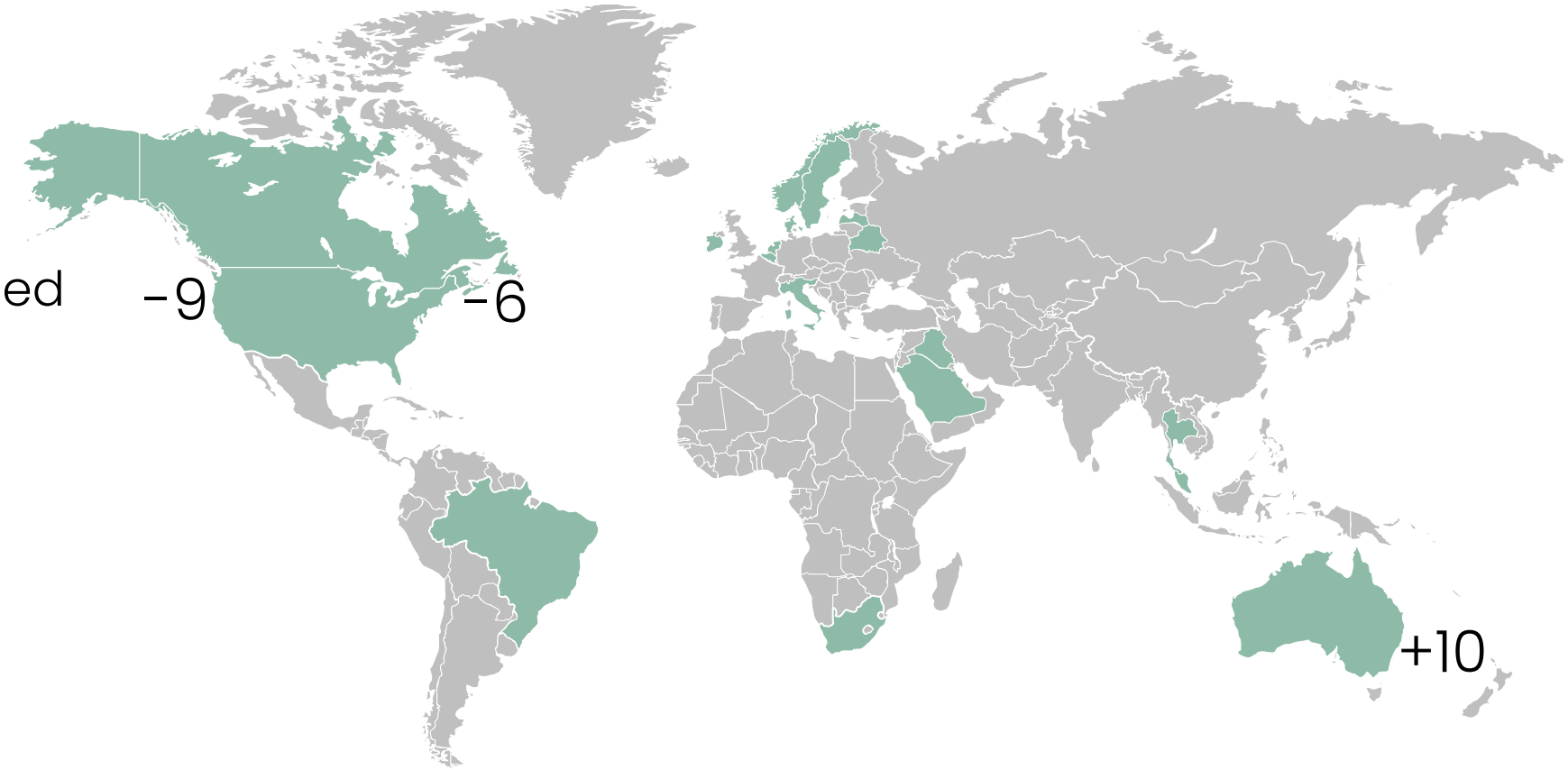
Speakers Highlights Compilation

Franco Piva
Italy

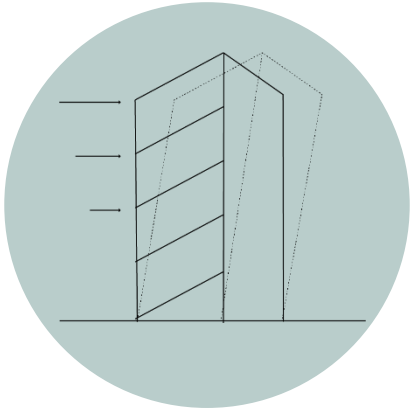
Our projects all around the world

The collaborative design approach and our open-mind creativity have opened doors to grow in Northern Europe, Canada, Asia, and South Africa.

