

Political framework for the usage of biogas in Germany

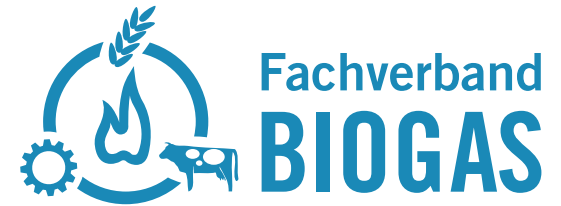
Alexey Mozgovoy

Staff Unit for Biomethane, German Biogas Association



**Biogas
kann's!**

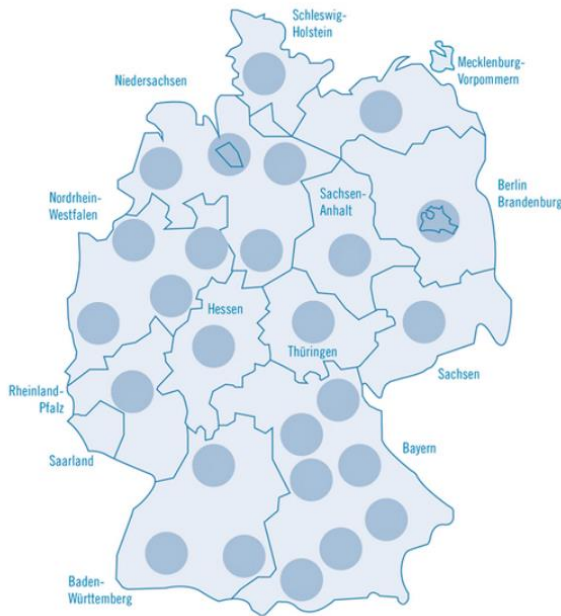
The German Biogas Association



4,700 members
throughout Germany



- Operators of biogas plants
- Technology manufacturers
- Research institutions
- Public authorities
- Feedstock providers
- Interested individuals

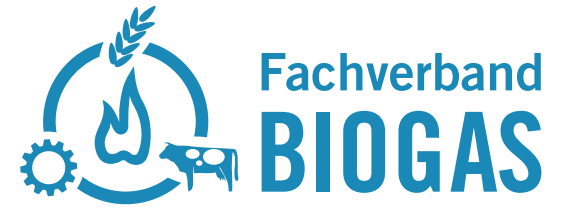


43 employees dedicated
to the topic

Main objective: promotion of the biogas sector

- Definition of legal framework and technical standards
- Exchange of information
- Advocating on federal, state and EU level

