REGATRACE

Renewable Gas Trade Centre in Europe

Overview of European Biogas Registries

Milenko Matosic
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Agenda

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- Germany
- Austria
- Denmark
- France
- Switzerland
- REGATRACE Target Countries: BE, ES, IT, LT, PL, RO

Germany

239 account holders

184 Upgrading plants + 3 PtG- plants registered

In accordance with German law:

- Renewable Energy Sources Act (EEG)
- Renewable Heat Act (E(E)WärmeG)
- Emission Trading Scheme (ETS)
- Cogeneration Law (KWKG)

Bilateral agreements with AGCS (AT), Energinet (DK) and GGCS (UK)

Germany

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- **Regulatory framework:**
    - Financial support for electricity production from biomethane
    - Means to fulfill greenhouse gas quota obligation in transport sector
    - Means to fulfill renewable heat obligation
- **Operator:** German Energy Agency based on an industry initiative of 14 companies
- **Data source:** auditors verify the production based on meter data.
- **Criteria:** national sustainability criteria applied

Germany

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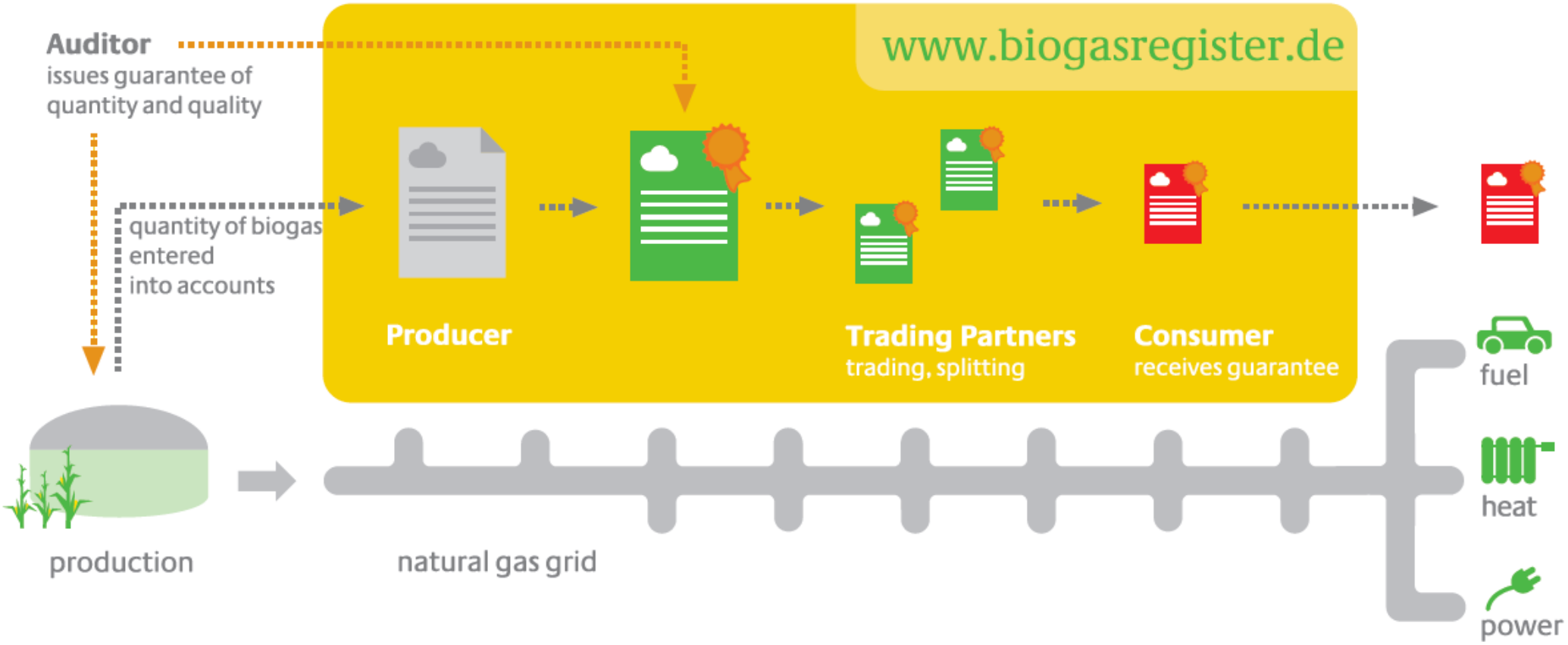
- **Basic functionality: schematic process flow**