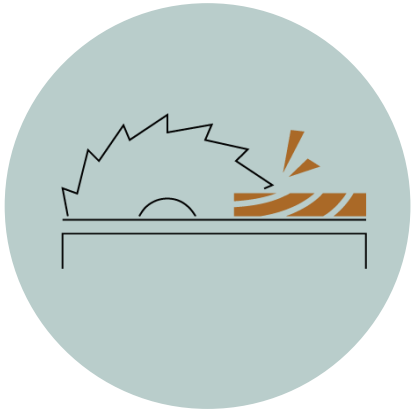


Our main services

Value Engineering



Structural Analysis



DfMA

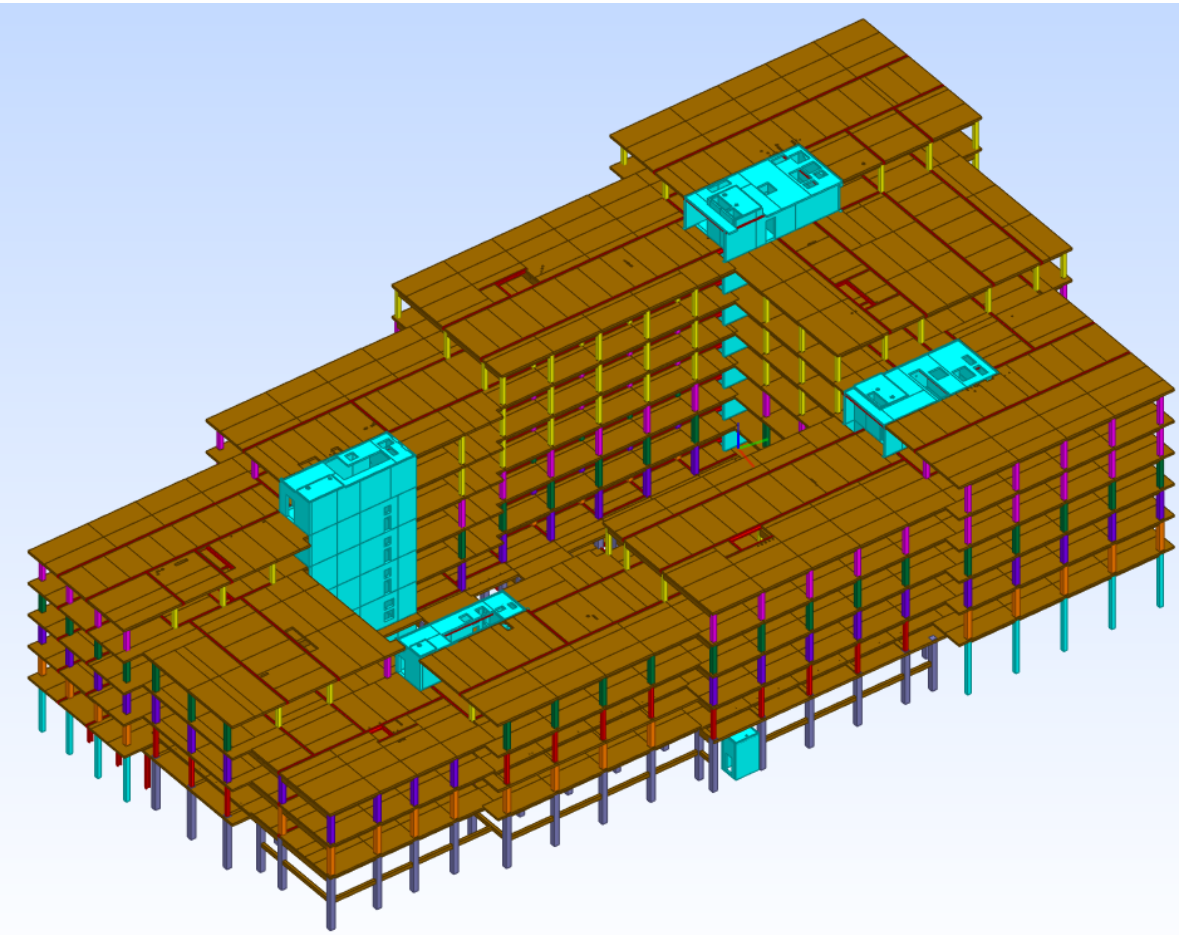
Project Management

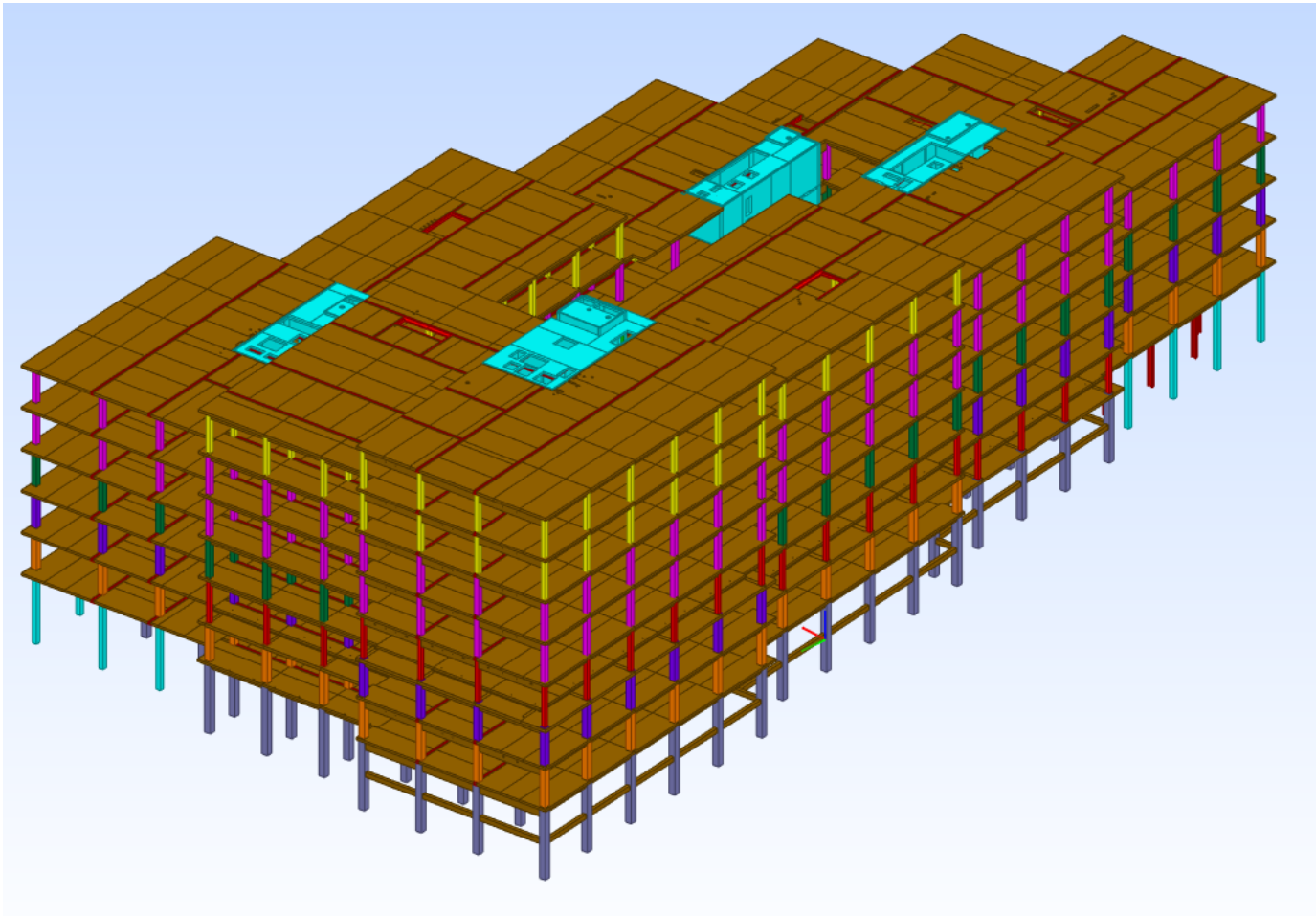
BIM vs BdM

Building Information Modeling

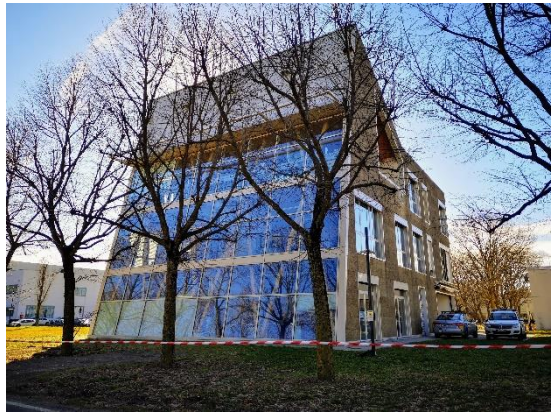
Building (dis)Information Modeling

Digital Model

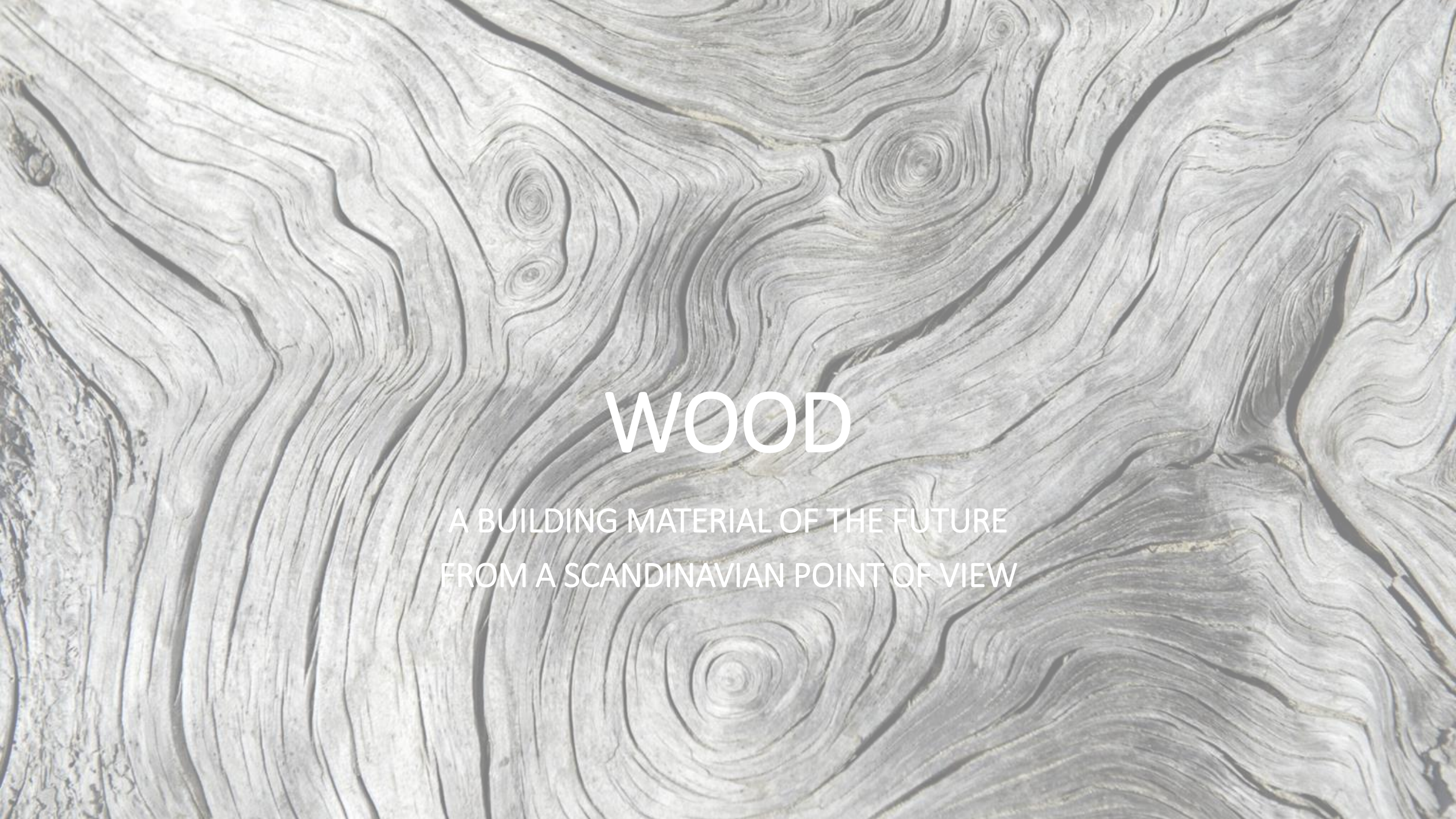




Ergodomus Projects



Kenny C Holm
Denmark


WOOD
A BUILDING MATERIAL OF THE FUTURE
FROM A SCANDINAVIAN POINT OF VIEW

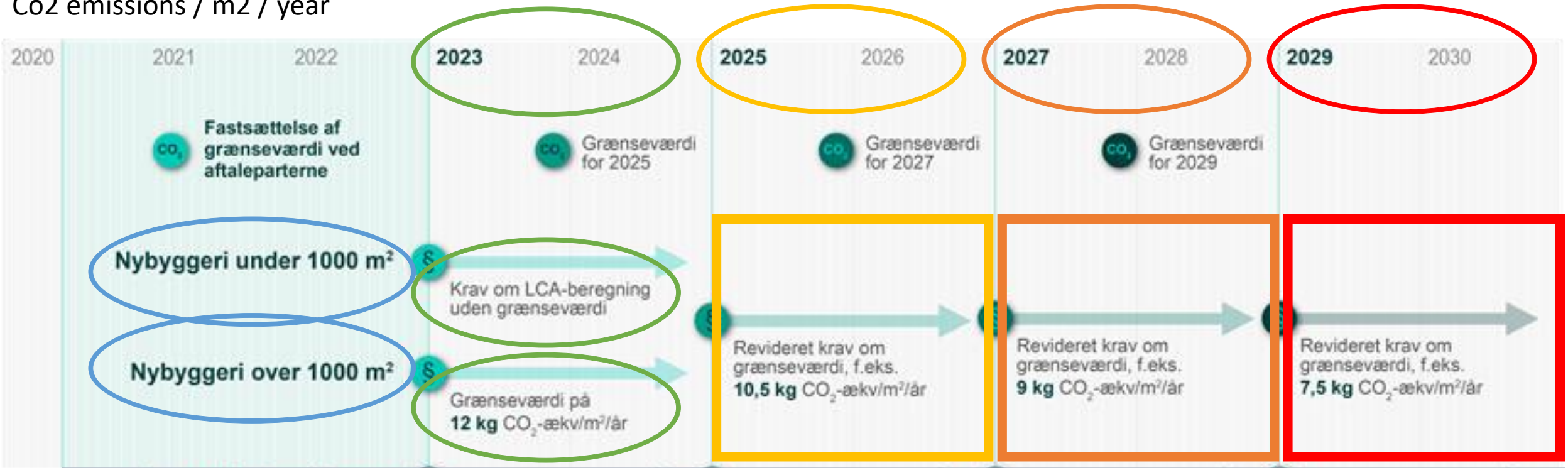
Regulations

- BR18 (DK)
  - Regulations influences how we build – and design buildings!
    - Think Air-tight...
    - Think fire safety...
    - Think Sound / acoustic performance...
    - Think daylight