International Agenda of the German Biogas Association

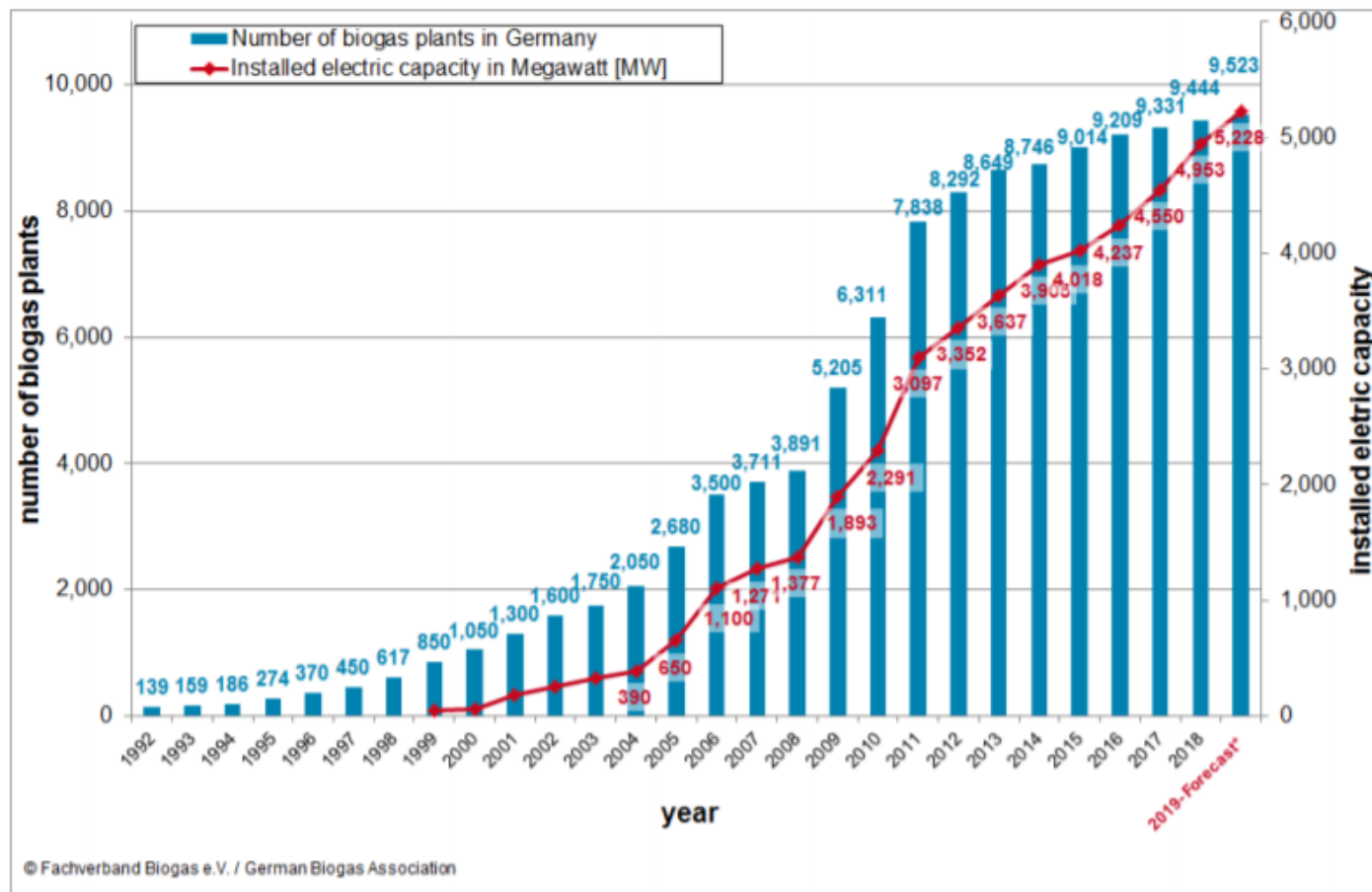


- International Affairs Department
- Supporting members with information about the international biogas markets
- Biogas Convention and Trade Fair
- Supporting Biogas Associations, Biogas Know-How and Trainings worldwide
- Cooperation with international organizations – promoting Biogas in Developing- and emerging countries



Biogas in Germany - number of plants and installed capacity

Development of the number of biogas plants and the total installed electric output in megawatt [MW] in Germany (as of 07/2019)



Biogas sector at a glance

Biogas Sector Statistics in Germany at a Glance (as of 07/2019)

