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Green Construction through Wood: A renewed program

MLB AGM, June 7

Canada

GCWood Accomplishments



EDUCATION ROADMAP AND TOOLS

- Courses on wood design and construction into curricula at 11 accredited university programs
- Increase to 16 graduate timber courses in 2021/22 from 5 courses in 2018
- Developed 33 modules and 10 tools



DEMONSTRATION PROJECTS

- 4 tall wood buildings
- 10 low-rise non-residential
- 2 mass timber bridges
- 10 wood-based building or infrastructure based projects replicated



RESEARCH AND DEVELOPMENT

- Update 2020 edition of the NBC to allow 12 storey EMTC construction
- Adoption of EMTC provisions by provinces & municipalities (21)
- Largest full-scale mass timber fire demonstration test
- Initiated work on performance-based codes



The State of Mass Timber in Canada (SMTTC) 2021

- First of its kind to capture mass timber projects and production capacity in Canada
- Presents a baseline dataset that includes 785 completed or currently under construction projects since 2007 and data on 19 mass timber manufacturing facilities in Canada
- First edition was released in May 2021
- An interactive web-based map developed & published
- Recently included within the Living Atlas of the World



<https://experience.arcgis.com/experience/58e313c4ac0247138ba5057d655ed1d4>



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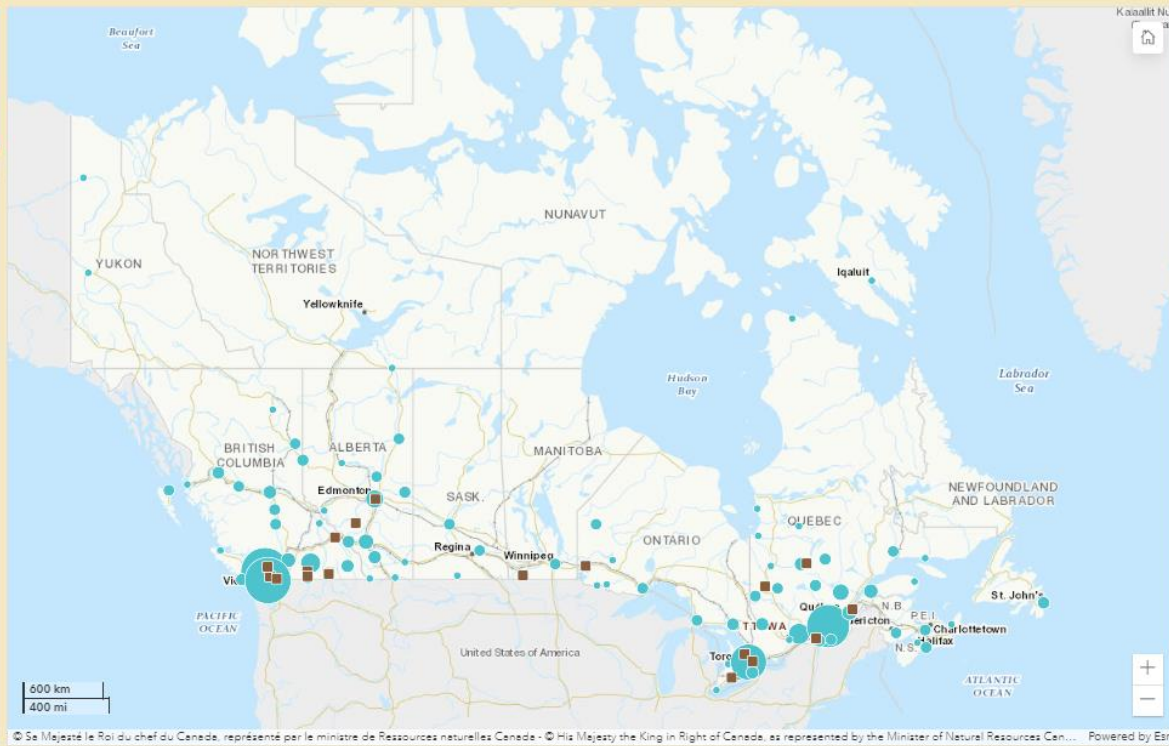
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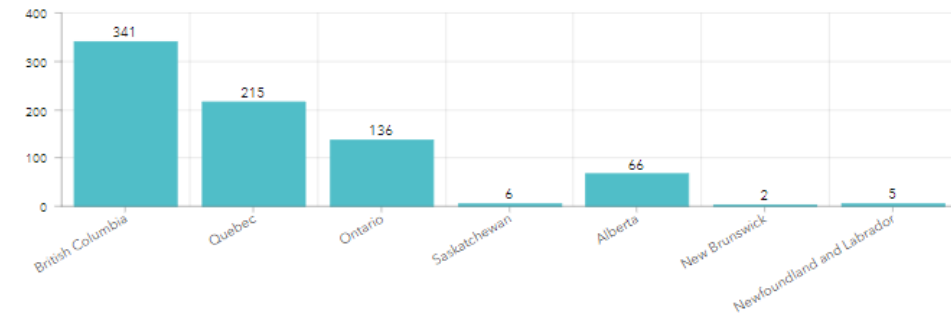
SMTC - Projects

