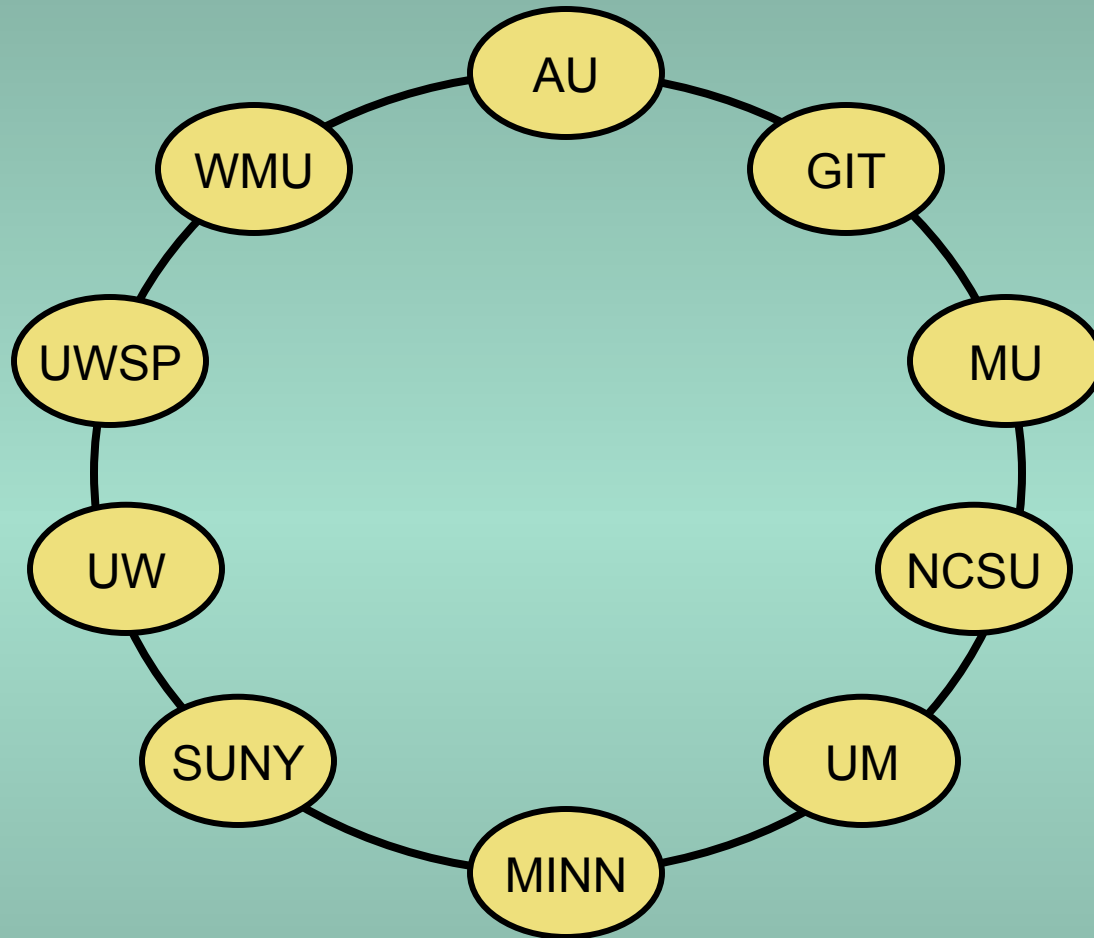


**PPERA – SWST  
Opportunities for Collaboration**

**48<sup>th</sup> Annual Convention  
Society of Wood Science  
And Technology**

**Harry Cullinan  
Auburn University  
June 19, 2005**

# PPERA



The Pulp and Paper Education and Research Alliance

# PPERA Members

**Auburn University  
Georgia Tech.  
Miami University  
North Carolina State  
University of Maine  
University of Minnesota  
SUNY – Syracuse  
University of Washington  
University of Wisconsin – Stevens Point  
Western Michigan University**

