

Funding for Innovation: Cooperative Intelligent Transport Systems



Department
for Transport

Application Form

The level of information provided should be proportionate to the size and complexity of the scheme proposed. As a guide, we would suggest around 10 to 15 pages including annexes would be appropriate.

A separate application form should be completed for each scheme.

Applicant Information

Local authority name(s)*:

Cambridgeshire County Council

Bid Manager Name and position:

Daniel Clarke – Future Digital Programme Manager

Contact telephone number: 01223 729079

Email address: daniel.clarke@cambridgeshire.gov.uk

Postal address:

Room 315, Shire Hall, Castle Street, Cambridge, CB3 0AP

When authorities submit a bid for funding to the Department for Transport, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department for Transport. The Department for Transport reserves the right to deem the business case as non-compliant if this is not adhered to.

Please specify the web link where this bid will be published:

<http://www.connectingcambridgeshire.co.uk/smartcamb/projects/>

SECTION A - Scheme description and funding profile

A1. Scheme name: Greater Cambridge – Smart Parking

A2. Headline description:

Gain a granular understanding of parking within the city to create a better user experience for the travelling public and to allow the authority to use parking as tool to manage demand on the network. To better manage Coach parking, Blue Badge parking and Loading Bays

A3. Geographical area:

The area covered by the bid will be within the central ring road in Cambridge.

See map in appendix a.

Appendix a also links through to the Cambridge access study which shows the geographical travel to work area and maps relating to the transport network.

A4. Type of bid (please tick relevant box):

C-ITS: Connected Vehicle

C-ITS: Real Time Information

C-ITS: Smart Parking - Yes

C-ITS: Vulnerable Road Users

Other (please specify)

A5. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty? Yes

SECTION B – The Business Case

B1. The Scheme – Summary/History (Maximum 200 words)

Cambridge has a significant congestion problem with over 206,000 motor vehicles coming in and out of a constrained historic city, if we carry on as we are by 2031 traffic in the peak times will increase by 30% due to the amount of growth in the area (approx. 35,000 houses to 2031) potentially stalling the economic success of the area. The council is currently looking at how this issue can be addressed and one of the key areas is parking. The council is looking at a Work Place Parking Levy and expanding residents parking schemes but the project would aim to expand this work out to look at how we can use parking data and information to give the traveler a better experience but to also use parking as a tool to address congestion by directing travelers straight to an available space, examine surge pricing to shift demand for peak hours and to better manage coach parking and loading which cause obstructions to the highway. The City is currently building a data platform which will be able to handle real time and static data allowing re-use of data this will include feeding information into Journey Planners and other road user tools.

B2. The Strategic Case (Maximum 350 words)

The Greater Cambridge city region has achieved global success as a world-leading research and technology hub, with the highest cluster of tech firms in the UK (known as the 'Cambridge Phenomenon'). However, its rapid growth is now contributing to significant traffic congestion throughout the city. Currently there are 206,000 vehicle movements into and out of the city with 50,000 workers travelling into the city. There are plans to build approx. 35,000 houses in and around Cambridge until 2031 and we are seeing significant business growth as companies like Astra Zeneca relocate here. If we don't do something then traffic will increase by 30% doubling the time spent in traffic. The City is taking a holistic approach to tackling this challenge and recognizes the important role that parking plays in the transport ecosystem. This project would be a partnership between the City Council (Off-street parking) County Council (on-street parking) and a number of technology providers. It looks to take an innovative 'Internet of Things' approach and utilize cutting edge technology. Because of the risk involved in looking at these solutions they wouldn't currently be funded through core funds and so the C-ITS funding would allow us to demonstrate the value of new technologies.

Benefits

- Currently 14% of peak journeys are shopping related and the project would aim to shift 5% of these journeys from peak to off-peak free capacity on the network.
- Reduce the amount of time vehicles spend on the road looking for parking spaces, freeing up network capacity and reducing pollution.
- Improve the user experience by giving better information and looking at future payments options to allow advance payments, part of integrated ticketing/payment solution.
- Better manage coach parking to stop tourist coaches obstructing the highway
- Better manage loading bays – improve enforcement
- Be able to better manage blue badge spaces – giving users information on free space, reduce the stress of parking.

