

# **EU Biomethane Market Status and Development**

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**CIB on Air  
11 December 2025**

# EBA in a nutshell



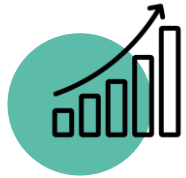
# Representing the full European value chain



# The biogases market in Europe



# 22 bcm of biogases are produced today in Europe



## Combined biomethane and biogas production

»» **22 bcm** in Europe

=

Gas consumption of Belgium, Denmark and Ireland combined

»» **19 bcm** in the EU-27

=

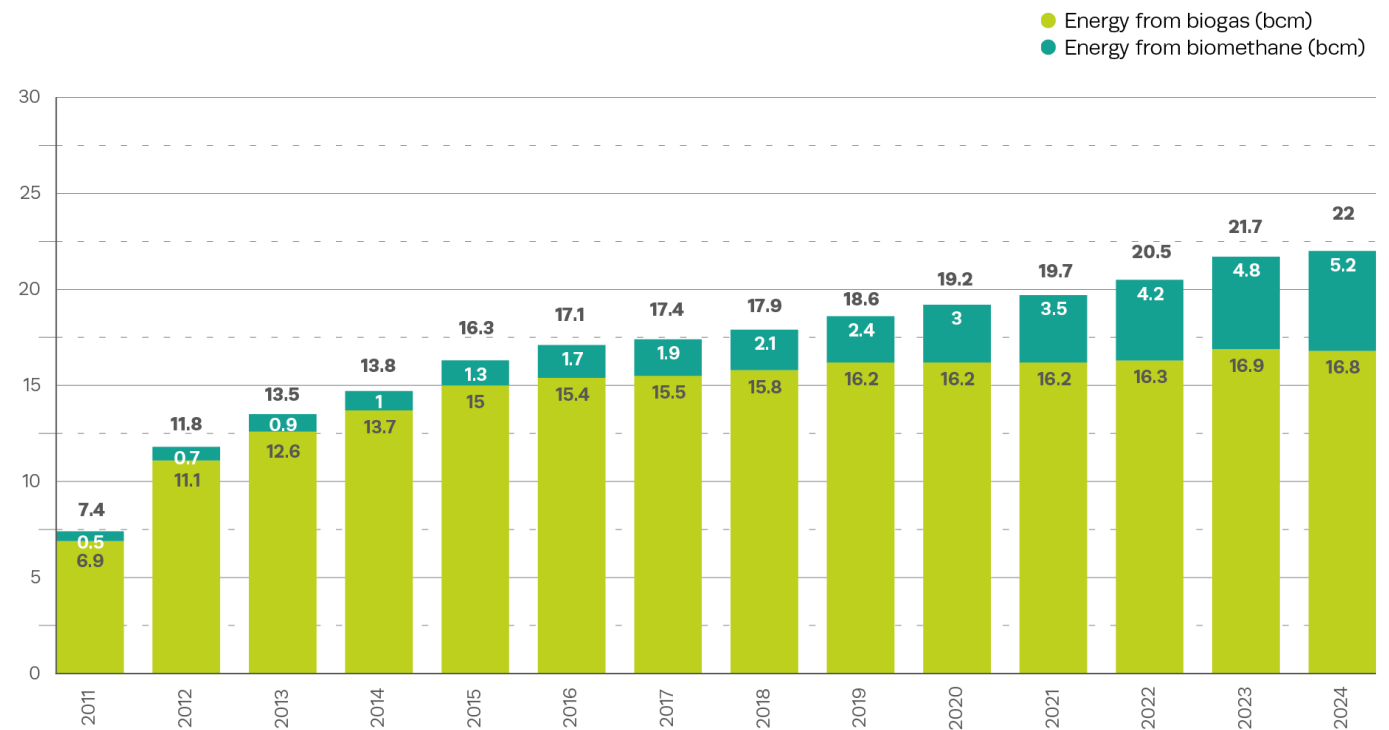
6% of EU natural gas consumption in 2024



## Biogas and biomethane plants

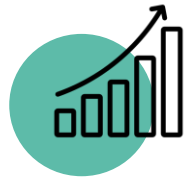
»» **+21,000 plants** in Europe

Combined biomethane and biogas production in Europe (bcm)



