Barriers and opportunities for grid access in Europe

ConvERSE

11 September 2025

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Successful experience thanks to facilitated grid access

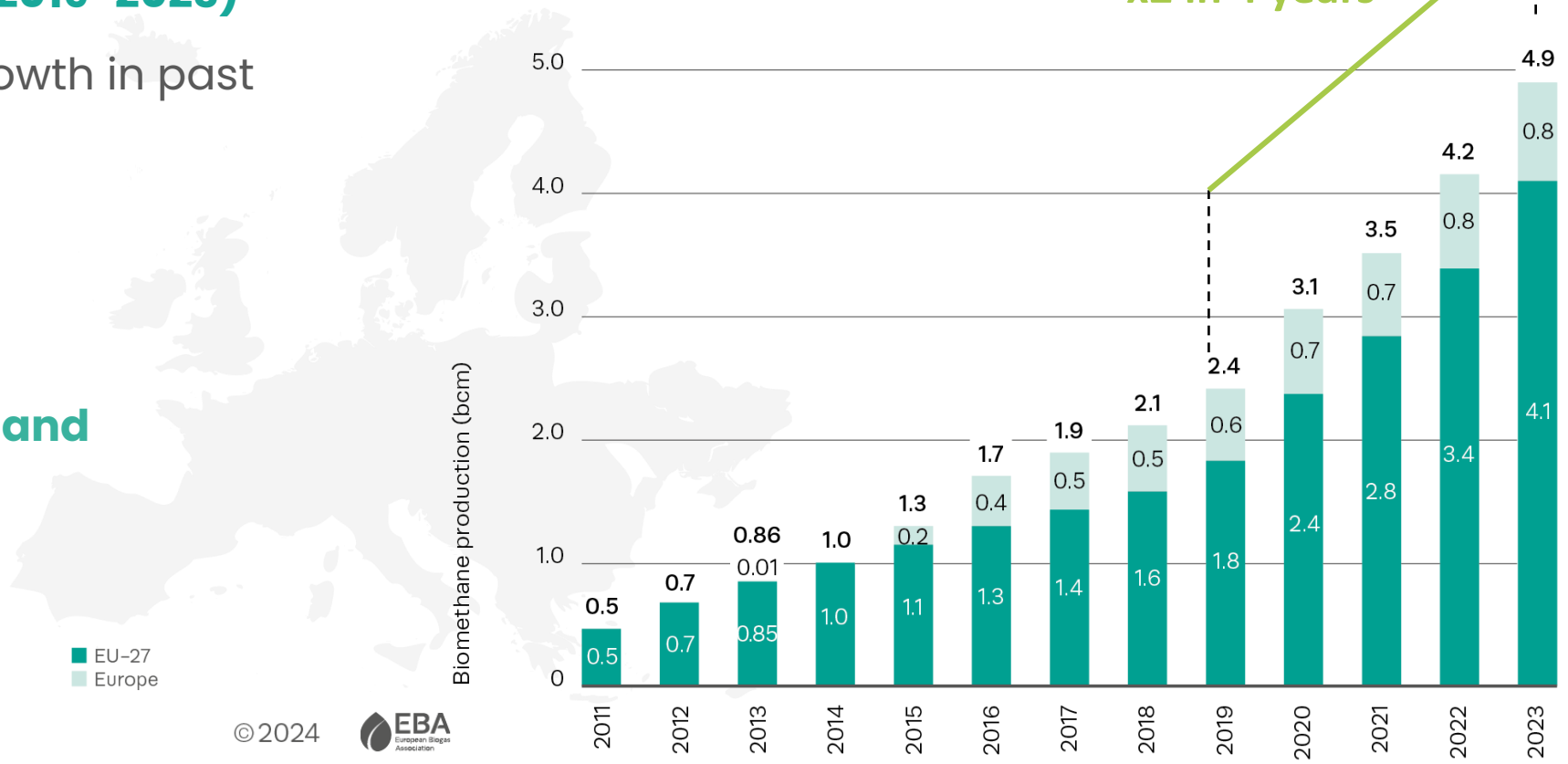
Biomethane: the takeoff of the past decade continues

