



## LOCATION



Germany

## PARTNERS


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## 2.1

# In-Service Condition Monitoring of Agricultural Machinery

## CHALLENGE

Using onboard sensors for in-service monitoring of engine data as well as data of the exhaust gas after treatment decreases the need for PEMS (Portable Emissions Measurement System). Storing and analysing selected data as well as providing defined information to legal institutions helps to monitor that machines follow the regulations and offers the possibility to use the collected data for further improvements (e.g. optimising machine and simplify maintenance).

## AIM

This pilot aims at demonstrating the potential application of onboard sensors for in-service monitoring, as well as testing the legal applicability of existing After Treatment (AT) sensors as an alternative to PEMS, while considering aspects of data management, privacy and integrity.



## HOW

Using data from existing sensors, algorithmically ensuring high quality of continuous data streams, and analysing the data in real-time by making use of the most appropriate algorithms and technologies, will allow monitoring, documentation, and the use of the analysed results for further actions.

## BENEFIT

Using the collected data will result in better knowledge of machine and engine conditions. On the one hand this can be used to simplify maintenance and thus reduce costs and machine down time. On the other hand, when in-service condition monitoring is mandatory this approach helps to fulfil regulations.