



# Growing Oregon's Wood Products Sector

## Three Thoughts for Today:

### 1. Western Oregon is The Best Place in the World to Grow High Value Trees

- *Readily available natural inputs*
- *Only plantation area with native species*
- *Huge natural forest reserve relative to plantation area*
- *Our conservation values are not practiced elsewhere*
- *Stable climate predicted for growing trees*

### 2. How Much We Harvest Is Not As Important As How Many Jobs Are Created By What We Harvest

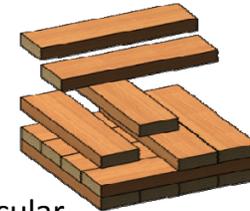
- *Jobs per board foot harvested is THE economic driver relevant to our rural economies.*
- *We must focus on creating secondary manufacturing jobs that produce engineered wood products.*

### 3. Oregon is Positioned to Compete in Global Markets for “Green Buildings” made of Engineered Wood Products

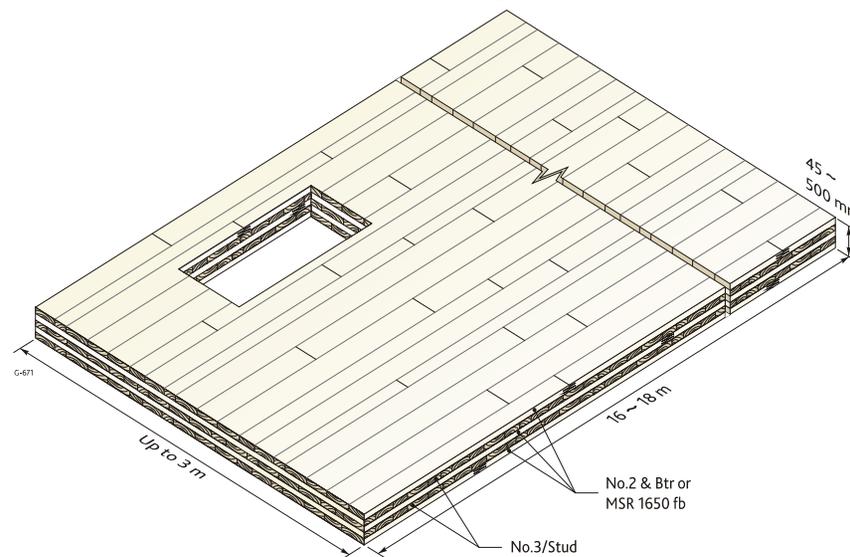
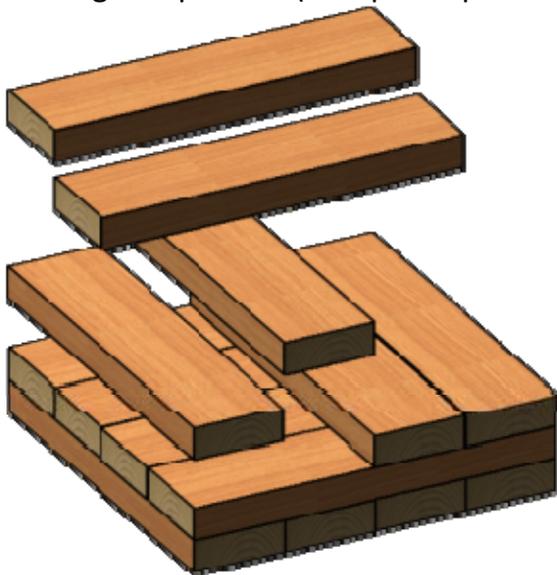
- *Architects are embracing wood as a sustainable material for tall wood buildings.*
- *Doug Fir is the best species in the world for these products*
- *Global urbanization is driving demand*



