

AGCS

Biomethane Registry Austria

Challenges for a European
certificate system for renewable gas

IEA Task 37 Workshop, 15.04.2021, Stefanie Königsberger



BIO METHAN 
AGCS BIOMETHAN REGISTER AUSTRIA

EnergyNews
Magazine.at

Tasks of AGCS Gas Clearing & Settlement AG

- Clearing of the Austrian gas market
- Organisation of the imbalancing market in Austria
- Calculation and settlement of imbalancing energy
- MERIT Order List platforms
- Supplier Switching Platform in Austria
- **Tracking of all gas movements and injections in Austria**
 - ✓ incl. biomethane

Basis of our work

- Austrian Gas Law (GWG 2011)
- Standard Terms and Conditions
- **Renewable Electricity Law (ÖSG 2012)**
 - ✓ AGCS Biomethan Register Austria

Austrian gas market



DSOs



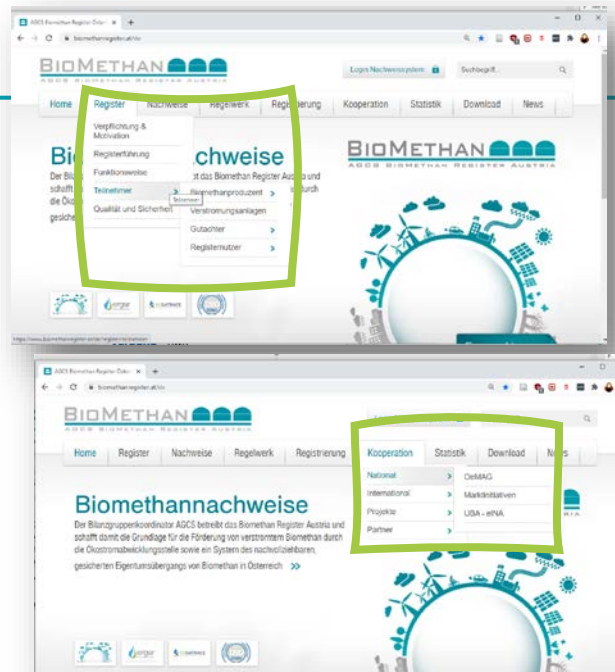
Market participants

- Biomethane Producers
- Electrification plant operators
- Auditors
- Registry user (traders)
- Green Power Settlement Agent (OeMAG)

Cooperation & Interfaces

- Systeme of balance group coordinators (all market areas: AGCS & A&B)
- Green Power Settlement Agent (OeMAG)
- Biofuel Registry eIna (Federal Environmental Agency)
- GoO-database for disclosure (regulator E-Control Austria)
- Biogasregistry Germany (dena German Energy Agency)

Dialogue Partners Austria



Cooperation with competent bodies



Green Power Settlement Agent (OeMAG)
Renewable Power from Biomethane



Biofuel Registry eIna (Environmental Agency)
Biomethane as sustainable Biofuel



GoO-database (E-Control)
Consumer disclosure

Organisations and Networks Harmonisation of European exchanges



Biogas Register Germany
dena



European Association
European Renewable Gas Registry
Registries: AT, DE, DK, IE, LT, NL, UK



European Commission
Consultations and Meetings



European Committee
for Standardization
CEN 16325 Guarantees of Origin

Partners



H2020 R&D EU-Projects



BIOMethane as
Sustainable and
Renewable Fuel
2015-2017



REnewable GAs TRade
Center in Europe
2019-2022



Dialogue Partners Europe





Target Compliance



-  Union target 32% (Art 3 REDII)
-  Transport target 14% (Art 25 REDII)
-  EU ETS (MRR) Emission Trading System
-  National targets & quotas

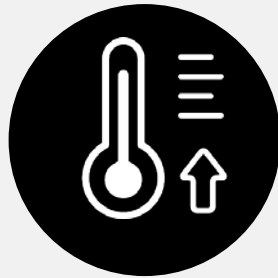
Certificate type
Proof of Sustainability (PoS)

Sustainability claim

Target compliance



Disclosure



- Consumer disclosure (Art 19 REDII)
- No eligibility for target compliance
- price premium to be paid by end consumer

Certificate type
Guarantee of Origin (GO)