    - Think Thermal insulation
  - *Missing:*
    - *Mental Well being within the lived space*
    - *Impact on Earth*
  - Material neutrality
    - Building code should be and is trying to be material neutral... But is it always a good thing? and.... What about Lobbyism

    …we still have a bit to go....

Future scenario

Co2 emissions / m2 / year



Future scenario

- Risks...
  - *"…Measuring can make you blindfolded"*
    - If Co2 is the only fix point – you might mis to think of the bigger picture
      - E.g. using MORE wood is the best… !?
      - E.g. When wood is incinerated after end life, it will also emit Co2…
  - Rules are not better then the persons implementing them!
    - *And it does not take away the responsibility of thinking yourself…*

Pre-accepted building solutions aka: “approved building methods”

- How “**regulation**” classes with “**how we would like to build**”
  - Blindsided by “business as usual” and “regulation that does not exist mentality”
- These two buildings are similar in concept.
  - But are like Venus and Mars…


Leander Moons
Kenya

OMT

architects

www.omt-architects.com

DESIGN FOR MANUFACTURING & ASSEMBLY

A LOW TECH APPROACH FOR ZANZIBAR

Leander Moons | architect & founding partner

DESIGN FOR MANUFACTURING & ASSEMBLY A LOW TECH APPROACH FOR ZANZIBAR

DESIGN FOR MANUFACTURING & ASSEMBLY A LOW TECH APPROACH FOR ZANZIBAR

VALUE

CONCRETE & MASONRY

RISK

TIMBER

timber construction in East Africa and the need for DfMAy available craftsmanship