X2 in 4 years (2019-2023)

16-20% YoY growth in past 4 years

5 billion cubic meters production (2023)

Italy, France, Denmark, and the UK are leading



Biomethane production in Europe (bcm)

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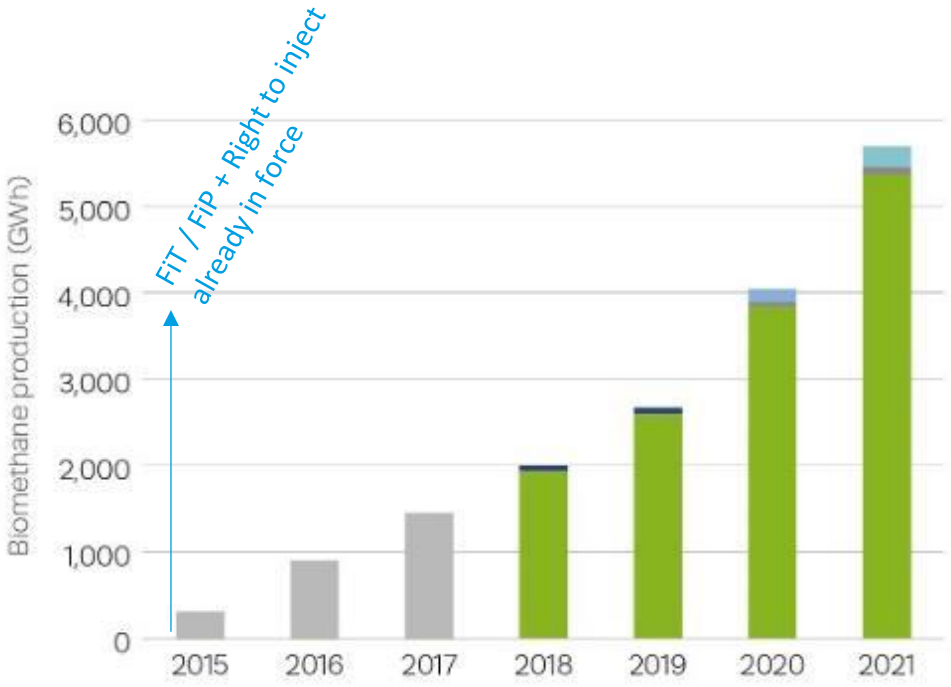
Country example (1/2)

Denmark



Source: EBA Statistical report.

Enforced supportive measures

	X	Focus on biomethane since 2012; a forecast consumption in its NECP (2019)
	X	Feed-in Tariff / Feed-in Premium (2012) Investment subsidies (2008-2013)
		(no indirect support identified)
		(No tax incentives)
	X	Right to inject (2013)
GO	X	Voluntary Certificate Registry before RED II

