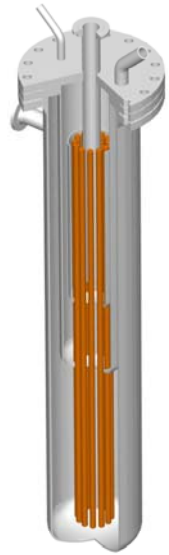
Offer of an innovative biomass gasification technology (The BioHPR)

What is the BioHPR?

• A gasifier which has been developed during the 5th framework program which can use biomass or waste to produce a hydrogen-rich gas which can be then used for CHP production



BioHPR
EU-Project n° NNE5-2000-181
Biomass Heatpipe Reformer

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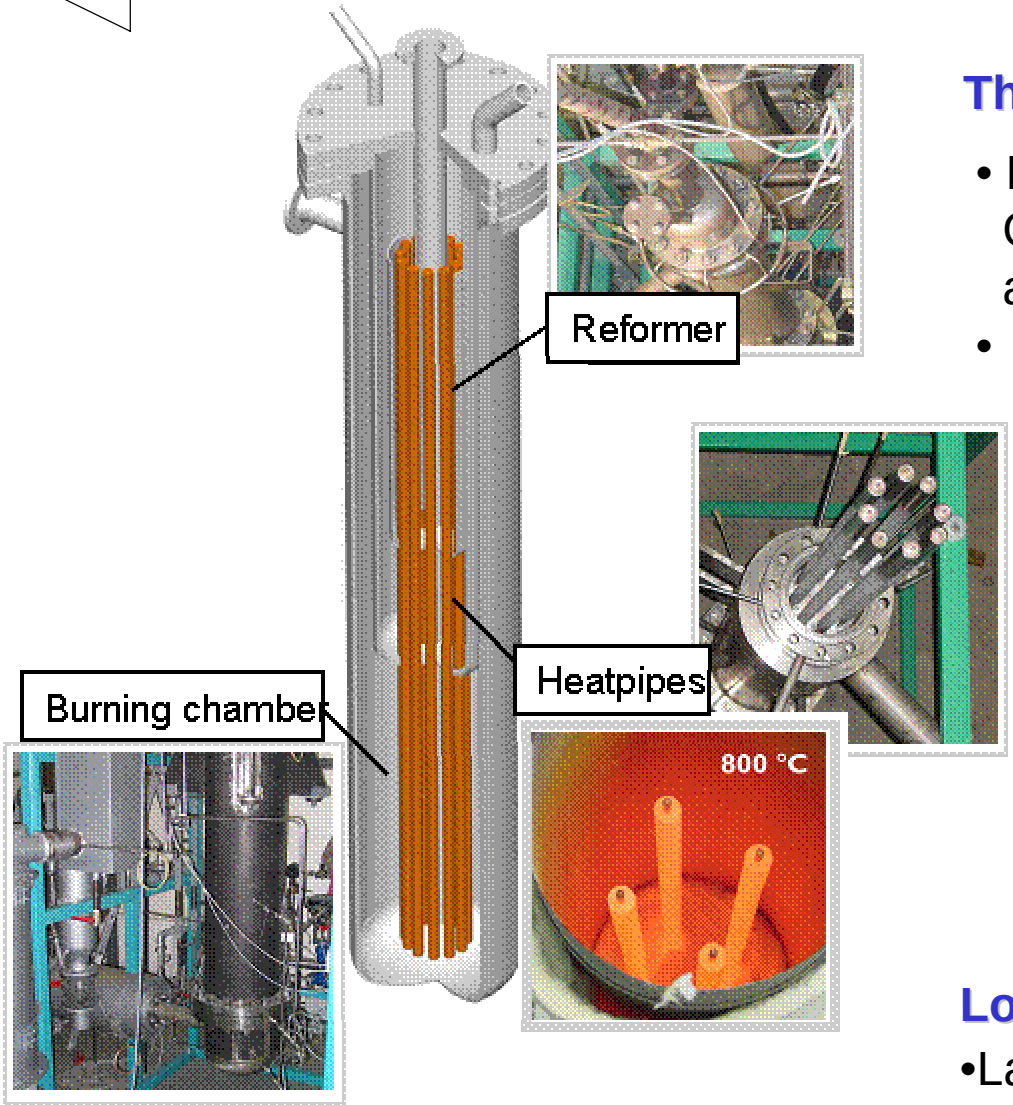


