28/04/2025

Developing a competitive EU hydrogen strategy for renewable and low carbon hydrogen and their derivatives

Eurogas recommendations

As the European Union accelerates its transition to a climate-neutral economy, hydrogen and its derivatives (i.e., ammonia, methanol, etc.) have been identified as a key energy vector to support decarbonization across industries. However, ensuring a secure, affordable, and competitive hydrogen supply remains a significant challenge.

The hydrogen market is currently at early stages of development, faced by challenges both on the production and demand side, as underlined by many industries representing the hydrogen sector and, as confirmed by the ACER MMR on Hydrogen Markets (2024). Tackling the barriers for the uptake of an EU market for hydrogen is a precondition for the successful decarbonisation of Europe. At the same time, hydrogen imports can play a complementary role in the development of the EU market as they can help bridge the gap between the expected growing demand and limited domestic production capacity of hydrogen. Given the EU's ambitious decarbonization targets, imports can provide a cost-effective and scalable supply, ensuring security while supporting industrial competitiveness. By leveraging global hydrogen markets, the EU can accelerate use, drive down costs, and create a more competitive and resilient hydrogen economy.

This paper assesses existing national/European instruments alongside EU legislation and provides **key recommendations to shape a strategic and well-defined EU hydrogen strategy covering domestically produced hydrogen and imports**. With the REPowerEU Plan setting a target of 10+10 Mt of domestically produced and imported renewable hydrogen, it is essential to determine how existing/in development instruments and frameworks can be leveraged and what additional measures are needed to reach this target.

Overview of the key recommendations:

1. Support the growth of the European hydrogen market by expanding EU support mechanisms, particularly through the European Hydrogen Bank (EHB), to include low carbon molecules and support Final Investment Decisions (FIDs). Proposals for demand aggregation should be discouraged due to the nascent state of the hydrogen market.
2. Explore additional alternative instruments such as the H_2Global mechanism as a limited and temporary reference for EU hydrogen import strategies, focusing particularly on business case building, to reduce costs and create synergies.
3. Revise the European Hydrogen Strategy (2020) with a technology-neutral approach, recognising low carbon hydrogen as a bridge to fully developed renewable hydrogen. The revision should include a Union Strategy for H_2 imports, clarifying viable mechanisms, import corridors, and strategic partnerships to support EU's supply ambitions.

4. Ensure the consistent reporting of methane emissions while minimising the burden on the industry when finalising the Low Carbon Fuels Delegated Regulation, as thoroughly explained in Eurogas targeted recommendations.
5. Effectively implement the Renewable Energy Directive (Directive 2024/1711) and address existing issues with the Union Database: resolve existing challenges regarding the inclusion of gaseous fuels import/exports under the Union Database, to ensure consignments complying with EU law are traceable and can contribute to compliance markets.
6. Develop key hydrogen infrastructure for imports: it is essential to develop the necessary infrastructure for imports, including terminals, storage and transport facilities, to ensure a scalable and secure supply. This should be done by both providing additional support to the Connecting Europe Facility, and with a swift implementation of the provisions of the Hydrogen and Decarbonised Gas Market Package (2024).

Existing/in development instruments at national and EU level	
Instrument	*Observations/Recommendations*
AggregateEU: a demand aggregation and joint purchasing mechanism established by the European Commission to support European companies in buying natural gas from non-Russian sources, after the outbreak of the war in Ukraine. The European Commission is now considering expanding it to other molecules, including biomethane and hydrogen. In June 2024, it announced the launch of a **pilot Hydrogen Mechanism** to gather market data on hydrogen demand and supply in the EU. The initiative will run from September 2025 to December 2029[1], after which the European Commission may propose a voluntary demand aggregation mechanism and joint purchasing mechanism for hydrogen.	The EU lacks a real hydrogen market, making **data collection challenging** due to mismatched supply and demand, and insufficient infrastructure. Creating a new platform under these conditions could be unnecessary. **Funding** remains a major challenge, as the hydrogen market lacks sufficient financial support to stimulate domestic production. Eurogas doubts that AggregateEU can address this, as it is beyond its scope. Existing data sources like **ACER and ESMA** could be leveraged for hydrogen market data collection to avoid additional reporting burden on businesses. From a broader perspective, **extending demand aggregation to hydrogen by 2030 remains premature**, given the nascent state of the hydrogen market. Eurogas stresses the need for a thorough impact assessment and public consultation before any proposal. Additionally, priority should be given to developing infrastructure and strengthening global partnerships to facilitate hydrogen imports.

[1] New pilot mechanism to boost the hydrogen market. However, the Clean Industrial Deal seems to have indicated a slightly different timeline, with the Mechanism being launched in Q2 2025.