## PPERA Affiliates

**AF&PA  
NCASI  
TAPPI  
USFPL**

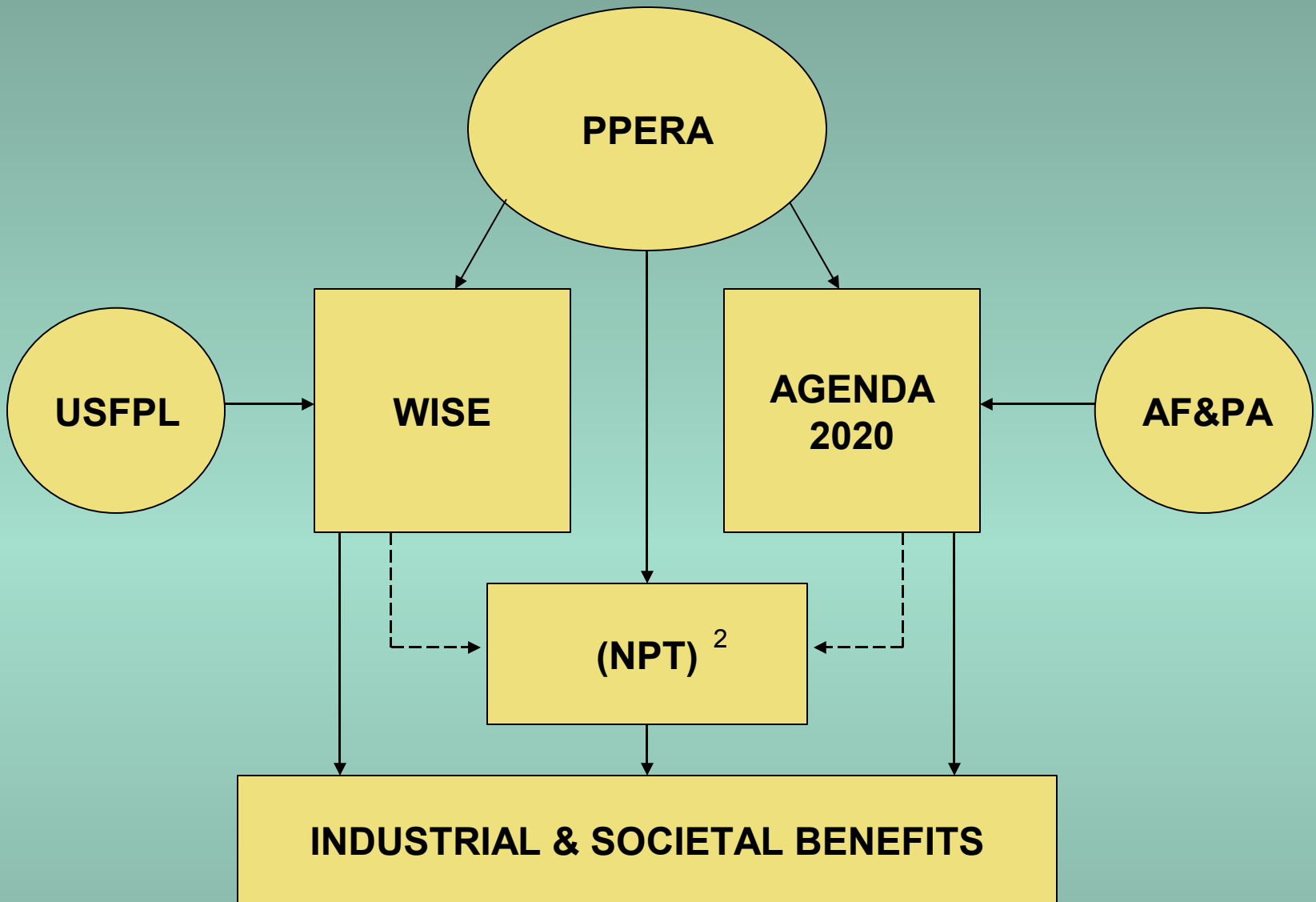
# PPERA Officers

(Through December 31, 2006)

**President: Harry Cullinan, Auburn**

**Vice-president: Mike Kocurek, NCSU**

**Secretary: Said Abubakr, WMU**



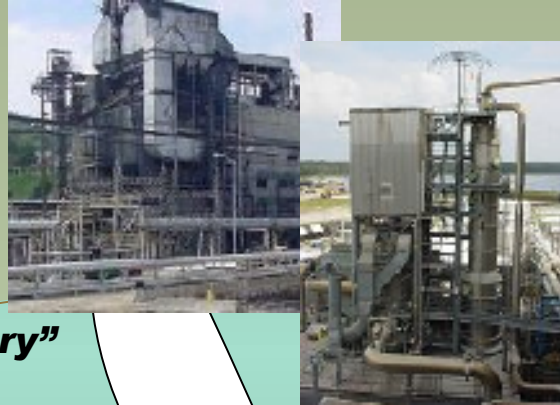
## PPERA'S STRATEGIC FRAMEWORK

# Agenda 2020 Focus for the Future

The Six Technology Platforms – Crafted for High Value/Low Risk with a Proven Portfolio Tool