No sustainability claim

No target compliance



Subsidy Schemes



Examples

-  FiT for electrification
-  Biomethane injection
-  Tax exemptions

Certificate type
National certificate
Biomethane certificate

Market initiatives



Initiatives by society and market

Producers to market the green value of their product

Consumers to increase renewable energy shares

Future markets



? chemical industry



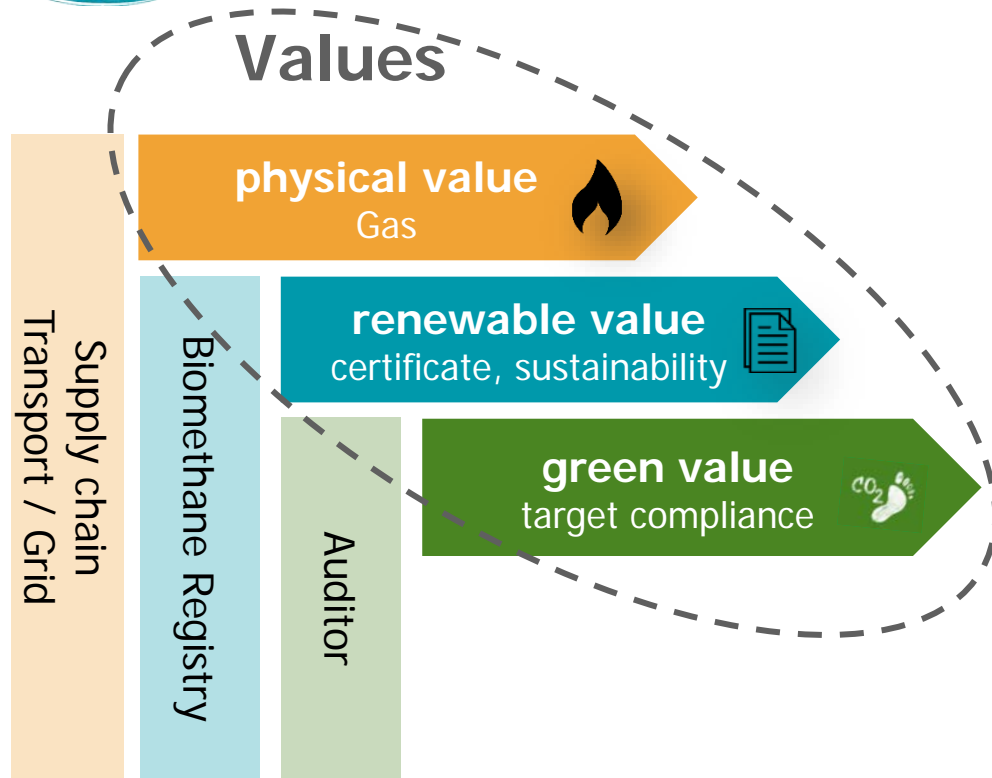
? Upcoming markets

Certificate type
?

Sustainability claim

Target compliance





Holistic certificate system

- For comprehensive documentation of various application purposes
- To avoid potential multiple counting
- Values on 3 levels (physical, renewable, green)
 - Transferability of values from producer to consumer?
 - Sustainability claim?
 - Eligibility for target compliance?

1. physical value

- Provision to all consumers
- On-grid: supply chain incl. grids
- Off-grid: resp. supply chain

