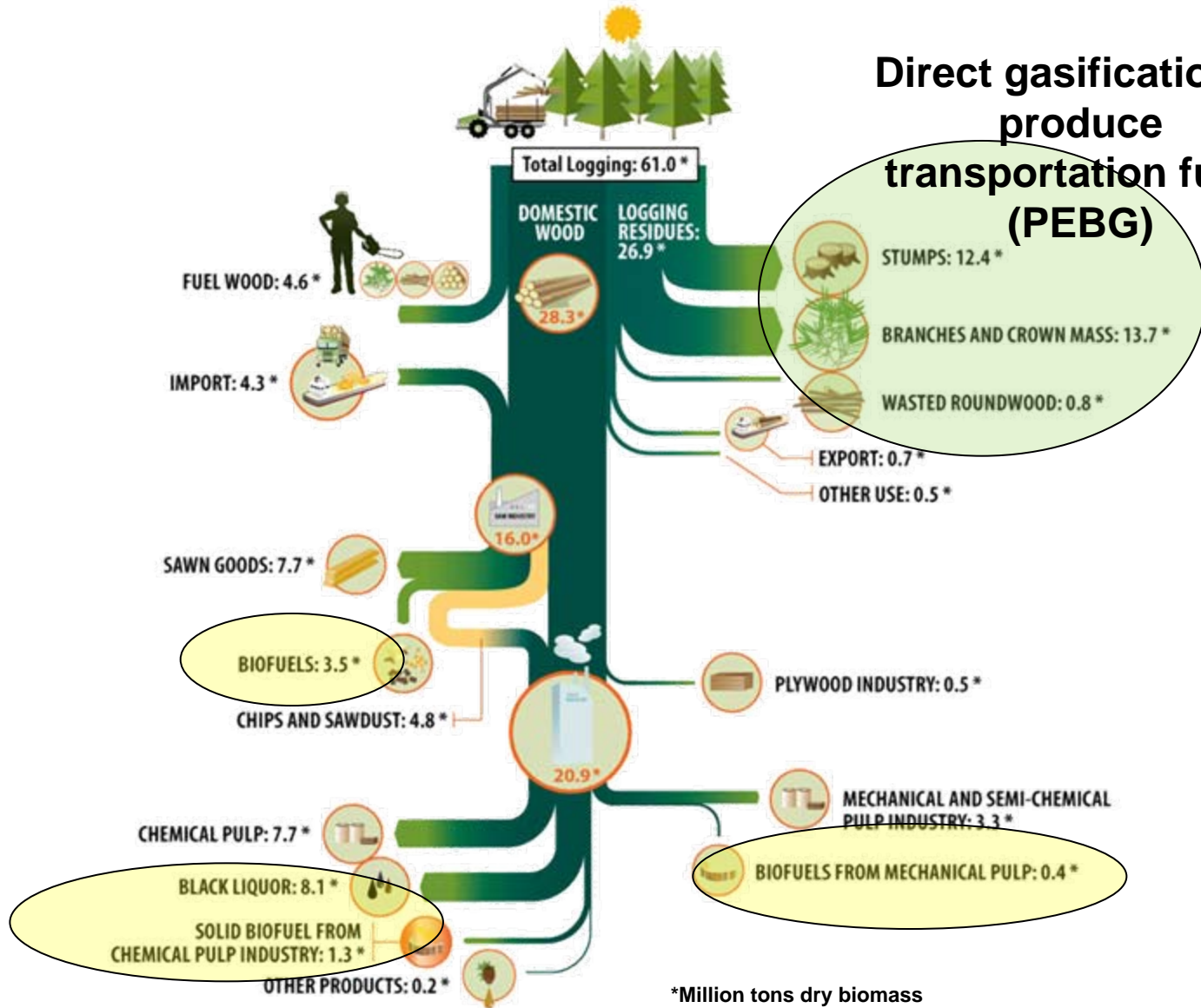


Tomorrows transportation fuels from forest residues & Successful FIN – SWE collaboration

