

Mapping the Course

May 12, 2026

Steve Courtney & Roy Anderson



Stressors on the Wood Products Industry



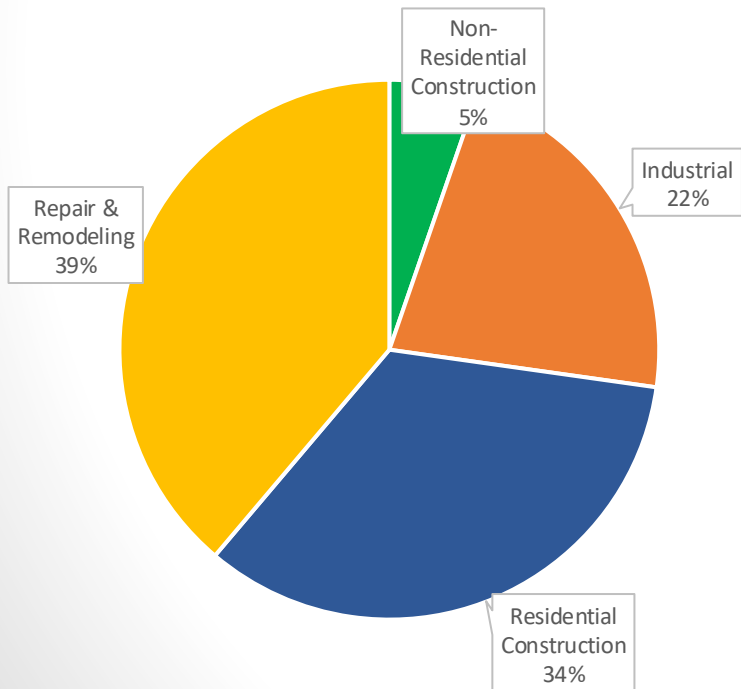
End Use Markets for Softwood Lumber in the United States

