

2010

2015

2020

2025

2030

Forest-Based Sector
Technology Platform



Innovation in the forest-based sector

Dr. Andreas Kleinschmit von Lengefeld

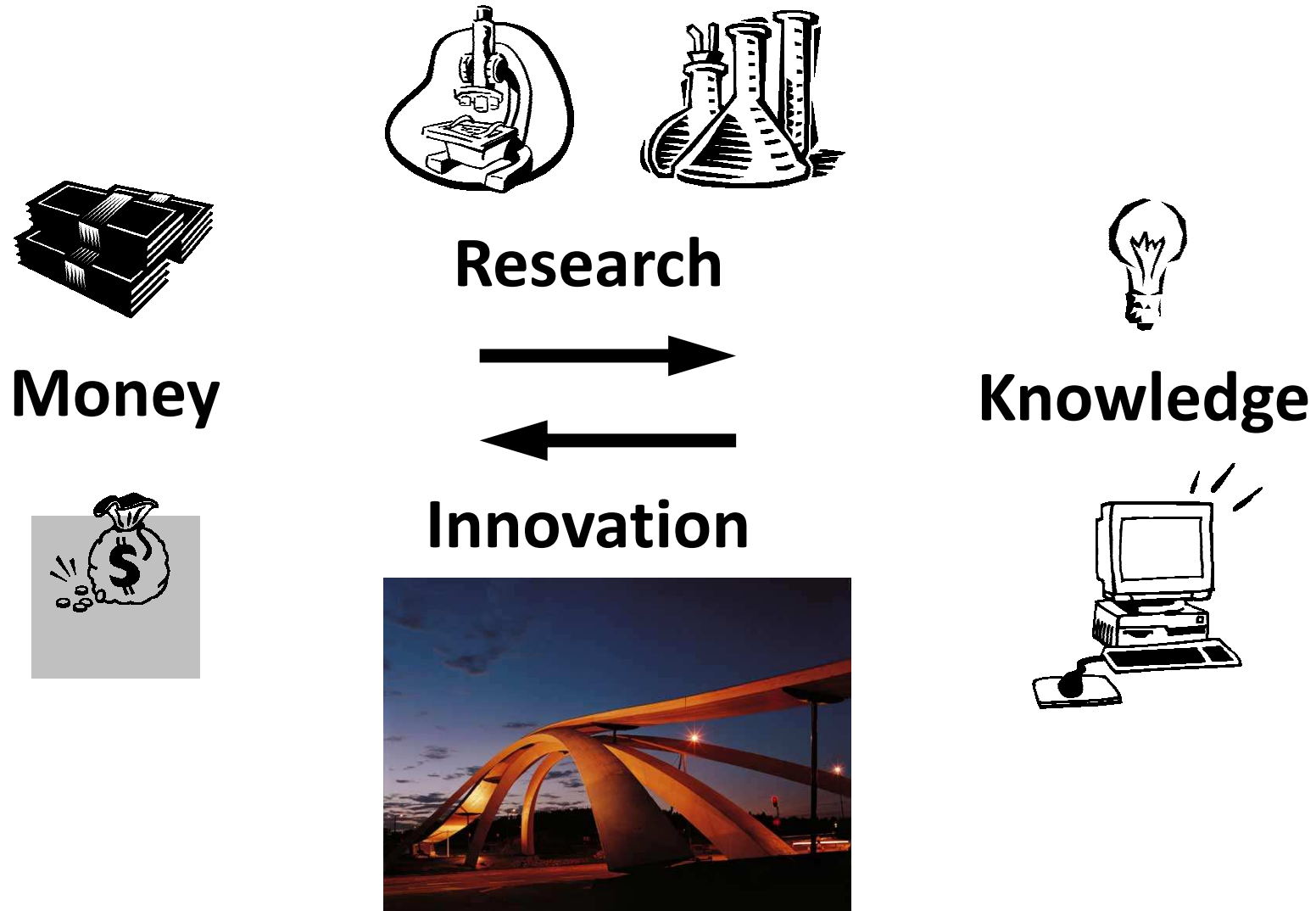
Forest-Based Sector Technology Platform - FTP

*European Technology Platforms Conference 2010
Workshop C3*

*New Business Models for Sustainable Growth
Session 4, 12 May 2010*



Research and Innovation



Outlook for the European forest-based sector

- ▶ The interest for renewable materials and green business is bigger than ever
- ▶ New competition changes the business
- ▶ New opportunities occur and should be taken
- ▶ Globalization shows threats and opportunities
- ▶ "Innovative" SMEs with origin in universities and institutes or even other sectors will bring new "spirit" into our sector

