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Enhancing the uptake of biomethane in Europe

European Biomethane Market Today: The Role of policies and support schemes

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Biogases Today

Biomethane Plants

Support Schemes

Biogases covered 7% of EU gas demand in 2023

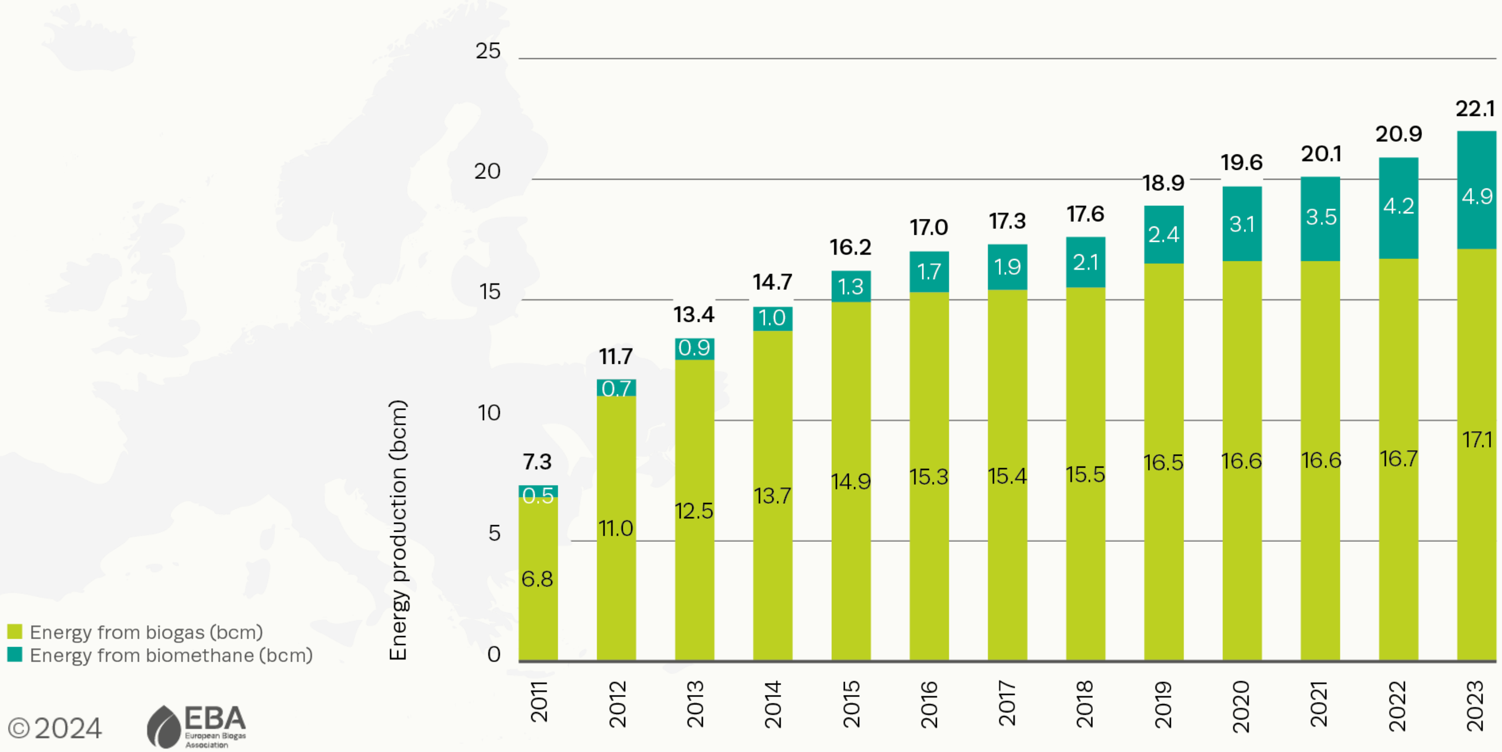
Combined biomethane and biogas production in Europe

22 bcm of combined biogas and biomethane production are produced today in Europe

= Gas consumption of Belgium, Denmark and Ireland combined

= 7% EU gas consumption in 2023

Combined biomethane and biogas production in Europe (bcm)