EBA ©2025

# 25 biomethane-producing countries in Europe



**Biomethane production in 2024**

»» **5.2 bcm**

produced in Europe

»» **4.3 bcm**

produced in the EU-27



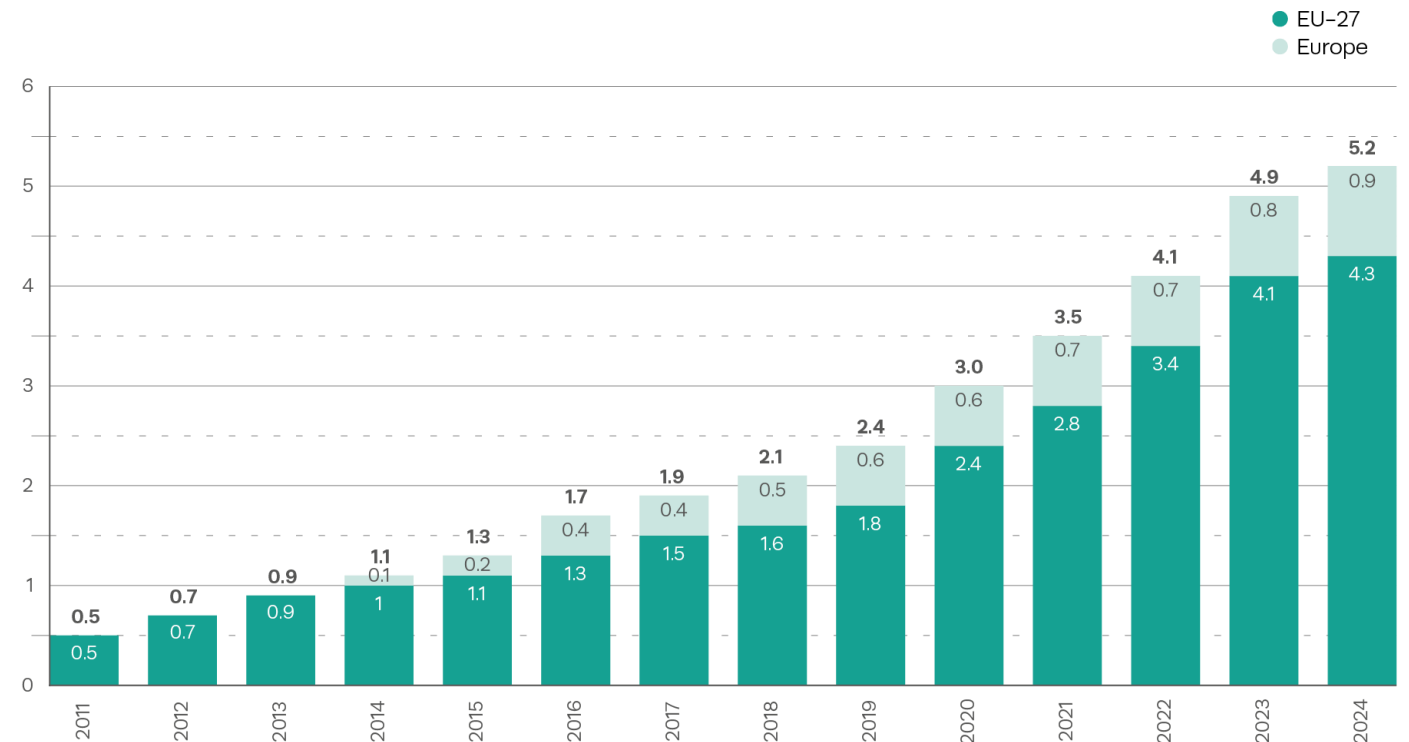
**7 bcm/year**

biomethane installed capacity in Europe (Q1 2025)



**France, Germany, Italy, Denmark, and the UK** are leading the production and scale-up of biomethane

*Biomethane production in the EU-27 and Europe (bcm)*



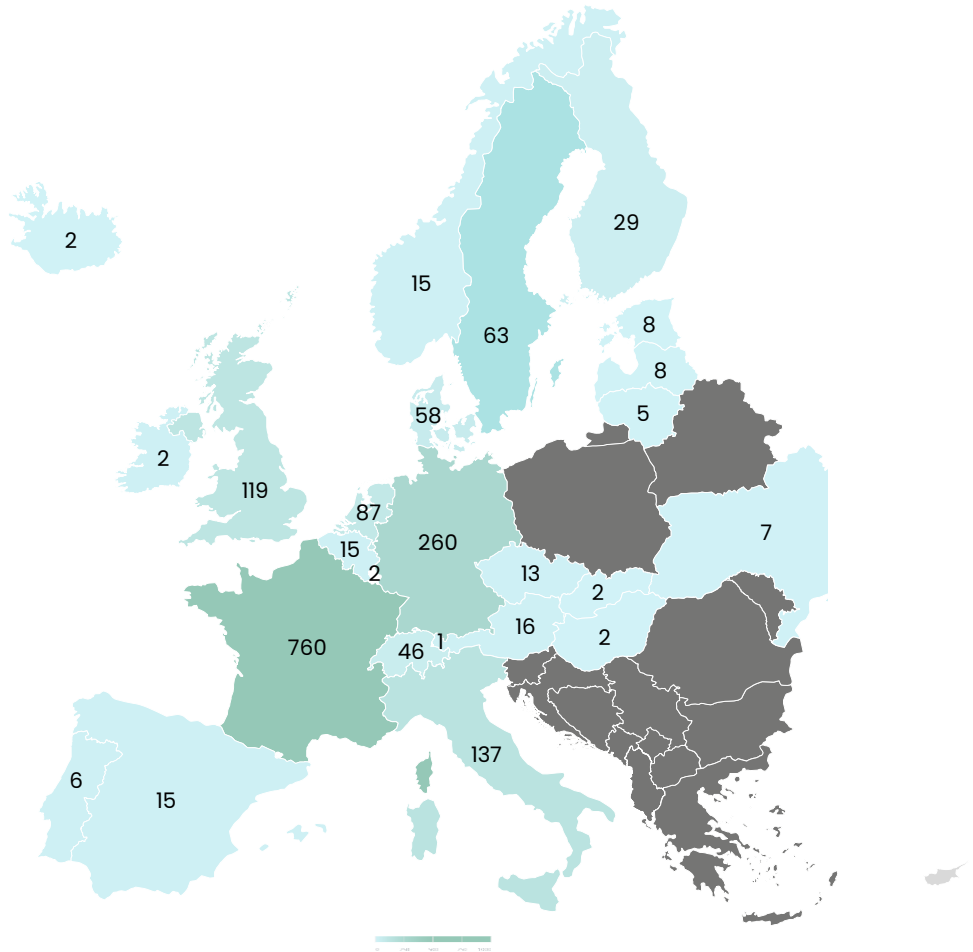
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# Biomethane plants in Europe and EU-27

