g-mobility: Driving Circular Economy in Transport

Unveiling the benefits of gas in transport by presenting our vision and illustrating our EU roadmap for a sustainable future through g-mobility.
Climate change and air quality are among the greatest challenges in our society. The transport sector has to go through a deep transformation in the next decades. Natural gas and especially renewable gas represent a concrete answer to these challenges: it helps to accelerate the circular economy model, where sustainable biomass is recycled and transformed into clean transportation fuel.

The production potential is estimated at 45 bcm in 2030, consisting of 19 bcm made from anaerobic digestion, 13 bcm from Power-to-Gas and 13 bcm made from gasification. Out of the total production, 9 bcm will be used in transport. Renewable gas is the result of a local fuel production which supports the local economy and employment. At the same time, production of sustainable fertilizers will enable the recycling of nutrients.
Climate change can be mitigated through the decarbonization of the transport sector. This process needs to be assessed by considering the Well-to-Wheel (WTW) greenhouse gas (GHG) emissions, a combination of the fuel production and distribution (WTT), as well as the emissions generated during the fuel combustion on the vehicles (TTW). Under this perspective, renewable gas is a strong accelerator to carbon neutral mobility.

By switching 13.2 million conventional to natural gas vehicles, WTW GHG emissions will be reduced from 96 Mt down to 52 Mt given 30% renewable gas in the EU mix. When using 80% renewable gas, carbon neutrality can be realized.

With g-mobility, carbon neutrality and increasing air quality are possible.

In many countries in Europe, renewable gas production is already standard practice. It will be more and more available in the future to support the decarbonisation.

g-mobility is a key player for transport decarbonization and improving air quality. Renewable gas is fully compatible with current natural gas technologies. Blending can be made in any proportion and without any impact on vehicles and infrastructure.
Natural gas, together with increasing amounts of renewable gas, is a fundamental player in a low-carbon future: clean combustion, low carbon dioxide (CO₂) emissions, technology maturity, availability and competitive fuel cost are key factors to boost its role.

Through Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG), a complete range of applications can be supported, from small city cars up to long-haulage trucks, as well as in the maritime sector.