

European Biogas Association

Biogas Market in Europe

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BiogasIN Project, High Level Conference
7th October, Athens, Greece



WHAT IS EBA?

- ✓ Non-profit organisation
- ✓ Sustainable biogas production and use in Europe
- ✓ 21 countries across Europe
- ✓ Well-established network and communication platform for exchanging information and expertise in biogas
- ✓ Member of AEBIOM, EREF, Biowaste Alliance, cooperation with EREC
- ✓ Office in REH, Brussels
- ✓ Biogas - substantial part of the European energy mix!

European Biogas Association – 21 countries

Join Us!



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Outline

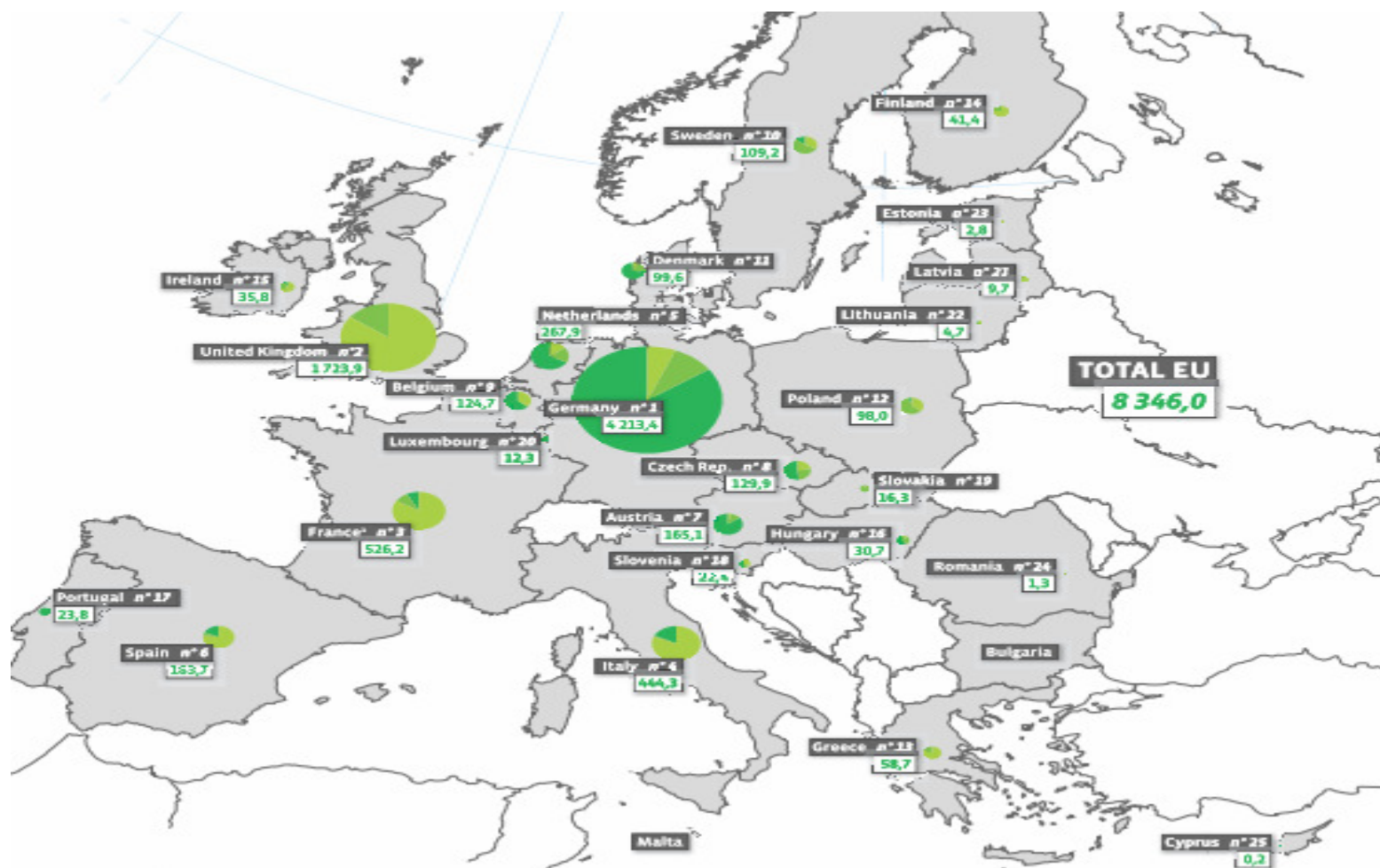
- ✓ Why biogas is a multitalent?
- ✓ Biogas in Europe today
- ✓ NREAPs towards 2020
- ✓ Reality
- ✓ Success story
- ✓ Conclusions



Why biogas is a *multitalent*?

