

Biogas plants in The Netherlands

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Digesters in The Netherlands

- The Netherlands counts about 55 biogas plants:
 - ◆ (47 landfill gas plants not considered)
 - ◆ About 45 sewage sludge digestion plants
 - ◆ 3 plants on the organic fraction in household waste
 - 2 on organic fraction separated after waste collection
 - 1 on organic fraction after source separation (alternative for composting)
 - ◆ 8 manure digestion plants (2 new ones in 2004)
(7 at farm scale, one of 22.000 ton manure / year)
- Under construction:
 - ◆ Digestion of 10.000 ton/year of animal waste (category II and III) including sanitation at 133°C. Digestate is composted
- Planned biogas plants:
 - ◆ About 80 plants on manure and organic waste

Developments - small scale manure digesters



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LEGENDA

- Mest-, GFT- of ONF vergistingsinstallatie > 10 kton / jaar
- idem ≤ 10 kton/jaar

NEW PLANT:

LICHTENVOORDE

LEGEND

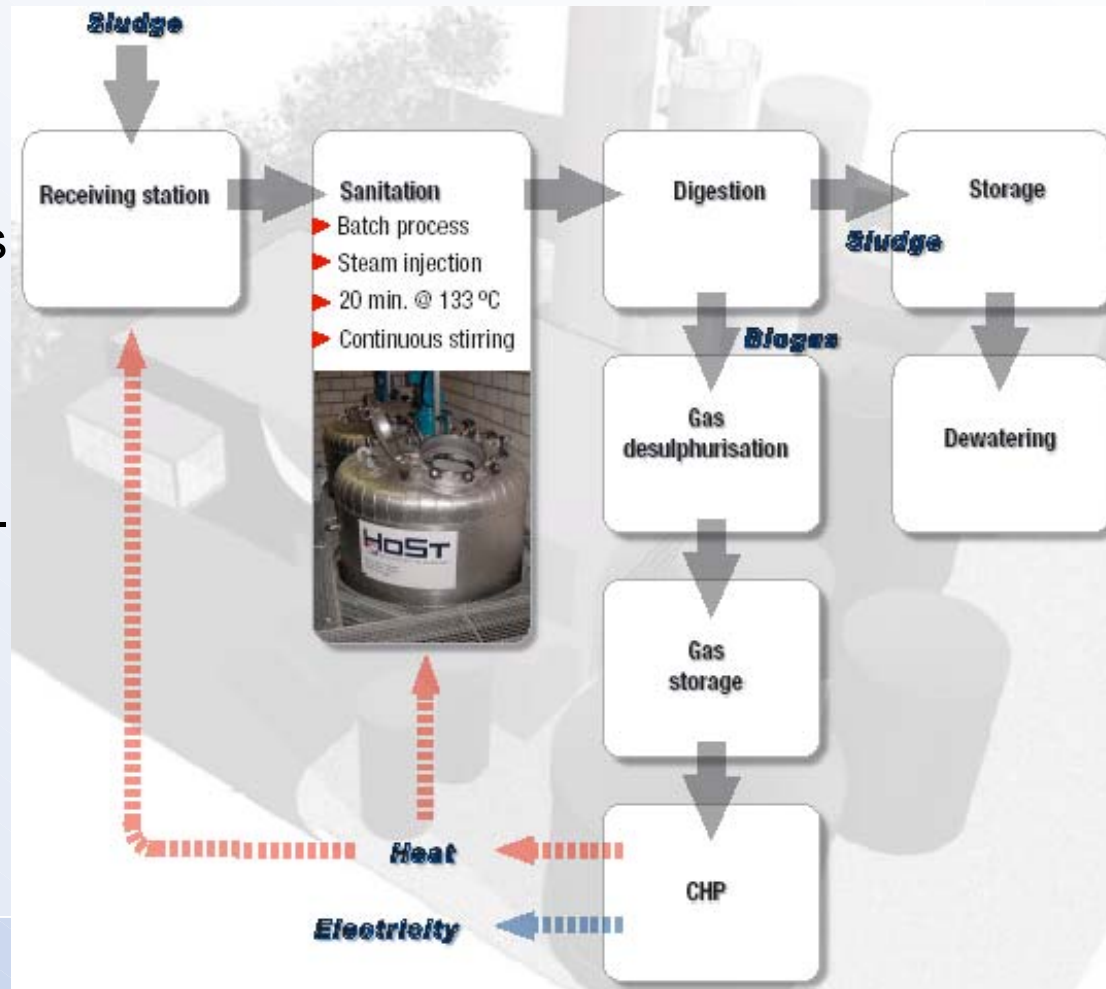
- Digestion of manure
- Digestion of organics from MSW (source separated or with post separation)
- Digestion of animal by-products (under construction)



Lichtenvoorde - digestion of animal by-products

Plant is constructed at site of existing waste water sludge digester

- At least 10,000 tons /year of animal waste
- Waste is received as a slurry in closed trucks
- Sanitation (EU directive 1774/2002 prior to digestion)
- Digestion under thermophillic conditions
- Digestate to standard composting facility
- Start-up in next months (okt/nov 2004)



Lichtenvoorde - digestion of animal by-products



Construction of animal waste digester

Lichtenvoorde - digestion of animal by-products



Projects

- Landfill gas -> upgrading -> vehicle fuel
New project, linked to existing natural gas vehicle program
- EU project “Probiogas”
Led by group of Jens Bo and Theodorita
Purpose: disseminate Danish experience with centralised digesters