The Heatpipe Reformer concept :

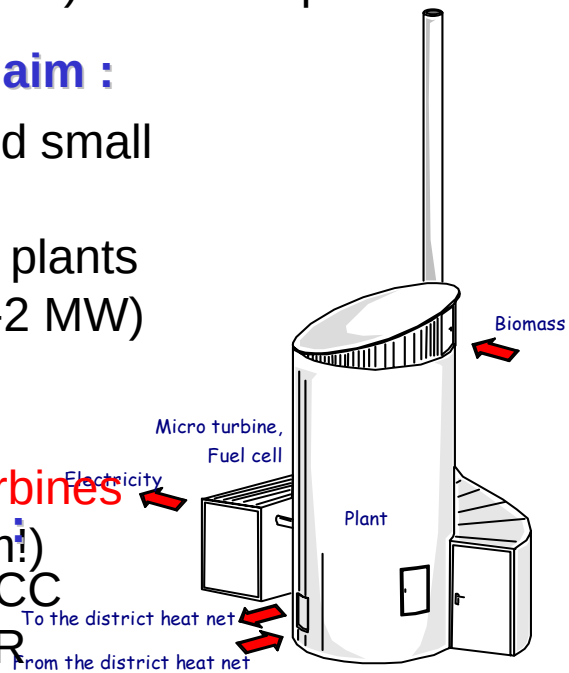
- High heating values (allothermal Gasification) permit combined Heat and Power Production (CHP)
- Its integrated construction form is ideal for small range plants (200 kW – 5MW) and CHP plants

Short-term aim :

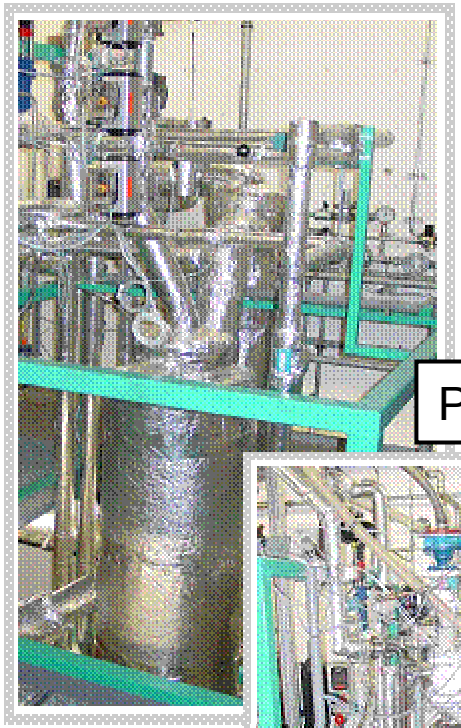
- Standardised small - scale power plants (600 kW_{FWL}-2 MW) with hot gas cleaning and microturbines (Tar problem!)