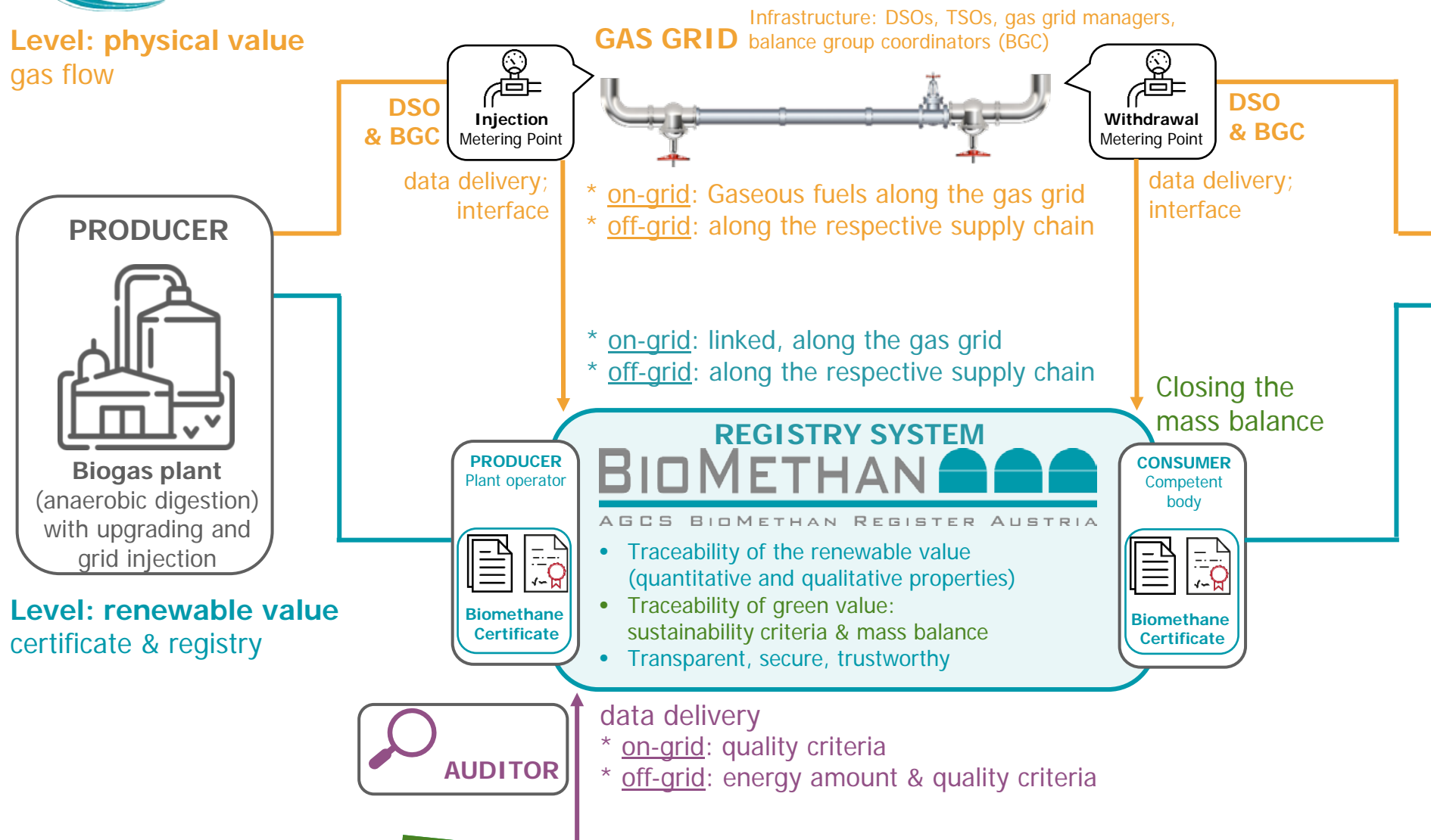
2. renewable value

- Transferability via verification system
- Document sustainability & mass balance

3. green value

- Quality criterium „sustainability“
 - GHG minimum savings
 - Mass balance
- Eligibility for compliance with targets and quotas

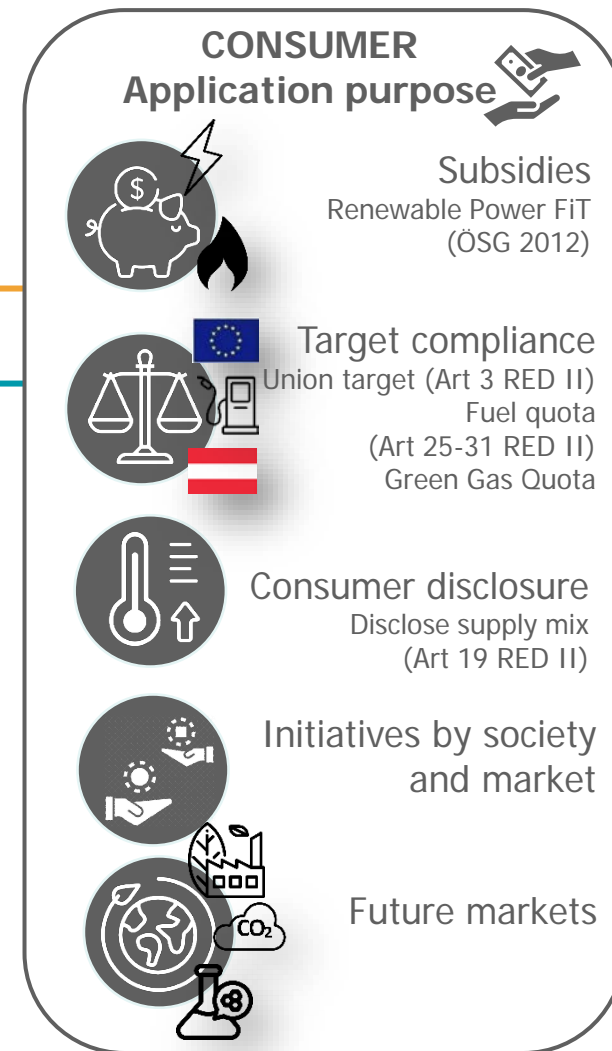
Level: physical value gas flow



Level: green value quality & sustainability



- For quality criteria „sustainability“
- Audit of the whole supply chain
 - Mass balance









- **RED: Renewable Energy Directive (EU) 28/2009**
- **FQD: Fuel Quality Directive (EU) 2009/30**
- **RED II: Renewable Energy Directive recast (EU) 2018/2001**
- **MRR: Monitoring and Reporting Regulation (EU) 2003/87**