Lumber Usage 2020-2024

BBF

% of Market

Total Market Size = 51.4 BBF

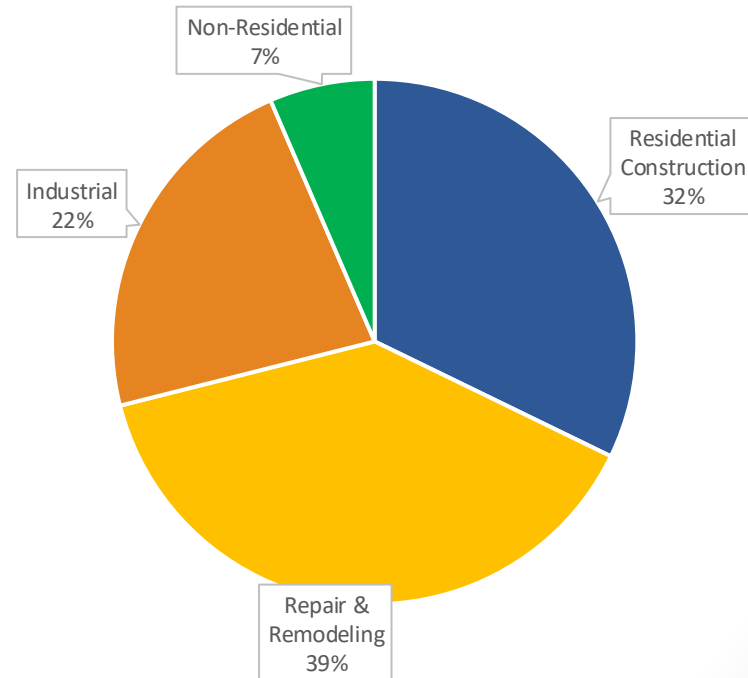


Lumber Usage 2025

BBF

% of Market

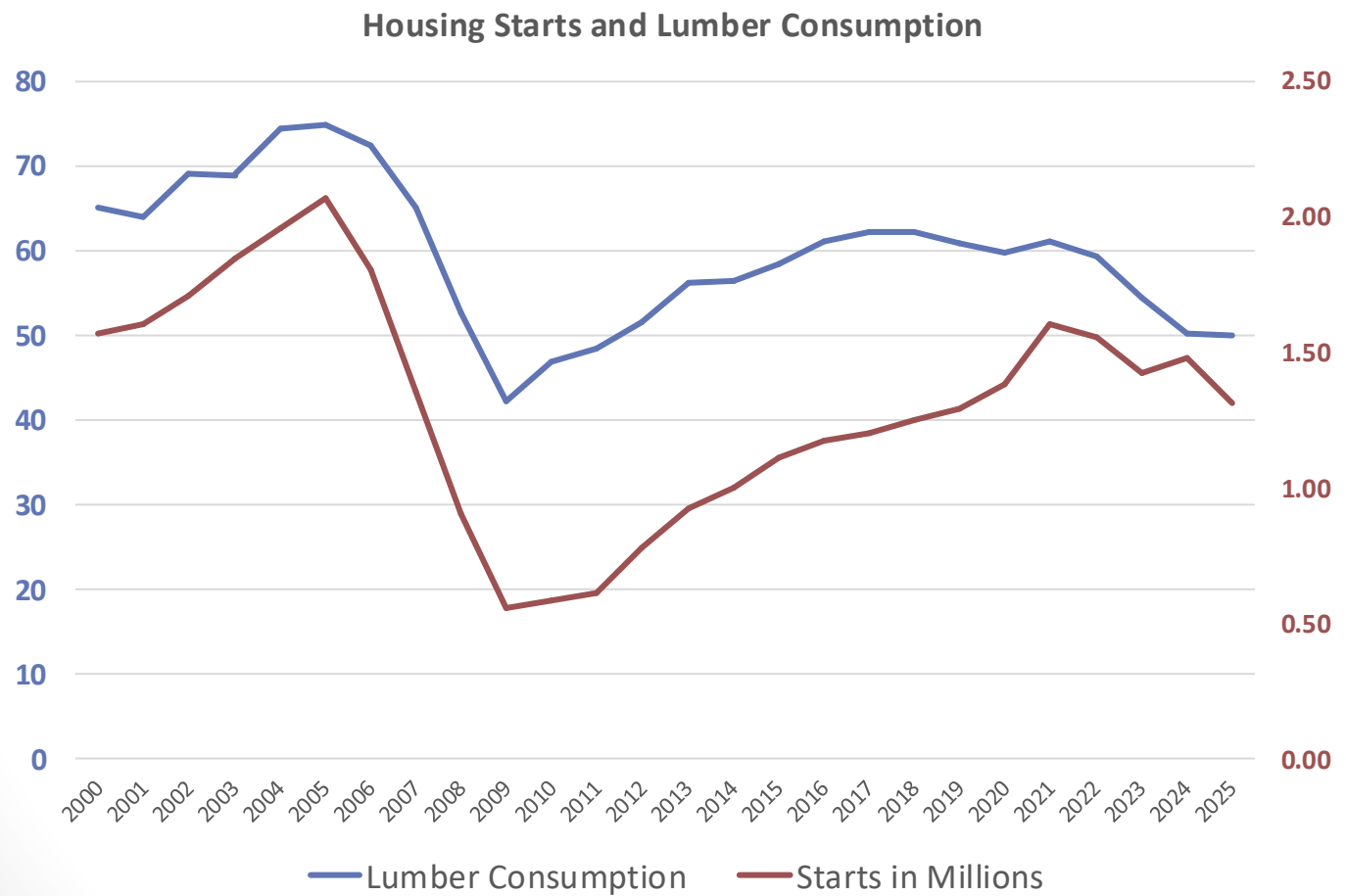
Total Market Size = 49.9 BBF



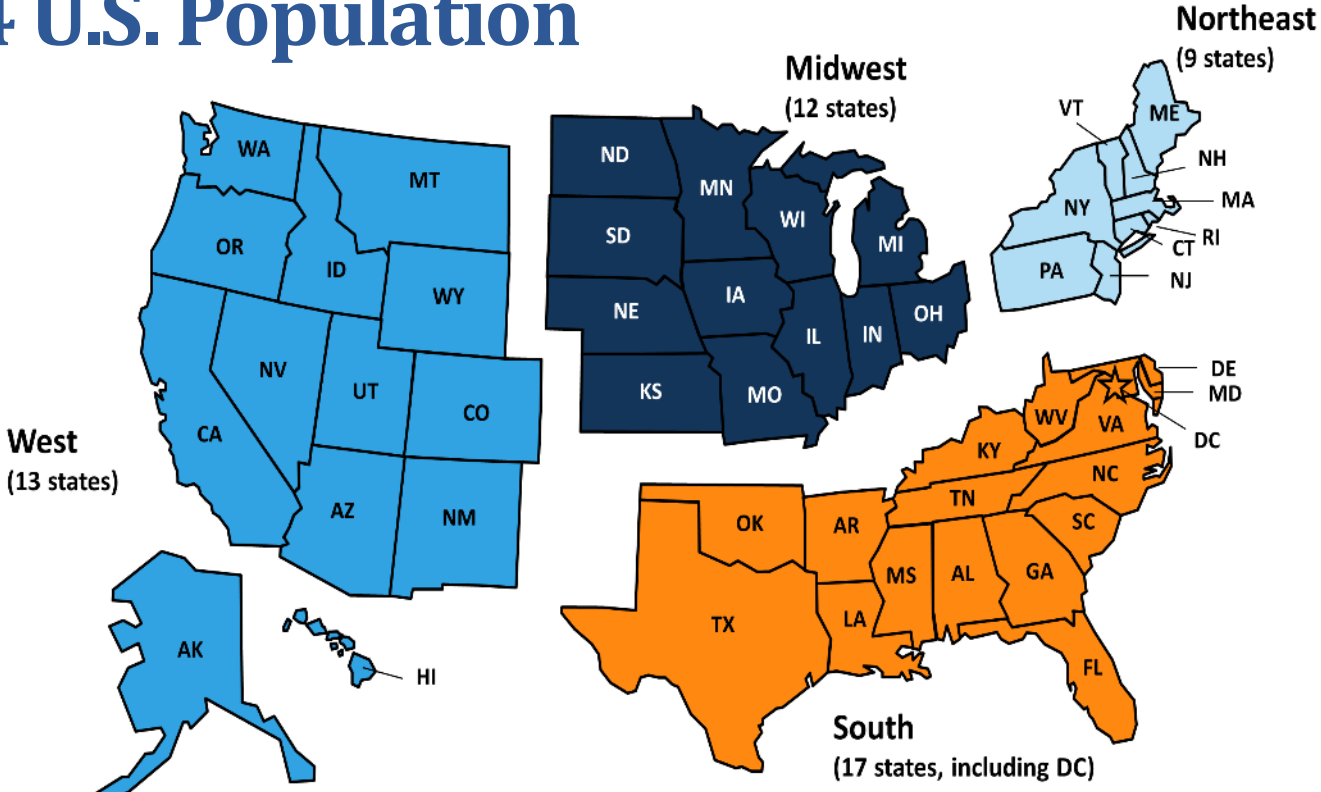
Source: FEA

US Housing Starts are Highly Correlated to North American Lumber Demand

(Left Axis is board feet/year in billions, Right Axis is housing starts in millions)



