



Introduction to the Wood Carbon Seminars

Speaker Background

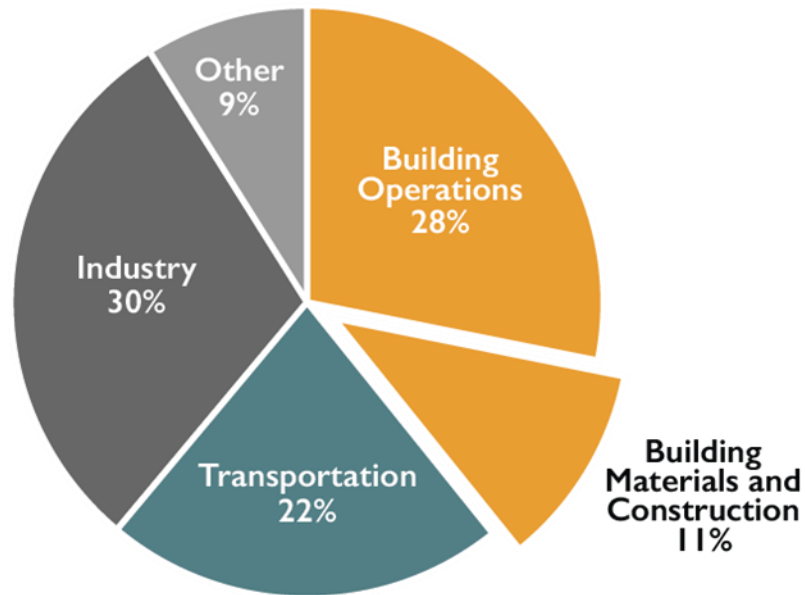
- Kate Simonen
 - Current position:
 - Associate Professor of Architecture, College of Built Environments, University of Washington
 - Department Chair, effective June 2020
 - Director, Carbon Leadership Forum
 - Credentials:
 - M.S. Structural Engineering, M.Arch Architecture
 - Licensed Architect, Structural Engineer, Civil Engineer
 - Key experiences
 - Author *Life Cycle Assessment: Pocket Handbook*
 - Over 15 years professional experience
 - Past ten years focused on integrating LCA and practice



Buildings and the Climate Crisis

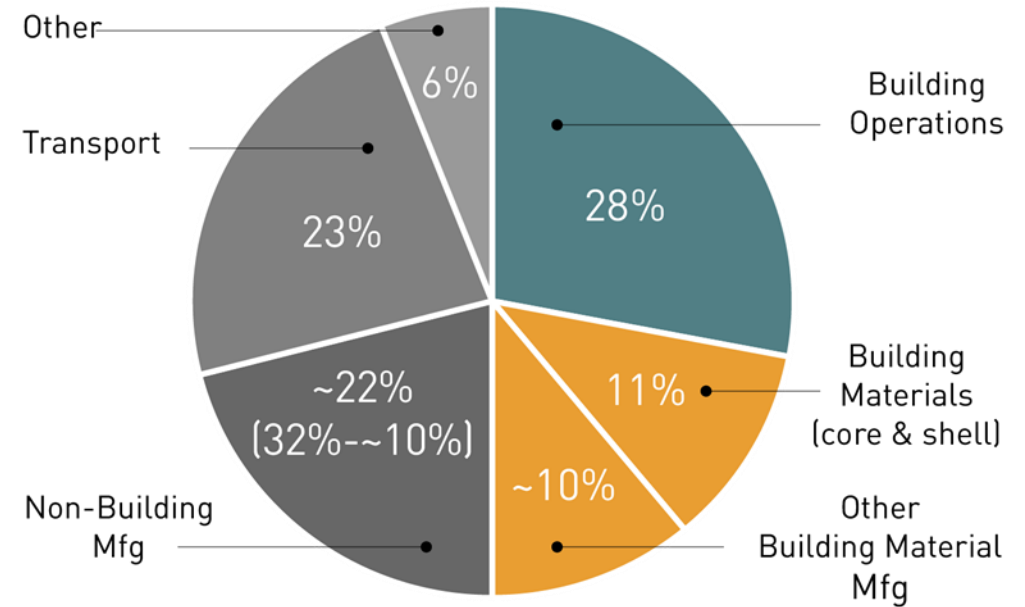
Building's Climate Impact

Global CO₂ Emission by Sector



Source: © 2018 2030, Inc. / Architecture 2030. All Rights Reserved. Data Sources: UN Environment Global Status Report 2017; EIA International Energy Outlook 2017

Total Building Material Impacts?



