

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

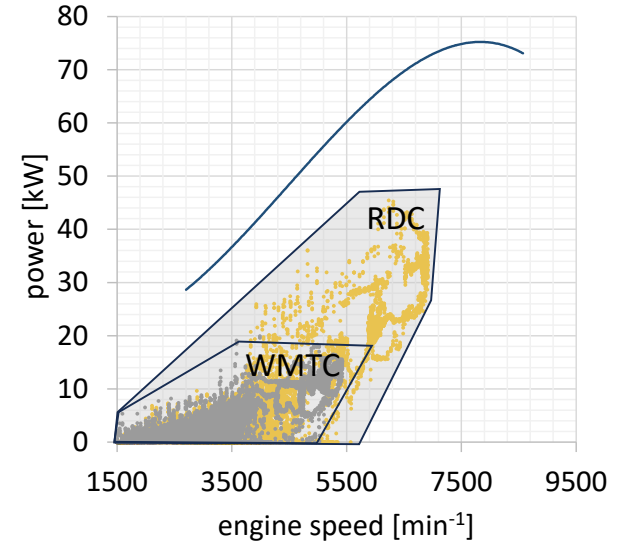
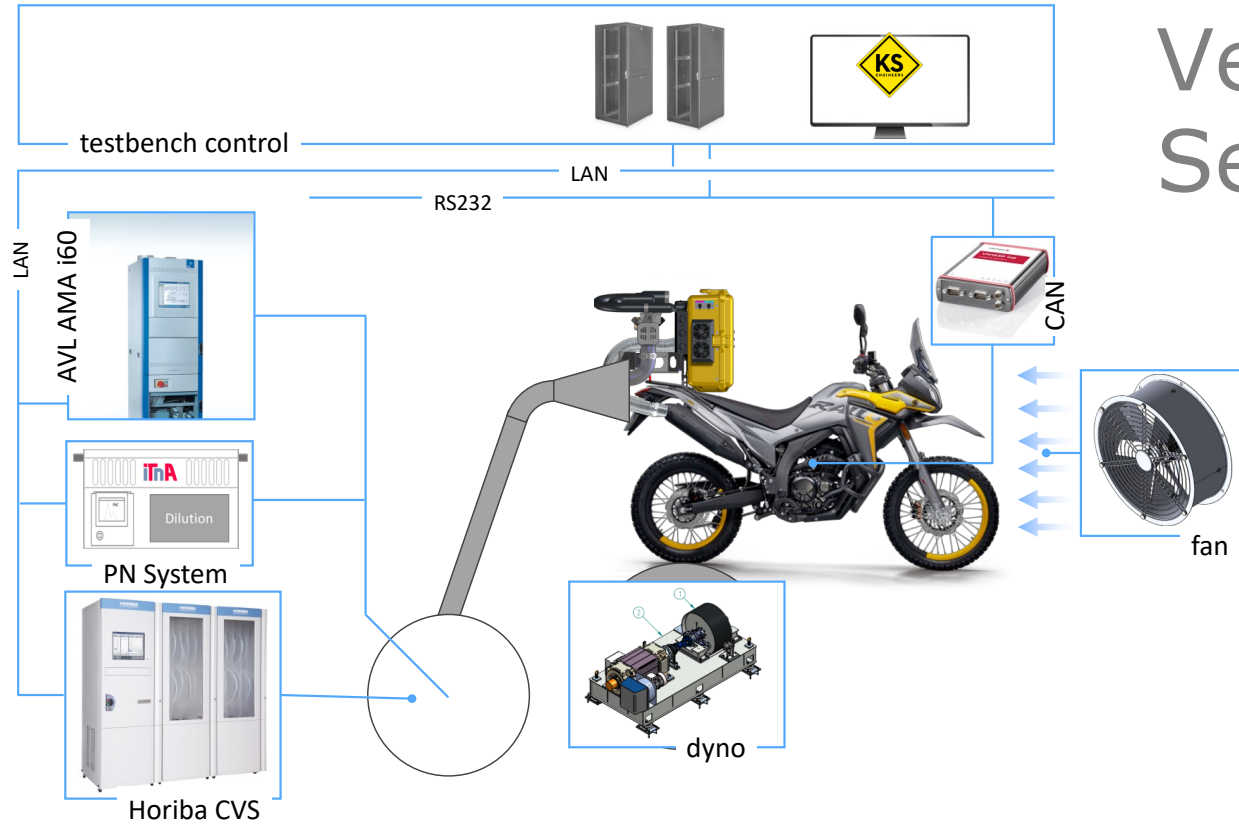


