



## The Large Engines Competence Center



LEC for short, is one of the world's leading research institutions for large engine technologies and develops innovative solutions for sustainable energy and transport systems. Since 2015 we have been a funded COMET K1 Center (LEC EvoLET). With our research, our unique infrastructure and our international network of partners, we make a significant contribution to massive emission reductions and efficiency improvements. The focus is on the use of renewable energies, digital technologies and the optimization of the overall system.

LEC OilTracer was developed at the LEC in close cooperation with KS Engineers, a provider of automotive testing, industrial automation and building services.

The LEC OilTracer is distributed by KS Engineers under a license agreement.

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LEC  
**OilTracer**

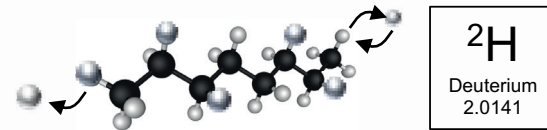
Evolutionary Engine Technologies for a Sustainable Tomorrow





#### Engine Oil

- labelled with tracer



## A natural tracer enabling online, stable and precise measurement

#### Exhaust gas water vapor

- containing tracer

#### Laser spectrometer

- monitoring of hydrogen-deuterium ratio in the exhaust gas water vapor

## Towards cleaner and more reliable engines

The oil consumption of an internal combustion engine has a significant influence on emissions and life cycle costs.

LEC OilTracer solves the task of an accurate measurement with the help of a specially developed tracer.



The engine oil is tagged with a naturally abundant tracer called deuterium by an isotope exchange reaction.

The tracer is detected in the exhaust gas water vapor by means of a laser spectrometer, which allows the oil consumption to be calculated.

The special feature of LEC OilTracer is the ability for online measurement, easy handling and the specification of the required measurement accuracy by the customer using a tailor-made tracer.