The European forest-based sector today

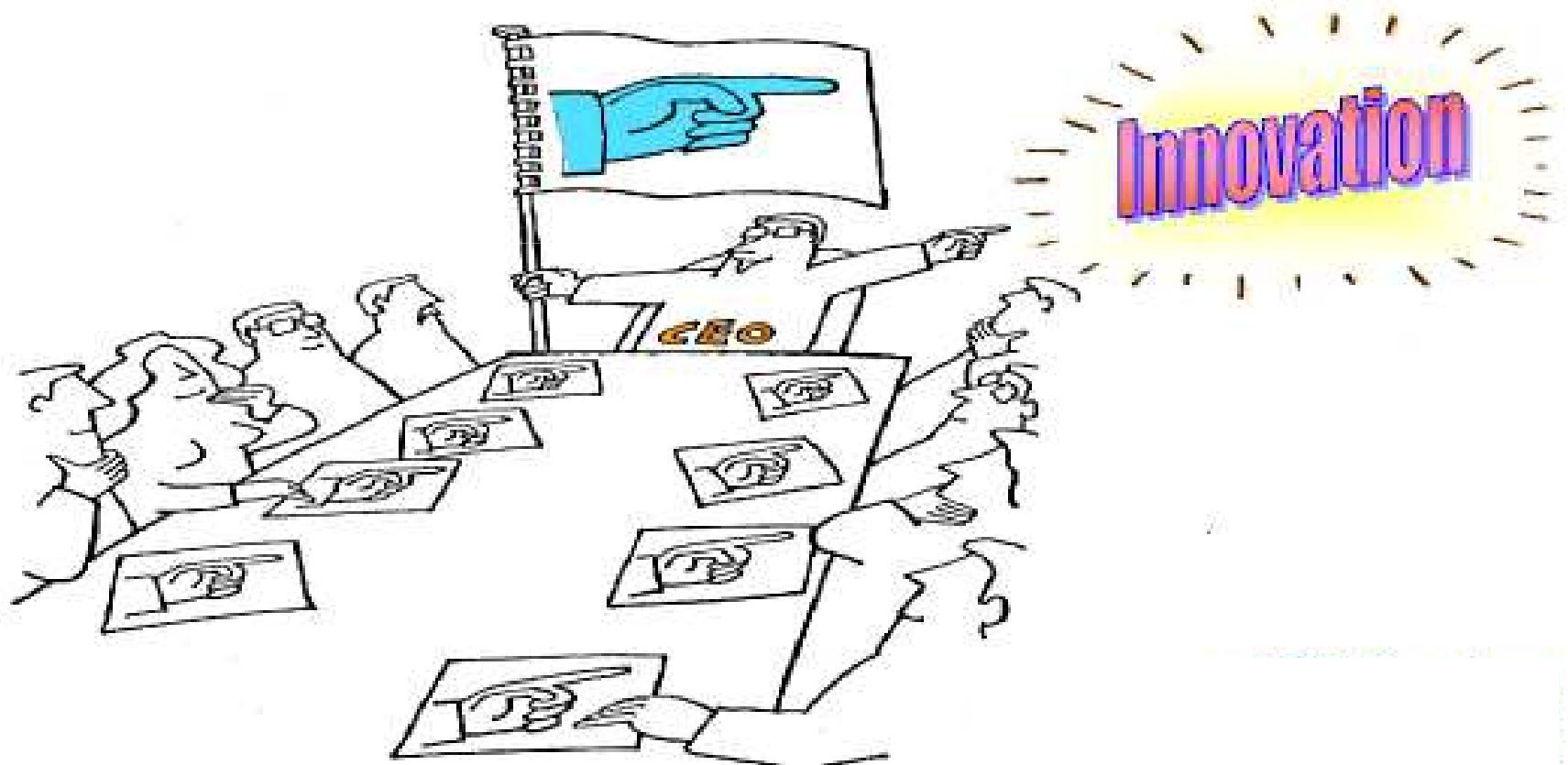
- ▶ $< \frac{1}{4}$ of the companies introduced significantly improved goods or services in the last years.
- ▶ $\frac{1}{3}$ introduced new or significantly improved manufacturing methods or logistics.
- ▶ Innovation focuses mainly on cost cutting by incrementally improving production processes.
- ▶ Enterprises often seem to lack critical capacity, knowledge and leadership to push innovation – particularly SMEs
- ▶ All in all: Forest-based sector companies are lagging behind the innovation performance of key competing sectors

How to change?