Summary and Outlook

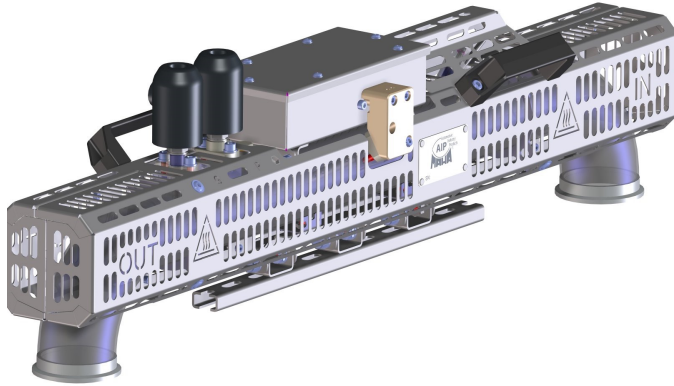
RDE - Configuration



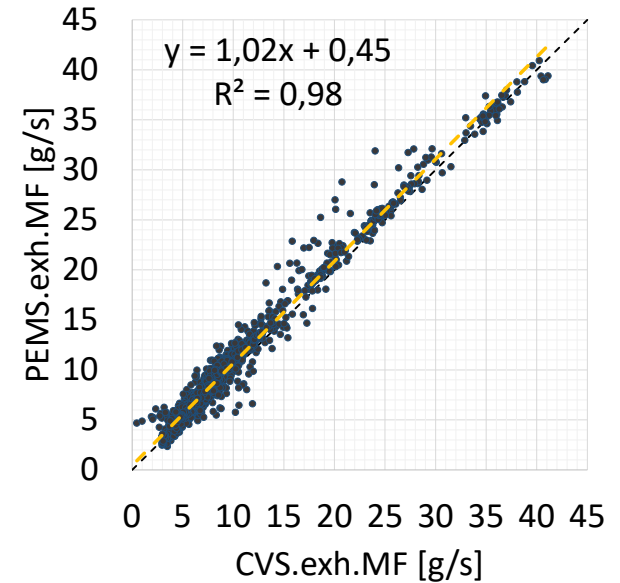
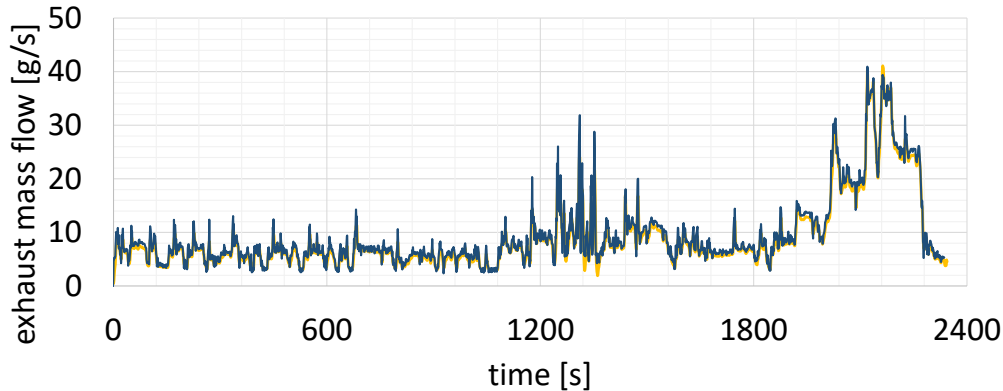
Verification Setup



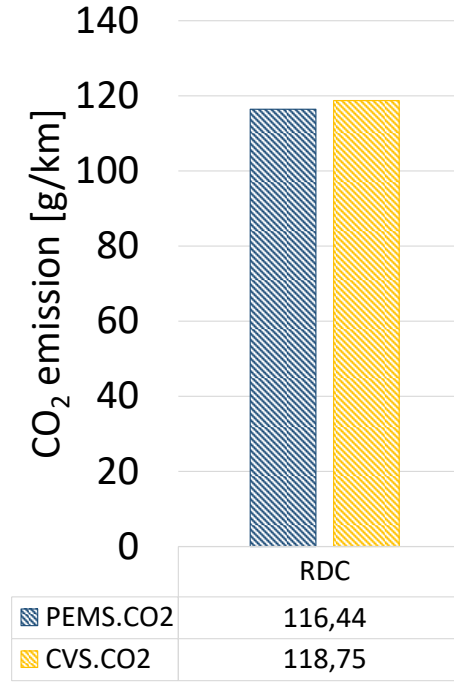
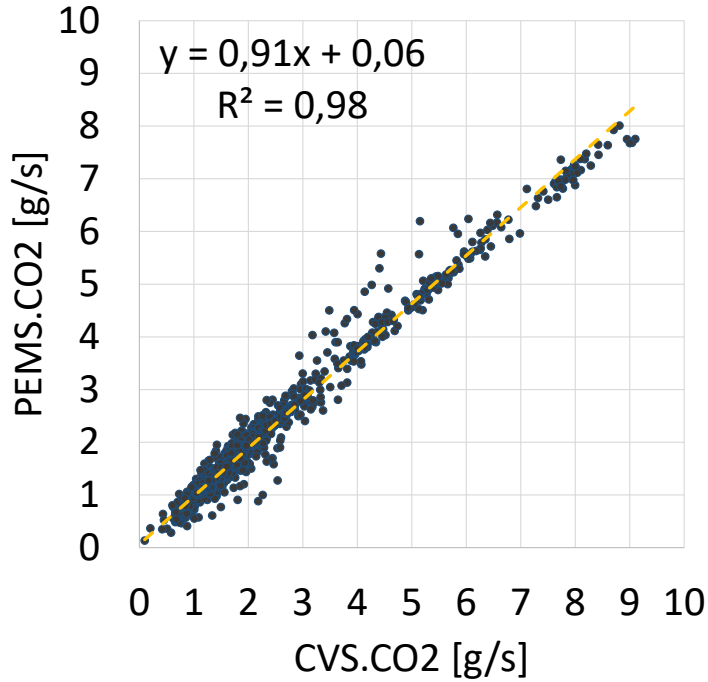
EFM 1,5" LF - Verification