Biggest growth on biomethane production to date

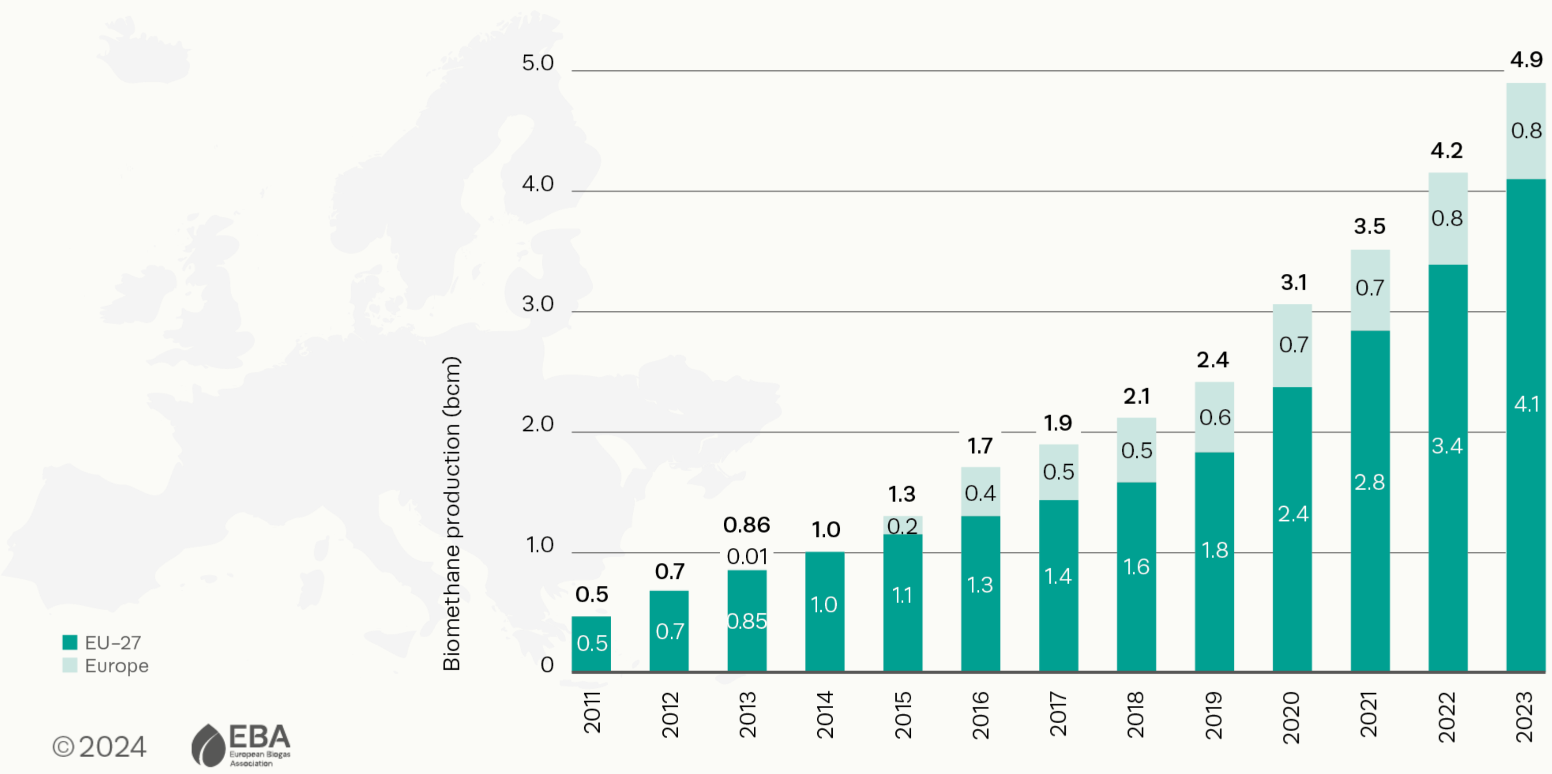
In 2023: 4.9 bcm biomethane production (4.1 bcm in EU-27)

- 18% YoY growth in Europe
- 21% YoY growth in EU-27

In Q1 2024: **6.4 bcm biomethane installed capacity**

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

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



> 200 new biomethane plants in 2023

Development of number of plants in Europe

In 2023:

- **1,510 biomethane plants in Europe**
- **1,324 biomethane plants in EU-27**

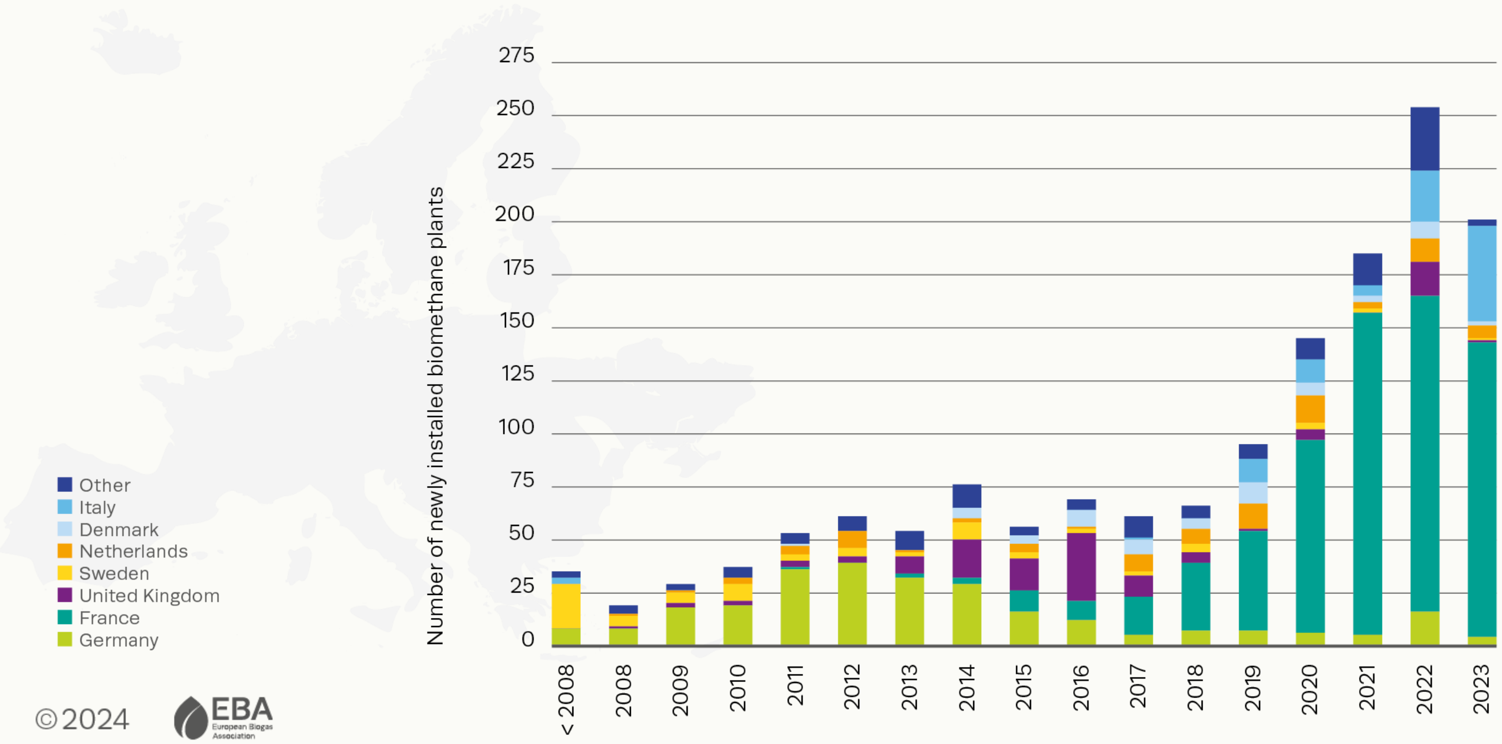
25 biomethane-producing European countries.

The most recent additions are:

- Portugal (2022)
- Lithuania and Ukraine (2023)

> 85% connected to gas grid, mainly distribution grid

Number of new biomethane plants in Europe each year, 2008 - 2023, overall per country



