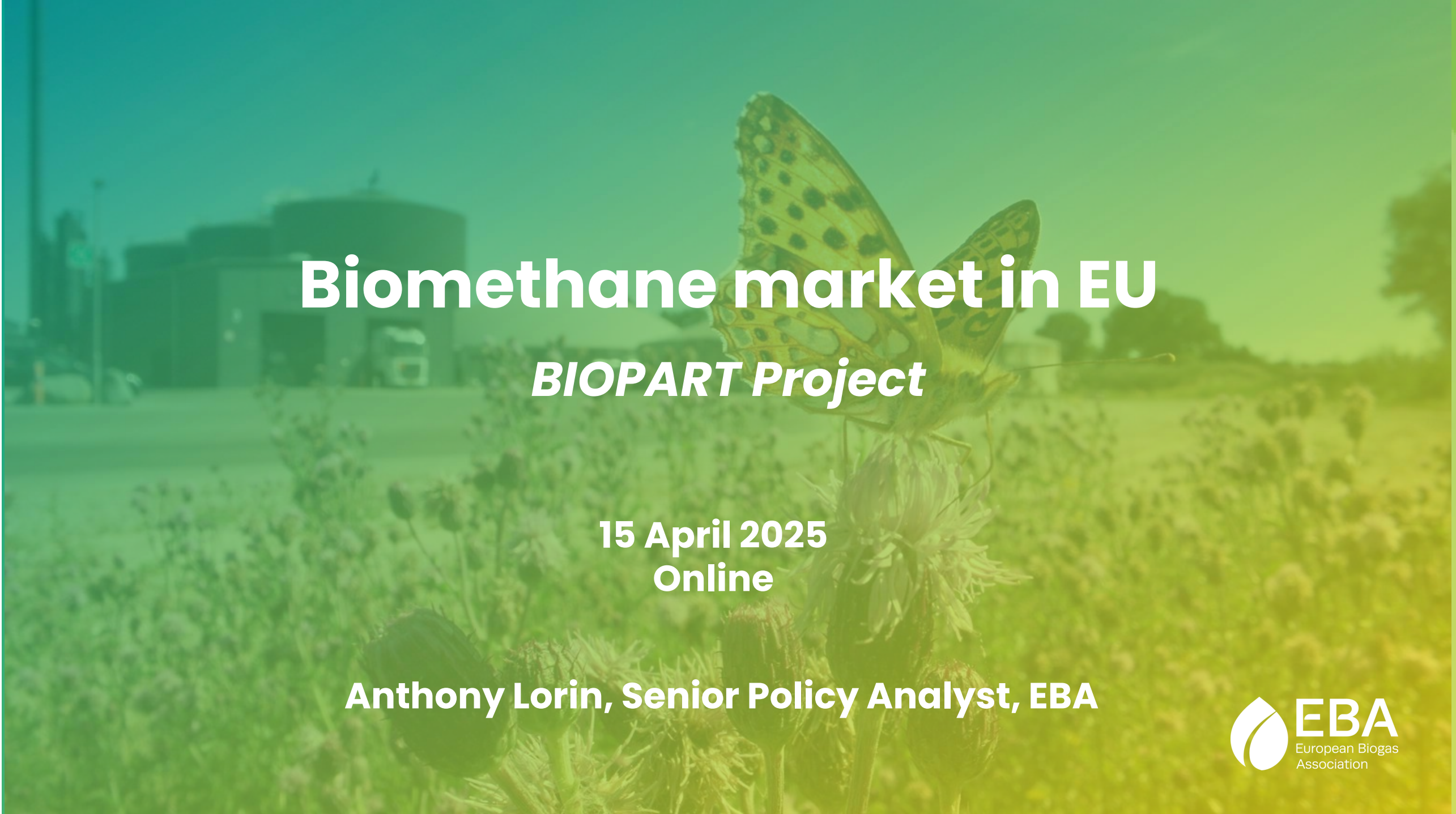

Biomethane market in EU

BIOPART Project

15 April 2025
Online

Anthony Lorin, Senior Policy Analyst, EBA

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Content

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Production européenne

1

Recent trends:
A strong but inequal momentum

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Biogases covered 7% of EU natural gas demand

