

# **2009 International Conference on Thermochemical Biomass Conversion Science**

**Gasification Panel Discussion  
September 16, 2009**

**CARBONA**

**ANDRITZ**

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**Andras Horvath / Carbona Inc.**

- **Affiliation: Director of Technology in Carbona,**
- **Responsible for processes, gasification and gas cleanup**

**Carbona Inc. background:**

- **Carbona is part of global Andritz Group**
- **Part of Bioenergy Systems Business Unit of Andritz**

**Carbona Inc. profile:**

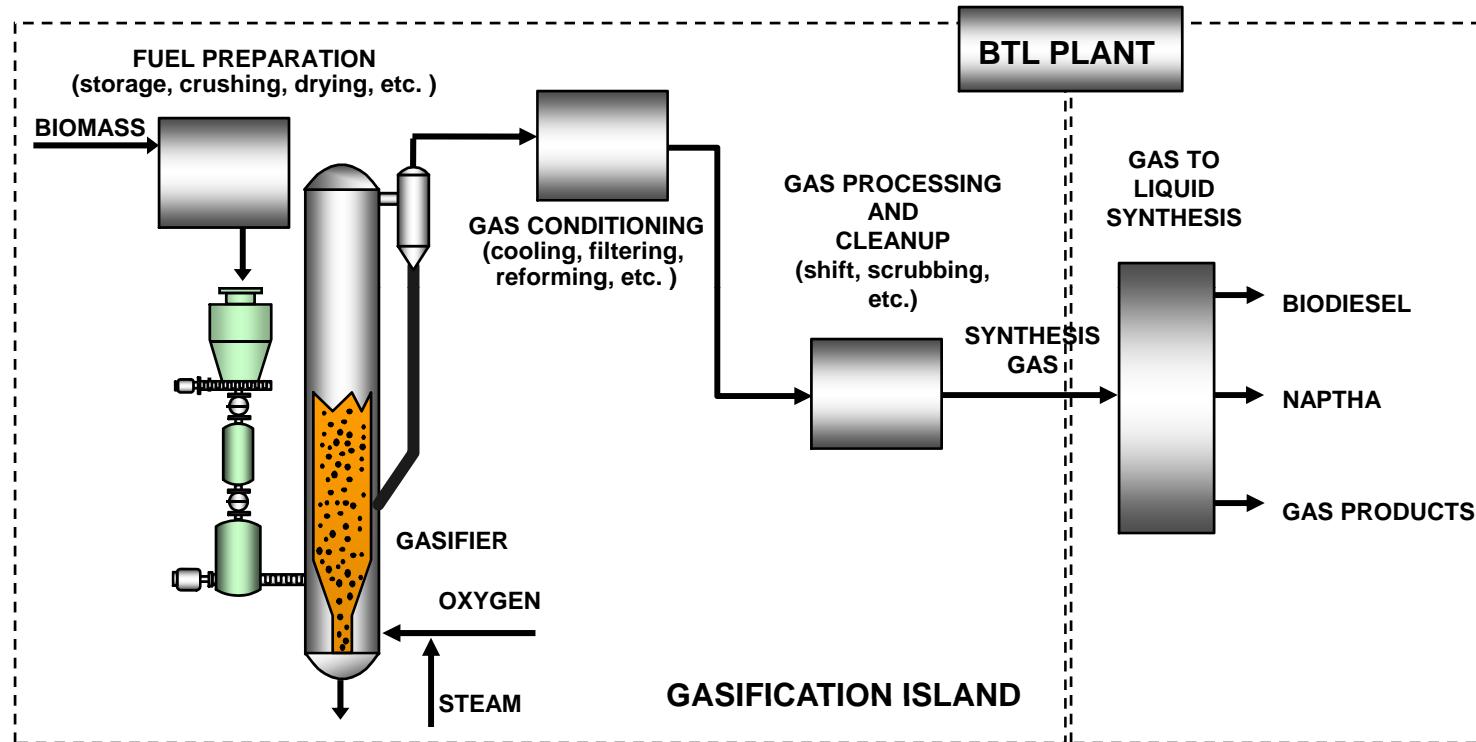
- **BFB and CFB gasification of biomass and waste**
- **Air and oxygen blown gasification at low and high pressure**
- **Gas conditioning and cleanup**
- **Related processes like fuel and ash handling, other auxiliary processes**
- **Applications for processes in power, pulp & paper and chemical industries**

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- **Carbona is partner to UPM-Kymmene in biomass to liquid development**
  - **Carbona provides the Gasification Island for the BTL plant**
  - **Achievements in development work:**
    - **Oxygen blown gasification of different wood fuels established and tested**
    - **Gas cleaning process established, process, equipment and materials selected, under testing**
    - **Equipment scale up established**
- **The Biomass Gasification/Gas Engine Plant in Skive /Denmark provides almost full-size demonstration of the BTL Gasification Island**

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**BIOMASS TO LIQUID PROCESS:**



**Carbona provides the Gasification Island for UPM-Kymmene BTL Plant for liquid fuel production of 100 000 t/a**

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**GASIFICATION PLANT OF BTL**

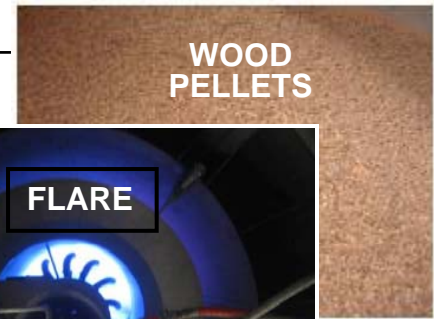
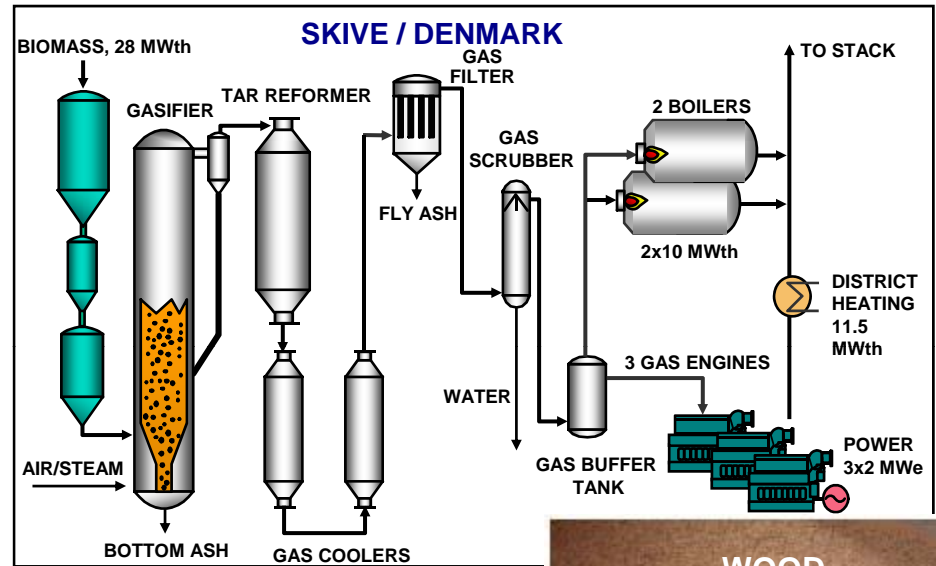


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SUPPORT PROJECT FOR BTL DEVELOPMENT



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**For discussion:**

- **What is the feasible size of a BTL plant?**
- **Flexible cogeneration of liquid and power in a BTL plant ?**
- **Why to use wood based biomass for biodiesel production instead of simple power generation by IGCC?**