Rue d'Arlon 80 | 1040 Brussels, Belgium | www.eurogas.org | EU Transparency Register: 17909506129-41

European Hydrogen Bank (EHB): is a financing instrument created by the European Commission to **unlock private investments in domestic renewable hydrogen** by reducing the financial risks and bridging the demand-supply cost gap. The available scope and budget remain limited, restricting funding access to only a small number of projects.	The EHB's scope should be revised to **support low carbon hydrogen and its derivatives**, without distorting the market. This support should remain separate to ensure both types of hydrogen are adequately incentivised. Eurogas recommends a **budget increase for the EHB**, as current funding seems insufficient. A larger share of the Multiannual Financial Framework (MFF) should be allocated to hydrogen development, covering both domestic production and imports. To mitigate disparities in the Levelised Cost of Hydrogen (LCOH) due to varying renewable energy availability, a **balanced approach** is needed, **considering cost efficient EU production as well as competitive imports**. Eurogas encourages leveraging on additional alternative instruments such as the **H_2Global mechanism as a limited, temporary reference** for hydrogen import strategies, particularly for business case building, to reduce costs and create synergies.
H_2Global: is a **German funding mechanism** designed to **bridge the price gap** between the production costs of renewable hydrogen and its derivatives [2] and the prices that consumers are willing or able to pay. A public funding body covers the difference using a Contracts for Difference (CfDs)-like approach. The activities are managed through the intermediary HintCo who uses a double-sided auction mechanism to procure and sell the volumes.	Building on the market participants' experience, **H_2Global's could help shape an EU framework to bolster hydrogen imports and market in the EU**. At the same time, ensuring **alignment with EU market rules** to prevent competition distortions and compliance with regulatory requirements for RFNBO and low carbon hydrogen production should remain the precondition. In any case, **market participants**, including midstream operators, **should contribute to ensuring a secure and stabilise supply of clean hydrogen and derivatives**. This effort should be underpinned – among other means – by **long-term contracts**, such as CfDs. Given its focus on renewable hydrogen and derivatives, Eurogas suggests that H_2Global adopts a more technology-neutral approach towards **low carbon alternatives**, which are essential for the

[2] This mechanism could be applied to low carbon hydrogen and derivatives, as also in line with its mission and objectives.

	hydrogen market's transition until renewable hydrogen matures.
The development of an **integrated infrastructure for hydrogen imports** would ensure a secure, cost-efficient and scalable hydrogen supply across the EU.	Eurogas encourages the development of a **robust infrastructure**, precondition for competitive and secure hydrogen imports. This should be based on realistic production and consumption scenarios and achieved through coordinated planning and operation of the broader EU energy system – across multiple energy carriers, infrastructures, and consumption sector – to meet the 2050 climate neutrality objective. A well-developed infrastructure, including import terminals, ammonia crackers, and dedicated storage and transport facilities, is essential for the efficient conversion and distribution of hydrogen and its derivatives.

Review of existing EU legislative framework	
Instrument	*Observations/Recommendations*
The **European Hydrogen Strategy (COM/2020/301 final)** has guided the **EU's path** toward a strong and competitive hydrogen market, emphasising hydrogen's role in decarbonising energy-intensive sectors and as a key energy carrier, especially for storage. While setting **non-binding targets for renewable hydrogen** deployment, the strategy also recognises the transitional role of **low carbon solutions** in supporting market growth.	Acknowledging the challenges facing the European hydrogen market, Eurogas encourages a **revision of the European Hydrogen Strategy.** This revision should: • Adopt a **technology neutral approach**, recognising the key role of low carbon hydrogen. With pathways like SMR with CCS or methane/LPG pyrolysis already developed, low carbon hydrogen should act as a bridging solution until the RFNBO market is fully scaled. • Be **complemented by a revision of the European Hydrogen Strategy on imported and domestically produced hydrogen** [3], clarifying viable mechanisms, potential infrastructure including import corridors, and strategic partnerships to support EU's supply ambitions.

[3] The RED III foresees that the European Commission 'shall develop a Union strategy for imported and domestic hydrogen' to be complemented by Member States' NECPs (Article 22a.3).

Rue d'Arlon 80 | 1040 Brussels, Belgium | www.eurogas.org | EU Transparency Register: 17909506129-41