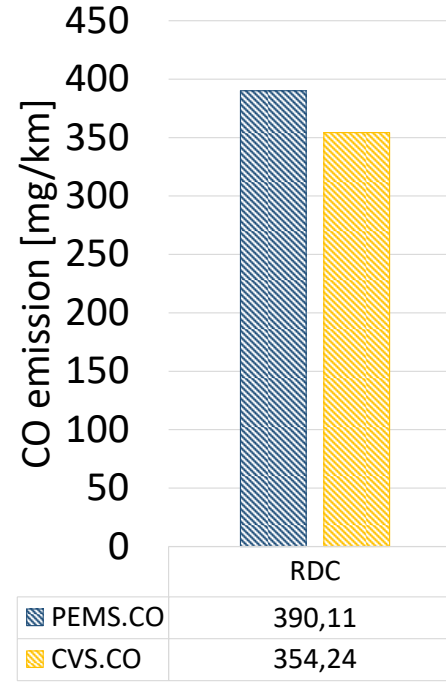
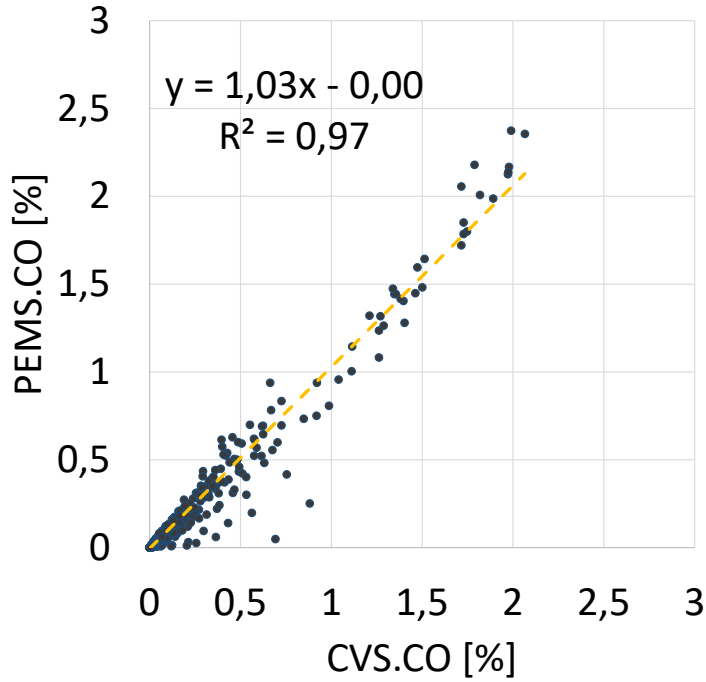
— CVS.exh.MF g/s — PEMS.exh.MF g/s