- **ÖSG 2012: Ökostromgesetz (Renewable Electricity Act)**
- **KVO 2012: Kraftstoffverordnung (Fuel Quality Regulation)**
- **G-KenV 2019: Gaskennzeichnungsverordnung (Gas Disclosure Regulation)**
- **SteuerreformG 2020: Steuerreformgesetz 2020 (Tax Reform Act)**
- **EAG: Erneuerbaren Ausbau Gesetz (Renewables Expansion Act as government bill)**
- **Future Legislation? Renewable Gas Act?**

#mission2030

Die Klima- und Energiestrategie
der Österreichischen Bundesregierung

**NECP National
Energy and
Climate Plan**



- Biomethane/Renewable Gas is currently not addressed with a holistic system
- Biomethane/Renewable Gas is defined by its **application purpose**
→ Producer has to know application purpose already at production to choose suitable audit criteria



- Eligibility for target compliance
 - Union target
 - Sustainable biofuels for transport
 - Combustion fuel for EU-ETS
- Combustion fuel for consumer disclosure



- Different application purposes **pose different quality criteria**
 - Disclosure of origin vs Sustainability criteria



- Different application purposes **require different modes of transfer**
 - Book & Claim (no physical link and thus no target compliance)
 - Mass balancing (physical link, tracking of whole supply chain, eligibility for target compliance)



- Different application purposes **pose different time horizons for recognition of certificates**
 - validity period vs eligibility for recognition vs capability for storage

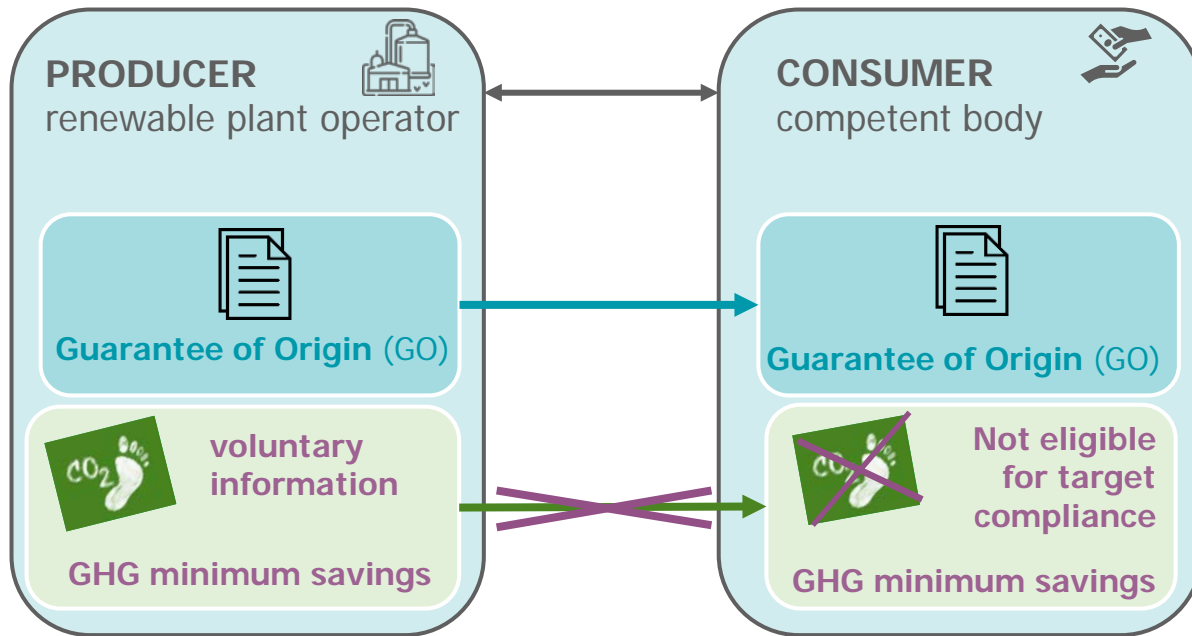
- Different application purposes **might be documented by different competent bodies**

- Sustainable biofuels: Biofuel Registry eINa (Environmental Agency)

- Gas disclosure: GO Issuing Body (E-Control Austria)

Book & Claim

- So far for voluntary disclosure
- In the future for Guarantees of Origin (GO) for consumer disclosure of energy supply (Art 19 RED II)



