

# Biomethane – State of the Art and Potential in an International Perspective

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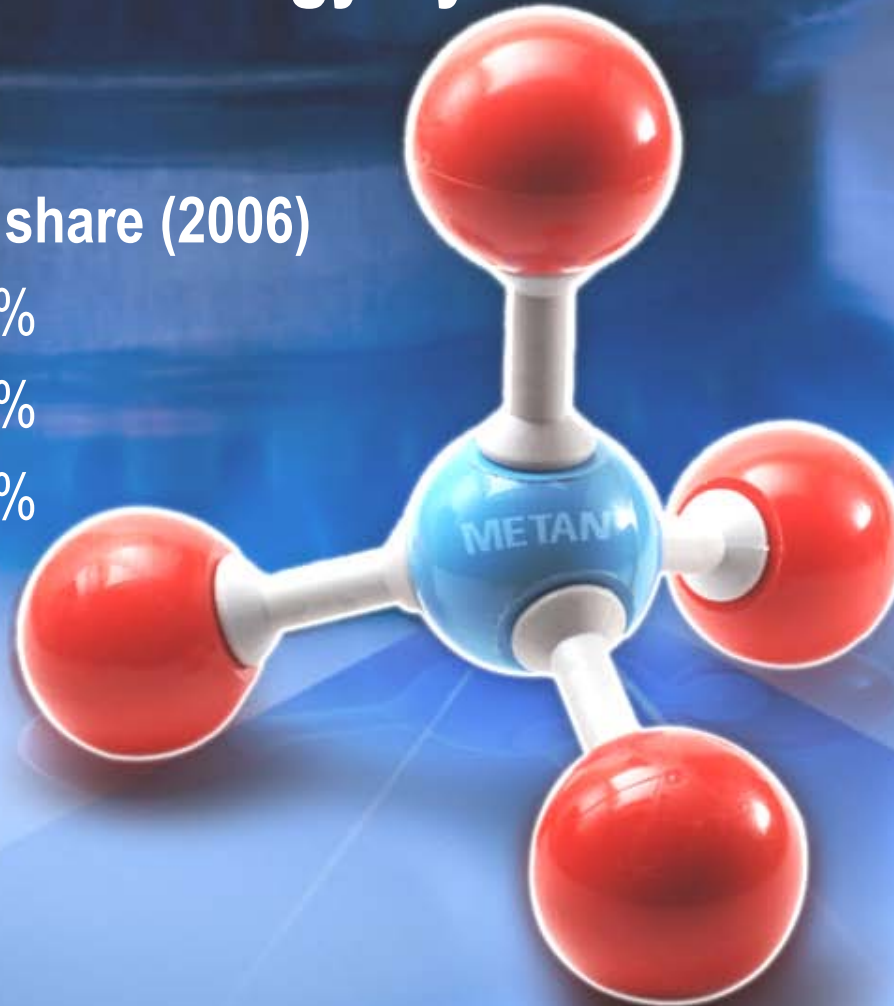


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# Can Biomethane have an Impact for the Future Energy System?