Long-term aim :

- Large scale IGCC with the BioHPR



Prototype A



Prototype B

BioHyPR

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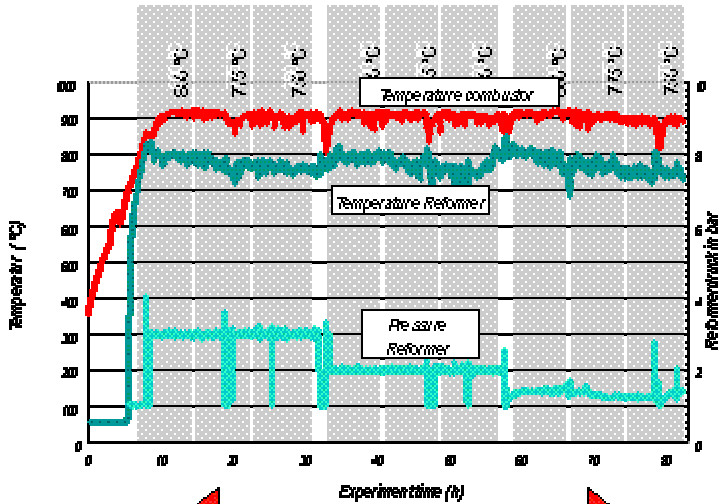
Status Quo:

- Proof of the concept
- The 72h tests of prototype A and prototype B (milestones of the european project) where successfully reached
- Wood, hay, straw and sewage sludge pellets, as well as fried fat, and plastic granulates have been gasified

