

EIGA



THE EUROPEAN INDUSTRIAL GASES INDUSTRY



Facts & Figures **2024**

May 2025

Disclaimer

All technical publications of EIGA or under EIGA's name, including Codes of practice, Safety procedures and any other technical information contained in such publications were obtained from sources believed to be reliable and are based on technical information and experience currently available from members of EIGA and others at the date of their issuance.

While EIGA recommends reference to or use of its publications by its members, such reference to or use of EIGA's publications by its members or third parties are purely voluntary and not binding.

Therefore, EIGA or its members make no guarantee of the results and assume no liability or responsibility in connection with the reference to or use of information or suggestions contained in EIGA's publications.

EIGA has no control whatsoever as regards, performance or non performance, misinterpretation, proper or improper use of any information or suggestions contained in EIGA's publications by any person or entity (including EIGA members) and EIGA expressly disclaims any liability in connection thereto.

EIGA's publications are subject to periodic review and users are cautioned to obtain the latest edition.

Copyright

EIGA grants permission to reproduce this publication provided the Association is acknowledged as the source.



**The
Association**

06



**The
Market**

16



Decarbonisation

34



Energy

42



Table of Contents



“ They are invisible, so you don’t see them. Nevertheless, you all know and use our products. It would be difficult not to, they are used everywhere: in manufacturing, chemicals, metals, food, electronics, space and healthcare - to name a few.”

Philippe Cornille, General Secretary



There are at the centre of the decarbonisation ambitions, they save lives, they help protect the environment, they make the food you consume safe.

So it is worth making them visible: for a better understanding of the Industrial Gases sector, EIGA has produced this “Facts & Figures” booklet.



IG = Industrial Gas.

TPD = Metric Tonnes Per Day.

Data is for base **year 2023** and for EU27 unless specified otherwise.



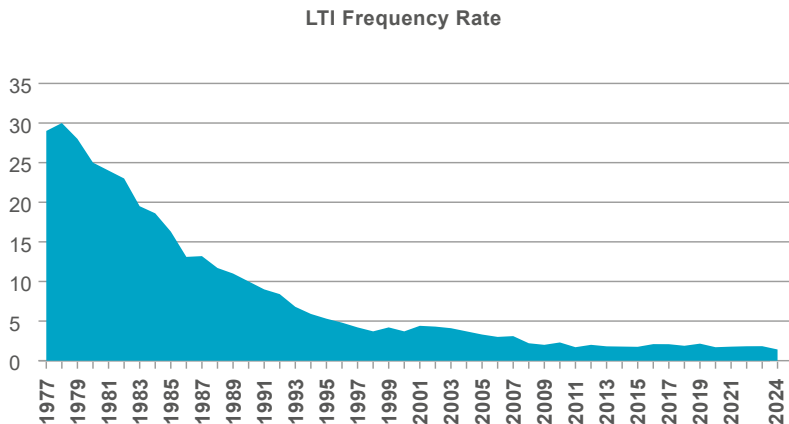
The Association





IMPROVING SAFETY RECORD

Lost Time Incidents (LTI) from across our industry show the effectiveness of our safety campaigns since the late 1970s with a tenfold reduction in LTI frequency.



Source: EIGA

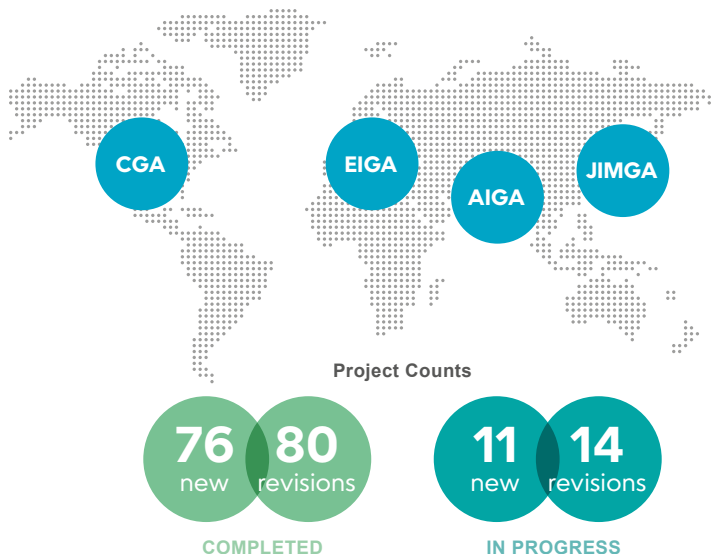






76 PUBLICATIONS HAVE BEEN GLOBALLY HARMONISED

The American, Asian, European and Japanese IG associations form the International Harmonisation Council to develop and promote a globally unified industry best practices. These harmonised publications enhance safety consistently, wherever Industrial Gases are produced, distributed or used.