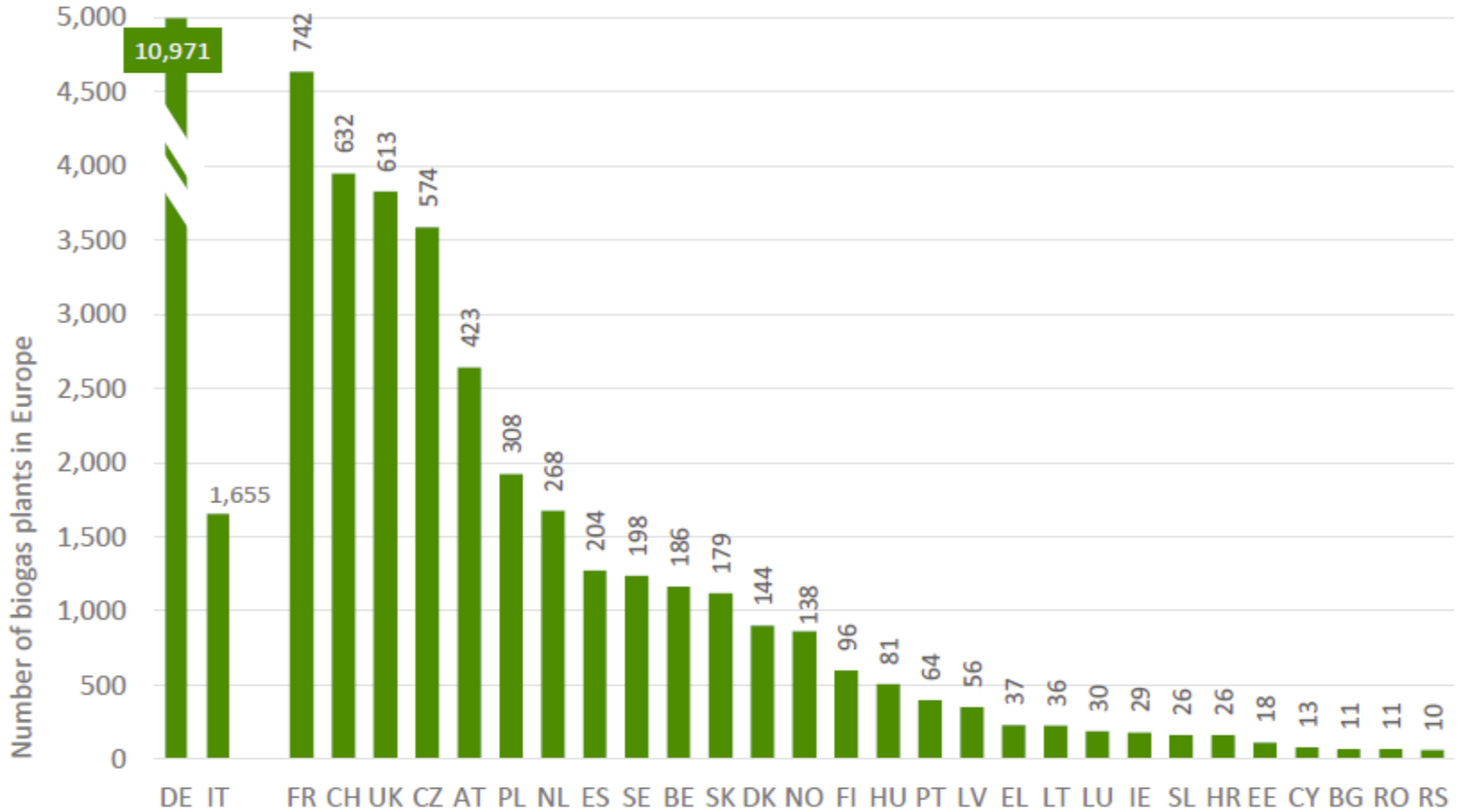
	2018*	Forecast 2019**
Number of biogas plants (biogas plants with biomethane injection)	9,444 (200)	9,523 (204)
Installed electric capacity in MW	4,995	5,228
Gross electricity production in TWh per year	33.15	33.4
Households supplied with biogas-based electricity in millions	9.47	9.54
CO ₂ reduction by biogas in million tonnes	20.0	20.1
Turnover in Germany in Euro	9.7 billion	9.3 billion
Jobs in the biogas sector	49,000	48,000

© Fachverband Biogas e.V. / German Biogas Association

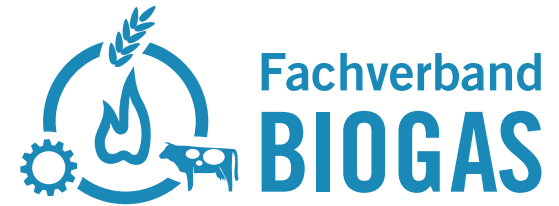
* Own extrapolation based on country data / plant register BNetzA

** Based on an expert survey / plant register BNetzA

Biogas plants in Europe



German Renewable Energy Act (EEG)



- Priority of connection, purchase and transmission for electricity from renewable energy sources
- A consistent fee for this electricity paid by the grid operators for a 20-year period