## Positively Impacting the Environment

- Expand the Carbon Cycle Benefits
- Enhanced Site, Activity and Product Environmental Footprint



## Next Generation Fiber Recovery and Utilization

- Recycled Fiber Indistinguishable from Virgin Fiber



## Advancing the Forest “Bio-refinery”

- Sustainable Forest Productivity
- New Forest-Based Materials
- Conversion to New Value Streams



## Breakthrough Mfg. Technologies

- Major Manufacturing Cost/Capital Reduction
- Significant Enhancement in Product Properties with Existing Assets
- Substantial Improvement in Energy Efficiency for Existing Processes

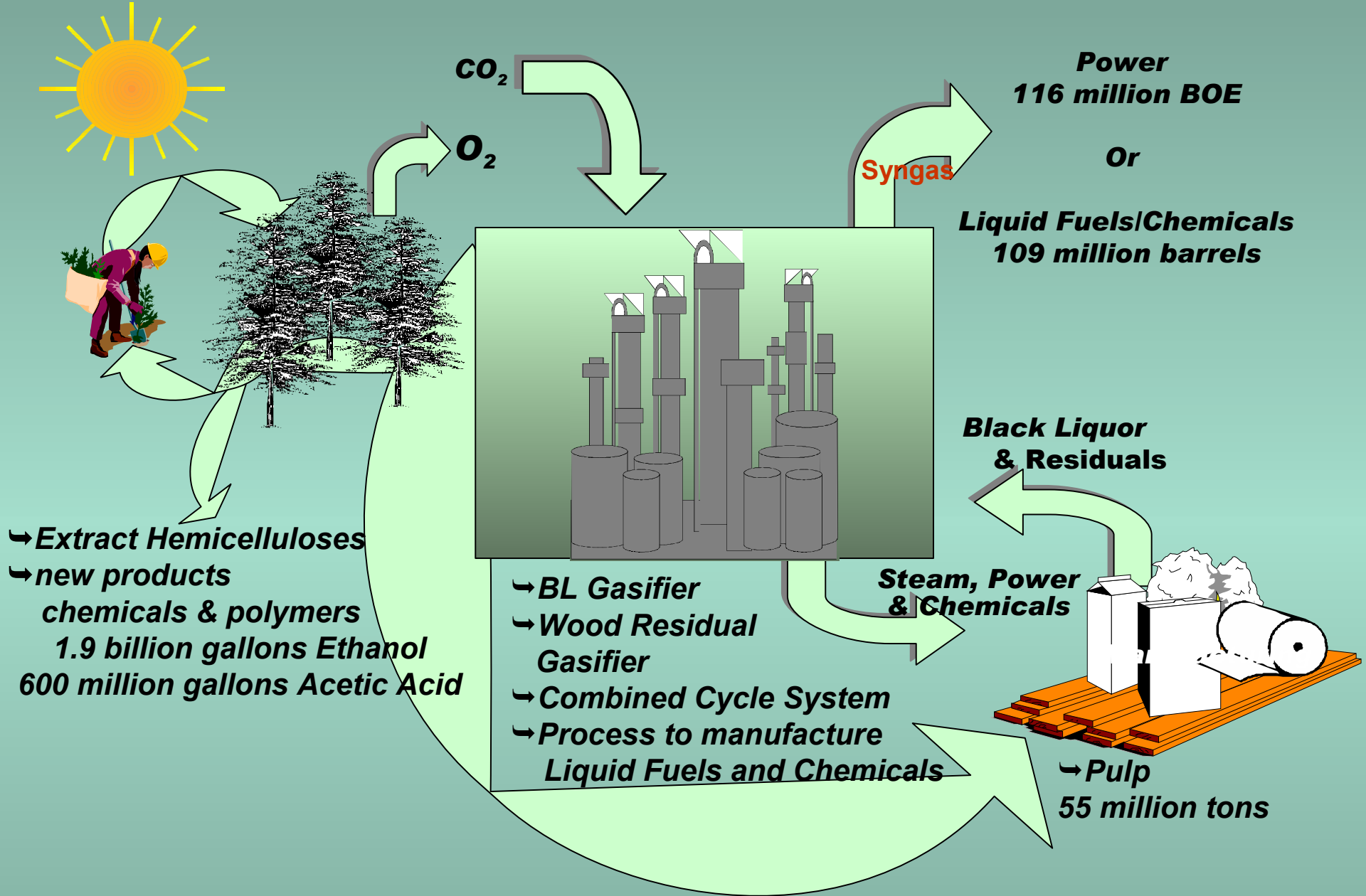


## Technologically Advanced Workforce

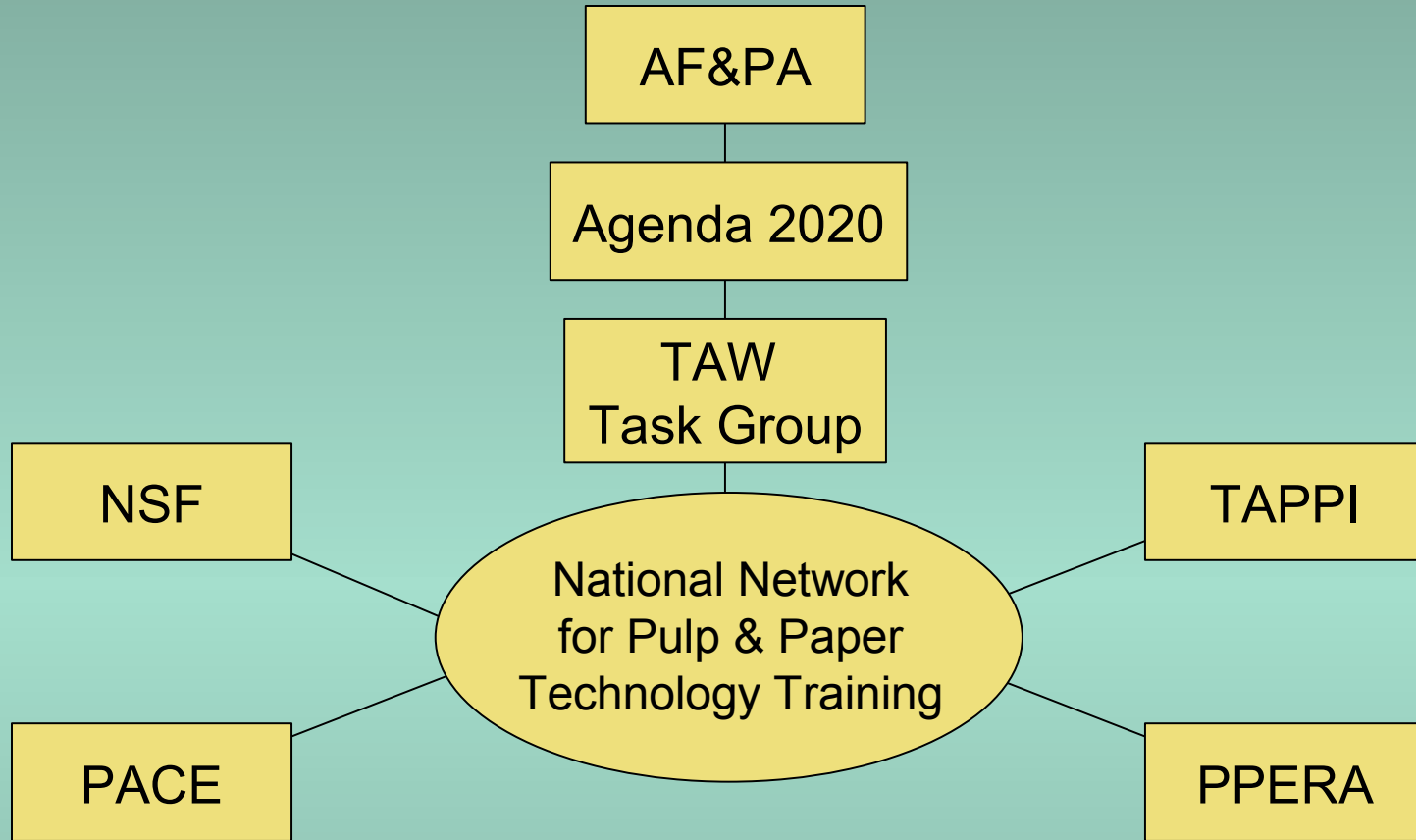
- From Workforce to Knowledge Workers in 7 years