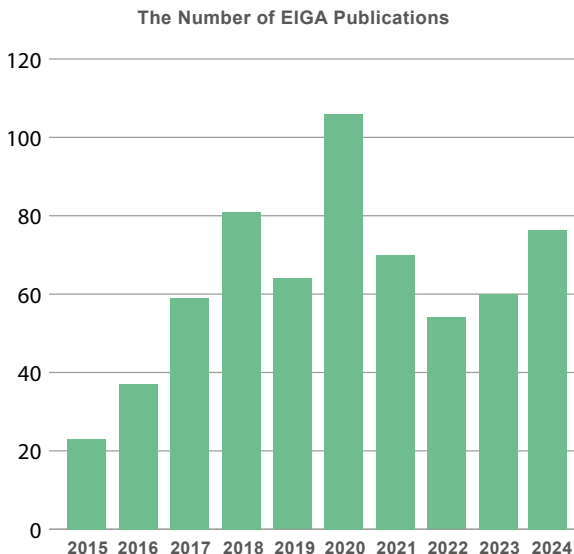


Source: EIGA



ON AVERAGE, A PUBLICATION IS PUBLISHED EVERY WEEK

The combined expertise of EIGA members is captured in over 500 publications. The largest portion is made available for all on our website.



Source: EIGA







THE WORKING GROUP EXPERTS FORM EIGA'S BEATING HEART

Experts from all over Europe and beyond gather in EIGA working groups. On average such group comprises around 7 experts, and meets quarterly.





The Market

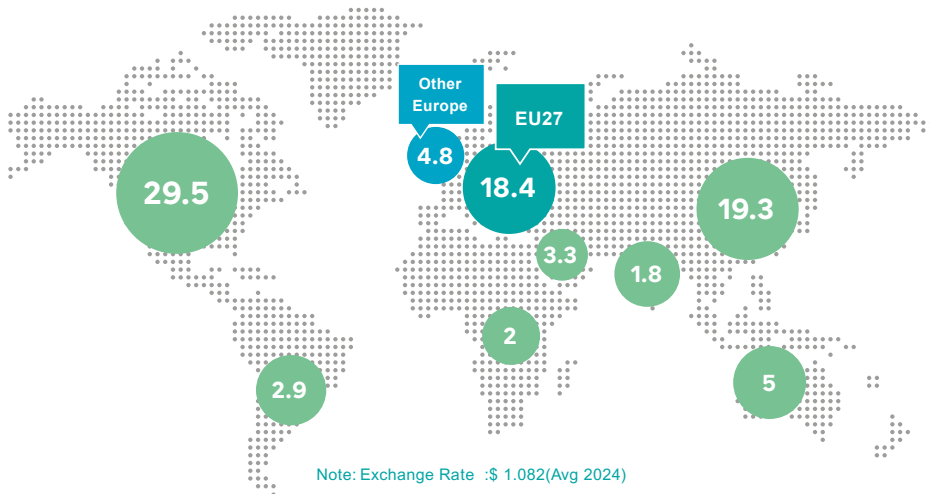






THE EU IS THE THIRD LARGEST IG MARKET IN THE WORLD

In 2024, the global industrial gas market's value stood at €86.9 billion, being mostly flat comparing to the previous year. The market remained largely flat in terms of volume, with fluctuations across regions largely attributable to inflation and energy pass-through costs. In 2024, the EU market held steady at nearly the same level as in 2023, with only a modest decline driven mainly by macroeconomic indexes.

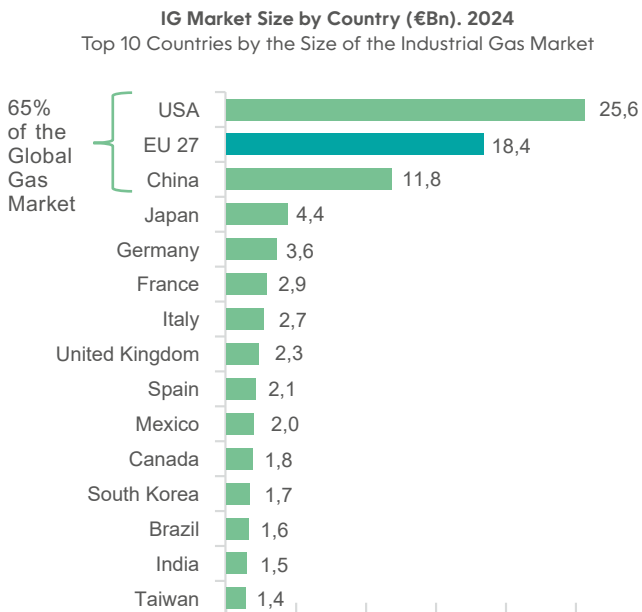


Source: gasworld Business Intelligence



THE EU27, USA AND CHINA ARE THE THREE LARGEST IG MARKETS

Germany, France, Italy and UK are the largest European Industrial Gas markets.