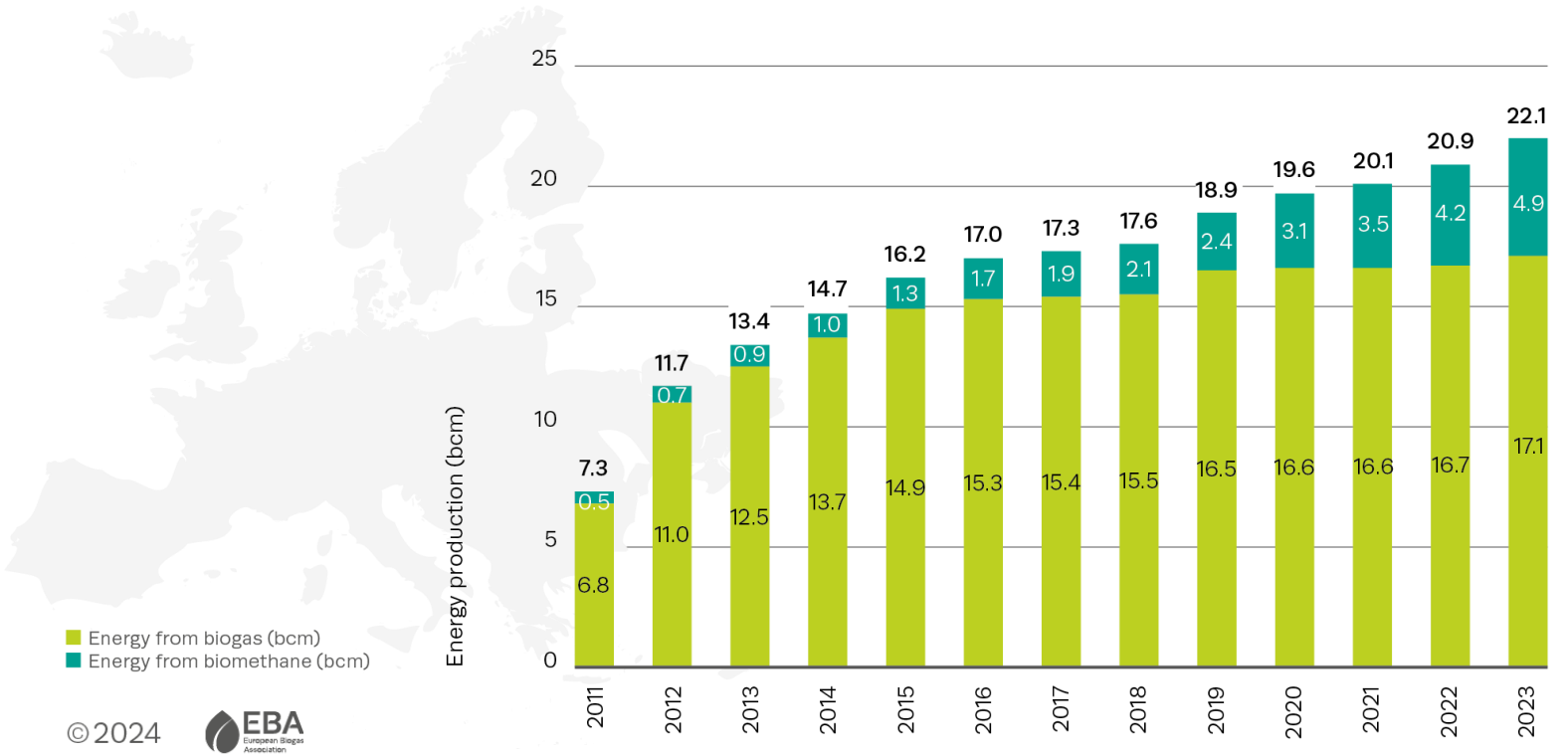
Combined biomethane and biogas production in Europe

22 bcm/an

230 TWh/an

= Gas consumption of Belgium, Denmark and Ireland combined

Combined biomethane and biogas production in Europe (bcm)



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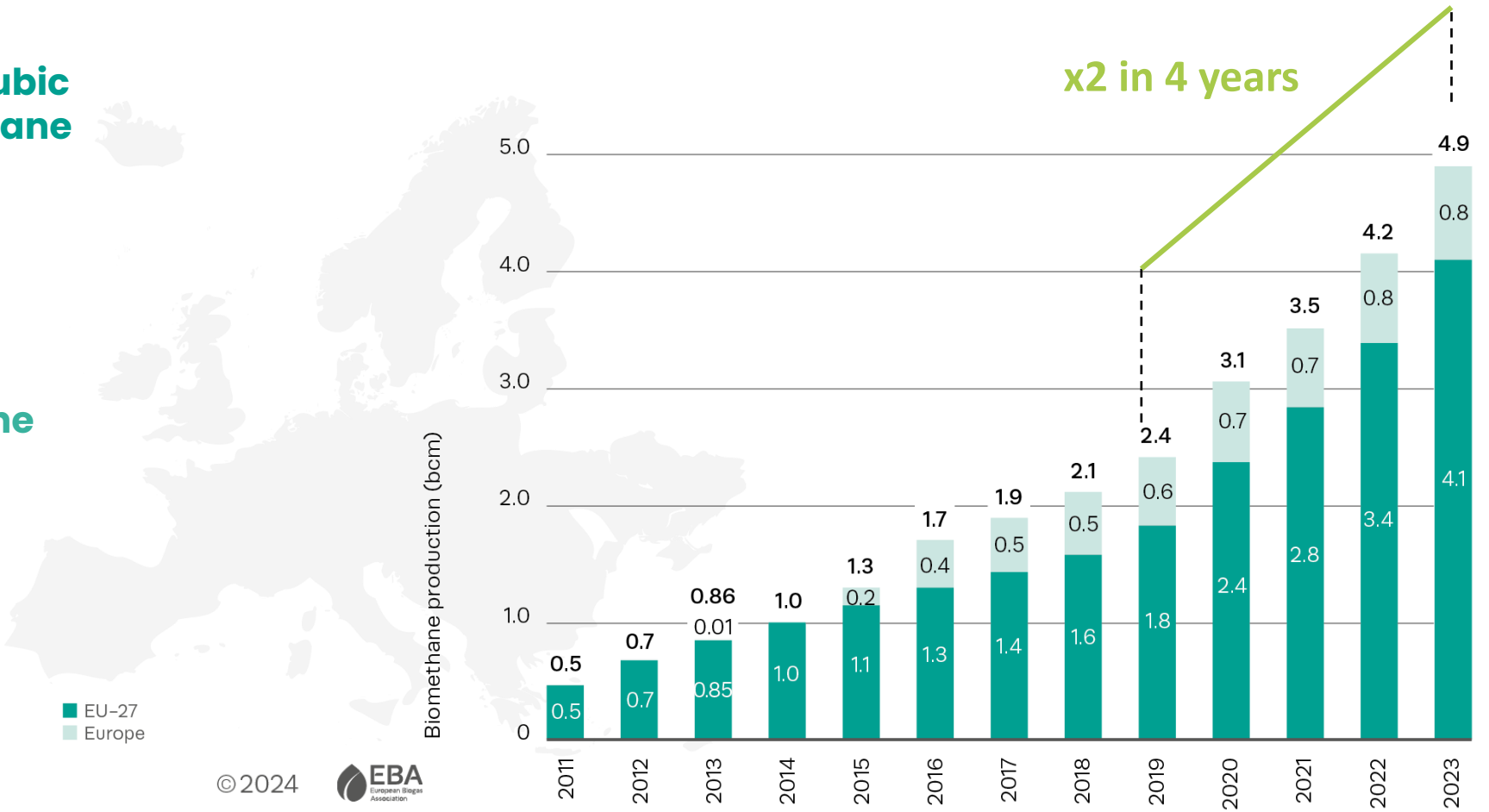
The takeoff of the past decade continues