Number of biomethane plants per country in 2024

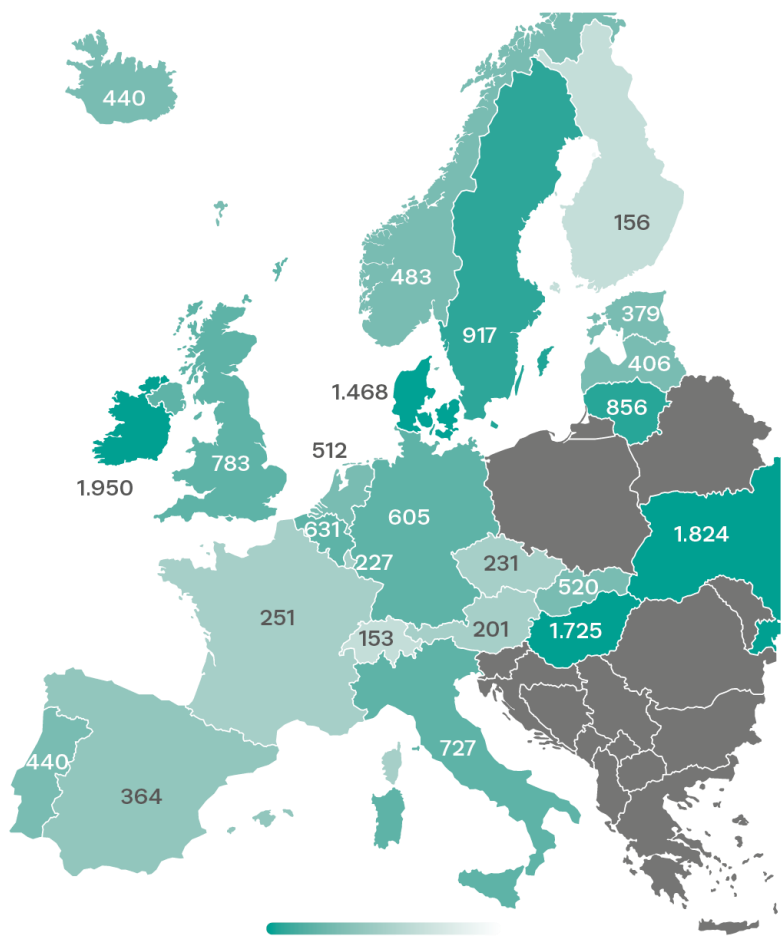
>>> **1,620**  
 biomethane plants  
 in Europe

>>> **1,433**  
 biomethane plants  
 in the EU-27



Average biomethane plant size per country in 2024 (m<sup>3</sup>/h)