Outputs

- Real time data from on-street and off-street parking bays incl coach bays, loading bays and blue badge spaces.
- Integration of data into the cities data platform which will then be made available to developers via an API.

- Integration into the Journey Planner currently being developed by the City
- App to help manage coach parking and loading bays – appendix b
- Integration of data into city data platform for re-use
- Report on future payment options including integration with other ticketing and Mobility as a Service options.

B3. The Financial Case – Project Costs

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department for Transport’s maximum contribution.

Please complete the following tables. **Figures should be entered in £000s** (i.e. £10,000 = 10).

Table A: Funding profile (Nominal terms)

£000s	2016-17	2017-18	Total
<i>DfT Funding Sought</i>	<i>100,000</i>	<i>180,000</i>	<i>280,000</i>
<i>LA Contribution</i>	<i>30,000</i>		
<i>Other Third Party Funding</i>			

Notes:

- (1) Department for Transport funding must not go beyond 2017-18 financial year.
- (2) A local contribution of 5% (local authority and/or third party) of the project costs is required.

B4. The Financial Case - Local Contribution / Third Party Funding

Please provide information on the following points (where applicable):

- a) The non-DfT contribution may include funding from organisations other than the scheme promoter. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.

The LA contribution will be provided through the Smart Cambridge programme which Cambridgeshire County Council are leading and is funded via the Greater Cambridge City Deal. The funding will pay for integration of the parking data into both the data platform that is currently being developed by the University of Cambridge, which will make it available to developers as well as integrating it into a journey planning tool that is being developed in conjunction with a company called building intellect. It will also fund the integration of other data such as traffic flows into the project.

- b) Where the contribution is from external sources, please provide a letter confirming the body’s commitment to contribute to the cost of the scheme. The Department for Transport is unlikely to fund any scheme where significant financial contributions from other sources have not been secured or appear to be at risk.

Have you appended a letter(s) to support this case? Yes No N/A

c) Please list any other funding applications you have made for this scheme or variants thereof and the outcome of these applications, including any reasons for rejection.
None submitted

B5. The Financial Case – Affordability and Financial Risk (maximum 300 words)

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme.

Please provide evidence on the following points (where applicable):

a) What risk allowance has been applied to the project cost?

A 10% contingency has been allowed for within the project cost.

b) How will cost overruns be dealt with?

Where possible the scheme will be re-engineered should costs overrun, a 10% contingency has also been built into the project. These will be identified early through close project management using prince two for the deployment of sensors and agile for the development of applications.

c) What are the main risks to project delivery timescales and what impact this will have on cost?

The sensor type could impact the delivery timeline. If following procurement the project uses cameras there is a risk of delay as Balfour Betty carry the risk of the lighting columns likely to be used and in our experience can be slow in processing requests – no financial implications.

Development of the application in Beta following user testing may cause delay dependent on feedback – possible extra developer time required adding additional costs (developer days)

B6. The Economic Case – Value for Money

This project is experimental and part of the findings will be to assess the impacts of smart parking and developing a business case including looking at VfM.

Economic - We know that congestion has an economic cost to the local Cambridge economy, although we have no quantification of those costs currently by better managing parking the aim of the project is to reduce the amount of time motorists spend looking for parking including better managing tourist coaches and the project will assess the impact this has on the road network. Better utilization of parking spaces has the ability to increase revenues for the City Council and will also have economic benefits for local businesses.

Environmental – By reducing the amount of time cars are looking for parking spaces the city will see a positive impact on air quality. This will also be seen through the better management of tourist coaches.

Social – Better management of blue badge schemes will make locating parking spaces for

holders easier lowering the stress of coming into Cambridge to access the city centre. Better management of tourist coaches reduces the risk to cyclists of having to navigate around coaches parked away from designated bays or circling waiting for spaces.