In 2023 : 5 billion cubic meters of biomethane

- 18% YoY growth in Europe

Italy, France, 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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› 200 new biomethane plants in 2023

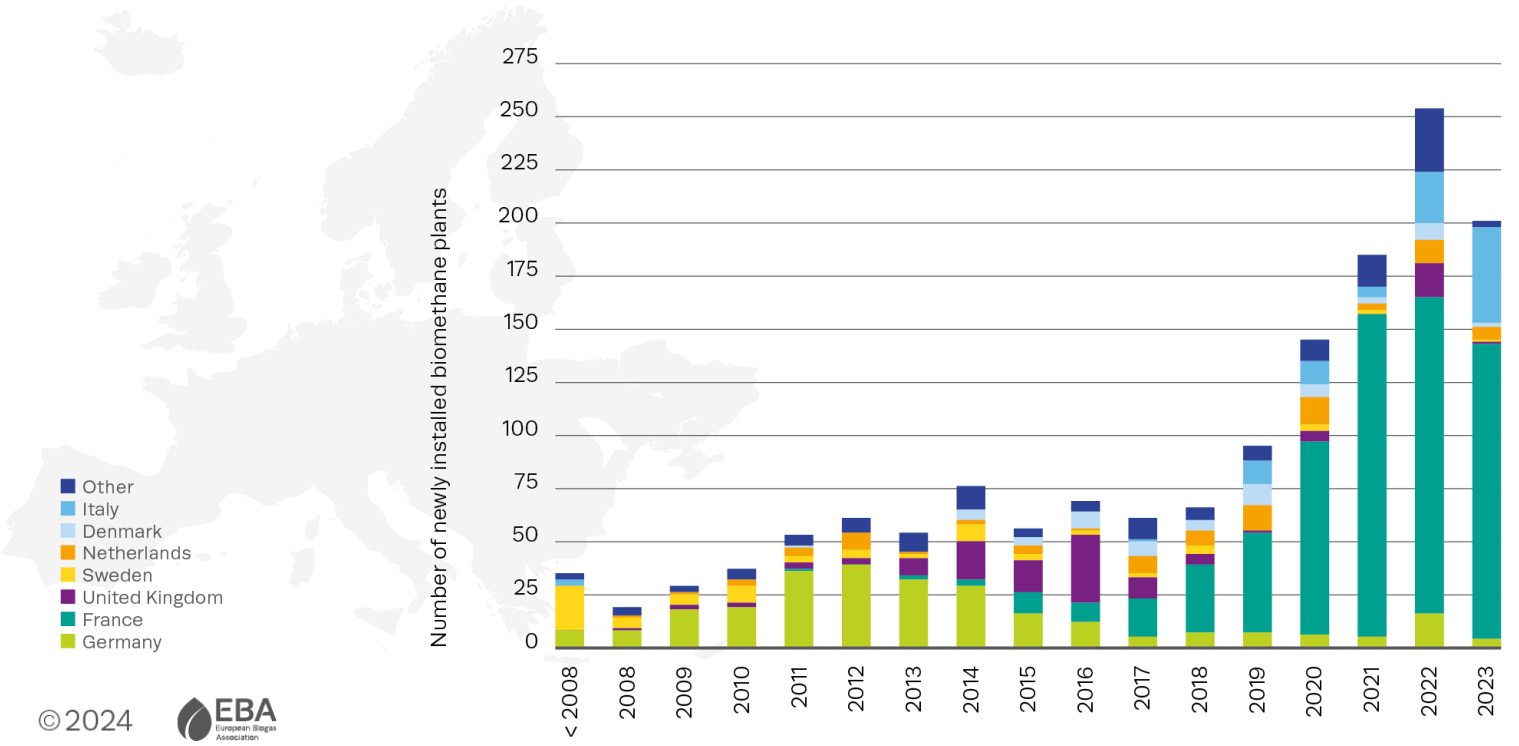
Total of 1 510 plants in Europe at end of 2023