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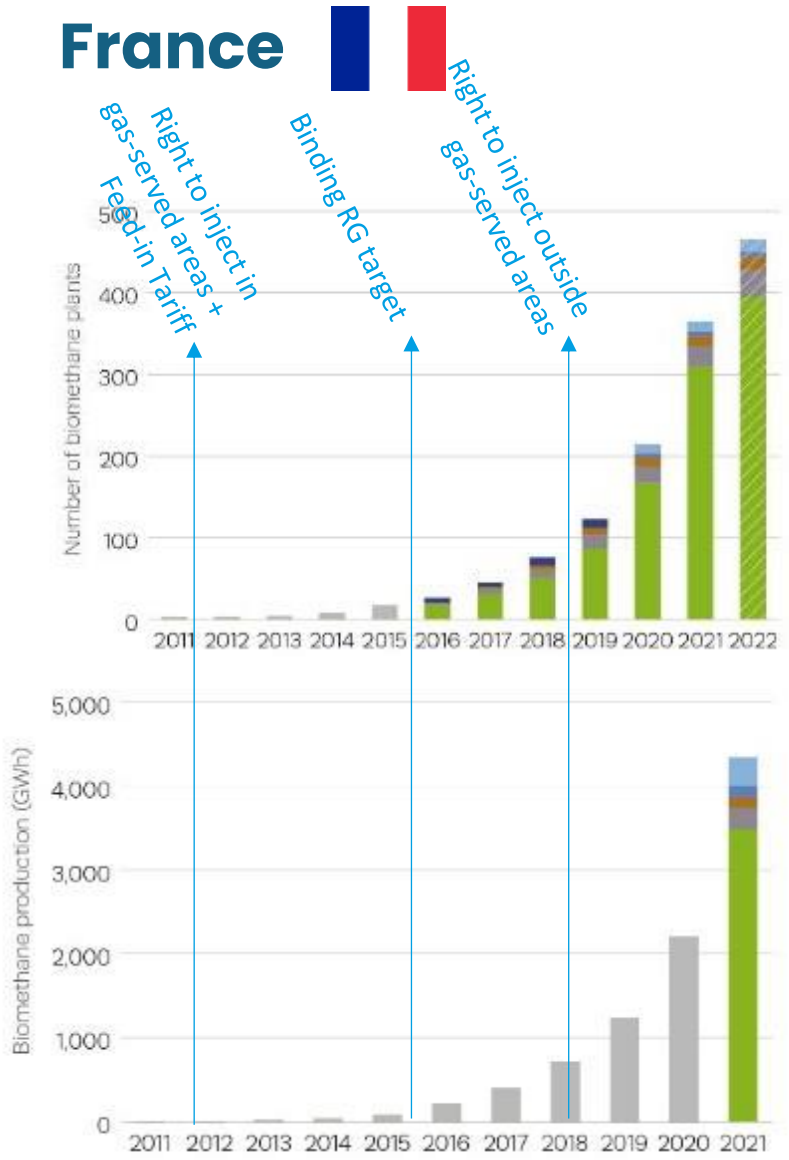
Country example (2/2)

France



Source: EBA Statistical report 2022.

Enforced supportive measures

- X Renewable gas target (2015)
- X Feed-in Tariff (2011)
- X Grid reinforcement mostly paid by grid operators (2020)
- X Tax incentives for district heating networks
- X Right to inject implemented in phases (2011-2020)
- X GO registry since 2012

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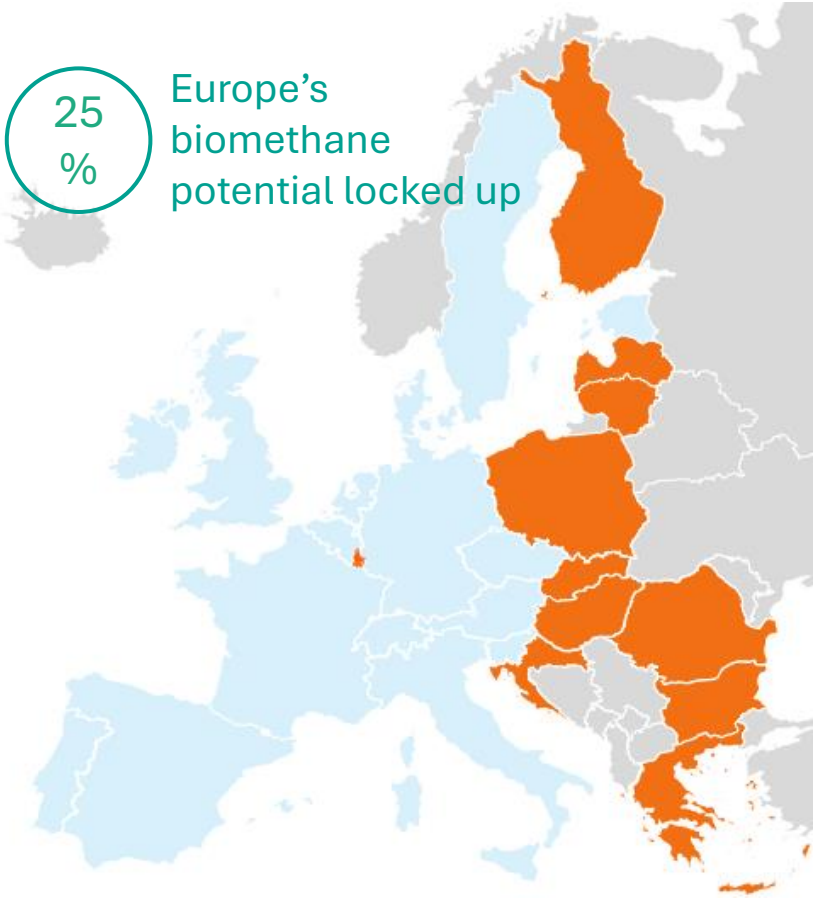
Barriers to grid access hit biomethane potential growth