DESIGN FOR MANUFACTURING & ASSEMBLY A LOW TECH APPROACH FOR ZANZIBAR

MOYONI HOMES | PREFABRICATED TIMBER HOUSING

MOYONI HOMES | PROGRESS

DESIGN FOR MANUFACTURING & ASSEMBLY A LOW TECH APPROACH FOR ZANZIBAR

FUMBA TOWN | TODAY

FUMBA TOWN | ZANZIBAR 2022

Craig Applegath
Canada

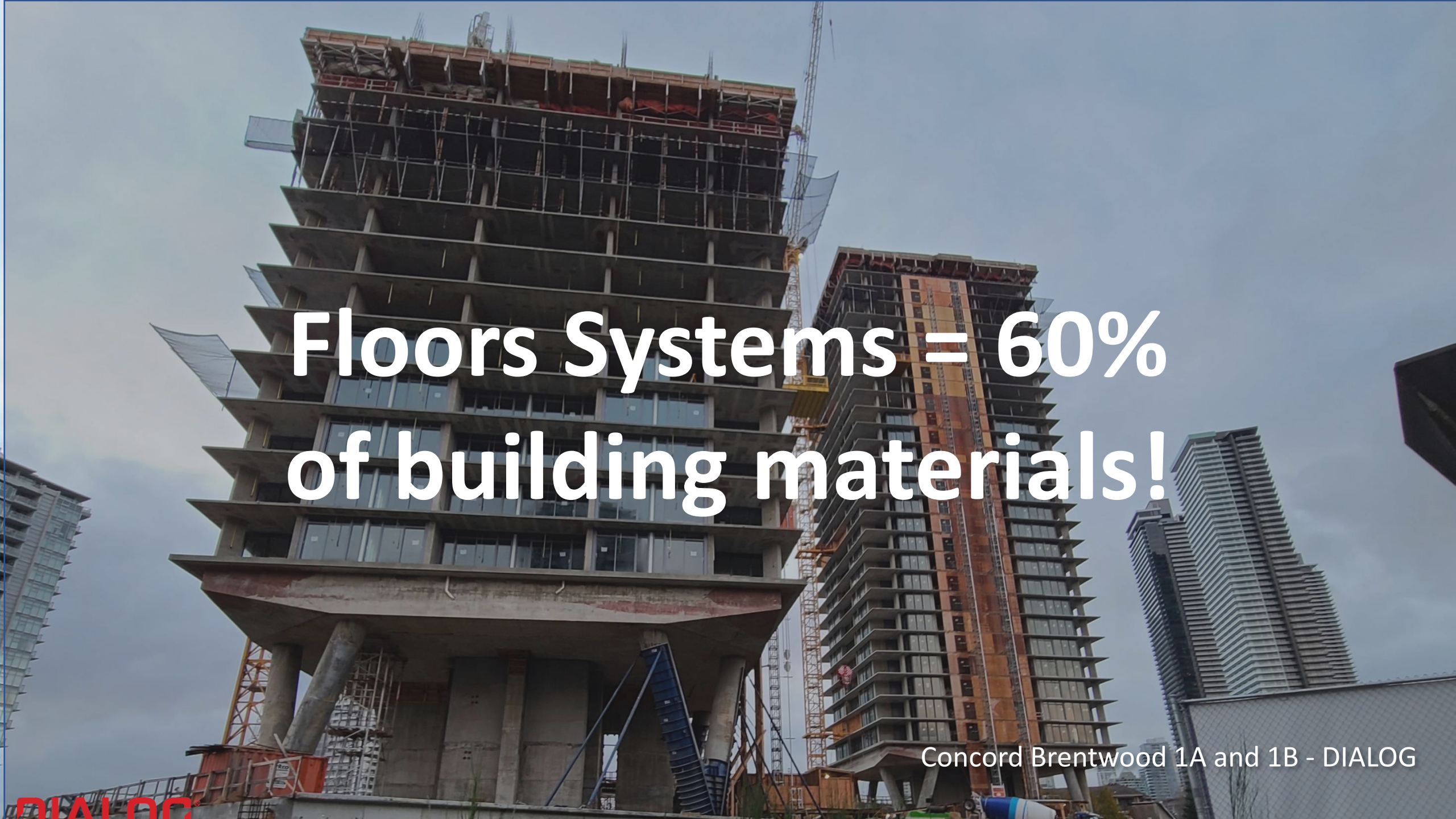
A Zero-Carbon Hybrid Wood Supertall Future

DfMA in the Service of Maximizing the Use of Sustainably Harvested Wood To Create A Zero Carbon High-Rise

