

# European Biogas Association

*EUFORES Parliamentary Dinner:*  
**Biogas Networks**

Arthur Wellinger, President EBA





# Content

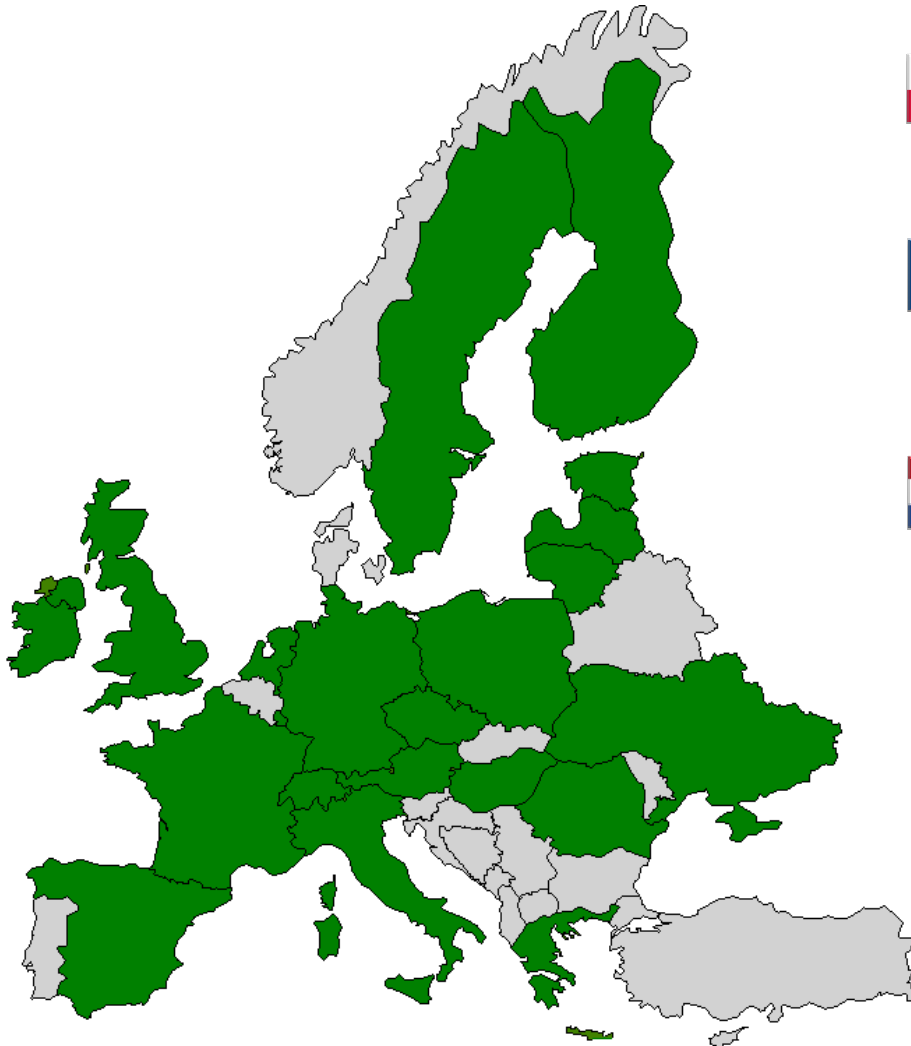
- Who is EBA
- What is Biogas
- What is the Biogas potential
- How is Biogas used