In 2023:

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

› 85% connected to gas grid, mainly distribution grid

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



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From 12 to 25 producing countries in 8 years

12 producing countries in 2015

25 producing countries in 2023

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2

Future prospects: Substantial potential that still needs to convince governments?

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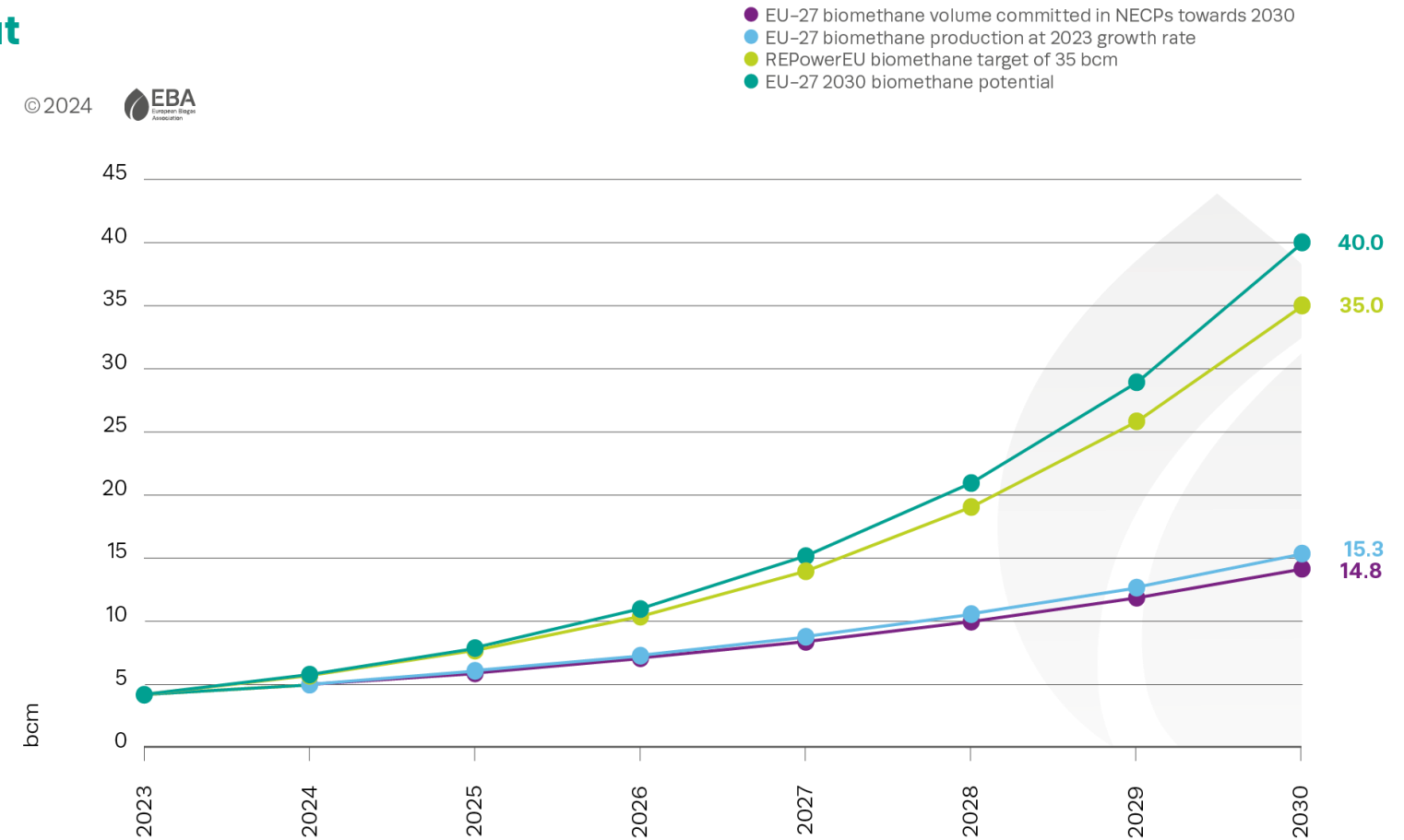
Around 15 bcm expected by 2030 based on government plans

This is also the target if the annual growth rate remains at 21%.