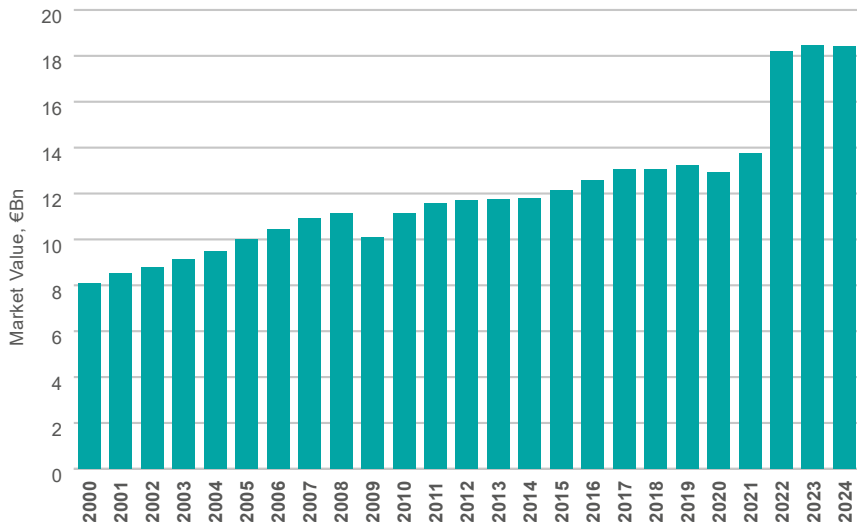
Source: gasworld Business Intelligence



EU27 MARKET GROWTH AVERAGED 4.9% PER YEAR IN 2014-2024

The EU market has witnessed a steady increase in value over the past decade. EU market held steady at nearly the same level as in 2023, with only a modest decline driven mainly by macroeconomic indexes.

EU27 Market Size vs Global Gas Market 2024

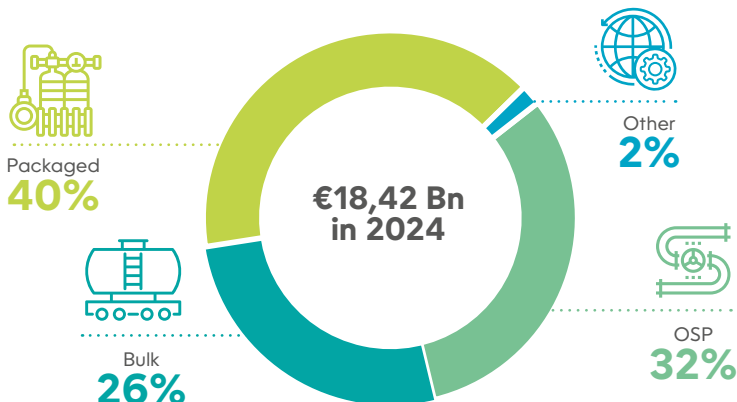


Source: gasworld Business Intelligence



THE MODE OF SUPPLY, IN PERCENTAGE TERMS, HAS BEEN STABLE OVER THE LAST 20 YEARS

The EU gas market (by value) appears mature with packaged gases remaining the largest mode of supply.



- **OSP** – onsite or pipeline gas supply;
- **Bulk** – gas supplied in liquid form to customers (incl. microbulk and tube trailer business);
- **PG** – compressed gas supplied in cylinders/bundles;
- **Other** – any other delivery of gas not covered by the above methods. This includes dry ice and revenues generated from licences and special chemical gases.

Source: gasworld Business Intelligence



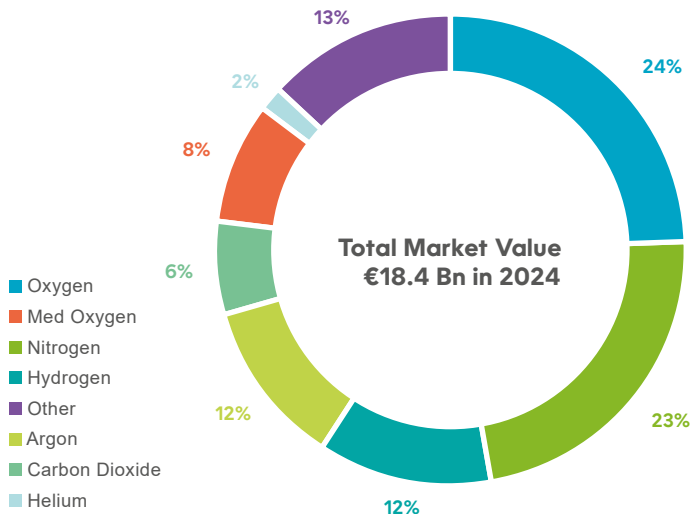




OXYGEN AND NITROGEN REMAIN THE MOST WIDELY USED GASES IN THE EU27

Altogether O₂ (including medical) and N₂ account for about 56% of the gas market.