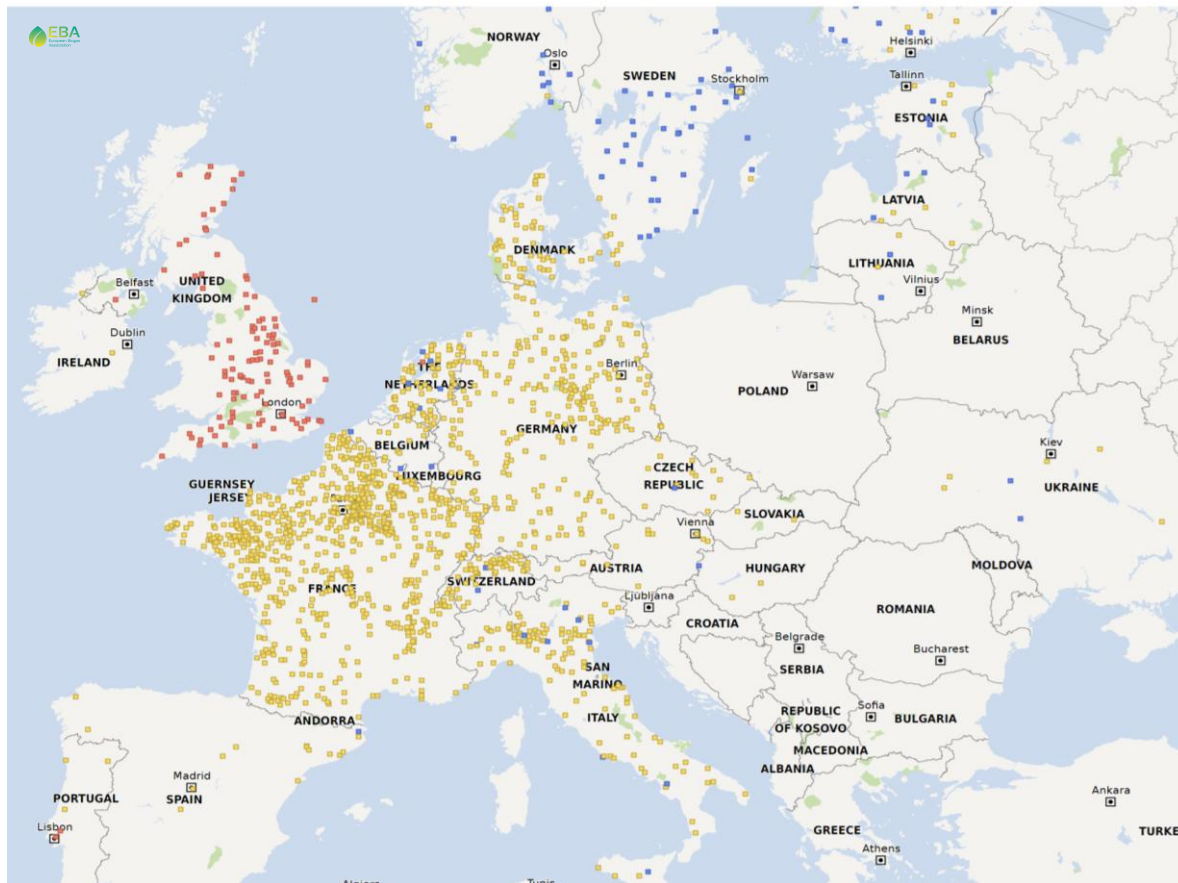
>>> **483 m<sup>3</sup>/h**  
 average size of biomethane plant  
 in Europe



# Grid connections and upgrading technologies

## Biomethane plants connected to gas grid in Europe in 2025

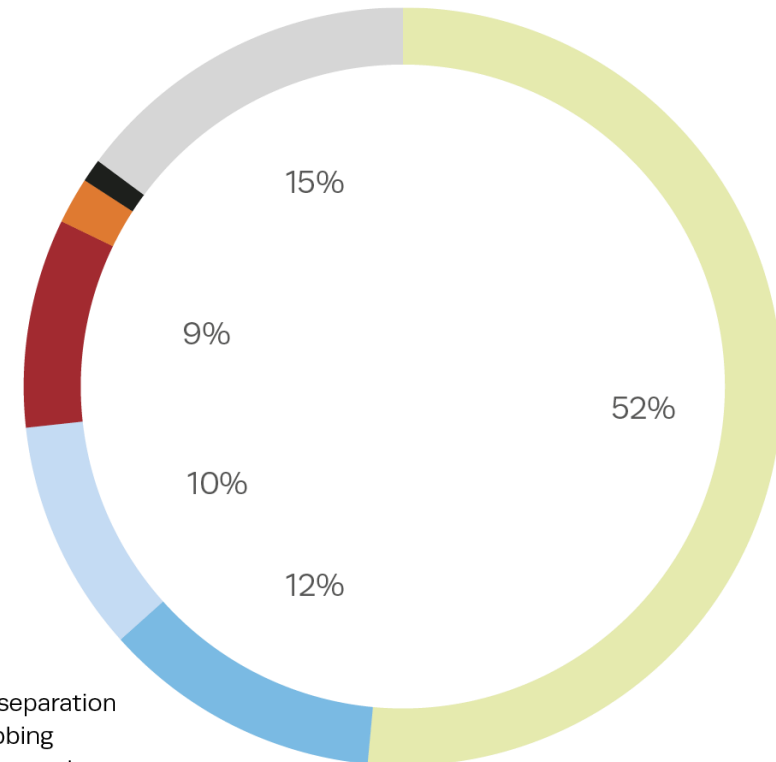
»» **86% connected to grid**  
Mainly distribution grid



*yellow – connected, blue – not connected, red – unknown*

## Upgrading technologies for biomethane production

»» **½ of biomethane plants use**  
Membrane separation



- Membrane separation
- Water scrubbing
- Chemical absorption
- Pressure swing adsorption
- Physical absorption
- Cryogenic separation
- Unknown

