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The Industrial Gases sector is essential for a net zero and resilient European economy

INTRODUCTION

The progression of a robust EU green agenda is inextricably intertwined with a **renewed** focus on evolving business models and competitiveness of European industry, together with its ability to drive the transformative journey towards sustainability.

The new "industrial phase" of the European Green Deal emerges as a cornerstone for developing strategic supply chains in Europe and bolstering decarbonisation efforts of existing industries. In this context, EIGA firmly believes that climate targets and competitiveness should go hand in hand. EIGA was therefore amongst the first signatories of the

Our members provide the gases that are essential to both the strategic autonomy of the EU (the semiconductor industry, metallurgy, chemicals, etc.) and to the protection of the environment (water treatment, recycling, hydrogen as an energy carrier, etc.). This places our sector right at the core of the transition to climate neutrality.



In this endeavour, we consistently uphold three fundamental principles: **uncompromised safety**, **level-playing field and solid expertise**. These principles guide not only our industrial operations but also our approach to policy communication, with the goal of equipping policymakers with comprehensive and scientific insights, ultimately fostering informed decision-making.

Anchored to these principles, our strategic imperatives for the upcoming term are:

- Ensuring the level-playing field between outsourced and insourced production of industrial gases to the benefit of key European industries and the development of the hydrogen economy.
- Defining clear rules for the use of low-carbon hydrogen to foster a stable investment environment.
- Providing an enabling regulatory framework for CO₂ management (following also the industrial Carbon Management Strategy) which contributes to the deployment and uptake of low-carbon hydrogen.
- In achieving sound European chemicals policy to protect human health and the environment for future generations, it should be recognized that some chemicals can be operated in a safe manner and do not have alternatives. Overly stringent regulatory principles could hamper the production and supply of industrial and medical gases under the same safe conditions as today.
- Supporting consistent application on both the medical device and the medicinal product regulations.



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SAFETY FIRST

Hydrogen (H_2) and carbon dioxide (CO_2) will no doubt play an important role in this transition. EIGA is convinced that the only successful rollout of H_2 and management of CO_2 will be a safe rollout.





EIGA is a safety and technically oriented organization

For decades the very top experts have been meeting to exchange best practices regarding safety. These best practices have been captured in industry standards, forming a safety library.



EIGA contributes to a safer rollout

EIGA has developed a user-friendly website (<u>H2safety.info</u>) to gather those best practices, industry standards and international standards to share safety information around H₂ more broadly. <u>H2 eLearnings</u> were developed to be used freely by a wide audience.



All the industry standards are also shared publicly: https://www.eiga.eu/publications





LEVEL PLAYING FIELD TO PROMOTE EFFICIENCY

Ensuring a level playing field between outsourced and insourced production of industrial gases is crucial for EIGA members and brings clear benefits to our customers and in turn to their transition to more efficient and sustainable processes.



The outsourcing model offers advantages

Via the outsourcing model (as opposed to captive or insourced production), the Industrial Gases (IG) sector delivers essential products and services to IG-consuming customers and industries, providing them with the following benefits:

- cost-efficiency,
- safety,
- reliability of supply,
- quality (i.e. compliance with strict specifications).

As a result, EIGA members operate water electrolysers in the world, and invest in the largest carbon capture installations globally. Today the industrial gases sector already offers the entire spectrum of fossil based, low-carbon and renewable hydrogen. While customers determine which hydrogen they buy, EIGA members provide the necessary technological expertise and experience.



A Level Playing Field must be maintained

It is of crucial importance to maintain a level playing field between industrial gases selfproduced by consuming industries, such as refineries or fertiliser plants, and the same gases outsourced to and produced by IG companies.

However, certain regulations fall short of providing a level playing field for producers of industrial gases. The production of industrial gases must be treated equally, regardless of the sector in which they are produced or whether these gases are produced off-site or on-site.





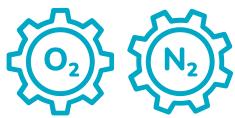


Production of hydrogen:

EIGA wants to ensure that a level playing field for the production of hydrogen is maintained, in particular regarding the allocation of free allowances under the EU Emission Trading System as this would safeguard the most cost-efficient supplies of hydrogen for industrial consumers and avoid burdensome in-house production requirements.

In addition, EIGA believes that besides growing volumes of renewable hydrogen, low-carbon hydrogen should also be recognised as a costeffective, complementary, and rapidly available decarbonisation option that can contribute to achieving ambitious EU climate targets, decarbonise hard-to-abate sectors and accelerate the ramp-up and development of the nascent market.

Now that the legal framework for renewable hydrogen has been largely established, it is important to further define the role and framework for low-carbon hydrogen with clear rules and definitions and provide off takers, producers, and investors with the necessary certainty for their investment decisions. However, over-regulation must be avoided as the market is not sufficiently mature in order to attract new private investments.



Production of oxygen and nitrogen:

For indirect emissions costs passed on from the EU Emission Trading System to electricity market prices, a level playing field must equally be ensured. Therefore, the entire industrial gases sector (including manufacturing of air gases, notably oxygen and nitrogen) should be recognized as eligible for aid and not just individual products (e.g. hydrogen). In particular with a view to the economic and environmental advantages provided by outsourced production of those gases, allowing economies of scale and efficiency improvements compared to in-house manufacturing by individual customers.