Adapted from 2019 Global Status Report, Global Alliance for Building and Construction (GABC) and Architecture 2030.

- The building and construction sector has a vital role to play in eliminating carbon, as it is responsible for at least 39% of global carbon emissions.

Operating and Embodied Carbon

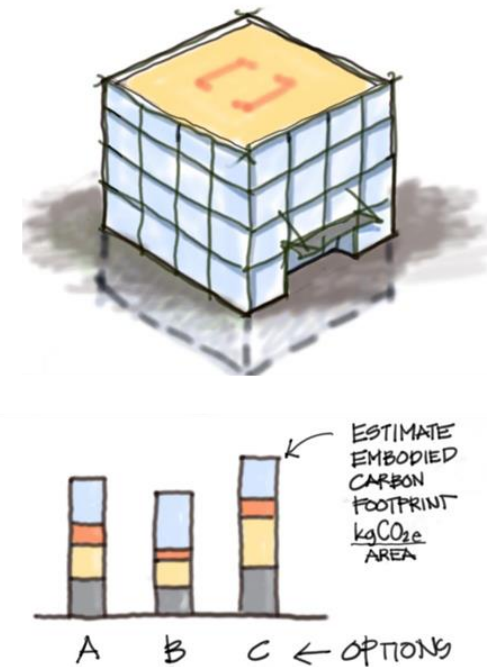
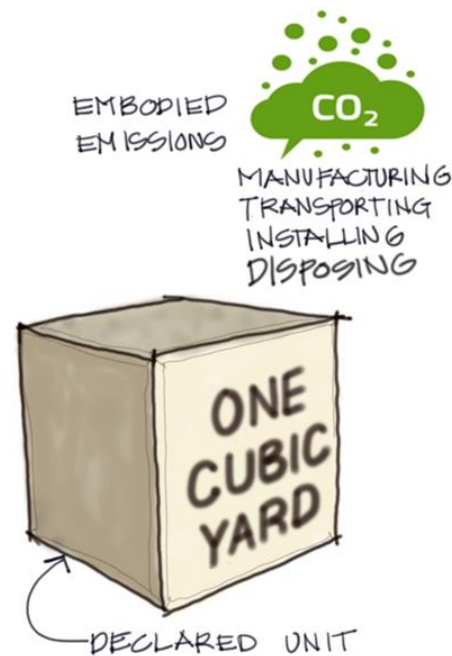
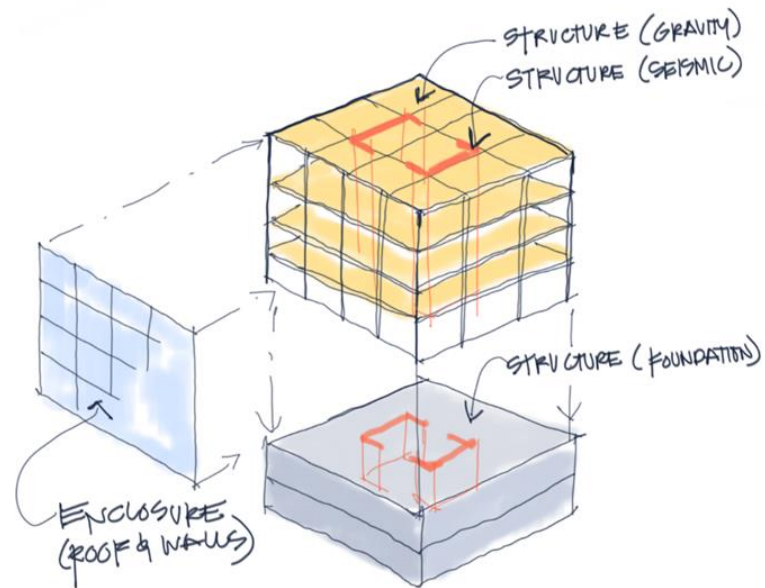