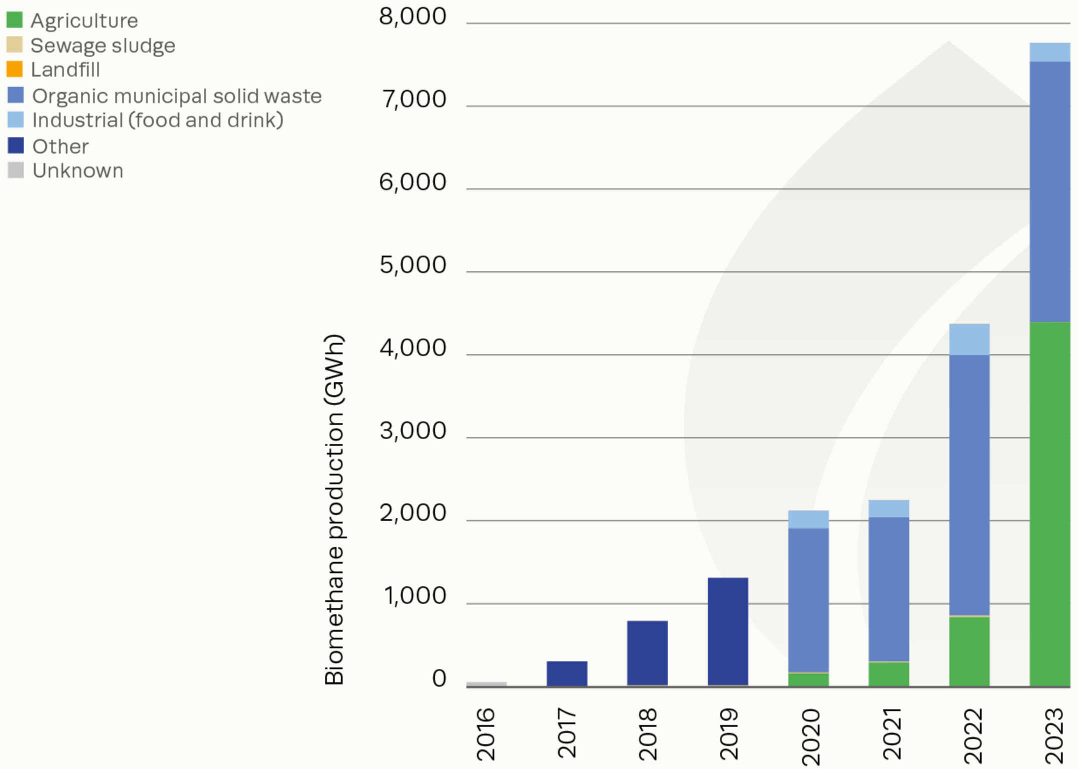
EBA European Biogas Association

Fastest-growing biomethane countries in 2023

Italy

- 78% YoY growth rate
- 735 m³/h
- Biomethane Decree of 2018 and 2022

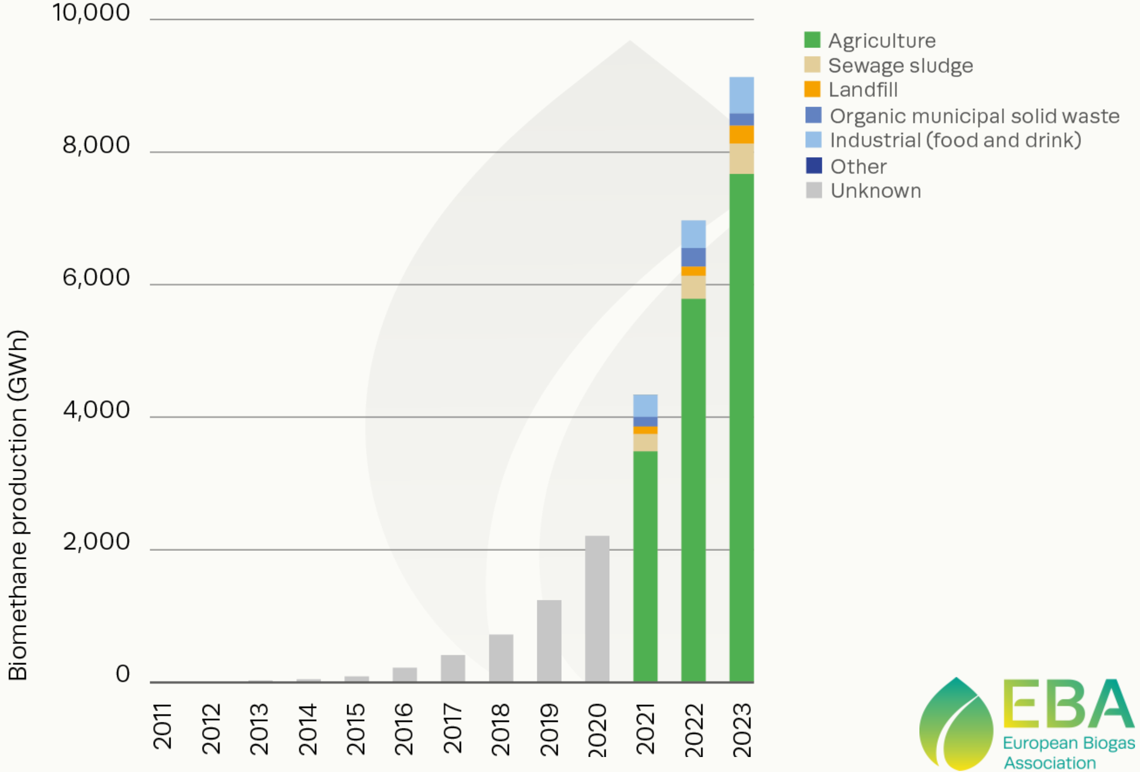
Development of biomethane production (GWh)