Austria

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AGCS Gas Clearing & Settlement

Basis of our work

- European Gas Law
- Austrian Gas Law (GWG)
- Standard Terms and Conditions
- **Renewable Electricity Law (ÖSG)**

Our tasks

- Balance Group Coordinator
- Clearing of the Austrian gas market
- Organisation of the balancing market in Austria
- Calculation and settlement of balancing energy
- **Tracking of all gas movements and injections in Austria (incl. biomethane)**

AGCS Biomethane Registry Austria

BIOMETHAN
AGCS BIOMETHAN REGISTER AUSTRIA

Key Facts

- In operation since July 2012
- All gas market areas covered in Austria

Functionality

- Centralised data base for biomethane certificates with direct link to gas clearing system
- Monthly issuing of biomethane certificates based on clearing data from network providers
- Handling of biomethane certificates:
  - Splitting and title transfer possible
  - Creation of cancellation documents for final consumption of biomethane
  - Possibility to transfer, split and cancel

Austria

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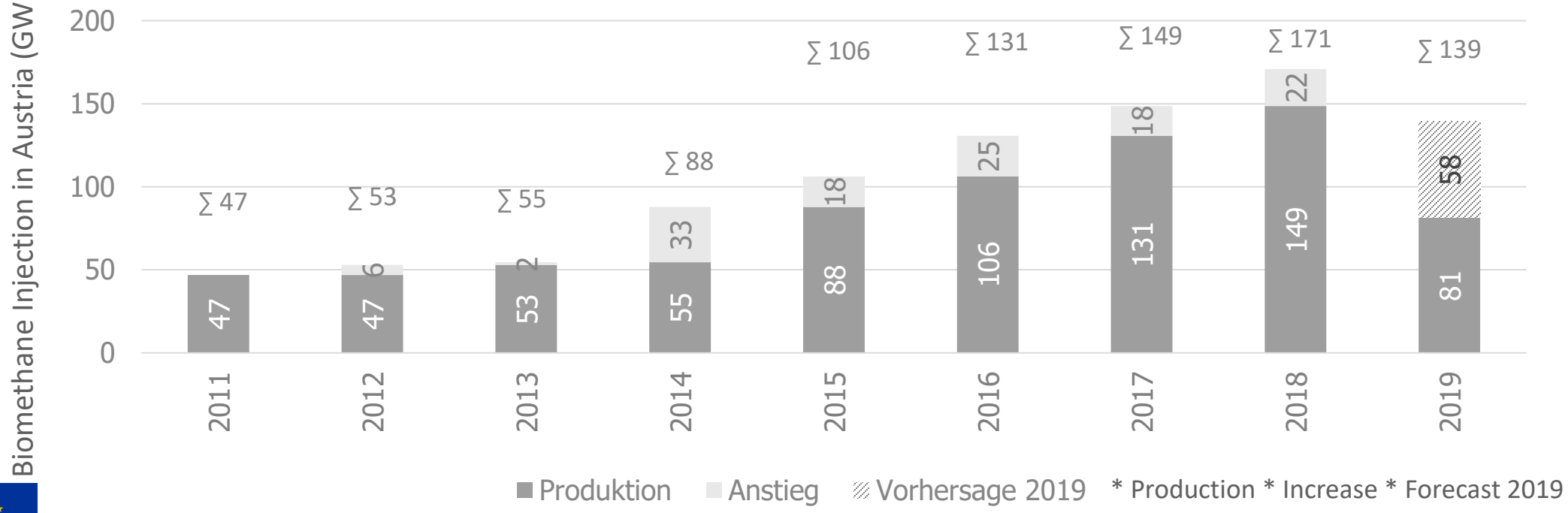
Number of biomethane registry users

- 14 biomethane production plants
- 10 electrification plants
- 6 traders (registry users)
- 8 auditors
- 1 Subsidy scheme organisation (OeMAG)
- 1 foreign registry (German Registry, dena)

Biomethane Injection AT (2012-2018 total): **0,623 TWh**
Biomethane Injection AT 2018: **0,17 TWh**
Yearly Gas Consumption AT 2018: **84 TWh**