Levels

1. physical value

- Trade: producer and consumer in contract

2. renewable value

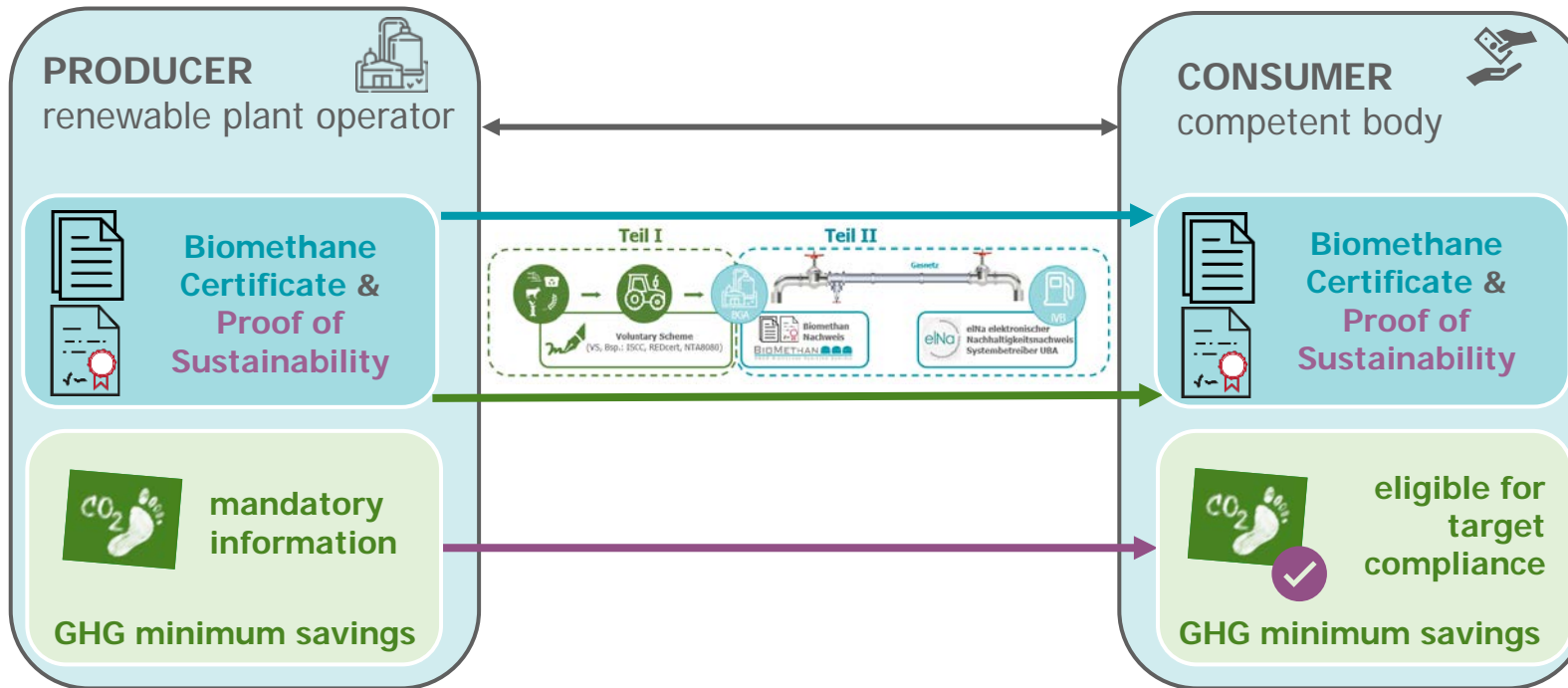
- Certificate **decoupled** from physical gas flow

3. green value

- **Ex**cludes: transfer of GHG minimum savings

Mass Balance

- Proof of Sustainability (PoS) for target compliance
- Documentation of physical flow within the respective system boundaries
- National - easily traceable via balance group model
 - theoretical break down to metering point level possible
- Europe-wide: within the European, interconnected gas grid (Voluntary Scheme pending)



Levels

- 1. physical value**
 - Trade: producer and consumer in contract
- 2. renewable value**
 - Certificate coupled with physical gas flow
- 3. green value**
 - Includes: transfer of GHG minimum savings



Legal definition of „sustainability criteria“

- Art 18 RED I: particularly addressing liquid, sustainable biofuels
- (EU) 2009/30 Fuel Quality Directive
- Art 25-31 RED II: extension towards renewable gases

