

FutureGas annual meeting 2019- WP6

Tracking and trading renewable gas

Contents

- **Tracking and accounting of renewable gases:**
 - **EU RED I and II**
 - **How to track biomethane in the grid?**
- **Renewable gas markets**
 - **Sustainability standards**
 - **Market structure**

Renewable gas in the EU RED I (past)

Biomethane is a “gaseous biomass fuel”; a sub-category of biofuels, defined as “liquid or gaseous fuel for transport produced from biomass”

- Biomethane used for electricity and heat production has not been subject to the same sustainability criteria as when used for transport

No mention of other renewable gases (hydrogen)

Renewable gas in the EU RED II (new)

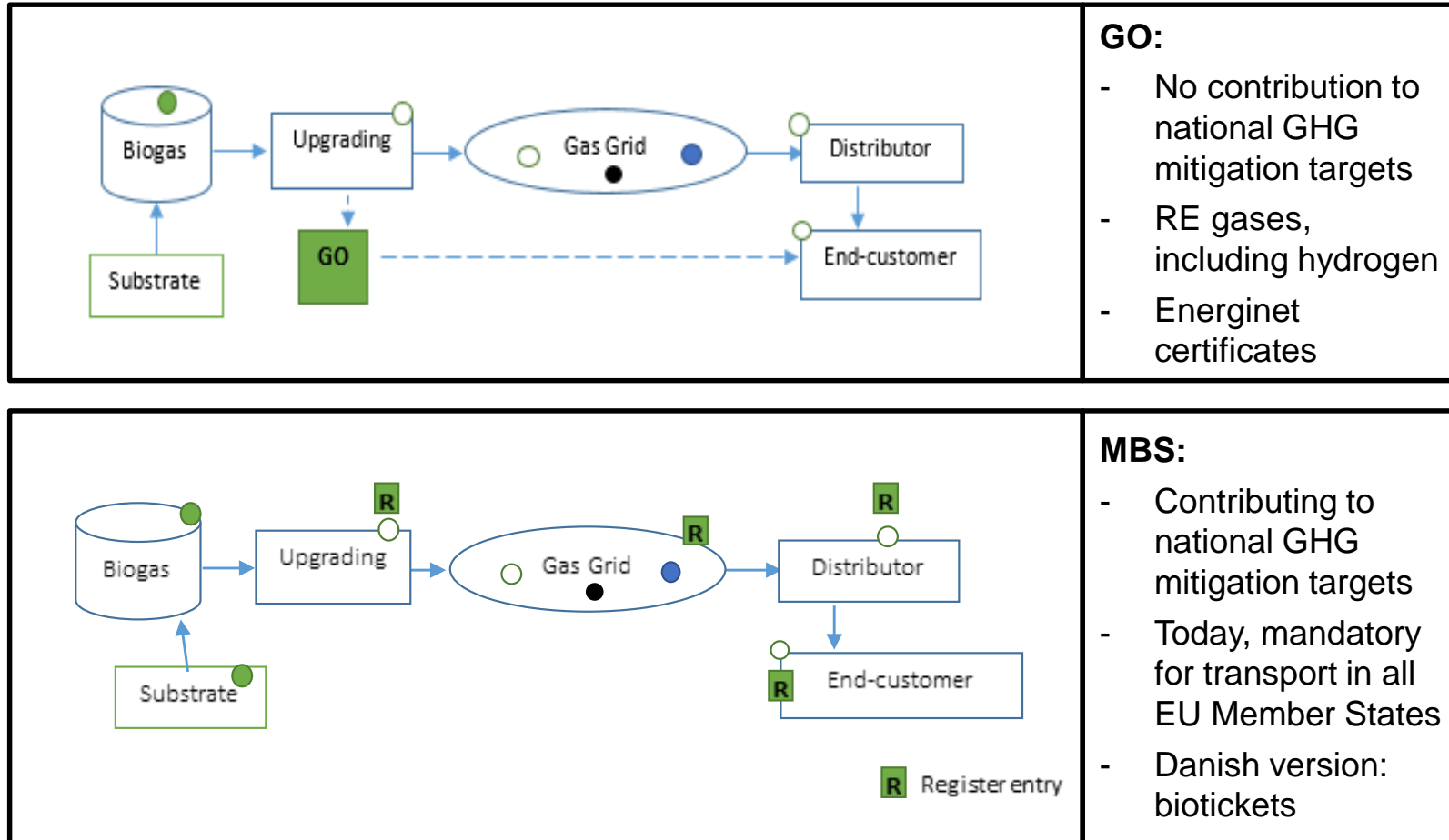
Biomethane:

- Adds a definition for “biogas” as “gaseous fuels produced from biomass”
- A mass balance system is necessary for biomethane to be counted towards the EU renewable energy targets in the heating and cooling sector, in addition to the transport sector

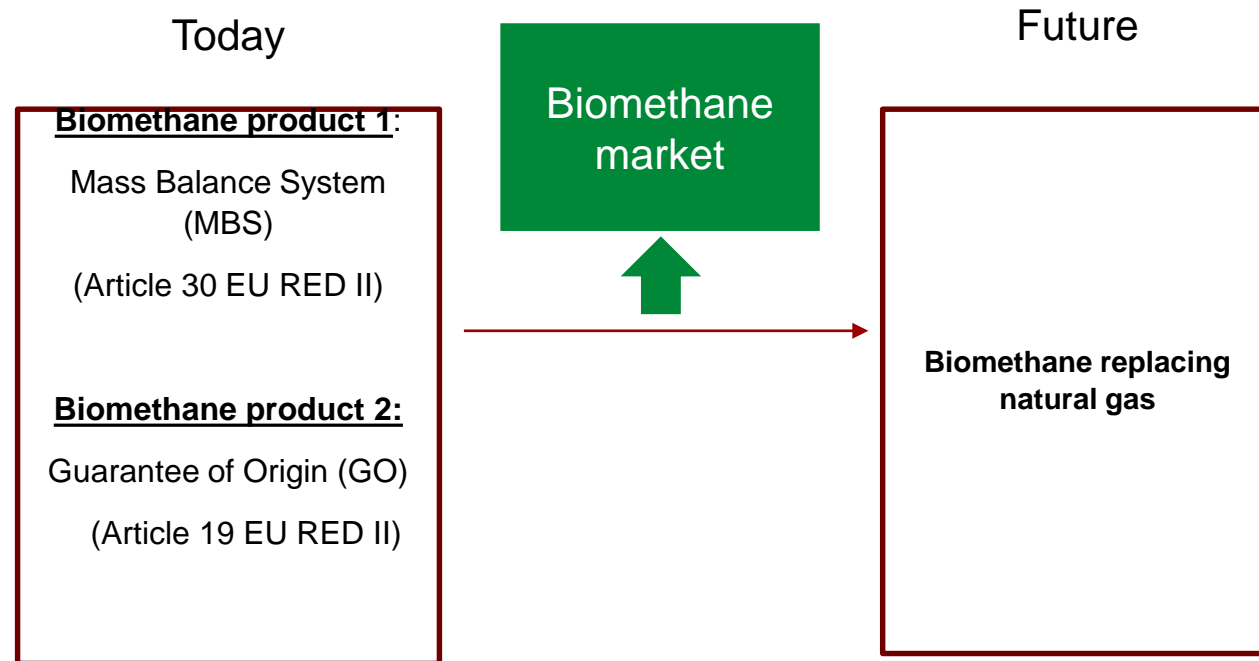
Other renewable gases:

- Guarantee of origin scheme expanded to cover renewable gases (hydrogen)- No accounting towards RE targets!

How to track biomethane?