# Transition towards sustainable feedstocks

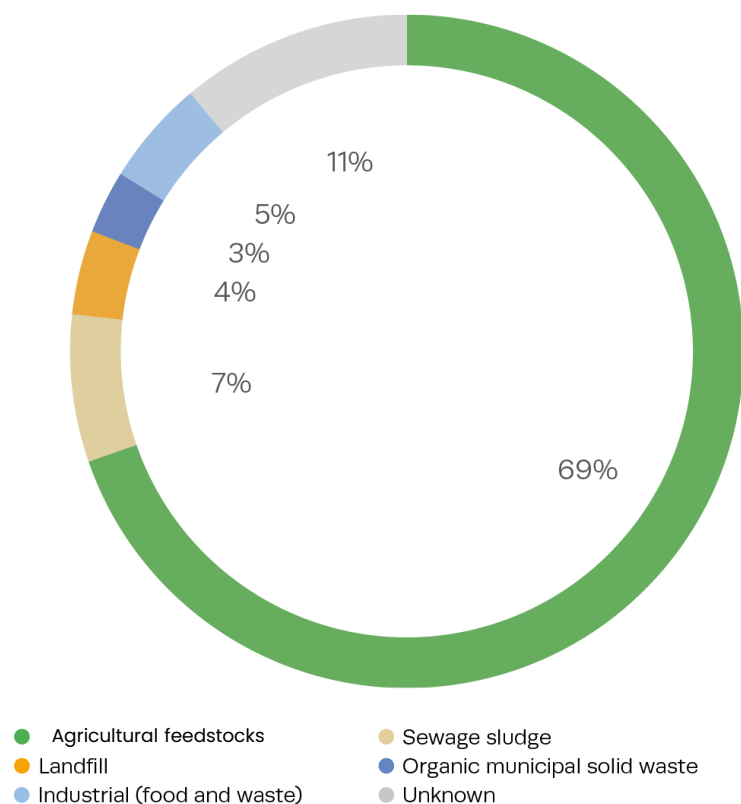
## Primary biogas feedstock:

- Agricultural feedstocks

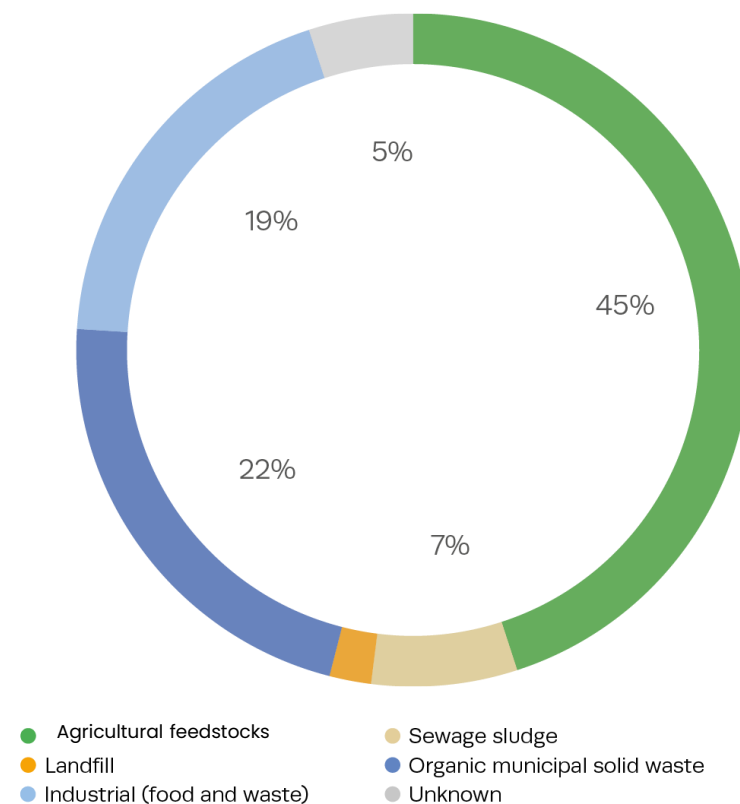
## Primary biomethane feedstocks:

- Agricultural feedstocks
- Municipal organic solid waste

Percentage of European biogas production per plant type in 2024



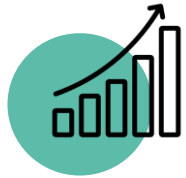
Percentage of European biomethane production per plant type in 2024