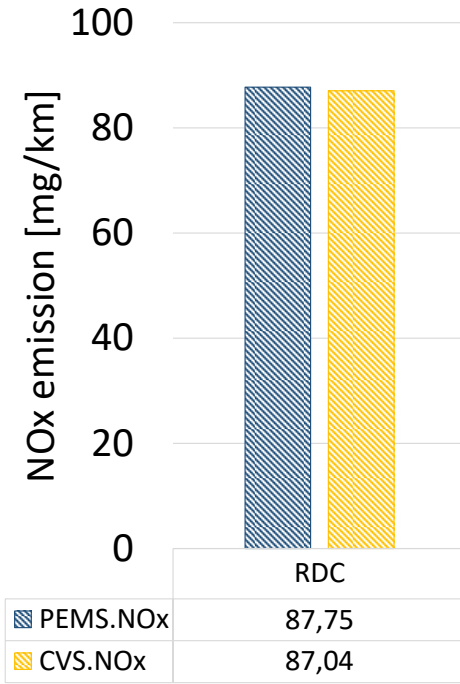
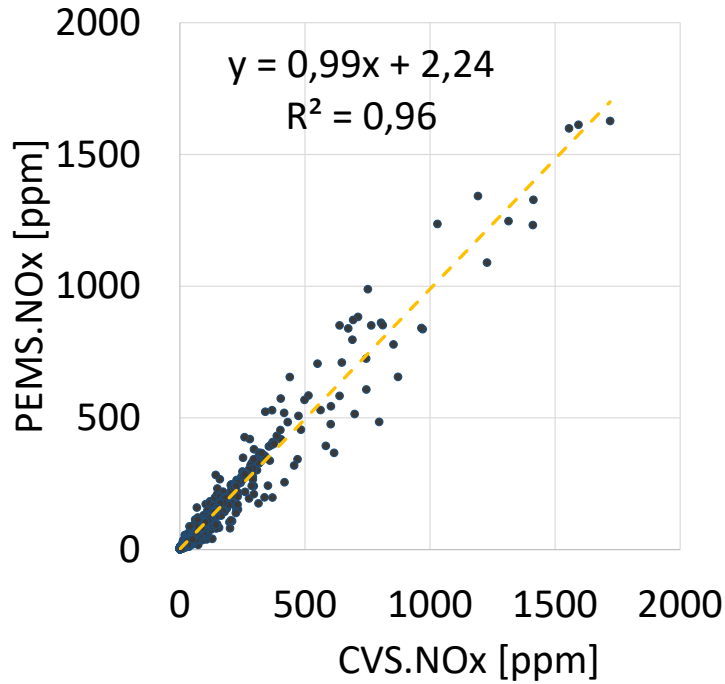
CO₂ – Verification