Significance in theory and practice

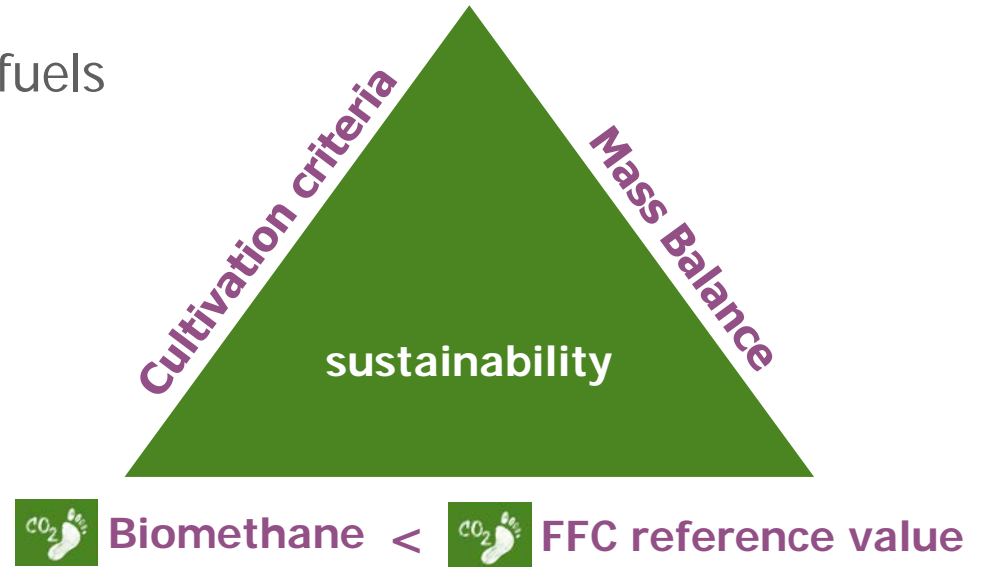
➤ **Cultivation criteria** Art 29 (2-7) RED II

➤ **GHG minimum savings** Art 29 (10) RED II

- Total GHG emissions along the whole supply chain
- Undercutting the respective reference value of the Fossil Fuel Comparator (FFC)
- Specific reference values per application purpose published by EC
- Total GHG emissions biomethane < GHG emissions FFC reference value

➤ **Mass Balance** Art 30 (1) RED II

- Documentation of the entire supply chain
- From substrates via production plant to the end user



- **Challenge:** Different application purposes pose different quality criteria
- **Proposed solution approach:** Legal anchoring of harmonised auditing criteria for renewable gas

Registry System

AGCS is certified: ISO/IEC 27001 : 2003 & DIN EN ISO 9001 : 2015

Attribute Level 1

**MASTER DATA
Registration**

Production Plant:
Biomethane, electrification

Regulatory notice for
renewable plant

Auditor

Certificate of competence,
certification voluntary scheme

Attribute Level 2

**ENERGY
-CARRIER
-AMOUNTS**

On-grid

Meter data by
grid operators

Off-grid

Meter data by auditors

Attribute Level 3

**QUALITY
CRITERIA**
Substrates,
Technology,
Supply Chain

FiT renewable power
(ÖSG 2012)

Auditing reports

Gas disclosure
(Art 130 GWG 2011, G-KenV)

Confirmation by certification
body according to the
Accreditation Act 2012

Sustainability, mass
balance (Art 25-31 RED II)

Proof of Sustainability
EU voluntary scheme

➤ Producer has to know
application purpose already
at production to choose
suitable audit criteria