# Future potential of biomethane in Europe



# Growth prospects for biomethane



**Continued need for gas in the coming decades**



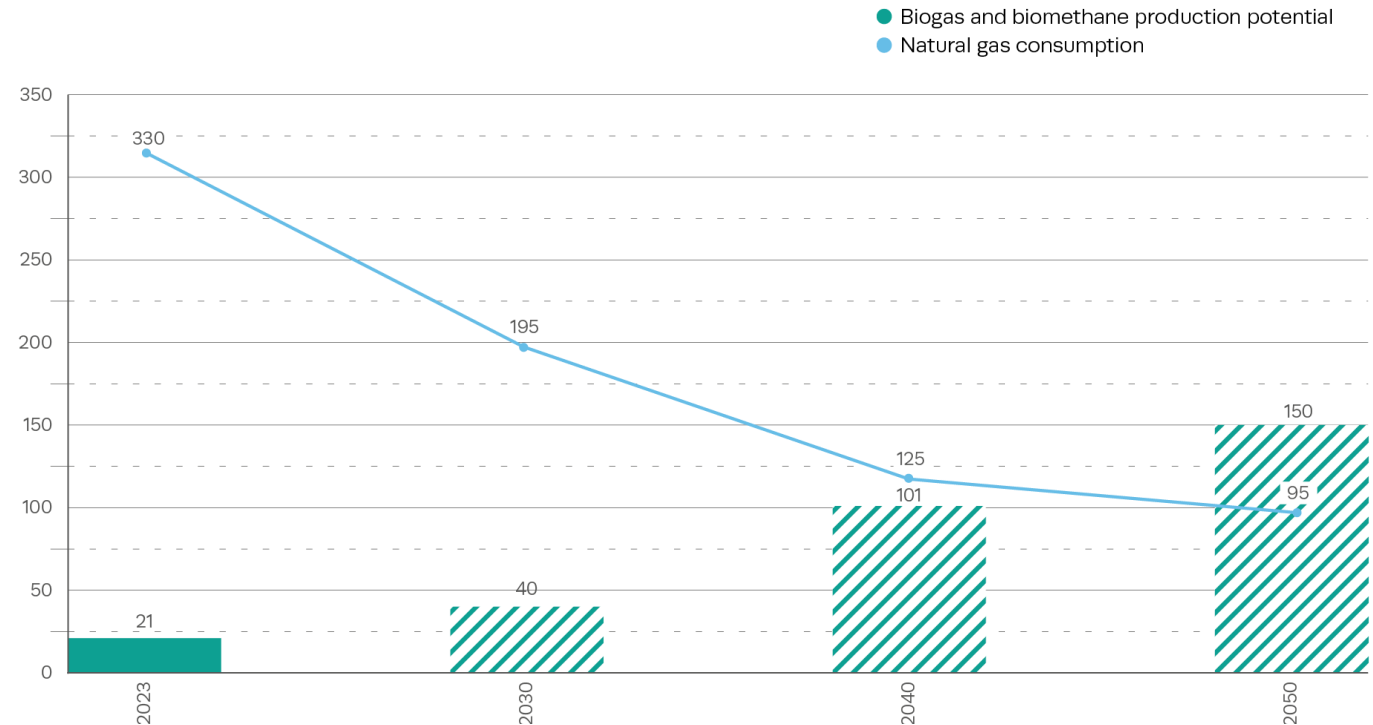
**By 2040–2050**, projected natural gas consumption and projected biogas production potential are expected to converge



**Research and innovation** will unlock further potential for biogases:

- E-methane via methanation
- Gasification

*Comparison of current and potential biogas production in the EU-27 for 2030, 2040 and 2050 with current and anticipated natural gas demand for those years, according to specific EU regulations*