785
Projects

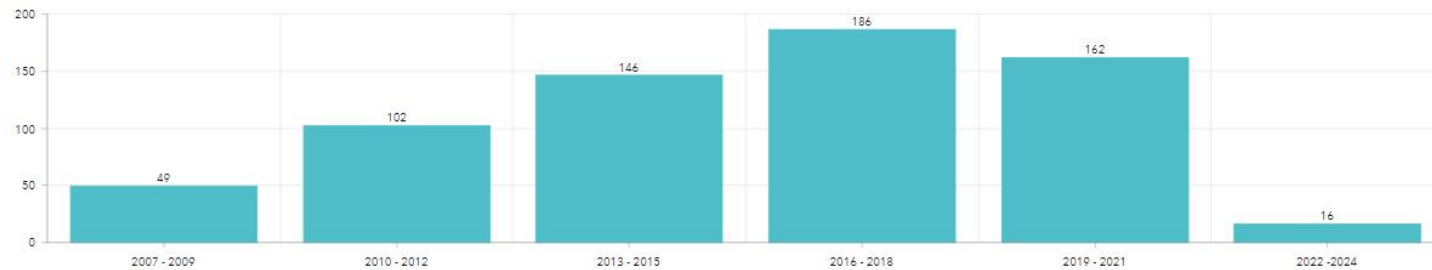
- North Saanich Middle School
Sidney, British Columbia
 - Soda Creek Community Hall
Williams Lake, British Columbia
 - Skelep School of Excellence
Kamloops, British Columbia
 - Saint-Georges Multisport Complex
Saint-Georges, Quebec
 - The EAK Summit Trail
St-Faustin Lac Carrié, Quebec
 - Affordable and Supportive Senior Rental Housing
Toronto, Ontario
 - Kiwanis Aquatic Centre and Grantham Branch Library
St. Catharines, Ontario
 - Microbrasserie de l'île d'Orléans
Ste Famille de l'île d'Orléans, Quebec
 - The Osler Bluff Ski Club
Town of Blue Mountain, Ontario
 - Pespeekias First Nation Community Hub
Pespeekias, Saskatchewan
 - Gibsons Elementary School
Gibsons, British Columbia
 - Grain Lofts
Toronto, Ontario
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Project count by province/territory