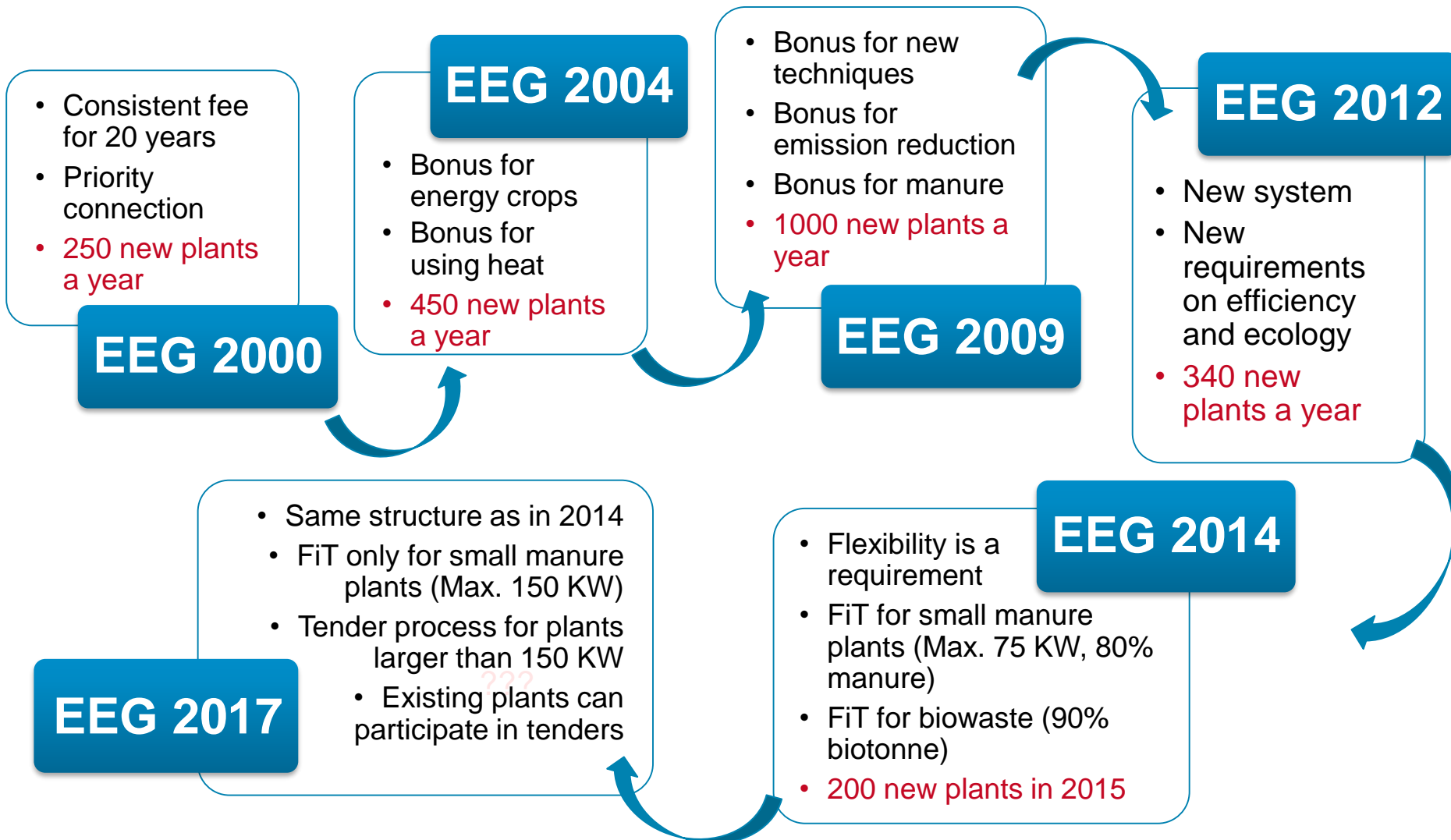
The core elements of the EEG guarantee :

- Mid and long term planning and investment security
- Calculable costs for consumers
- Specific fees for different technologies
- Low bureaucratic effort
- Participation for local and regional players

Development of the Renewable Energy Act (EEG) (2000-2017)



Fachverband
BIOGAS



Biomethane for the fuel market

Renewable Energy Directive (2009)

- The share of bio fuels in the fuel market → **10 % by 2020**

Renewable Energy Directive II // RED II (December 2018)

Will be transported into the legal framework of the EU member states by 30th of June, 2021.

- The share of bio fuels in the fuel market → **14 % by 2030**
- The share of advanced biofuels in the fuel market → **3.5 % by 2030**
- First, advanced biofuels must be put into the market, then others.
- What sources will be used for the production of advanced bio fuels?

- Animal manure,
- Sewage sludge,
- Straw,
- Biowaste
- Etc.

**Sources
for
biomethane
production!!**

Biomethane for the fuel market

Legal framework

Federal Pollution Control Act, Gesetz zum Schutz vor schädlichen Umwelteinwirkungen durch Luftverunreinigungen, Geräusche, Erschütterungen und ähnliche Vorgänge (Bundes-Immissionsschutzgesetz – **BImSchG**)

- Requires the GHG reduction through a fuels trader
- The calculations deliver the allowed amount of CO₂ footprint of the fuel mix
- In case, the total CO₂ emissions would be exceeded, for each kilo of CO₂, which crosses the set target, the fuels trader is obliged to pay a fee
- The admixing of carbon-free and carbon-neutral fuels reduces the CO₂ footprint of the fuel mix.