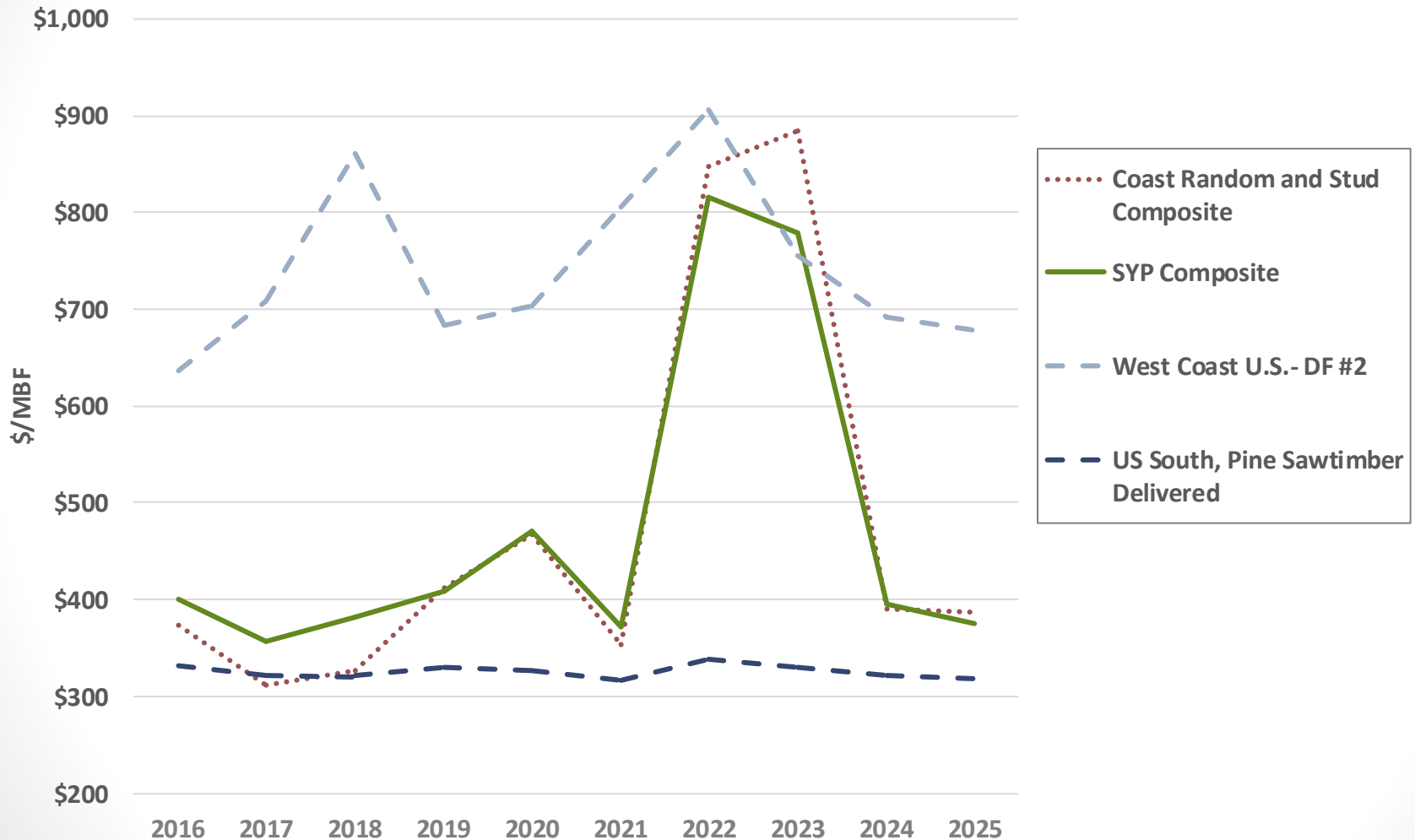
Drivers of Lumber Consumption by Region: 2024 U.S. Population



Region	2024 Population (millions)	% of Total Population	Average Annual Population Growth 2020 - 2024
Northeast	58	17	401,477
Midwest	70	20.5	612,326
South	133	39	6,189,144
West	80	23.5	1,330,321
U.S. Total	341	100	8,533,268

Source: U.S. Census Bureau

Log to Lumber Comparison



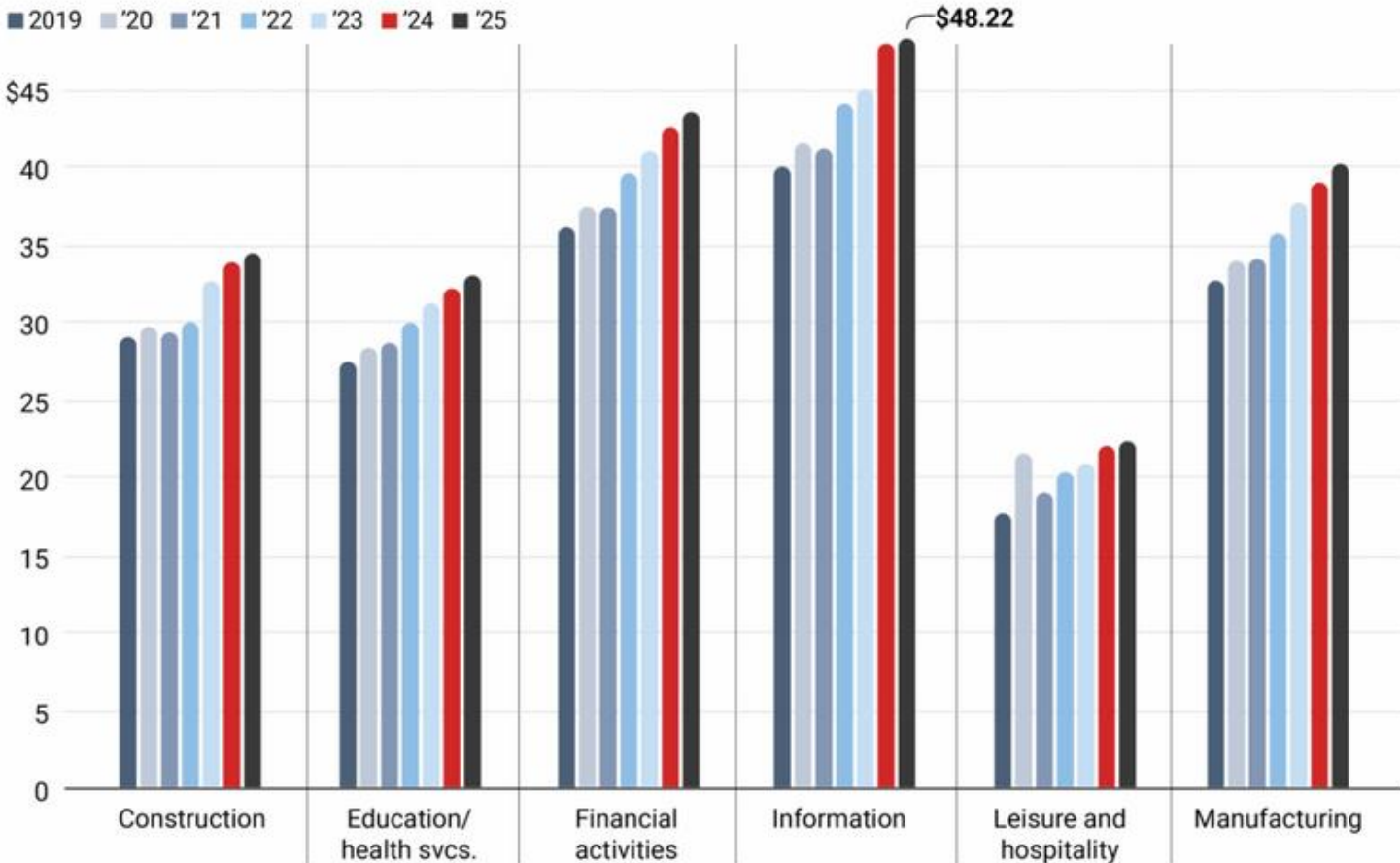
Wage Increases



U.S. WAGES BY SECTOR,

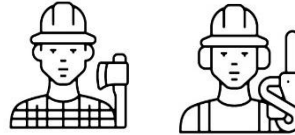
in dollars. 2019-'25

Leisure and hospitality saw the biggest bump in pay during the pandemic. Since then, pay for all sectors has continued to rise.

