

Biomethane in Belgium anno 2020

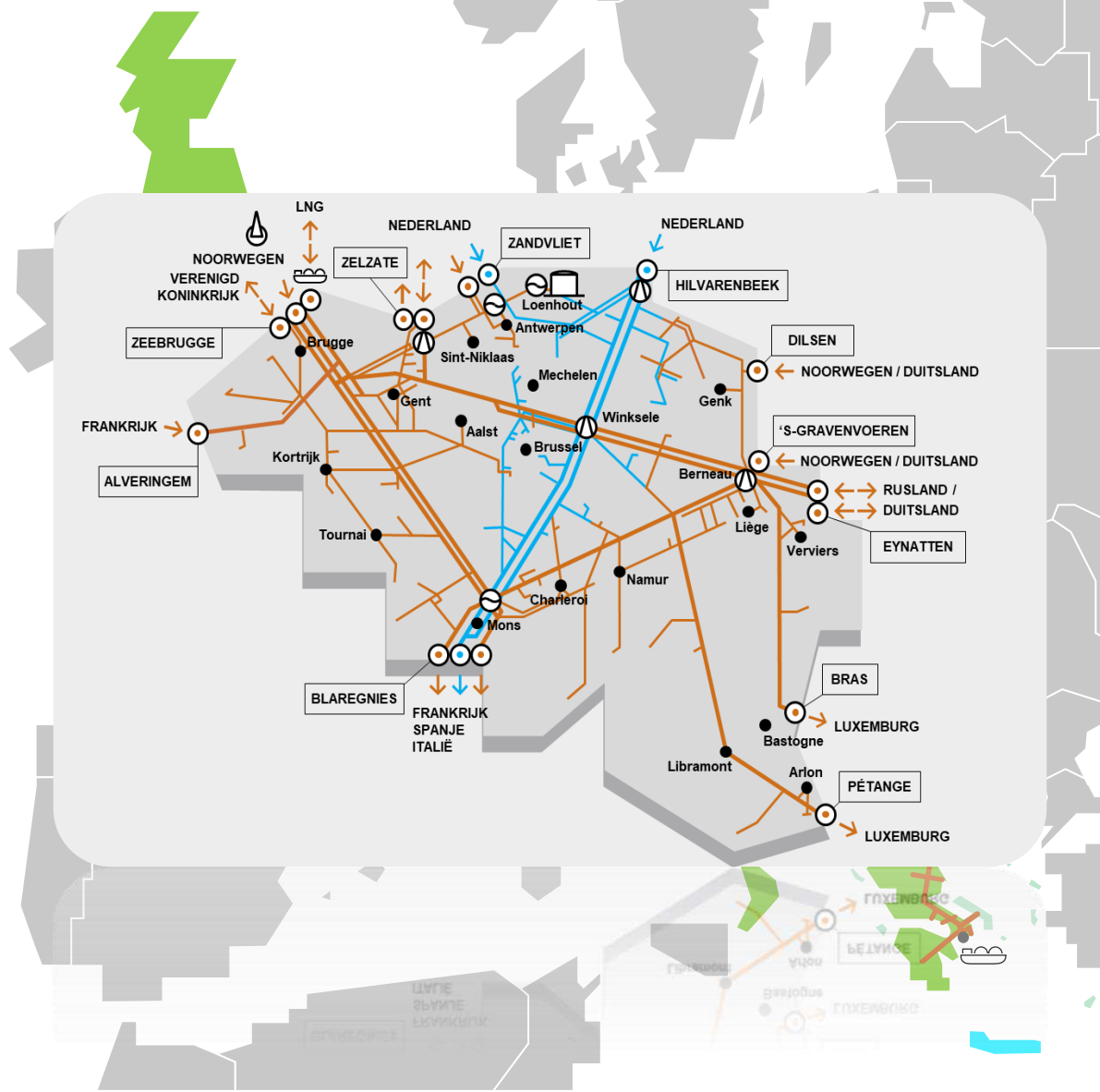
