

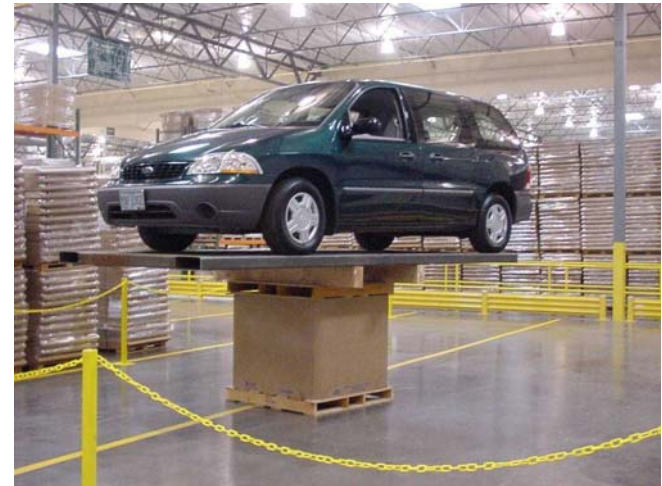
# Declining Oregon Forest Industry Infrastructure Economic & Social Effects



Prepared for:

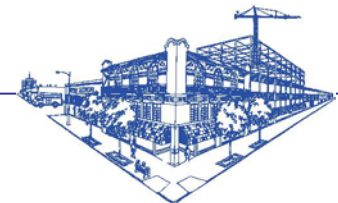
Oregon Board of Forestry  
Federal Forestlands  
Advisory Committee

November 5, 2007



**E. D. Hovee & Company**

Economic and Development Services



# Oregon Forest Industry Infrastructure

## Discussion Perspectives:

- ✓ Timber Community SWOT Analyses (1989-1996)
- ✓ OFRI Assessments (2004-2005):
  - Forest Sector Contributions & Potential
  - Oregon Forest Cluster Analysis
  - Forest Tourism Economic Assessment
  - Forest Growth & Mortality
- ✓ Urban-rural economic development practice



# Committee Questions

- **Factors** contributing to loss of infrastructure
- **Solutions** to problems identified
- **Consequences** of solutions
- **Barriers** to implementation



# What is Forest Infrastructure?

## Hardware:

- Sustainable, reliable timber supply
- Mill capacity
- In-forest contractors (logging / restoration)
- Multi-mode transport
- Local suppliers

## Software:

- ✓ Available, skilled, motivated workers
- ✓ Entrepreneurial & investment capital
- ✓ Education / R&D
- ✓ Full-service communities



# Forest Sector Contributions – With Restructuring

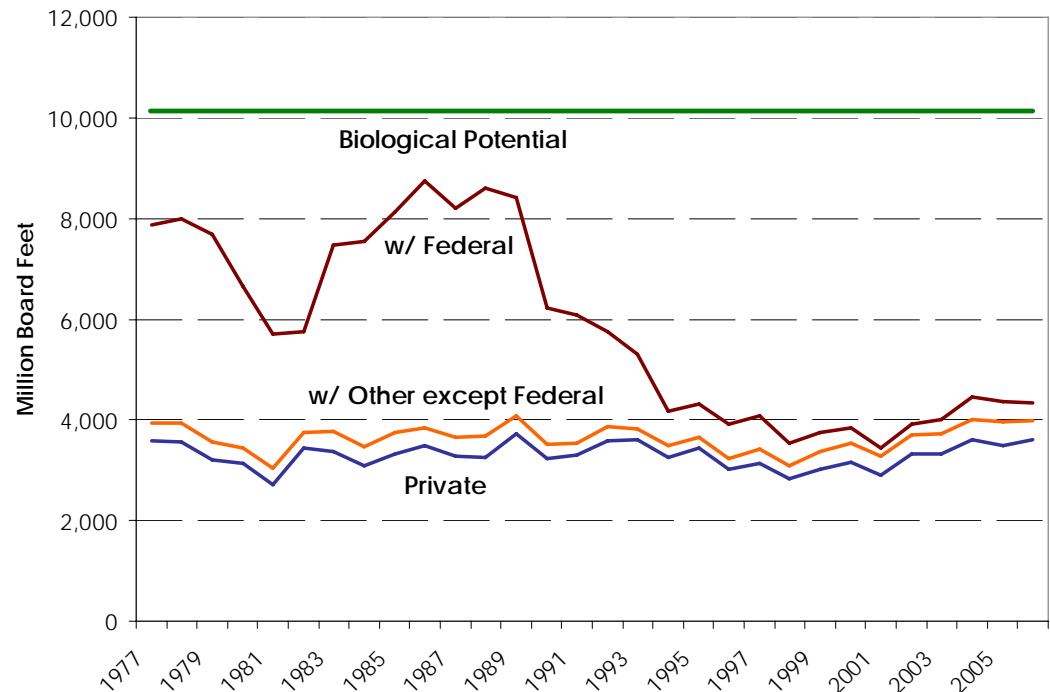
## Sector Restructuring:

- Federal supply reduced
- Technology & global competition

## The Forest Land Base:

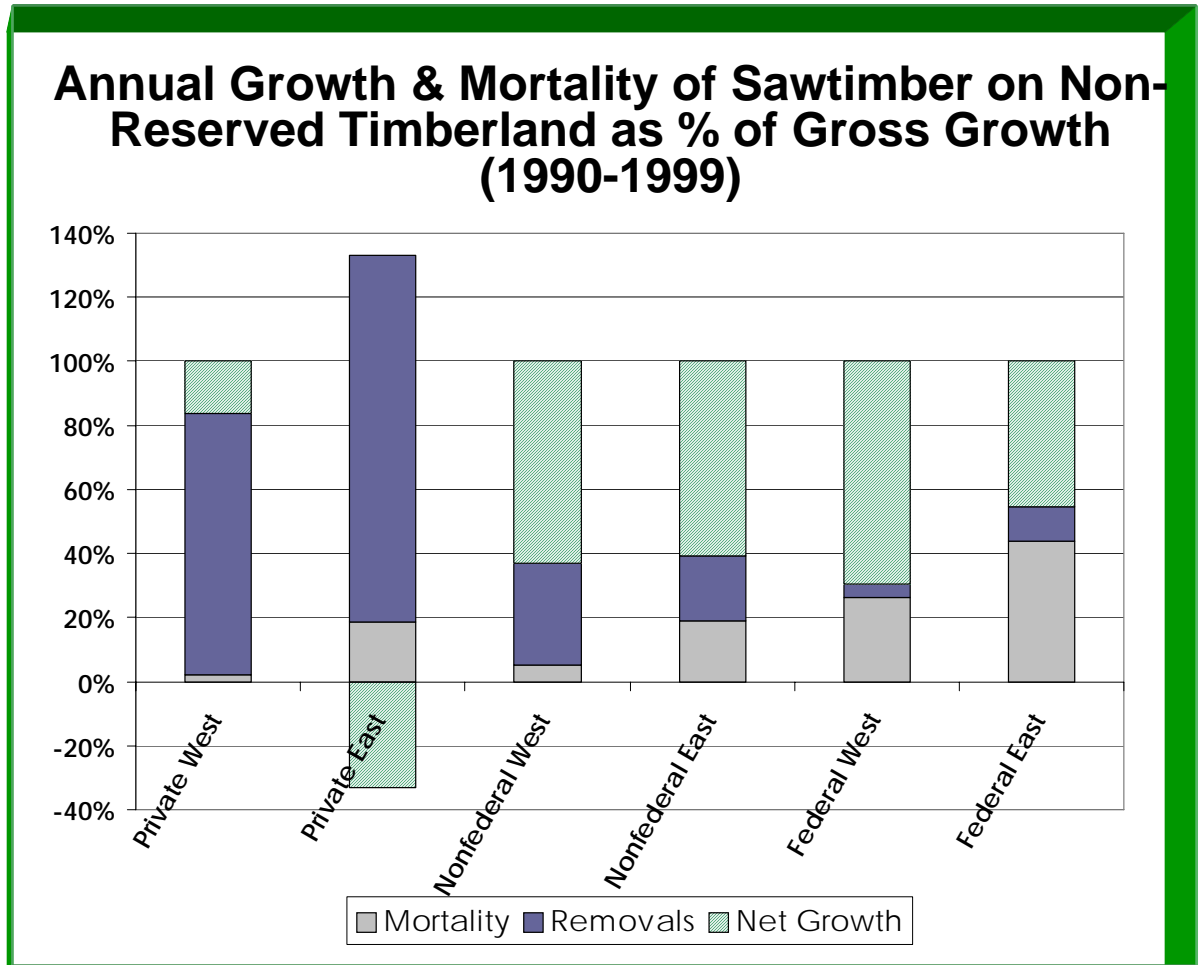
- 28 million acres – 60%+ public
- Harvest below 4 BBF – 50% of late 1980s, with some recent rebound
- Private lands up from 46% to 85% of harvest