## Advancing the Wood Products Revolution

- Improved Building Systems
- Reduced System Costs

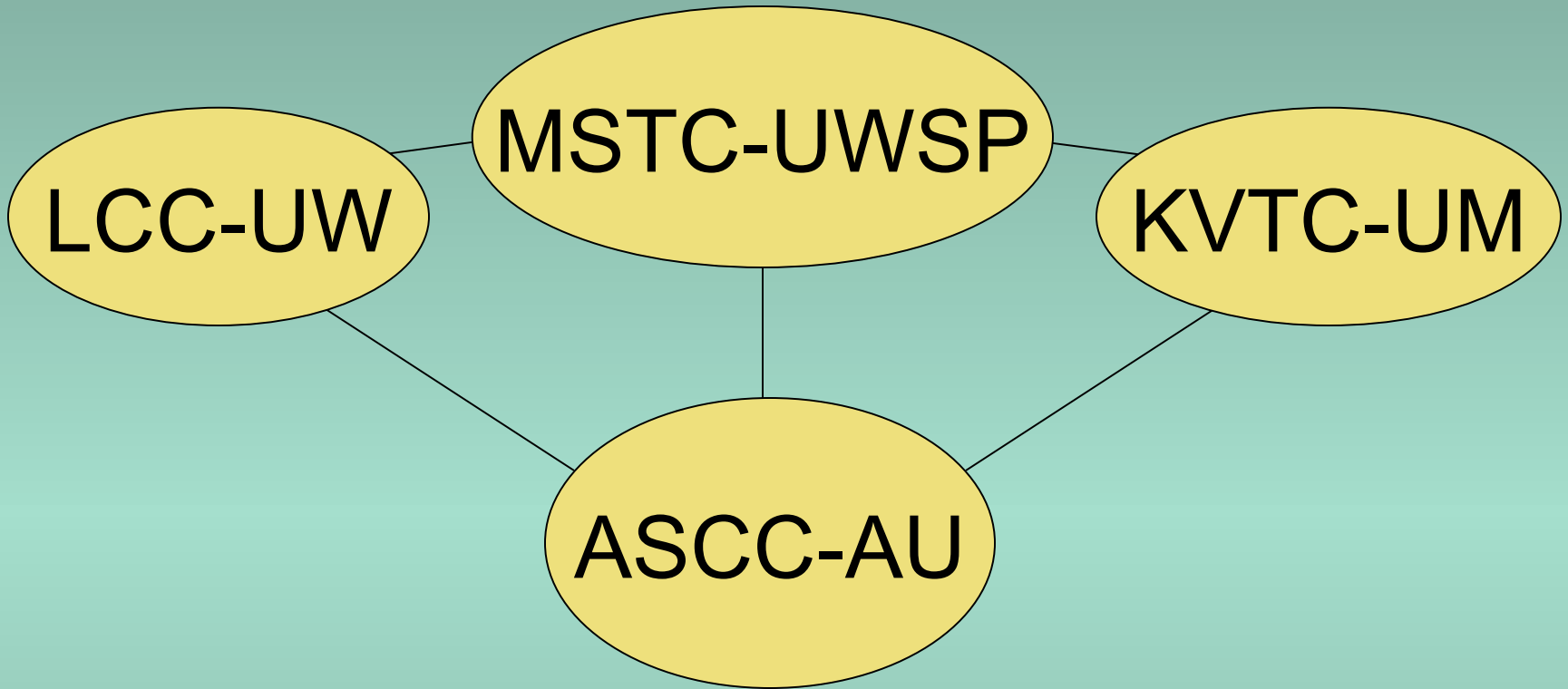