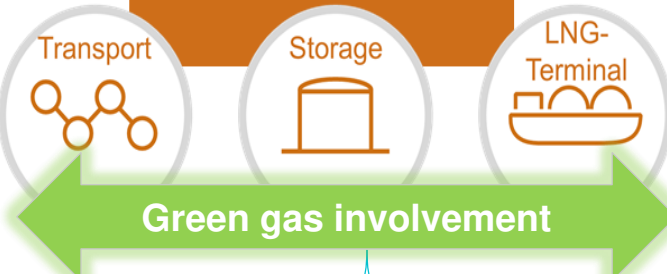
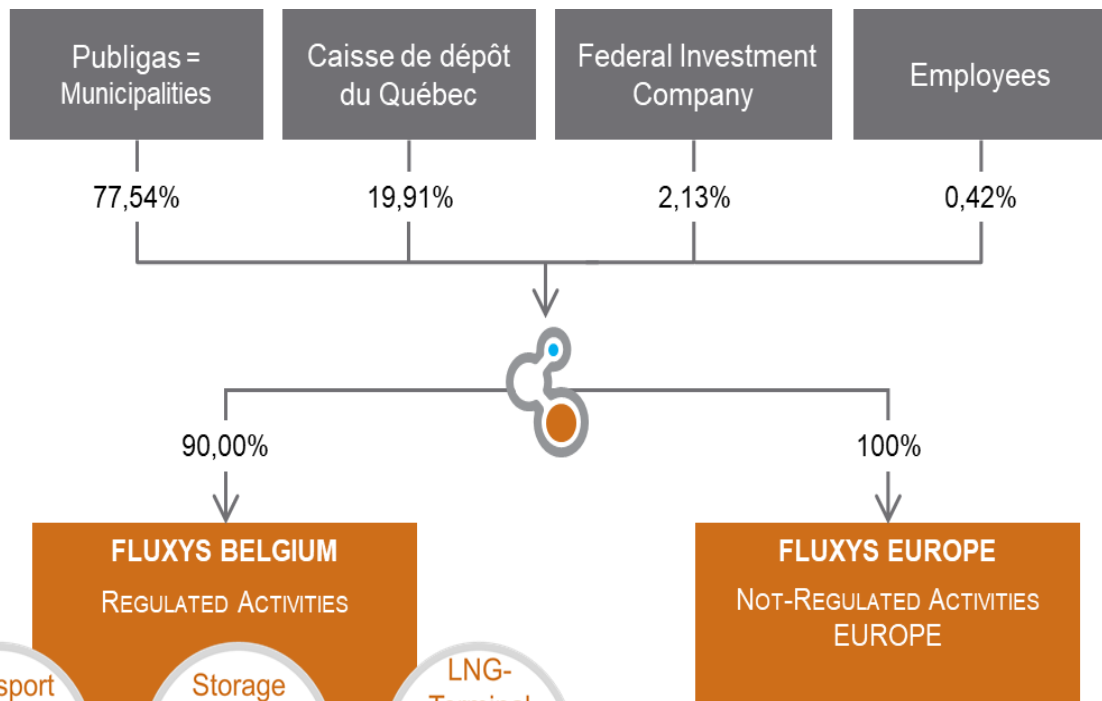