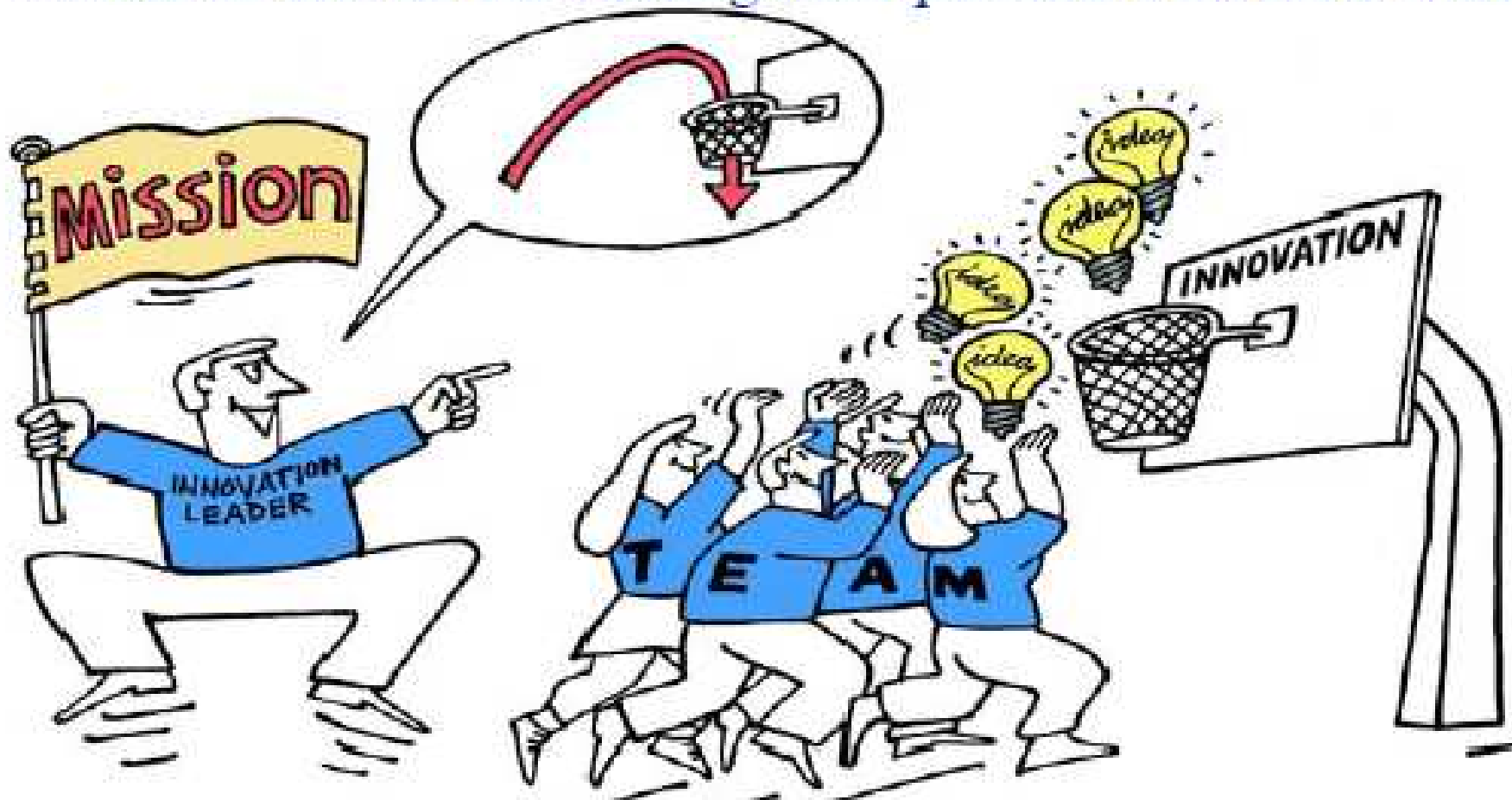
- ▶ Strong CEO leadership is essential for company innovativeness
- ▶ Innovation needs to be core part of a company vision and strategy
- ▶ Establish a creative climate in the company
- ▶ Innovation requests management
- ▶ Develop structures and procedures for innovation (always keep market results in mind)

Innovation Leaders

The Real 'Drivers' of Innovation Performance



... and an ardour for sharing their passion with their staff!



Identifying innovation leaders

They are not necessarily 'innovators' themselves...

... They do not need to come up personally with innovative ideas!