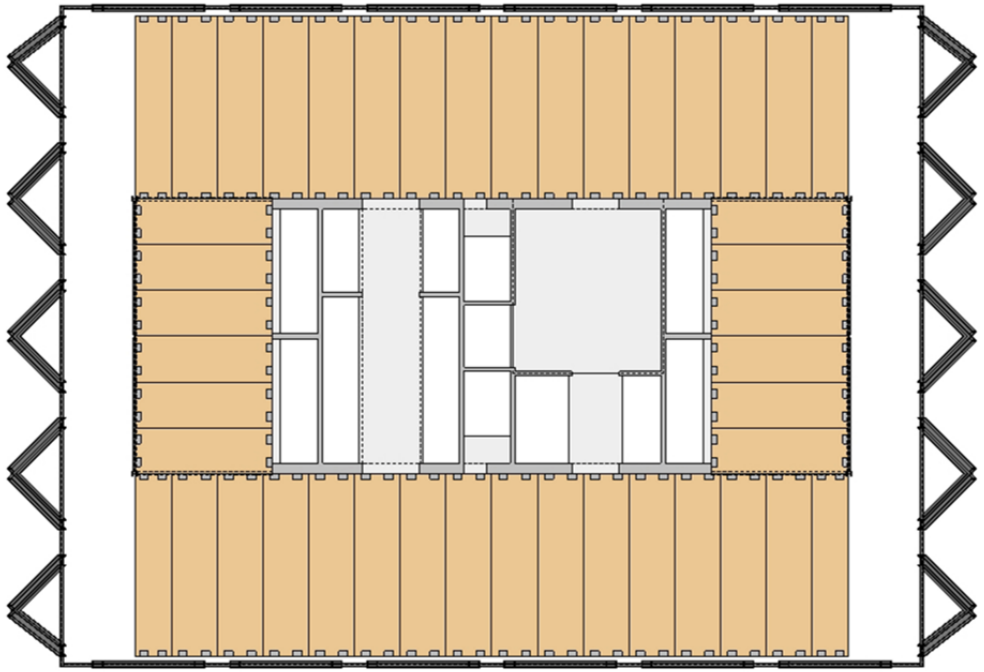
Presented by Craig Applegath

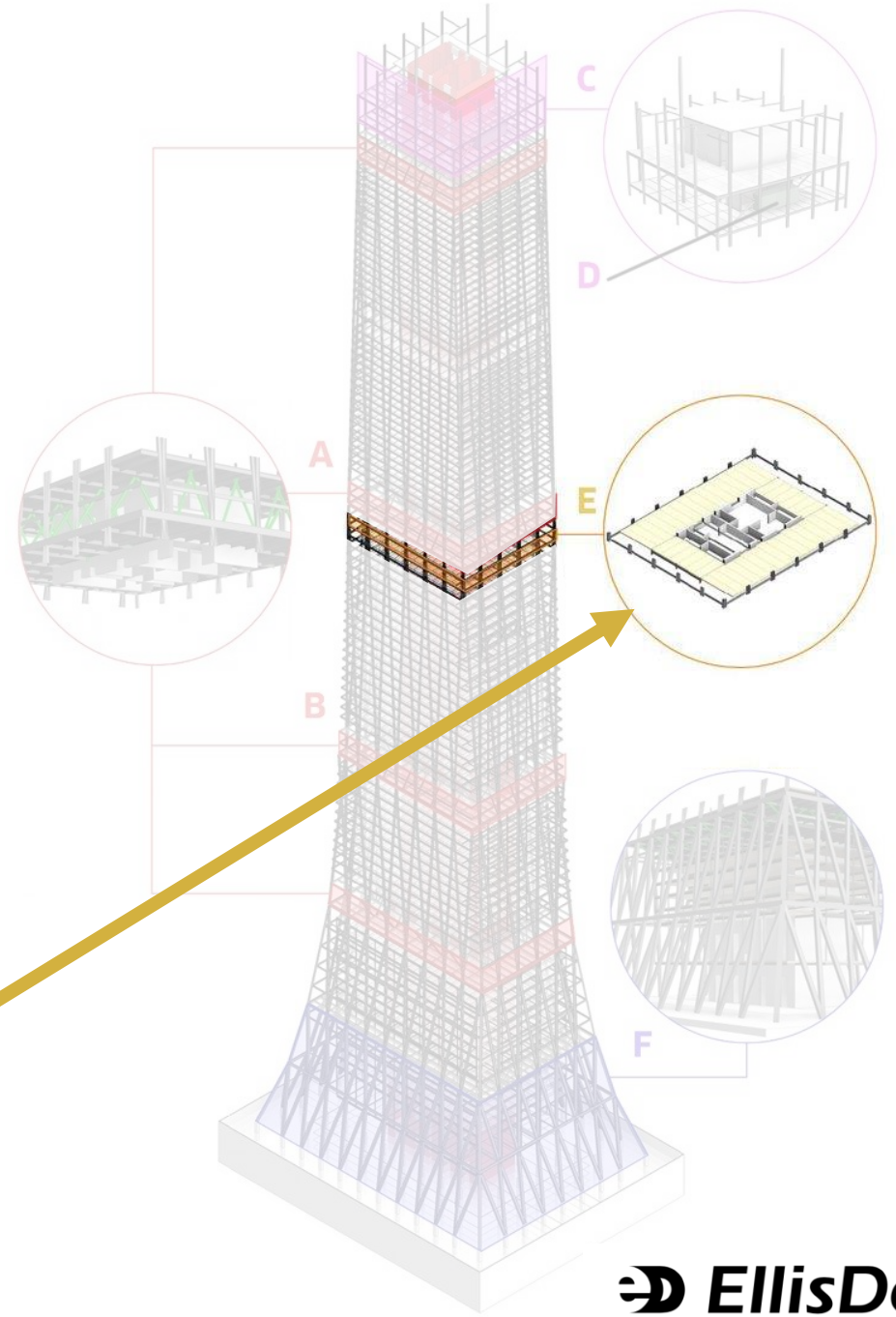
May 24th, 2023

DIALOG


Floors Systems = 60%
of building materials!
Concord Brentwood 1A and 1B - DIALOG

Hybrid Wood Structural Strategy





E. Typical Hybrid Timber Floor System (HTFS)

DIALOG

EllisDon

Hybrid Wood Structural Strategy

Hybrid Timber Panel System

CNC a trench
profile into the CLT

DIALOG®

EllisDon

Value Proposition
Hybrid Timber Panel System

Typical CLT Timber grid 20-30ft

Hybrid Timber Floor Panel grid ~40ft

DIALOG®

EllisDon

Ricky McLain
U.S.A

Photo: Structurlam

Mass Timber Engineering: Metrics for Cost Efficiency

Ricky McLain, PE, SE, WoodWorks

11 tall wood projects already under construction or built.