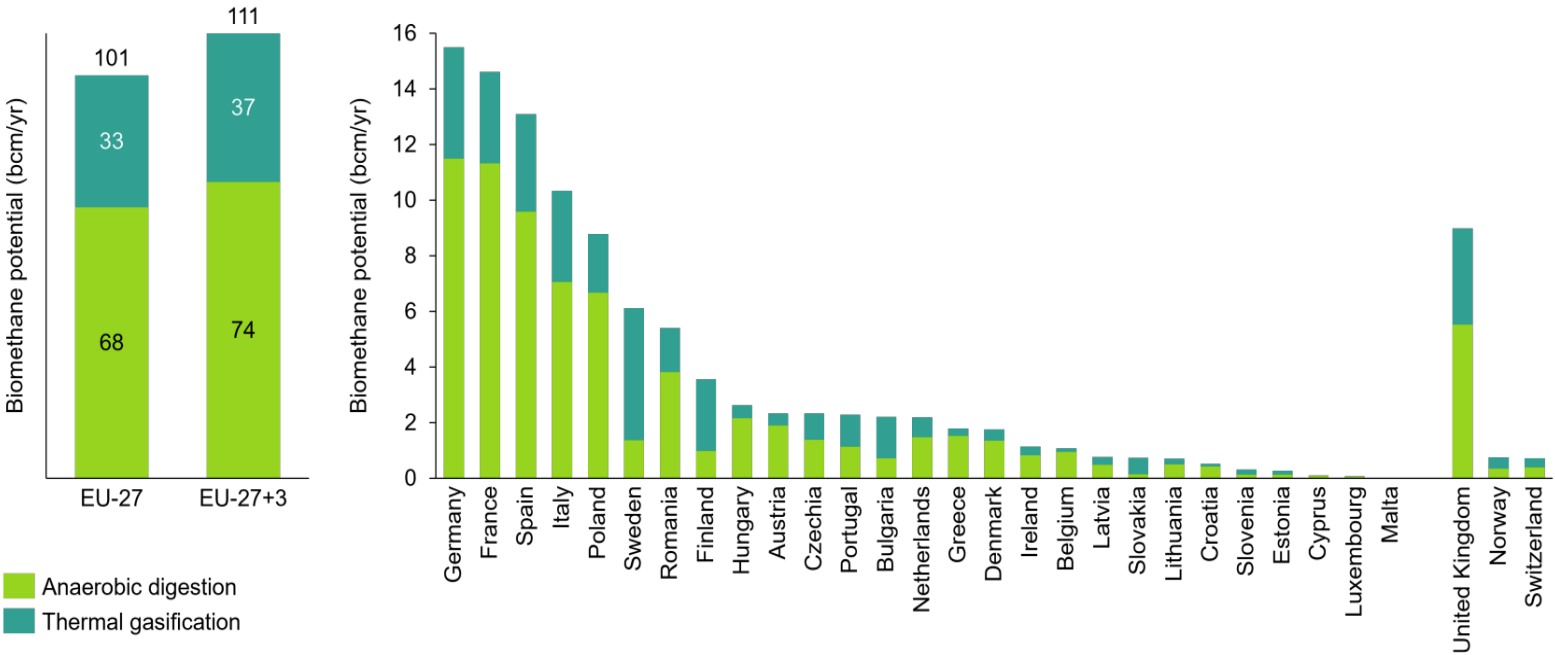


# Enabling a resilient transition

2040

Biogases production could supply **80%** of gaseous fuels demand

## Biomethane potential per country



\* Production based on sustainable feedstocks such as agricultural residues, manure, sequential crops, municipal solid waste, wood waste and forest residues.



Balancing the **ENERGY TRILEMMA** while responding to great societal challenges: waste management, farming emissions abatement, affordability.

# EBA Roadmap towards 2040

Biogases are at the center of **three circular pathways**:



**Renewable energy**



**Organic fertilisers**



**Biogenic CO<sub>2</sub>**

## EBA RECOMMENDATIONS TOWARDS 2040



Binding biogases target of 100 bcm by 2040



European Biogases Charter



National Pledges for Biogases

# Conclusions



# Some critical issues

**1**

## **Full recognition and support**

- Targets on biogases
- Acknowledgement of biogases cost-competitiveness

**2**

## **Address bottlenecks**

- De-risk investments in clean technologies
- Speed-up permitting
- Facilitate grid injection

**3**

## **Resource valorisation**

- Valorise use of digestate as organic fertiliser
- Encourage use of bio-CO<sub>2</sub> as a replacement of fossil CO<sub>2</sub> in industrial processes

# How to boost the scale-up of biomethane?



Solid and consistent **regulatory framework** (clear objectives and guidelines for the industry, positive signals for investors)



Encourage **sustainable** biomethane **production** (compliance with RED III, access to sustainable financing and EU ETS)