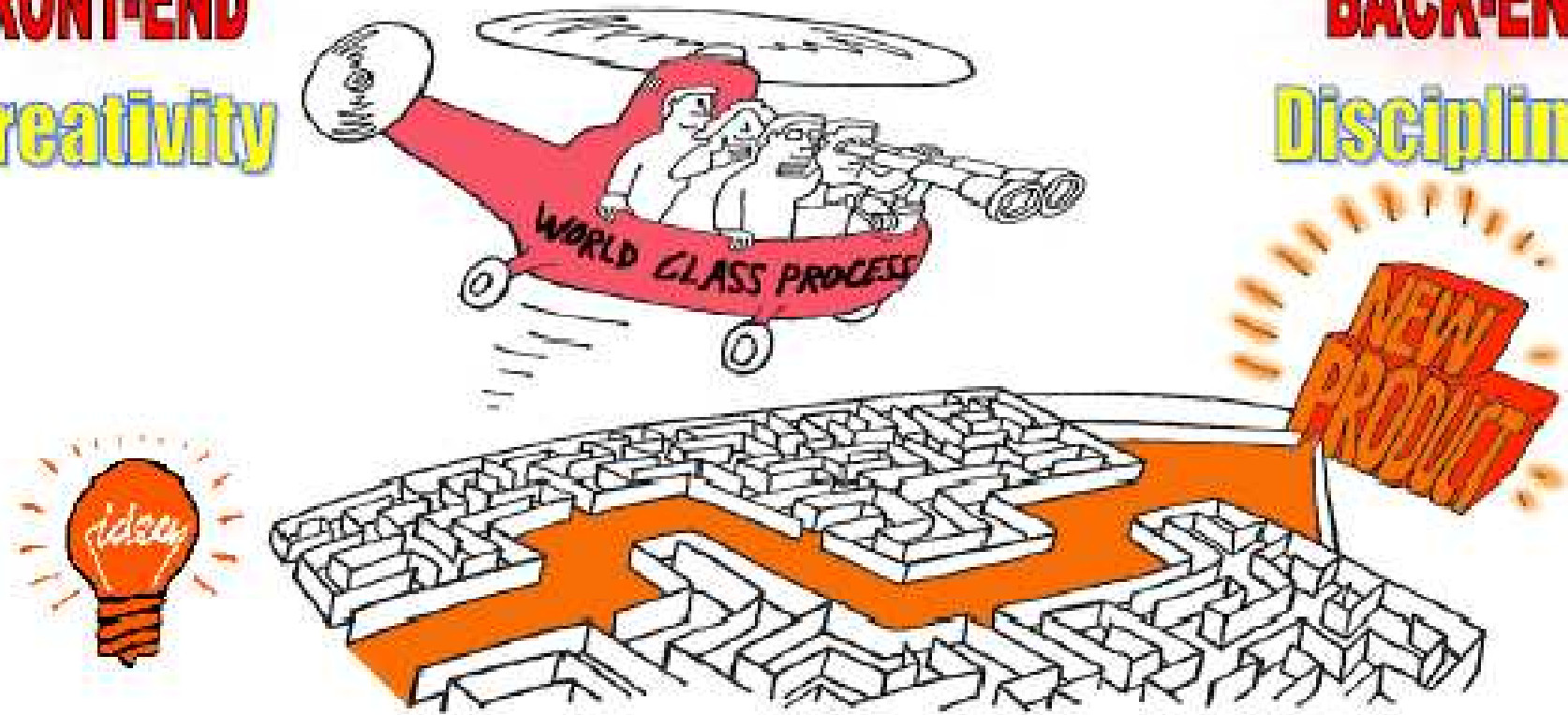


Distinguishing between two main leader types
Different types of leaders may be needed at different stages!

**FUZZY
FRONT-END**
Creativity

Can both be steered by the same leaders?