EBA conference

1st September 2020

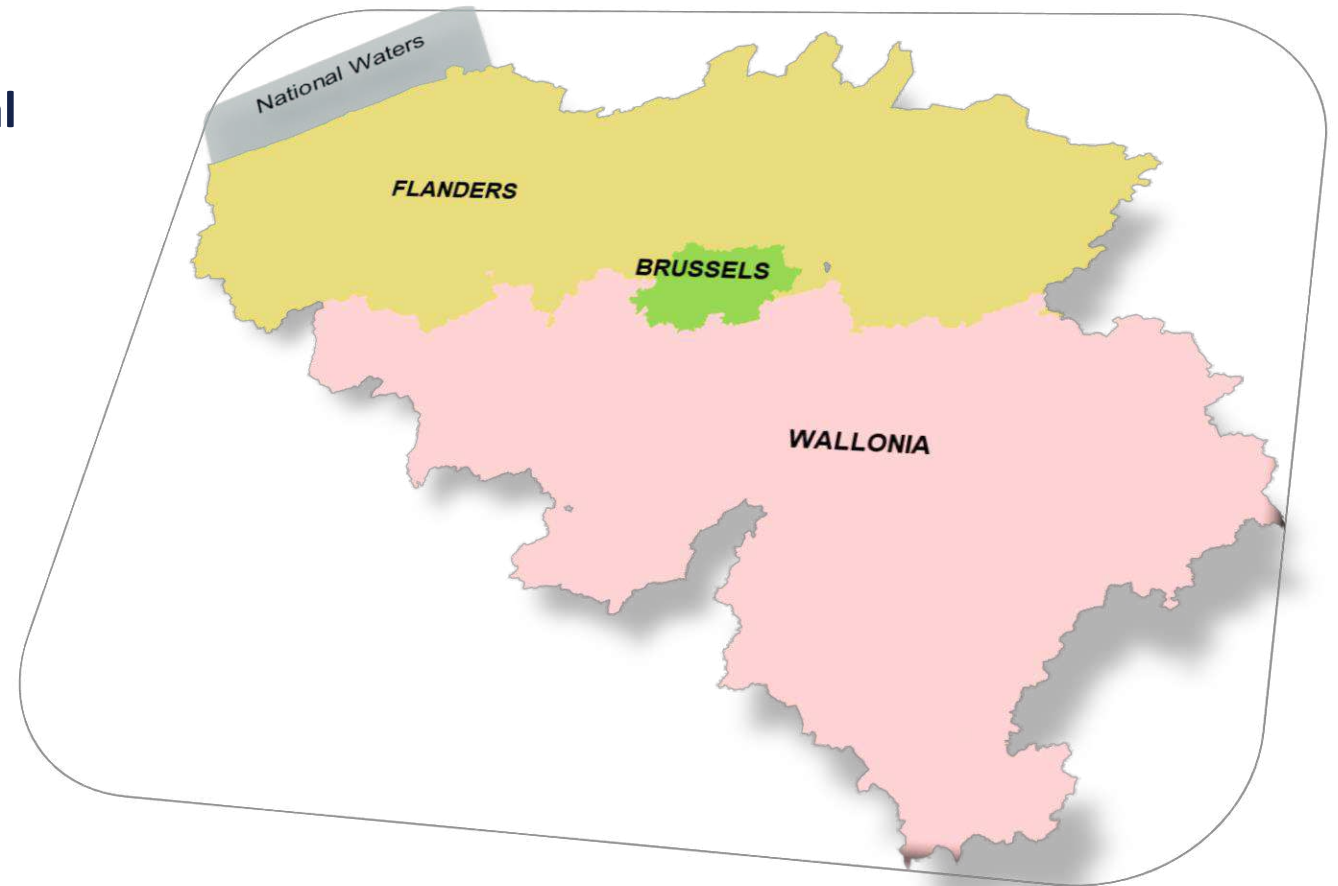


FLUXYS BELGIUM



TOPIC'S FOR TODAY

1. Production and Potential
2. Competencies
3. Support
4. Certification
5. Way forward



EXISTING POTENTIAL FOR BIOMETHANE

1. Today 2,5 TWh/y of biogas is produced in Belgium

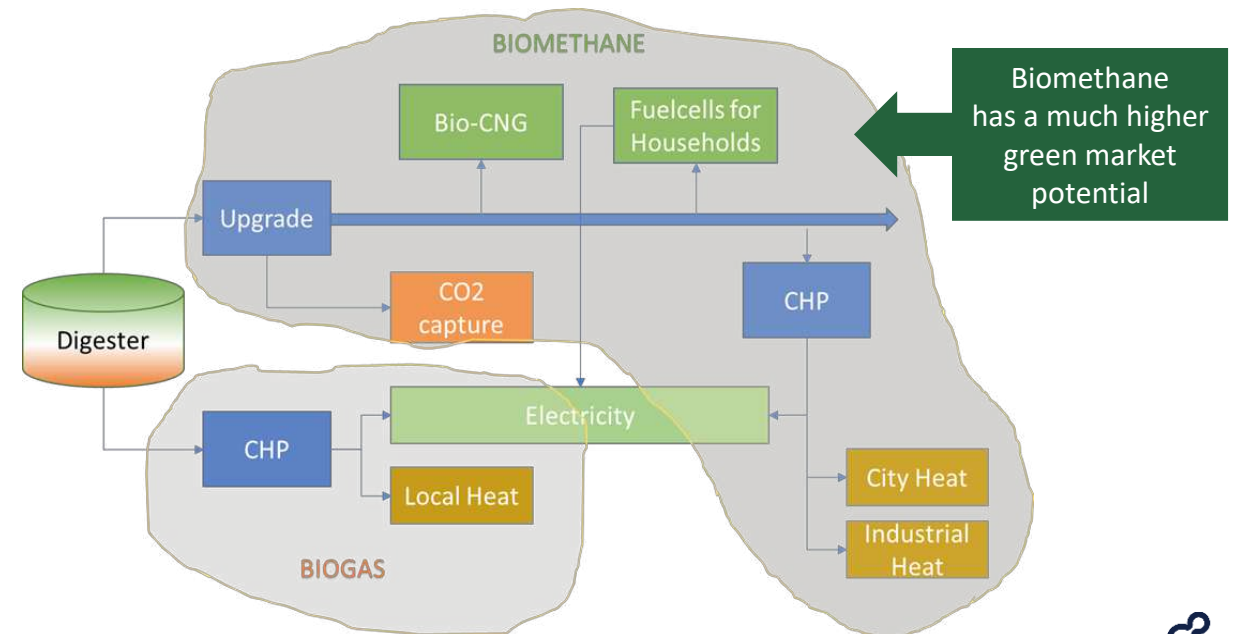
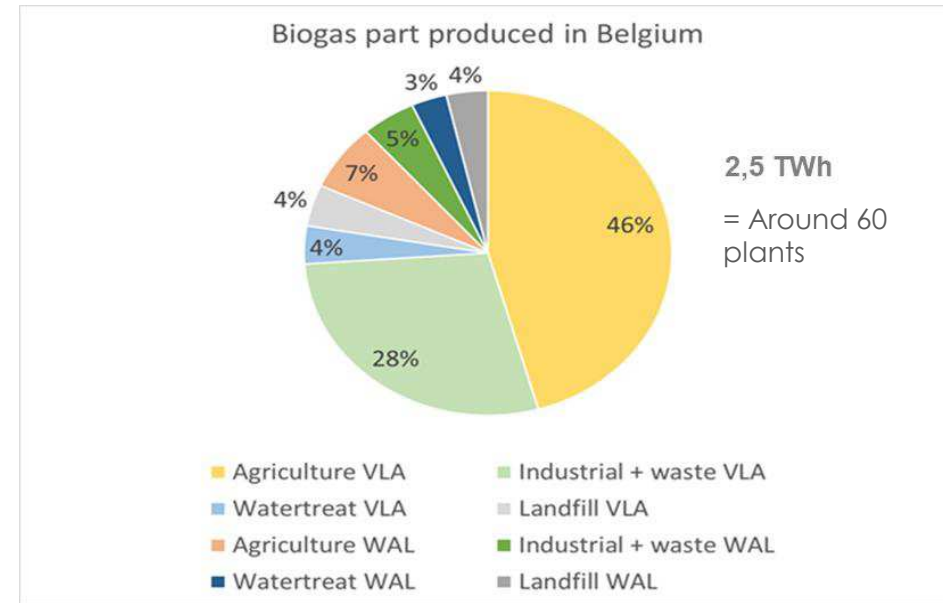
- 2 TWh in Flanders (= 185 MCM)
- 0,5 TWh in Wallonia (= 45 MCM)

2. This biogas is used in local CHP to produce green electricity and receive support here fore

3. As for most of the biogas plants the support for green electricity ends by 2025 there are two options

- Completely rebuild the plant from digester to local CHP
- Keep the existing digester (which can still last for min. 10 y) and convert to a biomethane upgrading and injection in the gasgrid.

Conversion of existing plants to biomethan upgrading should be the first step in the green transition



FULL POTENTIAL FOR BIOMETHANE (STUDY VALBIOM 2019)