Potential analysis

→ About 423 biogas plants provide renewable electricity
→ Hypothesis: switch from electricity to gas providing plant
→ Practical biomethane potential of approx. 1 TWh Gas
→ Five-fold increase of current production



Denmark

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- **Regulatory framework:** feed-in tariff for biogas injection.
  - Certificates are issued for disclosure
- **Operator:** Energinet (Gas TSO)
- **Data Source:** injection from gas producers is measured by network operators.
- **Cooperation with public authorities:** Ministry of Energy, Utilities, and Climate gave mandate to Energienet.
- **Criteria:** national sustainability criteria applied (cap on energy crops)

32 grid-connected biogas plants

France

- **Regulatory framework:** feed-in tariff for biogas injection.
  - Biomethane producer sells production to gas supplier, which receives GO from GRDF
  - No trade of GO is yet possible.

- **Operator:** Gas Réseau Distribution France (GRDF)

- **Data Source:** injection from gas producers is measured by network operators.

- **Cooperation with public authorities:** Ministry of Economy awarded mandate to GRDF.

- **Criteria:** national sustainability criteria applied (cap on energy crops)

Switzerland

- **Regulatory framework:** tax exemption for using biomethane as a transport fuel.
- **Operator:** Swiss Association of Gas Industry (VSG)
- **Data Source:** «Clearingstelle» ensures tracking and balancing of all quantities of biomethane injected into the grid.
- **Cooperation with public authorities:** reporting to the Swiss Customs Authority (Oberzolldirektion, OZD).
- **Criteria:** national sustainability criteria applied

34 biogas upgrading plants

Task 3.2 Status Quo

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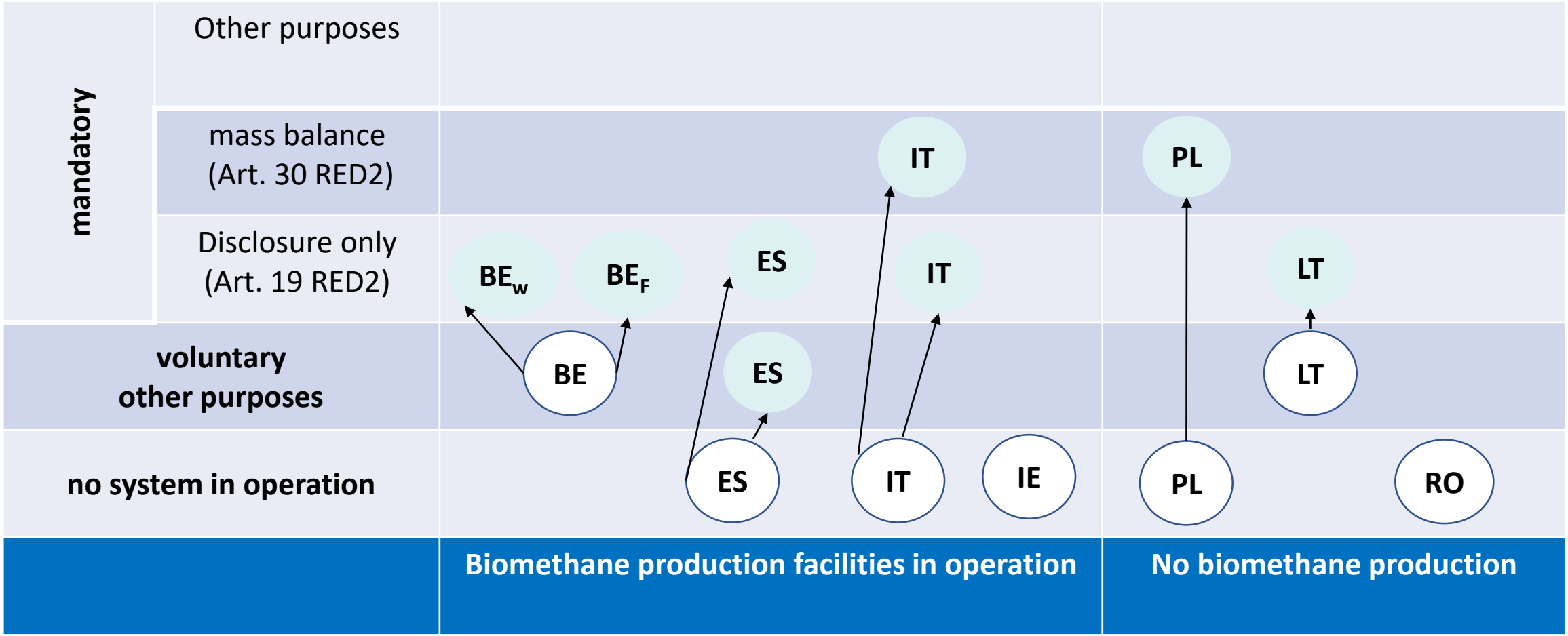