- Accelerated growth is needed to achieve the 35 billion m3 target

Growth curves for biomethane in the EU-27 by 2030



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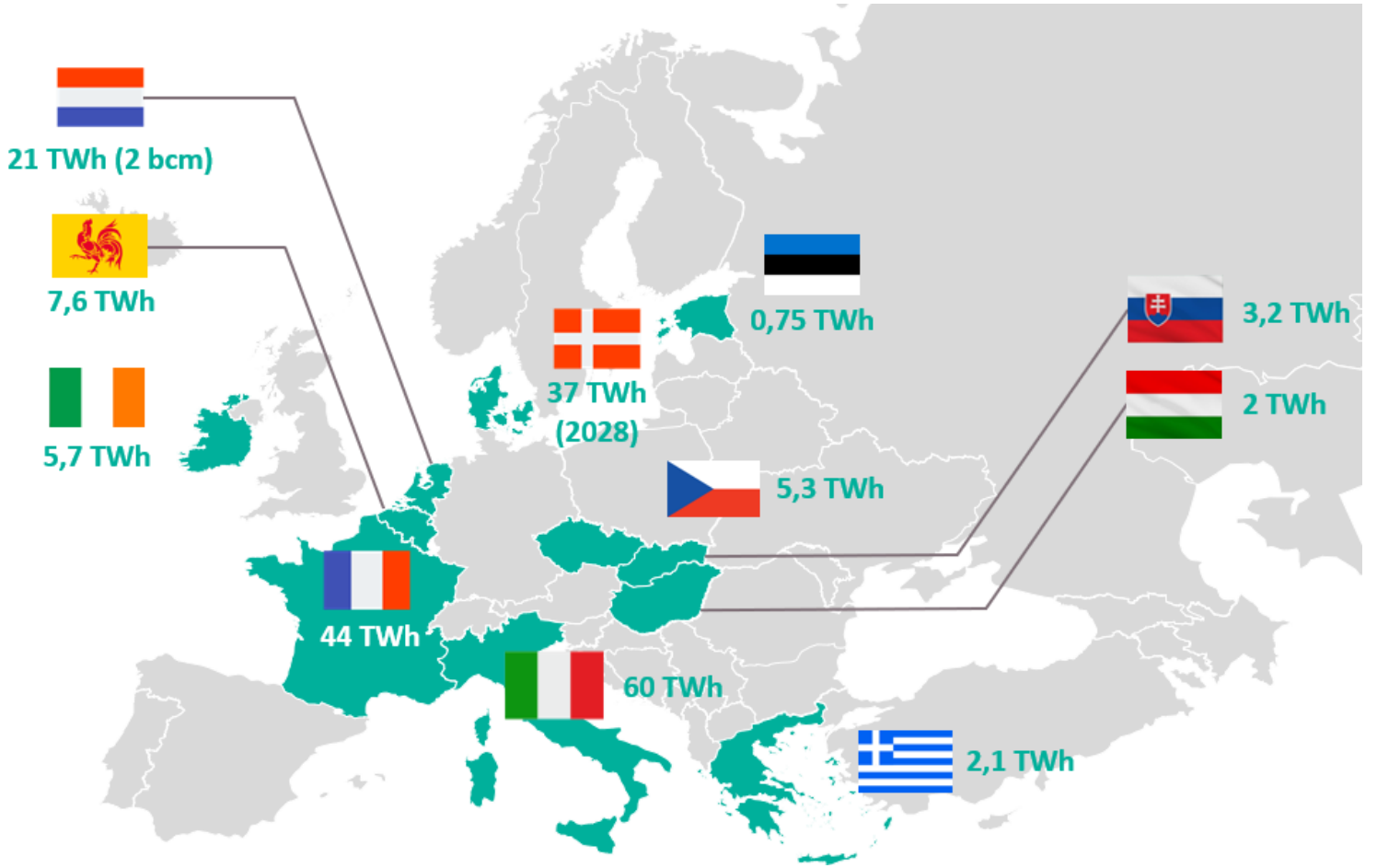
From 3 to 11 official biomethane targets in Europe in 4 years



Biomethane consumption or production targets officially adopted in government plans (January 2025)

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Biomethane from gasification will emerge in the coming years

195 gasification units in Europ

Germany, France, Italy and Finland are the countries with the most gasification plants

> 60% of operational plants in Europe are TRL ≥ 9

35 planned facilities foreseen by 2030

Use in cogeneration
Tipid appearance of SNG

85% of existing facilities produce heat and power

Only 8 facilities produce Synthetic Natural Gas (SNG)

