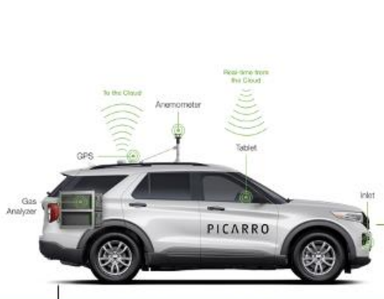
# From Measurements to Mitigation through Direct Emission Measurements

United States, Italy, United Kingdom, Germany, France, Greece / Europe

Italgas has reduced methane emissions by 81% in 2022 (considering 2015 as the base year) and is well on track to achieve 83% emissions reduction by 2025. These results have granted Italgas the OGMP 2.0 Gold Standard for three consecutive years

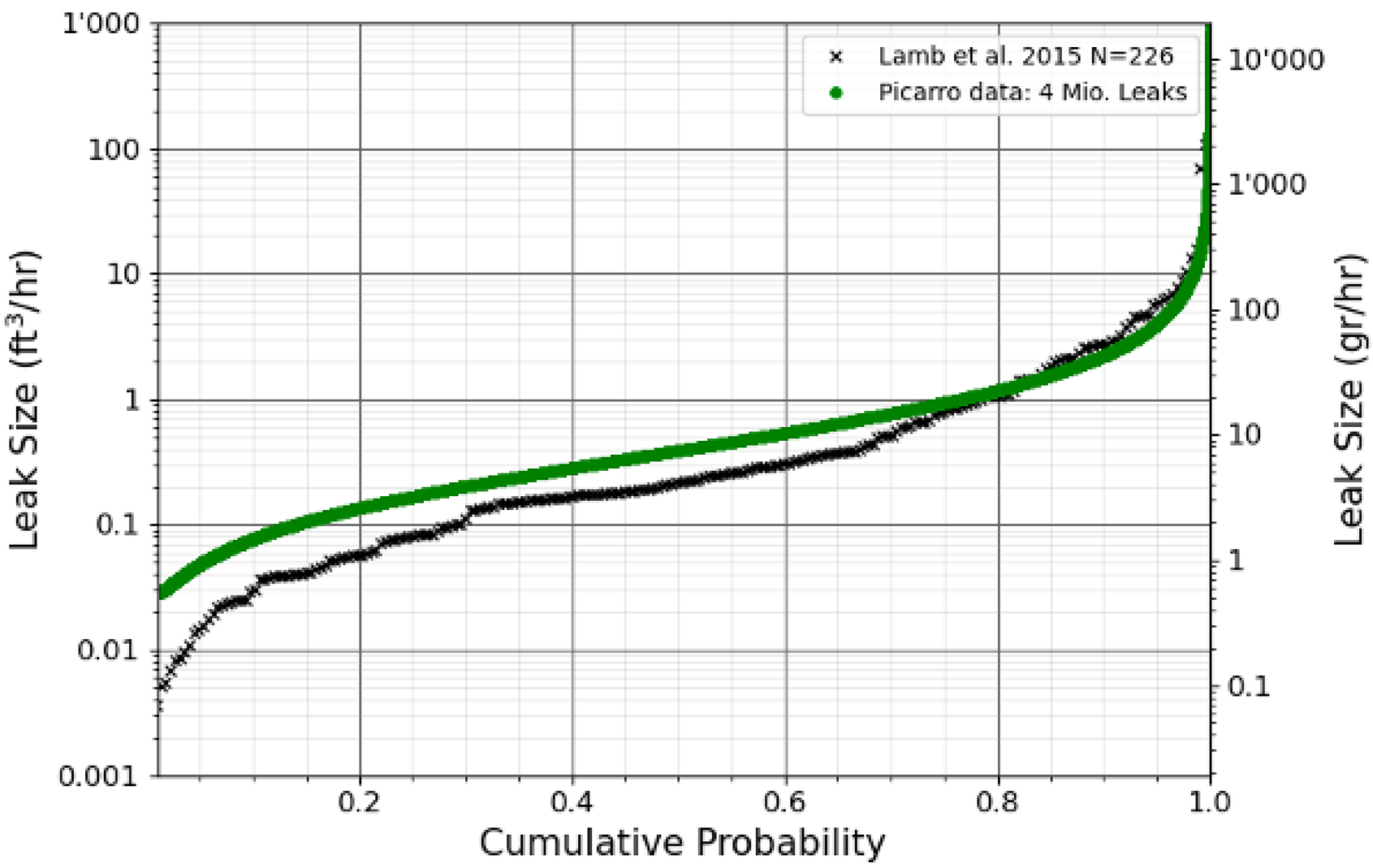
EMISSIONS REDUCTION FROM BASE YEAR

**-81%**










## PROJECT DESCRIPTION

Direct methane emission measurements have shown an extremely skewed distribution, where only a small percentage (5%) of all leaks represent a large portion (50%) of total emissions. This provides an opportunity for the gas industry, as the repair of only a few leaks could lead to large emission reductions. The challenge is to find these large leaks, as they can be anywhere on the distribution grids and only direct emission measurements can reveal their location and size.

Italgas has been using the Picarro solution to detect and quantify large leaks on their distribution grid. Localizing and repairing these few large leaks has allowed Italgas to drastically reduce their emissions compared to the baseline and put them well on track to reach the aggressive reduction target of 83% fewer methane emissions by 2025. Furthermore, direct emission measurements by Picarro provide a scalable and accurate data set for emissions quantification and reporting.

## PARTNERS INVOLVED IN PROJECT

- Picarro
- Italgas

## RESULTS ACHIEVED

- Direct emission measurements reveal that only 5% of all leaks represent 50% of the total emissions across the gas distribution infrastructure.
- Direct emission measurements are needed to rapidly detect and repair these largest leaks (super emitters) and mitigate their emissions.
- Measurements reduce uncertainties of emission quantification and help to identify emission hotspots.
- Picarro clients using direct emission measurements have achieved the highest OGMP 2.0 reporting levels (Gold Standard).

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