- ✓ Agriculture, industry, environment
- ✓ RES: electricity, heating&cooling, vehicle fuel
- ✓ Decentralized energy production
- ✓ Natural fertiliser - digestate
- ✓ Peak source - peak power consumption & compensation of fluctuating power from wind and solar generators!

Primary biogas energy output in the European Union in 2009 (in ktoe), Euroobserver



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Primary biogas energy output in the European Union

- ✓ Agricultural biogas development
 - 2009: 4340,7 ktoe, 52% in primary biogas energy output
 - 2007: 2108 ktoe - 36% in primary biogas energy output
- ✓ Future development
 - long term thinking to support bioenergy industry beyond 2020
 - NREAPs

Source: Euroobserver, 2009

NREAPs

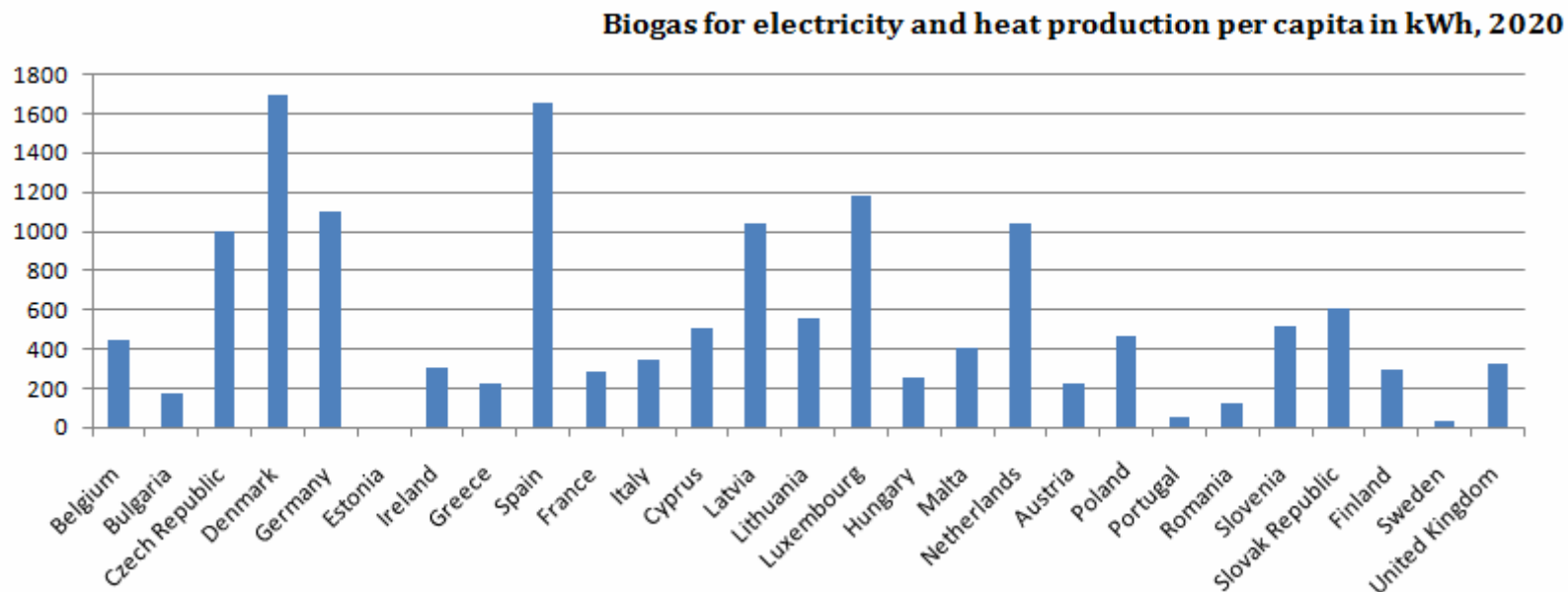
- ✓ Renewable energy as key solution
- ✓ Integration of renewable energy sources into 2020/2050 goals
- ✓ Legally binding all Member States
- ✓ Encourages joint projects
- ✓ Possibility to create better policies and share best practises
- ✓ Average increase of biogas share in renewable energy mix is under the average increase of other renewable energy sources
- ✓ Biogas potential is not enough taken into account
- ✓ No penalty mechanism for failure to achieve the targets

