

DEVELOPMENT OF CONVENTIONAL AND HYBRID ENGINES POWERED WITH LIQUID AND GASEOUS FUELS WITH LOW ENVIRONMENTAL IMPACT

Innovations and Benefits - The methane-hydrogen mixtures have a hydrogen content ranging from 8% (by volume) up to 36%. The interest for these fuels is constantly increasing both in Italy and abroad (Sweden, United States), for the opportunities they seem to offer in terms of vehicle emissions reduction and for the role they can play in facilitating the use of hydrogen as energy carrier in the automotive sector. The results of our experiences have confirmed expectations and the technology has shown double value, both in the reduction of the environmental impact and in the expansion, at a very modest cost, of the production range of the national automotive industry.

Use - Low environmental impact mobility systems.

Applications and ongoing Activities - Several test campaigns have been carried out - three projects financed and completed in ENEA - to demonstrate the potential of such fuels in terms of reducing emissions and consumption compared to methane.

European project MyHbus together with the Emilia Romagna Region, recently concluded, with the putting into service of a city bus powered with a mixture having a 15% content of Hydrogen.



Bus 12 mt. powered with a mixture having a 15% content of Hydrogen, in Casaccia