Statewide Harvest Trend (1977-2006)

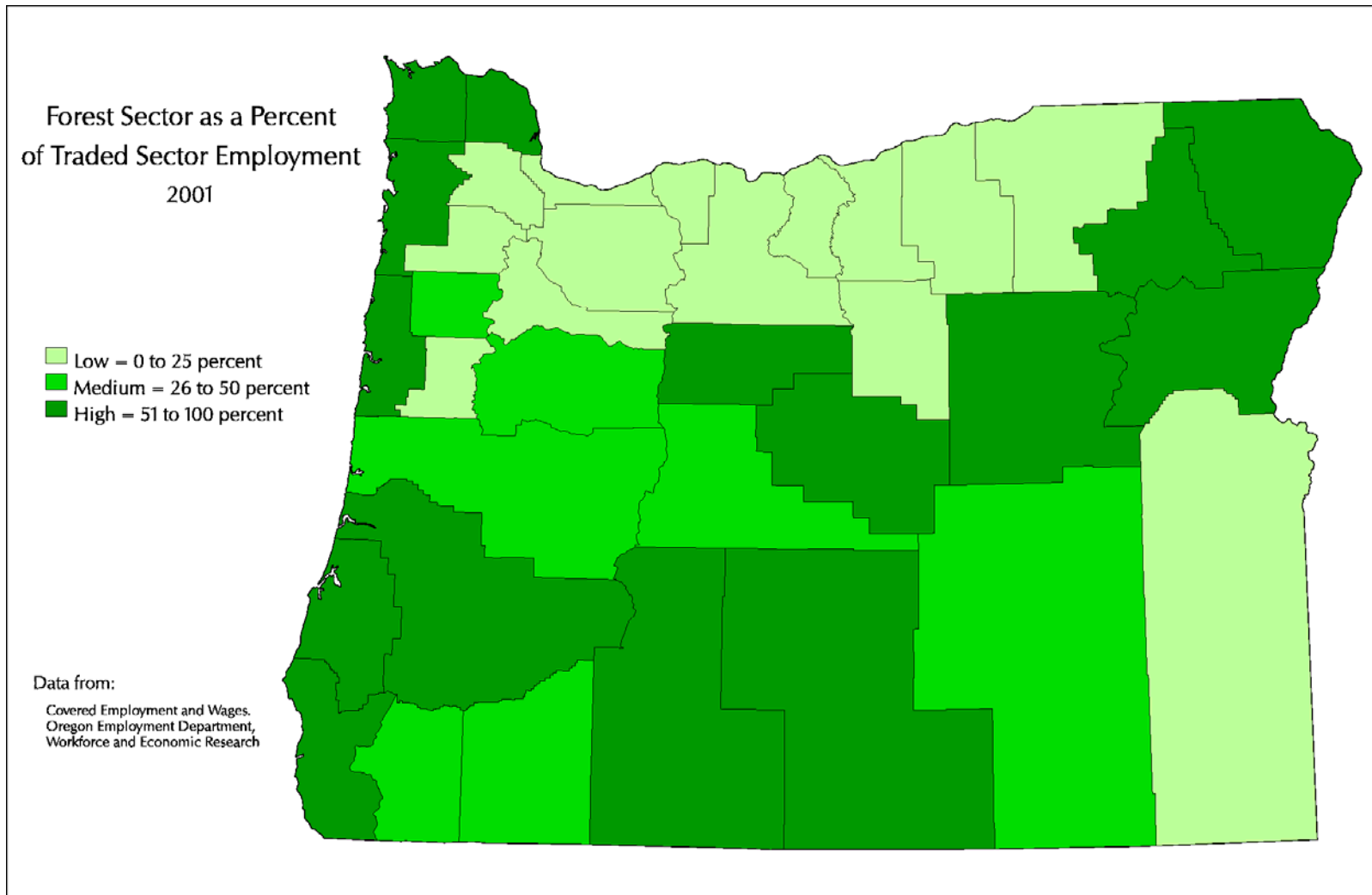


# Forest Growth & Mortality

- Eastern OR least *net growth*; federal lands mortality
- Mortality affects *forest health* & fire risk
- *Active management* benefits forest health & economy