## Why Use Cross Laminated Timber



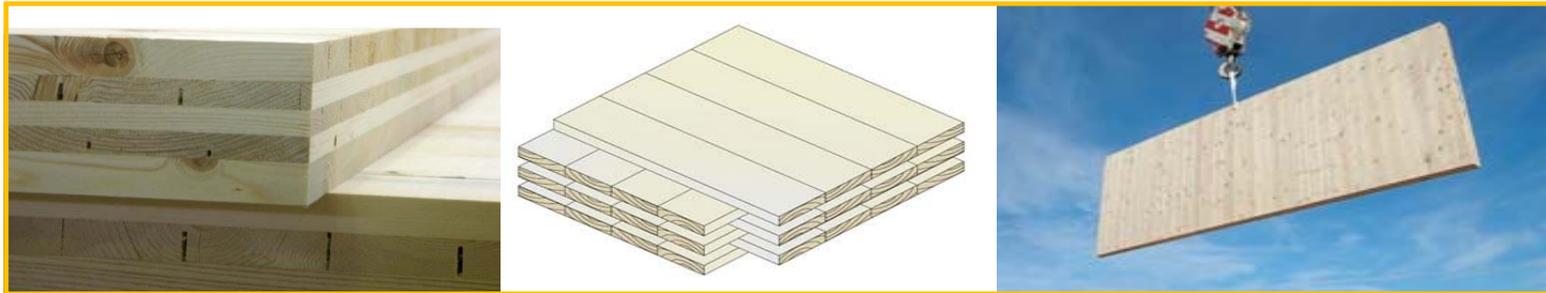
- Cross Laminated Timber (CLT) is comprised of layers of wood strips laid up perpendicular (crosswise) to subsequent layers to form a bi-directional load carrying building element. Layers are either glued or nailed. Typical panels are 3, 5, and 7 layer and some layers can be doubled in one direction for higher strength.
- Panels fabricated in a variety of thicknesses typically 3" up to 18" and widths from 4' to 10' and lengths up to 60' (53' special permits for truck shipping may be your limiting factor).





This is sequestered carbon

# Cross-Laminated Timber



# Glue-Laminated Timber





## **Bridgeport House, London England**

- Summer 2011
- 10 weeks construction time
- CLT Produced by Storo Enso – Austria

### **Advantages**

- Speed of Construction
- Lightweight
- Carbon sequestration
- Natural materials, healthy house



- Elementary School
- Supported green roof
- CLT covered by wood cladding
- > 65K sqft



Paul Chevallier School, Lyon, France  
Architect: Techtoniques



- Completed in 2012
- 10 stories
- ~ 105 ft. tall, > 18.6 K sqft.
- 3 million in R&D
- Poor soils required a much lighter building