## Renewable energy share (2006)

- Global 12%
- EU 7%
- Sweden 43%

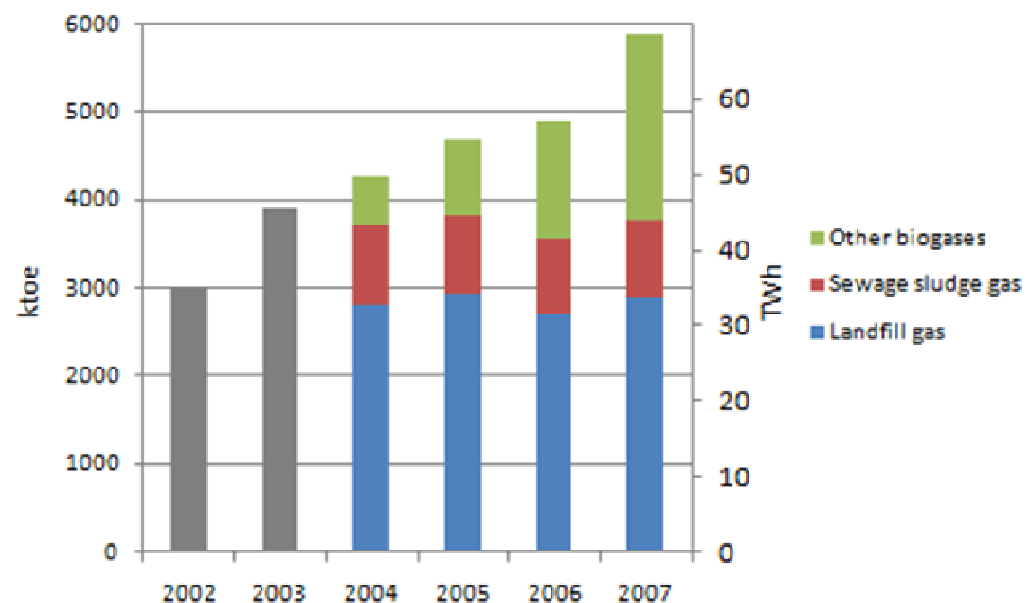


# Can Biomethane have an Impact for the Future Energy System?

## Biomethane share (2006)

- Global ?
- EU 0,32%
- Sweden 0,35%

Time to give up?



# There is a potential ...

... and the journey has just started

## Cities



Sludge  
Household waste  
Industry org waste  
Landfill

## Agriculture



Manure  
Rest-products  
Energy crops

## Forest



Residues from  
forest & industry

The greatest potential of all biofuels!

# From waste to first-rate Energy

## Swedish examples (potential):

Waste, digestion	15Twh	4%
Residues from forest, gasification	60 TWh	15%
	75 TWh	19%



### **40TWh is a realistic level**

- 10% of all energy usage in Sweden
- 50% of the fuelconsumption for the transport sector



# From waste to first-rate Energy

## EU examples:

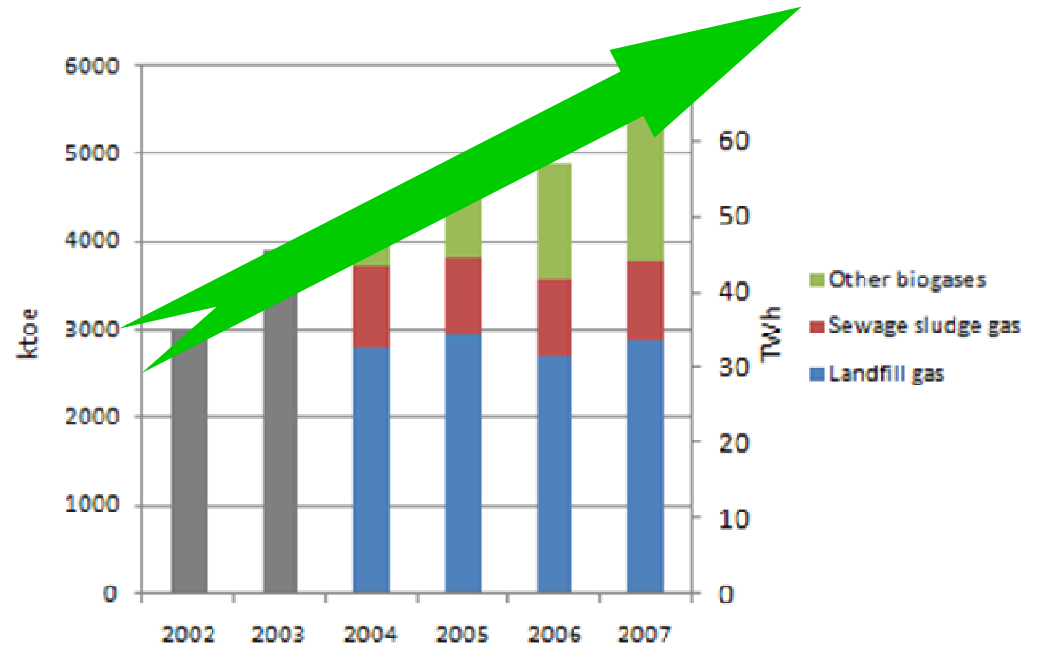
- 550TWh Natural gas consumption within EU today
- Half of that consumption could be replaced by Biomethane (10% of the total Energy usage)
- Some scientists claims that it's possible to replace the whole volume – 550TWh – by Biomethane



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# Strong development!