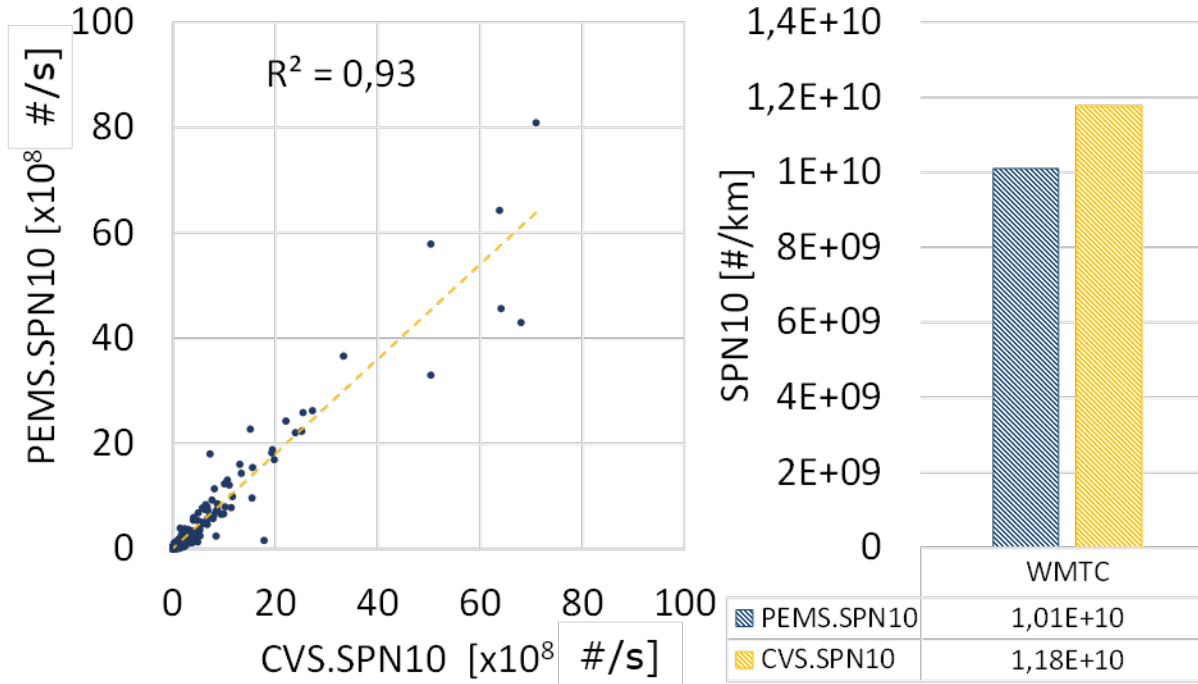
CO – Verification



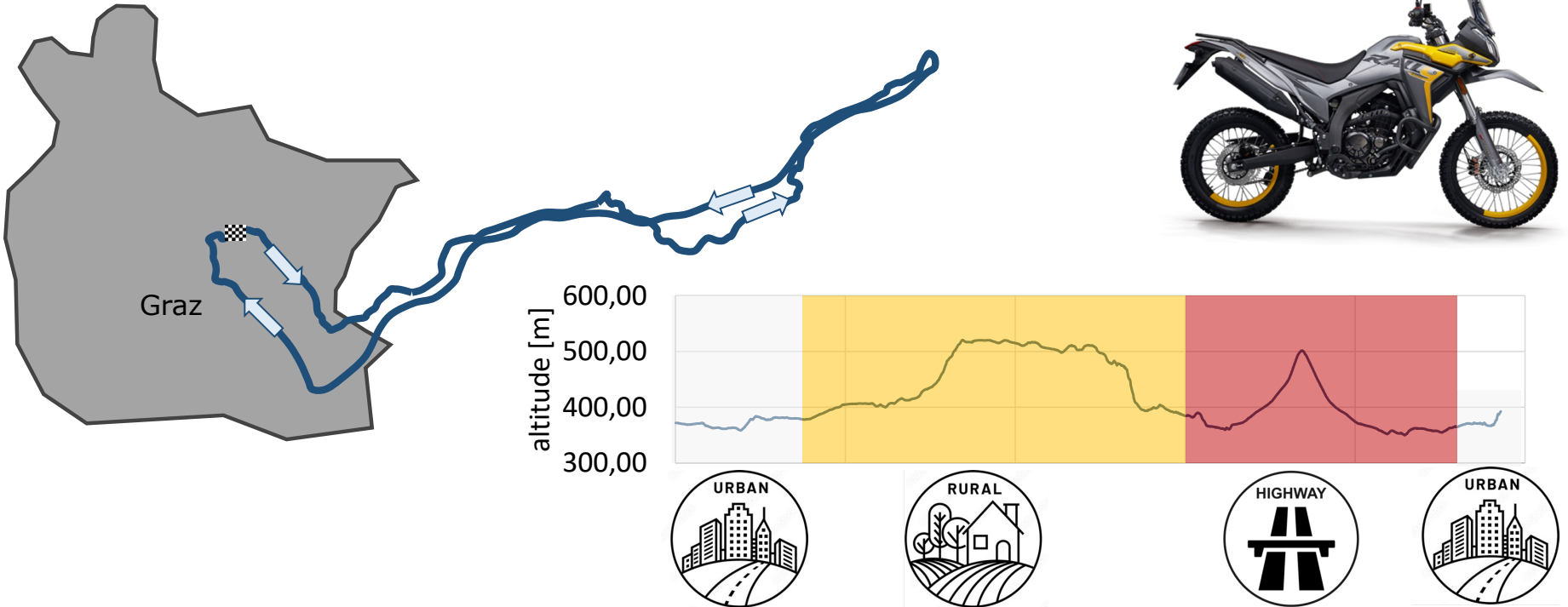
NOx – Verification



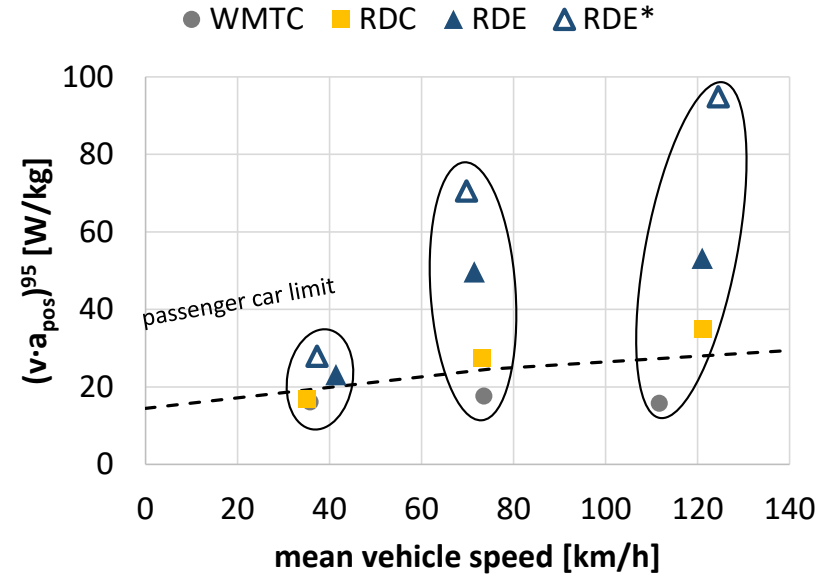
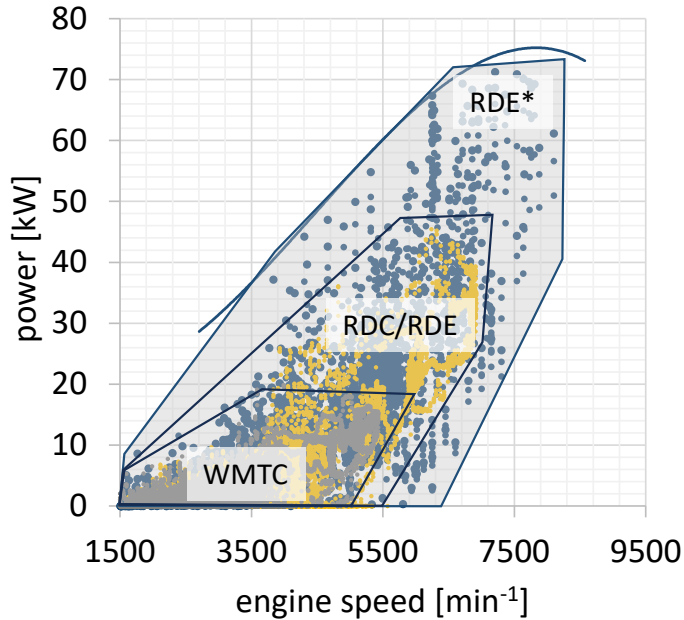
Particle Number – Verification