Carbon 12
Portland, OR
8 stories mass timber

Heartwood
Seattle, WA
8 stories mass timber

Minnesota Places
Portland, OR
8 stories – 7 mass timber

TimberView
Portland, OR
8 stories mass timber

1510 Webster
Oakland, CA
18 stories – 16 mass timber

Ascent
Milwaukee, WI
25 stories – 19 mass timber

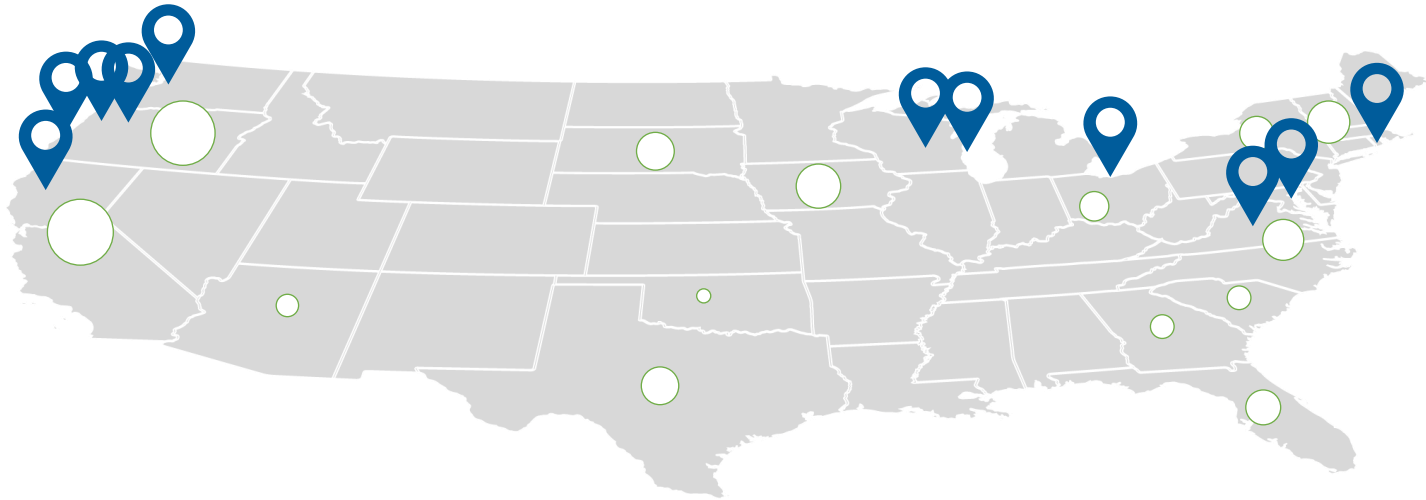
Bakers Place
Madison, WI
15 stories – 12 mass timber

INTRO
Cleveland, OH
9 stories – 8 mass timber

11 E Lenox
Boston, MA
7 stories mass timber

80 M Street
Washington DC
10 stories – 3-story mass timber vertical addition

Apex Plaza
Charlottesville, VA
8 stories – 6 mass timber



WOODWORKS WOOD PRODUCTS COUNCIL

TALL WOOD

= 20 in-design tall wood projects

= tall wood project in construction or completed

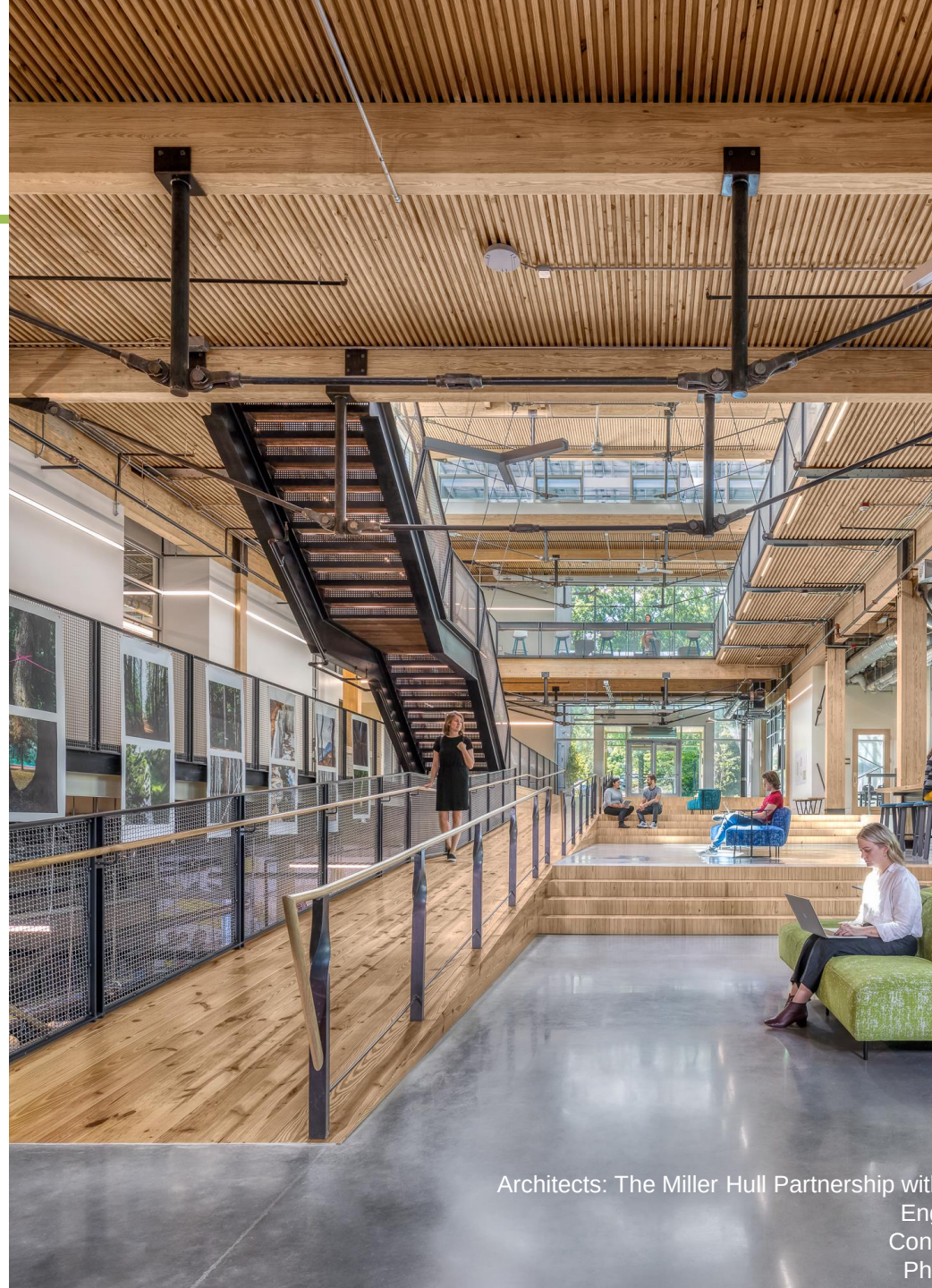
WoodWorks is supporting 214 tall wood projects