But 33 projects plan to produce SNG

Source: EBA, Rapport Gazéification, 2024

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Consumption market

Varied use with increasing use in transport

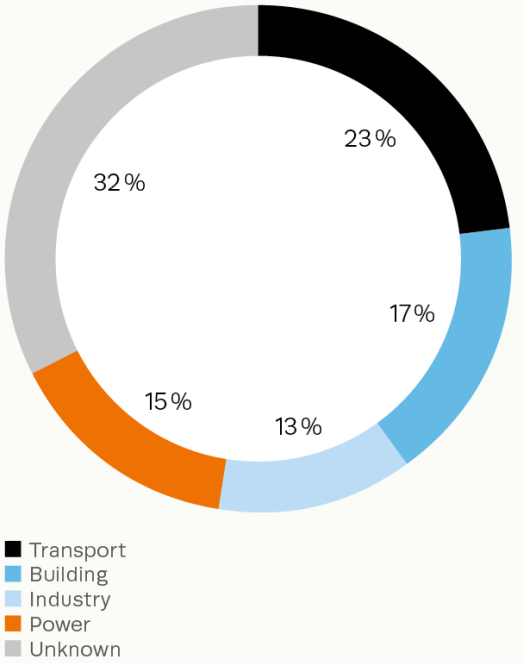
Biomethane: a versatile renewable fuel

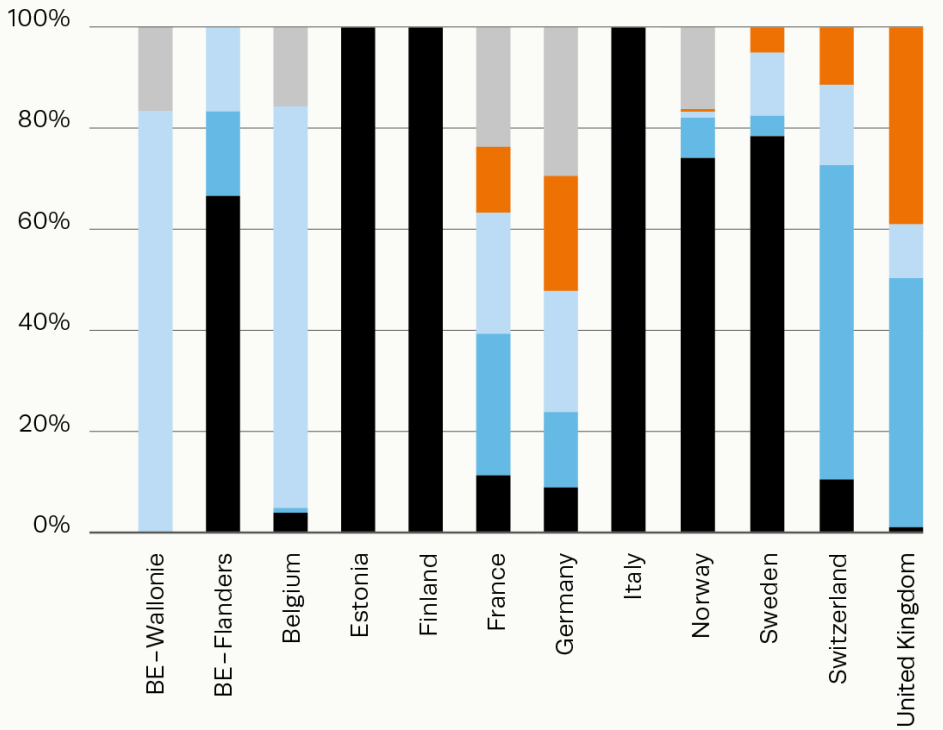
End-uses depend on country

Transport

Heating or electricity

Percentage of biomethane production used in different sectors overall (left) and per country (right)





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Increasing interest for bioLNG

From 1.5 TWh to 21 TWh of production capacity in 5 years (2020-2027)

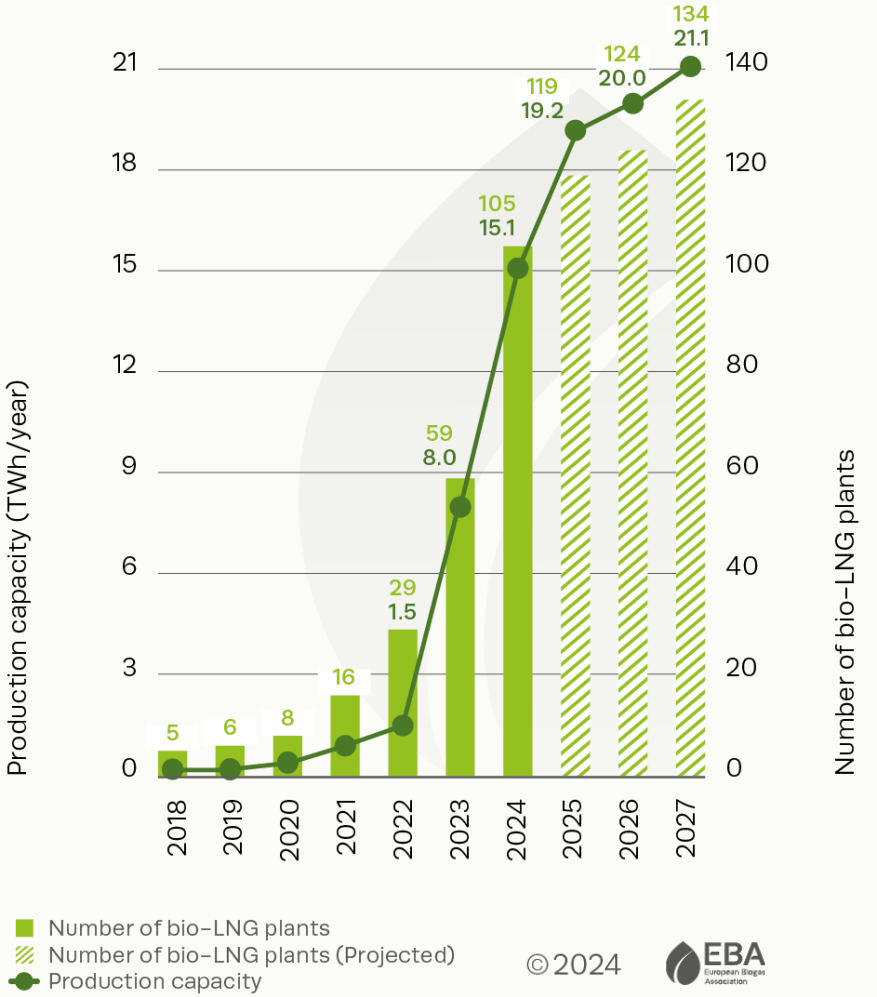
14 EU countries produce bioLNG

Belgique, Danemark, Finlande, France, Allemagne, Italie, Pays-Bas, Norvège, Pologne, Portugal, Espagne, Suède, Suisse et Royaume-Uni.