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Target Countries

Belgium

- **Present situation:**
  - **Flanders and Wallonia**: legislation has been adapted to comply with Art. 19 RED II.
  - **Brussels**: process has not started yet.
  - **Flanders:** 1 biomethane production plant (injection into the grid) + 152 biogas plants for power generation (151 MW)
  - **Federal government**: still has to adapt legislation to consider Bio-CNG as a biofuel.

- **Potential for future growth:**
  - **Flanders:** new biomethane plants will need more support.
  - **Wallonia:** new biomethane production plants are expected. CHP plants using regional biomethane as primary fuel receive additional support (green certificate support for electricity generation).
  - **Brussels:** no biogas/biomethane plants expected before 2025 if legislation is not updated. Waste recycling has good potential and CHP receives sufficient support.

Belgium

- **Policy/regulatory framework:**
  - **Wallonia**: from March 2018 onwards, the label of guarantee of origin (LGO) will be used for biomethane. The government administration has already set up the basis for registration and agreement for the GO.
  - **Flanders:** legislation came into force on August 2019. Set-up of the system still in progress. Manual process starting on Jan. 2020. Energy decree covers renewable gases. Fluxys - production registrar. VREG - production coordinator and GO issuing institution. VREG designated AIB to organize the tradable market.
  - **Brussels**: legislation to fulfill RED II obligations still to be developed. In the absence of biomethane production, focus might be on import of GO from other regions or EU Member States.
  - **Federal:** responsibility lies on the Ministry of Economics. Recognition of Bio-CNG as a biofuel if transported through the grid is still pending.
- **Development of the registry**
  - **Wallonia**: the government administration has integrated the e-CWAPE tool for GO registration and follow-up.
  - **Flanders**: VREG is adapting its interface with Fluxys and AIB. Fluxys will base its production registry webtool on the Green Gas Register IT solution (www.greengasregister.be)

Spain

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- **Present situation**
  - One operational plant (Valdemingomez) injecting biomethane into the natural gas grid.
  - One pilot plant (Butarque), with support from the ECO-GATE European Consortium (co-financed by the Connecting Europe Facility).
  - Use Butarque as a real-life example for a model proposal to be presented before the Ministry of Ecological Transition to show the GO as a voluntary scheme and to comply with the ERGaR scheme.

- **Potential for future growth**
  - Biomethane from organic waste (34 TWh/yr.) + Bio SNG from biomass (120 TWh/yr.) + Biomethane from PtG (45 TWh/yr.) = 200 TWh/yr.
  - By 2022: 250 GWh/yr. injected into the natural gas network.

- **Policy/regulatory framework**
  - No national strategy or roadmap yet for developing the biomethane sector.
  - No official mandate to designate a governmental institution for setting up the registry.
  - Draft of the Law for Climate Change and Energy Transition: presented in November 2018. Government is empowered to approve support mechanisms for the production of renewable gases and their injection into the natural gas grid.

Spain

- **Development of the registry:**
  - AEBIG, GASNAM, SEDIGAS proposed to the Ministry of Ecological Transition to develop a voluntary CO scheme (simpler than a registry) as a first step.
    - AEBIG: Spanish Biogas Association
    - GASNAM: Spanish and Portuguese Association promoting the use of natural and renewable gas as a fuel in transport
    - SEDIGAS: Association representing the Spanish gas wholesale, retail and distribution sectors
  - REGATRACE activities and documents will have a key role in the development of a Spanish biomethane registry.
  - No planned schedule yet. This will depend on the presentation of the “REGATRACE registry case” to the Spanish Government.