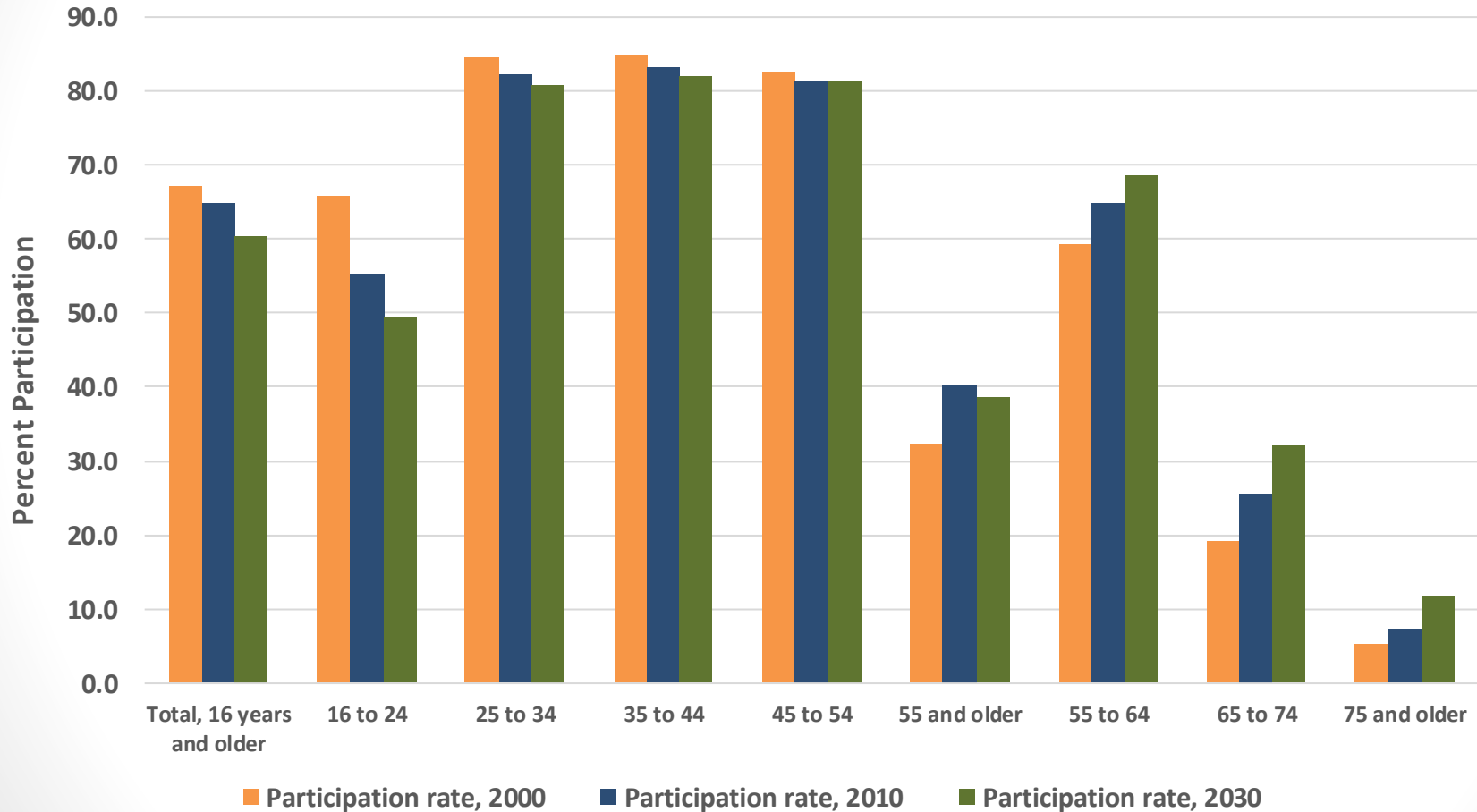


Note: May data weighted by hours worked. Average hourly base wages

The Workforce

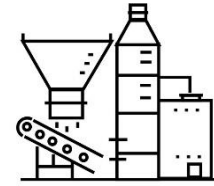


Labor Participation Rates by Age Group