**SPEEDY
BACK-END**
Discipline



Traditional forest industry and new business development

Traditional products



Magazine &
Catalogue Papers



Newsprint &
Directory Papers



Fine &
Speciality Papers



Label Stock &
RFID Tags



Plywood &
Timber

New business development



Wood Plastic
Composites



Electronic
Laminates



Smart
Labels



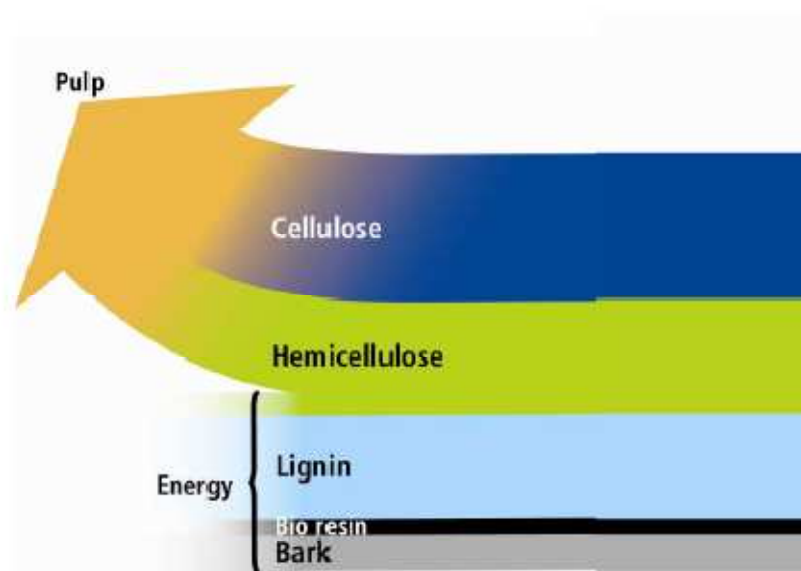
Bio-
Chemicals



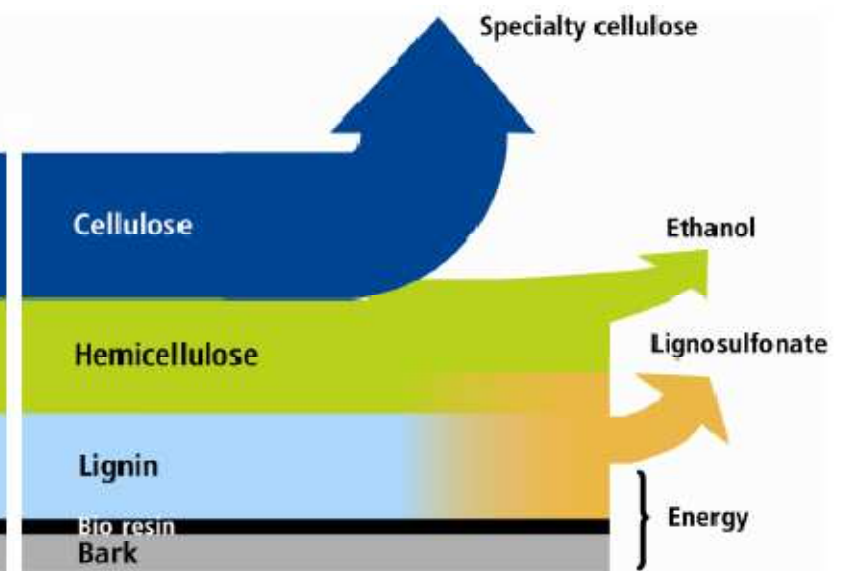
Bio-
Fuels

The same raw material but different end products

The Forest Industry

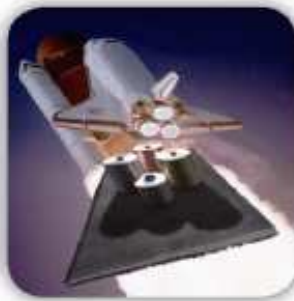


The Biorefinery Domsjö Fabriker

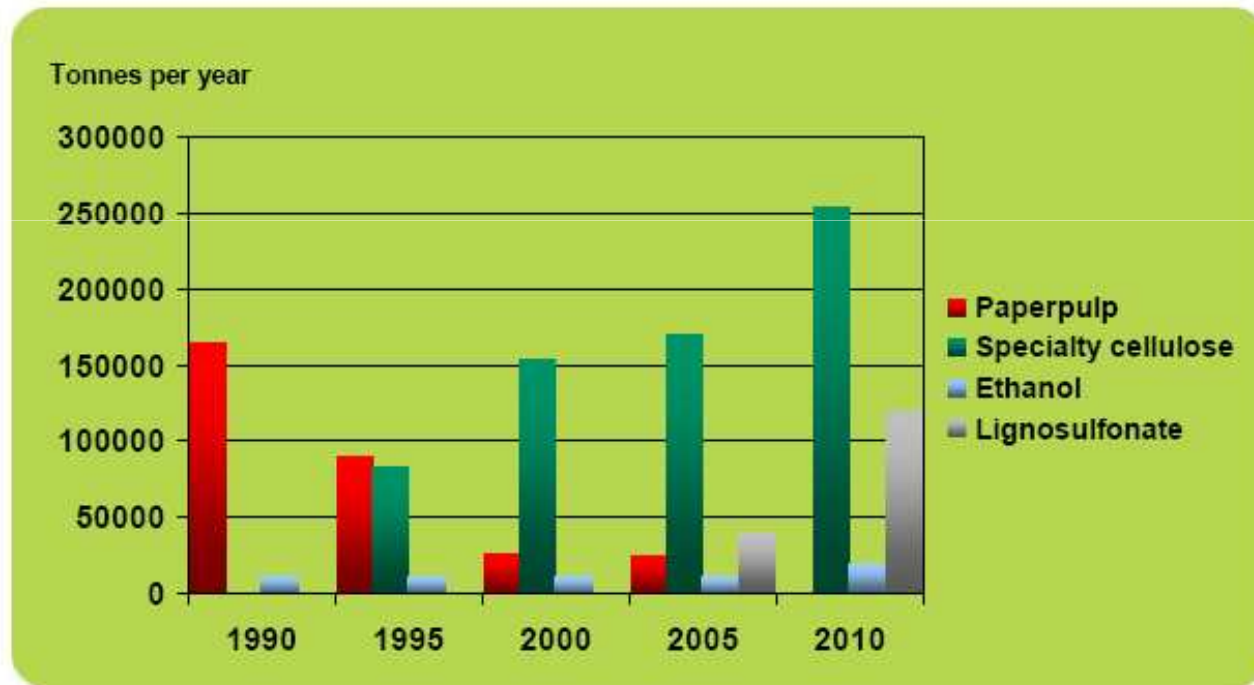


The only thing we have in common with the forest industry is the raw material

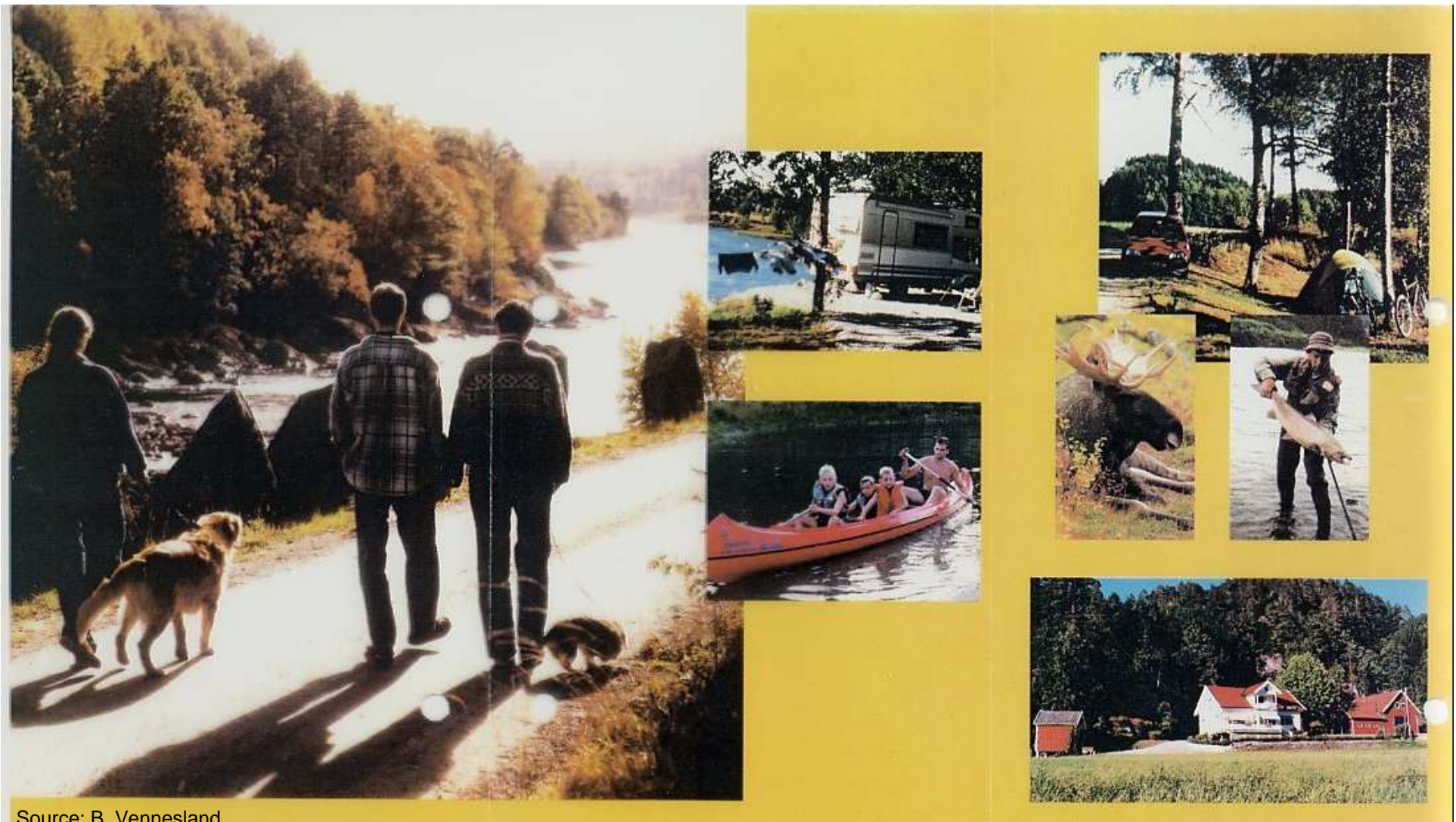




Our product mix



Non-wood forest products and services



Source: B. Vennessland