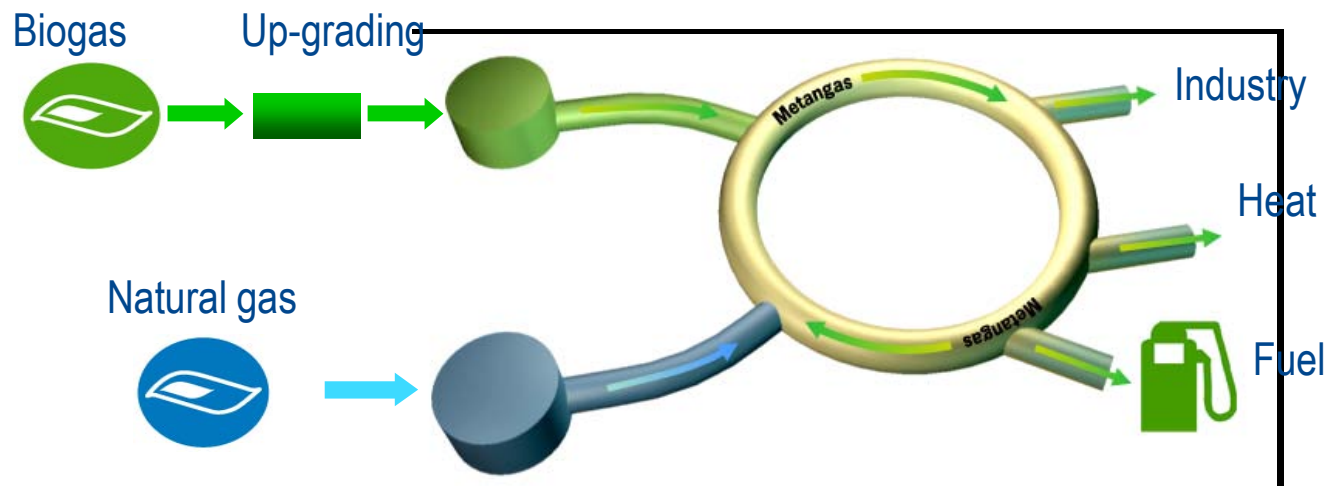
- New substrate, e.g. straw
- Make the digestion more efficient
- LBG opens new Markets
  - lower haulage cost
  - trucks, dual-fuel
  - ship
- Increased volume through Gasification