Italy

- **Present situation:** 8 operational biomethane plants and 15 plants under construction (to be finalized in 2019)

- **Potential for future growth:** 1.1 billion m^3 of biomethane by 2022

- **Policy/regulatory framework:**
  - **Biomethane Decree from March 2nd, 2018**. Expires on December 31st, 2022. Sets a production limit of 1.1 billion m^3 of biomethane per year and gives subsidies only if using biomethane in the transport sector.
  - Supported biomethane also includes fuel produced through hydrogen methanation processes obtained from renewable sources.

- **Development of the registry:**
  - GSE: responsible institution for the registry's development (Article 19).
  - Italian government prepares transposition of RED II with regard to mass balance system (Article 30)

Lithuania

- **Present situation:** no connected production facilities at the moment

- **Yearly production volume:** more than 40 off-grid biogas production plants (mainly for power generation, with a feed-in tariff scheme). Overall power generation capacity: ca. 40 MW

- **Potential for future growth:**
  - First biomethane plant with approximately 12 GWh total annual production (potentially ca. 41 GWh from 2023 onwards) will be connected to Lithuanian natural gas transmission system in the second half of 2020.
  - PtG: Lithuania is still at the analysis stage, i.e., elaboration of a study to identify the need and potential for PtG in Lithuania. The study should be completed by the end of 2020.
  - Promotion and support of biomethane production has a high priority for final use in the transport sector.

Lithuania

- **Policy/regulatory framework**
  - Good political will from the Government to support biomethane production and creation of a GO registry.
  - New National Energy Strategy: supports new enegy technologies (biomethane and renewable gases included).

- **Development of the registry:**
  - LT implemented a GO registry since June 2019.
  - The solution was implemented with MS Access and does not have a log-in function for the registry participants. All actions are done by the registry‘s administrator.
  - No GO have been yet issued.
  - Amber Grid was designated by the Ministry of Energy as the institution responsible for setting up the registry.
  - Interest in upgrading the existing registry to a more adequate platform able to trade GO with other European markets.

Romania

- **Present situation:** no production facilities yet.

- **Potential for future growth:**
  - Minimum potential growth for up to 3.5 Mio. m^3/yr.

- **Policy/regulatory framework:**
  - Only one existing law: Law 123/2008 (electricity and natural gas). New registered capacities for gas production, including biomethane, need a setup authorization prior to the project implementation phase.
  - No financial instruments for promoting and supporting biomethane production and PtG technologies.

- **Development of the registry:**
  - No set-up activities have been planned or taken place.

Poland

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- **Present situation:** no production facilities yet.

- **Potential for future growth:**
  - 80 to 110 locations with a total production potential of 600 to 800 million m^3/yr: based on 3 to 4 MW production plants close to interconnection points in the gas grid.

- **Policy/regulatory framework:**
  - No laws and/or regulations directly for biomethane and renewable gases
  - Investment support for biomethane from agricultural products/waste: will be considered under the RE Act. Still to be implemented by the new Government.
  - The RE Act established brown certificates for injection of upgraded agriculture biogas into the national grid. EU Commission was not notified about it by the previous Government. Not working in practice.

Poland

- **Development of the registry:**
  - Discussions with responsible governmental institutions for setting up the registry: expected start Jan. 2020.
  - Governmental counterpart: Ministry of Climate (created after the elections from Nov. 2019)
  - November 2019: UPEBI and KIB (National Biofuel Chamber) started a Biomethane Coalition, which gathers all stakeholders interested in the development of the Polish biomethane industry.
  - The Biomethane Coalition will be UPEBI‘s partner in the implementation of Tasks 3.2 and 6.2 (REGATRACE)
  - Detailed action plan Schedule: expected after the first Biomethane Coalition workshop in January 2020.
  - Desired commitment from the Government and industry to develop a biomethane registry: May - Sep. 2020
  - Desired implementation of the IT solution and tests: Jan. - May 2021

Conclusion and next steps

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- The situation in each target country is different.
- Energy policy in each target country plays an important role for the registry's development.
- dena will continue working together with each target country for the creation of their respective National Action Plan.
- Follow-up activities during the implementation of the Action Plan and sharing the dena experience in the development of our own registry: lessons learned and avoiding mistakes.

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Thanks for your attention!

Milenko Matosic
German Energy Agency (dena)
Contact details
matosic@dena.de
www.dena.de

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