Project count by year built



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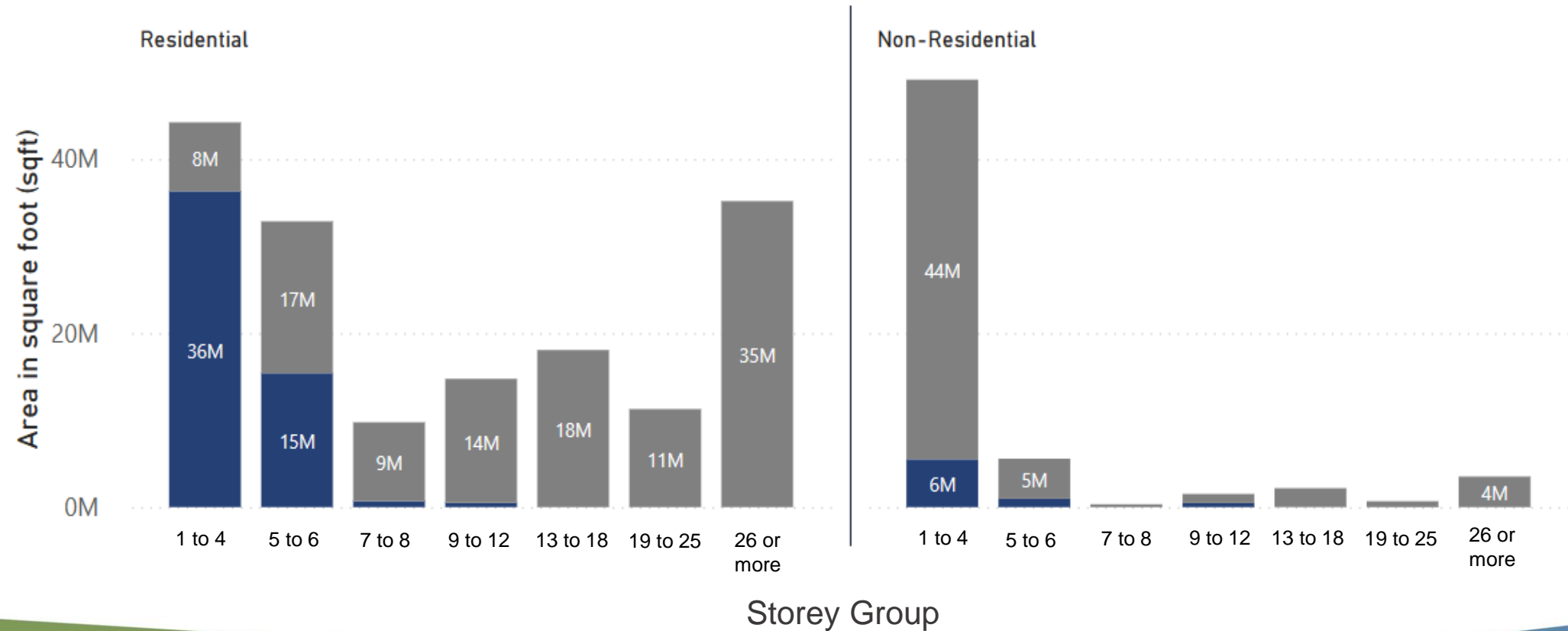
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Wood Construction Market Share 2022