Forte', Victoria Harbor, Melbourne, Australia  
Architect: Lend Lease



NORTH VANCOUVER CITY HALL BC

## **Growing Oregon's Wood Products Sector**

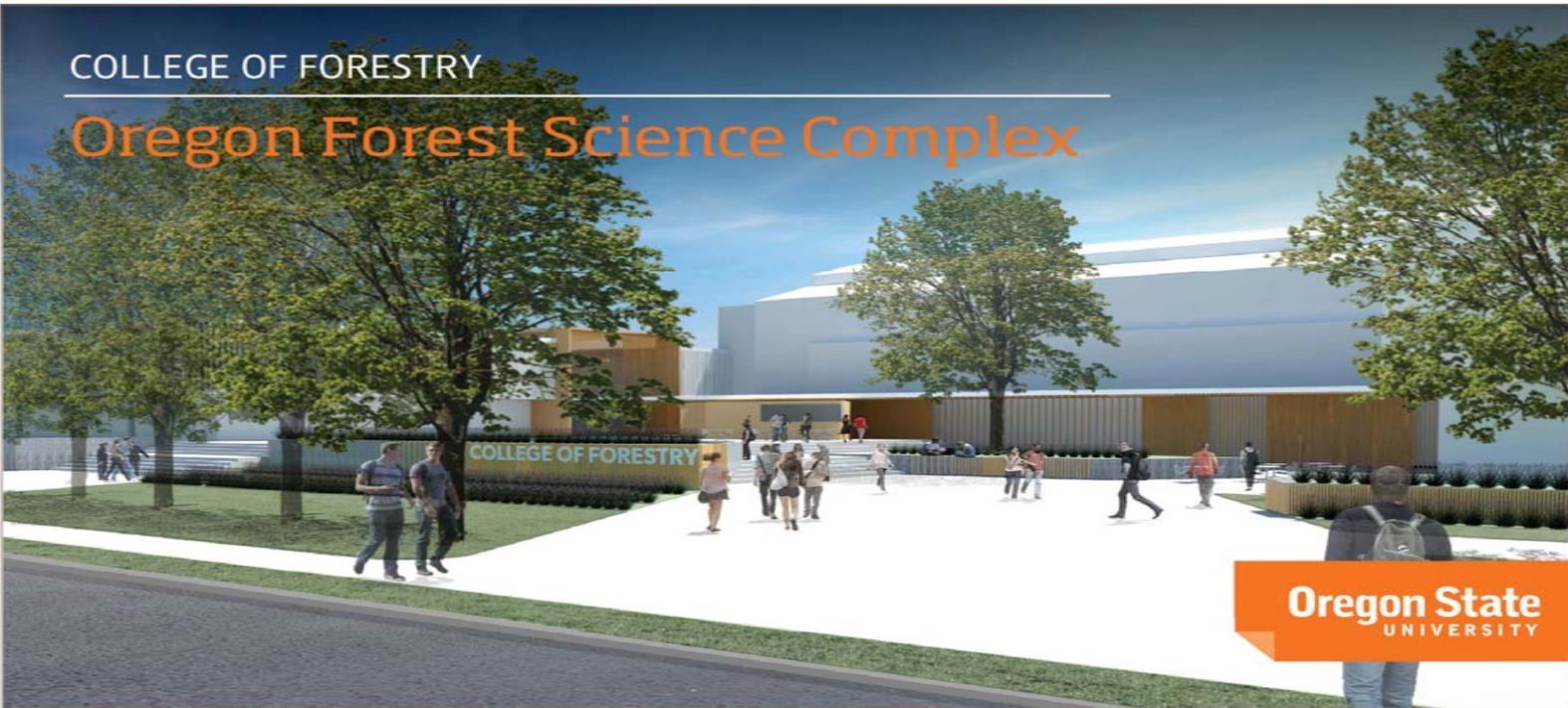
### ***Emerging Global Markets for “Green Buildings” made of Engineered Wood Products...***

- *Are the biggest game changer for building design since the advent of steel and concrete*
- *Will re-define the relationship of the wood products industry and building design professionals*
- *Will open whole new markets for high-value products manufactured here if we seize the opportunity and act strategically and collaborate*
- *Can prompt a wholesale change in the relationship between the wood products industry and the urban public*

### ***Success will require a close collaboration between university research programs, private sector investment, and public initiatives...***

- *OSU and U of O National Center for Advanced Wood Products Manufacturing and Design*
- *OSU Forest Science Complex construction project*