# Forest Contributions – To Traded Sector



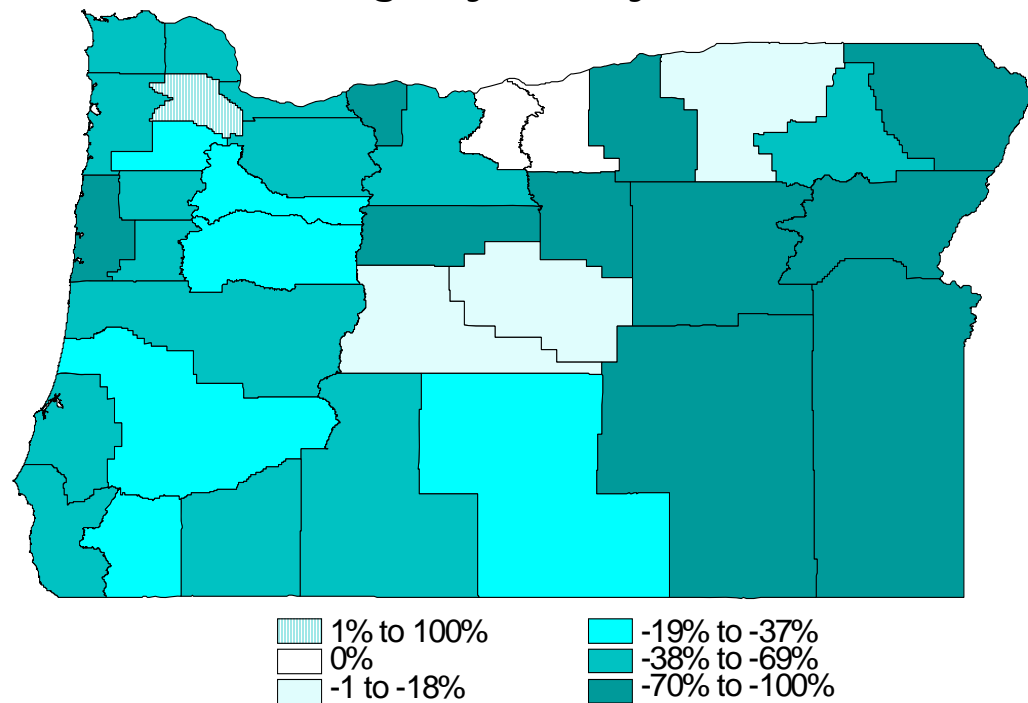
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# Changing Forest Employment

- Counties experiencing most job loss since 1980 have been in Eastern Oregon
- 13 geographic clusters now account for 85%+ of forest sector payroll statewide
- Forest sector jobs now oriented to major transportation corridors

Oregon Forest Sector Employment Change by County (1980-2003)



Source: Oregon Employment Department, as compiled by E.D. Hovee & Company, LLC.





# An Eastern Oregon Focus

## Special Emphasis for Issues of:

- **Declining employment**
- **Infrastructure – from labor skills to plant & equipment**
- **Fire & habitat management – environmental risks of no action**
- **Innovative opportunities – biomass, composite feedstocks, small log processing**



# What We've Heard ...

- **“... expertise has gone away as export markets have contracted.”**
- **Labor issue “... finding people that fit.”**
- **Federal lands “... an overgrown garden.”**
- **“radiata pine ... a risk to NW supply.”**
- **“... no net return from large logs.”**
- **“... pursue higher value, promote biological diversity.”**
- **Customers now prefer “more painted surface than natural finished wood.”**



# Forest Cluster Analysis

## ***Definition:***

... beyond a traditional forest sector – to an *expanded cluster* of current & potentially supportive sectors statewide

