

TECHUK - DIGITAL DRIVERS INNOVATION SESSION

Every day, the road network represents one of the highest risks to the safety of the UK public. Each year the number killed on the roads is the equivalent of a Boeing 737 airliner crashing and killing all on board every month; a safety performance statistic that would be deemed totally unacceptable in any other transport sector. Yet, in 2019, 45% of road users said they were not very concerned about road death or injury.

The UK Government is committed to creating a universal shift in public opinion and improving road safety. A key element of that commitment is to leverage the digital element to transcend what has been achieved to date. Road safety in the *Digital Age* embodies all elements of the driving environment. It includes the user, vehicle, infrastructure, information and the use of data and analytical tools to identify and drive change. Digital Drivers is an ambitious initiative to deliver *Digital Age Road Safety*. The first Digital Drivers project focuses on younger and older drivers and is examining the use of technology and innovative techniques along the following four themes:

Knowledge

Knowledge aims to bring together validated information, techniques and tutorials to improve driver knowledge, understanding and skills. It will include the development or adoption of sophisticated delivery techniques including *intelligent push*, *context pull* and *nudge methods* to deliver material to the point of need including the development of different presentation techniques tailored for young and older drivers and the different environments, from the home to the active driver, and the different devices on which it might be delivered.

Insight

Insight will use technology and techniques to develop a detailed understanding of both individual and group driver performance. Insight will construct a rich picture of the driving environment including road and weather conditions, traffic density, road and vehicle type and driver experience. The primary aim of Insight is to identify performance or technique weaknesses and then influence appropriate improvements. **Insight** will generate links to **Knowledge** to trigger information delivery or nudge messages in a manner that are easy to assimilate and, most importantly, do not distract the driver.

Wellbeing

Wellbeing will focus on ensuring that the driver is mentally and physically fit to drive. In addition to the driver voluntarily providing relevant information it will investigate the use of wearable technology and other monitoring techniques to develop a profile of driver wellbeing and where appropriate, provide warnings, alerts and immediate guidance. In addition, **Wellbeing** will generate links to **Knowledge** to trigger further timed information delivery and advice appropriate to the individual's profile.

Investigate

Investigate aims to develop a technical capability to conduct a roadside investigation, at the scene of an event or an initial post-incident investigation. It will examine the availability of hardware, software and analytical techniques that do not require highly specialised training or specialist facilities. Investigate also includes the capture of all data at the scene to support post-incident investigation. It is anticipated that subject

to meeting data regulations, information from [Knowledge](#), [Insight](#) and [Wellbeing](#) could be used within [Investigate](#).

The Project Team is keen to develop a better understanding of the technologies and techniques that could contribute to further developing these themes. In particular, they would like to understand how similar challenges are being addressed in other transport sectors and by commercial road operators.

In addition, the Project Team would welcome the opportunity to discuss some of the wider aspects of the Digital Drivers Initiative by understanding the contribution that technology can make to improving driver, vehicle and infrastructure performance, including the better integration of the Digital Driver into Smarter Cities.