THE STATE OF PUBLIC POLICIES ON WOOD CONSTRUCTION IN NORTH AMERICA AND EUROPE

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POLICY GOALS ARE UNACHIEVABLE IF THE BUILDING INDUSTRY FAILS TO MODERNIZE

Developing and developed countries are evaluating the POLICY BENEFITS from modernizing their construction industries.
Current performance in Western Canada

25% late

GO Productivity / COAA (# public projects)
PRODUCTIVITY > EFFICIENCY > SUSTAINABILITY > AFFORDABILITY

- Lack of innovation and delayed adoption
- Informal processes or insufficient rigor and consistency in process execution
- Insufficient knowledge transfer from project to project
- Weak project monitoring
- Little cross-functional cooperation
- Little collaboration with suppliers
- Conservative company culture
- Shortage of young talent and people development

Index of US labour productivity

World Economic Forum – Future of Construction
BUILDING POLICY AIMING AT IMPROVING THE BALANCE
UK’S 2025 INDUSTRY-WIDE INNOVATION GOALS

“Construction 2025” – UK Industrial Strategy
Policy challenges

• Urbanization

• Scarcity of resources

TODAY: BIM STANDARDS AND REQUIREMENTS IN THE UK FOR PUBLIC PROJECTS OVER £ 50M
Lean Construction Institute - Canada
LEAN: LEARNING FROM MANUFACTURING

- Continuous process improvement
- QA/QC
- Obsessing about waste
  - Materials
  - Pollution
  - Time
  - People
BROCK COMMONS

- 404 student beds
- Lean and VDC fully deployed
- Wood structure erected in ~2 months
- Construction schedule reduced by 3 months
- Estimated savings of $150,000 / month
Policy challenges:
- Aging skilled workforce
- Lack of knowledge intensity
- Lack of diversity

Community Benefits Agreements
BC, Alberta, Vancouver, Seattle, Portland...
FACTORY-BASED FABRICATION & AUTOMATION
TRINITY WESTERN UNIVERSITY STUDENT RESIDENCE

- 220 beds, 5,500m² (60,000sf)
- Tallest modular building in Canada
- 9 months from contract signing to completion, including sitework
- 90 modules produced in 62 days
QUALITY / PERFORMANCE

Policy challenges

• GHG emission reduction / elimination
• Adaptability & resiliency

ZERO EMISSIONS BUILDINGS TODAY
EMBODIED CARBON POLICY

• Climate actions demand immediate measurable reductions in GHG emissions
• Several examples of embodied carbon policies
  • EU countries
  • City of Vancouver
• Made feasible through adoption of:
  • Adoption of powerful digital tools
  • Lean & prefabrication

www.naturallywood.com
WOOD – MATERIAL OF THE PAST BECOMES THE TECHNOLOGY OF THE FUTURE

• Can be used to build zero emission projects
• When sourced sustainably, it can reduce embodied impacts.
• Lends itself to modern methods of construction – such as pre-fabrication
• Waste is bio-degradable
• Light, easy to work with
• Intricately woven into local culture.
STRATEGIC NEXT STEPS

• **Industry KPIs** - Data to “tell the story”

• **Encourage collaboration** - ISO 44,001, IPD, Lean

• **Non-project R&D** - shift R&D spending away from a client-funded expense to a corporate investment

• **City-scale digital models** – drive early adoption of VDC

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THANK YOU

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