France

- 31% YoY growth
- 197 m³/h
- FiTs scheme and Biomethane Production Certificates (BPCs)

Development of biomethane production (GWh)

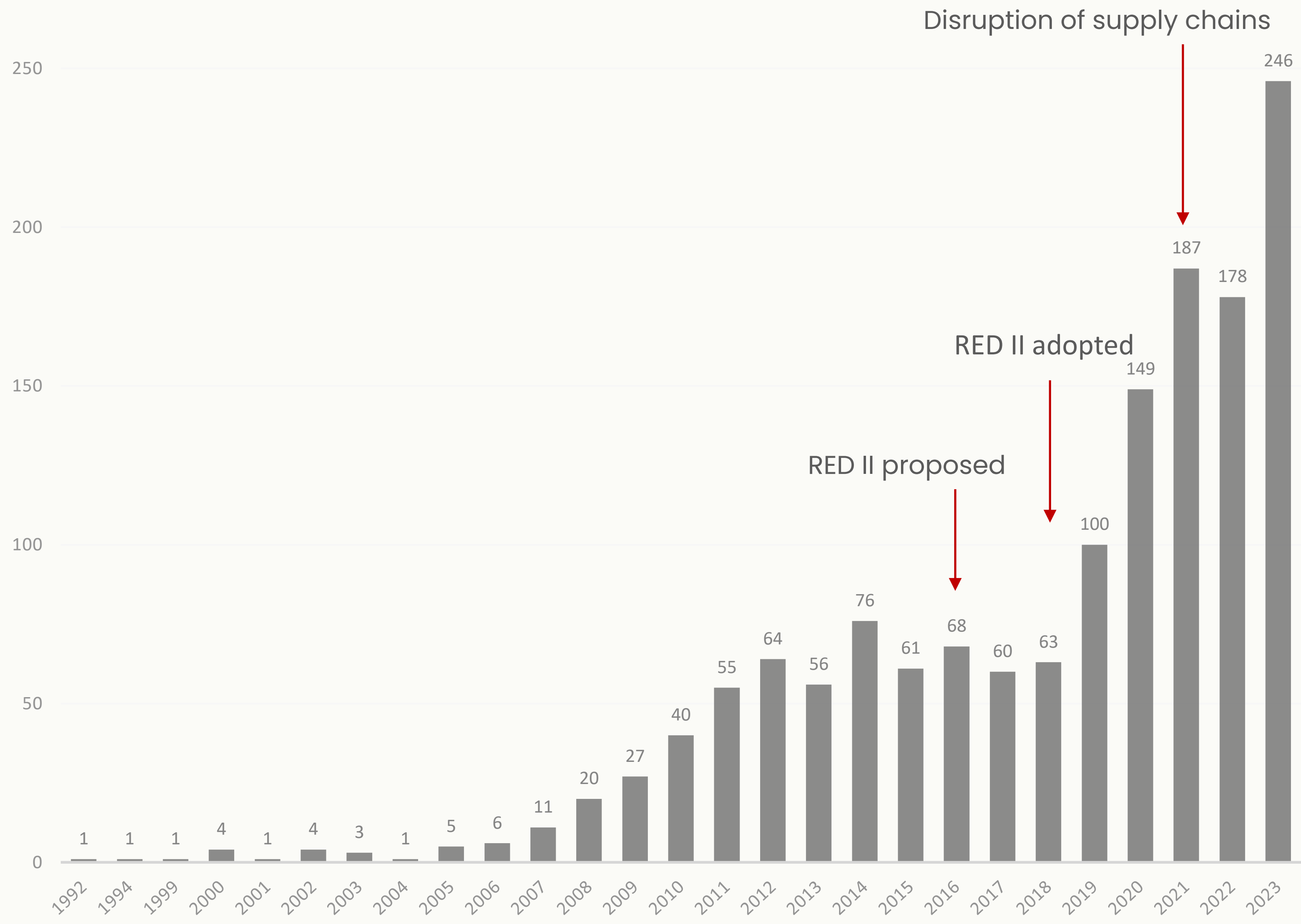


EBA European Biogas Association

Statistics: Historical distribution

Key takeaways:

- Noticeable increase after 2018 RED II adoption
- Increase despite disruption of supply chains in 2020-2022



Number of biomethane plants (that are still operational) per their start of operation year

EBA European Biogas Association

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Enhancing the uptake of biomethane in Europe

Best practices for biomethane supportive policies: Conclusions from the experience of 10 European countries

Policy Workshop – 25 March 2025

Prepared by:

Anthony Lorin, Policy Officer, European Biogas Association

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Content

I. Purpose and scope

Purpose

- Provide a **summary** of **positive policies** for the development of **biomethane** markets
- **in 10 countries**
- **to stimulate debates and analysis** in the 10 target countries of GreenMeUp

Country scope

Austria, Denmark, France, Germany, Italy, the Netherlands, Norway, Switzerland, Sweden and the United Kingdom

- **10 first European countries** in biomethane production in 2020
- **96%** of European biomethane production
- Most of these 10 European countries experienced significant growth over the 2011-2021 period

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Policy scope

- **A** Vision and targets
- **B** Direct investment and production support
- **C** Indirect production support
- **D** Market access regulation
- **E** Demand-side incentives

II. Recommendations & Examples of supportive policies across 5 areas

Examples from the previous decade and the last 4 years

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A – Set an official stable vision for the sector's development

- Create a strategy or an action plan on biogas and biomethane (like Norway).
- Set renewable gas targets in the law (France, Denmark) and, where hydrogen is predominant in public policy
- Set indicative target for biomethane development on medium term (France, Italy).

"**Action plan for biogas**" published in January 2021

- Clarifies the GHG reductions enabled by biogas
- Outlines existing and future support measures

The adoption in 2015 of **a binding renewable gas target** for 2030 was a strong mobilising signal for emerging biomethane market and gas grid operators.

Following new geopolitical developments, France & Italy **increased** their indicative **biomethane target** in the revision of their NECPs (2024).

France	14-22 TWh	→ 44 TWh in 2030
Italy	44 TWh	→ 60 TWh in 2030

Denmark set in 2022 an ambitious goal to achieve **100% green gas consumption by 2030** (instead of 2035 initially). This is part of a broad agreement of the current governmental coalition.

See maps in Annexes

B – Trigger a quick start through direct support

- Open-access feed-in tariff for biomethane is the most effective means to launch a market in the first years, with possibility to incentivize the use of specific feedstock types (most countries).
- It can switch to an auction-based system to incentivize cost-effectiveness and keep public spending under control (France).
- Incorporation obligation are an complementary route to direct support (France)

4 new feed-in tariffs between 2021-2024 in the UK, Italy, Switzerland and Sweden

- All values the recycling of manure, including by giving extra-payment for its use.
- In Sweden, gasification is within eligibility scope.
- British scheme is funded by a tax on fossil fuel suppliers.

1 new incorporation obligation as a new mechanism not relying on public finance: From 2026, gas suppliers must match the volumes of green gas gas delivered to the residential and tertiary sectors with volumes of domestic biomethane in 2 ways:

- Direct production.
- Purchasing a new type of domestic certificates (CPB) from producers.

Objective: supporting additional > 10 TWh over 3 years.

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C – Improve the business case of producers through indirect support

- Removing barriers to digestate marketing in the fertilizer market (Sweden).
- Channel food waste to anaerobic digestion (UK).

A government-launched **quality assurance scheme** built trust in **digestate as a fertilizer** from 1999 onwards.
As a result, in 2016, 99% of digestate produced in co-digestion plants (most of them using food waste from households as substrate) was already used on agricultural lands.

Mandatory food waste collection with anaerobic digestion as preferred treatment solution

- Mandatory food and garden waste collections from households will be required from March 2026
- Food waste collections from businesses and non-domestic premises required from March 2025.
- Anaerobic digestion was officially stated as the preferred treatment for food waste

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D – Enable grid injection and market recognition as soon as possible

- Create a right to inject for project developers, whether they are in a gas-served area or not (France, Germany, …).
- Implement a cost-sharing mechanism for grid connection CAPEX (France, Germany, Austria, …).
- Create a Guarantees of Origin system that will enable green premium recognition (Switzerland in 2024).

They were among the first countries to implement **a right to inject** based on 2 main principles:

- Obligation for grid operators to address connection requests
- Denial must be transparently justified on technical and economic reasons

It was an enabler of sharp growth of biomethane production and injection.

A **government-mandated GO Registry** has been operational since 2024. Operated by Pronovo, the registry is connected to Ergar’s hub, enabling cross-border transfer from/to Austria, Denmark, Germany, U.K., Slovakia and the Netherlands.

Legislative reform set up a **cost-sharing principle for grid connection building**. The grid connection has to be paid by the grid operator

- Up to 3 km for new biomethane plants and
- Up to 10 km for existing biogas plants which switch to biomethane.