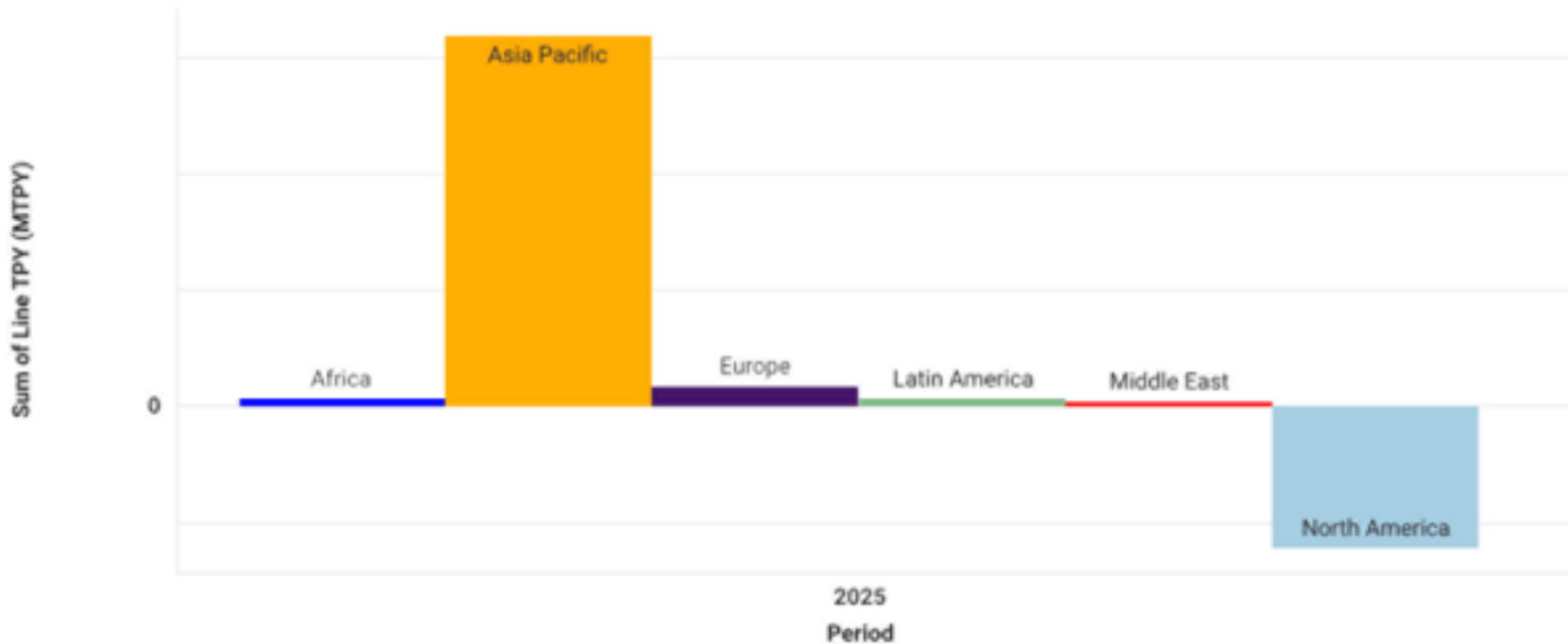


Source: Bureau of Labor Statistics

Pulp and Paper Manufacturing



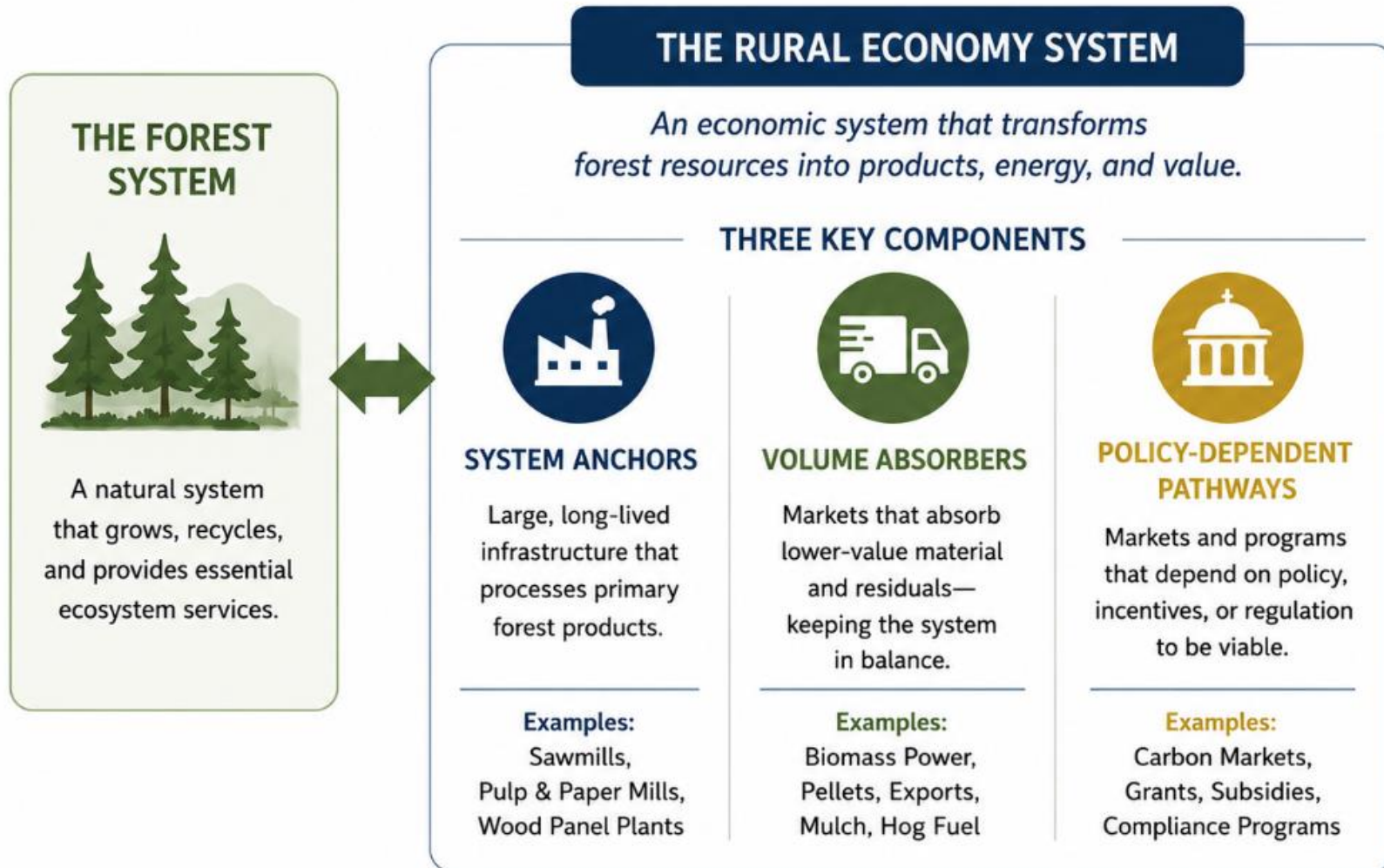
2025 Pulp and Paper Capacity Change by Region



Source: Fisher Solve

Two Systems. One Goal:

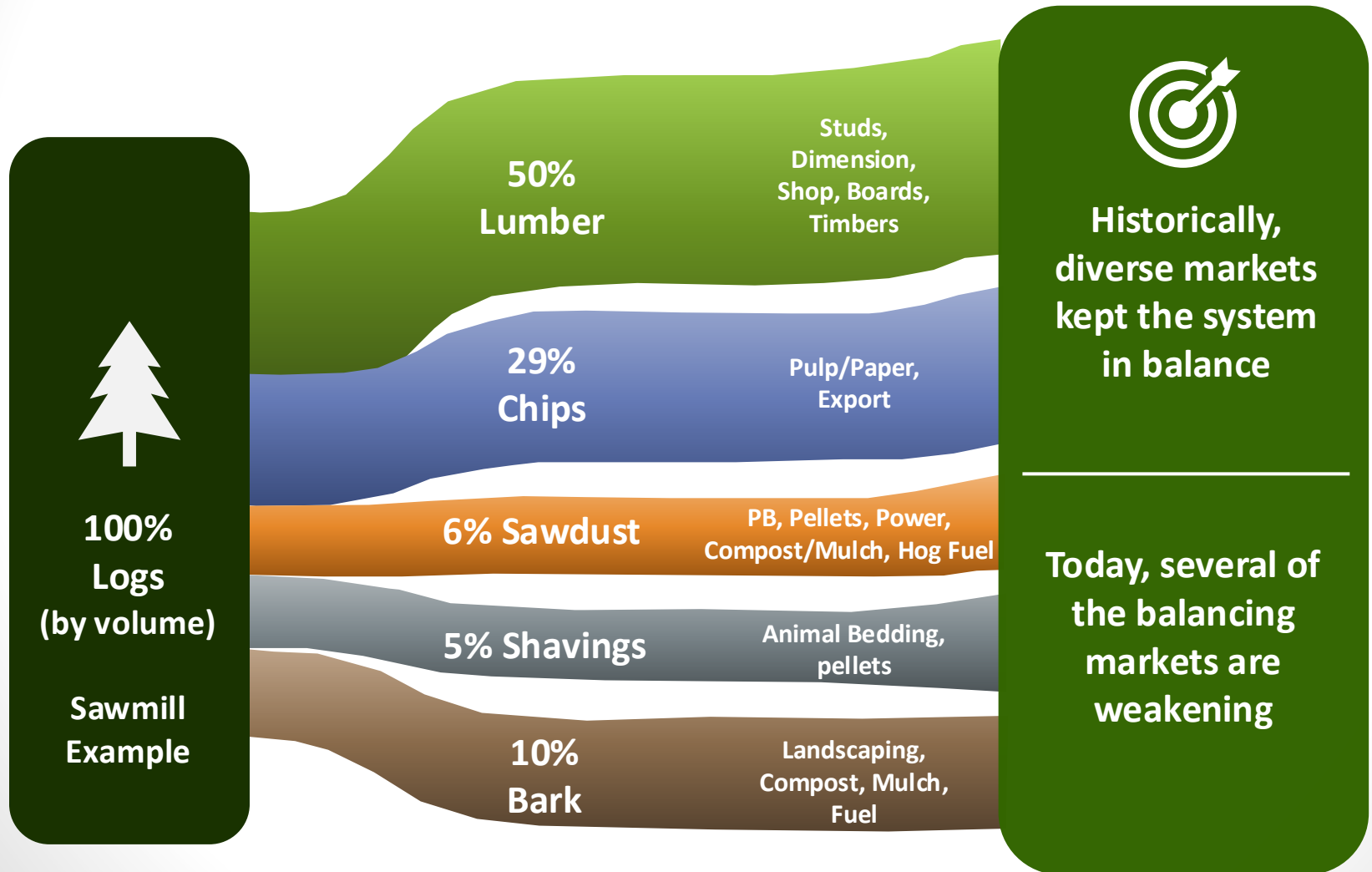
Sustainable Forests. Strong Economies. Healthy Communities



Long-term success depends on keeping these systems aligned

The Good Old Days: *The System Was Balanced*

The industry has historically utilized nearly everything coming out of the forest—but several anchor markets are weakening at the same time



What Changed?



- **Paper demand declined**
Printing and writing paper demand declined



- **Recycled fiber displaced virgin pulp demand**
Higher recovery rates and substitution reduced the need for virgin wood



- **Global low-cost producers increased competition**
Lower cost capacity, especially in South America



- **Pellet and panel markets weakened**
Oversupply, price pressure, and demand softened for pellets and panels



- **Biomass plants idled or closed**
Wind and solar emerged as lowest cost options for renewable power



- **Transportation and capital costs rose sharply**
Freight, equipment, labor, and capital costs increased across the board



Key Insight



Several historic
'volume absorber'
markets weakened
simultaneously

This creates a structural
imbalance between the fiber
our forests produce and the
markets that value it

US Fiber Supply & Demand Balance:

(BDT/Year)

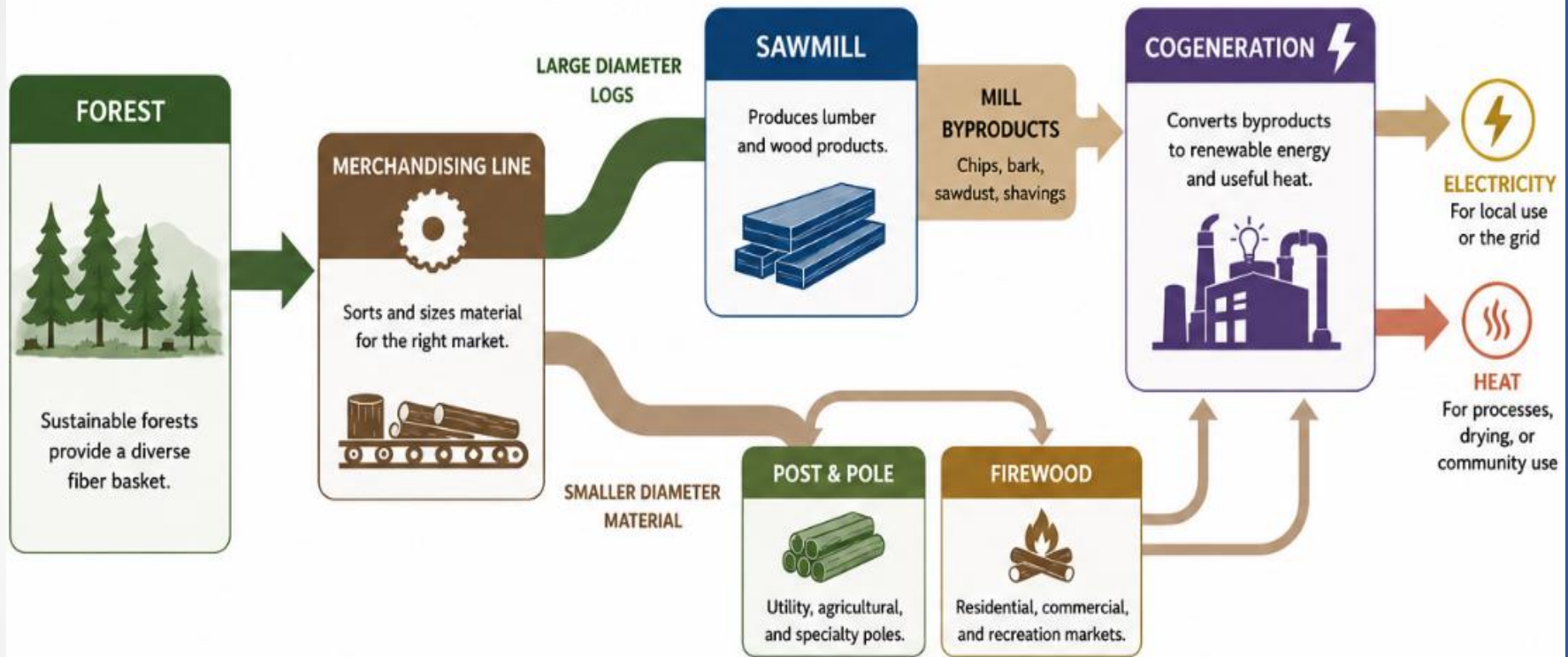
	Sawtimber	Pulpwood	Logging Slash	Mill Residuals	Total Supply
Total Annual Supply	103,220,000	96,631,000	21,611,000	48,056,000	269,517,000
Total Annual Demand	103,235,000	76,032,000	1,325,000	32,585,000	213,177,000
Total Annual Balance	(15,000)	20,625,500	20,286,000	15,471,500	56,341,000

