

Assessment of pollutant emissions including ultrafine particles down to 10nm of high-performance motorcycles

lab and real-world evaluation using advanced
PEMS technology



Agenda



RDE Configuration



Lab – Verification

- Setup
- Results



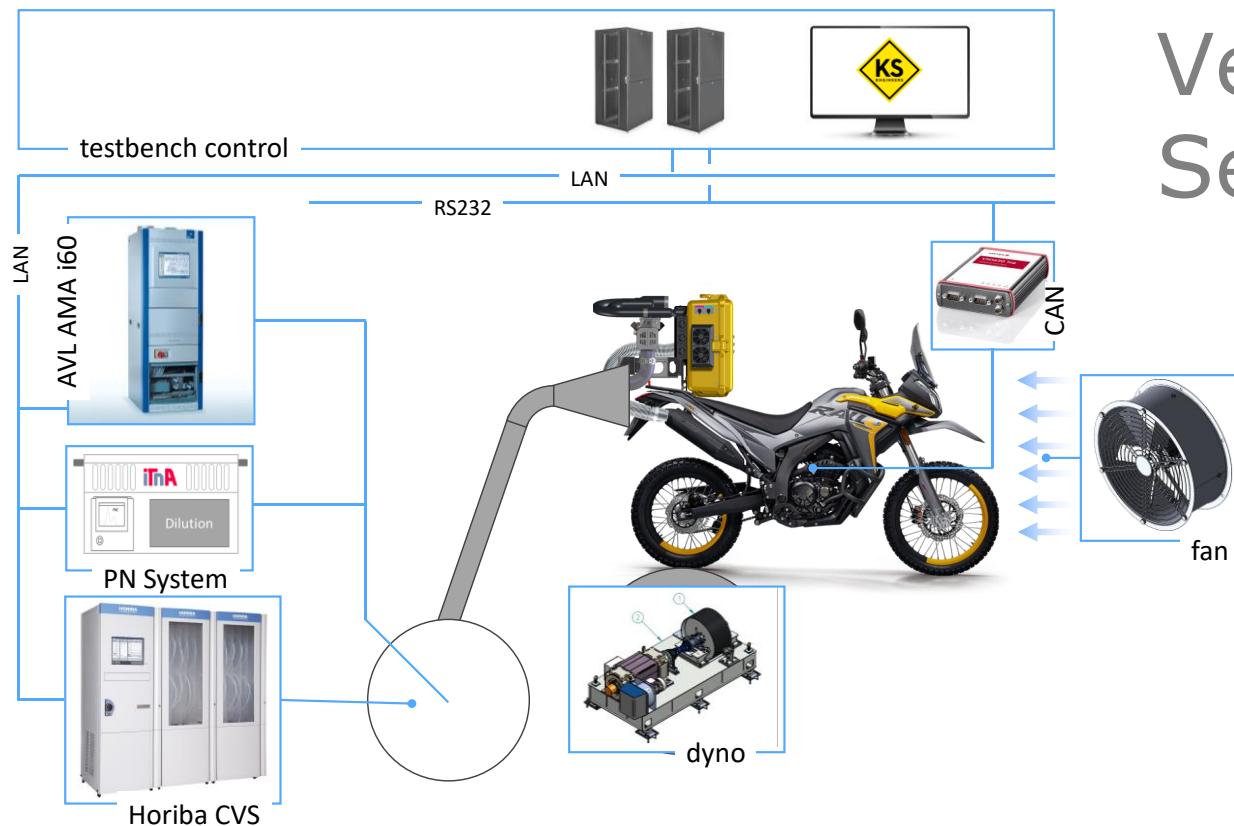
RDE Assessment



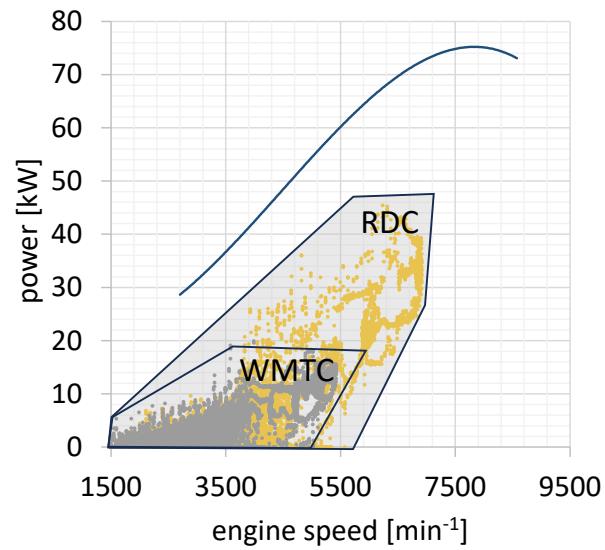
Summary and Outlook

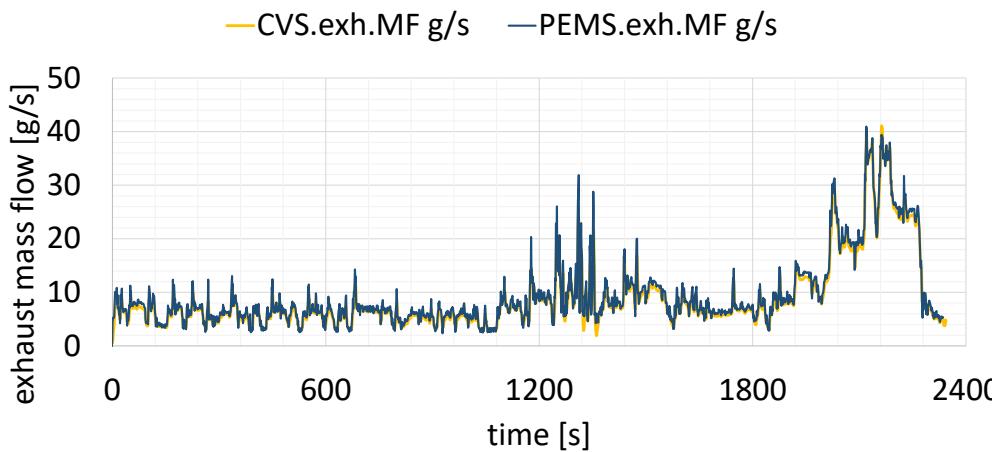
RDE - Configuration



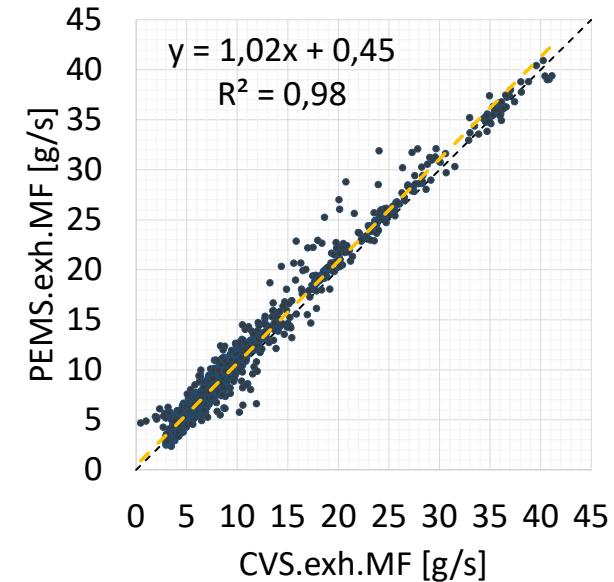


