

UK Determined to Become World Leader in Driverless Cars



A new consortium led by Ordnance Survey has secured government funding to position the UK as a leader in connected and autonomous vehicles. The consortium will receive the funding from Innovate UK to examine the data requirements needed to support autonomous navigation. The groundbreaking 'Atlas' initiative will study data critical to the efficient operation of autonomous vehicles and how it can be enhanced.

Testing the feasibility of maintaining, processing and distributing this data is a core element of the project. If Atlas is successful, it could lead to a more rapid take-up of connected and autonomous vehicles, thus consolidating the UK's position as a global leader in driverless car technologies and innovation.

The consortium is made up of Ordnance Survey, Satellite Applications Catapult, the Transport Research Laboratory (TRL), Sony Europe, two leading UK specialist SME's in autonomous and navigation systems: GOBOTIX and OxTS, and the Royal Borough of Greenwich. It is one of a number of projects, announced by Secretary of State for Business, Innovation and Skills, Sajid Javid on 1 February, that will benefit from GBP20 million of government investment to research and develop communication between vehicles and the roadside infrastructure. The Atlas project will commence on 1 May 2016.

Unexpected objects

Following the announcement, Jeremy Morley, Ordnance Survey's chief geospatial scientist, stressed the strength of the consortium and the potential benefits from the Atlas project: Autonomous vehicles will need to find their way reliably and safely through a vast network of streets while interacting with driven and other autonomous vehicles. Imagine sections of road – other than motorway – equipped with beacons using the potential of 5G technology and geospatial accuracy to sense 'unexpected objects' ('children and animals'), that may unwittingly stray into the path of an oncoming autonomous vehicle.

Engines in autonomous cars that pick up on road surface conditions perhaps, to adjust a car's tyre pressures. We are already seeing developments along these lines as collaborations take place between other mapping organisations and a range of car manufacturers – BMW, AUDI, etc., he added.

Morley continued by asking what about catalytic converters that issue reports on fuel efficiency? Based on data coming from sensors embedded in the road's surface, these could then update an employee's benefits in kind – in real-time. Dynamic cats-eyes that open and close as traffic passes maybe... smartphones equipped with apps to interpret gantry signals, automatically updating calendars and meeting requests depending on traffic flow.

Data transfer

Rob Wallis, CEO at TRL said Atlas is the latest in a string of innovative projects to be making use of TRL's UK Smart Mobility Lab at Greenwich. It is an important project for autonomous vehicle development because the success of this work will not only enable safe navigation of these vehicles, but help to transform the transport system and ultimately save lives. An understanding of how to safely and securely transfer data between vehicles will put the UK at the forefront of connected and automated mobility.

Further ideas

Ben Davis, technical director of Gobotix, said they have been working for some time alongside OxTS to use their joint expertise in robotics, navigation and computer vision in order to improve and build upon vehicle autonomy in a range of environments. This exciting opportunity enables, through close collaboration with industry-leading companies, them to explore further some of the ideas from the brightest and best minds.

Satellite data

Stuart Martin, CEO of the Satellite Applications Catapult, noted they are hugely encouraged by the value placed on ensuring robust and resilient satellite data – a fundamental part of a successful data-driven programme. This will provide end-users with the assurance and confidence they require that data access, discovery and retrieval is managed securely by all associated parties.

Smart city innovation

Denise Hyland, leader, Royal Borough of Greenwich, stated they are committed to understanding how cities need to respond to support their deployment, and capture the opportunities they can bring. This project, supported by Innovate UK, complements the work being undertaken by the Royal Borough of Greenwich on smart city innovation and smart mobility – work that they believe will be significant for all cities in the future.

<https://www.gim-international.com/content/news/uk-aims-to-become-world-leader-in-driverless-cars>