1. Today only 2 (new build) plants inject biomethane

- 1 IOK Beerse (greenwaste) → 100 m³/h
- 2 Cinergie Sombreffe (agro) → 500 m³/h

2. The potential for injection is 15 TWh

- ☐ In Flanders 866 MCM/y of 9 TWh/y
- ☐ in Wallonia 593 MCM/y of 6 TWh/y

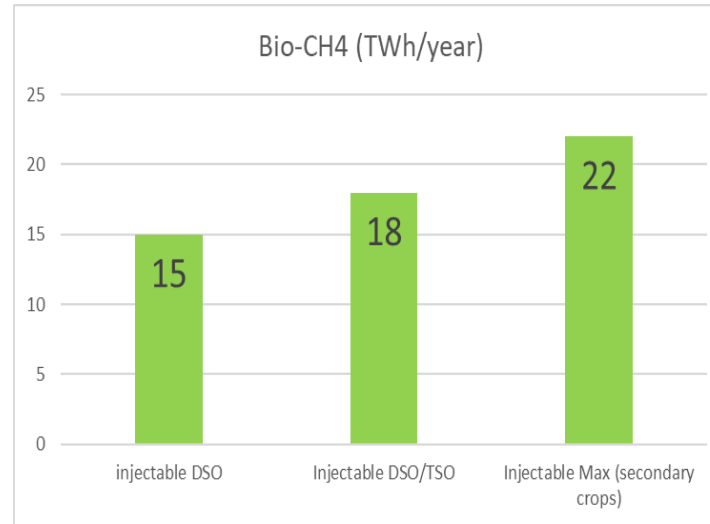
3. This can be increased to 18 TWh

- ☐ With recompression and direct connection to the high pressure grid

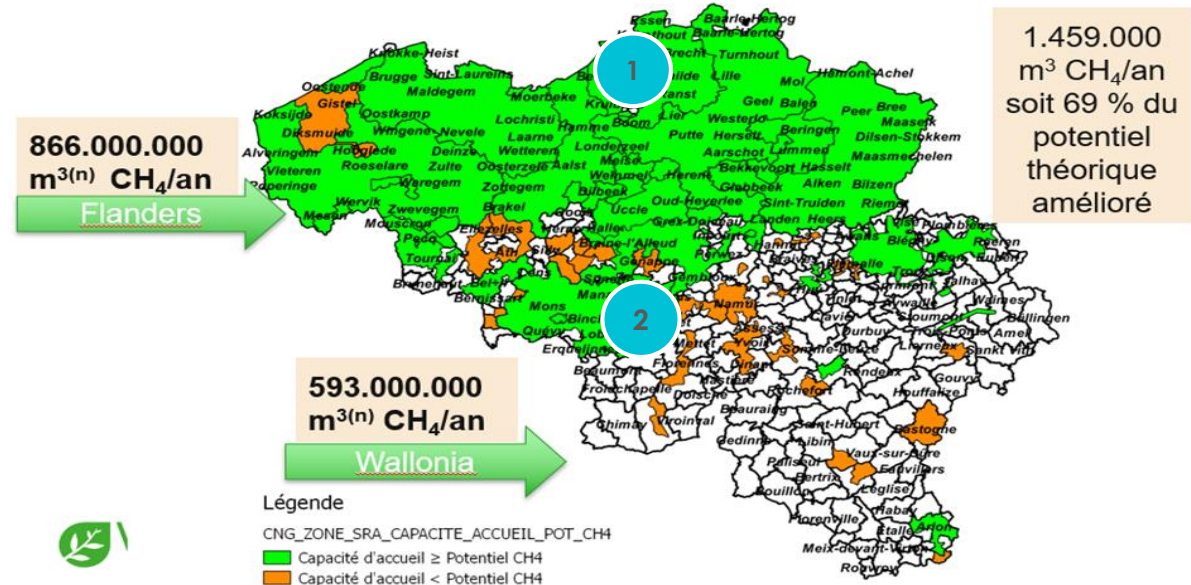
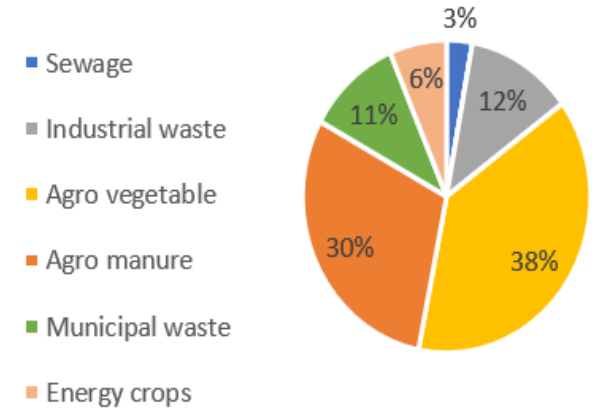
4. The max potential of 22 TWh