# BioMethane + Natural gas = True

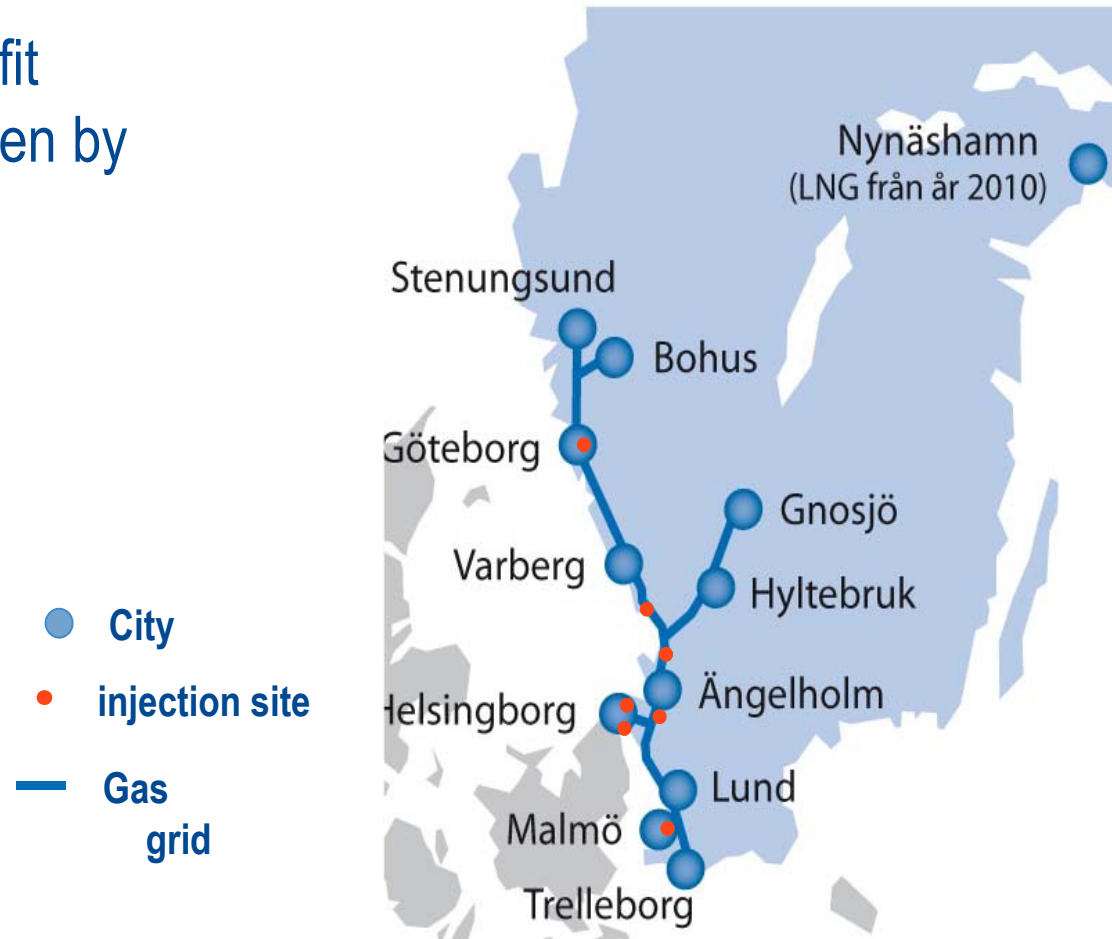
- Synergies with cooperation between BioMethane and Natural gas
- Build a market through Natural Gas and gradually switch to BioMethane

