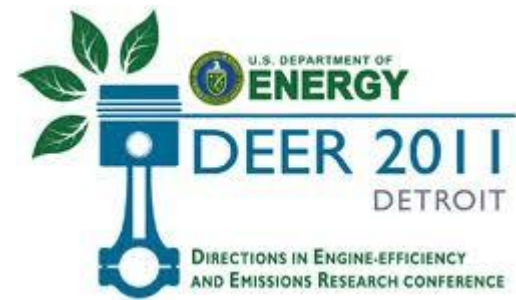




Solution for Productivity
& Performance Profiling for Hydrocarbons



Impact of Real Field Diesel Quality Variability on Engine Emissions and Fuel Consumption Solutions for Onboard Optimisation

Eric HERMITTE and
Dr Alain LUNATI
SP3H

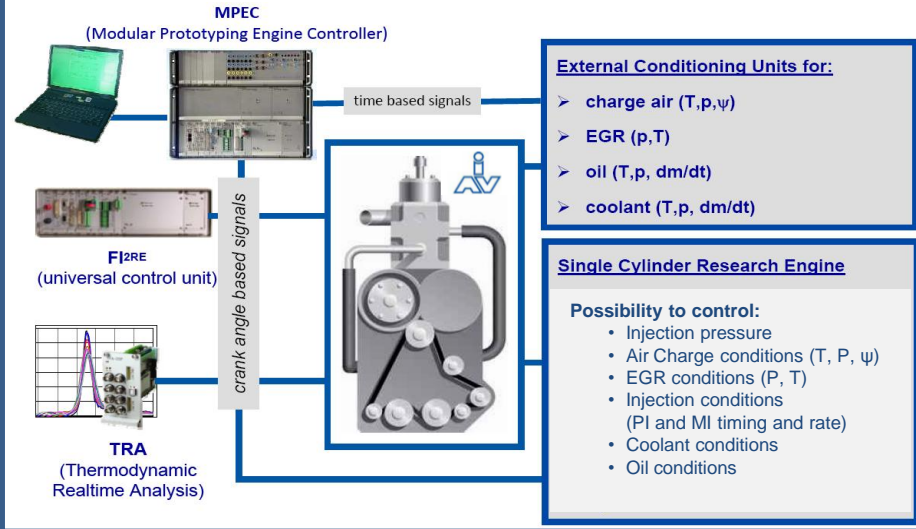
Poster Location P-07
Tuesday session

Motivation :

All Fuels are different
(crude oil – process – “bio” content)

- ↳ What is the impact on Engine Behavior ?
- ↳ Possibility to optimize Engine depending on Fuel Quality Information ?

Modern Heavy Duty Single Cylinder Engine (including fully flexible Engine Management System)



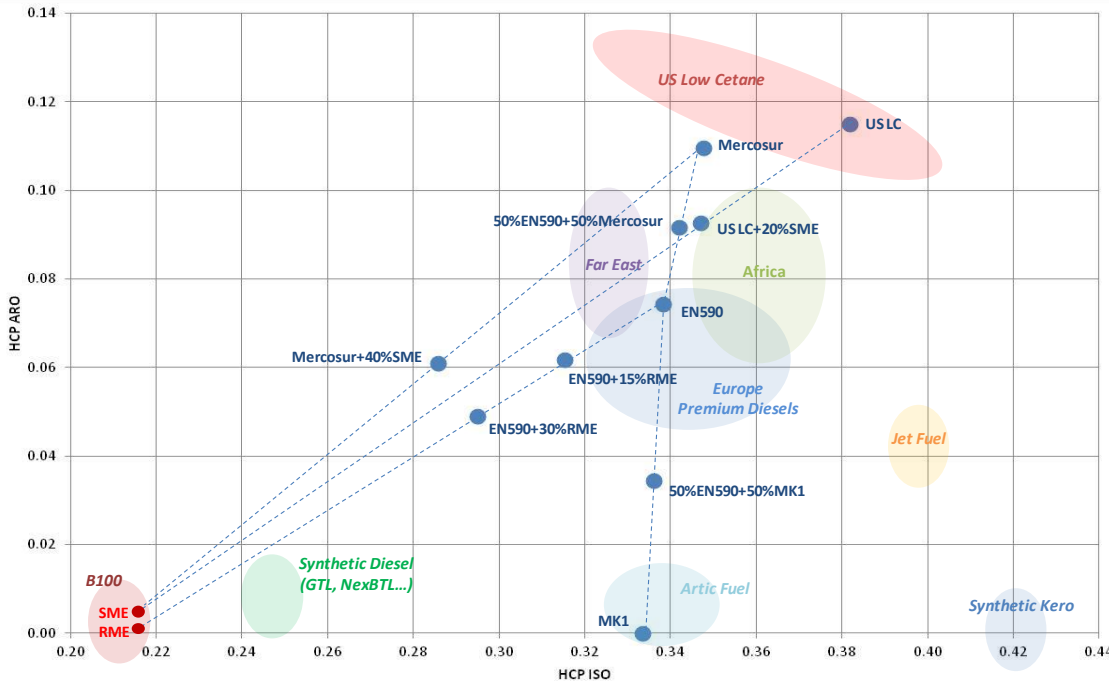
With constant injection parameters
(optimized for a reference fuel)

**Significant effect of Fuel Variability
on Fuel Consumption and Emissions**

Systematic Injection Parameters variations

**Possibility to optimize Engine behavior depending
on Fuel Quality information**

10 fuel blends representative of real field Diesel variability (including future Biodiesel rates)



Fuel Quality Sensor