Current research at ETC in Piteå

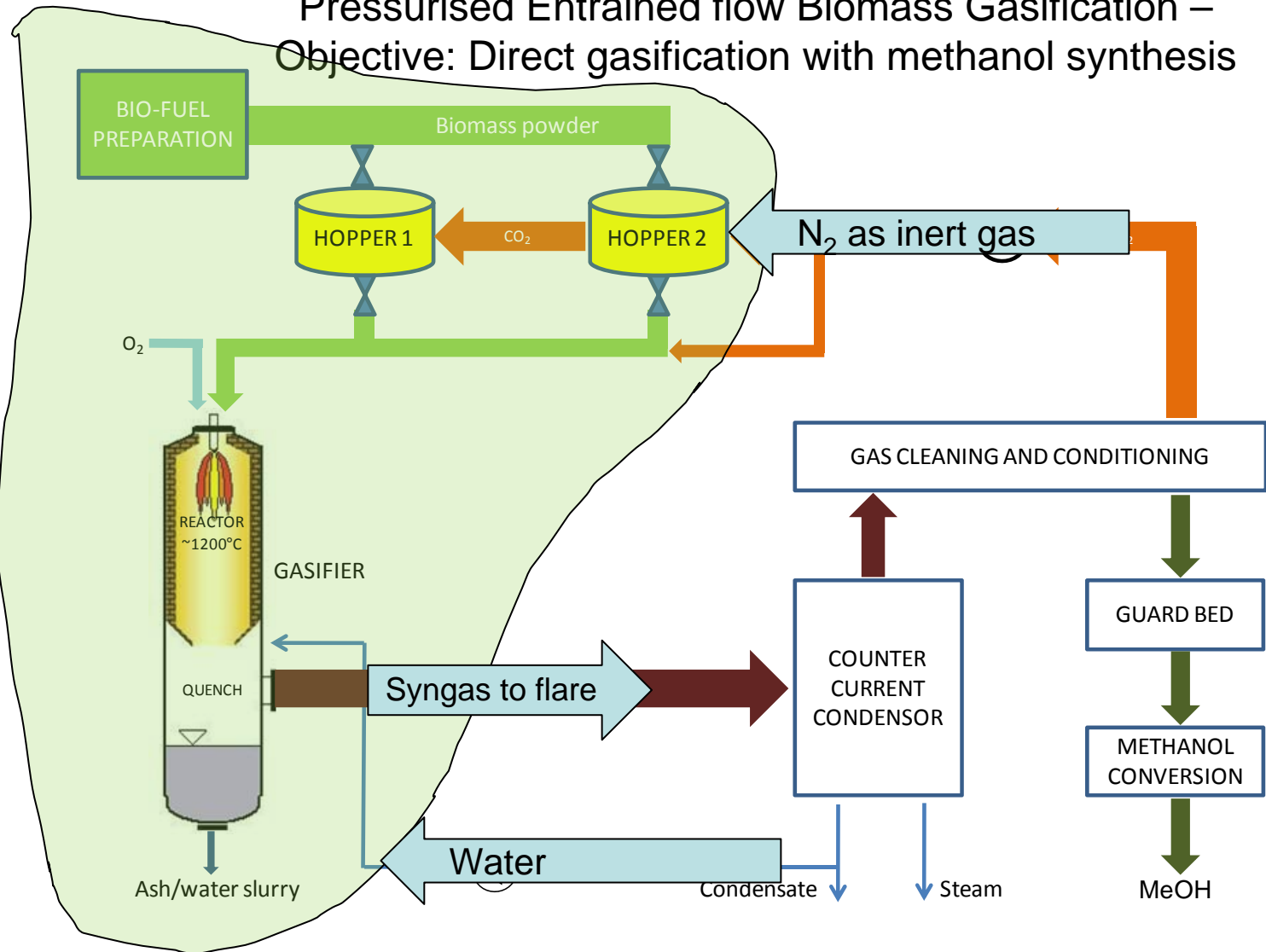
Fredrik Weiland

Direct gasification to produce transportation fuels (PEBG)