RDE Assessment – Trip Composition

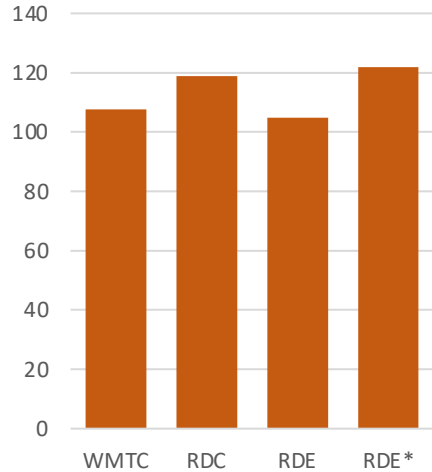


Power requirements and driving dynamics

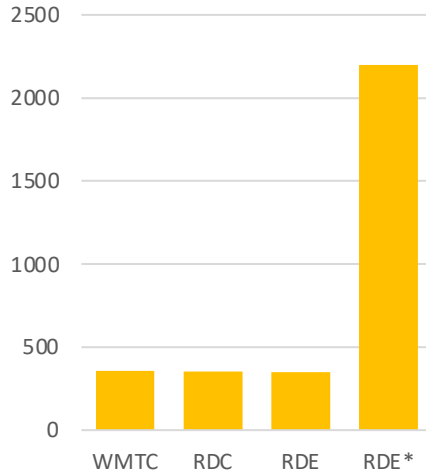


Emission Evaluation

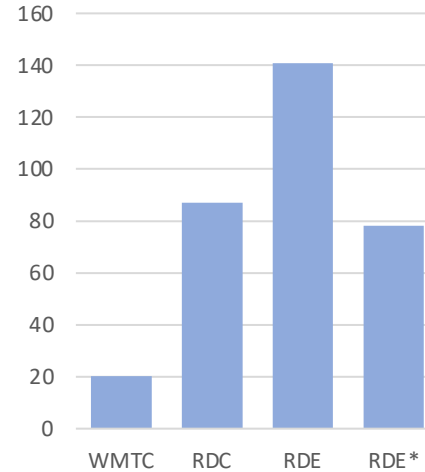
CO₂ [g/km]



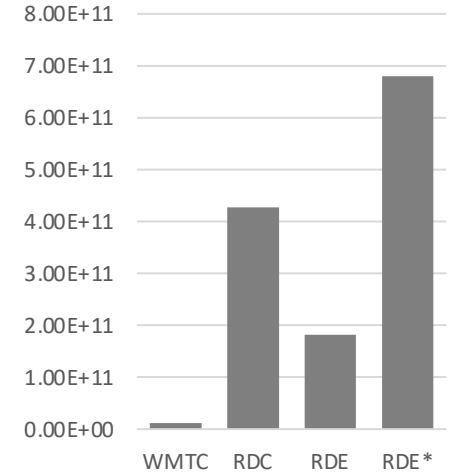
CO [mg/km]



NO_x [mg/km]



SPN10 [# /km]



Summary and Outlook



Thank you!