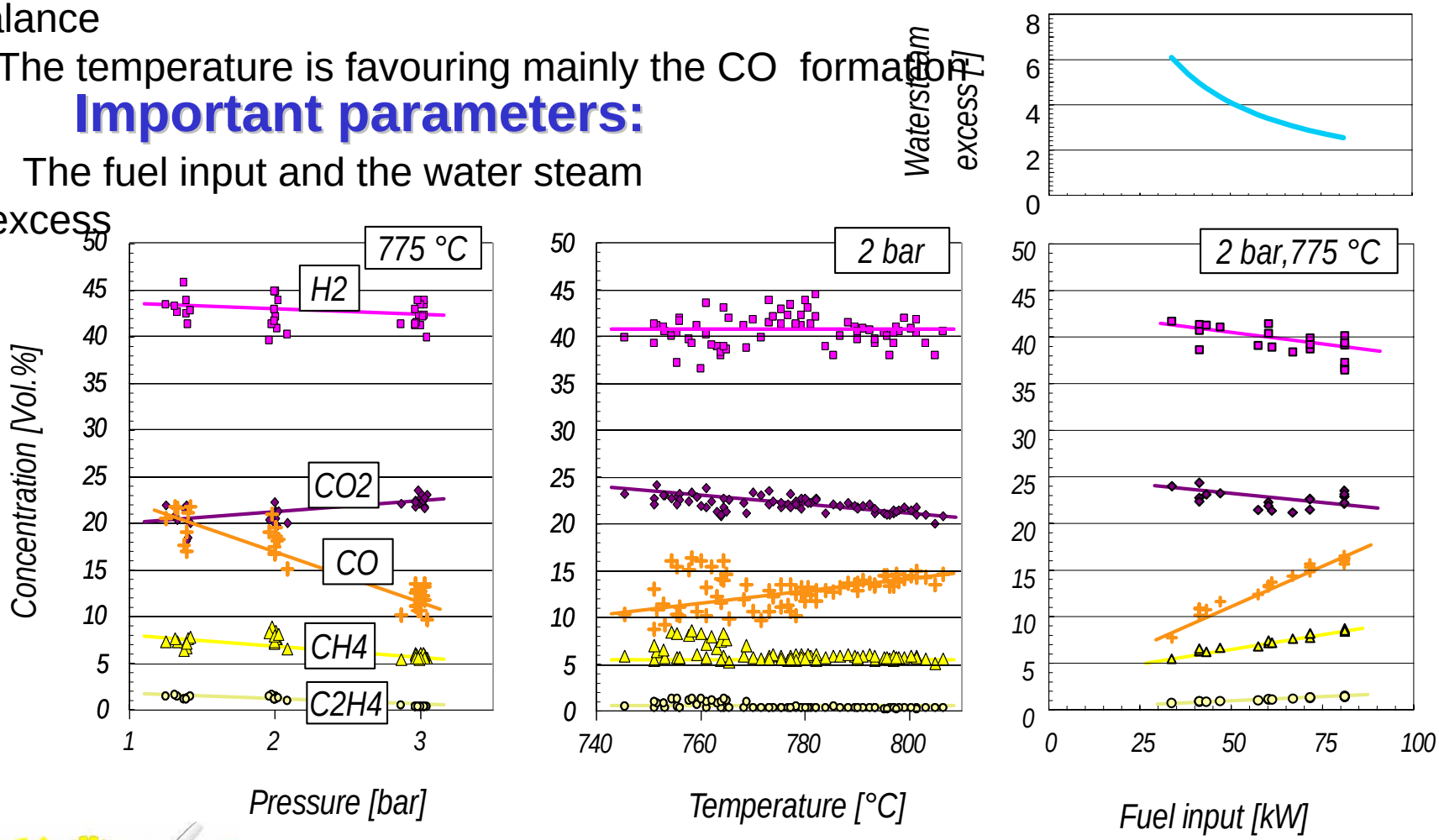


Gas quality:

- The pressure is influencing primary the Boudouard reaction balance
- The temperature is favouring mainly the CO formation

Important parameters:

- The fuel input and the water steam excess



A very successful consortium seeks new challenges!!

- TU München (Coordinator)
- DMT
- LFT / Polytechnik
- Uni Stuttgart
- National Technical University of Athens
- Saar Energie
- Budapest University of Technology and Economics
- OVM – Conception
- Hyperion Systems Engineering

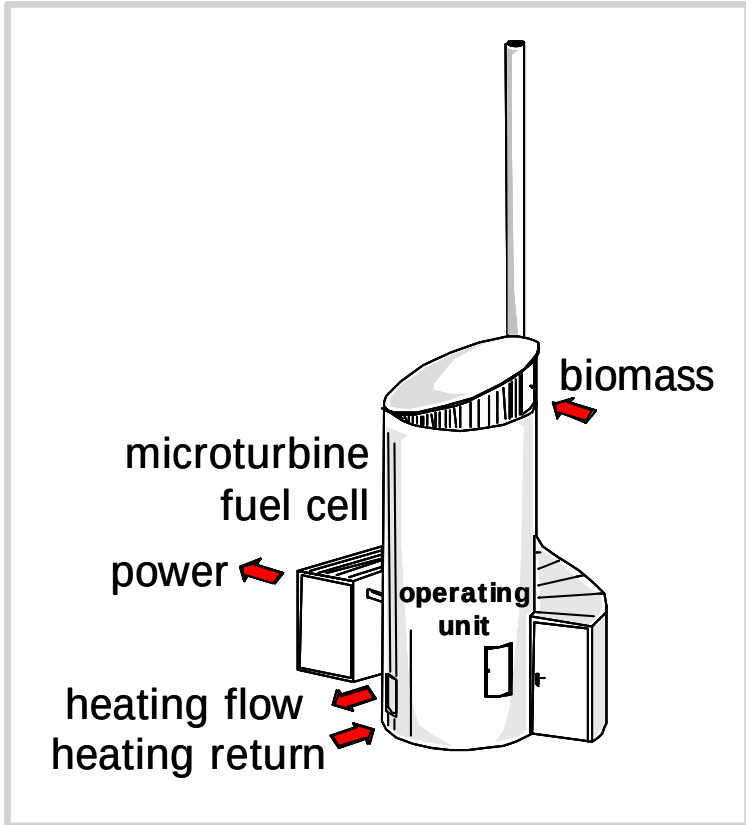

During the final meeting


Hungarian wine after the success of the microturbine test


Bavarian beer after the successful 72h tests

Outlook

- BioHPR is a very promising technology for the biomass gasification
- The technology is ready for application
- Our institute is open for new suggestions, new consortia and new proposals for the FP6



Heatpipe-Reformer