80 % du bioLNG goes to **road transport**

Share of maritime transport is foreseen to takeoff around 2030 and beyond

Current and future development of the number of bioLNG plants and production capacity (TWh/year)



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Best policy practices

Country scope of an analysis for GreenMeUp Project

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

Policy scope

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

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

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

From 2009 to 2020, Denmark **progressively laid out a vision** through its Acts on support schemes, its Climate Plan of 2019 and recently its private-public Green Transition Roadmap

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.

Norway extended its support program for agricultural anaerobic digestion to **investment subsidies**. Any farmer building a biogas or biomethane plant can apply for the program. Up to 682,000 EUR / plant can be granted to cover eligible investment expenditures.

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.

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

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.

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.

A **government-mandated GO Registry** since 2015. This enabled the emergence of green gas offers by energy suppliers and at refilling stations.

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.

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.

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

A renewed tax exemption for biogases

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

In Norway, full tax exemption for biomethane as a motor fuel.

In Switzerland, waste-based biomethane is exempted from carbon tax and mineral oil tax which has been the main driver for its use in transport

Policy and regulatory needs

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 **tax reduction and demand support mechanisms**.

Biomethane Offtaker Declaration

28 A public declaration signed by 28 companies (potentially) consuming biomethane

11 11 requests addressed to the new European Commission

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Biomethane Offtakers Declaration for a Clean Industrial Deal

A call for sustainable biomethane use in Europe

Get involved

biomethane-offtake-declaration.eu

Coordinated by European Biogas Association

Conclusion

Need for decisive political action

Need for decisive political action

Simplification

Long-term support

Tech neutrality

Harmonisation

Demand-side support

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European Biomethane Week 2025