Verification Setup

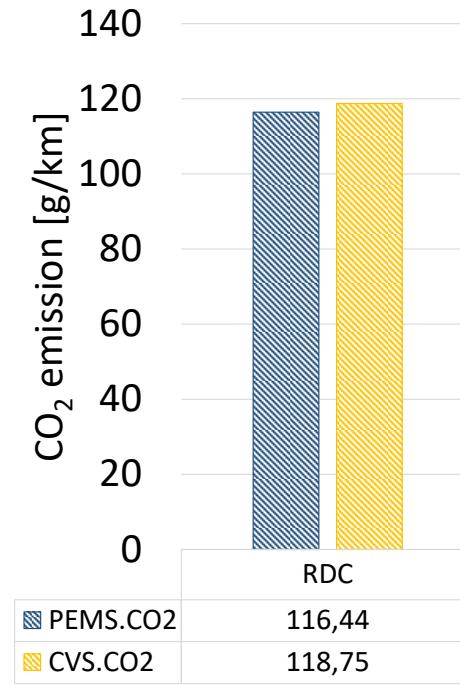
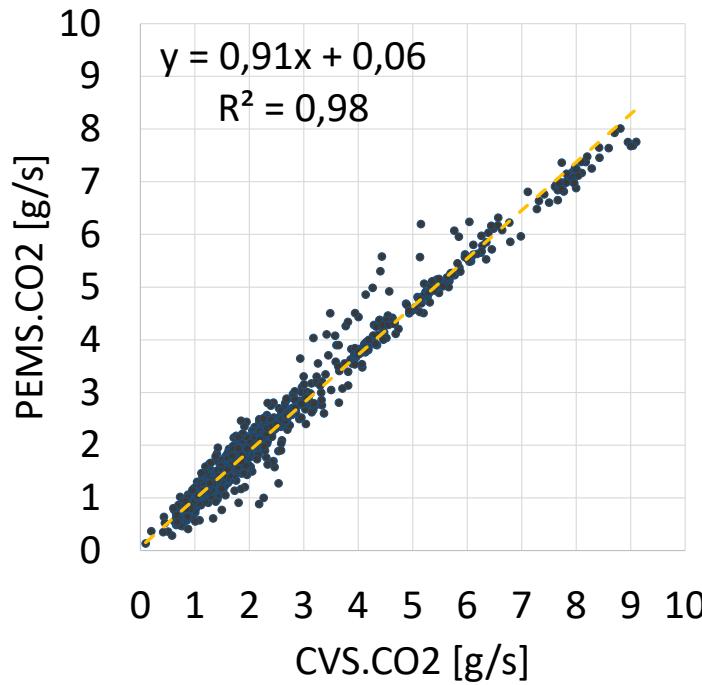




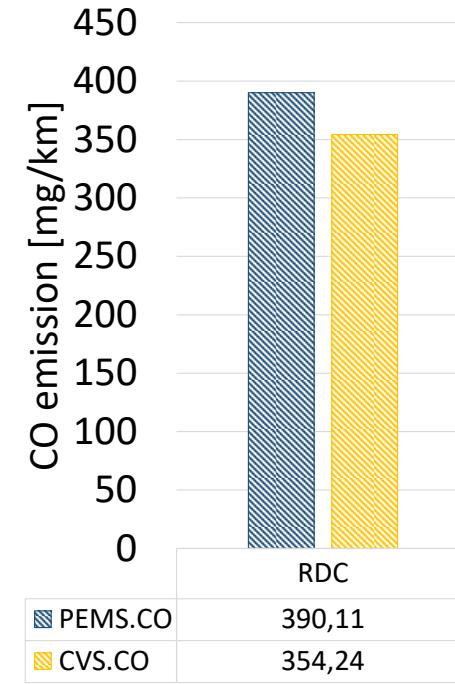
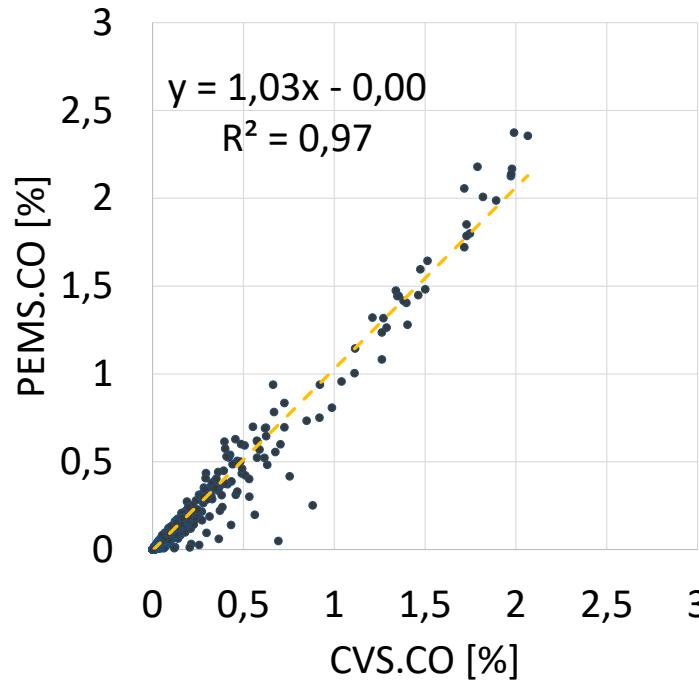
EFM 1,5" LF – Verification