- 56 million BDT/Year surplus of lower-value material
- Existing infrastructure could consume 295 million BDT/Year if fully utilized
- Forests can sustainability support another 200 million BDT/year above current harvests levels



This means that the central challenge is not how much wood the forest can produce, but how effectively markets, technologies, and institutions are aligned to use it.

Fiber Balance Through Integrated Systems: *Biomass Campus*



STRONGER MARKETS

Multiple products from every log.



IMPROVED ECONOMICS

Higher value from lower-value material.



LOCAL BENEFITS

Jobs, investment, and community resilience.



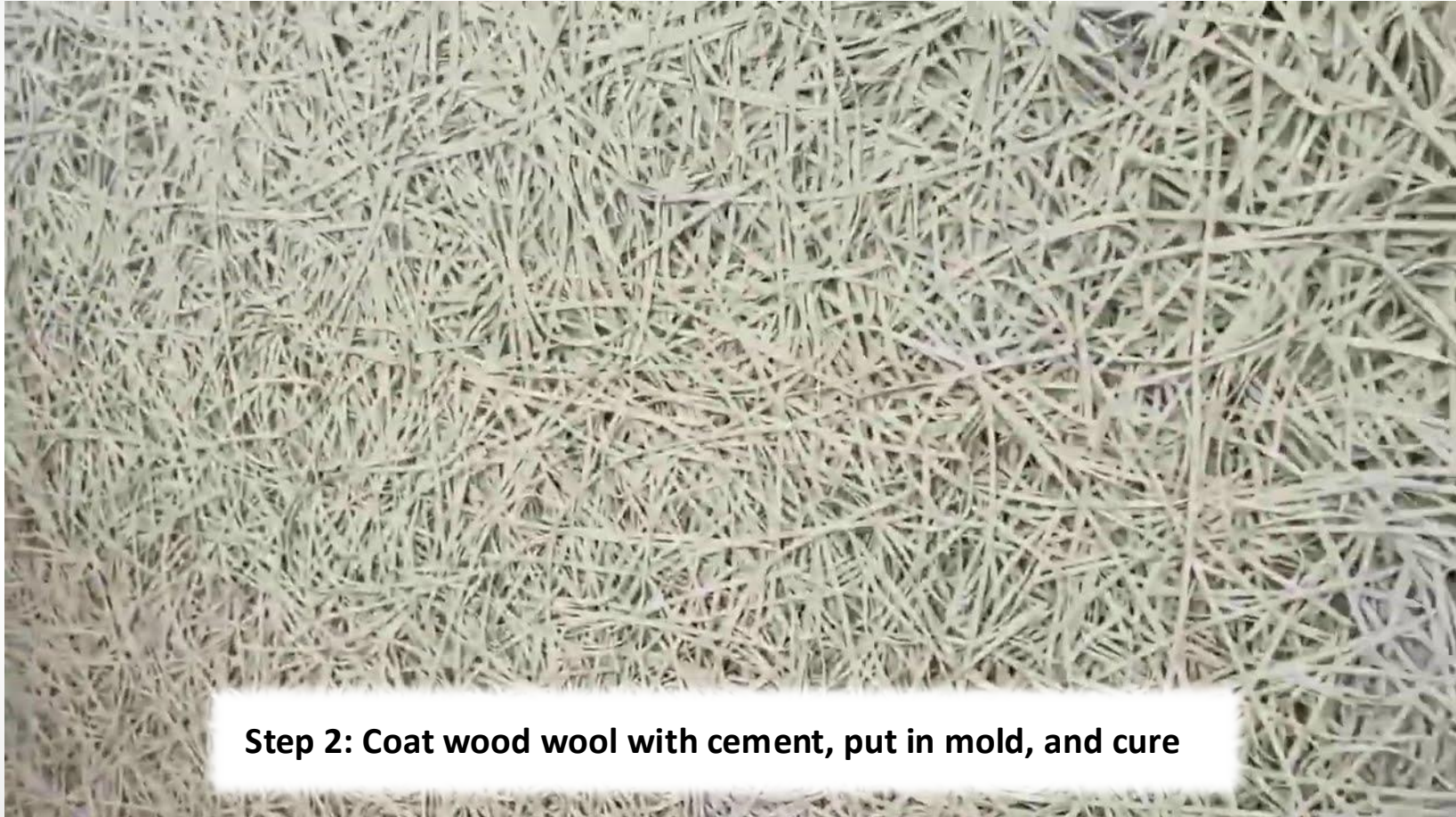
FIBER BALANCE: All parts of the tree are used, byproducts are recovered, and the system stays in balance.