No right to injection in 10 EU countries

- No legal obligation for grid operators to address connection requests, including outside gas-served areas
- No transparent criteria to assess feasibility

25 %

Europe's biomethane potential locked up



Cost and permitting still an issue in mature markets

Cost of grid connection pipeline

Long permitting time for the connection pipeline

Cost of the injection station and its instrumentation

Internal EBA survey covering 10 countries (2025). Mature markets include here Denmark, France, Germany, Italy, Sweden, Switzerland

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Study "How the cost of connecting biomethane to gas grids is paid for" (1/2)

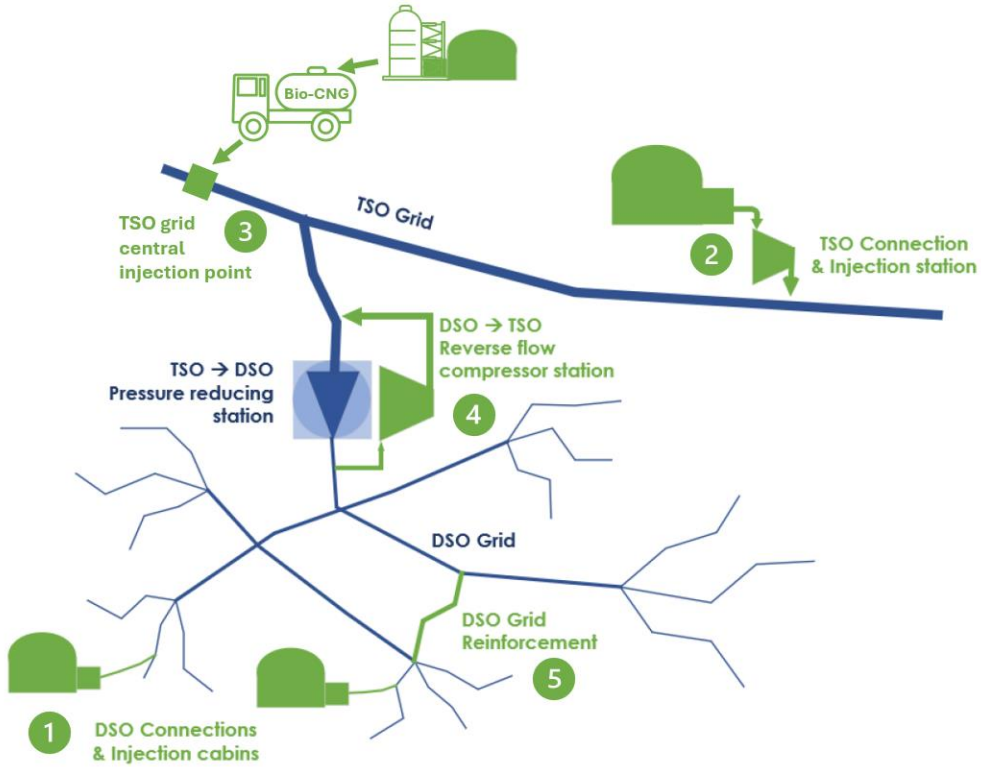
Commissioned by EBA. Made by Common Futures

Study context

Differing methods for sharing the cost and the responsibility for operating parts of the grid connections & upgrades **across EU Member States**