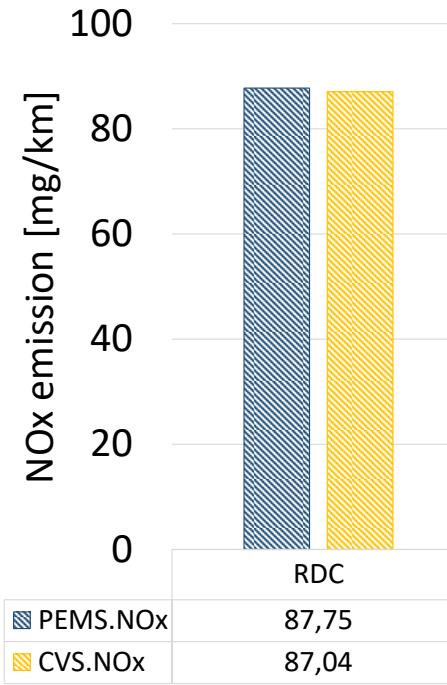
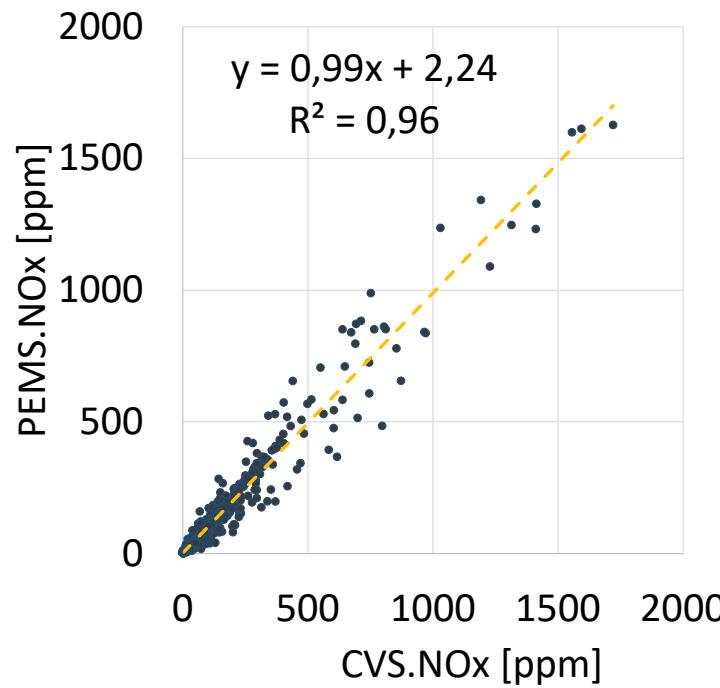
CO₂ – Verification