PEBG Project

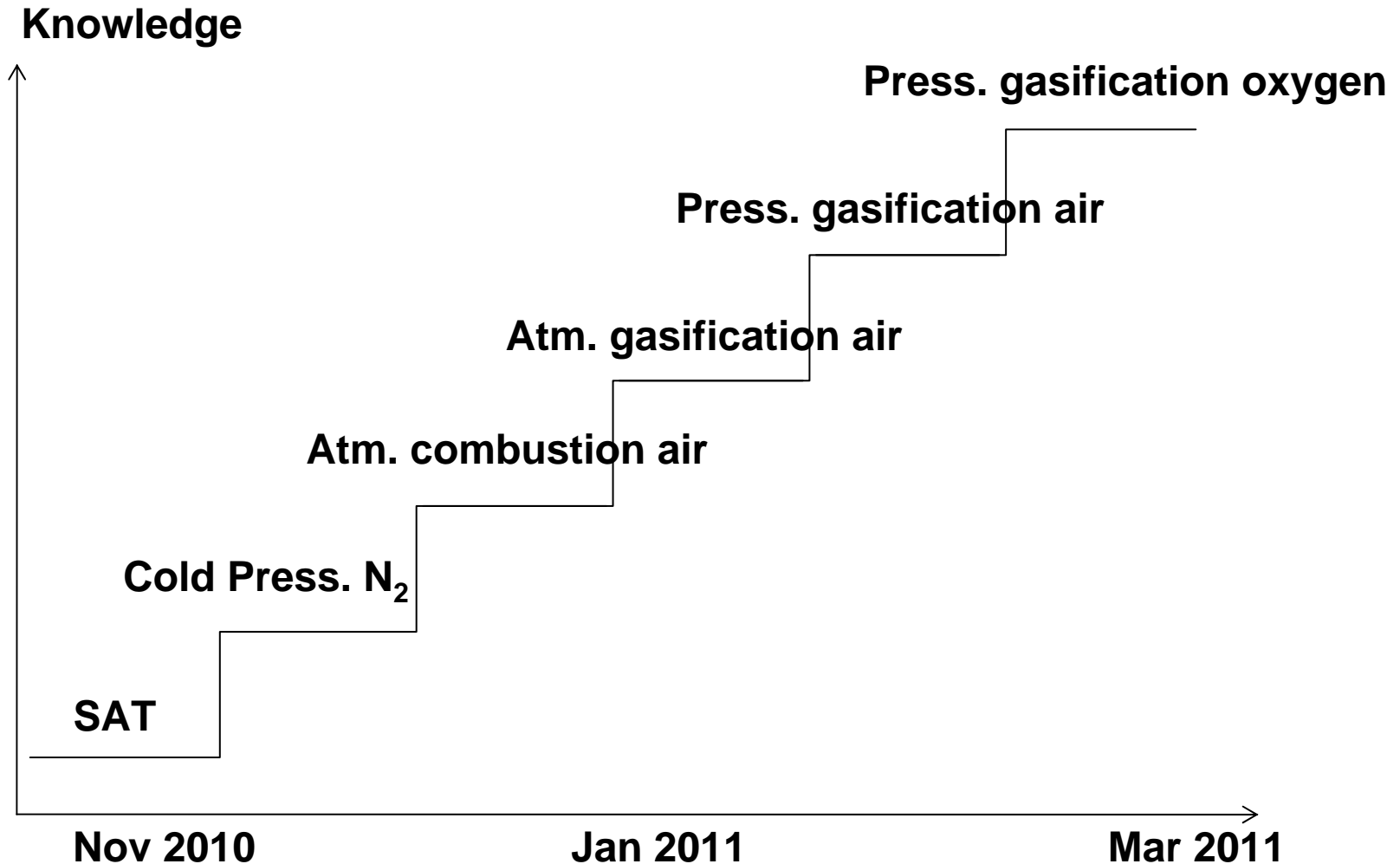
Pressurised Entrained flow Biomass Gasification –
Objective: Direct gasification with methanol synthesis



PEBG - Current status

- Construction and Control system almost complete
- SAT (Site Acceptance Test) to be started
- Pictures from the plant 2010-11-04

Coming work in the near future



Questions on part 1?