High-Value Pathways for Low-Value Fiber: *Wood Wool Cement Large Wall Elements*



Step 1: Convert small diameter roundwood into wood wool

High-Value Pathways for Low-Value Fiber: *Wood Wool Cement Large Wall Elements*



Step 2: Coat wood wool with cement, put in mold, and cure

High-Value Pathways for Low-Value Fiber: *Wood Wool Cement Large Wall Elements*



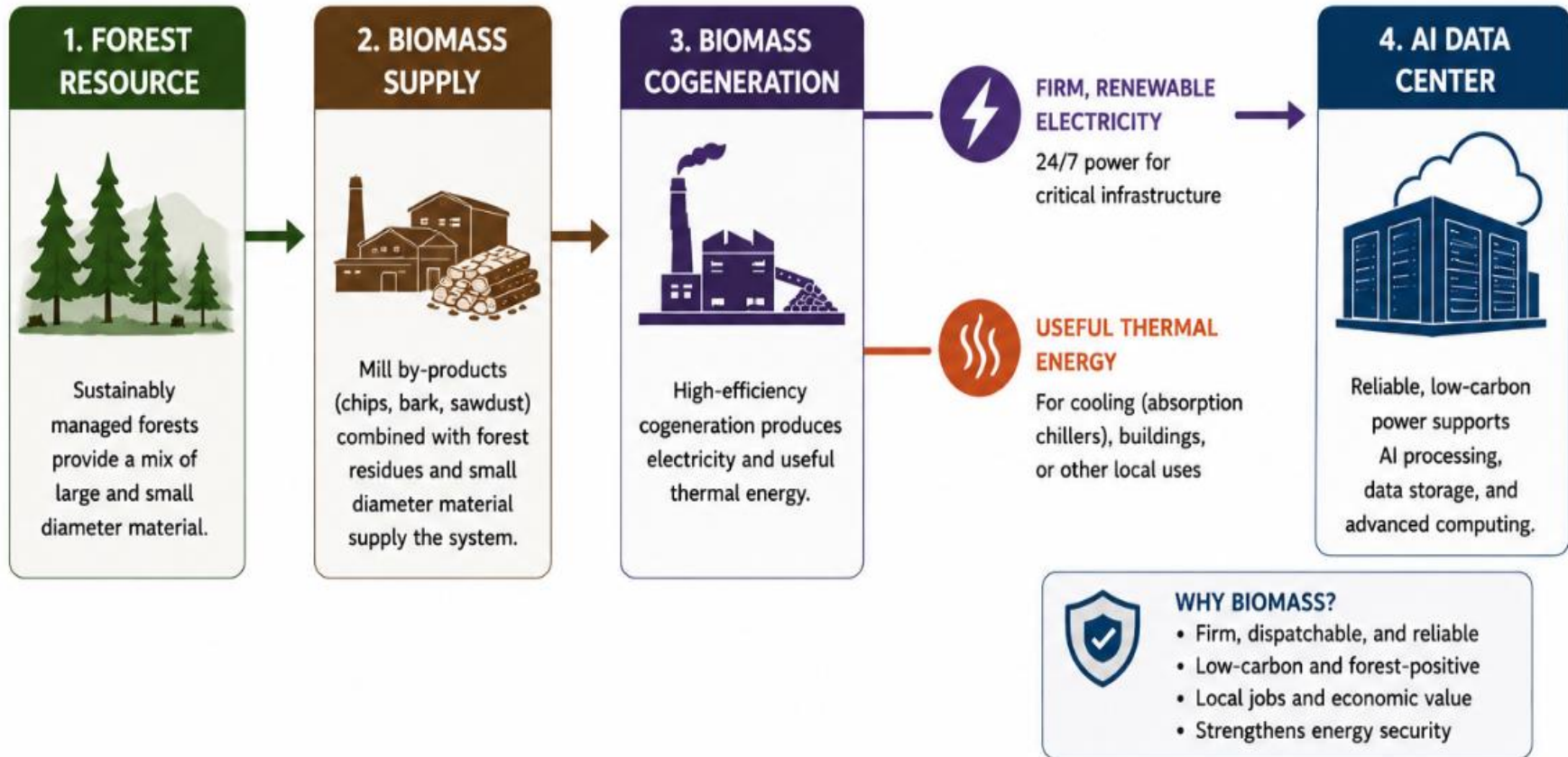
Step 3: Construct building using WWC – LWE systems

High-Value Pathways for Low-Value Fiber: *Wood Wool Cement Large Wall Elements*

End Use: Converting low-value fiber into high-value building systems



New Demand Driver for Renewable Energy: *AI Data Centers & Firm, Renewable Power*



AI infrastructure is increasing the demand for firm, renewable generation

Decarbonization & New Fiber Markets:

Weyerhaeuser + Aymium Reposition Low-Value Fiber for Global Metals Production

A STRATEGIC PARTNERSHIP TO SCALE BIOCARBON AND TRANSFORM INDUSTRY

1. FOREST & MILL RESIDUALS

Our Abundant Resource




Weyerhaeuser

-  Pulpwood & small-diameter material
-  Sawdust, bark & shavings
-  Mill byproducts
-  Low-value fiber with limited traditional outlets







2. BIOCARBON PRODUCTION

Aymium's Proprietary Technology







AYMIUM



-  Combustion-free process converts biomass into high-performance biocarbon
-  Consistent, metallurgical-grade biocarbon
-  Scalable, capital-efficient industrial platform

3. INDUSTRIAL DECARBONIZATION

Drop-In Solution for Heavy Industry

-  **STEEL PRODUCTION**
Direct replacement for metallurgical coal in blast furnaces
-  **FERRO-ALLOYS**
Reduces emissions in high-temperature metallurgical processes
-  **SILICON METALS**
Lower-carbon production for essential industrial materials
-  **DROP-IN REPLACEMENT**
Works in existing equipment and supply chains—no major process redesign required

 **Serious players are not waiting around**

-  **POTENTIAL SCALE**
-  **1.5 MILLION TONS/YEAR BIOCARBON**
-  **7+ MILLION TONS/YEAR WOOD FIBER**
-  **MULTIPLE FACILITIES PLANNED**
-  **ADJACENT TO EXISTING MILL INFRASTRUCTURE**

Rebuilding Balance:

More Integrated. More Distributed. More Aligned



Long-term forest health and strong rural economies depend on keeping all three systems aligned



Questions?

Steve Courtney

Vice President of Operations

The Beck Group

Forest Products Planning and Consulting Services

stevec@beckgroupconsulting.com

Cell: (541) 527-2040

Roy Anderson

Vice President of Business Development

The Beck Group

Forest Products Planning and Consulting Services

roya@beckgroupconsulting.com

Cell: (503) 840-2171