Image: S. Smedley Skanska

Total Carbon = Embodied Carbon + Operational Carbon

$$TC = EC + OC$$

Embodied Carbon Estimates



MATERIAL QUANTITY ESTIMATE

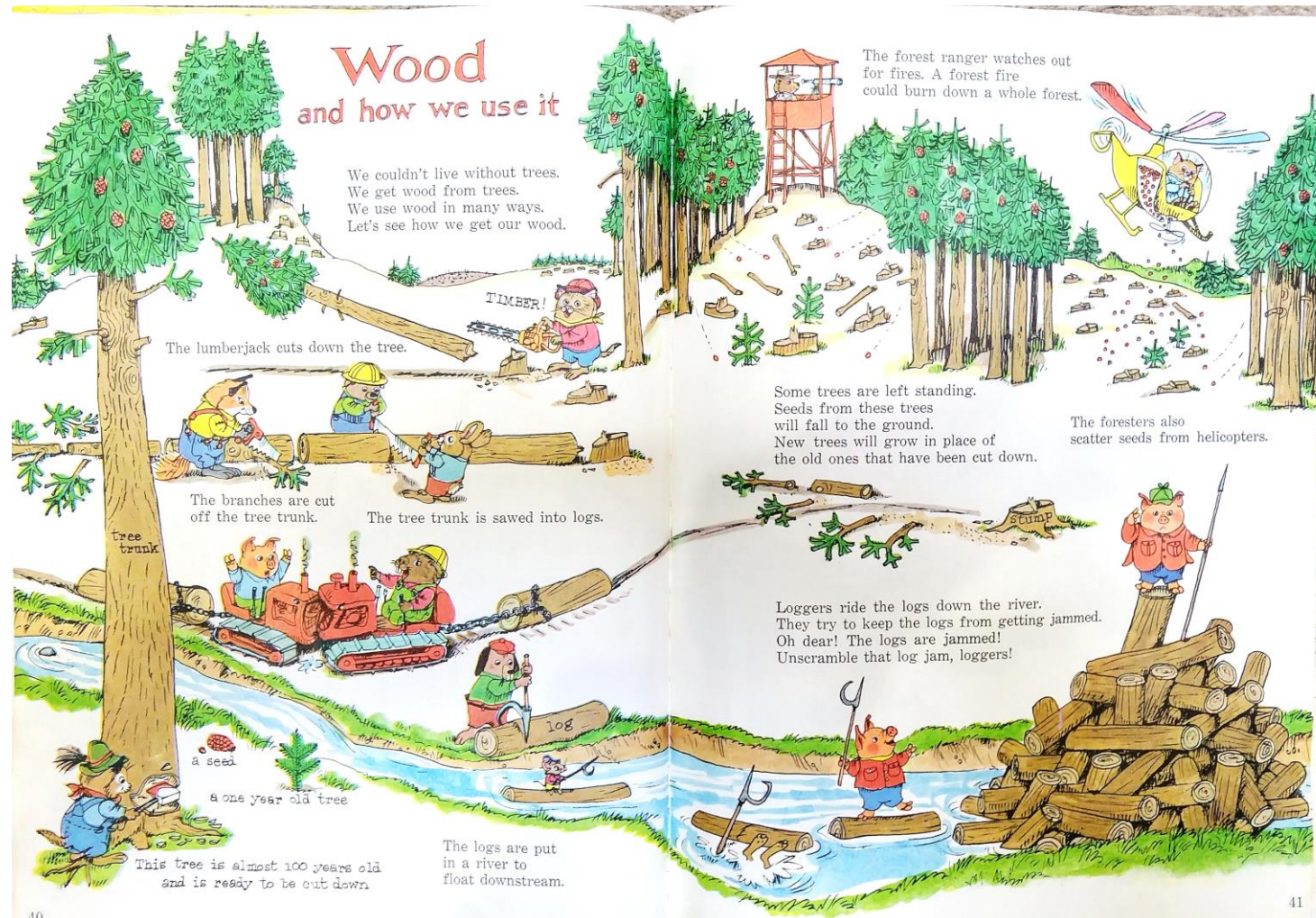
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EMBODIED CARBON PER UNIT MATERIAL

