

CASE STUDY



Multi-Car Collision Avoidance: using connectivity and autonomy to minimise the damage in highspeed, multi-vehicle traffic accidents.

INTRODUCTION

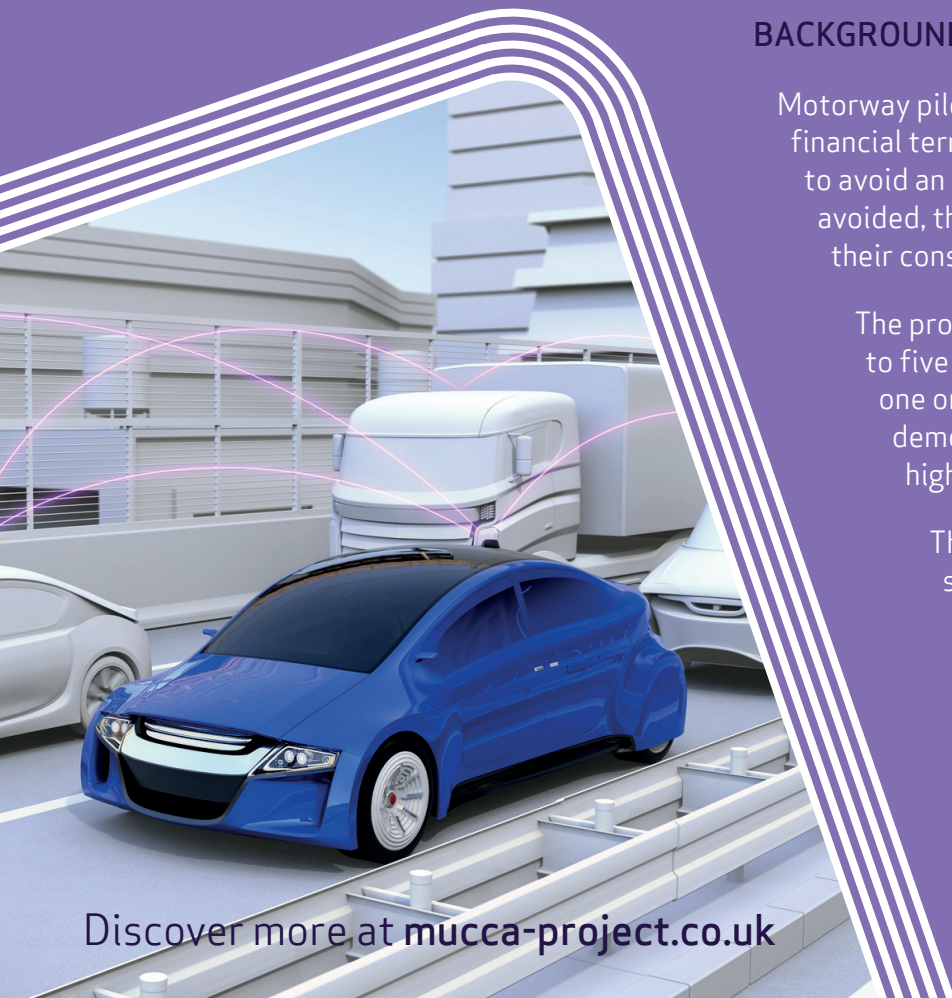
MuCCA aims to develop a next-generation driver aid that will avoid (or reduce the consequences of) multi-car collisions on motorways. It consists of a six-member UK consortium working on a 30-month, £4.6m project, partly funded by Innovate UK.

BACKGROUND

Motorway pile-ups are costly, both in human and financial terms. This technology aims first and foremost to avoid an accident, but if an accident cannot be avoided, the MuCCA system will attempt to minimise their consequences.

The project will culminate in a trial involving up to five MuCCA-equipped connected vehicles, and one or more human-controlled vehicle, which will demonstrate how accidents can be avoided at high-speed in simulated motorway conditions.

The project is being led by IDIADA, supported by Cranfield University, Westfield, SBD Automotive Ltd, Cosworth and the Transport Systems Catapult.



Discover more at mucca-project.co.uk

CATAPULT
Transport Systems



OBJECTIVES

To develop a system that can effectively avoid motorway collisions, this project will implement, test and refine solutions to many of the technical challenges that face fully connected and autonomous cars (CAV). These include sensor systems, machine learning, vehicle-to-vehicle communications and vehicle control systems.

BENEFITS

Society

This technology will lead to fewer accidents and casualties on roads – first and foremost saving lives, but also reducing congestion, as well as the impact on the emergency and civil services who deal with the aftermath of accidents.

Growing UK business & creating jobs

The technologies and systems developed in this project will have much wider implications, including the upskilling of the British workforce to be able to compete on a global scale, the development of

‘black box’ data recorders that are legislated for highly autonomous vehicles that run in open road environments, and showcasing UK products, services and innovations globally.

A destination for R&D

The UK is a leading player for CAV research, development and testing, supported by £100m government investment in Intelligent Mobility, world-leading universities, and an open and innovative business environment. Learnings and technologies from this project will help to develop the connected vehicles and fleets of tomorrow.

Transport
Systems Catapult:
Bringing together
world-class CAV
Consortia for social,
technological
and economic
benefit.

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