FIN - SWE

HighBio Collaboration

“Thermal conversion of Fiber- and Bark sludge”

- Collaboration ETC (F. Weiland) – Univ. of Oulu (J. Holm)
- Thermal conversion of sludges from pulp- and paper mill.
- Objective: Combustion and gasification in pellets reactor



Single Pellet Reactivity Test



Combustion and gasification experiments

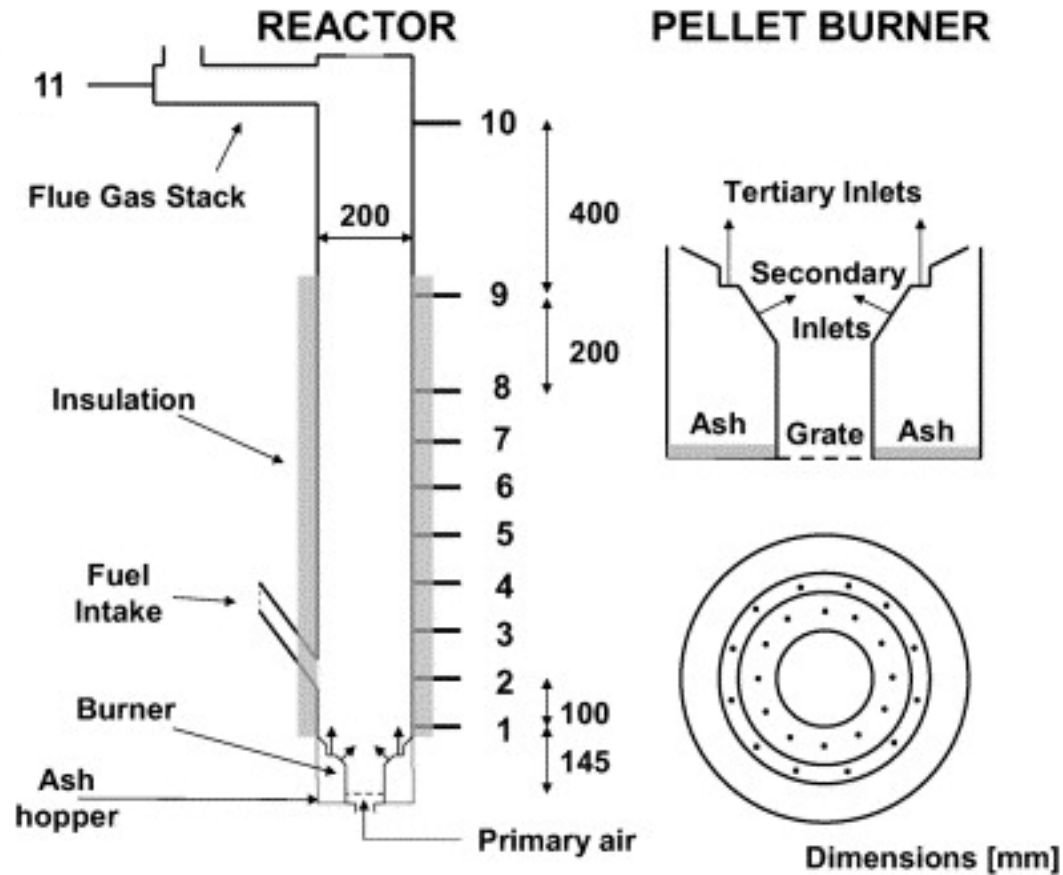