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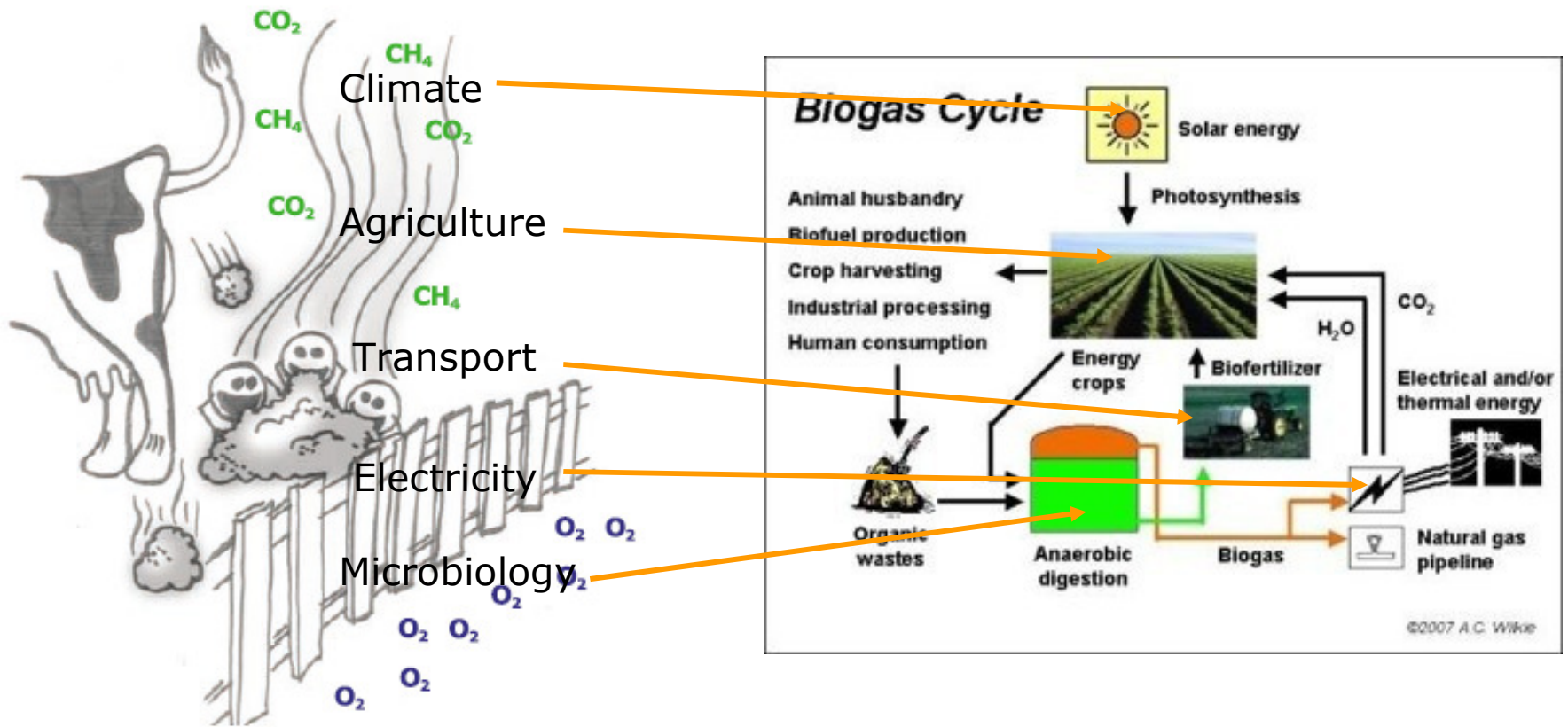
# The European Biogas Association

Founded in 2009

21 countries – 22 national Organisations – 13 companies and research institutes



# What is Biogas?



# What is Biogas used for?

## 1. Production of Electricity



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# Why Electricity?


- Efficiency can be high:
  - 30 to 42% electric
  - 30 to 55% heat
- Electricity grids are available „everywhere“
- Cost of connection is reasonable
- Biogas is storable on a daily basis


but

- In some countries the local grid is not strong enough
- If heat can not be used, it is a poor solution

# What is Biogas used for?

## 2. Transport

Mercedes-Benz (Werk) 



B170

Opel (Werk) 



Zafira      Combo Tour      Zafira Turbo CNG


Peugeot (Schweiz Retrofit) 






207 Limousine      207 Station Wagon      207 CC




807      308 Limousine

Volkswagen (Werk) 



Touran      Caddy Life      Passat TSI



Passat Variant TSI

Volvo (Schweiz Retrofit) 