## ***Added Hallmarks:***

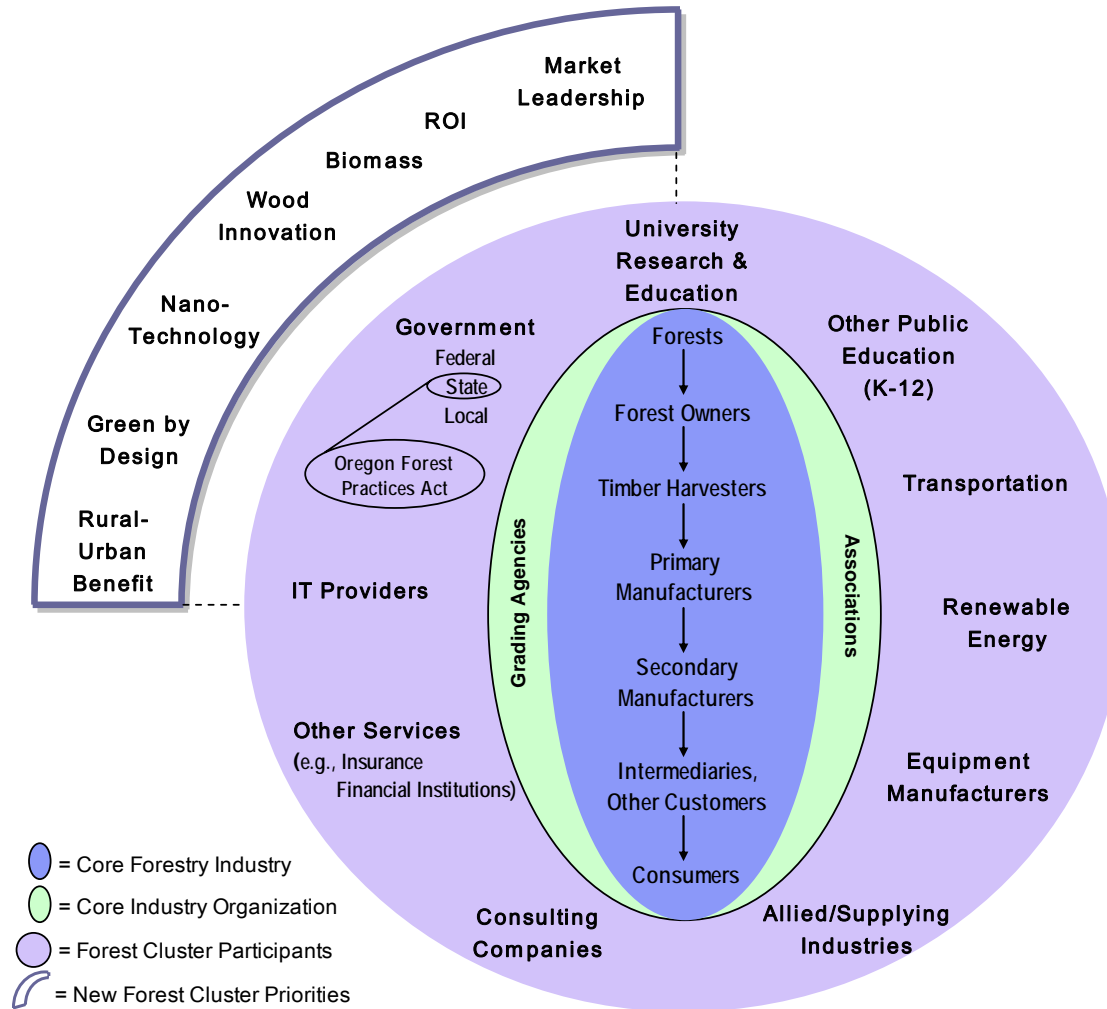
- Forward-looking
- Stakeholder-driven

## **Cluster Attributes**

- ✓ *Geographically concentrated & interconnected*
- ✓ *Linked to customers & suppliers*
- ✓ *Limited conformance to standard economic conventions*
- ✓ *Offering distinct competitive advantage*