SME's in the forest-based sector

- ▶ Enterprises are not proactively innovating
- ▶ Enterprises are more initiating innovation processes:
 - triggered by challenges from the competitors
 - as reactions to demanding users or customers
 - as a reaction to deteriorating competitiveness

- ▶ Innovations could be
 - product differentiation
 - succesful specialization to niche markets
 - product innovations adapted to organized value chains

How to realise new opportunities?

- ▶ Changing the business culture and leadership from supply chain oriented to market oriented
- ▶ Put customers and consumers in focus
- ▶ New opportunities exist along the whole value chain
- ▶ The same for SME as well as for large companies

but

- ▶ Innovation is not a "quick fix". Successful innovations are investments, which take time

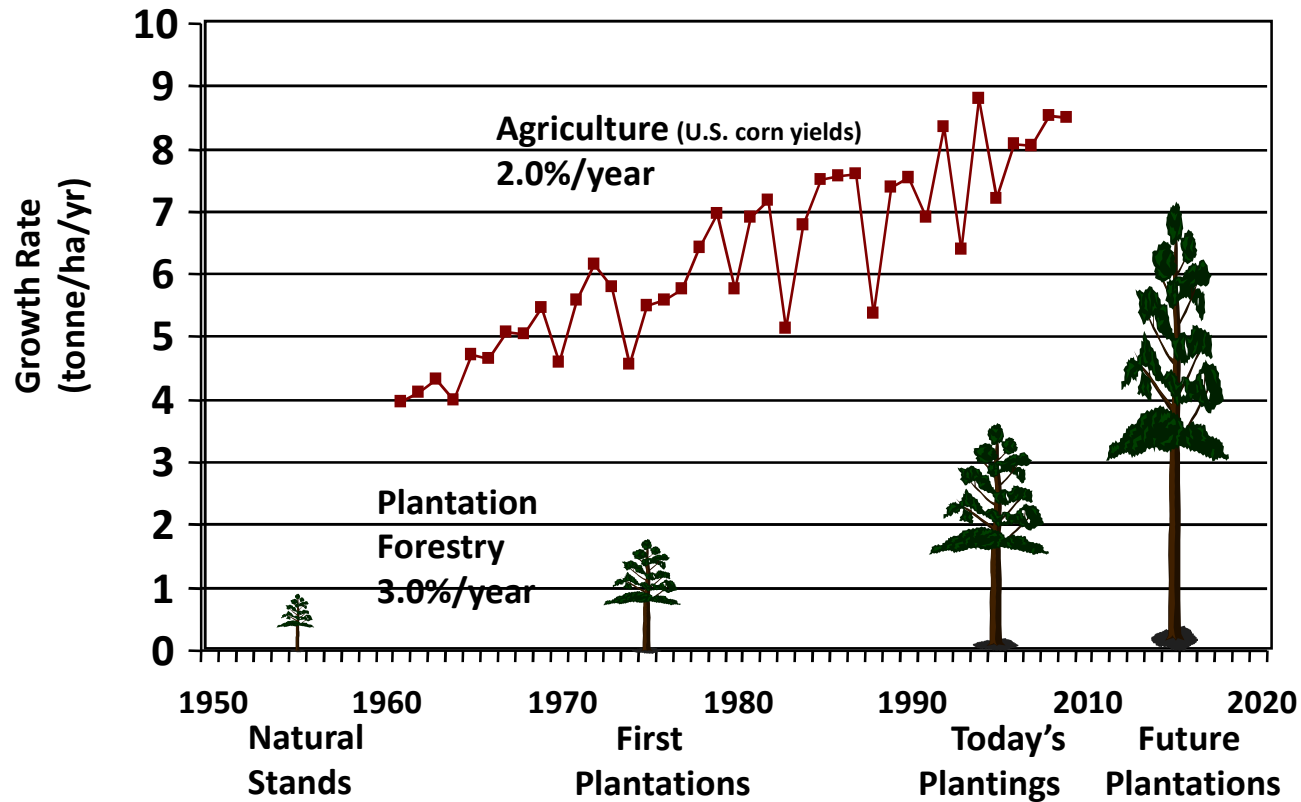
Improved raw material?