➤ ONE comprehensive and
uniform audit enables
validity for

✓ Several certificate types

✓ Several application
purposes

✓ Target compliance

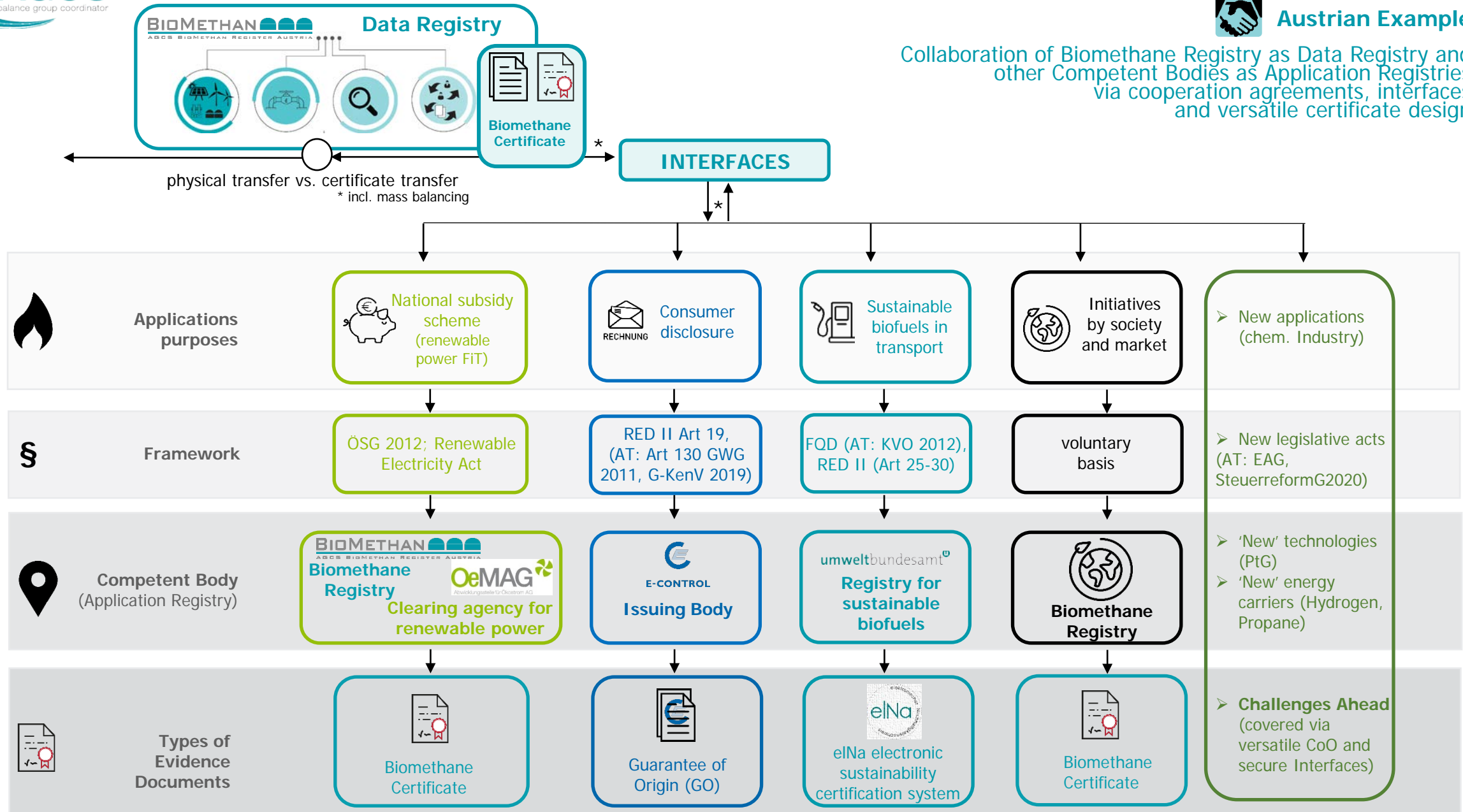
Advantages

- ✓ Simplifies administrative burden for renewable gas producers and auditors
- ✓ Reduces costs for producers of renewable gases
- ✓ Legal harmonisation ÖSG 2012 (renewable power FiT), GWG 2011 (gas disclosure), Steuerreformgesetz 2020 (tax), EAG (renewables increase), Building regulation, etc.

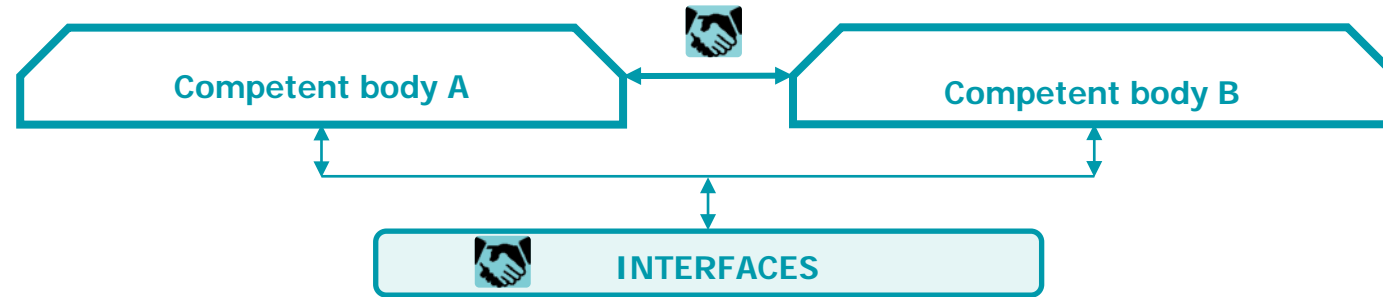




Collaboration of Biomethane Registry as Data Registry and other Competent Bodies as Application Registries via cooperation agreements, interfaces and versatile certificate design



COUNTRY 1



SCHEMES

administration of
European data
exchanges and
ownership transfers

Information and
exchange via
REGATRACE
Renewable Gas Trade Centre in Europe



- ERGaR European Renewable Gas Registry
- ERGaR Schemes
- Mass Balance along the interconnected, European gas grid



- AIB Association of Issuing Bodies
- EECs Scheme (European Energy Certificate System)