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E – Give strong demand signals

- Mandatory target of advanced biofuels and biomethane or a GHG reduction obligation are also effective towards motor fuel suppliers.
- Tax exemption or reduction are effective market signals towards end-consumers.
- Equal treatment between biomethane and other RES fuels in public procurement.

High ambition for "advanced biogas and biofuels"

- Implementation of RED II by Dutch and Italian governments led to higher targets for "advanced biogas and biofuels as the one stated in the RED II and the RED III.
- Respectively at least 7%" and 8% in 2030, based on 2020 consumption levels.

A renewed tax exemption for biogases

They are exempted from carbon and energy taxes, whatever the transport and heat uses, until 2030.

Electricity, biomethane and hydrogen are treated equally in **public procurement policies**.

7 key policies for a rapidly growing biomethane market

1. Set an **official stable vision** for the sector's development

2. Clear political or legal **targets**

3. Set up **direct and stable support** mechanisms

4. **Enable market access** through right to inject and GO issuance

5. Improve **bankability** of projects through **cost-sharing of pipeline CAPEX**.

6. **Integrate with agricultural policy** through co-product marketing

7. Set specific **"biofuel & biomethane" targets** & **tax reduction** to spur demand growth in **transport**.

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Thank you!

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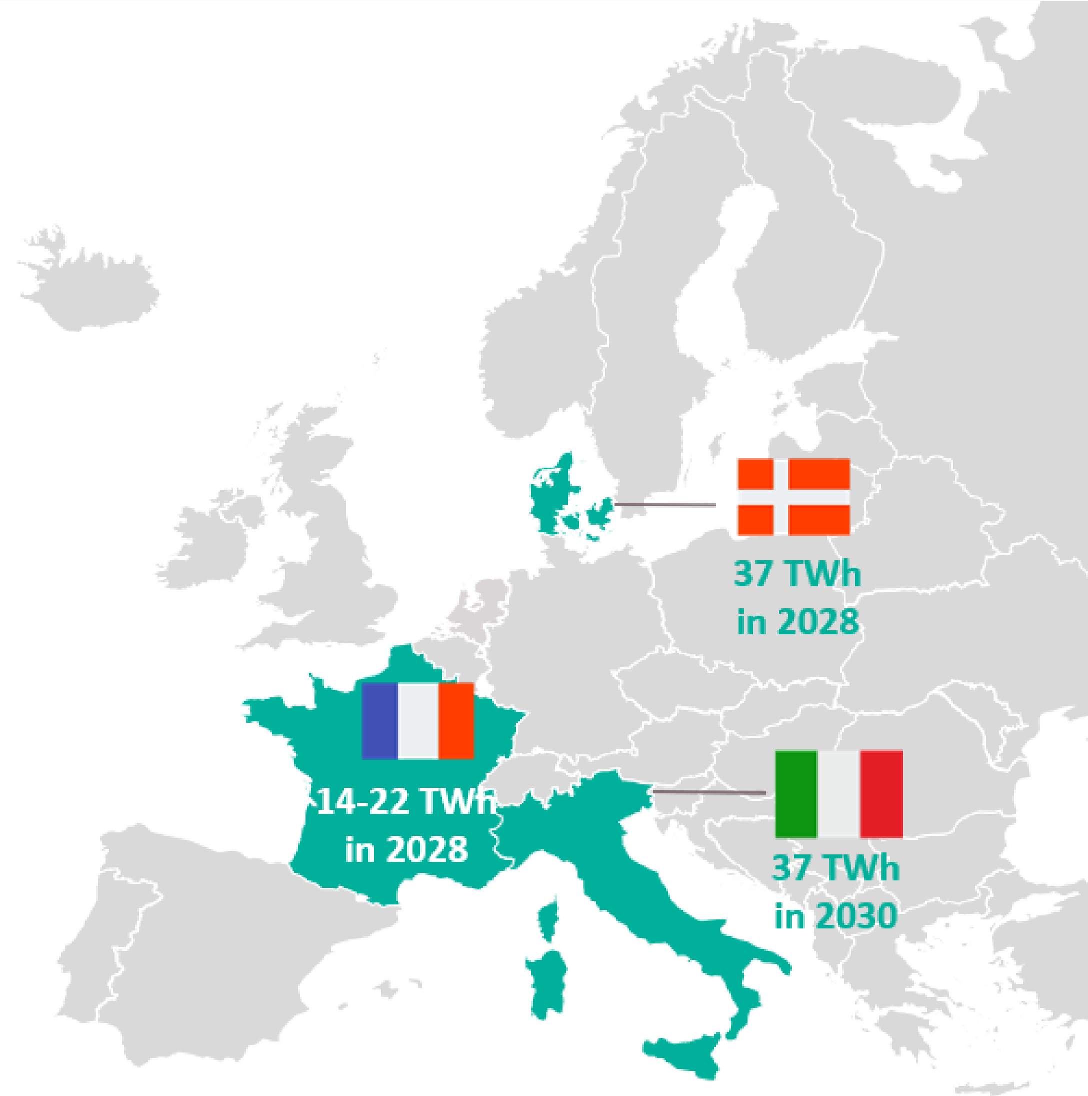
Annexes