# The Forest Biorefinery – Production



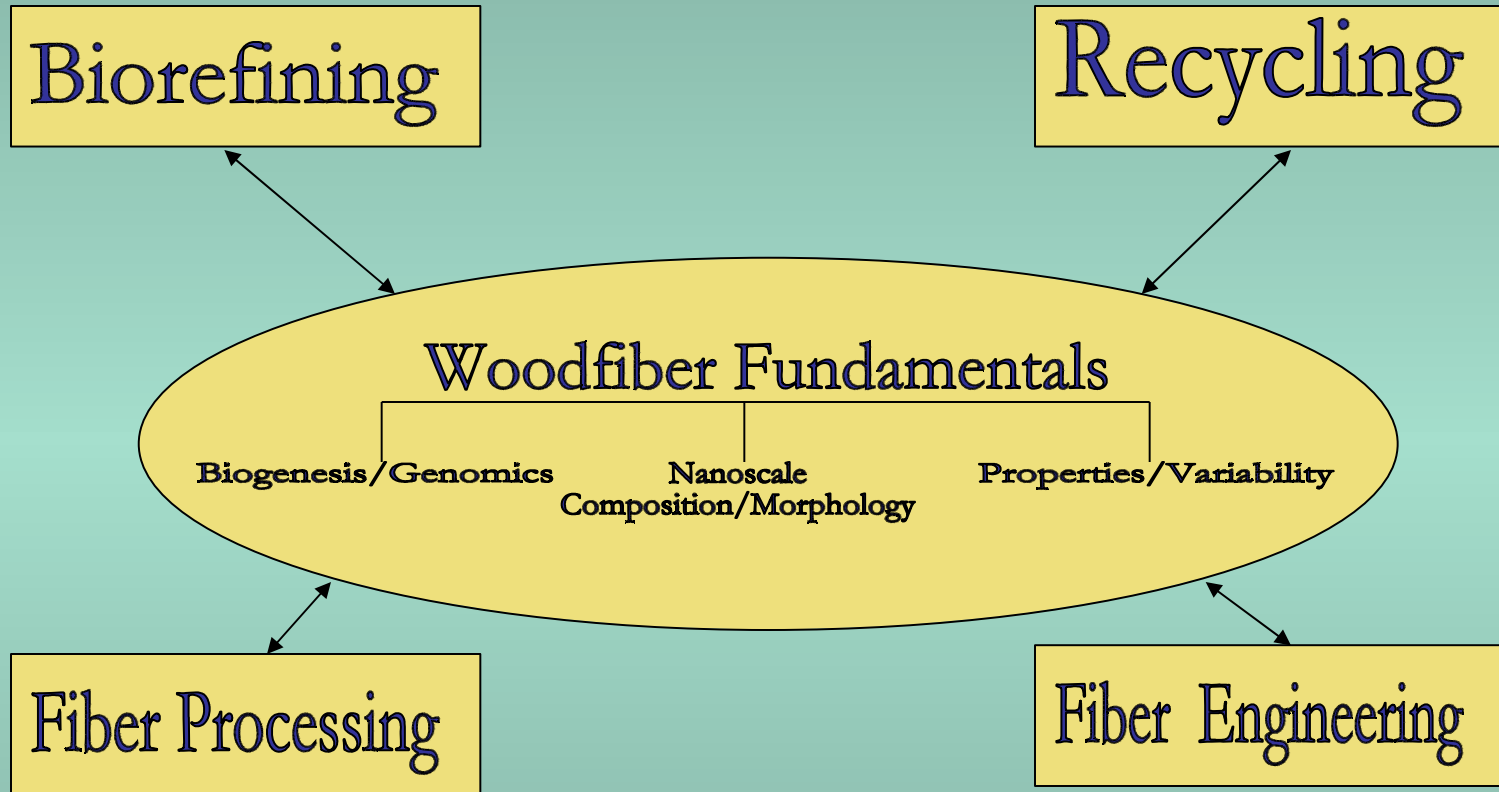
# A National Strategy for Pulp and Paper Technical Training