EU27 Gas Market Split by Gas



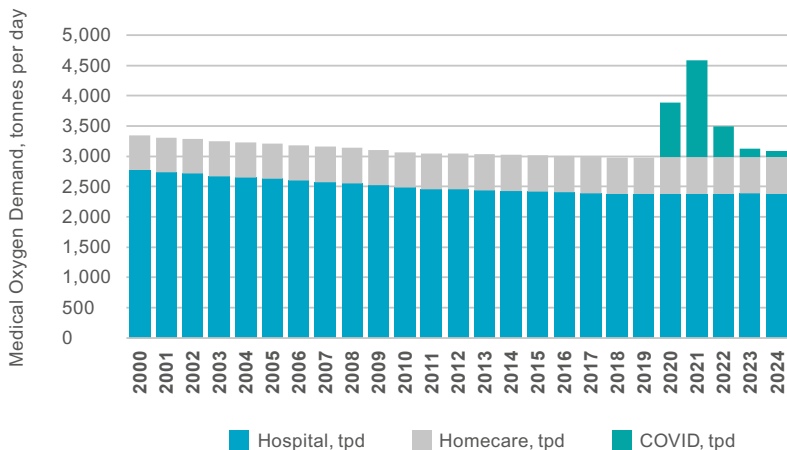
Source: gasworld Business Intelligence



AVERAGE MEDICAL OXYGEN DEMAND SIGNIFICANTLY INCREASED IN 2020-21

The COVID-19 pandemic significantly increased oxygen demand in 2020/21. Although demand declined in 2022, it still added approximately 500 tonnes per day to the total. In 2023, this additional demand dropped sharply due to a reduction in severe cases requiring intensive oxygen support. COVID-related oxygen demand is expected to remain low and gradually disappear by the end of the decade. Meanwhile, homecare oxygen demand continues to grow steadily, driven by age-related diseases in an ageing population, while hospital demand is slowly declining due to a reduction in the average number of hospital beds.

Medical Oxygen Demand



Source: gasworld Business Intelligence



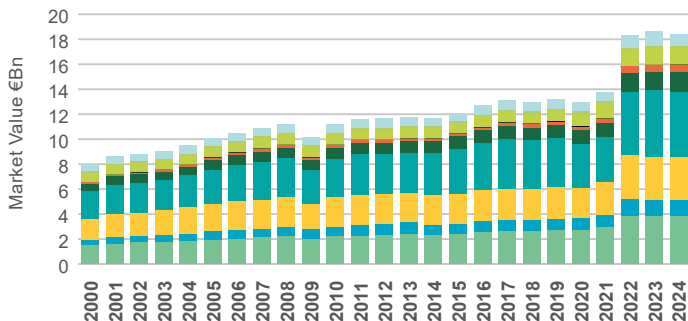




FOUR INDUSTRIAL SECTORS ACCOUNT FOR OVER 70% OF THE IG MARKET

Chemicals, Refining/Energy, Metallurgy and Food sectors have all driven growth in the EU over the past 20 years. Electronics sector is a new driver, which potentially will be stronger than the traditional sectors of growth in the long term.