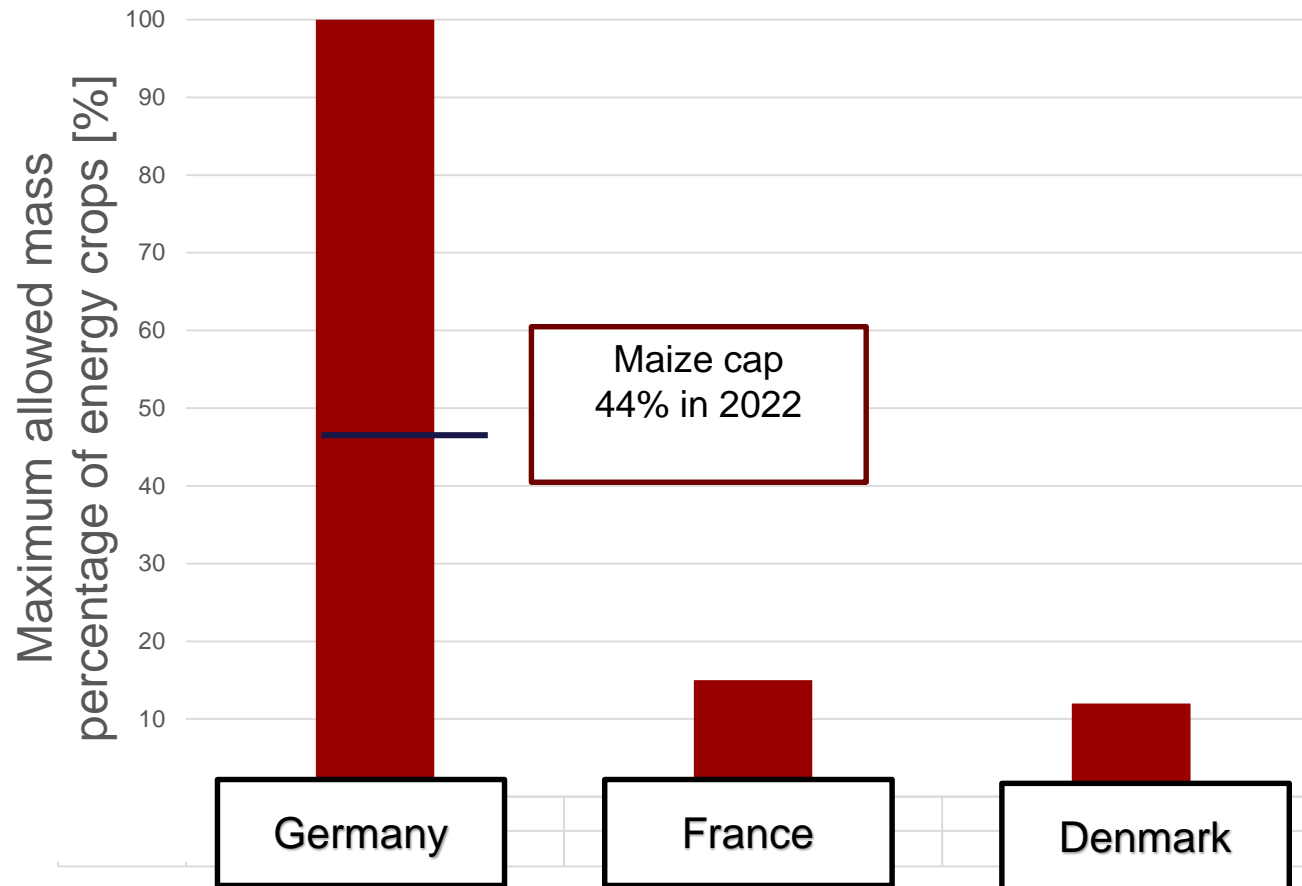


State of the art



- Not all biomethane is sustainable!
- How to track biomethane?
- No transparency regarding biomethane prices and trades

Not all biomethane is sustainable!