NREAPs

- ✓ 27 NREAPs submitted to EC
- ✓ Commission remarks: e.g. inconsistent calculations, lack of legal basis to implement defined obstacles in authorisation procedures, lack of information on the concrete steps and measures
- ✓ 15 member states reported on progress, 4 countries re-submitted their national plans
- ✓ More information:

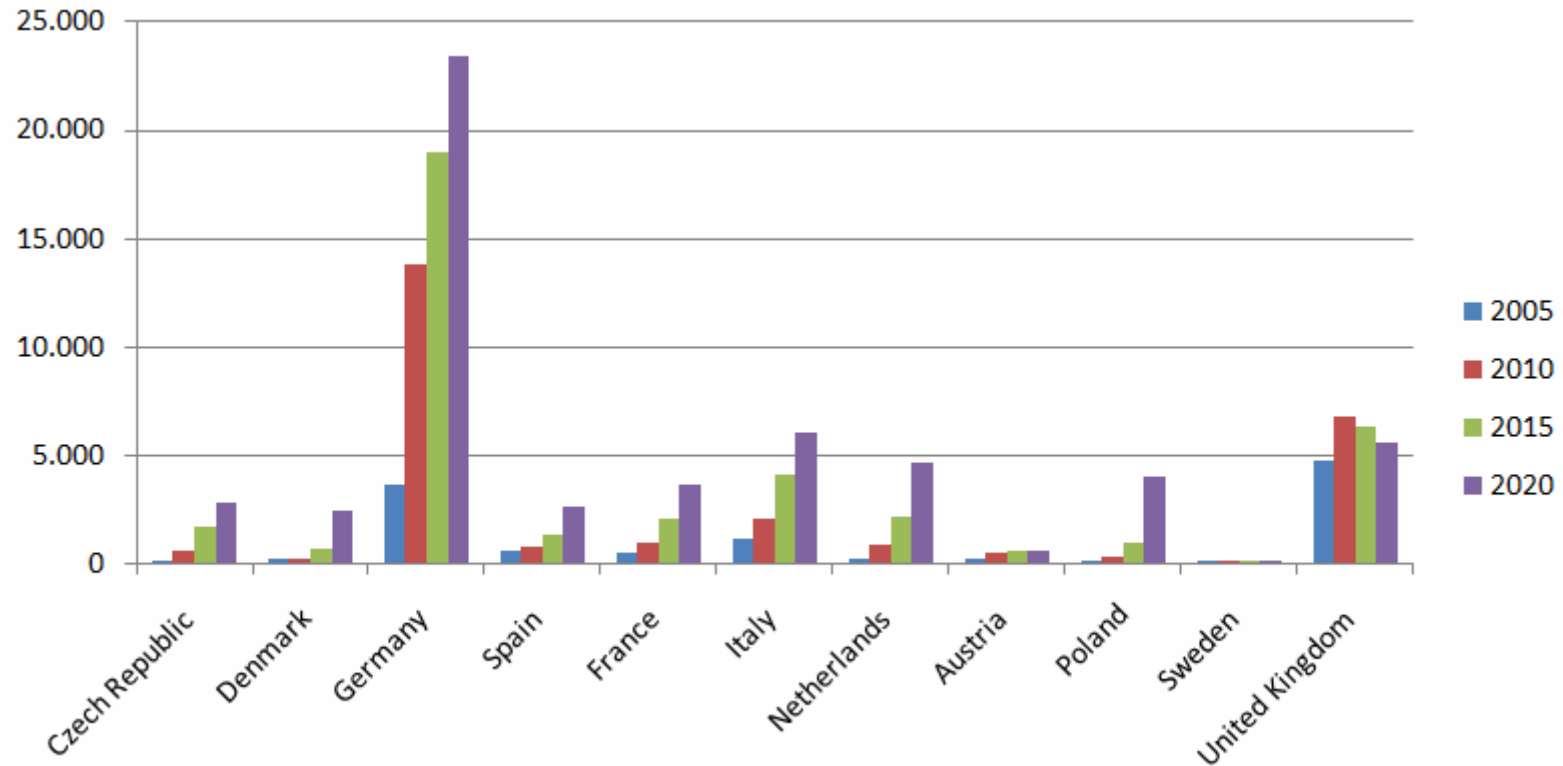
http://ec.europa.eu/energy/renewables/transparency_platform/action_plan_en.htm