Gas Market Split by End User



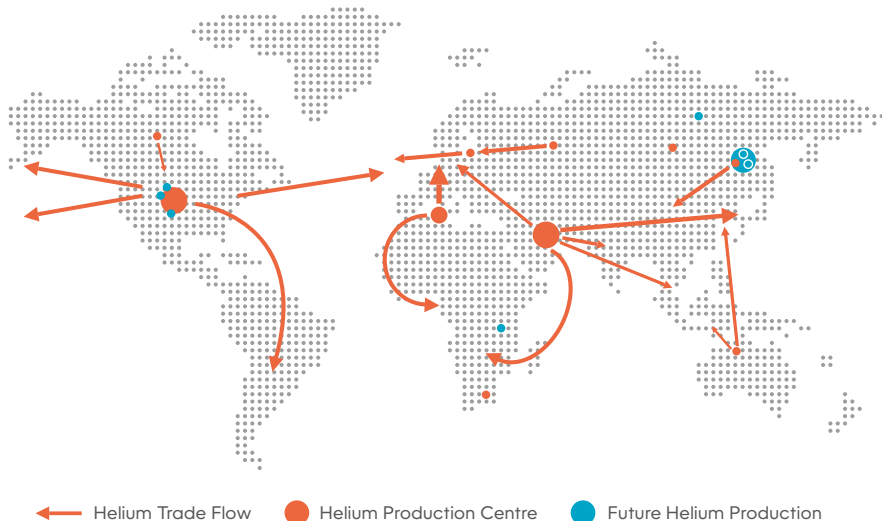
Source: gasworld Business Intelligence

- **Chemicals** – basic chemicals, plastics, rubber, petrochemicals, pharmaceuticals;
- **Refining & Energy** – refineries, nuclear energy;
- **Metallurgy** – ferrous, non-ferrous metals manufacturing;
- **Manufacturing** – fabricated metal products, machinery, vehicles, trains, aerospace etc;
- **Food** – food, drinks, tobacco;
- **Electronics** – electronic products/elements manufacturing;
- **Pulp & Paper** – pulp and paper manufacturing;
- **Healthcare** – mostly medical oxygen for hospitals (liquid and gaseous);
- **Glass** – glass manufacturing;
- **Others** – waste & water treatment, fire extinguishers, R&D.



INTERNATIONAL HELIUM TRADE

The helium market in the EU is growing at an annual rate of approximately 2.1%. Europe's overall market share (including both EU and non-EU countries) remains steady at around 34%. However, the EU's share is gradually declining due to faster growth in other regions. As expected, NoPac leads the market, followed by a collective group of non-EU European countries and South Asia.



Source: Spiritus Consulting

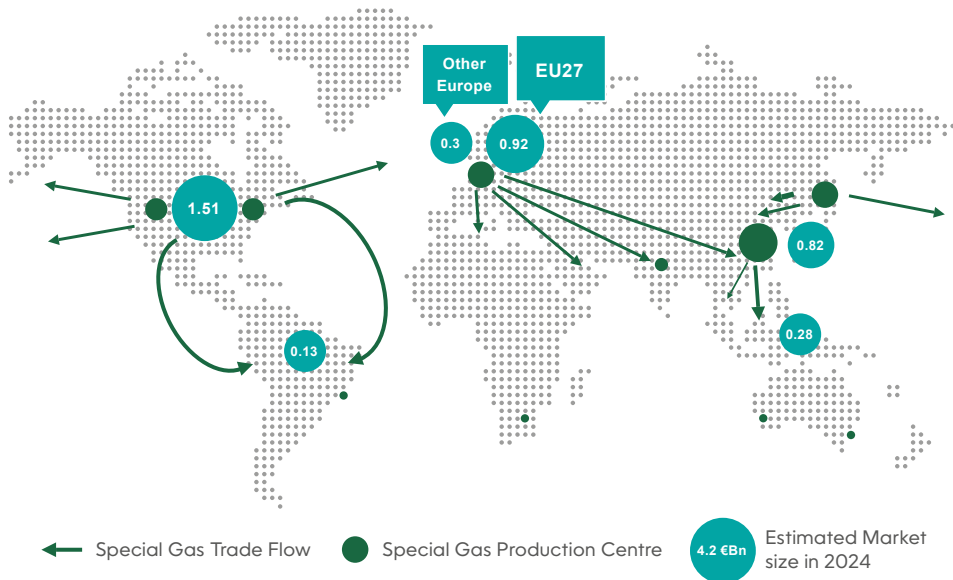






TRADE IN SPECIAL GASES

There are many types of special gases and electronic gases traded across the globe. The EU both manufactures and trades special gases and is the 2nd largest special gases market in the world.