Sustainability standards

- High sustainability thresholds
 - More effective green value
 - Higher price premium
 - Less market participants

(Source: Buchanan's (1965) Theory of a Club)

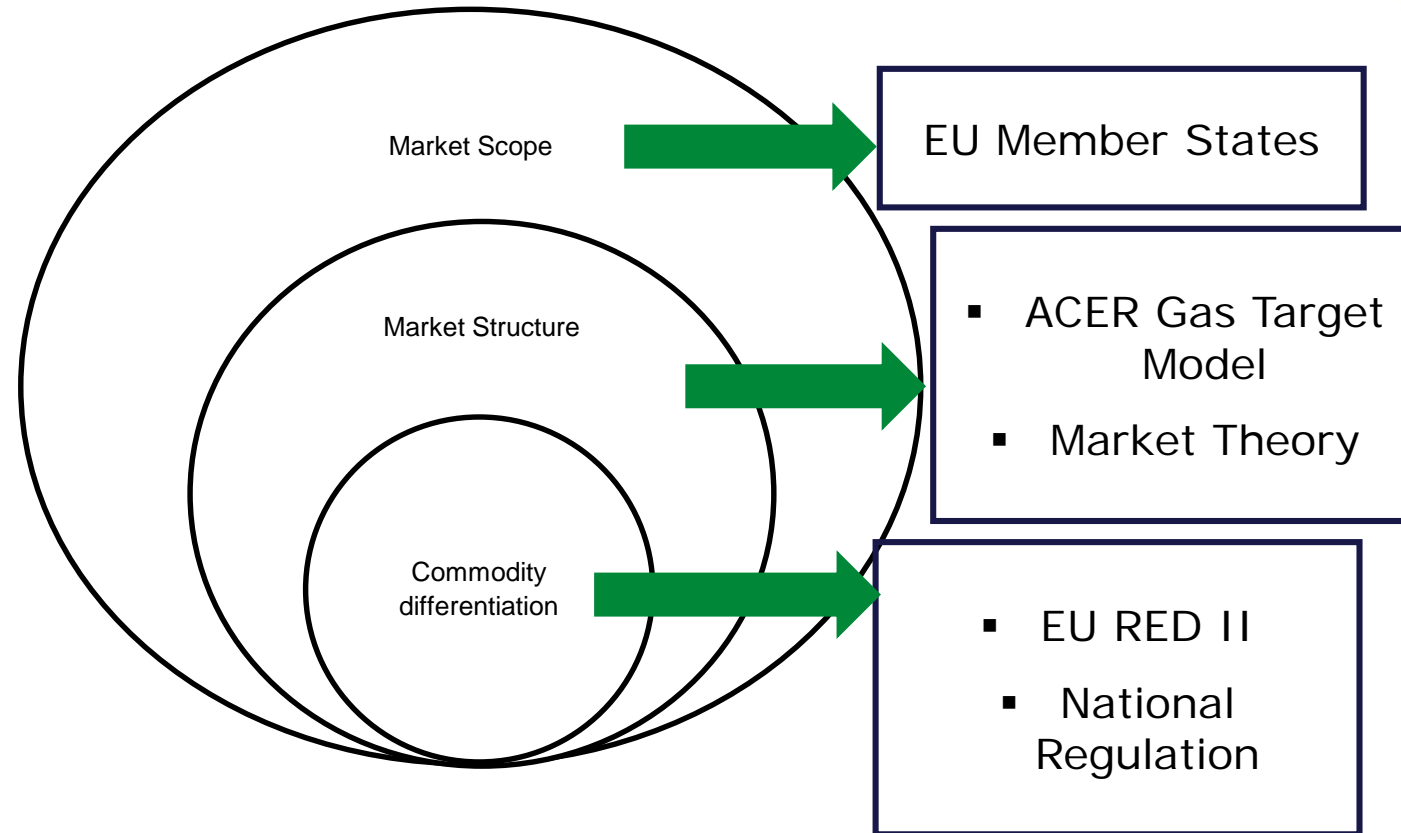
Agreement on common minimum sustainability standards
accepted by all Member States

No transparency regarding biomethane prices and trades



- No “market venue” for biomethane and renewable gases. Only bilateral trade.
- More transparency in trades will allow the development of efficient prices
- Registries in the EU in the process of being harmonised
- The statistical methodology for counting biomethane consumption towards national renewable energy targets is inconsistent