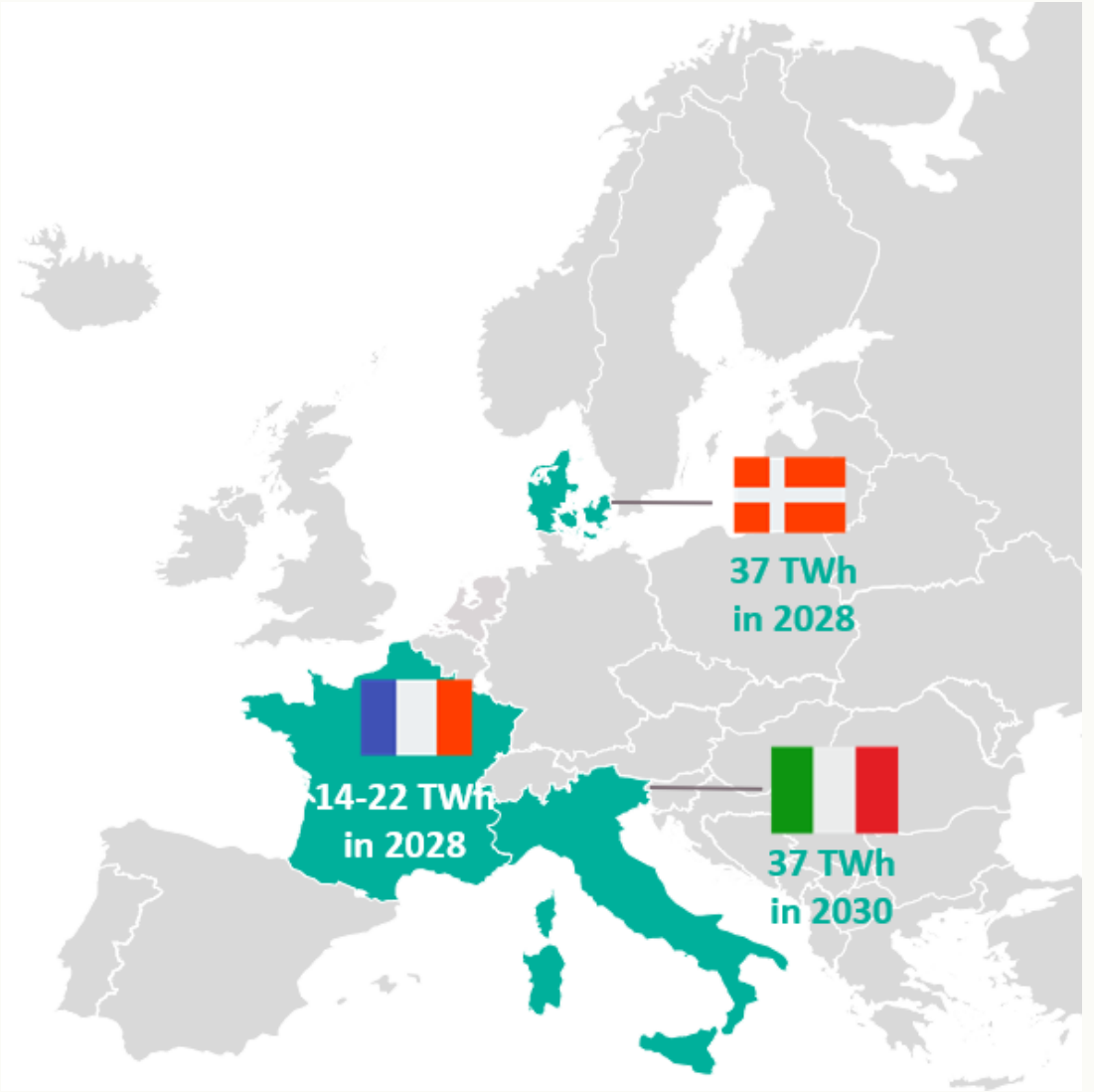
13-17 October 2025

European Biogas Conference: 14-15 October 2025

Autoworld, Brussels

Annexes

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



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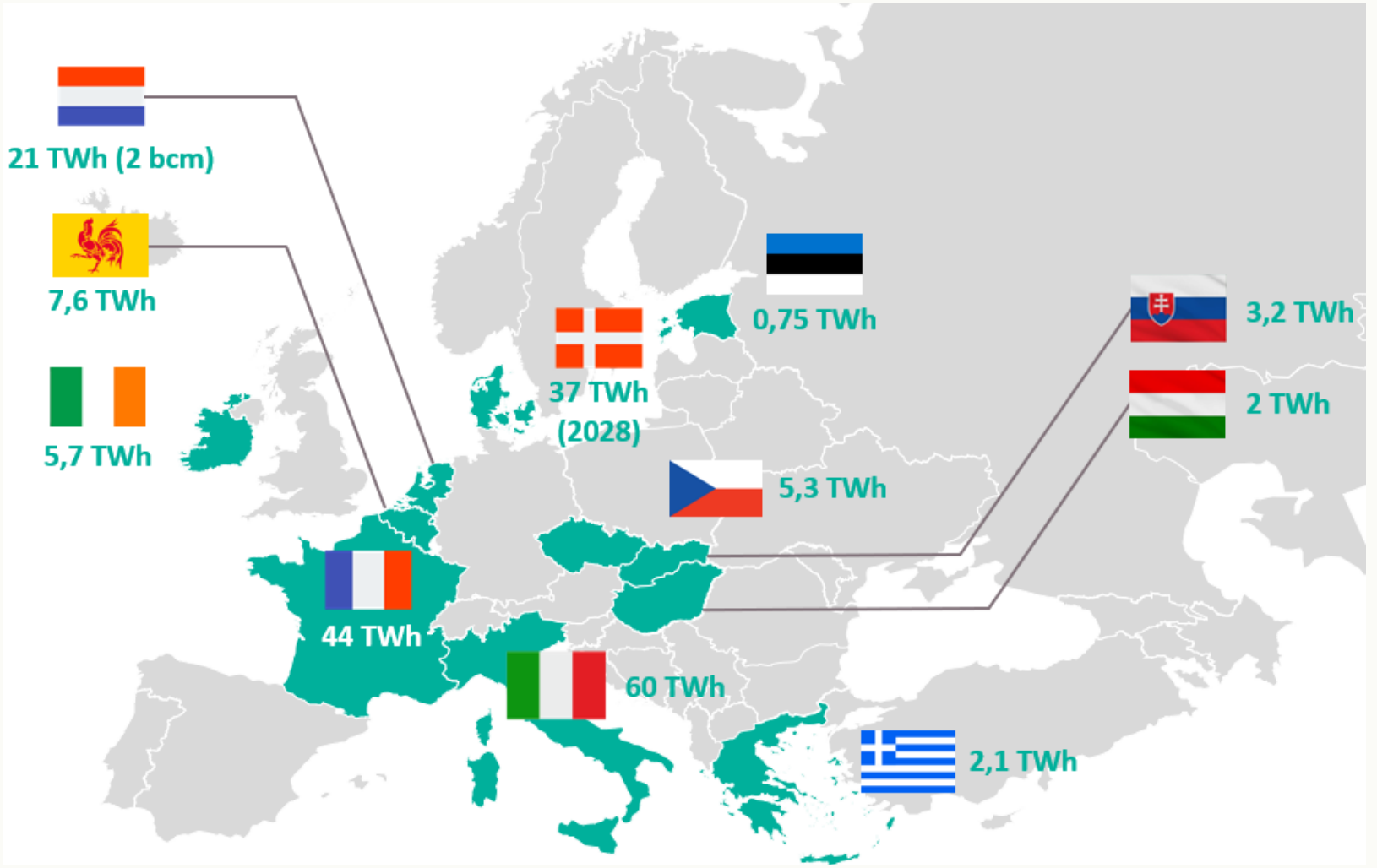
GREENMEUP

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



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