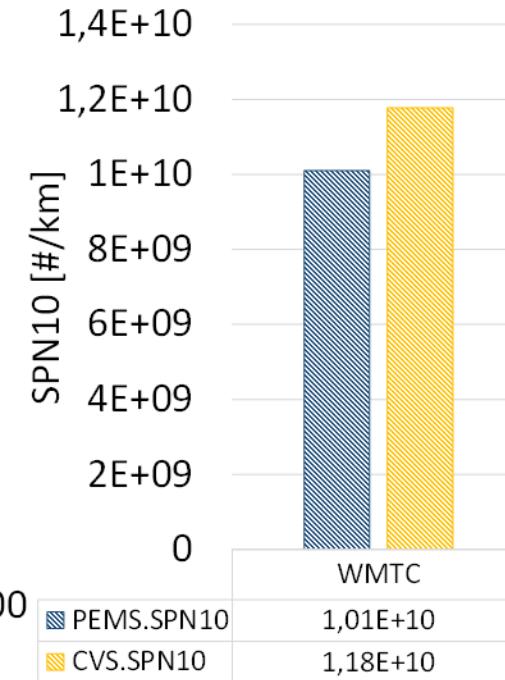
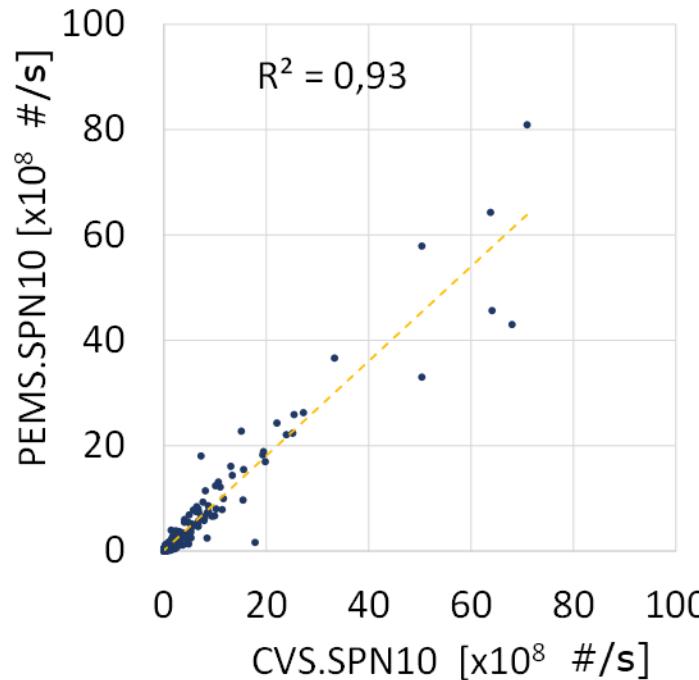
CO - Verification