Organising biomethane trading activities



Methodology- metric definition

Commodity differentiation

- *Scope of biomethane registry*
- *Sustainability standards*
- *Single value product*

Market Structure

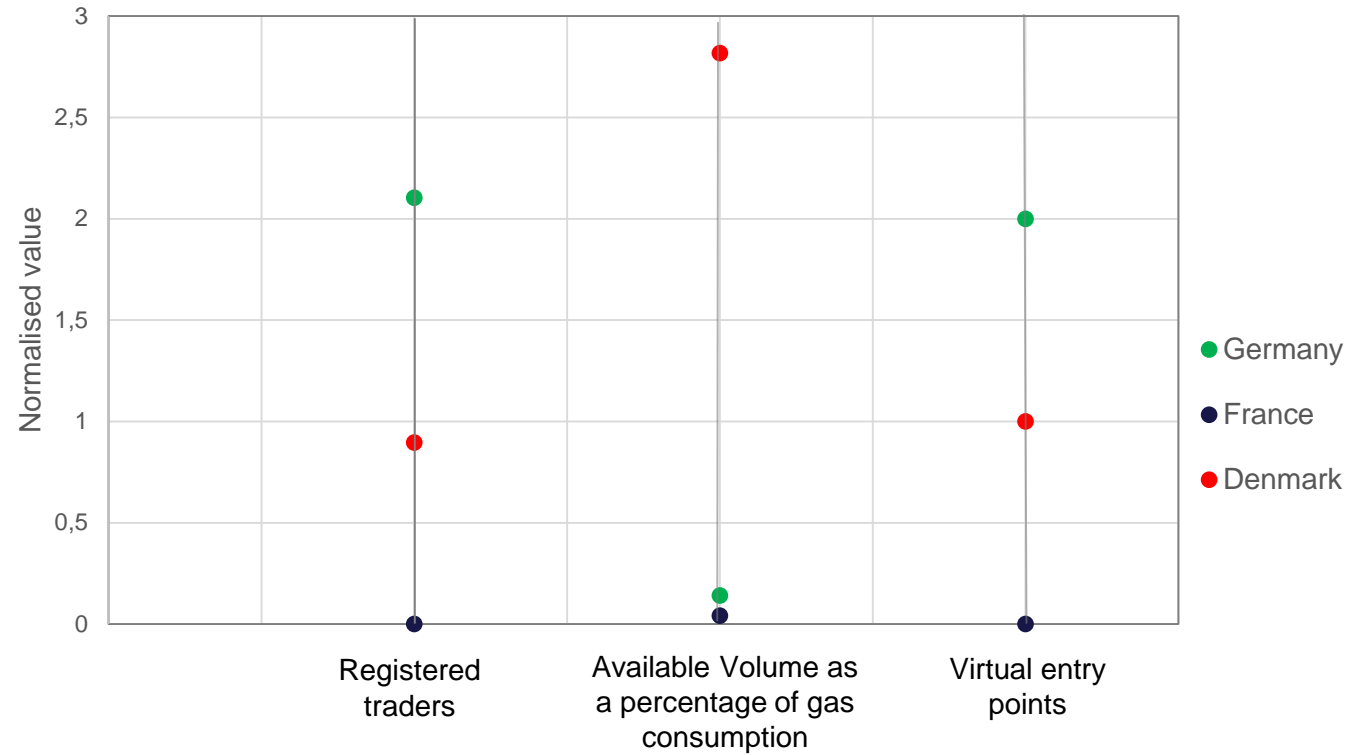
- *Number of biomethane traders*
- *Potential order book volume*
- *Biomethane entry-points*

Market Scope (EU trade possibility)

