Common misconceptions about Autogas

Why is this alternative fuel not being considered as part of the energy puzzle?
Road transport represents almost 20% of Europe’s total greenhouse gas emissions (GHG) and is the main cause of air pollution in cities\(^1\text{,2}\). The European Commission estimates that more than 39% of nitrogen oxides (NOx) and 10% of primary PM\(_{2.5}\) and PM\(_{10}\) emissions in the EU come from this sector\(^3\). To improve air quality today, we need sustainable transport solutions which are cleaner, accessible and affordable so all EU citizens can be part of the energy transition.

Autogas, which includes vehicles running on renewable liquid gas or LPG, is the number one alternative fuel in Europe\(^4\). Autogas lowers emissions of NOx by 62% and particulates by 90%\(^5\). With over 8.5 million registered vehicles in the EU running on Autogas today\(^6\), either through new car purchases or retrofits of existing cars, and with over 30,700 Autogas filling stations\(^7\), European citizens have access to a fuel that can help them get to their destination in a sustainable manner.

Unfortunately, Autogas is often overlooked by EU legislation. The impending ban on internal combustion engines in 2035, the lack of clear definition of CO\(_2\) neutral fuels, creates a risk for consumers to have less access to viable and affordable solutions such as Autogas.

To improve air quality today, we need sustainable transport solutions which are cleaner, accessible and affordable so all EU citizens can be part of the energy transition.
Autogas is an available alternative fuel fit for the green transition

30,719
There are over 30,719 Autogas dispensing sites in the EU and more than 81,000 Autogas filling stations globally.

In Poland, 81% of the 9,100 filling stations offer Autogas.
In France, there are over 1,500 Autogas stations, which represents 1/6 of the overall infrastructure.
In Italy, there are almost 4,600 Autogas stations, representing 22% of the total 21,700 stations. This infrastructure has been constantly growing, together with the national LPG vehicle fleet.

100%
The liquid gas industry is on a path to becoming 100% renewable by 2050. Renewable liquid gases are a drop-in solution that can be used in the existing car fleet without the need of making any additional modifications.

Renewable liquid gases, such as renewable LPG and renewable and recycled carbon DME, are a promising possibility for a more sustainable future, and they should be considered as CO₂ neutral fuels in relevant EU pieces of legislation.

Technology neutrality must be ensured to allow a just and affordable transition leaving no one behind, while securing a decrease in emissions with ready-to-use technologies.

AFFORDABLE
Autogas is an affordable and proven solution to address both CO₂ and pollutant emissions. In the past 5 years, Autogas was on average 64% the cost of Euro 95. For instance, in Poland, Autogas was on average 49% the price of Euro 95 in 2022.


For instance, a commercialised pathway to produce renewable liquid gas is through the biorefinery of Hydrotreated Vegetable Oils.
Autogas is future proof

16.7%

While vehicles powered by LPG grew by 16.7% in the last quarter of 2022, 29 new Autogas car models were launched in 2023 by leading manufacturers such as Renault, Kia, Fiat, Dacia, Lancia.

In Italy, Autogas is the most popular alternative fuel solution, with 2.9 million vehicles currently running on Autogas, which represents 52% of the vehicle fleet running on alternative energy sources. In 2022 in Italy, 118,791 new Autogas cars were registered, and 47,000 cars were retrofitted.

In Poland, the share of passenger cars powered by alternative fuels reached 16.3% in 2021. This is to a large extent due to a high number of cars retrofitted for Autogas.

Autogas abides by high safety standards

SAFE AND SIMPLE

Fuelling with Autogas is as safe and simple as filling up with gasoline or diesel. Autogas meets the same standards for safety as conventionally fuelled vehicles.

Properly installed Autogas vehicle fuel tanks can add to the structural integrity of a vehicle.

Autogas fuel tanks are 20 times more puncture-resistant, and can withstand far more pressure than typical gasoline tanks.

Vehicles powered by Autogas register a significant and constant growth.

In the first two quarters of 2023, 77,123 new Autogas vehicles have been registered in Italy, and almost 16,000 existing vehicles have been retrofitted.

During the first semester of 2023, 34,019 new Autogas vehicles have been registered in France, which represents an increase of 40% compared to the previous year.

7 of the 10 largest car manufacturers produce LPG cars.

Vehicles powered by Autogas register a significant and constant growth.

Autogas is a safe alternative fuel that is non-toxic, non-corrosive and insoluble in water.
Autogas can lower emissions & improve air quality

12%

Passenger cars represent 12% of the total EU emissions of carbon dioxide (CO\textsubscript{2}) and are the largest source of air pollution in cities\textsuperscript{33}.

Autogas is easy to use and accessible

Autogas is the most available and reliable solution to help tackle CO\textsubscript{2} and pollutant emissions: compared to petrol, it emits up to 21% less CO\textsubscript{2}, 62% less NOx and 90% less PM on a well-to-wheel basis. Compared to diesel, it emits 96% less NOx and 92% less PM\textsuperscript{34}.

Renewable gases can lower the carbon footprint of LPG by around 80% while offering air quality benefits\textsuperscript{35}. They offer a great opportunity to defossilise the set of available fuels for the present and future vehicle fleet in the EU.

Renewable & recycled carbon DME is a liquid gas chemically similar to LPG, which can be blended with LPG or used on its own in Autogas cars\textsuperscript{36}.

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Autogas can be used in combination with other energy sources, offering the best of both worlds\textsuperscript{38}. For example, Autogas vehicles can typically run on either petrol or LPG, as they are equipped with two separate tanks, one for petrol and one for LPG. With both tanks full, these vehicles can have a cumulative range of over 1,000 km. This operation ensures an unlimited radius of circulation: petrol can be found in all stations and LPG is present in 1 station out of 4 on average in Europe and in 1 station out of 6 on average in France. Some hybrid vehicles can even run on three fuels, i.e., LPG or petrol combined with an electric motor\textsuperscript{39}.

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A car running on LPG not only pollutes less, but it is also cheaper and has a greater autonomy than a vehicle running only on traditional fuel.