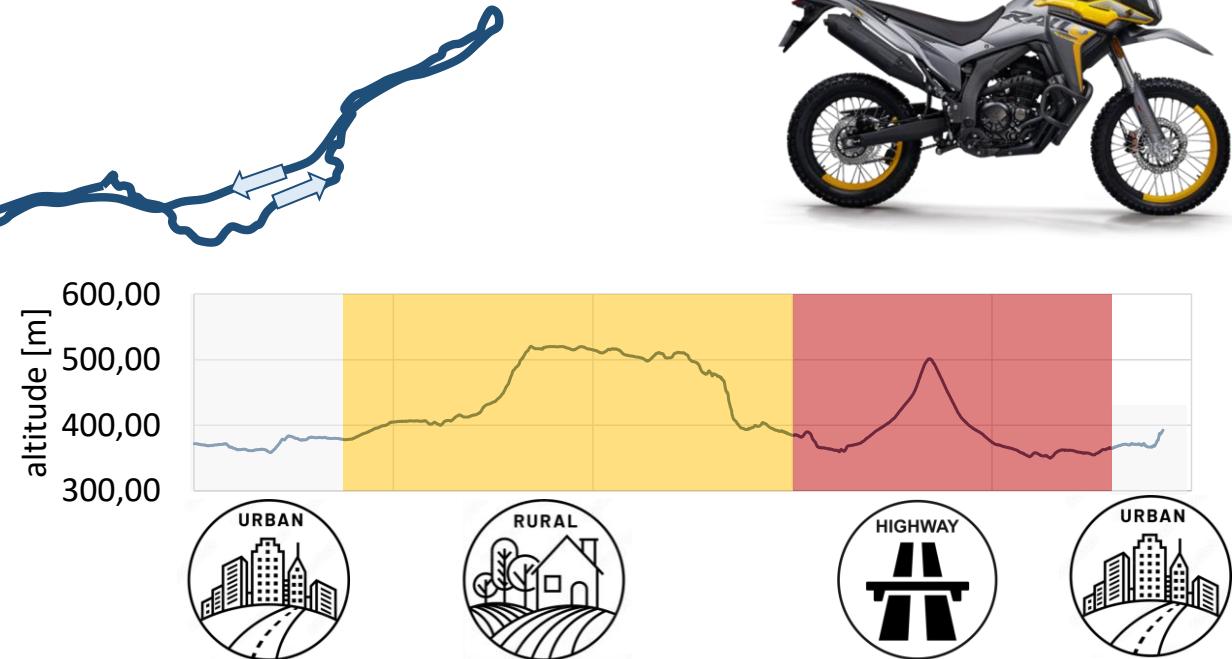
NOx – Verification



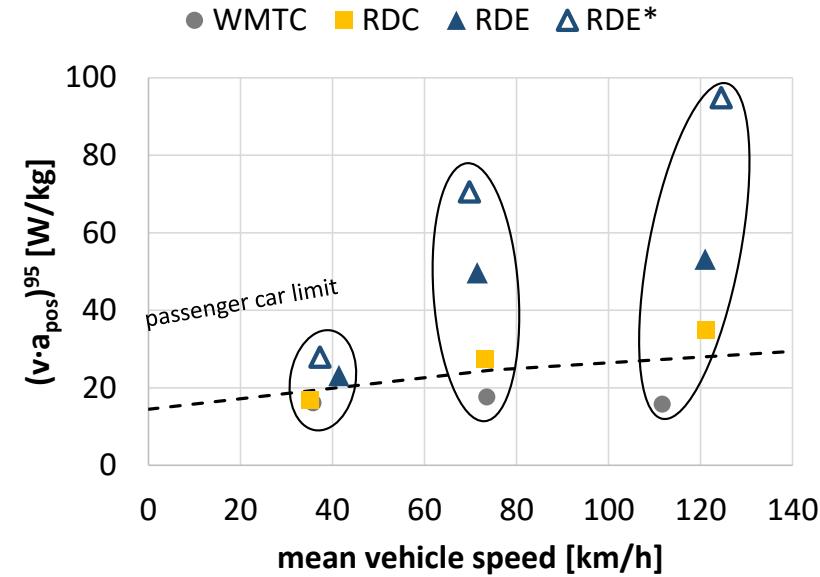
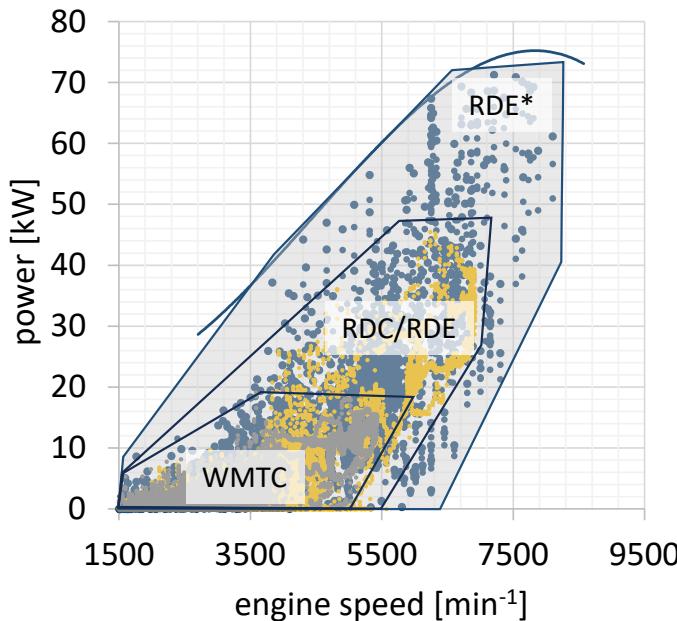
Particle Number – Verification