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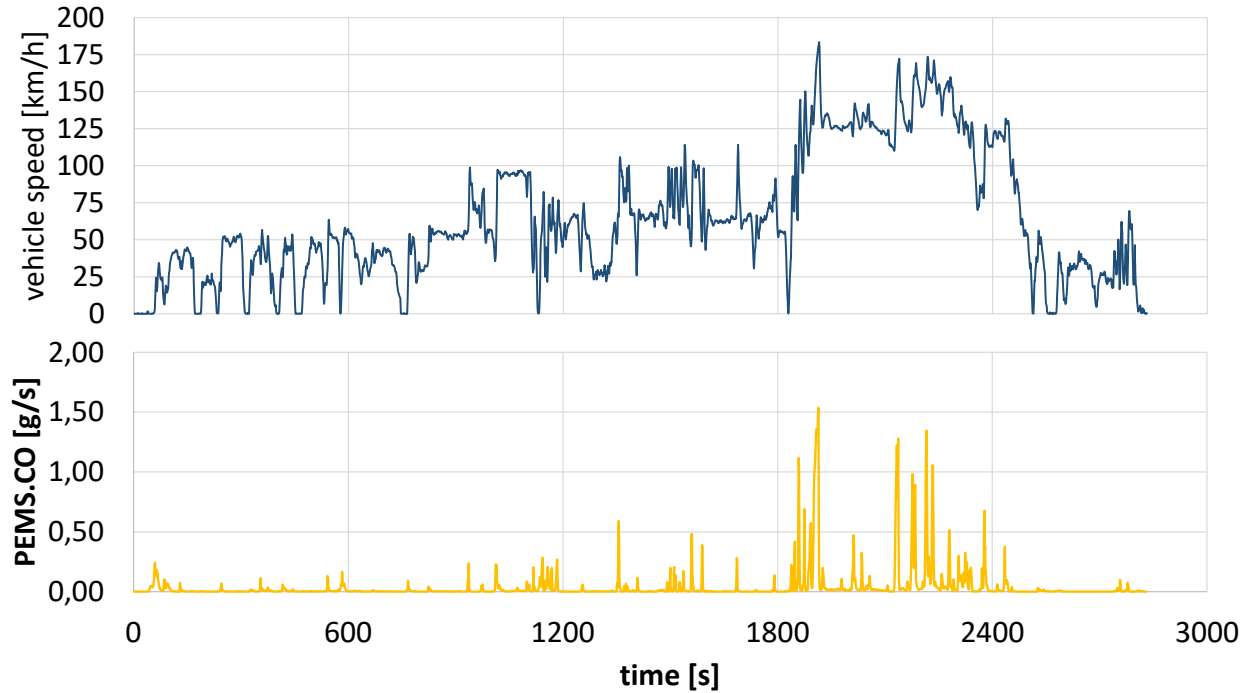


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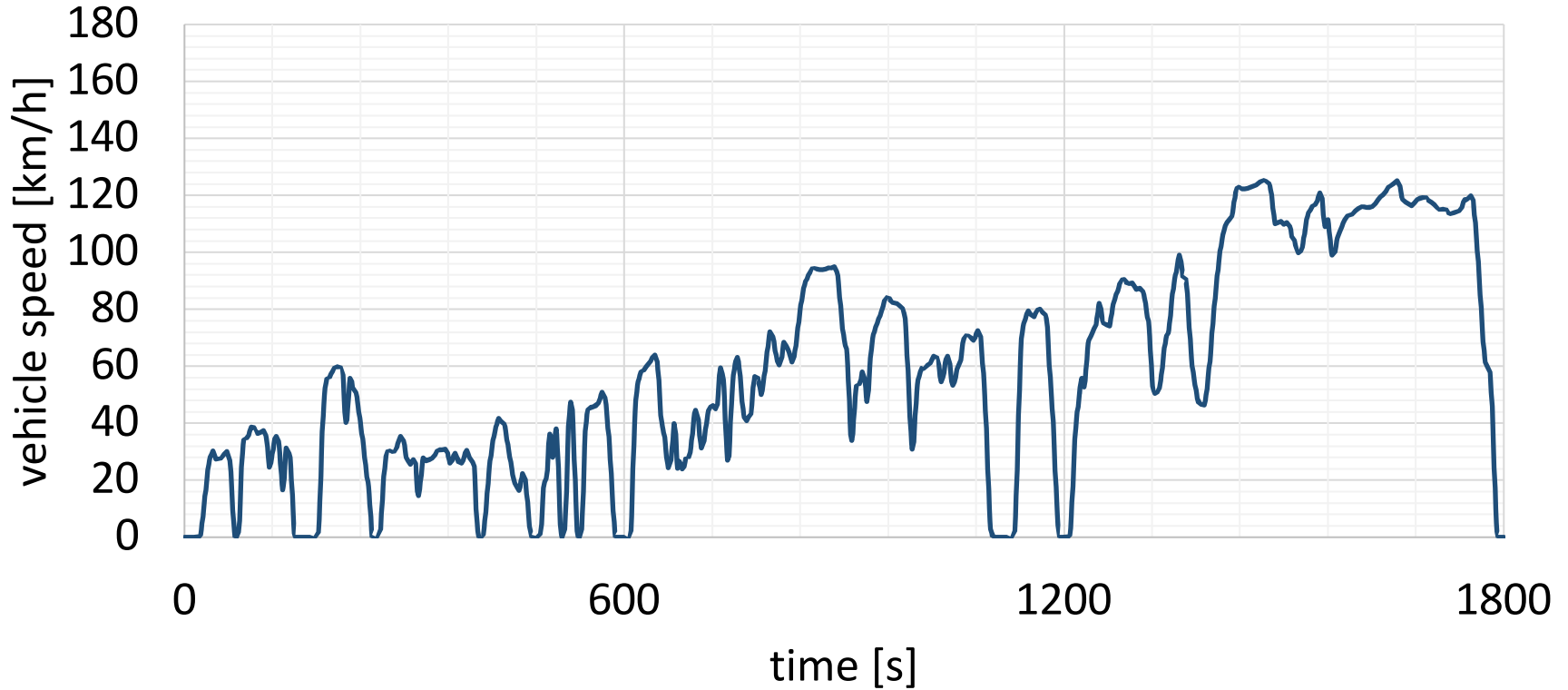