COLLEGE OF FORESTRY

# Oregon Forest Science Complex

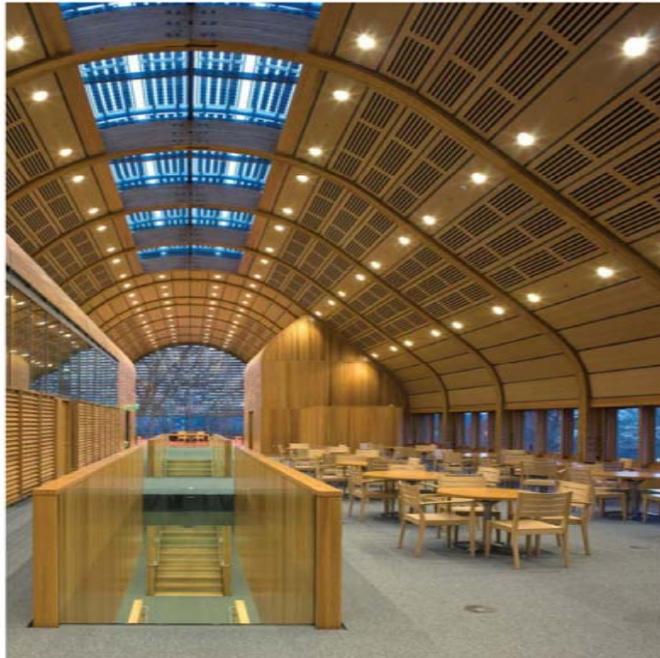
COLLEGE OF FORESTRY

**Oregon State**  
UNIVERSITY

## *Our Competition...*



UBC FOREST SCIENCES CENTRE ATRIUM SPACE



YALE SCHOOL OF FORESTRY



PEAVY REMODEL OPTION

*Replacing the current open court yard at Peavy Hall...*



PEAVY REMODEL COURTYARD OPTION



DEMONSTRATION ATRIUM OPTION



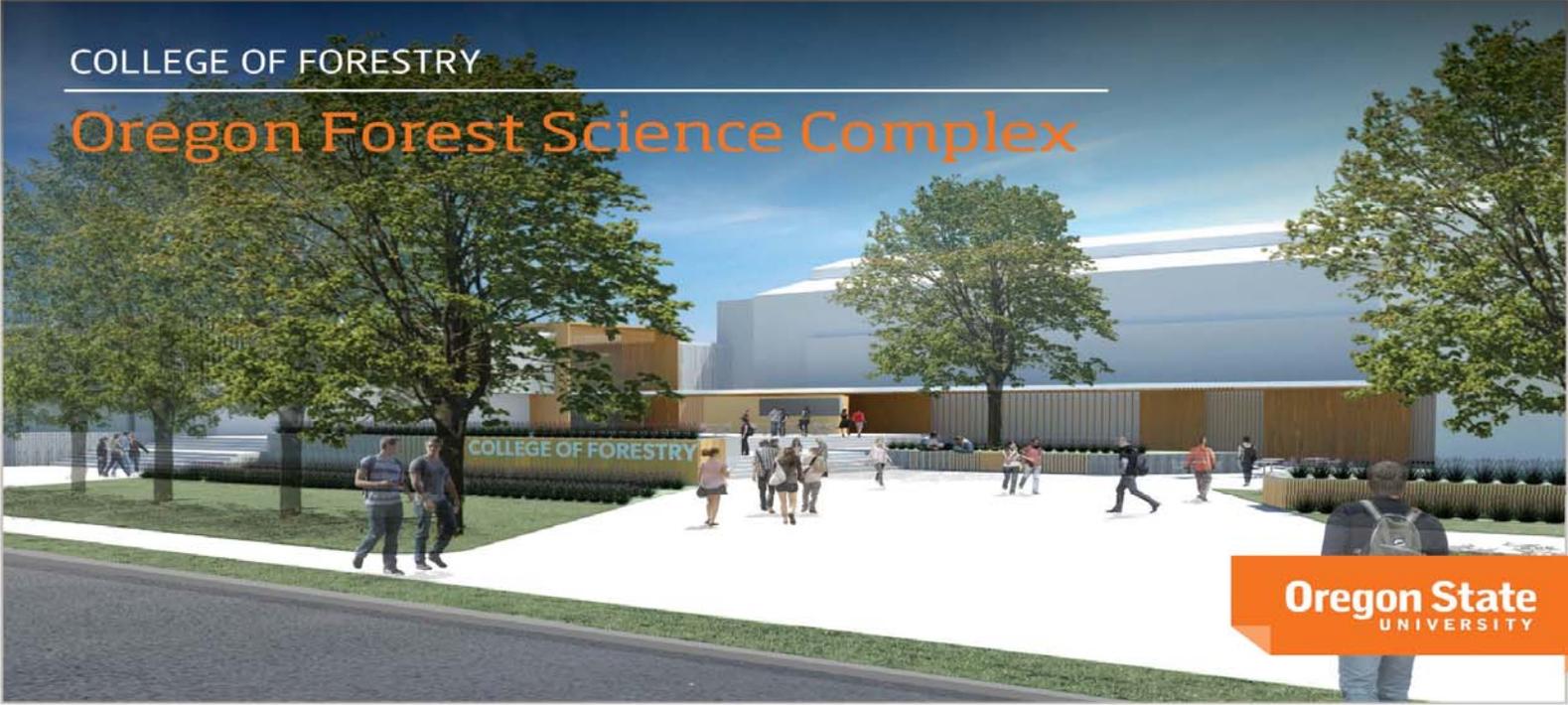
AWPC INTERIOR OPTION



EQUILIBRIUM WORKSHOP, PEMBERTO, BC



UBC CENTRE FOR ADVANCED WOOD PROCESSING, VANCOUVER BC



# Institute for Working Forest Landscapes Update

## Institute for Working Forest Landscapes

A World-Class Research and Outreach Center for Healthy Landscapes



## *Institute for Working Forest Landscapes Update*

### **Institute Board**

- **Role:**
  - Advise Dean on mission-oriented research program that is valued by stakeholders and respected by science peers
  - Fulfill the statutory role of the Forest Research Advisory Committee, **and** provide added perspectives that represent and support the mission-based research programs of the College
- **Composition:** 21 individuals with expertise and interest in at least one of the four thematic areas of the Institute
- **Key goals:**
  - Provide counsel on framing research topics that are relevant and timely
  - Interact with research faculty to identify opportunities, collaborations, and partnerships to expand the reach and engagement of the College
  - Identify opportunities to leverage funds and funding sources to expand the reach of research dollars flowing to issues of relevance and importance to Oregon and the Northwest
- **Schedule and First Order of Business:**
  - Planning meetings in December 2014 for first Board meeting on February 11, 2015
  - Targeting approximately \$750,000 in research funding to mission oriented topics by June, 2015

## ***Institute Board Membership***

### **Board Chair:**

Clark Binkley, Chief Investment Officer, Greenwood Resources, Inc.

### **Theme Leads:**

- **Healthy People and Communities:** Diane Daggett, Oregon State Director, The Trust for Public Land