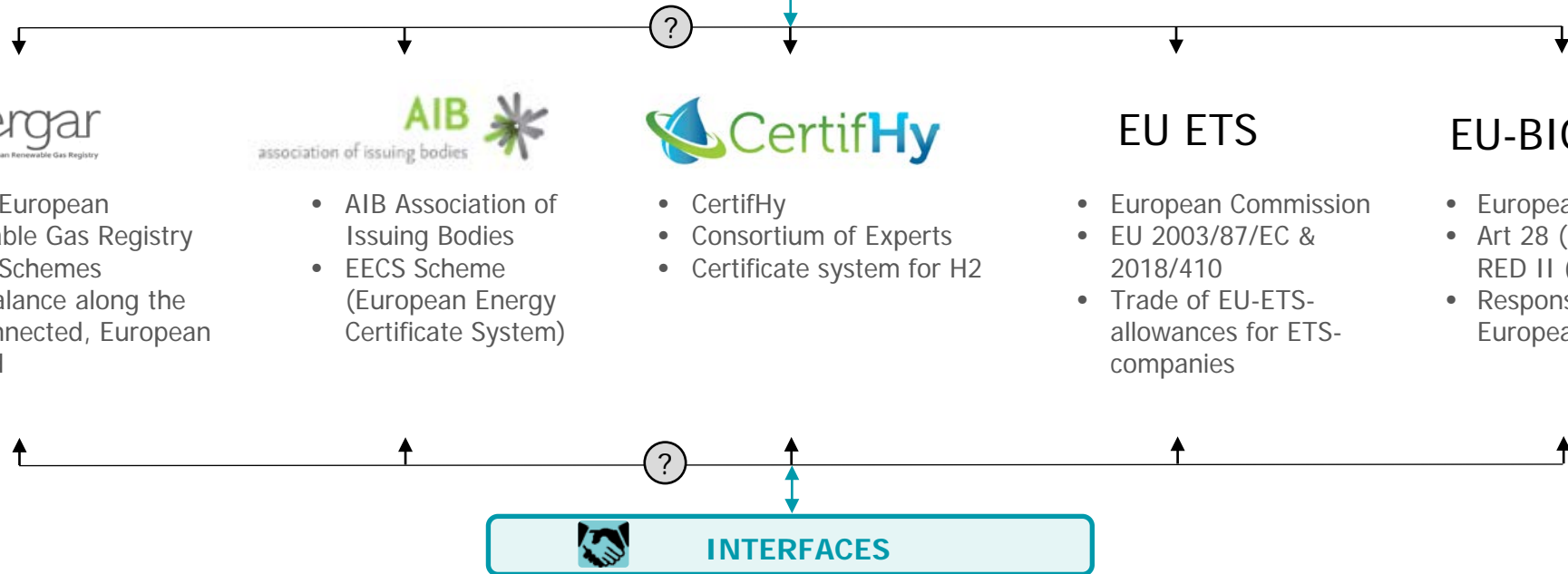
- CertifHy
- Consortium of Experts
- Certificate system for H2

EU ETS

- European Commission
- EU 2003/87/EC & 2018/410
- Trade of EU-ETS-allowances for ETS-companies

EU-BIOFUELS

- European Commission
- Art 28 (2) & 28 (4) RED II (2018/2001)
- Responsibility of European Commission



COUNTRY 2





Target compliance

- **Union target** 
Gross final energy consumption
(Art 3 RED II)
Cert: Green gas seal (Grüngassiegel AT), PoS (EU)

— Sustainable Biofuel

(Art 25-31 RED II)
Cert: eINa (AT), PoS (EU)
Competent body: Biofuel Registry
eINa (on-grid: Biomethane Registry)

— EU ETS

combustion, aviation
(MRR, Monitoring and Reporting Regulation)
Cert: PoS (EU)

Gas consumer disclosure for supplier mix

(Art 19 RED II)
Cert: HKN (AT), GO (EU)
Competent body:
GO-data base E-Control (AT)

Subsidy scheme

Renewable Power FiT
(ÖSG 2012)
Cert: Biomethane Certificate
Competent Bodies:
AGCS Biomethane Registry & OeMAG

Tax advantages

Natural gas delivery refund
(Steuerreformgesetz 2020)
Cert: PoS
Competent Body for biofuels: eINa

Future applications

e.g.: chemical industry
(bio methanol)
e.g.: recognition for
CO₂/GHG savings

Initiatives of society and market

Framework: voluntary basis
Cert: Biomethane certificate (AT),
Certificate of Origin (EU)
Body: AGCS (AT)



proposed solution approach: holistic certificate system

... for a European certificate system
for renewable gas

**Integration into European
Energy Market**

**acknowledge biomethane as
green market pillar**

Legal Framework

**harmonisation of cross-
sectional legal matter**



**Certification and
Sustainability**

**harmonised auditing
procedures**

**Competences and
Responsibility**

**central clearing agency /
cooperation agreements**

Contact

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