B7. The Commercial Case (maximum 300 words)

Below is the strategy for procuring each of the individual elements of the proposal and predicted procurement timescales);

City wide sensor deployment – look at new technologies with an element of development, with a commensurate need for the protection of intellectual property rights and will use Negotiated Procedure without Prior Publication, under regulation 32 of PCR '15, under the Additional Grounds set out in PCR'15, (b) (ii) and (iii) (60 days)

Integration of data into the City Data Hub would be carried out by the University of Cambridge under an existing procurement exemption. (Immediate)

Integration into the Journey planner will be carried out by the provider as an add-on to their existing contract which is allowed for. (10 days)

New traffic management apps will be developed using use Negotiated Procedure without Prior Publication, under regulation 32 of PCR '15, under the Additional Grounds set out in PCR'15, (b) (ii) and (iii) (60 days)

Surge pricing trial and assessment would be procured under an existing framework contract (30 days)

Future Payment options – procured via an RFQ procedure (30 days)

Any

*It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department for Transport with confirmation of this, if required.

An assurance that a strategy is in place that is legally compliant is likely to achieve the best value for money outcomes are required from your Section 151 Officer below.

B8. Management Case - Delivery (maximum 300 words)

Deliverability is one of the essential criteria for this Competition and as such any bid should set out if any statutory procedure is needed before it can be delivered.

- a) An outline project plan (typically in Gantt chart form) with milestones should be included as an annex, covering the period from submission of the bid to scheme completion. The definition of the key milestones should be clear and explained. The critical path should be identifiable and any contingency periods, key dependencies (internal or external) should be explained.

Has a project plan been appended to your bid?

Yes

b) A statement of intent to deliver the scheme within this programme from a senior political representative and/or senior local authority official.

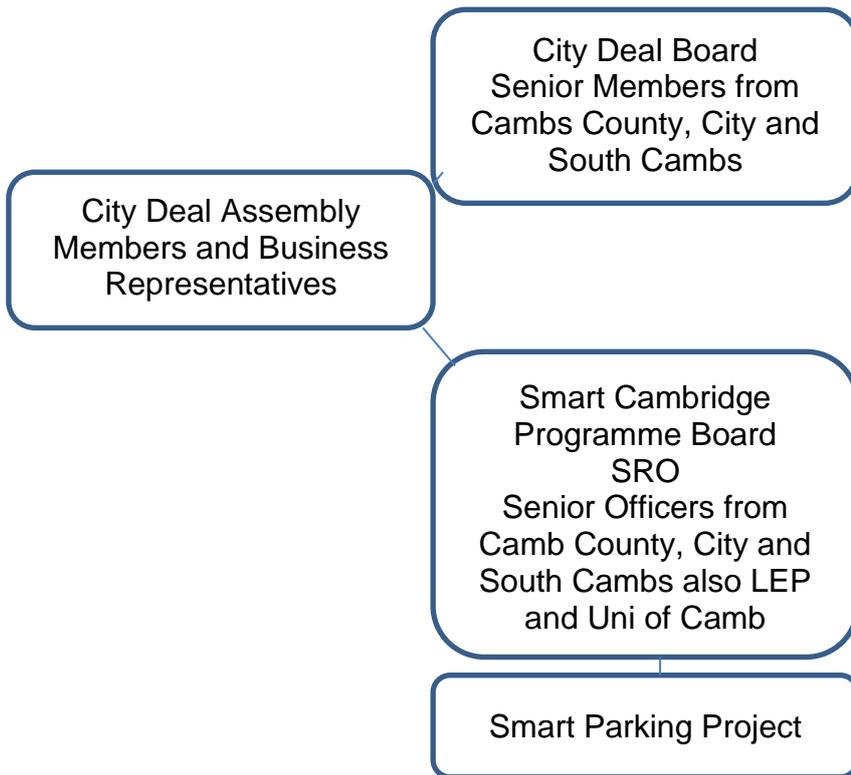
Noelle Godfrey Director of the Connecting Cambridgeshire programme has signed of the bid.