Study aim

- Obtain **insights into financial and operational responsibility sharing** in EU MS on a component level for five types of investments.
- **Facilitate knowledge sharing** between Member States



Study "How the cost of connecting biomethane to gas grids is paid for" (2/2)

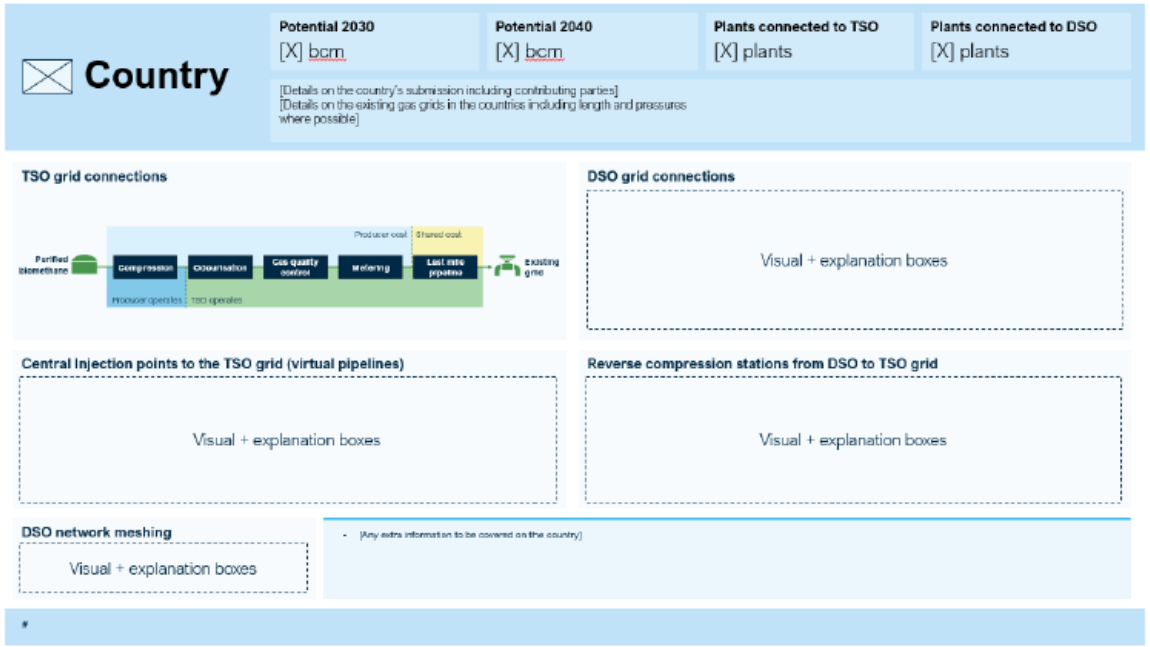
Introduction to country fact sheets

This report shows detailed results per EU Member States in the *Country Factsheets,* with the layout largely following the template shown on the right. Each factsheet shows results for each of the five grid investment categories explained on slide 9.

Financial and operational responsibilities are colour-coded, and notes are provided to clarify how this is distributed between the operator and the producer:

- **Green**: A gas grid operator responsibility.
- **Blue**: A biomethane producer responsibility.
- **Yellow**: A shared responsibility.
- **Grey**: Unknown / disputed responsibility, or a third party.

Additionally, the factsheets provide a brief overview of biomethane potential in each country[1], the number of plants connected to the DSO/TSO grids[2], and details on the contributing parties to this study, as well as information on the respective DSO and TSO networks[3]. Country fact sheets for the five EU MS with the most biomethane plants follow in this chapter, with the other EU MS fact sheets found in the Appendix.



[1] Guidehouse & EBA (2024) (link).
[2] EBA Statistical Database (2023).
[3] Marcogaz (2023) (link) and other country sources.

