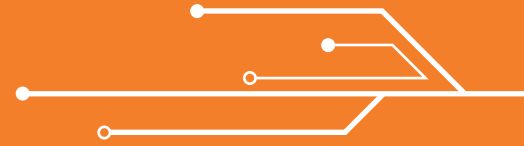# A|2|O

INNOVATION SOLUTIONS

CHASM

Continuous Health Autonomous Structural Monitoring

CHASM Project is a collaboration between A2O, ASDEC and Westfield Autonomous Vehicles with support from the Hartree Centre.

The project is a proof of concept demonstration of an in-service Structural Health Monitoring system indicating pre-critical structural integrity issues for Vehicle Fleet Predictive Maintenance.

The on-board low transmission-overhead system is optimised for efficiency, digital technologies, Industry 4.0 and the Internet of Things (IoT).

The system provides benefits for Connected Autonomous Vehicles (CAVs) including use in limited access or remote locations as well as other Autonomous Technologies.

The CHASM Project is funded by the Niche Vehicle Network, which is supported by Innovate UK and the Office for Low Emission Vehicles, and managed by Cenex.

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INNOVATION SOLUTIONS

A2O Limited is Leading the CHASM Project and an SME developing commercial opportunities for Predictive Maintenance via in-service Structural Health Monitoring. A2O's CHASM on-board structural integrity detection system is the prime focus of this Proof of Concept project. The system has been developed to increase operational efficiency by commercially-focused technology simplification.

Advanced Structural Dynamics Evaluation Centre (ASDEC) is an autonomous testing facility within the University of Leicester. Based at the MIRA Technology Park they are set-up to make University level expertise available to the automotive industry. ASDEC are providing test and evaluation services to the project.

Westfield Autonomous Vehicles Limited (WAV) are the UK's first provider of last mile transportation. Their PODs have driven more 3.6m passengers in excess of 5.6m km and therefore are keen collaborators in the CHASM project. WAV are providing vehicle and engineering expertise and a commercialisation study.

The Hartree Centre based at the Science and Technology Facilities Council's (STFC) Daresbury Laboratory is transforming UK industry through high performance computing, big data and cognitive technologies. The centre is providing data reduction, analysis and algorithm developments to the CHASM project.

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