Biogas for electricity & heat production per capita in kWh, 2020



4 person household up to 4,500 kWh el. per annum (DE)

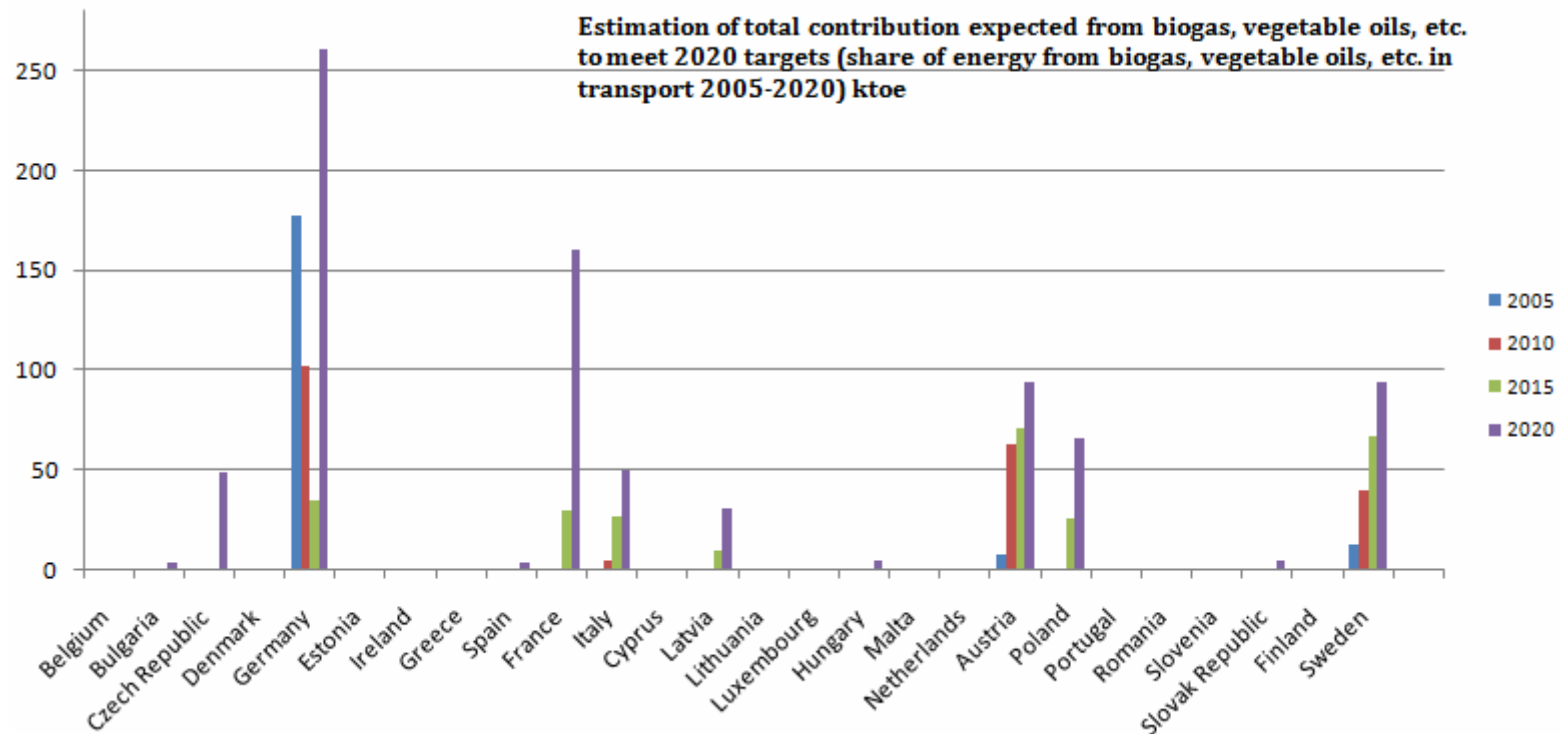
Gross electricity generation, GWh



Heating & Cooling

- ✓ On the way to be discovered
- ✓ Greece, Estonia, Cyprus, Slovenia
- ✓ Romania improved the target from 0 to 20 ktoe until 2020
- ✓ Leading countries: Germany, France, Italy, the Netherlands
- ✓ Combined heat and power-bonus

Transport



8 countries in Europe - Austria, France, Germany, the Netherlands, Norway, Sweden, Switzerland, and the UK injected biomethane into the national gas grid!

Reality

- ✓ Roughly 80% of the biogas sector is located in Germany
- ✓ Best practises: Austria, Denmark, Sweden, Switzerland, the Netherlands
- ✓ Booming countries: Italy, Czech Republic
- ✓ Ready to boom: France, Poland, Hungary, UK
- ✓ Huge potential untapped: Bulgaria, Romania

Case study - Poland

- ✓ Huge potential, but relatively slow development
- ✓ Contra-productive environment for biogas: e.g. shale gas, nuclear power plant projects
- ✓ Status quo in Poland: 12 agricultural biogas plants in operation and connected to the power grid, 10-15 projects are currently in phase of realization
- ✓ Green certificates in Poland do not to create financial feasibility (need for feed in tariffs)