- *Harmonisation of registries*

Result: market structure

market structure comparison

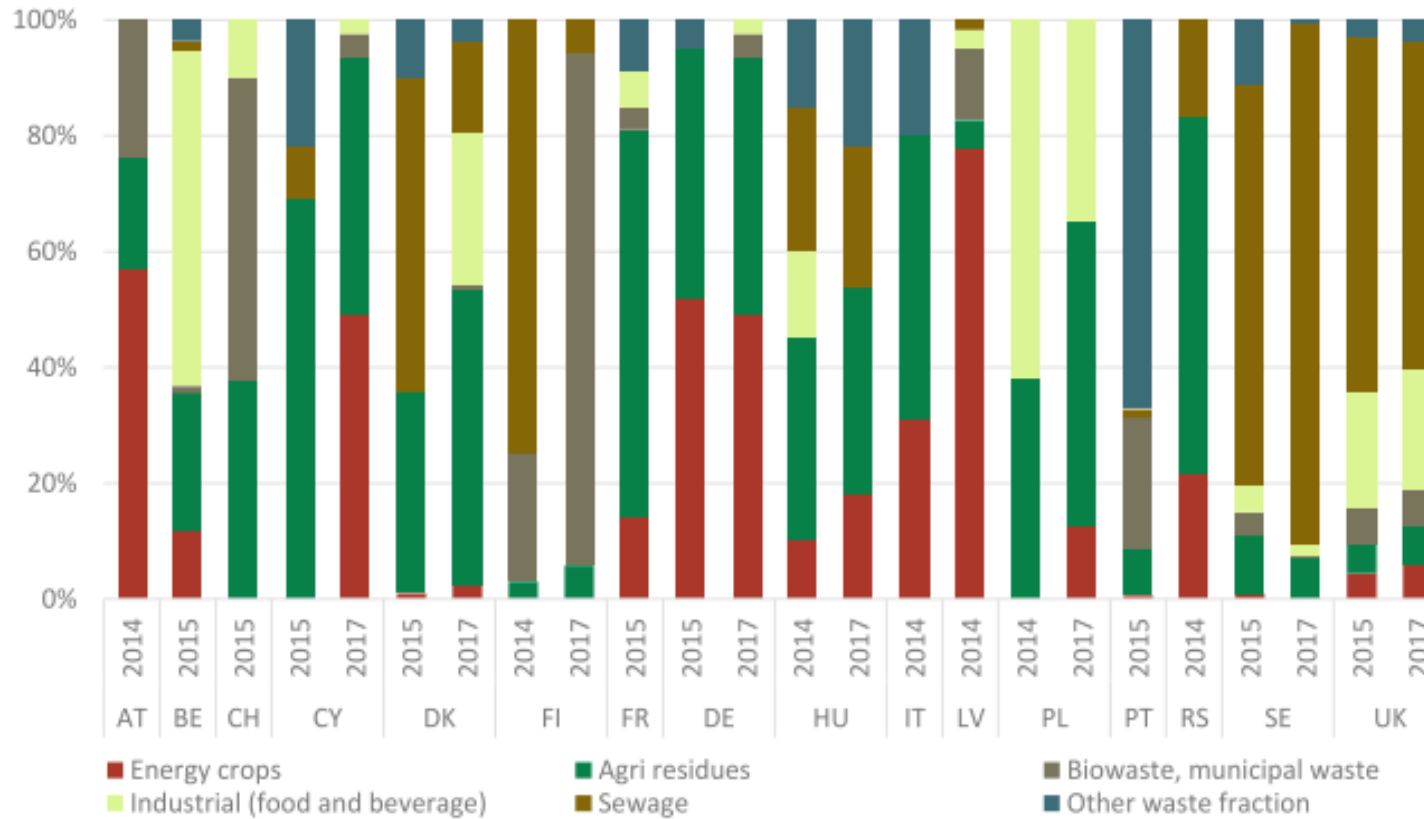


Conclusion

- Mass Balance System expanded to other sectors using biomethane following the EU RED II
- Biomethane registries the main tool to enable the characterisation of renewable gases
- Different support schemes define different markets and values for renewable gases
- The objective should be the implementation of a market venue (hub) for trading renewable gases

**Thank you for your
attention**

How sustainable is European biomethane?



Source: European Biogas Association, 2018