**Portrait Car Repair 4.0 (short version)**

The goal of CR 4.0 is to create a platform for the secure and trustworthy exchange of sector-specific data and AI models in order to drive forward the digitalisation of the SME-based car repair sector and to interconnect car repair shops, measurement system providers and IT service providers via Gaia-X, in order to form an innovation and value creation network.

A specific application of the project is to ease up targeted troubleshooting in automotive vehicles with the help of oscilloscopes. Fault diagnosis in vehicles usually still takes place today via proprietary diagnostic systems using the On-Board Diagnosis (OBD) interface. However, error codes – so-called “Diagnostic Trouble Codes” (DTC) – do not refer to the cause of an error, but only to the parts recommended by the system for replacement. CR 4.0 implements a more detailed diagnosis and a targeted exchange of components. This helps to avoid unnecessary repairs and ensures a sustainable reduction in the use of resources and time. The data-based diagnostic system will also be made available for older vehicles and will be easy to integrate into the everyday work of car repair shops. On top of that, the platform technology can be transferred to other areas, such as the monitoring of industrial plants or electric drives.

CR 4.0 demonstrates how digital technologies and applications from Gaia-X can be successfully put into practice on an economic footing. In particular, the project boosts the competitiveness of independent car repair shops and significantly improves resource efficiency in the workshop industry. Customers also benefit through cost savings as a result of shorter repair times and fewer unnecessarily replaced parts. The CR 4.0 project under the consortium leadership of LMIS AG is being funded with 7,521,368.32 Euro.