- ✓ Ambitious intentions in NREAPs requiring adequate measures to build nearly 300 biogas plants in order to meet the target

Case study - Greece

- ✓ Biogas technology in Greece is the newest among all other Renewable Energy technologies
- ✓ New Law 3851/2010 created a very positive environment for investment in biogas
- ✓ Current installed power derived from biogas is 41 MW
- ✓ There are no agricultural biogas plants in operation! Organic waste -> use the potential!

Bottlenecks

- ✓ For farmers it is hard to prepare adequate project proposals, fulfill evaluation criteria and get funding
- ✓ Energy prices are low compared to EU average prices (PL, LT, LV, EE)
- ✓ Availability of funding
- ✓ Gap between potential biogas producers and biogas project developers, investors
- ✓ Legal & Administrative barriers

Solutions

- ✓ The development of roadmap or guide for permit procedure is necessary
- ✓ Continuous, targeted, well-considered and well-planned state support for biogas projects
- ✓ A long-term policy framework for biogas use
- ✓ Promoting the awareness on biogas in all levels

EU funding

- ✓ The mechanisms are complex
- ✓ Expensive at initial expenditures
- ✓ Mainly available for strategical investors rather than for farmers or SMEs
- ✓ Current available programs are very limited in amount
- ✓ Small share is available for biogas

