

CASE STUDY

In-Vehicle Data Scoping (CCAV) *Brokering relationships with government*

WHO WE ARE

The Connected Places Catapult (CPC) is an independent, trusted, expert broker operating at the intersection between the public and private sectors and between local, regional and national decision making. We promote UK innovation and broker relationships between government, academia and industry providing support and solutions for innovators to commercialise their projects and research. With our deep expertise in technology, we bridge the gap between buyers, suppliers, innovators and industry. Our agile approach enables us to convene our partners to act rapidly to create new market collaborations responding to public funders and industry needs. We boost demand for innovation to unlock wider economic and environmental benefits.



Our client says

In-vehicle data offers a host of potential benefits to UK consumers. This roadmap is a useful contribution to the essential work on how this data could be used to unlock exciting new services in a safe and sustainable way.

Iain Forbes – Head of the Centre for Connected and Autonomous Vehicles

Challenge

According to a report published in 2019 by the Society of Motor Manufacturers and Traders (SMMT) entitled **'Connected and Autonomous Vehicles: Winning the Global Race to market'** all new cars will be connected to the internet by 2026. These cars will generate high volumes of rich datasets, that could be used to create benefits for consumers and businesses alike. In-vehicle data is defined as data generated by the vehicle itself, including telematics data that provides vehicle location while excluding data generated from personal devices.

These datasets pose potential risks of unethical or dangerous use. Currently, there is no clear understanding of the actions that are needed (or who should take them) to unlock the benefits and minimise the risks of in-vehicle data. There are also questions over internationally harmonised regulations that define testing validation and type approval of Autonomous Vehicles.

Solution

Centre for Connected and Autonomous Vehicles (CCAV) has launched a project to better understand the benefits and risks of in-vehicle data and the actions needed to unlock these benefits. This will inform future policy set by CCAV and the Department for Transport (DfT).

In collaboration with CCAV, Connected Places Catapult convened a workshop in Milton Keynes entitled **'In-vehicle Data Workshop, Roadmapping the actions to unlock the benefits of in-vehicle data'** on 5th June, 2019. The aim was to identify and prioritise the benefits and risks of in-vehicle data; to identify barriers and requirements to unlocking those benefits and to develop a roadmap to overcoming these barriers.

Stakeholder engagement

39 influential attendees took part representing:

- ◆ **Government bodies:** DfT, Highways England, Innovate UK, National Infrastructure Commission, Office for Artificial Intelligence, The Information Commissioner's Office and Ordnance Survey.
- ◆ **Industry Associations:** Association of British Insurers, Automotive Electronics Systems Innovation Network, British Vehicle Rental and Leasing Association and SMMT.
- ◆ **Industry:** IBM, FiveAI and Jaguar Land Rover..
- ◆ **Subject matter experts:** Open Data Institute, White Willow Consulting and Tim Marlow Ltd.
- ◆ **Learned bodies:** Royal Academy of Engineering.
- ◆ **Local Authorities:** City of York Council.
- ◆ **SMEs introduced to the CCAV:** Exeter based City Science (new technology company developing data-tools and software solutions to optimise city systems), Leicester based Mobius Networks (the UK's first integrated data airtime provider), London/Tel Aviv based Valerann (leading data provider helping to accelerate the revolution of the intelligent transportation industry).
- ◆ **Transport Operators:** TfL.
- ◆ **Universities:** Cranfield University, University of Coventry.





Outcomes

The workshop focused on two themes for the potential application of in-vehicle data: Safety Improvements and Consumer Empowerment. Attendees voted on the benefits and risks they considered most important and established actions required across government, industry and academia stakeholder groups over three different time periods: Now, by 2021 and through 2025 (and beyond).

Competition between organisations; local authorities having limited resources; reduced convenience to travellers; high equipment and testing costs; missing business case evidence; unwillingness of organisations to share data; difficulty accessing complete data sets; lack of public trust; vehicle data ownership; lack of awareness of standards and the political challenge of implementing vehicle sensing capability.

CPC creates value

CPC contributed as an independent agent bringing key stakeholders within the sector together to understand and prioritise benefits and risks and to identify a roadmap of actions. We brokered new relationships between CCAV, government bodies and SMEs.

Benefits

- ◆ The workshop contributed to CCAV's work exploring in-vehicle data opportunities. It identified actions required to maximise the benefits of volumes of in-vehicle data becoming available.
- ◆ Stakeholders are interested in further collaboration where there are clear links between the activities led by government, industry and academia.

The White Paper '**Unlocking the benefits of in-vehicle data**' [\[Link\]](#) published by CPC concludes that in-vehicle data has the potential to end the scourge of potholes, improve driver behaviour and reduce the impact of incidents on UK roads. The benefits of in-vehicle data are:

- ◆ **Driver behaviour monitoring:** Includes ability to analyse the way the vehicle is being driven, with the possibility for interventions to educate drivers on improving their behaviour. Telematics-based products are used by fleet operators and sold by insurance companies.
- ◆ **Road conditioning monitoring:** Use cases include identifying dangerous road conditions such as ice which can be used to inform drivers on the same road; collecting data on potholes and road infrastructure defects so local and national highways authorities can plan maintenance.
- ◆ **Predictive maintenance:** Collecting vehicle component performance data and alerting drivers, fleet managers and/or original equipment manufacturers of potential failures and enabling advanced maintenance planning.
- ◆ **Mobility as a Service journey platforms:** Vehicle location and speed data could be used to inform journey planning, booking car parking or onward travel public transport tickets.
- ◆ **Identification of abnormal traffic behaviour:** Changes in traffic patterns (slower speeds) could identify incidents and blockages and inform drivers and traffic management authorities.

The live roadmap has been developed to demonstrate the relationships between in-vehicle data applications, identified barriers and actions required. CPC believes the sector is very dynamic with on-going and new projects being undertaken that can be captured on this roadmap. [\[Link\]](#)

Next steps

CPC are in discussions with DfT's Central Data Team on opportunities to take the recommendations in the White Paper forward. Potential approaches include incorporation of recommendations in DfT's Data Strategy, joint coordination of an industry taskforce to deliver the roadmap and embedding the roadmap in a larger programme of work.

To find out more about the *Connected Places Catapult* and how we can help you develop the future skills that address the needs of your organisation please contact info@cp.catapult.org.uk

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