Wood Share - Residential and Non-Residential Floor Area by height

Residential Area in square foot (sqft) by Storey Group and Wood/Non-Wood

Wood/Non-Wood ● Wood ● Non-Wood ● Unknown



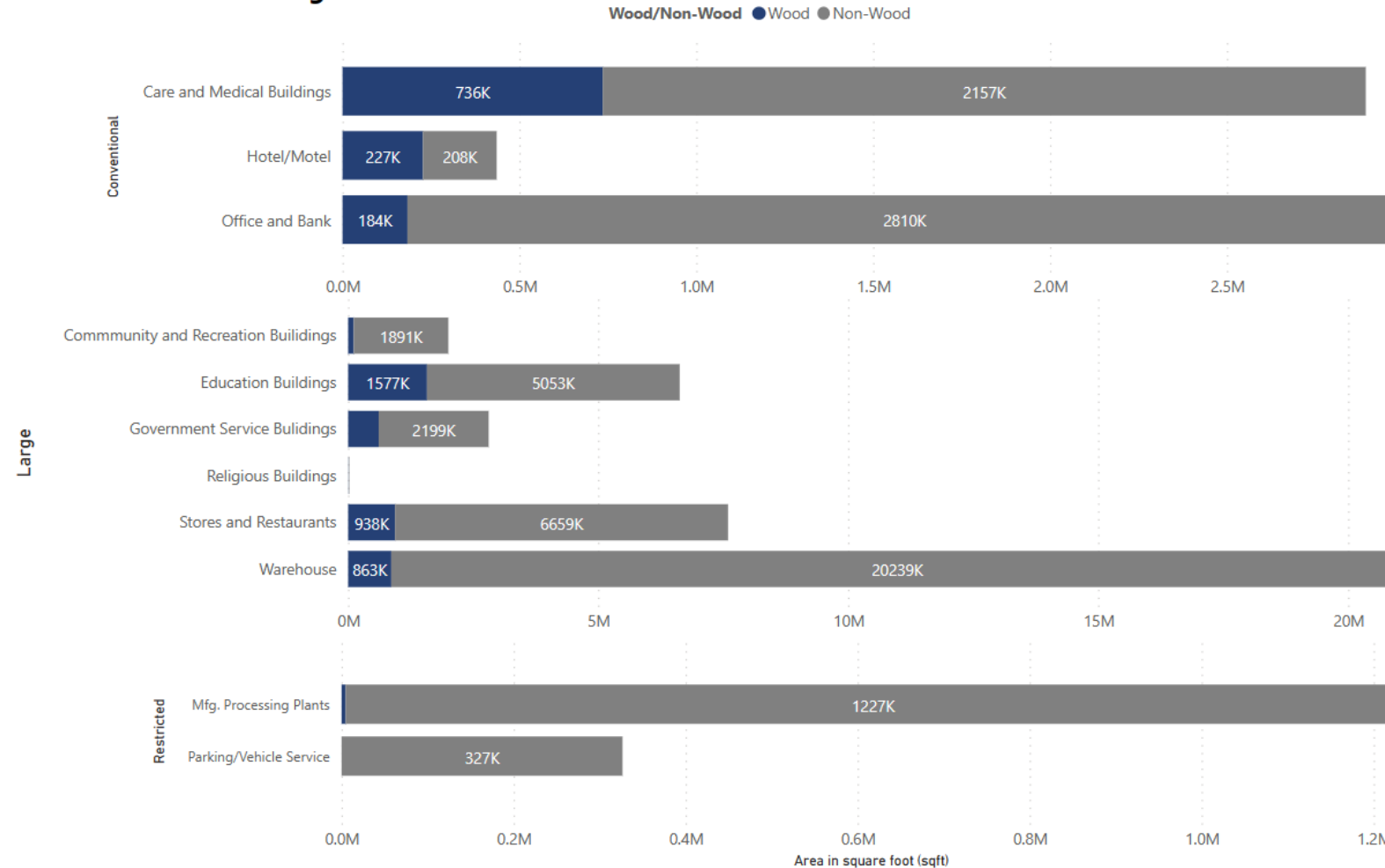
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Non-Residential Market Share 2022