Annex 1: Official biomethane targets adopted in Europe (2011-2021)



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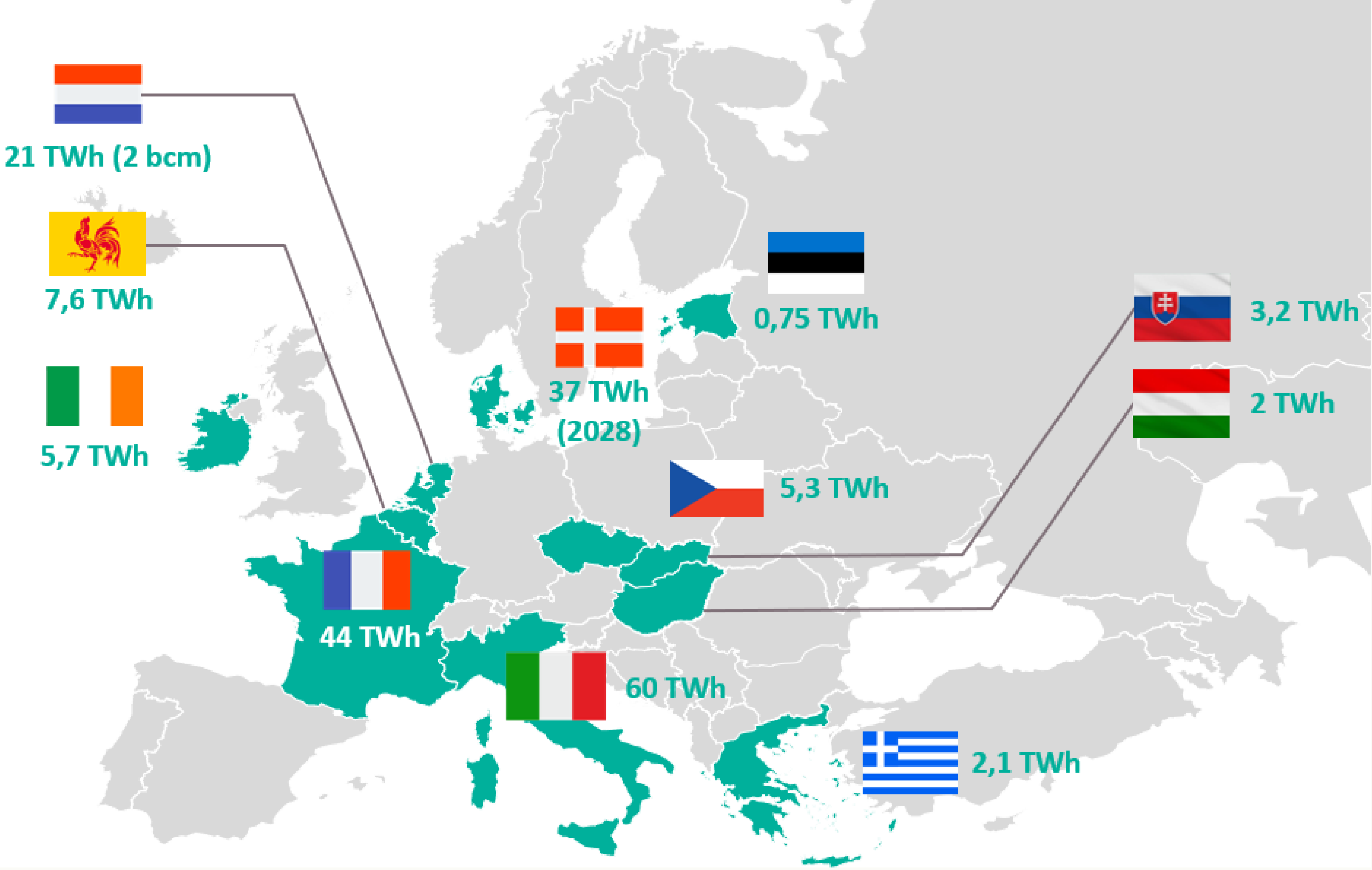
Annex 2: Official biomethane targets adopted in Europe (as of January 2025)



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