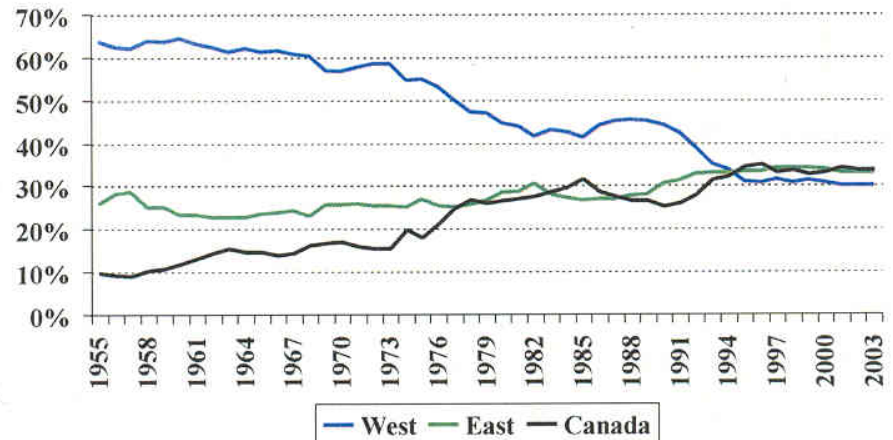
# Oregon's Forest Cluster Expanded



# A. Market Leadership

- **Sustainable yield (to 5+ bbf/yr)**
- Value-added *mass customization*
- *Cooperative* legislative agenda
- *Green* agenda
- Key to *economic development*

Changing Shares of the U.S. Structural Softwood Lumber Market (1955-2003)



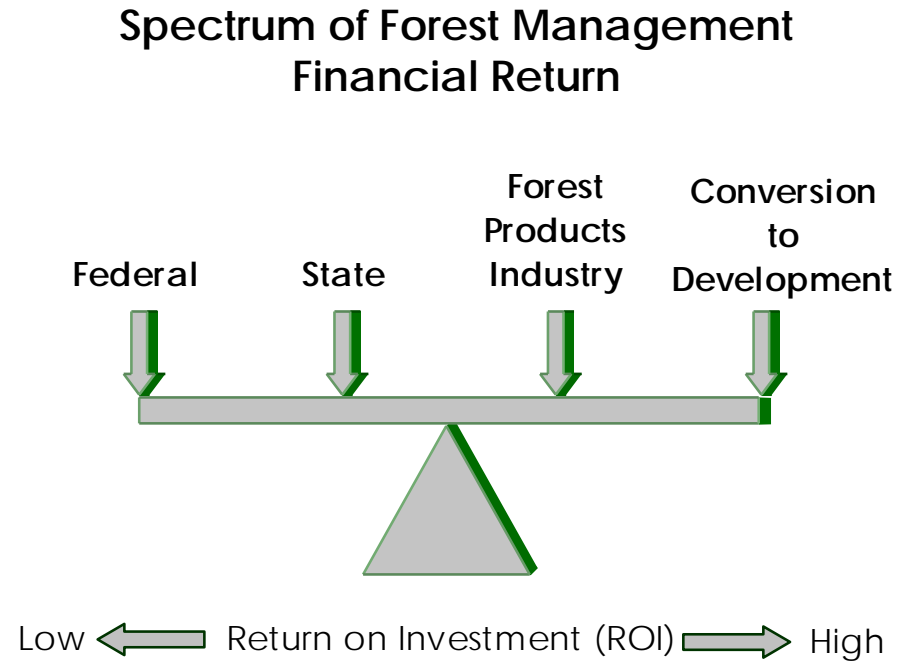
Source: USDA Forest Products Laboratory.

- *R&D* leadership
- **Marketing renewable & energy friendly**



## B. Return on Investment (ROI)

- Timely *growth & mortality* data
- *Ecosystem services* for diverse interests
- *State acquisition* of over-cut lands
- **Carbon marketization**
- Voluntary *conservation rights*
- **Large & small log capacity**



Note: Non-industrial owners typically span a spectrum between state and industry management.



## C. Biomass Conversion

- *Statewide commitment to biomass renewable energy*
- ***Biomass 10-15 year supply assurances w/ eastern Oregon priority***
- *Bio-energy incentives*
- *Bio-fuels support w/in-state ethanol standards & potential public financing*
- *Bio-products R&D via the Wood Innovation Center*

### Benefits of Wood Biomass Use

- ✓ Forest Health
- ✓ Economy of the State
- ✓ Building Oregon's Forest Cluster



## D. Wood Innovation

- *Globalized* info
- **Real-time buyer-seller networks**
- *Rapid-fire* business & product research
- *Business* education
- Design, testing & packaging *services*
- *R&D links* to commercialization
- *Cooperative marketing*

