

Evidence Check: “Driverless cars”

Government statement

Diagnosis

Connected and Autonomous Vehicle (CAV) technology will profoundly change the way we travel, making road transport safer, smoother, and smarter.

The UK is in a unique position to lead the way for the development and testing of connected and automated vehicles. We are making sure our laws are in step with this fast evolving technology and are working with industry to keep the UK at the forefront.

The Government is ambitious about this agenda. It has established the Centre for Connected and Autonomous Vehicles (CCAV) to take forward a rolling programme of regulatory reform, and over £100m of R&D. This will help deliver:

- Fewer road traffic collisions and deaths, better traffic flow, better mobility; and
- Opportunities to secure high value R&D, and support the automotive industry.

CAVs have technology that allows communication with other vehicles or infrastructure (connectivity), and/or drive themselves for some, or all, of the journey without input from a person (autonomy). CAV technology could include all forms of road transport, including cars and trucks.

CCAV is taking forward this agenda through the following strategic priorities:

- **Industry** – ensuring that the UK has a vibrant, world-leading CAV industry (attracting investment in the UK automotive sector, and associated area)
- **Preparing the UK** – maintaining the UK’s position as one of the best places in the world to develop and use CAV (removing domestic and international regulatory barriers, and operationalising the technology e.g. through updating infrastructure)
- **Research and Development** – delivering co-ordinated, effective, research on CAVs, targeted at delivering value for the UK (managing the 4 Cities Driverless Car Trials, and the £100m Intelligent Mobility Fund)
- **Safety and Security** – ensuring CAVs are safe and secure by design and handle data appropriately. This includes cyber security and privacy

Actions/Plans

- In December 2014 the Government announced the £33m four cities ‘driverless car’ trials in Bristol, Milton Keynes and Coventry and Greenwich. The projects will test highly and fully automated vehicles in a real-world environment to gather greater detail of their operation,

how they will interact with the public and other vehicles and valuable insights into behavioural and social aspects.

- In February 2015 Government published a ground breaking study, *The Pathway to Driverless Cars*, which established the UK as one of the best places in the world to develop these technologies, and set out a range of actions to take forward.
- This was followed in July 2015 by the Code of Practice for testing autonomous vehicles, a world-leading, non-regulatory approach to CAV development.
- In the March 2015 budget the Chancellor announced a £100m Intelligent Mobility R&D fund (to be matched by industry) – the winners of the first £20m competition were announced on 1 February 2016 with funding awarded to 8 R&D projects and 14 feasibility studies.
- The UK Government's Road Investment Strategy (RIS) was published in December 2014. It sets out a long-term strategic vision for the Strategic Road Network (SRN – trunk roads and motorways) in England. One of its key objectives is that, by 2040, the busiest sections of the network will be transformed by technology to enable improved safety levels, smoother traffic flow, and increased capacity. Highways England will invest around £40 million over the RIS period (2015-2020) to support the development of driverless and co-operative vehicles technologies and around £15 million to improve the information and data that helps drivers plan their journeys. It also includes a £150 million Innovation Fund, and identifies that one key area the Fund should target is to "Incentivise the advancement of in-vehicle, vehicle-to-vehicle, and vehicle-to-infrastructure technologies..."
- A2/M2 Corridor: The A2/M2 Corridor will demonstrate the UK's commitment to researching, testing and deploying connected vehicles by designing a flagship "connected vehicle corridor" on the London to Dover route. The Corridor will create a living laboratory for testing deployment strategies for wider roll-out on urban and inter-urban roads, and give UK industry the opportunity to develop their own services, business models and partnering agreements, and exploit commercial opportunities for connected vehicle applications.

Implementation

- Collaborative R&D:
 - Collaborative R&D is a way of harnessing industry, academic and government potential to deliver innovation that will support economic growth. This is why we have chosen this method for the four cities driverless cars trials and the competitive R&D fund.
- Social and Behavioural research:
 - The four cities driverless car trials include behavioural studies. The valuable insights they provide will help to design more effective systems and policies for these technologies, contribute to evidence of their impacts and effectiveness and help the

Government to understand whether there are areas it needs to provide assurance or safeguards

Value for Money

- Collaborative R&D:
 - The value for money of Collaborative R&D spend is high. For every £1 invested in collaborative R&D, the net cumulative GVA is £6.71¹

Testing and Evaluation

- The activities in this area largely involve testing and developing evidence in support of current and future policy on these technologies.

¹ Technology Strategy Board - Evaluation of the Collaborative Research and Development Programmes (2011)