Biomethane for the fuel market

Legal framework

Biofuel Sustainability Ordinance

Verordnung über Anforderungen an eine nachhaltige Herstellung von Biokraftstoffen (Biokraftstoff-Nachhaltigkeitsverordnung - Biokraft-NachV)

From 2015

3.5 %

...or fee in the amount of **0.47 EUR**

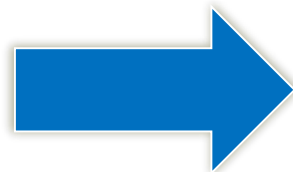
From 2017

4 %

for each kilogram of the carbon surplus

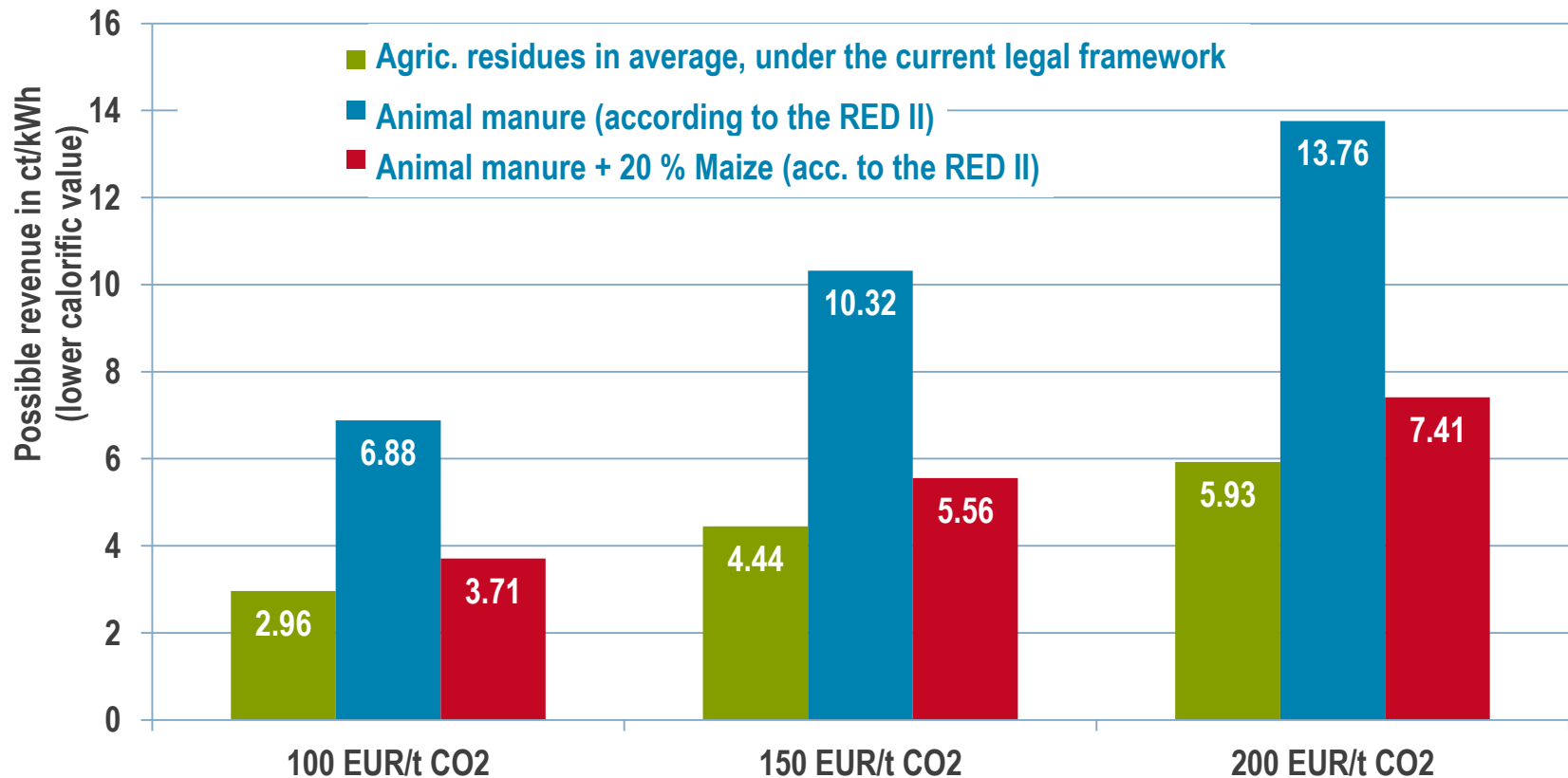
From 2020

6 %



Biomethane for the fuel market

Numbers are given for **bioCNG**. GHG emissions of small scale liquefaction need to be estimated and considered in the following calculation.



Thank you for your attention !

Biogas worldwide
Workshop Biogas Basics
Best Practice
Excursions
Evening Event



BIOGAS Convention & Trade Fair

10 – 12 December 2019, Nuremberg, Germany

www.biogas-convention.com