Source: Spiritus Consulting



Decarbonisation

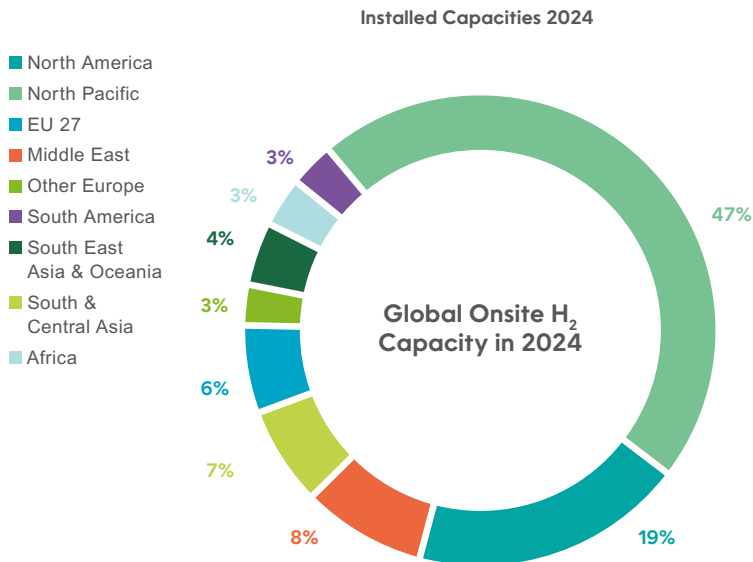






HYDROGEN PRODUCTION CAPACITY IN EUROPE

The EU27 traditional hydrogen business is currently the 5th largest market worldwide. Current low carbon & renewable installed capacity in EU27 is 6%.

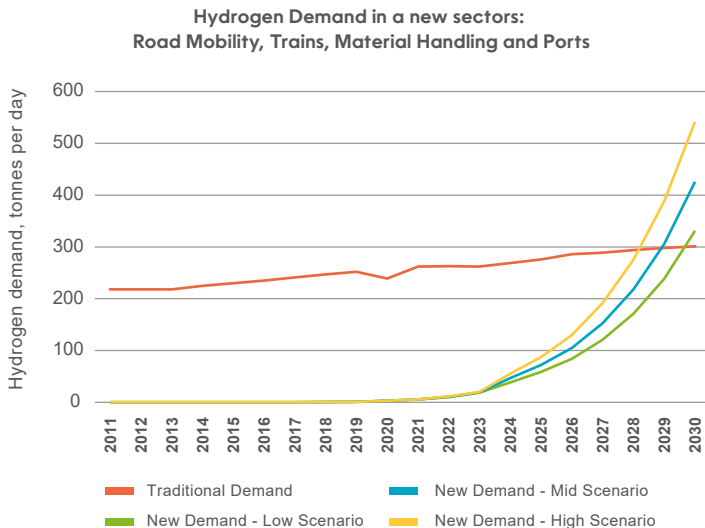


Source: gasworld Business Intelligence



THE HYDROGEN ECONOMY - THE NEW OPPORTUNITY

The EU is speedily embracing the energy transition and hydrogen is expected to play an ever-increasing role – especially in mobility within Europe. The transition has already begun but the most growth is expected to take place post 2030.



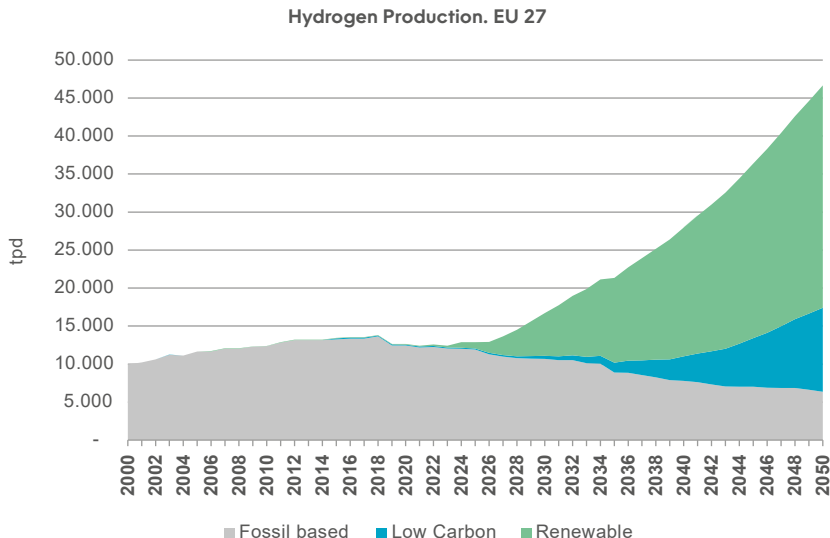
Scenarios of the hydrogen demand growth

Source: gasworld Business Intelligence



HYDROGEN PRODUCTION WILL SWING FROM FOSSIL BASED TO RENEWABLE

Aiming for Net Zero by 2050 – Europe will invest in alternative and cleaner hydrogen production methods over the next 3 decades.