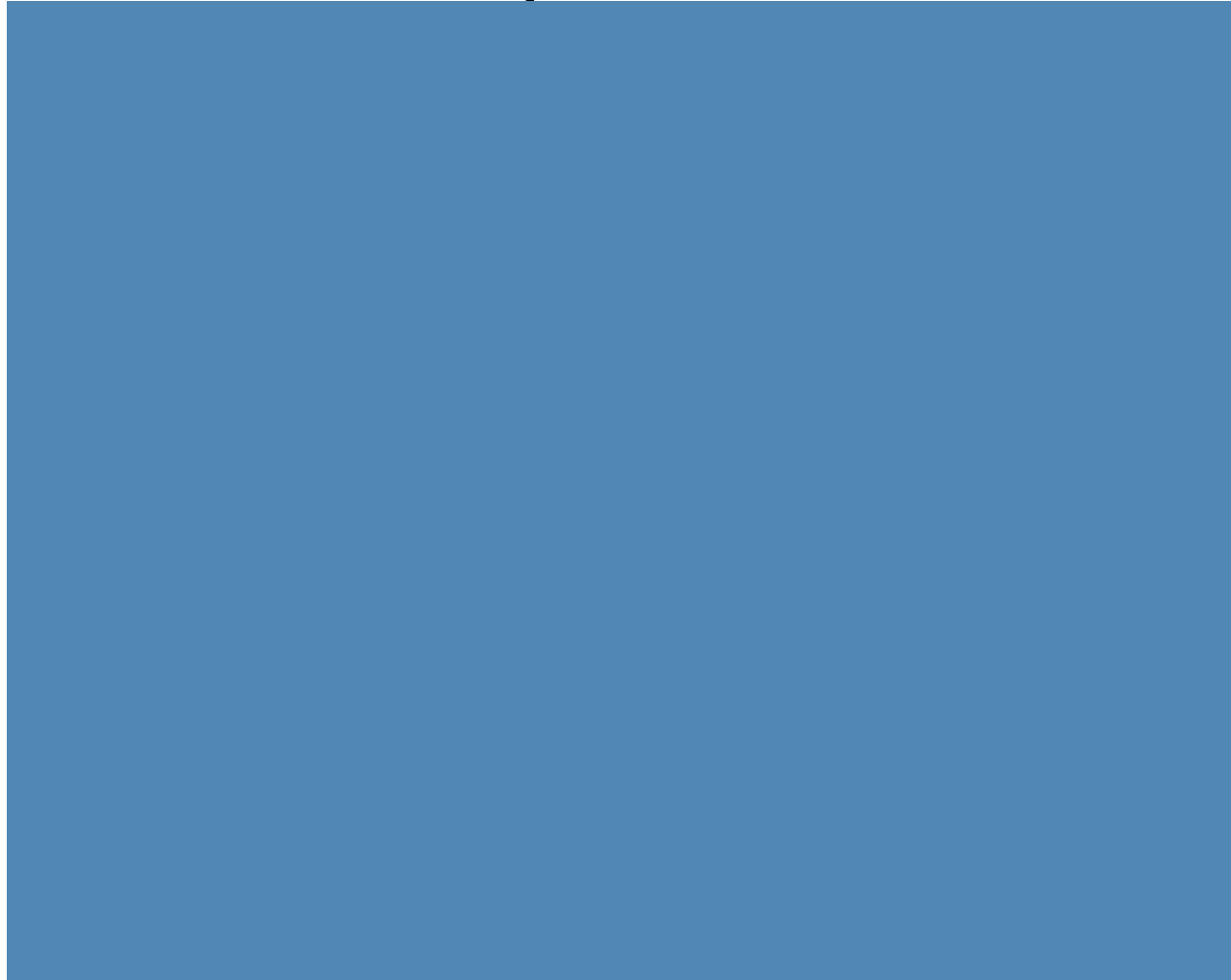


Fig. 1. Sketch of the experimental reactor and the wood pellet burner.

Combustion and gasification experiment



Conclusions

- Higher ash content in sludge pellets compared to ordinary wood pellets; 9 % and 18 % vs. 0.3 %
- Furnace or gasifier must be able to cope with the high ash content
- Pelleting feasible
- Fiber sludge not suitable for powder combustion

Questions?