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Recommendations for the implementation of the Gas Package

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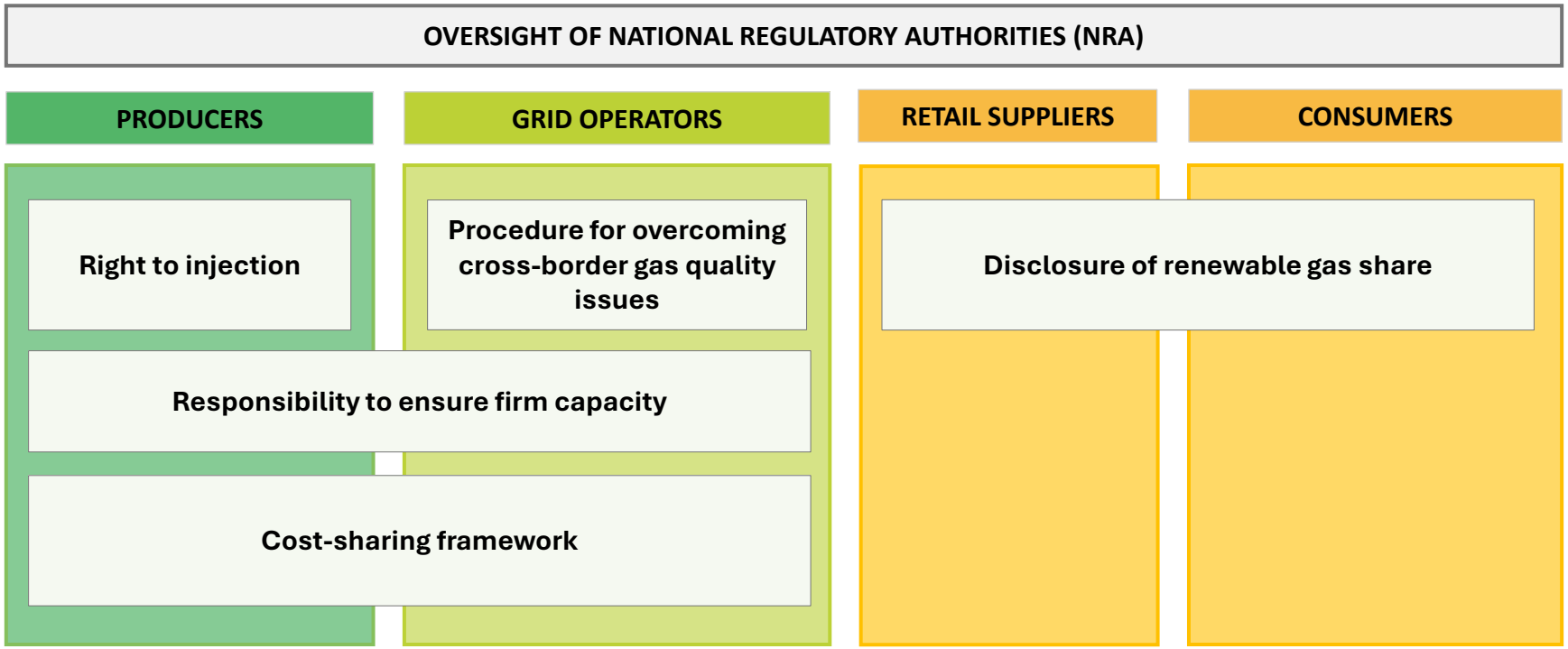
The new Gas Package brings significant positive changes for the biomethane value chain



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Grid Ready Forum Conclusions

Call on national governments and regulators to **implement swiftly the right to inject** as set in the 2024 Gas Package.

Relevant stakeholders invited to develop **guidelines** with regard to "**reasonable time limits**" for connection delivery
as required by Articles 41 and 45 of the Gas Directive

National authorities, in dialogue with grid operators, should set "**enabling regulatory frameworks**" with regard to **grid connection costs**, as required by the Gas Directive - including cost-sharing mechanisms with due regard to technical and economic efficiency

1st GRID READY FORUM

10 April 2025, Brussels

CONCLUSIONS

ENABLING BIOMETHANE INJECTION

The Forum highlights that access to gas grids is still not secured in many EU countries, preventing project development, and therefore hindering the achievement of the full European biomethane potential towards 2050. The Forum takes note that gas quality may be an issue for sensitive users and that should be investigated to find the most economically sensible solutions.