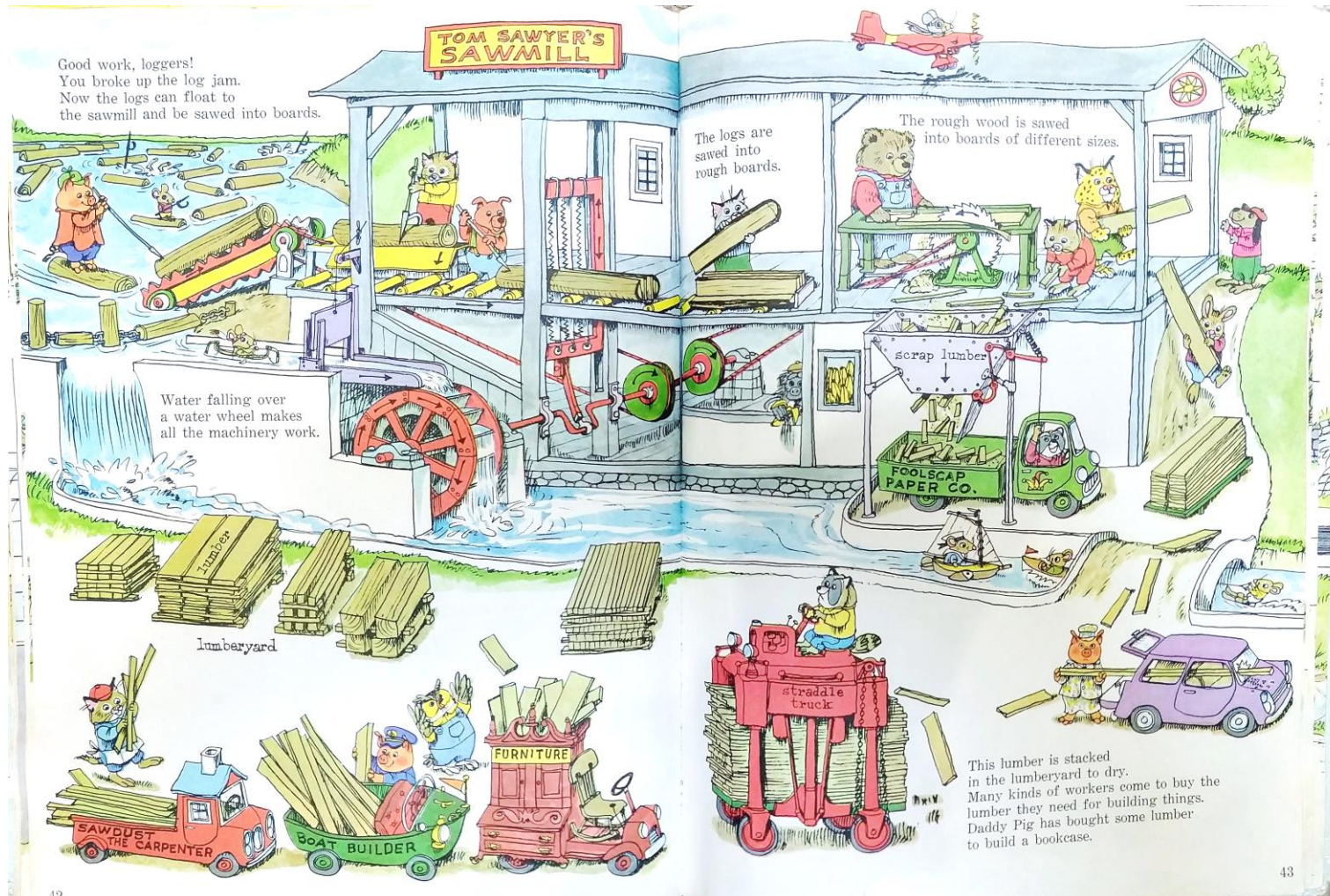
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BUILDING EMBODIED CARBON (EC) ESTIMATE