## ”Green gas principle”



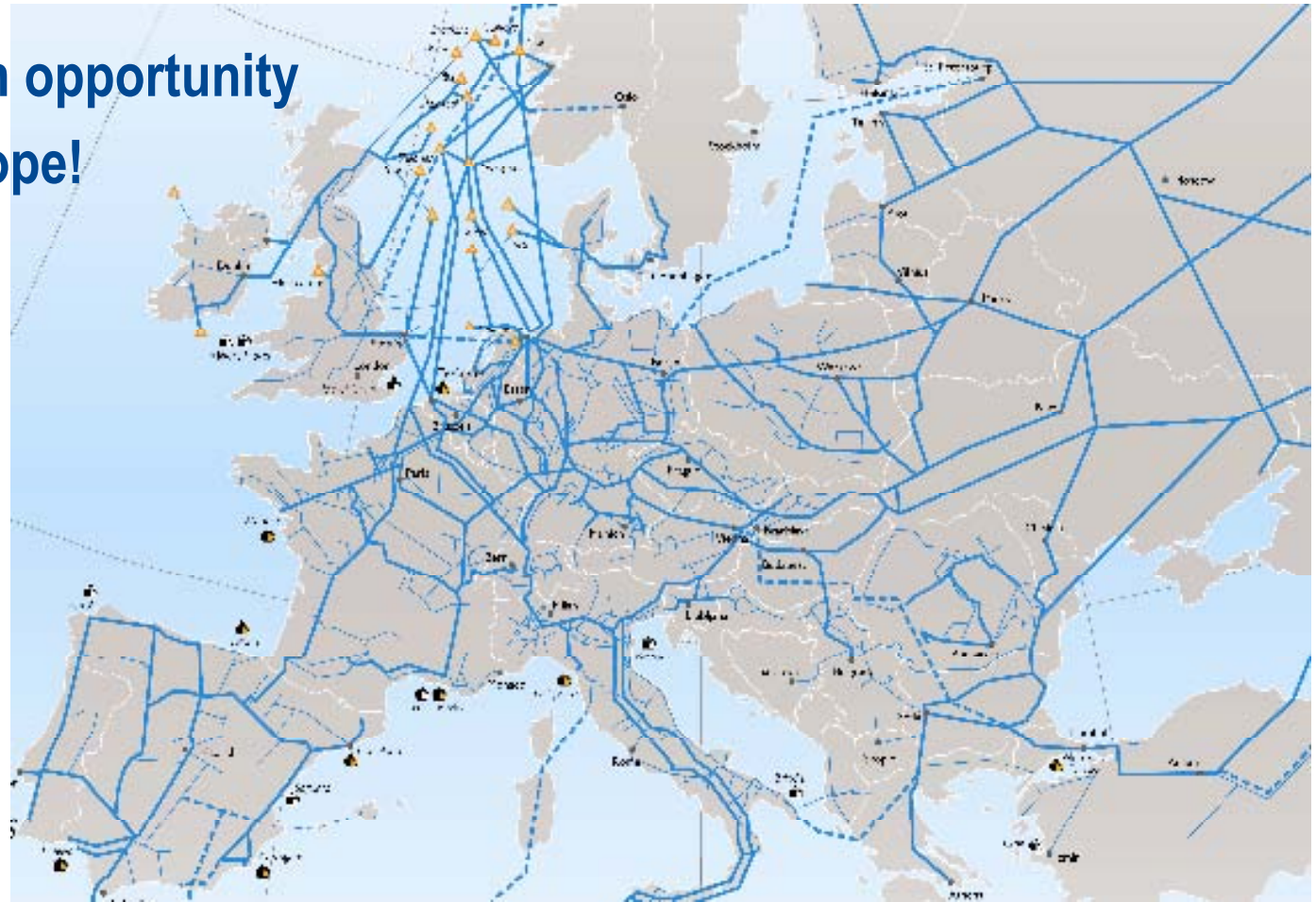
# Biomethane + Natural gas = True

BioMethane can benefit from investments taken by Natural Gas



# BioMethane + Natural gas = True

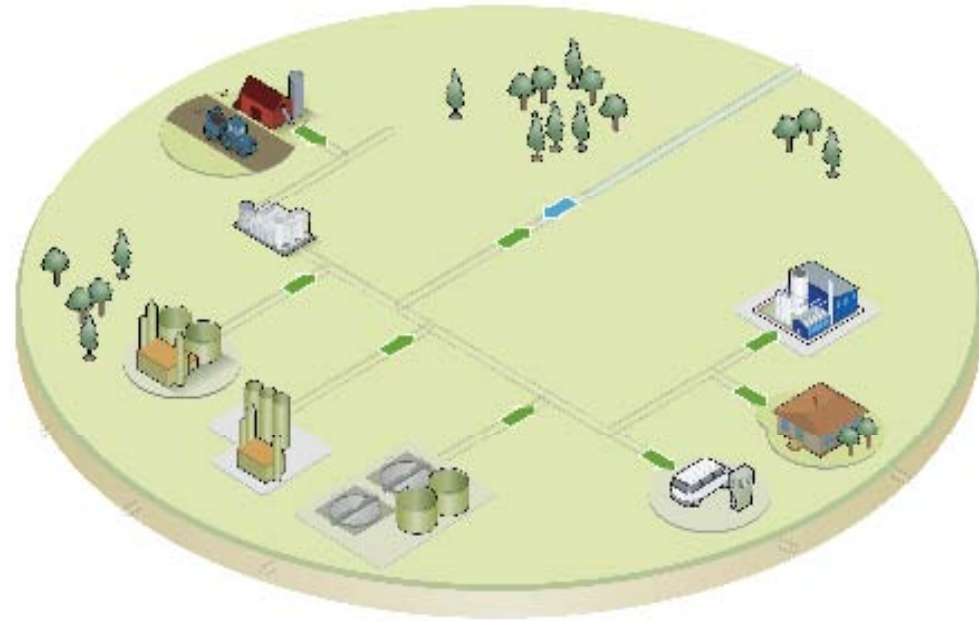
What an opportunity  
for Europe!



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# Bio Methane + Natural Gas = True

- Build new Biogasgrid that can connect to the existing Natural gas grid or use LNG as back-up
- Next step, a separate Biogas grid



# Biomethane is the future

## Biomethane

- solves part of our waste problem
- is the best alternative to solve our dependence on fossil fuels
- Great possibilities to supply people in the Third World with Energy





**Thank you!**

**Anders Mathiasson  
Swedish Gas Association**