Key Early Design Decisions

One *potential* design route:

1. **Building size & occupancy informs construction type**
2. **Construction type informs fire resistance ratings**
3. **Fire resistance ratings inform timber member sizes**
4. **Timber member sizes inform grid**

But that's not all…



Key Early Design Decisions

Other impactful decisions:

- **Acoustics informs member sizes (and vice versa)**
- **Fire-resistance ratings inform connections & penetrations**
- **MEP layout informs use of concealed spaces**

Key Early Design Decisions

Other impactful decisions:

- **Grid informs efficient spans, MEP layout**
- **Manufacturer capabilities inform member sizes, grids & connections**
- **Lateral system informs connections, construction sequencing**

And more…

Platte Fifteen, Oz Architecture, KL&A Engineers & Builders, Arch Angle Media

Gerry McCaughey
U.S.A

If It is Not a System, It is Not a Solution

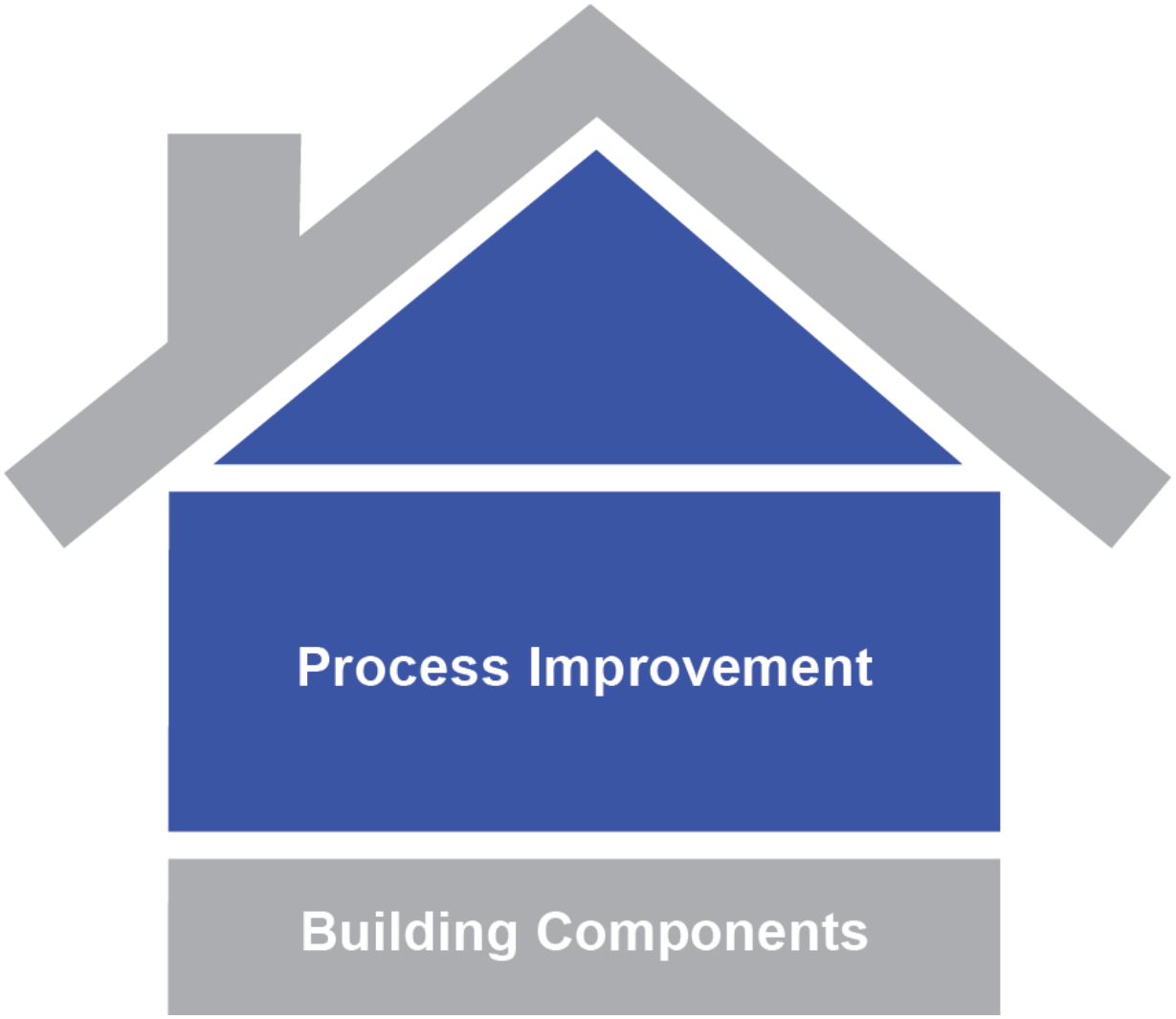
Gerry McCaughey
CEO

OffsiteTEK

Offsite Methodologies

80%

of the benefit
is achieved before
a piece of lumber is cut



A Fully Integrated Offsite Solution

Build Cycle Comparison

Stick Framing

42 Weeks

Fully Integrated Offsite Solution

14 Weeks

Other Improvements

- Higher quality structure
- Reduced skilled labor needs
- Virtually zero waste on site
- Reduced insurance claims
- No storage on site

ergodomus

the art of timber engineering

Please reach out to us with your projects and ideas by emailing me,
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