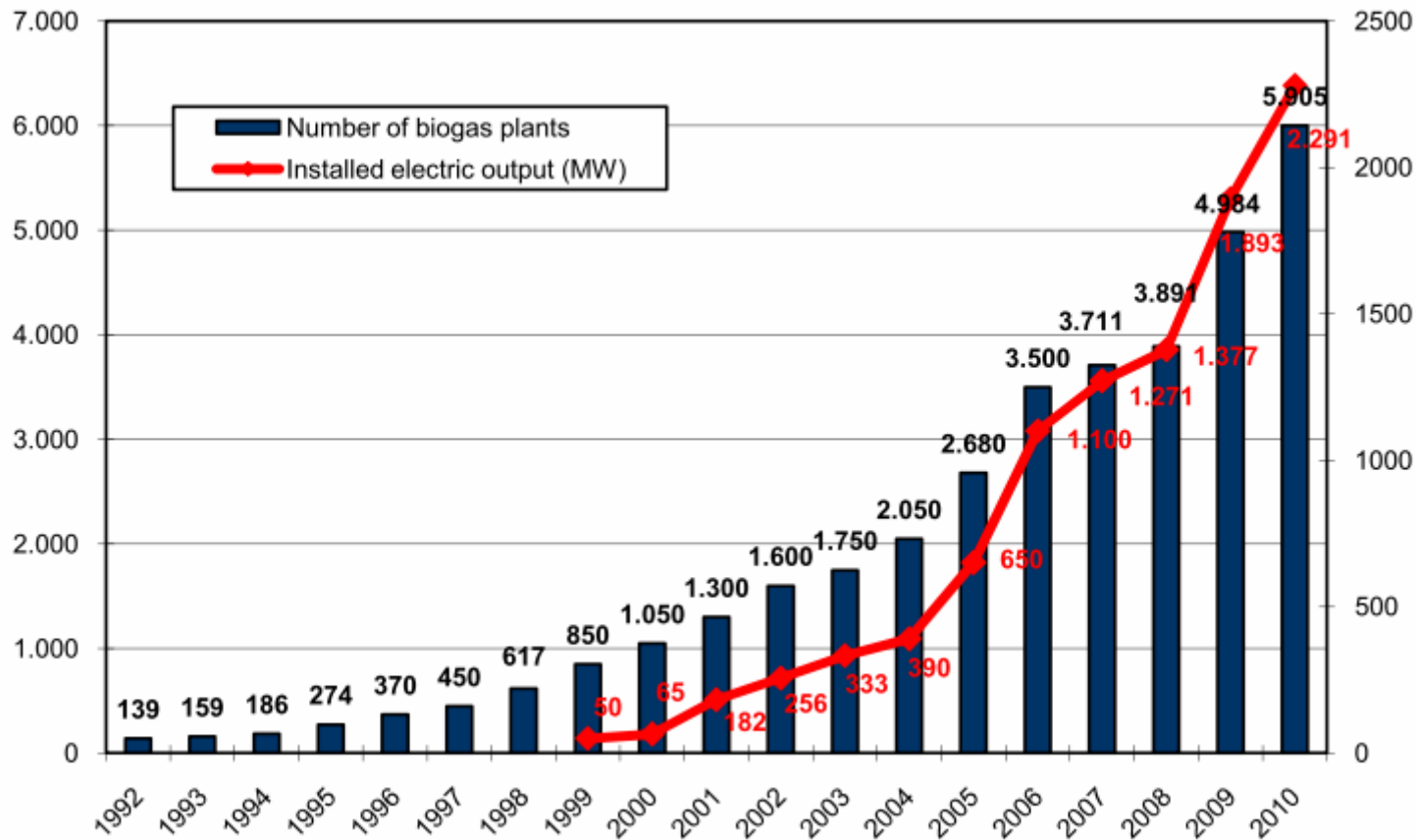
Biogas

 **made
in
Germany**

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Biogas plants in Germany



Source: German Biogas Association

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Biogas industry statistics in Germany

	End of 2010	Forecast for 2011
Number of plants (of these feeding biomethane)	5.905 (45)	7.000 (60)
Installed electric output in MW	2.291	2.728
Net electricity production in MWh per annum	14,8 Mio.	17,8 Mio.
Homes supplied with biogas-based electricity	4,2 Mio.	5,1 Mio.
Proportion of electricity consumption in %	2,46	3,1
Turnover in Germany in €	5,1 Mrd.	5,9 Mrd.
Jobs	39.100	44.500
Export rate in %	10	10

Source: German Biogas Association

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Conclusions

- ✓ Policymakers are not yet giving the biogas market priority it deserves
- ✓ Average increase of biogas share in renewable energy mix is under the average increase of other renewable energy sources
- ✓ Positive changes and improvements in order to reach 2020 RES targets
- ✓ There is no single RE technology which allows us to successfully address the environmental challenge
- ✓ Highly developed biogas technology is an important part of 2020 RES target and is ready to look beyond 2020!

Thank you for your attention!
Join us!

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