

From: Mike Whiting, Cabinet Member Planning, Highways, Transport and Waste

Simon Jones, Director of Highways, Transportation and Waste

To: Environment and Transport Cabinet Committee – 10 October 2019

Decision Number: 19/00056

Subject: ADEPT Kent Live Labs Project

Classification: Unrestricted

Past Pathway of Paper: N/A

Future Pathway of Paper: N/A

Electoral Division: All

Summary: The report outlines an innovative technology project being undertaken by KCC highways and our term maintenance contractor. Funding for the project was provided by the Department for Transport in conjunction with Association of Directors of Environment, Economy and Place (ADEPT) following an open competition for bids from English highway authorities. KCC was successful in this process and was awarded £1.95m over two years to deliver the project.

Recommendation:

The attached decision was taken between meetings as it could not be reasonably deferred to the next programmed meeting of the Environment and Transport Cabinet Committee for the reasons set out in para 4.1 below.

The Environment and Transport Cabinet Committee is asked to note that decision number 19/00056 has been taken in accordance with the process set out in Appendix 4 Part 6 of the Council's constitution to accept the DfT funding to enable the Live Labs project to be delivered with delegated authority to the CD of GET to spend the grant funding.

1. Introduction

- 1.1 During 2018 the Association of Directors of Environment, Economy Planning and Transport (ADEPT) with DfT, announced a £25m Smart Places Research Programme funding package to “stimulate innovation and encourage collaboration in local highways.” This included the development of up to six smart local highways and autonomous vehicle (AV) live labs focusing on innovation, collaboration and agility.
- 1.2 KCC in partnership with our term maintenance contractor submitted a successful bid and was awarded £1.975m for a two-year project. The Live labs will embed SMART infrastructure in everyday service delivery and seek to improve live asset management data.

- 1.3 This intelligence-led approach to asset management could lead to significant benefits to the service in terms of efficiencies, network resilience and customer experience. An asset management control hub will be responsible for collecting all data and providing intelligent analysis, both through software automation and consultancy form.

2. Financial implications

- 2.1 A capital grant of £1.975m has been awarded to KCC to develop several innovative solutions, based on the bid made to the DfT and ADEPT.
- 2.2 All feasibility and planning costs have been absorbed within base budget. Phase 1 development is estimated to cost in the region of £500k and estimates for Phases 2 and 3 have been included in the cost modelling, albeit Phase 1 will very much inform the innovation and technological solutions that will ensue. A contingency of £190,000 has been included.
- 2.3 This is a specific project, working with our HTMC partner and their Strategic Consulting division. Project costs will be monitored on a monthly basis with the following controls in place.
- Contingency – 10% allowance included in the £1.975m costings
 - Governance - a Project Board already established, and all relevant stakeholders involved
 - Partnership working – whilst Amey will be commissioned to deliver set outcomes/innovations, this is a joint project and solutions to any funding or technological solutions will be discussed/negotiated/value engineered
 - Funding options – the Kent Lane Rental Fund has already funded part of the feasibility works. A further bid is to be made to this fund to supplement the grant allocation.

3. Project context

- 3.1 Highways asset management is responsible for the inspection and maintenance of 5,000 miles of road and 4,000 miles footway; 122,000 streetlights, 500,000 trees, 250,000 drains and 2,200 bridges. In inclement weather we treat 57 salting routes which covers 30% of the road network. In addition, the service is the front facing part of the highways function and deals with over 100,000 enquiries each year.
- 3.2 Data for these assets are captured on a range of systems and platforms and utilised to deliver the best possible service to residents and visitors to Kent. Having data on a variety of systems can however result in unconnected systems, potentially leading to slower decision making and customer dissatisfaction. Kent as a place is continuing to grow and the pressures on our services are increasing at the same time as customers are getting used to dealing with sophisticated online systems and shopping and expecting similar streamlined, relevant and timely services from the public sector
- 3.3 The ADEPT/DfT objective for the programme is:

“Through deployments at scale we will achieve a step change in the normalisation and uptake of new techniques, materials and solutions in the local highways realm to meet the needs of today and tomorrow.”

3.4 To meet this objective the Kent Live Labs project deliverables are set out below:

- The advancement of existing Smart Gullies and Winter projects, and the development of equivalent innovation projects within the other core delivery streams that exist in Kent Highways. The objective of these innovations is to deliver an intelligence-based approach to maintenance, that can save Kent County Council money while delivering a higher quality of service.
- The development of an operational platform which will aggregate the variety of disparate systems used within Kent County Council Highways, integrate new data sources used within ‘innovations’ and allow intelligent analytics to take place around this data, presenting information back to Kent County Council
- The development of an externally facing strategic platform, which will feed tailored information to non-operational users e.g. public about the service, to increase transparency of the service, trust in delivery and reduce incoming enquiries.

3.5 The project will be delivered in 2-3 phases, with phase one delivering initial operational and strategic platform development, data discovery, business case opportunity analysis and quick wins in the first 6-8 months. Subsequent phase(s) will deploy a pipeline of innovations and projects based around data and technology developed from the discovery and analysis done during phase one. Individual innovations or ‘Workstreams’ will also be developed and taken forward following evaluation relating to: Whole asset lifecycle cost, productivity of service and customer experience. There are a number of existing costed Innovations or ‘Workstreams’ detailed in Appendix 1. The project will also be exploring all opportunities for data within Highways delivery with project ranging in scale. As the project develops, Kent County Council will be approaching the SME market to find the best technology solutions for delivering innovations within the project.

3.6 Other workstreams will be developed during the life of the project with successful ones taken forward and lessons learnt from any that fail at the proof of concept stage.

4. Decision taken by Cabinet Member

4.1 The attached decision was taken between meeting as it could not reasonably be deferred to the next programmed meeting of the Environment and Transport Committee. The Department for Transport and ADEPT have funded the Kent Live Labs project for two years. The first tranche of money was received in the Council in May 2019. The project is being delivered in partnership with Amey plc and during the project other third party

companies are likely to be contracted to trial relevant innovations. In order to get the project started in the time stipulated by the DfT, June 2019, including making contractual arrangements with Amey, a decision was needed by the Cabinet Member for the project to commence. This enabled the Project Initiation Document to be prepared, procurement discussions to take place and the discovery phase of the project to commence, thereby adhering to the timeline set for the overall Live Labs programme.

5. Conclusion

- 5.1 The Live Labs project provides a unique opportunity for Kent County Council highways to take an innovative approach to asset maintenance and management. This intelligence-led approach to asset management could lead to significant benefits to the service in terms of efficiencies, network resilience and customer experience.

6. Recommendations

- 6.1 The Environment and Transport Cabinet Committee is asked to note that decision number 19/00056 has been taken in accordance with the process set out in Appendix 4 Part 6 of the Council's constitution to accept the DfT funding to enable the Live Labs project to be delivered with delegated authority to the CD of GET to spend the grant funding.

7. Background documents:

1. ADEPT Live Labs Highway Assets Data-Led Management Solution
2. Record of Decision
3. ADEPT Live Labs Prospectus
4. ADEPT EQIA

8. Contact details

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