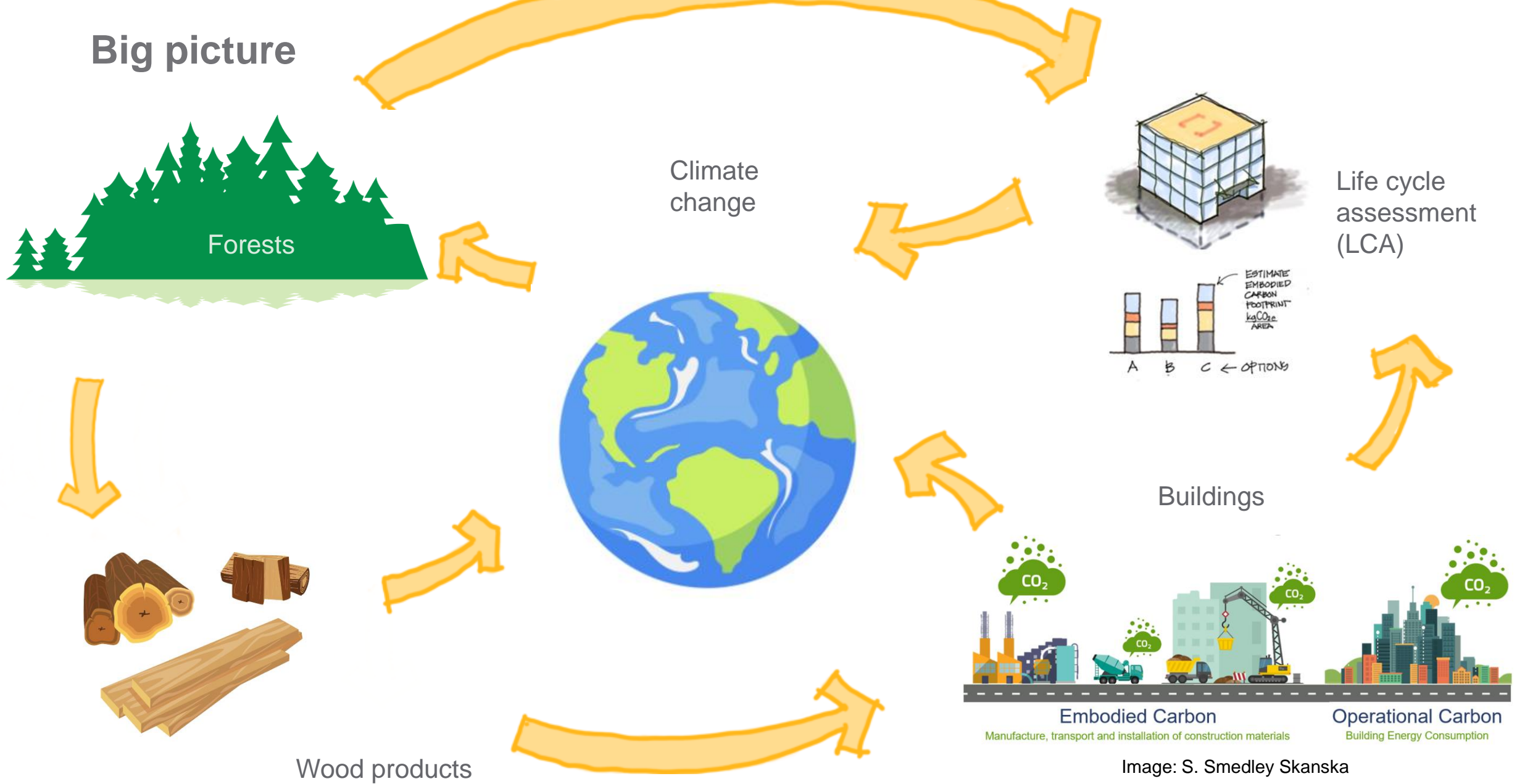
Busy, Busy Town and What Do People Do All Day? By Richard Scarry