In order to avoid market distortions, EIGA calls for industrial gases manufacturers to be allowed to receive compensation for electricity consumption due to the supply of gases to other sectors which are eligible to receive such compensation under EU-ETS State aid rules.



INDUSTRIAL CO2 MANAGEMENT TO FOSTER CCS



EIGA has the expertise

EIGA members have been capturing, producing, conditioning, transporting and handling CO₂ for many decades. The sector's extensive expertise is also shared in the form of best practices and industry standards: https://www.eiga.eu/ publications/? sf_s=co2





Regulatory clarity

EIGA members offer a broad portfolio of technologies, solutions and services for the decarbonisation and CO_2 management. Regulatory clarity should further support investments in this area, for example:

- Thorough implementation of the <u>Industrial Carbon Management Strategy</u> and swift adoption of the initiatives foreseen by the strategy.
- Avoiding the cross-subsidy from one sector to another or the preferential assignment of public funds by applying the "Polluter Pays Principle" and keeping a Level Playing Field.
- A regulatory framework to support simple and swift permitting procedures, and a feasible business model to credit carbon removals through sustainable cycles, and permanent storage.
- Defining the role and framework for low-carbon hydrogen based on CCS: renewable hydrogen volumes alone will hardly match the demand of hydrogen in the short term, making low-carbon hydrogen based on CCS a necessary and complementary pathway to the development of renewable hydrogen production facilities. Indeed, the low-carbon pathway should be supported and incentivized for all hard-to-abate industries.
- In order to support the development of operational CCS value chains in the short term, a need surfaces for harmonization of the CO₂ specifications for geological storage.



DIFFERENTIATED APPROACH TO PFAS FOR THE ENERGY TRANSITION



ECHA proposals disregards benefits of certain PFAS

The European Chemicals Agency (ECHA) published a proposal to ban PFAS from the environment.

EIGA believes that PFAS in industrial settings (coating, gaskets, valves, membranes, lubricants, hoses, sealings, also at conditions of 1000bar or at cryogenic temperatures) are not sufficiently covered. For our industry there will be additional challenges for safe use with hydrogen and oxygen in cryogenic applications and specialty gases/ electronic applications. In particular, the time needed to properly evaluate alternatives should be assessed.

The proposal also disregards the <u>importance of</u> <u>fluoropolymers for the energy transition</u> and the EU's net zero industrial aspirations. EIGA considers that a more specific evaluation of each substance's profile is needed and calls for the recognition that fluoropolymers meet OECD requirements as polymers of low concern. Research has shown that fluoropolymers are safe and do not pose a significant risk to human health or the environment when used for their intended purposes.



EIGA calls for realism and pragmatism

While fully supporting the objective of reducing the impact of PFAS materials on human health, our members are very concerned about the impact of the restrictions on the safety performance of our industry and about the impact on our employees, customers, and patients.

In fact, the proposed restriction will affect the possibility to supply critical and strategic gases, including medical oxygen, specialty gases and hydrogen for decarbonisation.

EIGA calls on legislators to reassess the position of fluoropolymers within the PFAS restriction in favour of a rational, proportional, and differentiated approach that will not undermine the investments into European clean tech so far, and the crucial role these technologies will play in helping us to decarbonise our entire society.





CONSISTENT SAFETY STANDARDS FOR MEDICAL GASES



Medical gases save lives on a daily basis

EIGA Members are market leaders in the manufacturing and supply of medical gases to healthcare facilities and homecare, with medicinal oxygen being our main respiratory medicine product.

EIGA is a member of the Industry Standing Group within the European Medicines Agency. The latter has acknowledged our efforts during the COVID-19 pandemic, during which our members managed to assure a continuous supply of medicinal oxygen to healthcare responders and patients. There are many other medical gases uses, such as for anaesthesia, cryotherapy, lung function testing and carbon dioxide for laparoscopic surgery.



EIGA calls for consistent safety standards

To ensure patient safety, and as explained in our White Paper on Manufacturing of Oxygen for Medicinal Use, EIGA requests that the competent authorities provide harmonised guidance on how to apply consistently both the medical device and the medicinal product regulations for on-site manufacturing of medicinal gases at healthcare facilities.







Nitrous oxide is used in the food industry as a propellant in whipped cream canisters. It is also used in medicine for anaesthesia (anaesthetic) and as a painkiller (analgesic). As such it also falls under both pharmaceutical and food regulations. It also is an important substance in the manufacturing of electronic components.



<u>Appalled</u> by the misuse of nitrous oxide (N_2O) , EIGA calls for a harmonised European approach in legislative control of the abuse on N_2O .





Based in Brussels, EIGA is a safety and technically oriented organization, representing most European companies producing and distributing industrial, medical and food gases. Our member companies maintain unparalleled experience in the production and transportation of hydrogen, supporting the climate transition with the highest levels of expertise required. The industrial gases sector has already developed a hydrogen pipeline network. Private pipelines have been developed by private companies to supply other private companies with ultra-pure H_2 among other technical specifications. These clients decided to outsource their H_2 needs to industrial gas specialists that take the liability. Meeting the exponential growth in hydrogen demand we expect will require new hydrogen infrastructure. Hence, a regulated public European H_2 backbone and unregulated private H_2 pipelines should coexist.

Contact

Sandrine Devos Head of Public Affairs EIGA - European Industrial Gases Association

Mobile: +32 472 38 07 00 Email: <u>s.devos@eiga.eu</u> EU Transparency Register No: 04077716126-17 Website: <u>www.eiga.eu</u>