- **Competitive and Innovative Products:** Grady Mulbery, Vice President of Manufacturing, Roseburg Forest Products
- **Intensive Managed Forests:** Greg Johnson, Director of Production Forestry - West, Weyerhaeuser
- **Resilient Ecosystems:** Tom Spies, Research Forester, USFS, PNW Research Station

### **Members:**

John Audley, President, Sustainable Northwest  
Hans-Erik Blomgren, Associate / Structural Engineer, ARUP  
Liz Dent, State Forests Division Chief, Oregon Department of Forestry  
Scott Hayes, Vice Chair, Oregon Tree Farm System  
Randy Hereford, Forest Manager, Starker Forests, Inc.  
Russ Hoeflich, Vice President and State Director, The Nature Conservancy  
David Keltner, Principal, THA Architecture Inc.  
Alan Knokey, Vice President, USNR  
Jeff Light, Forest Hydrologist, Plum Creek Timber Company  
Lee Miller, President, Miller Timber Services  
Dave Rumker, Managing Director of Timberland Management, Campbell Global  
Evan Smith, Vice President, Conservation Ventures, The Conservation Fund  
Sally Sovey, Branch Chief, Planning, Sciences, & Resource Management, USDI, BLM  
Jake Verschuyf, Biodiversity Research Coordinator, NCASI  
Bettina von Hagen, CEO, Ecotrust Forest Management Inc.

## *Recent Additions to the OSU College of Forestry Faculty*

Troy Hall	FES Department Head, Conservation and Social Science
Thomas Hilker	Remote Sensing
Chris Still	Plant Ecophysiology, Biogeography, and Ecosystem Ecology
Ben Lescchinsky	Forest Engineering
Jeff Hatten	Soil Productivity, Fire & Silviculture Impact on Soil
Seri Robinson	Wood Anatomy
Ari Sinha	Green Building Materials
Woodham Chung	Forest Operations Planning
Tammy Cushing	Starker Chair Private and Family Forestry
Catalina Segura	Hydrology, Stream Ecology, Water Resources
Emily Jane Davis	Collaborative Natural Resources Management
Kevin Bladon	Hydrology, Watershed Management, Water Quality
Bogdan Strimbu	Forest Management
Carlos Benecke	Forest Regeneration
Matt Powers	Silviculture
Eric White	Forest Economics, Ecosystem Services
Alba Argerich	Stream Ecology, Biogeochemistry, and Forest-Stream Interactions
Michael Nelson	Environmental Ethics and Philosophy