Non Residential Buildings Floor Area

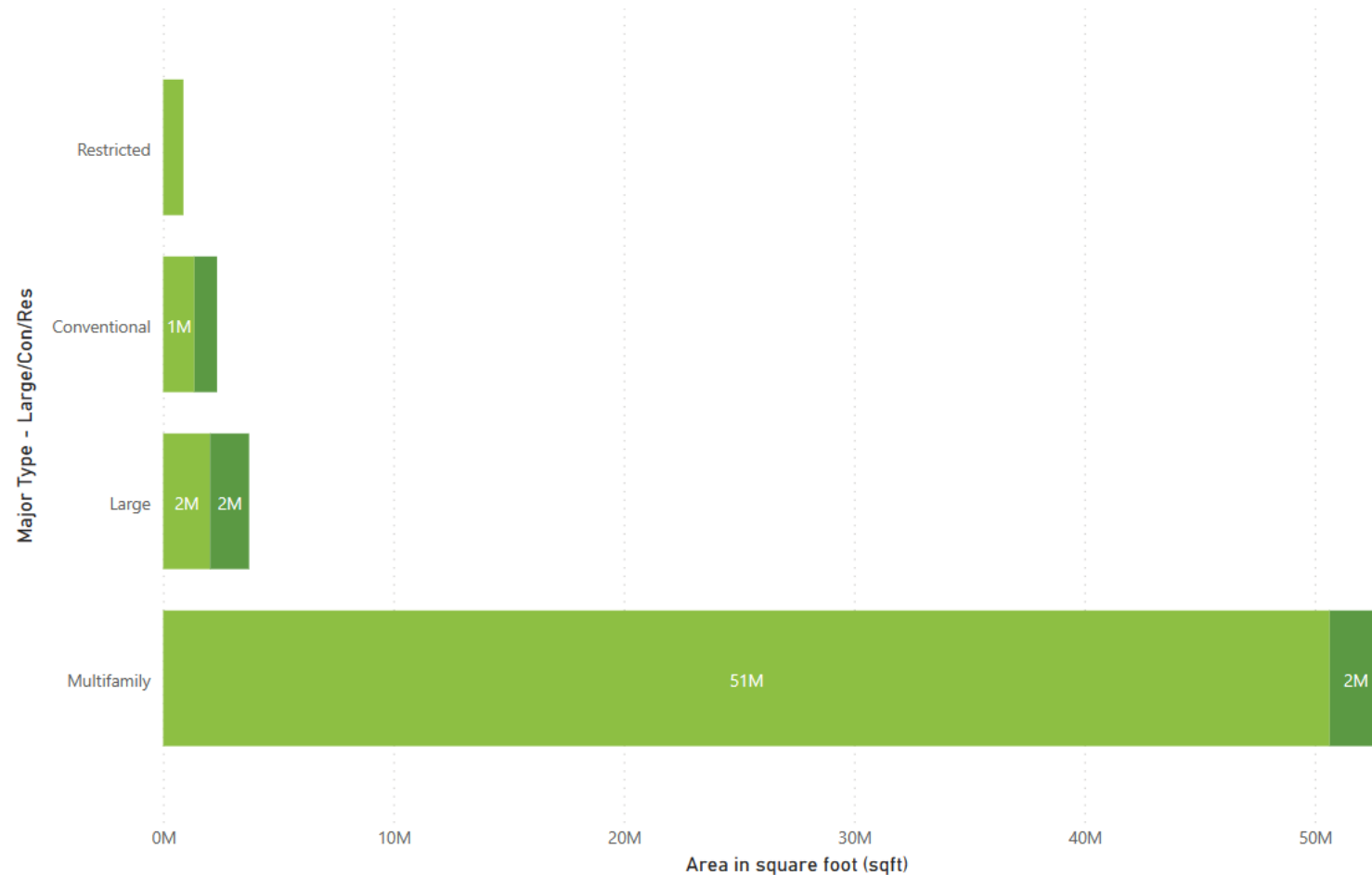


Mass Timber Market Share 2022

2022 Structural Share - All Wood Buildings

Area in square foot (sqft) by Major Type - Large/Con/Res and Light frame or Mass Timber