- ☐ Is reached with grassland and secondary crop yields

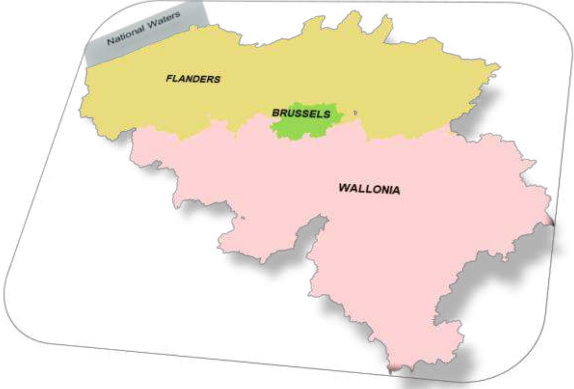
Addressing the unused feedstock can accelerate the green transition



Distribution of 15 TWh potential Total



COMPETENCIES FOR SUPPORT AND CERTIFICATION FOR GREEN GAS



The regional authorities are responsible for green gasses and typically Guarantees of origin and support mechanism

The federal authority is responsible for

- Product standards of Bio-fuels (bio-CNG, Bio-LNG) ⁽¹⁾
- Green gasses in national waters (e.g. power to gas on off-shore windfarms)

Region	RED II compliant Law	System status	
Flanders	Energy decree Aug 2019 is compliant (All renewable gasses)	Registration started in Jan 2020 and GO are tradable as from May 2020	VREG
Wallonia	AGW 2018 not yet fully compliant (only biomethane)	System "Label de Garantie d'Origine" exists but is targeted to support Wallonian CHP	SPW
Brussels	'ordonnance gaz' of Apr 2004 (to be adapted)	No system yet	Brugel?
Federal	Article 5 of the Royal Decree of 2018 , ...	Introduction of Bio-CNG Federal in database	FOD

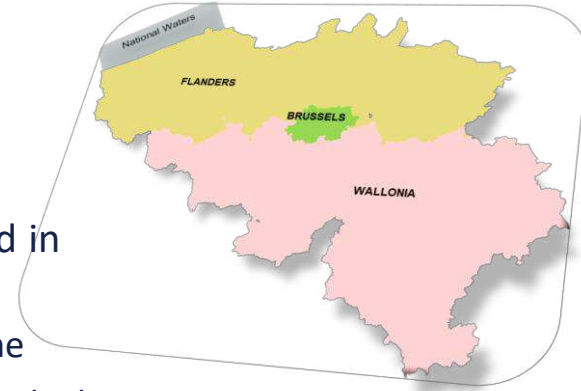
RED II Guarantee of Origin

RED II Biofuels

(1) Under discussion today



SUPPORT MECHANISM IN BELGIUM



1. **Support in Belgium today is focused on biogas to green electricity production (as far as produced in same region as CHP is localized)**
 - **In Flanders** focus is still on local CHP on Biogas and there is today little progress to support biomethane
 - **In Wallonia** the focus has changed in 2018 towards Biomethane upgrading and use in CHP on the gasgrid. This support has proven adequate for biomethane projects to develop
2. **Bio-CNG and Bio-LNG can be an alternative for producers (but usage hereof has not specific support)**

Producer support

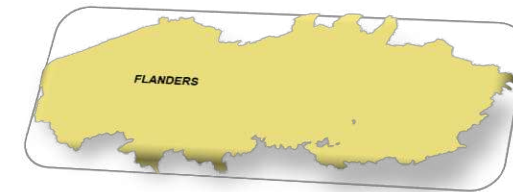
1. Federal: transition fund (ad hoc)
2. Flanders:
 - ✓ Investment support up to 250 K€ for upgrading
 - ✓ Municipal waste up to 1 Mio€ for upgrading
3. Wallonia: None
4. Brussel: None

Consumer support

1. Federal: lower tax regime for CNG/LNG compared to Diesel/Gasoil (not specific for Bio)
2. Flanders: Not for biomethane injected on grid
3. Wallonia: 75 €/MWh support for biomethane for CHP on gasgrid
4. Brussel: similar regime as in Wallonia (but no biomethane production)