Facilitate **grid injection** and **cross-border trade** of biomethane

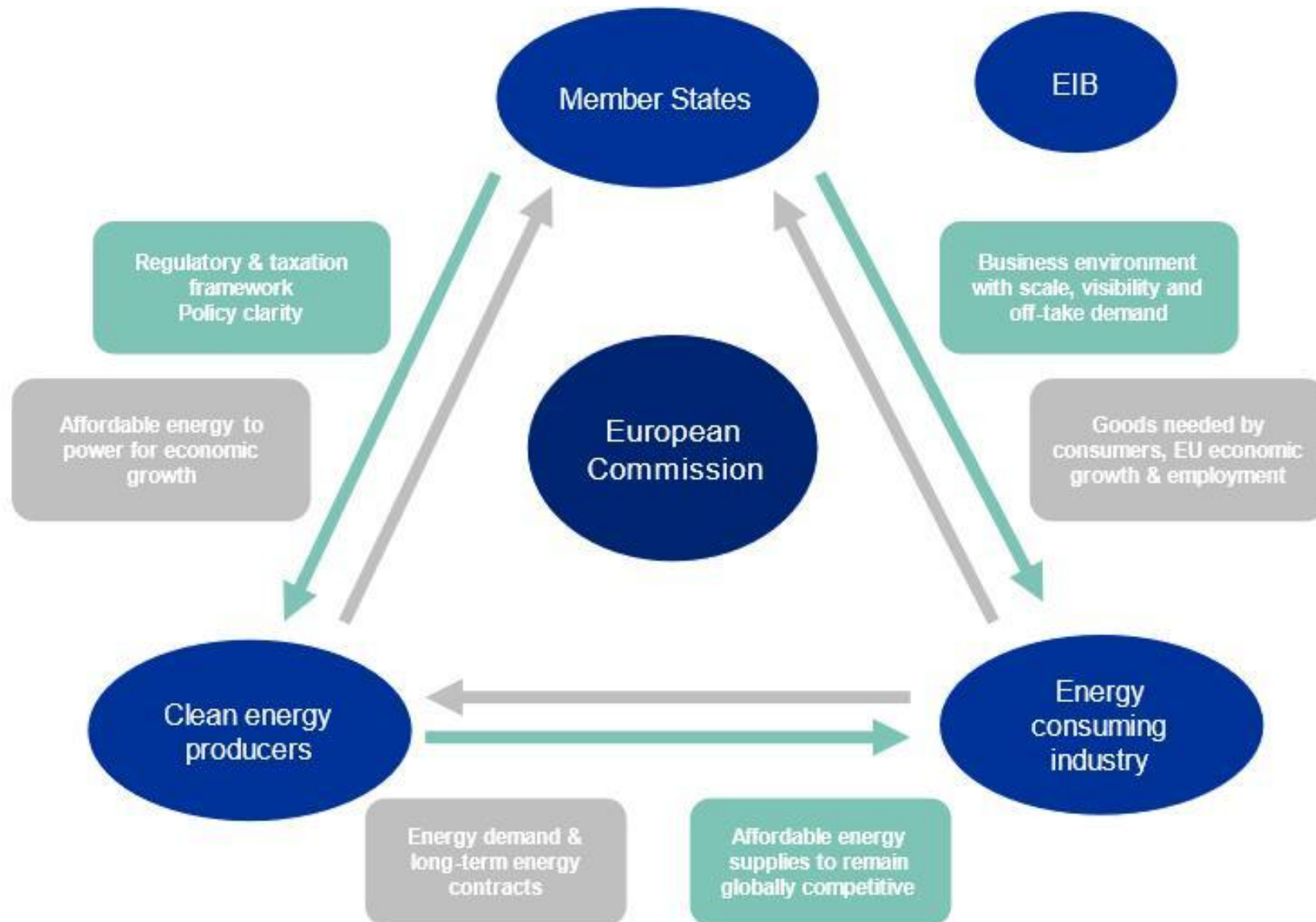


Increase investments on **R&D** to speed-up the development of new technologies, novel feedstocks and improve efficiency

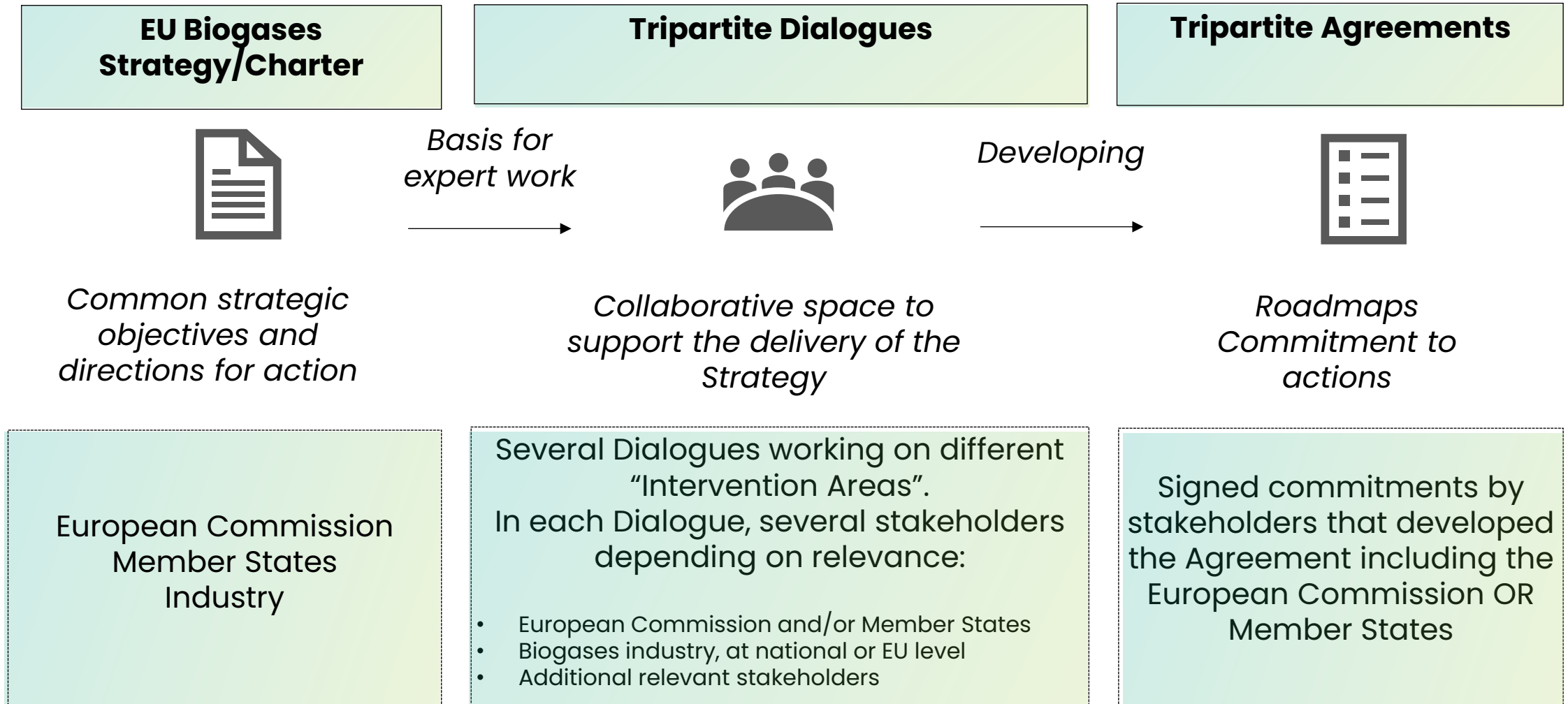


Valorise **digestate and bio-CO2** as biogases co-products

# Tripartite Agreement for Biogas



# EBA's vision on core objectives and governance



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