

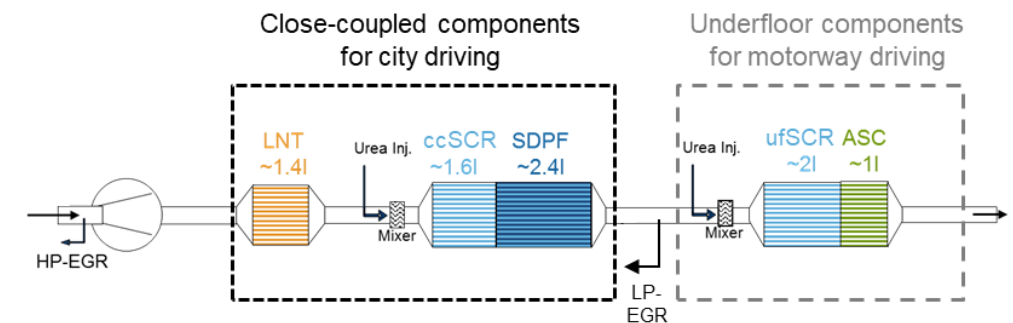
Ultra-low emissions diesel demonstrator

➤ Objective

- Demonstrate ultra-low NOx emissions over wide range of driving conditions
- Tests on renewable fuels
 - Investigate low Well-to-Wheel CO₂ emissions for several production pathways
 - Paraffinic fuels (HVO, BTL, e-diesel)
 - FAME based (B30)
 - Validate pollutant emissions achieved on market fuel

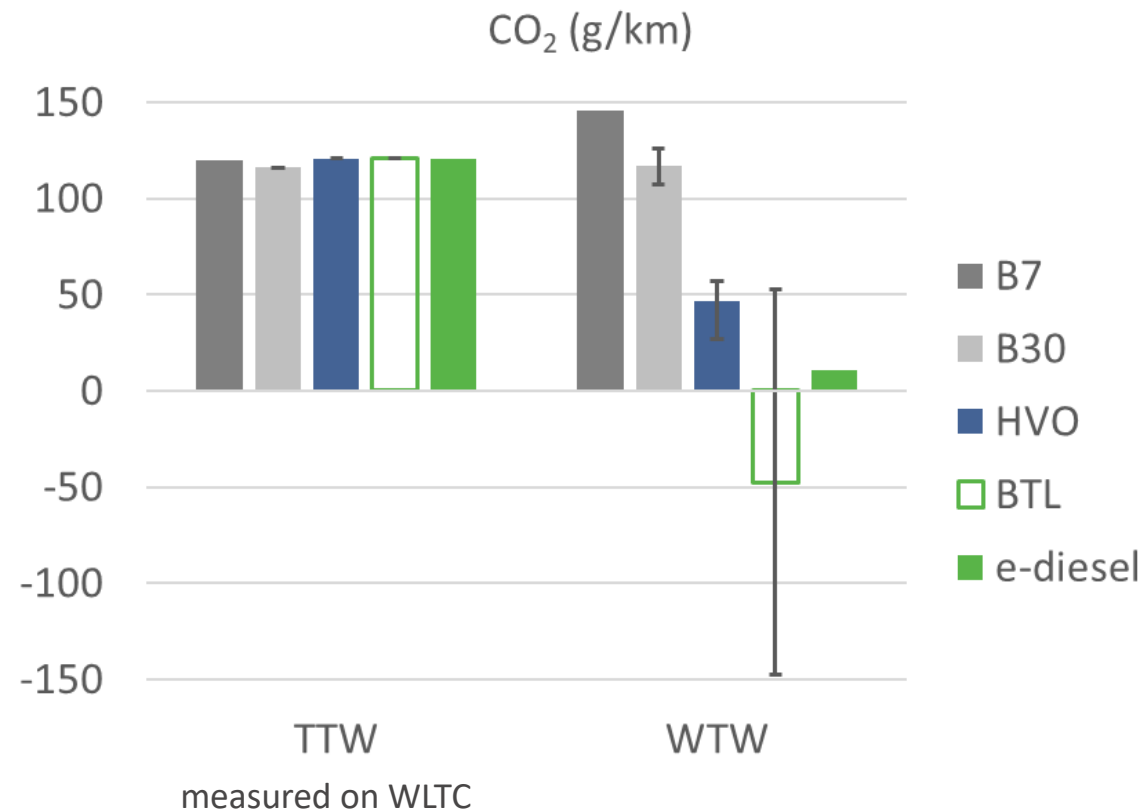
➤ Demonstrator concept

- Emission control system with combination of Lean NOx Trap and dual-Selective Catalytic Reduction
- 48V mild-hybrid system