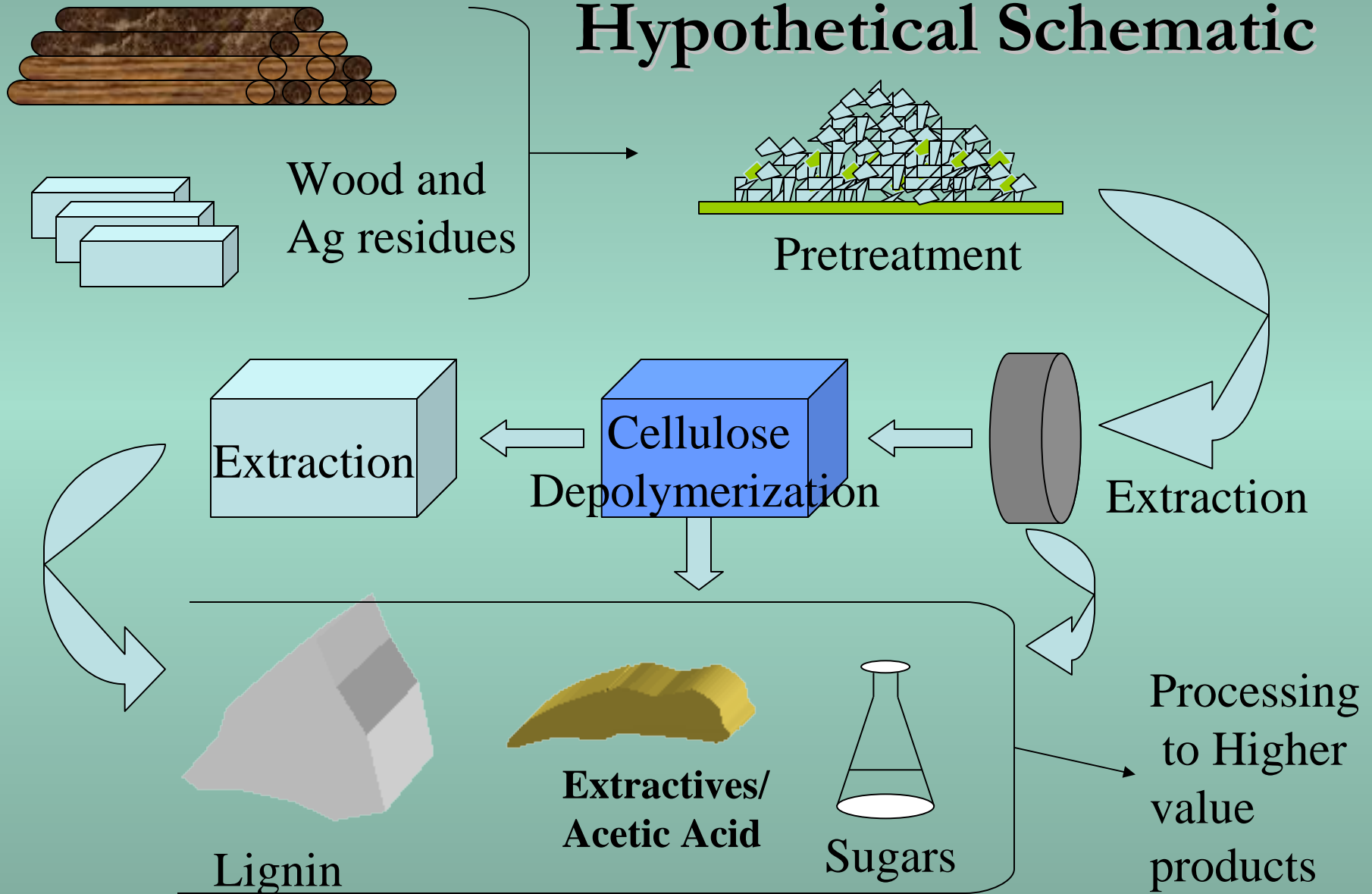
**National Network for Pulp & Paper Technology Training  
(NPT)<sup>2</sup>**

# WISE



A Strategic Framework

# Biorefinery without Fiber Production



# Outcomes

- Improved economics for ethanol production from wood
- Healthy less fire prone forests
- Reduced fire suppression costs
- Offset cost of forest management
- Less dependence on foreign oil
- New generations of high performance, value-added sustainable forest-based materials and product platforms
- Increased competitiveness of the forest products sector



# Nanotechnology Opportunities for Current Products & Processes

- Sensors to monitor processes and product history
- Revolutionize separations
- Breakthrough surface characteristics
- Incredible bonding
- Dramatic simplification of our processes
- Significant synergy with forest biotechnology
- Significant reduction in the need for energy
- Eliminate the need for water