<https://www.lens-horizoneurope.eu/>

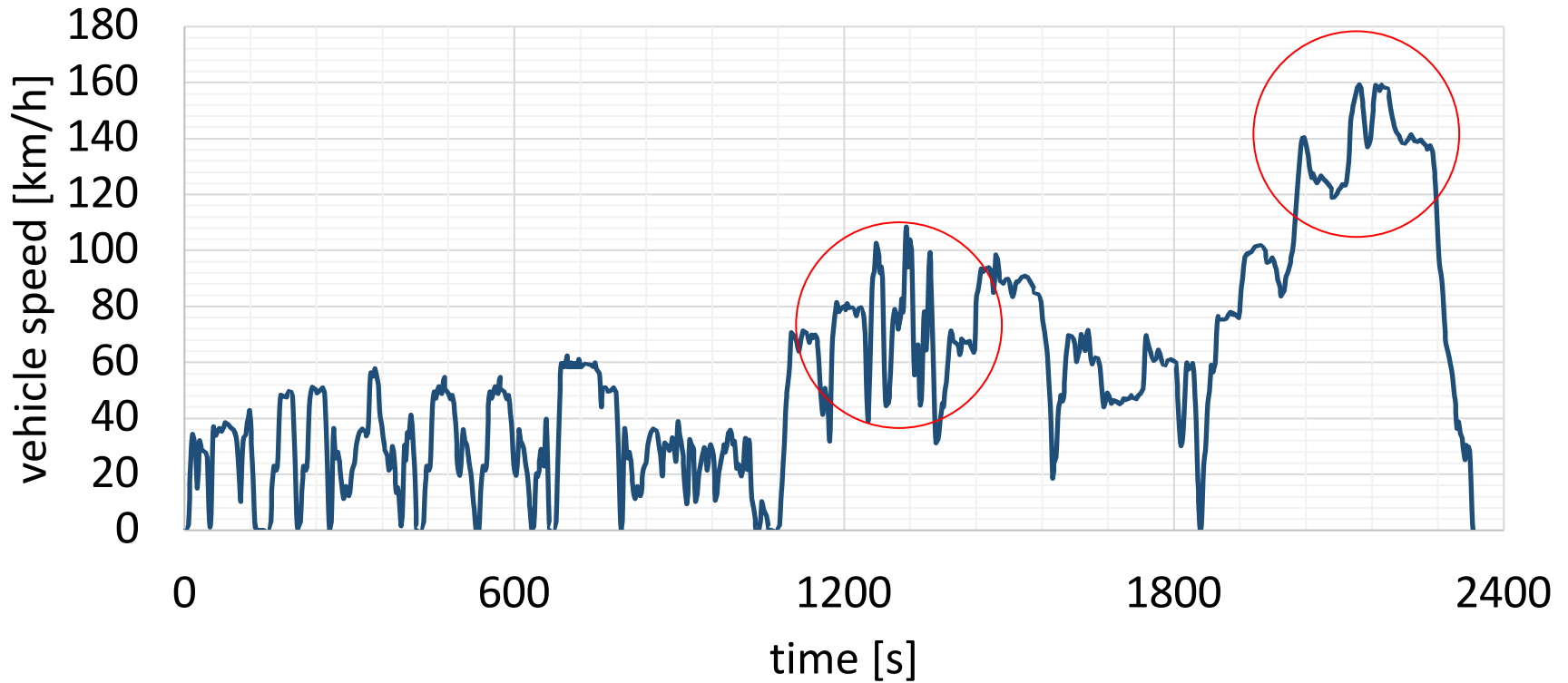
High emission events



WMTC 3-2



RDC L3e-A3



RDE*