B9. Management Case – Governance (maximum 300 words)

Please name who is responsible for delivering the scheme, the roles (Project Manager, SRO etc.) and set out the responsibilities of those involved and how key decisions are/will be made. An organogram may be useful here. This may be attached as an Annex.

SRO – Noelle Godfrey Programme Director Connecting Cambridgeshire
Programme Manager – Dan Clarke (Smart Cambridge Programme Manager)
Project Manager – Field Deployments – Philip Hammer (Parking Operations Manager)
Technical Director– Data work – Ian Lewis Director of Infrastructure (University of Cambridge)

Decisions will be made through the Smart Cambridge Programme Board;



B10. Management Case - Risk Management

Risk management is an important control for all projects but this should be commensurate with cost. For projects where the costs exceed £100,000, a risk register covering the top 5 (maximum) specific risks to this scheme should be attached as an annex.

Please ensure that in the risk register cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.

Has a risk register been appended to your bid? Yes see appendix b (Risk Register tab)

SECTION C – Monitoring, Evaluation and Benefits Realisation

C1. Benefits Realisation (maximum 250 words)

The project is looking to create the following benefits;

-A better user experience of on-street parking this will include Motorists, Coach Drivers and those using blue badge parking.

-By directing motorists straight to a space it will prevent them from driving around looking for free bays and so will benefit the city by freeing up some capacity on the network. Various estimates of how much time people spend looking for spaces have been done in projects elsewhere. We will look to monitor the impact on the network through the use of Bluetooth detectors which monitor traffic flows (already installed) and also some research work of those using the spaces.

-Look to use the existing parking capacity as efficiently as possible with the benefit that in the future you as demand potentially grows there will be no investment needed in new parking facilities. In the short term this will be particularly helpful as one of the main car parks in Cambridge is re-developed.

-Coaches currently queue to use coach parking within the city especially during the summer as tourists enter the city from the UK and Europe. The coaches' cause delays on the network and can be a safety hazard for cyclists. The project will give information to coach drivers about when spaces are available and will introduce a booking system which will minimise the impact of coach parking.

-Sensors in loading bays will allow better enforcement and thus better management of road space.

C2. Monitoring and Evaluation (maximum 250 words)

We currently have a good idea of what is happening on the road network. As part of the City Deal a lot of modelling of the road system has been done using mobile phone data. This and data from a network of Bluetooth detectors which measure traffic flows will form a baseline of what is happening on the network near these spaces. We will monitor what effects the project has on the road network. We will also monitor data from pay and display machines which will tell us whether the utilisation of spaces changes as the scheme is introduced.

We will collect Qualitative data from users to measure user benefits. A full costs benefit analysis will be done to assess the benefits against capex and opex costs. This will form a business case which will be disseminated to other cities through our existing networks which include projects such as the Transport Data Initiative, white papers, case study and conferences.

SECTION D: Declarations

D1. Senior Responsible Owner Declaration

As Senior Responsible Owner for Cambridge Smart Parking I hereby submit this request for approval to DfT on behalf of Cambridgeshire County Council and confirm that I have the necessary authority to do so.

I confirm that Cambridgeshire County Council will have all the necessary powers in place to ensure the planned timescales in the application can be realised.

Name: Noelle Godfrey

Signed:

Position: Director Connecting Cambridgeshire



D2. Section 151 Officer Declaration

As Section 151 Officer for Cambridgeshire County Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that [*name of authority*]

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested
- has the necessary governance / assurance arrangements in place
- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome
- will ensure that a robust and effective stakeholder and communications plan is put in place.

Name: Chris Malyon

Position: Chief Finance Officer

Signed:



Submission of bids:

The deadline for bid submission is **5pm, 30 September 2016**.

An electronic copy only of the bid including any supporting material should be submitted to:
TRAFFIC.COMP@dft.gsi.gov.uk