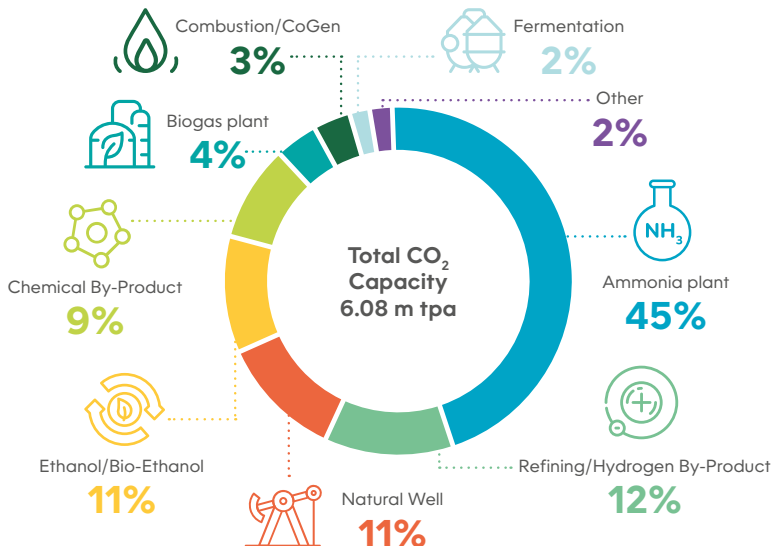
Source: Hydrogen Council McKinsey Report



SOURCING OF QUALITY CO₂ IS A GROWING ISSUE

There is a demand for over 3 million tons of CO₂ in many different applications across the EU. While there is an apparent over-capacity the demand at peak times and reliance on ammonia has resulted in tight supply markets. Ammonia still appears to be the major source of CO₂ in Europe. Share of Ethanol/bioethanol plants are growing.

CO₂ Product By Source 2024



Source: gasworld Business Intelligence





Energy



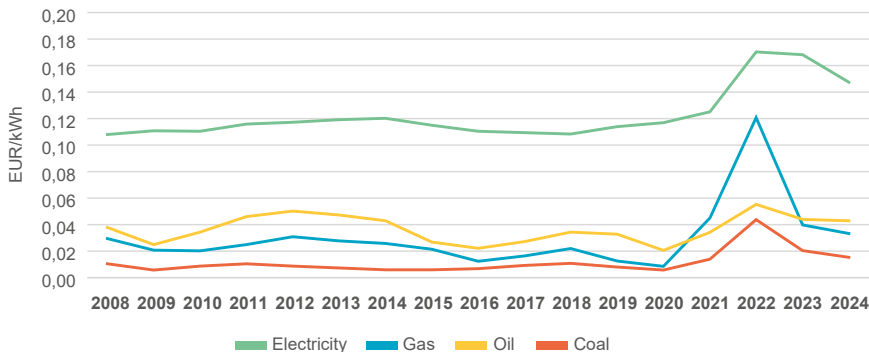




THE IG INDUSTRY IS ENERGY INTENSIVE

Higher energy costs are impacting on the industrial gases sector within the EU.

EU Energy Costs 2024



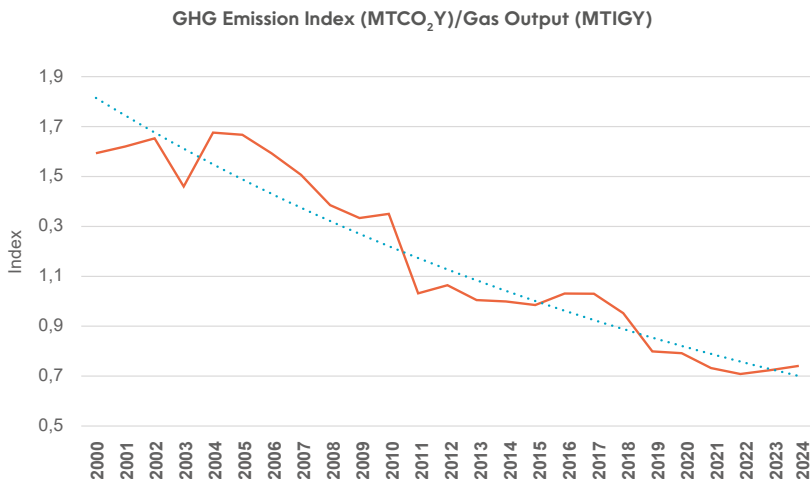
Note: The natural gas, electricity and oil prices are for Europe, but the coal prices are global.

Source: gasworld Business Intelligence, based on Eurostat data and commodity trade prices



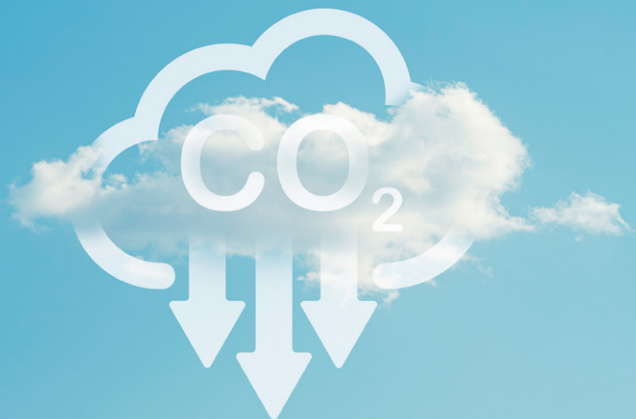
LOWERING OUR CARBON FOOTPRINT

Likewise, our industry is increasing efforts to lower their own carbon footprint – cutting emissions since 2000 with the further with a downward trend.