### Innovation Illustrated

**"OSU's New Wood Glue Inspired by Mussels"**

*– The Oregonian  
May 9, 2005*

- ✓ Soy-based adhesive
- ✓ Avoid formaldehyde use
- ✓ OSU revenues from licensing





# E. Nanotechnology

- *Partnership* exploration w/ ONAMI, higher education & industry
- **Research leadership – OSU+**
- Reach-out to *venture capital* partners
- Funding for *joint forest cluster/high-tech* nanotech research initiative

## Nanotechnology & Forest Products

### Potential Uses:

- ✓ Nanosensors
- ✓ Products with improved performance
- ✓ Coatings
- ✓ Lighter weight, energy efficient
- ✓ From eco-varnishes to solar-collecting paint & roof shingles



## F. Green by Design

- Internationally recognized *criteria & indicators* for forest sustainability
- **Peer-to-peer dialogue w/forest products & A/E communities**
- *Business driven* – for consensus opportunity
- *Cooperative initiatives* – for large log, non-toxic engineered, life-cycle, sustainable wood product
- Potential for *statewide* forest certification

### A New Urban/Rural Bridge?

“... an opportunistic link between Oregon’s traditional wood products initiatives and new initiatives related to the demand for certified wood products, modular construction and prefab materials.”

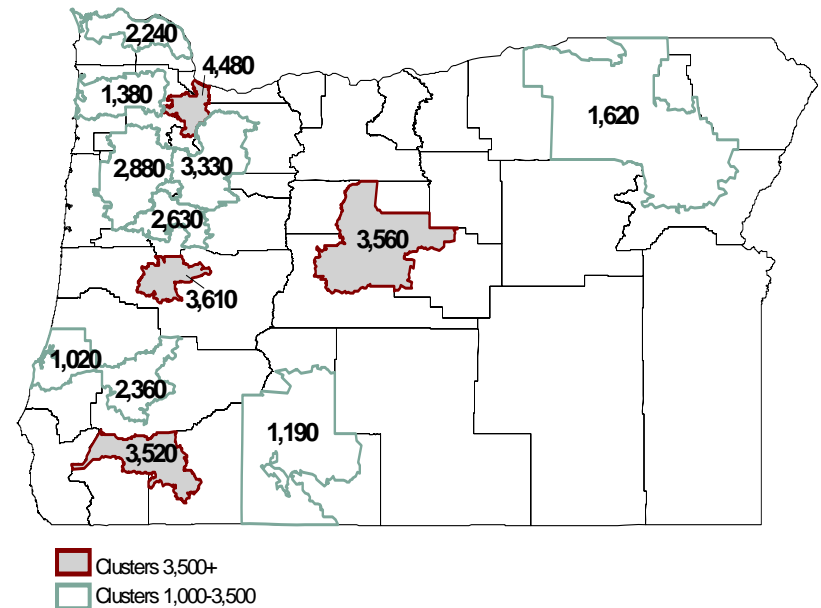
– Media Release, *Economic Development Opportunities for Portland’s Green Building Industry*, October 8, 2007



# G. Clustering for Rural & Urban Benefit

- **Active management of wood production, multi-resource, reserve lands**
- *Timber harvest back to Northwest Forest Plan*
- *Multi-season forest jobs*
- *Micro-business incentives*
- **Investment in rural places offering forest resource opportunity**

Oregon Forest Sector Employment Cluster (2003)



Source: Oregon Employment Department, as compiled by E.D. Hovee & Company, LLC.



# *Rural Infrastructure ... Summary Notes*

## **Possible Solutions:**

1. Active management (all forest landscapes)
2. Increased, stable supply (e.g. biomass)
3. Specialty species & products (e.g. large logs)
4. Going green (design link)
5. Real time marketing, buyer-seller & research
6. Public linked to private \$\$

## **Barriers to Address**

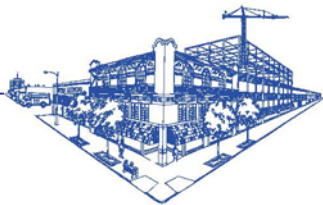
- ✓ Reaching beyond today's network
- ✓ Skilled workforce
- ✓ State & federal policy support
- ✓ Infrastructure funding

**Consequences:** Forest health, jobs & community vitality



Thank You

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