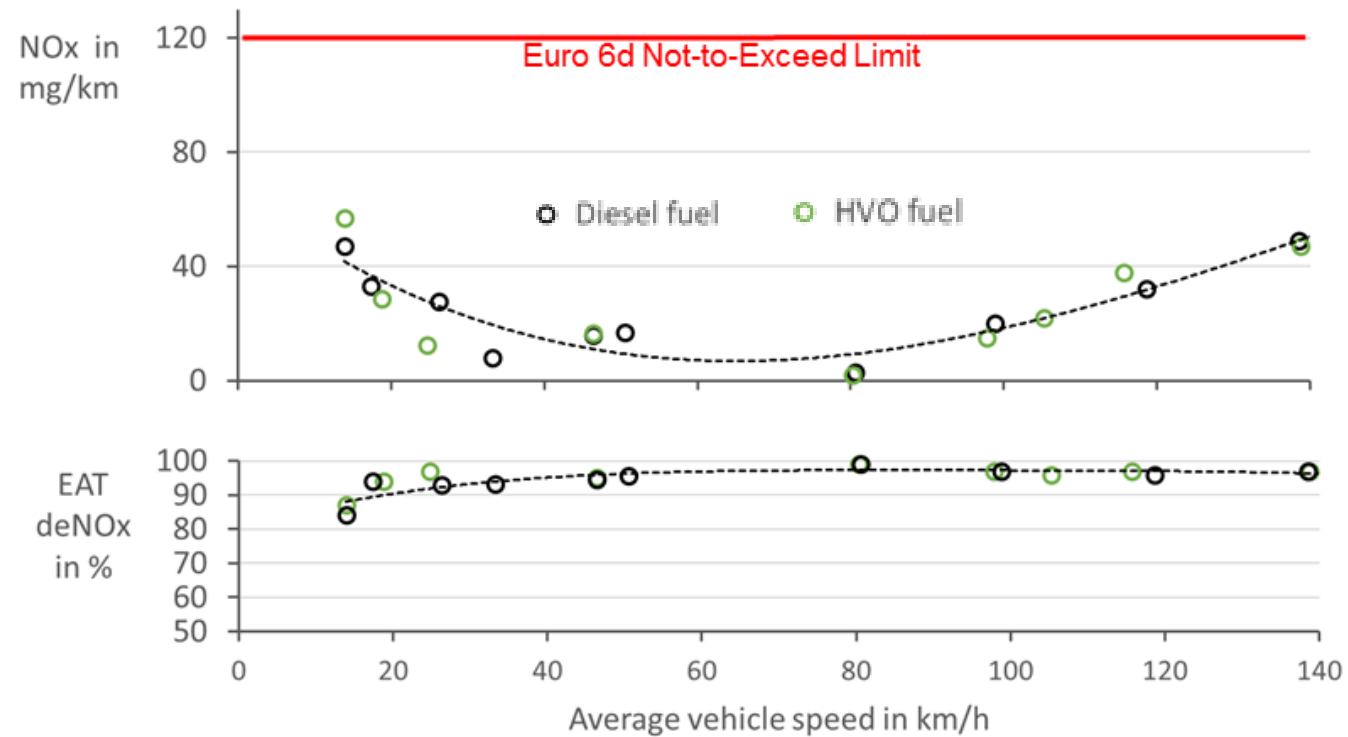
Well-to-Wheel calculations to investigate CO₂ impact

- Tank-to-Wheel (tailpipe) measurements show similar results for the different fuels
- Significant Well-to-Wheel reduction versus B7 depending on production pathway
 - B30: -14 to -26%
 - HVO: -60 to -82%
 - BTL: -64% to -200%
 - E-fuel: -93%



Low pollutant emissions confirmed for low carbon fuels

- Reference tests on B7 market diesel over wide range of driving conditions
- Same tests on 100% HVO without modification to vehicle hardware or software



AECC validates renewable fuels in demo programmes

- Ultra-low emissions are compatible with overall low WtW/LCA CO₂ emissions
- AECC demonstrates this in LD diesel, LD gasoline and HD diesel demonstration projects