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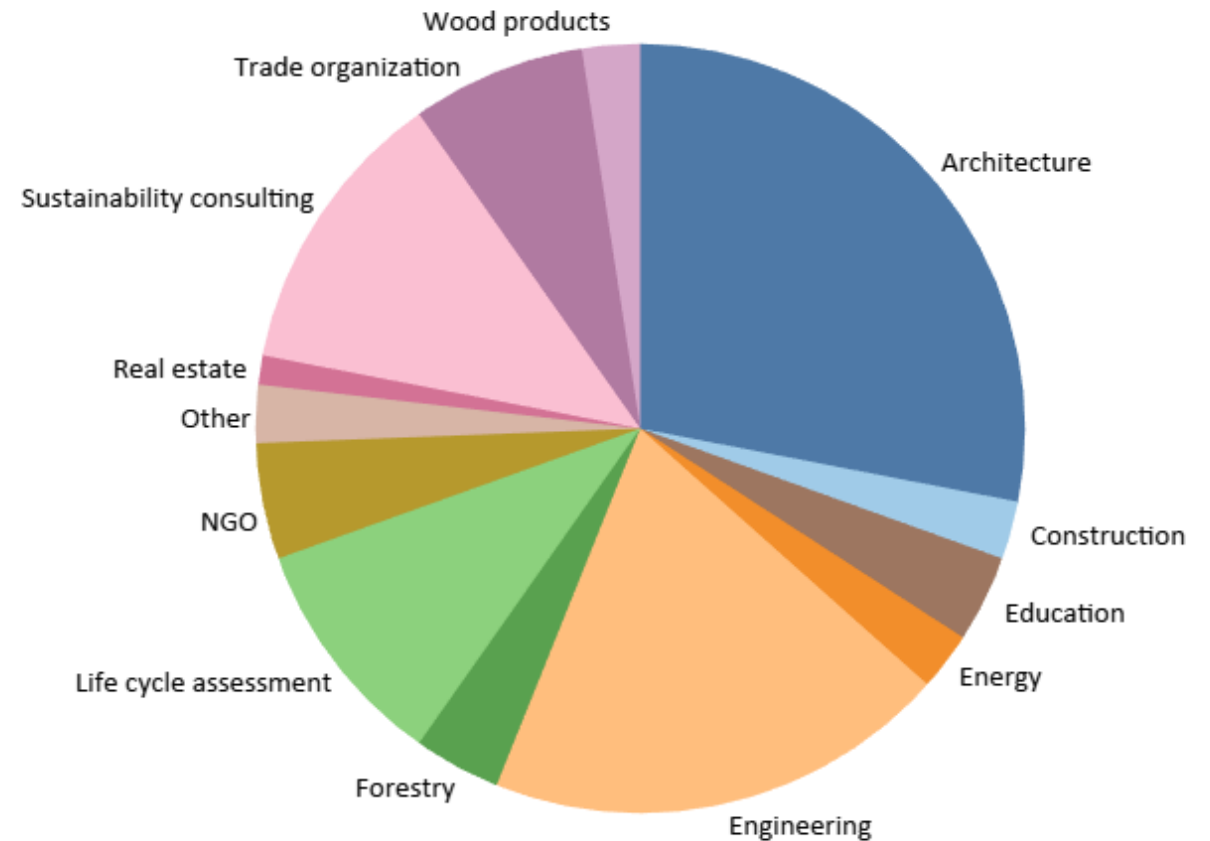


Big picture



Wood Carbon Seminars – Preliminary survey

- 82 respondents



Wood Carbon Seminars - Preliminary survey

- Total score by topic