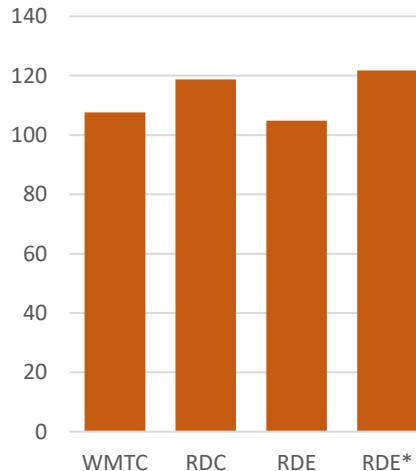
RDE Assessment – Trip Composition



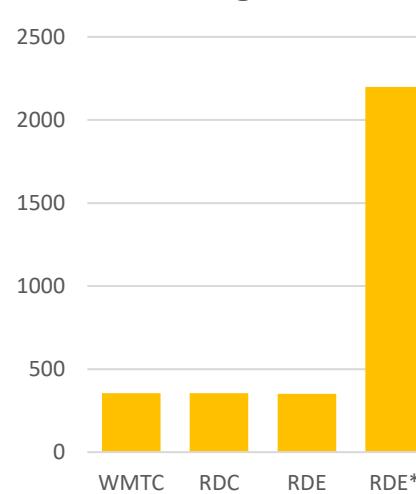
Power requirements and driving dynamics



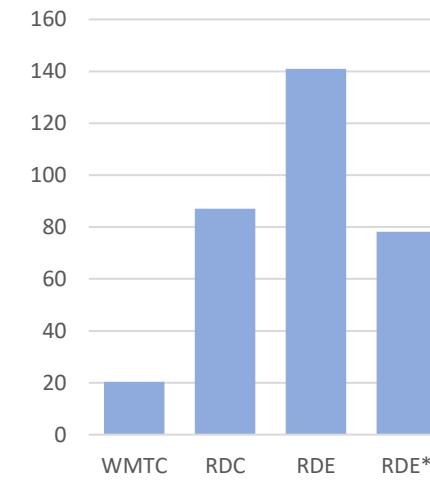
Emission Evaluation

CO₂ [g/km]

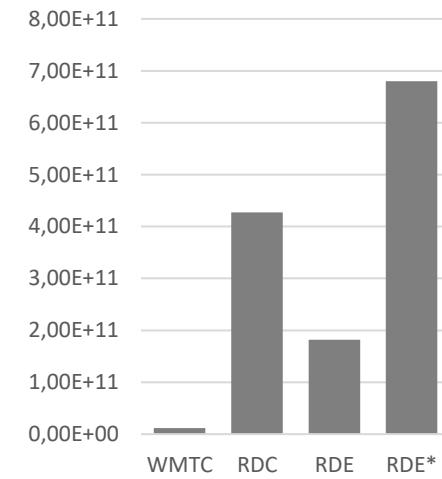
CO [mg/km]



NOx [mg/km]



SPN10 [#/km]



Summary and Outlook



Thank you!

Contact Information:

Sebastian SCHURL

Projectassistant

T +43 316 873 - 30259

M schurl@ivt.tugraz.at

W www.ivt.tugraz.at



<https://www.lens-horizoneurope.eu/>



Graz University of Technology
Institute of Thermodynamics and sustainable propulsion systems
Inffeldgasse 25b, 8010 Graz, Austria