconceptions about mass timber regarding co Difficulties in pro

Recommendations for private forest landowners

- Collective action
- Mass timber markets
- Mass timber mills
- Research partnerships

One Final Thought

"We must ensure that mass timber drives sustainable forestry management, otherwise all of these benefits are lost." Beverly Law