Delegated Regulation 2023/1184, also known as the Delegated Act on additionality, sets the **criteria** to be respected **to produce renewable hydrogen in the EU**. These rules not only impact domestic production but also have significant implications for hydrogen imports from third countries, as imported renewable hydrogen must comply with the same requirements that are foreseen for EU producers.	Eurogas acknowledges that the production methodology introduces significant costs [4], particularly due to the additionality and temporal correlation criteria. Given these challenges, Eurogas proposes: • **Assessing the impact of these rules on the market as soon as possible**. In this regard, Eurogas welcomes the launch of a study to evaluate the effectiveness of the hydrogen framework and identify barriers to scaling up renewable hydrogen', as announced in the Clean Industrial Deal; and • A **delay in the phase in timelines** for these criteria to allow for smoother market adaptation[5].
The Renewable Energy Directive (RED III, Directive 2024/1711) requires the European Commission to develop a Union Strategy for both imported and domestically produced hydrogen based on Member States' reports in their National Energy and Climate Plans (NECPs)[3]. The RED III also establishes a common framework and targets for promoting renewable energy in the EU. Additionally, it mandates the creation and utilisation of a **Union Database (Article 31a)** to track renewable fuels from the raw materials origin to the market, with its scope going to expand to low-carbon fuels, such as low-carbon hydrogen and its derivatives.	The **implementation of RED III** should be prioritised. During this process, Member States should be allowed the necessary flexibility to implement the provisions, while ensuring coherence and avoiding fragmentation. Eurogas recommends the **swift adoption of a revised Union Strategy** on imported and domestically produced hydrogen. Eurogas welcomes the Union Database as a key tool to enhance the traceability of gaseous and liquid fuels within the EU, preventing double counting and mitigating risks of fraud. However, challenges remain regarding the **recognition of gaseous fuels exports/imports from third countries**[6]. The current interpretation of the existing provisions (Implementing Act 2022/996) prevents consignments to be transferred from third countries to the EU and be accounted in compliance markets.

[4] This is also confirmed by the ACER MMR on European Hydrogen Markets (2024) which shows that electrolytic hydrogen production complying with the criteria established under the Delegated Regulation 2023/1184 experiences a cost increase of 30%-60% higher than alternative production pathways.

[5] Specifically, Eurogas supports: Postponing the additionality requirement for installations coming online to 2035 (instead of 2028) and extending the phase-in period for the temporal correlation criterion (from monthly to hourly) by at least 1 year (from 2030 to 2031) as a start: a longer timeline, such as 1 January 2035, should already be considered to ensure the necessary flexibility enabling market growth.

[6] Biomethane imports should be automatically included in the Union Database - Eurogas
Eurogas & 45 other organisations call for urgent action allowing imports of biomethane and biomethane-based fuels under the UDB. - Eurogas
Call for action: Urgent need to recognise third country exports of gaseous fuels under the Union Database - Eurogas

Rue d'Arlon 80 | 1040 Brussels, Belgium | www.eurogas.org | EU Transparency Register: 17909506129-41

	On the **inclusion of low carbon fuels**, Eurogas would welcome clarifications how this will be implemented in the UDB also with respect to its connection to methane emissions import requirements.
The **EU Methane Emission Regulation** (MER, Regulation (EU) 2024/1787)[7] is directly linked to the **draft Low Carbon Fuels Delegated Regulation**[8], which establishes the methodology to calculate GHG emission savings from low carbon fuels.	This connection is explicitly recognised in the draft Delegated Regulation, and Eurogas has put forward targeted recommendations to ensure the consistent reporting of methane emissions while minimising the burden on the industry.
The **Hydrogen and Decarbonised Gas Market Package** (Directive (EU) 2024/1788 and Regulation (EU) 2024/1789) sets the rules to foster the development of a dedicated hydrogen network in the EU.	Eurogas recommends the **swift transposition** of the Hydrogen and Decarbonised Gas Market Package into national law to accelerate planning certainty, particularly with regard to tariffs, Third Party Access (TPA), transitional periods and import corridors.
The **TEN-E Regulation** (Trans-European Networks for Energy Regulation, Regulation EU/2022/869) aims at developing and integrating key **cross-border energy infrastructure projects** within the EU. It identifies and supports critical energy infrastructure projects, including hydrogen, that benefit multiple Member States (Projects of Common Interest, PCIs). The regulation supports a broad range of hydrogen infrastructure, including pipelines, electrolysers, and storage facilities. The financial aid is granted to the projects thanks to the **Connecting Europe Facility (CEF).**	In Eurogas' view, the **CEF should be strengthened** with increased funding, and this discussion should be a key part of the Multiannual Financial Framework (MFF) revision, as also suggested in the Draghi Report (2024)[9]. This would ensure greater support for hydrogen infrastructure projects, essential to scale up imports of hydrogen in the EU.

[7] The MER aims to enhance transparency and accountability in methane emissions management, applying to EU-based companies while also extending provisions to imports of natural gas from third countries.
[8] Eurogas recommends a pragmatic approach to the finalisation of the text, which is due to be published by the end of Q1 2025, as also stated in the Clean Industrial Deal.
[9] Page 34, The Future of European Competitiveness | Part B, In depth analysis and recommendations.

Rue d'Arlon 80 | 1040 Brussels, Belgium | www.eurogas.org | EU Transparency Register: 17909506129-41