Source: SCA

Technical Innovation will fill the biomass gap?

- Increasing Productivity of Plantations

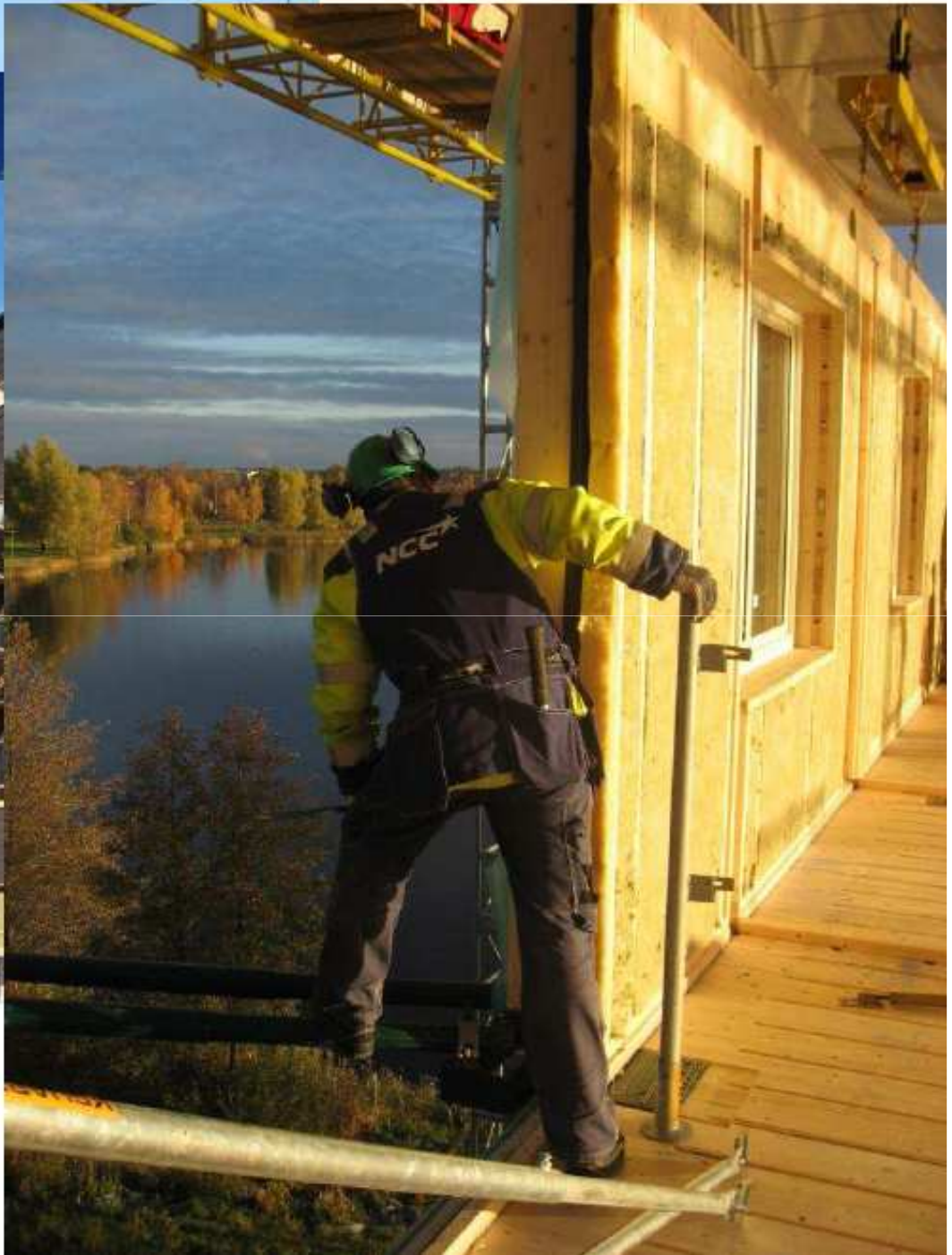


Source: FAO and Westvaco

Increased share of Timber Constructions?



Source: A. Teischinger and R. Stingl



SP Technical Research Institute of Sweden

Semi-closed box element made by cross laminated timber and used in construction of 6 floor wooden house in Sundsvall, Sweden.