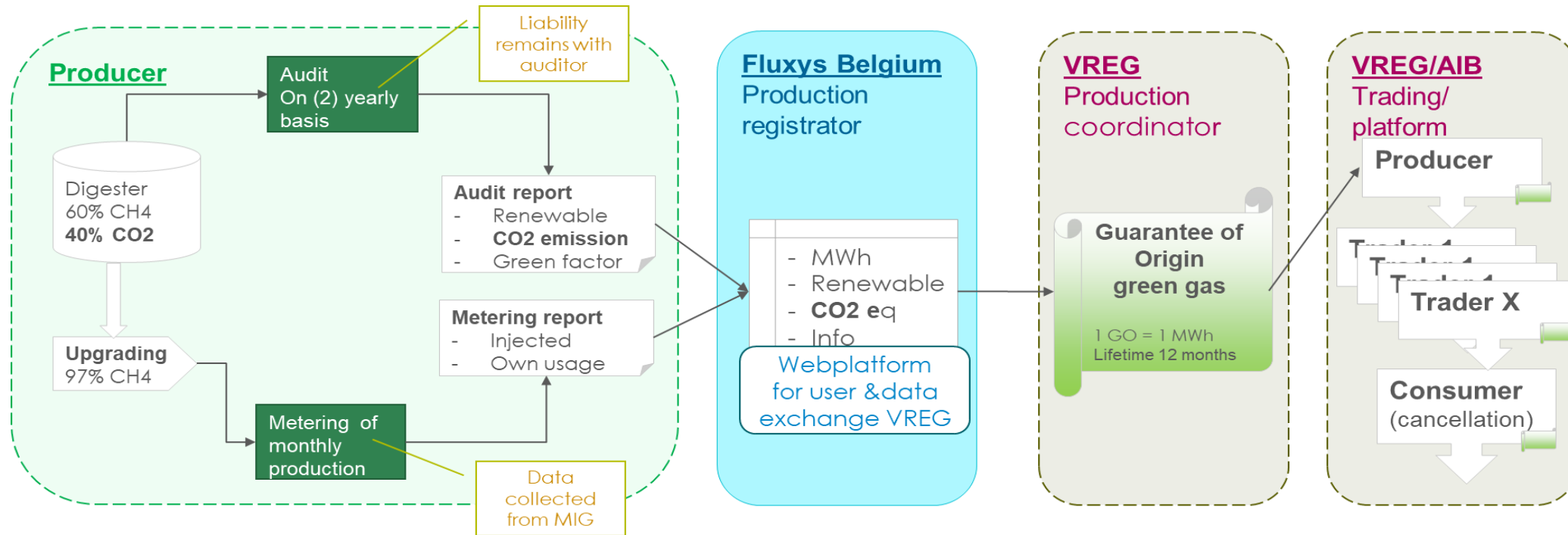
1. **Belgian production in coming years could remain limited due to limited support (certainly in Flanders)**
2. **Demand in Belgium for green gas is strongly increasing**
3. **Consequently the only option is to **IMPORT** certificates (bio-CNG/bio-LNG) or guarantees of origin**





APPROACH GUARANTEES OF ORIGIN IN FLANDERS

1. The VREG (Flemish regulator) as **PRODUCTION COORDINATOR** is competent for issuing guarantees of origin for all renewable production
2. Fluxys Belgium was appointed as **PRODUCTION REGISTRARS** for all renewable gasses



3. Today **IMPORT/EXPORT** of GO's from other regions/member states is not possible ⁽¹⁾

(1) Import for bio)fuel certificates is possible via greengasregister.be (ErGaR based)



WHY BIOMETHANE AND HOW TO REALIZE THE POTENTIAL

WHY

1. The GHG emission for Belgium have to decrease between 2020 and 2030 with almost 7 mio ton

By realizing the 15 TWh potential apx. 90 % of this GHG reduction could be realized (1)

2. 15 TWh would also covers 21% of the Belgian renewable target by 2030
3. By not sustaining the current 2,5 TWh and convert it to biomethane would reverse the current progress
4. Biomethane brings other benefits for the agriculture (e.g. manure treatment) and for recycling municipal waste

Deep Dive Study 2020 for biomethane in Belgium initiated

HOW

1. Create externalities for users
 - Min consumer quota and fuel mix obligations
 - CO2 incentives (other than ETS)
 - Recycling incentives
2. Support for the remaining missing money
 - Support CHP on the gasgrid
 - Support Bio-CNG and Bio-LNG users
 - ...
3. Insure that GO and biofuel certificates can be imported from other countries

We prefer

- Externalities above support
 - Consumer- support above producer-support
- Both do not distort the GO price, and can create preferential consumers**



Thank you for your attention

Time for Questions ?

Don't hesitate to contact me at dirk.focroul@fluxys.com

