

# ADEPT President's Awards 2023

Entry form

**Main contact name** Phil Bellamy

**Email** phil.bellamy@plymouth.gov.uk

**Award category** Digital Innovation/Technology

**Project Title** Integrating Highway Management

**Local authority entrant** Plymouth City Council

## Headline summary (150 characters max.)

Integrated IT platform to support UTC VMS MOVA and U2X for efficient management of the Highway infrastructure and developing key partnerships

## Digital innovation: How has this project shown evidence of successful digital innovation and the imaginative use of new technology? (150 words max.)

Previously supported on separate platforms, Our recently upgraded Urban Traffic Control and Video Management systems are now linked to seamlessly support highway operations whilst enabling links to our variable messaging system

The upgrade of our Video Management and UTC systems has been complemented by the relocation and fit out of the CCTV Monitoring Centre.

Our vision was to engage the latest and most effective technologies whilst supporting key partners Emergency and proactive strategies have enabled 24hr traffic signal cover for the city whilst reinforcing our emergency response facility.

Implementation of MOVA at key junctions have increased vehicle capacity, eased congestion and simplified remote access for timing and maintenance intervention. Emergency Help points, embedded V2X technology and the building of key partnerships in the City whilst upgrading our Variable message Systems have further improved the network user's experience whilst future proofing our offering

## Digital innovation: How has this project shown evidence of improved outcomes for users? (150 words max.)

Introduction of Multi agency Control Centre

Partnership working (Emergency Services, PARC, Events Team, Winter Service

Blue light (Police, fire, ambulance) priority system development

Reduction of delay across all network users (MOVA), implementing existing and emergent adaptive control strategies (the ability to control the signals across the network should an issue arise such as A38 closure etc. This provides PCC with a means of controlling what is happening on the network Robust and efficient fall-back systems, adaptive, embracing new technology and replaced outdated systems

Virtual Emissions Monitoring, proving to be a better model for informing real time strategies.

Future-proof digital highways, embedded V2X (Vehicle to controller communication)

Enhanced computer software to better manage the network.

Journey time monitoring to inform drivers, monitor network performance (demonstrate improvement in timing strategies), identify hotspots, .

Extended operational hours 24/7 for monitoring Traffic Congestion and Timing/Sequence Intervention

**Digital innovation: How has this project shown evidence of the transformation of a service/department/organisation by changing behaviours, delivering savings or improving ways of working? (150 words max.)**

Our Highway Management team are now working in the same environment as the CCTV and Signal Team. Sharing surveillance opportunities has enabled rapid response to emerging issues on the highway.

There is a Police review room that has allowed dedicated review operation that no longer negatively affects the City's surveillance operation.

Re-deployable CCTV images are now enjoy a dedicated display wall, offering cover for Fly Tipping, Accident Hot Spots and Flood cover

Maintenance Engineers are sharing space with centre staff for dynamic response to emerging issues (automatically identified by system)

Emergency Help Points are monitored in real time

Changes in shift patterns are being reviewed now we have additional capacity at the new centre so we are better placed to support the night time economy

**Digital innovation: How can the innovation/technology in this project be applied in multiple sectors/areas? (150 words max.)**

Our Public Protection team have requested a link to access areas covered by our CCTV network, in addition, we have purposely selected the monitoring centre's site to be outside critical blast zone - we are equipped to house Silver Command function

Enquiries by adjacent local authorities have been received for remote hosting by PCC

The software and hardware that supports the emergency Help points that link through the VMS control arrangement (Commend) has been shared with Cardiff City Council who are interested in duplicating the service.

We have rolled out the supported rapid re-deployable CCTV units for use in Parking (enforcement), Street Scene (fly tipping) and Police (surveillance), these are reviewed in real time, resulting in a more dynamic response

**Digital innovation: How does this project demonstrate scalability and resilience - the ability to use technology in a wider scope and in a way that encourages longevity of use? (150 words max.)**

Scalability is embedded in the platform and has been designed to be increased to accommodate additional hardware as and when required

Network switching has been installed for back bone 10 gigabit operation which offers 10x expansion capacity

WiFi and 4G connections has been integrated in the arrangement that allows for Body Cam, Surveillance and HMPE CCTV unit expansion and this is being rolled out for our Parking Team Imtrak and UTC support is integral to the VMS software and as such, reduction of hardware on the operators stations is achieved

Remote Desktop connections will be rolled out to the operators which further reduces desk clutter

**All categories: please add anything else that supports your award entry**

The highway infrastructure is used daily by the majority of the travelling public and businesses for commuting, business, social and leisure activities and is fundamental to the economic, social and environmental wellbeing of local communities and the city as a whole, Technology integration is key to success in our field as it supports operational efficiencies

The upgrade of our Video Management and UTC systems has been complemented by the relocation and fit out of the CCTV Monitoring Centre.

Emergency and proactive strategies have enabled 24hr traffic signal strategy development for the city whilst reinforcing our emergency response offering.

Implementation of MOVA at key junctions have increased vehicle capacity, eased congestion and simplified remote access for timing and maintenance intervention. Emergency Help points, embedded V2X technology and the building of key partnerships in the City whilst upgrading our Variable message Systems have further improved the network user's experience whilst future proofing our service