V70 2.0 Multi-Fuel      V50 Multi-Fuel      V70 2.5 Turbo Multi-Fuel



# Why fuel?

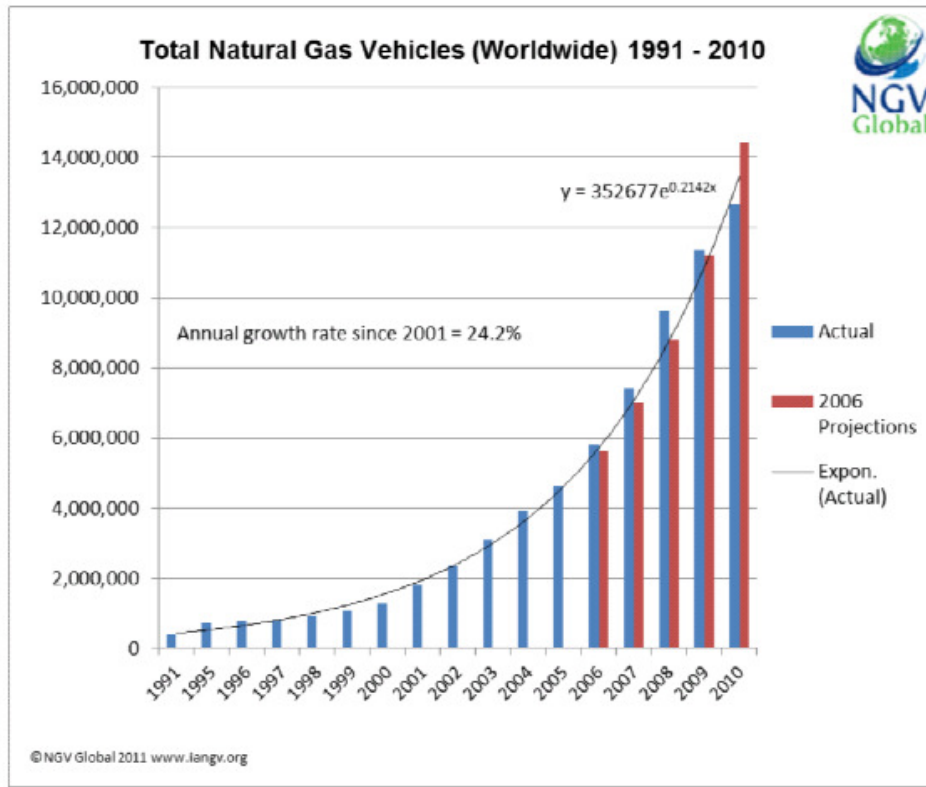
- Biomethane has very low emissions
- Car engines are less noisy
- No distribution infrastructure needed, grids are available
- Biomethane can be blended at any ratio with natural gas
- For long distance transport LBG/LNG is available

but

- There are not enough fuelling stations available
- Efficiency of cars has to be improved



# Gas vehicles are widespread



## NGV REGIONAL GROWTH SINCE 2001

Region	Average % NGV Growth since 2001
ASIA-PACIFIC	42.1%
EUROPE	14.1%
NTH AMERICA	-0.1%
LATIN AMERICA	18.2%
AFRICA	15.3%
<b>ALL COUNTRIES</b>	<b>24.2%</b>

## NGV POPULATION: TOP TEN COUNTRIES

COUNTRY	NGV Population	% all NGVs in world
Pakistan	2,740,000	21.6%
Iran	1,954,925	15.4%
Argentina	1,901,116	15.0%
Brazil	1,664,847	13.1%
India	1,080,000	8.5%
Italy	730,000	5.8%
China	450,000	3.6%
Colombia	340,000	2.7%
Thailand	218,459	1.7%
Ukraine	200,000	1.6%

# What is the electricity production and the potential?

According to the Biogas Barometer 2009:

- Production of gas: 8.3 Mtoe
- Production of electricity: 25.2 TWh

According to EREC (2050)

- Potential of electricity: 496 TWh (total biomass)  
plus heat

# What is the Biomethane production and potential?

According to NREAPs 2010:

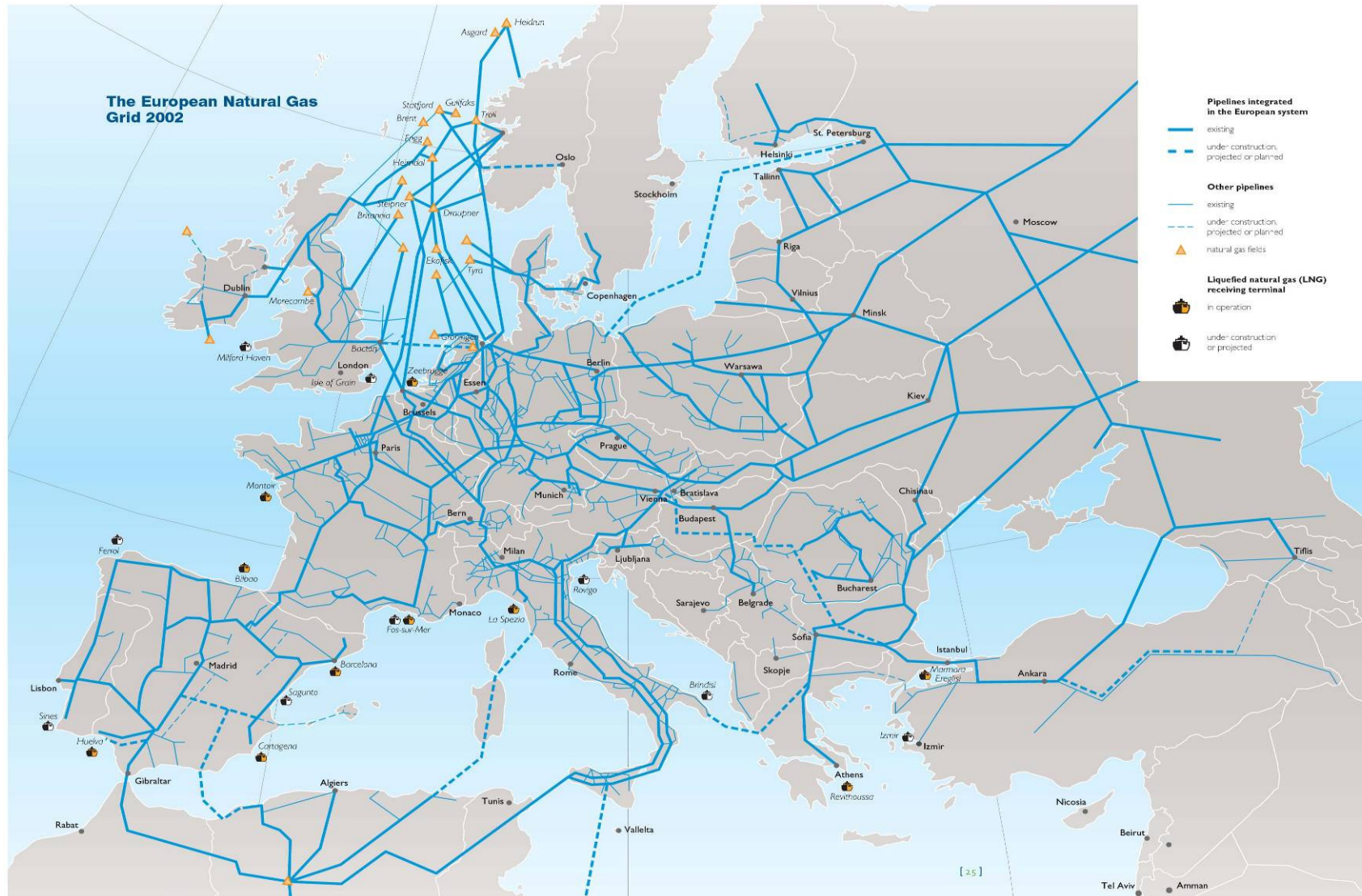
- Production of gas: 8.3 Mtoe
- Production of biomethane: 0.2 Mtoe

According to DBFZ (2050)

- Potential of biomethane: 20 Mtoe (from biogas)  
8 Mtoe (from wood waste)

**Corresponds to approx. 10% of today's road transport**

# Europe's natural gas grid



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