Light frame or Mass Timber ● Light frame ● MT



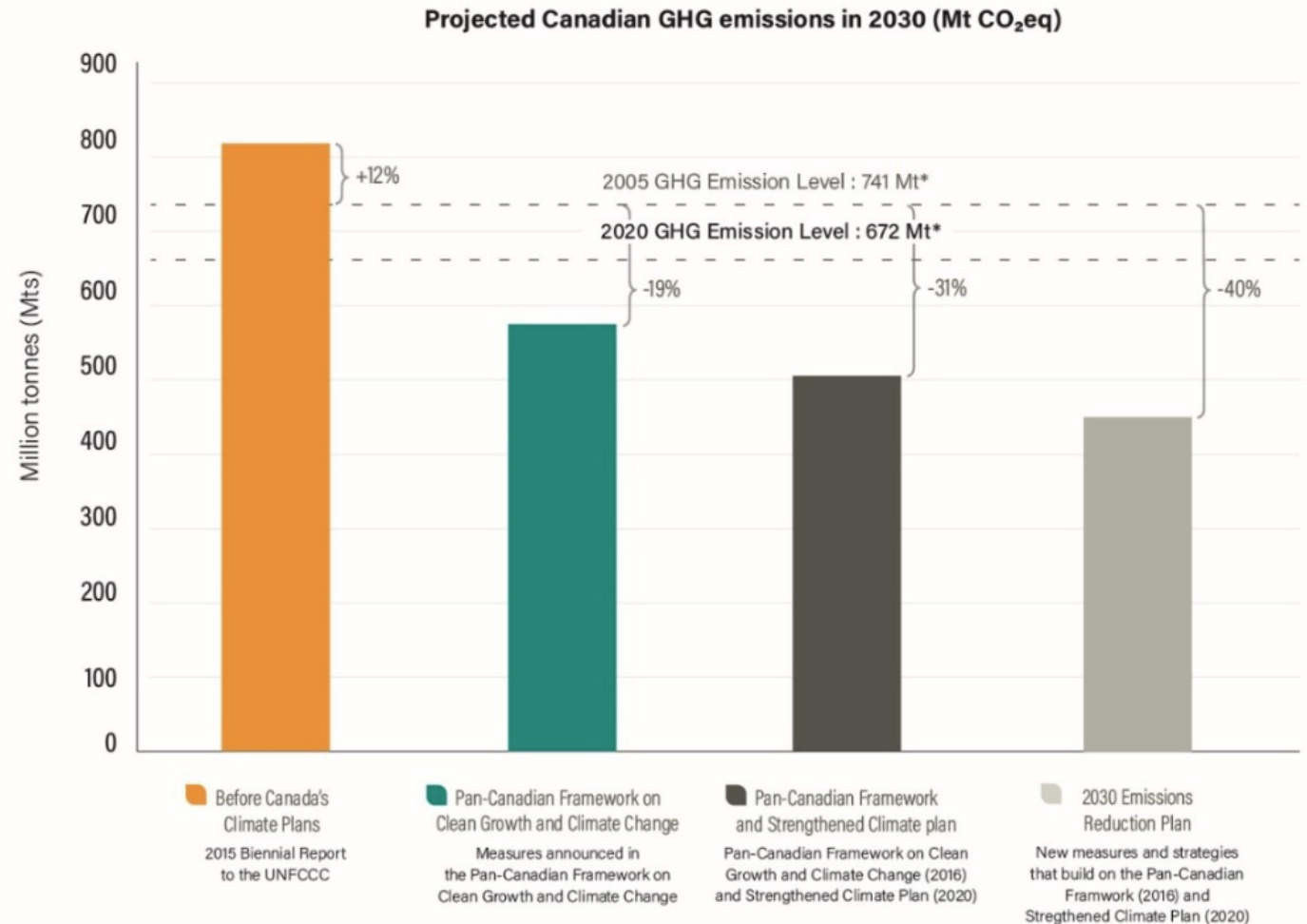
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Canada Working Towards Net-Zero

- Government of Canada is committed to achieving net-zero emissions by 2050
- Several Initiatives underway to help decarbonize the built sector:
 - Canada Green Building Strategy
 - Buy-Clean Initiative
 - Low-Carbon Building Materials Hub
 - NRC's Platform to Decarbonize the Construction Sector at Scale
- GCWood de-risks and accelerates domestic market penetration of low carbon, non-traditional building materials and systems to decarbonize the building sector



Renewed GCWood Program: Areas of Interest



Building capacity and education



Demonstration of technologies, systems, and design concepts



Advanced bioproducts use in construction



R&D to support building codes & standards revisions and PBC



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