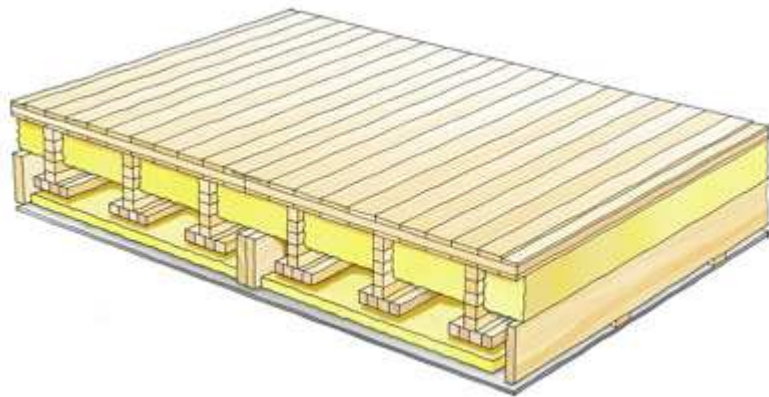
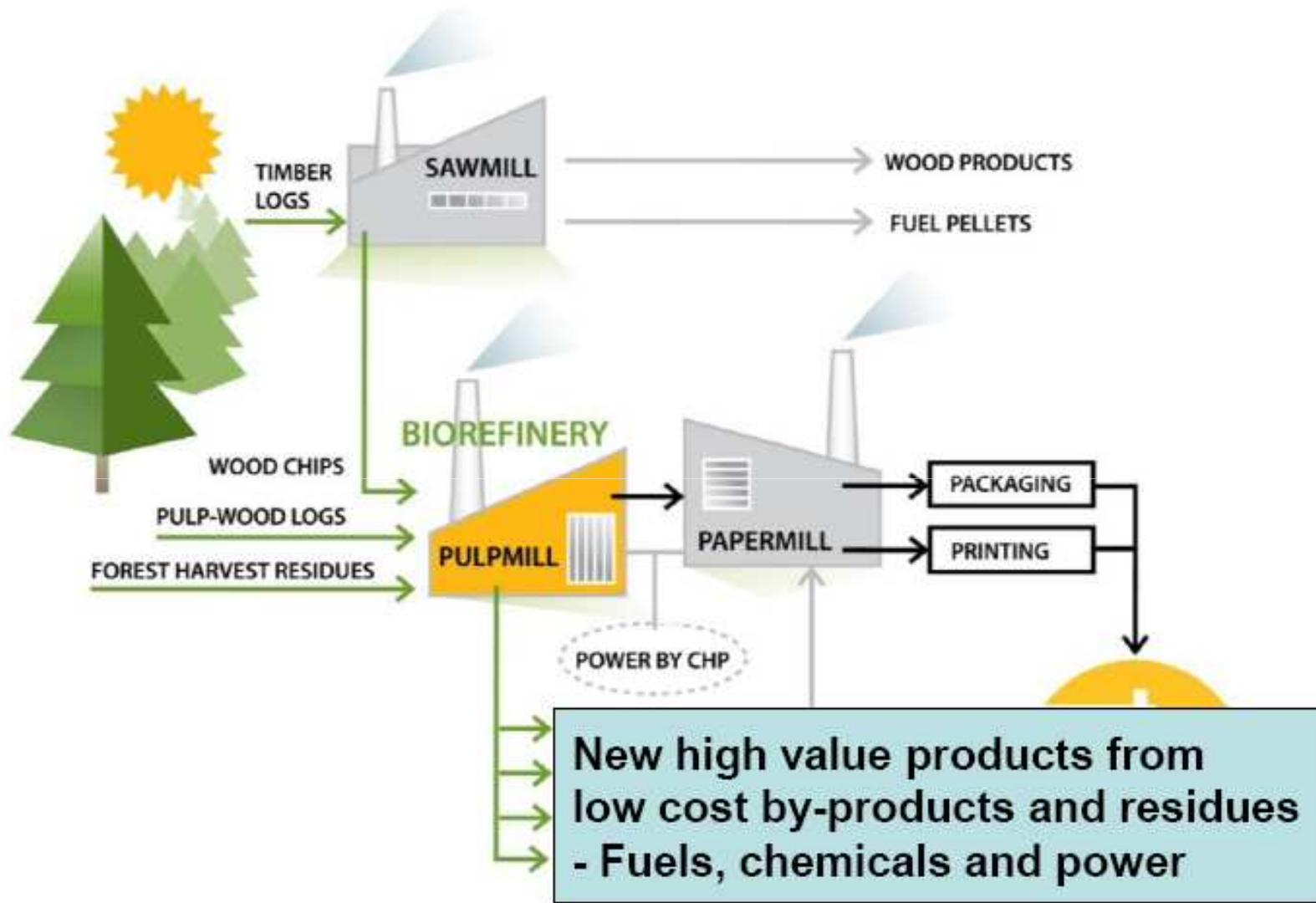


Photo: Martinssons, Sweden



Forest industry 2020 – a biorefinery?



Transportable Biorefinery Project?

- ▶ New forest derived products
 - New business opportunities
- ▶ Develop and demonstrate
 - Research integration of the technology within existing forest harvesting operations.



Source: J. Koivisto, Ontario, Can.

FTP' ITF conclusions

- ▶ Innovation is essential for the competitiveness of the forest-based sector
- ▶ Innovation is needed to take advantage of the "green business" trend
- ▶ Overall, the sector seems willing to push for new ways and profit from emerging opportunities – but is it also prepared and aware of what is needed to innovate successfully?
- ▶ There is a need for a mindset that promotes innovation in the forest-based sector.
- ▶ FTP is encouraged to treat innovation with the same effort and importance as it treats strategic research

FTP next steps

- ▶ FTP elaborates a road-show for promoting innovation in the forest-based sector; it will address and raise the awareness and attention of the need for change and innovation (both for SMEs and large companies)
- ▶ FTP's national support groups (NSGs – 26 countries) take similar initiatives on national level. These initiatives can include practical guidelines and dialogues with public authorities
- ▶ FTP together with an engaged NSG will initiate a special tailored pilot project for SME's in the sector
- ▶ FTP investigate the possibility to connect part of FTP's innovation initiative with the Lead Market initiative



**Thank you very much
for your attention!**

www.forestplatform.org