The Forum recognises the proactive role that grid operators (both DSOs and TSOs) can play in connecting efficiently biomethane plants and avoiding local grid congestion through a range of technical solutions – shared grid connection, network meshing, local buffer storage, reverse flow and digitalisation of the grids. The Forum welcomes the potential of virtual pipelines as a complementary pathway to get biomethane production from off-grid areas to the market.

The Forum calls on national governments and regulators to implement swiftly the right to inject as set in the 2024 Gas Package. It also invites relevant stakeholders to develop guidelines with regard to "reasonable time limits" for connection delivery, as required by Articles 41 and 45 of the Gas Directive. The Forum encourages frontrunner grid operators to engage in experience-sharing and technical training to support their peers in emerging European markets.

CRITICAL ENERGY PLANNING NEEDS

The Forum acknowledges that grid planning should be combined with local mapping of long term biomethane production potential ("zoning approach"), as a sound basis for the integration of additional biomethane in a cost-effective way, supporting EU and national climate and energy objectives. The Forum supports that grid planning should be informed by open data and tools.

On this basis, the Forum urges the European Commission to take the lead in the roll-out of Renewable Acceleration Areas (RAA) applied to biomethane by (1) developing a Guidance that includes the zoning approach to streamline biomethane project development; and by (2) supporting Member States by organising peer-exchange.

The Forum acknowledges that anticipatory investments may be a necessary tool to streamline investment in future-proof grid infrastructure, provided they are underpinned with appropriate data.

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Areas for discussion

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3 areas for discussion

Cost-sharing models

Optimisation of project location

Tariff inflation mitigation

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Study of Common Futures for EBA

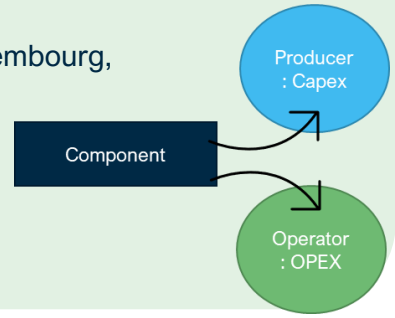
How can costs be shared between producers and grid operators?

Cost sharing can be done in different ways, with many countries having a combination of the following:

CAPEX / OPEX split

If **producer pays for the full investment** which then becomes a **concession asset for the gas grid operator**.

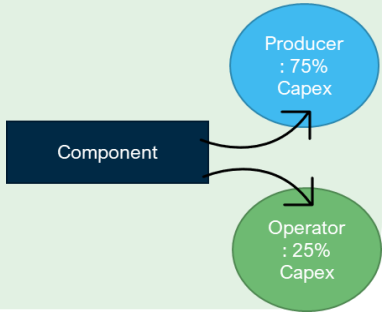
Examples:
Estonia, Portugal, Luxembourg, Poland.



Regulated percentage contribution

Total investment/ component investment shared at a rate set by the regulator. Can be dependent on distance, size, economic viability.

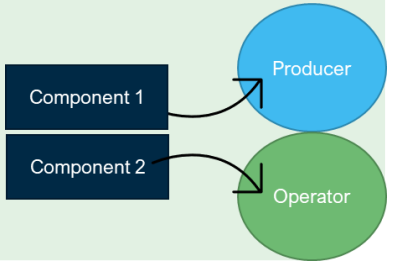
Examples:
Belgium, Germany, France, Ireland, Italy, Slovakia



Component level cost sharing

Full split of cost by components based on regulation. E.g. producer is required to provide the gas at a certain pressure, or quality.

Examples:
Czech Republic, the Netherlands



Some gas grid operators support connections, not through cost sharing but by de-risking the investment costs

Some grid operators make the upfront investment themselves and charge the cost to the producer over time.

This can reduce investment risk a be a form of "**pre-financing**"

Thank you!

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