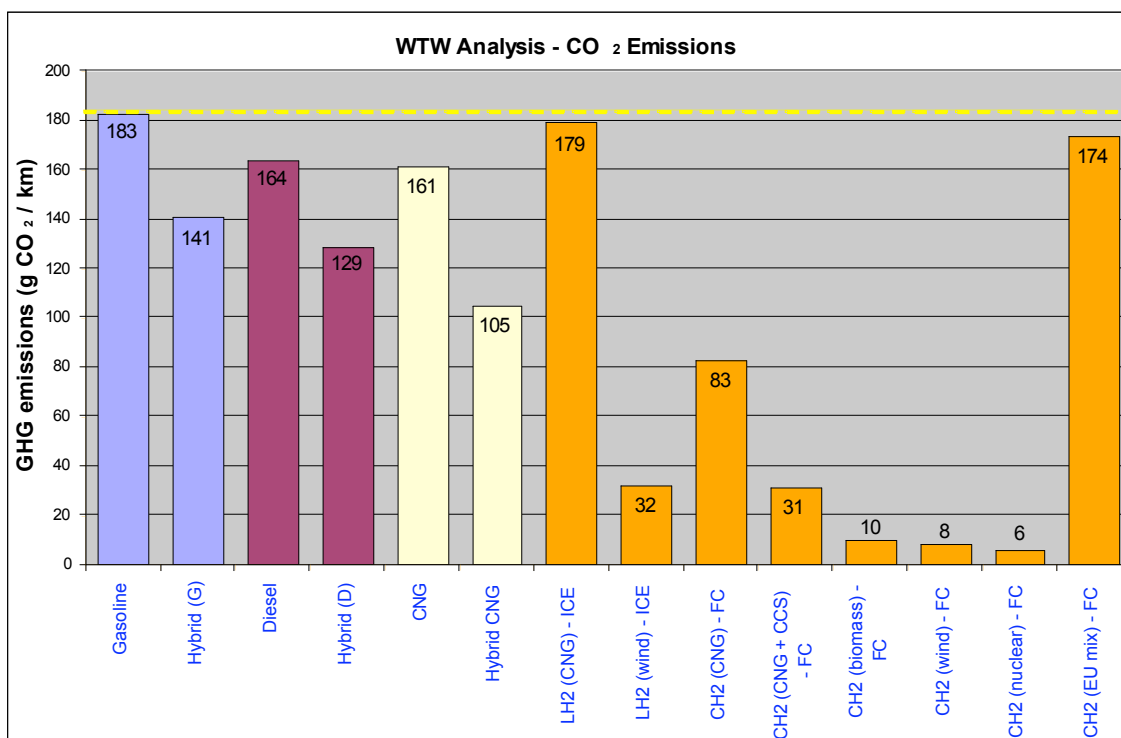


Subproject Users – Why Hydrogen?
Short comparison between H₂ and conventional fuels

Objectives

- ❖ H₂ is an energy carrier, which can be produced by conventional primary energy sources like compressed natural gas (CNG) or renewable energy sources like wind or biomass. For transport applications, the use of H₂ as a future fuel has to show significant advantages in terms of energy consumption and CO₂ emissions.
- ❖ The analysis of CO₂ emissions is based on a well-to-wheel analysis, which considers the overall fuel chain and vehicle efficiencies.

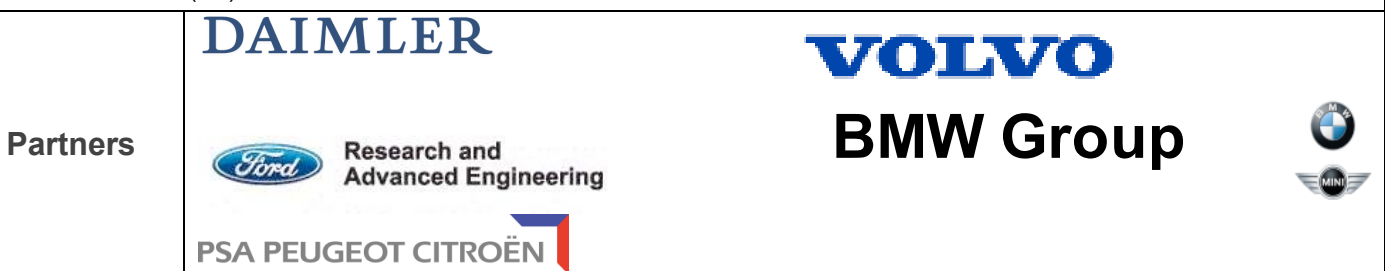
EUCAR WTW Analysis (updated in 2006)
 (European Council for Automotive Research)



Conclusions:

- ❖ H₂ as an energy carrier has high potentials for lowering CO₂ emissions of vehicles.
- ❖ The primary energy sources used for H₂ production have a high impact on the CO₂ emissions. H₂ production from renewable primary energy sources can lower CO₂ emissions up to 85% compared to gasoline. But even vehicles using H₂ produced from conventional energy sources like CNG emit less CO₂ than gasoline or diesel driven vehicles due their higher efficiency.
- ❖ Reduction of CO₂ emissions can be achieved by both H₂ drive train technologies, internal combustion engines (ICE) and fuel cells (FC).

Partners



Website www.storhy.net

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