Note: Emissions reported for Air Liquide, Air Products, Linde and Nippon Gases. Missing data were estimated

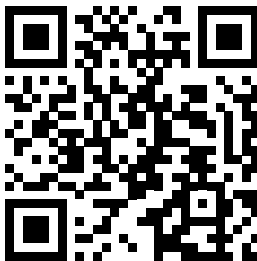
Source: Company Reports/gasworld Business Intelligence estimates



Our Members

- AIR LIQUIDE
- AIR PRODUCTS
- BARIT MADEN TÜRK A.S.
- BUSE GAS B.V.
- BUZWAIR INDUSTRIAL GASES FACTORIES
- CARBO KOHLENSÄUREWERK HANNOVER GmbH
- FREYCO KOHLENSÄURE SERVICE GmbH & Co.KG
- GAS TECNICI FOLIGNO SRL
- HABAS Sinai Ve Tibbi Gazlar Ist. End. AS
- IJSFABRIEK STROMBEEK NV
- IRISH OXYGEN COMPANY LTD
- LINDE
- MAXIMA – AIR SEPARATION CENTER Ltd
- MESSER
- NIPPON GASES
- MULTIGAS Ltd.
- OY WOIKOSKI AB
- SHELL GLOBAL SOLUTIONS INTERNATIONAL B.V.
- SIAD
- SN SEIXAL – SIDERURGIA NACIONAL S.A.
- SOL
- STRANDMÖLLEN A/S
- TYCZKA AIR AUSTRIA GMBH
- UAB GASCHEMA
- WESTFALEN AG

- ASIA INDUSTRIAL GASES ASSOCIATION (AIGA)
- AUSTRALIA NEW ZEALAND INDUSTRIAL GAS ASSOCIATION (ANZIGA)
- Austria – ÖIGV
- Belgium – BELGIAN INDUSTRIAL & MEDICAL GASES ASSOCIATION – c/o ESSENSCIA ASBL
- Bulgaria -BULGARIAN INDUSTRIAL GASES ASSOCIATION c/o SIAD BULGARIA EOOD
- COMPRESSED GAS ASSOCIATION, INC. (CGA)
- Czech Rep. – CATP
- Denmark – PCG – c/o STRANDMÖLLEN A/S
- Finland – FINNISH INDUSTRIAL GASES INDUSTRY – c/o OY LINDE GAS AB
- France – AFGC
- Germany – IGW
- Greece – HELLENIC ASSOCIATION OF INDUSTRIAL AND MEDICAL GASES (HAIMG)
- Hungary – MIGSZ (Hungarian Industrial Gases Association)
- INTERNATIONAL OXYGEN MANUFACTURERS ASSOCIATION, Inc. (IOMA)
- Italy – ASSOGASTECNICI
- JAPAN INDUSTRIAL AND MEDICAL GASES ASSOCIATION (JIMGA)
- Latvia – LATVIAN INDUSTRIAL GAS ASSOCIATION (LIGA) – Division of LAKIFA (Assoc of Latvian Chemical and Pharmaceutical Industry)
- MIDDLE EAST GASES ASSOCIATION (MEGA)
- Norway – NORSK INDUSTRIGASS FORENING (NIGF) c/o LINDE GAS AS
- Poland – PFGT (Polska Fundacja Gazów Technicznych)
- Portugal – APQUÍMICA – Associação Portuguesa da Química, Petroquímica e Refinação
- Romania – INDUSTRIAL GAS ASSOCIATION OF ROMANIA (IGAR)
- Slovakia – SAVDTP – c/o Messer Tatragas
- Slovenia – GIZ TP c/o MESSER SLOVENIJA d.o.o.
- South Africa – SOUTHERN AFRICA COMPRESSED GASES ASSOCIATION
- Spain – AFGIM – ASOCIACIÓN DE FABRICANTES DE GASES INDUSTRIALES Y MEDICINALES
- Sweden – SVENSKA INDUSTRIGASFÖRENINGEN (SIGA)
- Switzerland – IGS – Industriegaseverband Schweiz
- The Netherlands – VFIG
- United Kingdom – BCGA



European Industrial Gases Association - EIGA
Avenue de l'Astronomie 30 – B-1210 Brussels

Tel: +32 2 217 7098 ▪ info@eiga.eu 

www.eiga.eu
h2safety.info