



ESRC Policy Fellowships 2023: Opportunity Description

Fellowship Title: Home Office The impact of Connected and Autonomous Vehicles on Policing service delivery

Host Department: Home Office

Host Team: Science & Technology Commissioning Hub (Public Safety & National Security, Digital & Forensics)

Summary: Opportunity to understand the socio-economic impact of connected and autonomous vehicles on UK Policing

Fellowship Theme: Building a secure and resilient world. *Please see the full call text "What We Are Looking For" for a detailed summary of the research themes targeted in this call.*

Policy topic: Crime and Public Safety

Relevant academic disciplines: Research expertise in sociology, economics or social policy in relation to delivery public services and public perception.

Relevant research career stage: All

Practical details

Inception Phase:

Estimated Start Date: October 2023. *Exact date to be confirmed by the host depending on onboarding and security clearance requirements*

Duration: 3 months

FTE: 0.4 FTE

Main Placement Phase:

Duration: 12 months

FTE: 0.6-1 FTE

Knowledge Exchange Phase:

Duration: 3 months

FTE: 0.2-0.4 FTE

Work Arrangements

Location requirements: Occasional travel to 2 Marsham Street, London will be required. Eligible T&S costs are supported in the main UKRI grant. Please see full call text and guidance for more details.

Necessary level of security clearance: [Counter Terrorist Check](#) (CTC); the successful candidate may be able to start the inception phase if they pass the Baseline Personnel Security Standard ([BPSS](#))

Fellowship Opportunity Description

Research is required to understand the Socio-Economic impact of Connected and Autonomous Vehicles (CAV) on UK Law enforcement and its policing of roads and criminal investigations.

CAV are becoming increasingly common on UK roads and around the world, offering enhanced features and functionality compared to traditional road vehicles. They have the potential to fundamentally change how cars are used by society and therefore their impact on UK Law Enforcement activities could be significant.

Currently, CAV are subject of focussed initiatives across government to deliver the vision that; [“Some vehicles, including cars, coaches and lorries, with self-driving features could be operating on motorways in the next year, and today’s \(19 August 2022\) plans set out new legislation which will allow for the safe wider rollout of self-driving vehicles by 2025.”](#)

Predictions see [40% of new cars in the UK having self-driving capabilities by 2035](#). This prediction could also be accelerated with the current plans to cease the sale of new petrol and diesel cars by 2030, as [the Government takes historic step towards net-zero](#).

Although Electric Vehicles (EV) are not necessarily CAV, they are part of the increasing trend towards CAV and the likelihood that the capabilities will develop quicker together has been highlighted; [“Working on these technologies in tandem could give some EV leaders a leg up in the industry’s next hot battleground, where Silicon Valley start-ups and subsidiaries are already making steady progress.”](#)

Several government departments including the Department for Transport and the Department Business, Energy & Industrial Strategy with their Centre for [Connected and Autonomous Vehicles](#) (CCAV) team, as well as the Department for Digital, Culture, Media & Sport with their Secure Connected Places Team are looking at the technical, legal and public engagement elements of introducing self-driving vehicles and services on UK roads within the Connected Places environment.

These technologies, together with a public shift towards an increased reliance on these systems will inevitably impact on Policing methods and priorities. There are three areas of policing for which the impact will be immediately obvious, the areas of;

1. Collision Investigation
2. Criminal Investigation
3. Covert Investigations

There will also be aspects such as Smart Roads and Traffic Management, and Vehicle Safety which will strongly influence Policing activity.

In this environment of technology, the threat of more effective attacks such as cyber-attacks on an increasingly complex national infrastructure will be much more serious. Recent high profile cyber-attacks have highlighted the vulnerability and wide ranging effects that these can have. Furthermore as each vehicle becomes more complex, the vulnerabilities and potential for nefarious exploitation may also increase.

Research

In broad terms, this fellowship opportunity is aimed at researching the following questions:

- **How will policing meet these challenges and what will be the public expectation of Policing be within this space?**

Policing methods, skills and capabilities will have to change to respond effectively to these new challenges. This may have an impact on the relationship with the public, recruitment methods, management of resources, priorities and on public finances.

- **What will be the impact of new legislation on policing and on public confidence in policing methods?**

This will be a multifaceted problem involving significant development of skills both technical and legal within the whole Policing environment. For example, as legislation changes to support CAV then the ability to identify who was controlling a vehicle at any particular time becomes an increased technical challenge. However, the ability to instil public confidence that these matters can be competently investigated and determined is likely to have an influence on the public's confidence in the adoption of the technology

- **How does policing maximise the benefits for investigations, of the wealth of information available, while maintaining public consent and trust?**

The significant amount of additional Personal Identifiable Information (PII) that will be collected will also raise public concern in relation to the right to privacy.

The successful applicant would therefore have the opportunity to gain a unique insight into future policing priorities and concerns around CAV. They will have the opportunity to work with a wide-range of stakeholders, such as policing, policy professionals or subject matter experts.

The above set of research questions provide the successful applicant with the opportunity to conduct invaluable original research and analysis with a direct application for policing and policymaking.

Person Specification

Applications will be assessed against the following opportunity-specific requirements in addition to the generic eligibility and call criteria.

Essential Criteria:

- An understanding of how public services (including policing) are delivered
- Quantitative and qualitative research experience and skills
- Experience in researching public perception of, or response to large-scale societal trends, public policy or public services
- Experience in researching the impact and challenges of capability development (public or private sector)

Desirable Criteria:

- Research experience or a strong interest in criminology and/or policing in general
- A good understanding of public policy in relation to policing and digital privacy