Funding for Innovation: Cooperative-Intelligent Transport Systems (C-ITS)

Moving Britain Ahead
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1. Introduction

1 The digital transformation is rapidly changing from the way we travel on our roads and how we provide and maintain our infrastructure. The Department for Transport is launching a competition to help stimulate further transformation and to enhance Britain’s position as a leading transport innovator. Our aim is to encourage highway authorities and the wider sector to make road transport increasingly smart through the use of data, connectivity and Internet of Things to improve safety, efficiency, and emissions.

2 The Department for Transport is committed to supporting local highway authorities deliver better management of the highways they are responsible for and this competition will help introduce intelligent transport systems across a range of operating environments.

3 The Department for Transport wants to promote the use of Cooperative Intelligent Transport Systems (C-ITS) on the local highway network with a total fund of £2 million being made available for a mix of use cases. Intelligent Transport Systems (ITS) describe technology applied to transport and infrastructure to transfer information between systems for improved safety, productivity and environmental performance. This includes standalone applications such as traffic management systems, information and warning systems installed in individual vehicles, as well as C-ITS applications involving vehicle to infrastructure and vehicle-to-vehicle communications.

4 The competition is expected to fund a range of projects costing between £50,000-£300,000 which will:
   - support early adopters of these technologies;
   - use demonstrator projects to generate interest in, and understanding of, these technologies;
   - use the findings to encourage more widespread deployment across a number of highway authorities;
   - encourage partnership working between highway authorities, if appropriate, and
   - strengthen relationships with the private sector supply chain.
2. Who Is Eligible to Apply for the Fund?

Any English local highway authority can apply for funding. Applications can cover geographical areas that cut across local authority boundaries - in which case one transport authority should be identified as the lead authority with others as partner authorities. Where an authority forms a Combined Authority (CA) bids should be submitted via the Combined Authority who should also provide a cover letter indicating the relative priority they attach to the different bids submitted.

The Department for Transport is setting a cap of two bids per local highway authority.
3. Scope of the Competition

Types of Schemes

7 Connected vehicles, and the infrastructure to support them, are not a long-term possibility, but an immediate reality. It is important that they take their place in the short-term planning conducted by local highway authorities and not just in long-term plans. The way they are used and adopted by drivers and network operators is important, as the longer term deployment of autonomous vehicles that may rely on connected vehicles technology.

8 It is important, therefore, that the competition funding will focus on solutions and applications that are deliverable and can be readily implemented. Examples of the projects which we are considering supporting, which must be based on C-ITS systems, include:

- delivering connected vehicle services - connected vehicle technologies have the potential to improve traffic management and the road user experience. Projects that could be considered include the deployment of connected vehicles, potentially on corridors/area-wide network or for a specific application (e.g., priority at signal controlled junction etc.). The competition response will need to specify the services and the potential technologies that will be deployed.

- exploiting the use of real-time data to and from vehicles to support smarter traffic management (by measuring congestion, flow, speeds, queue, and to improve signal settings/event planning etc.). The competition response will need to clearly explain how their project is cooperative and provides insight into the real-time, and predicted, performance of local road networks.

- smart (on-street) parking solutions - for example, providing in-vehicle information about the availability of on-street parking; routeing information; cash-less parking charge transactions etc. The competition response will need to demonstrate how the scheme is cooperative and provides benefit to both the road user and the transport system.

- schemes for vulnerable road users - making use of real-time sensor and other data sources to improve mobility and safety, provide priority etc. The competition response will need to clarify how the scheme is cooperative and provides benefits to the road user.
4. Funding Available

9 The total value of the Competition Fund for C-ITS and asset management from 2016/17 to 2017/18. We envisage that potential schemes would cost between £50,000 and £300,000 - we anticipate this level of funding will be able to support a wide range of use cases.

10 This funding is 100% capital grant. The Department's funding can only be used for expenditure in line with accepted accounting practices, and may not be used for non-research activities. Decisions about what constitute capital costs are down to the local authority to agree with an independent local auditor in the usual way.

11 There will be no facility for the Department's funding to be spent beyond 30th March 2018, and the Department will not be liable for any cost overruns or delivery slippage. Any additional costs over the Department's agreed maximum contribution and any spend incurred after 30th March 2018 will be the responsibility of the promoter. We would expect any bid to include a Section 151 Officer letter confirming the promoting authority accepts this liability.

12 All bids will also need to demonstrate additionality, i.e. that Department for Transport funding is not simply being used to replace other sources of funding which have, or would have, been provided. In addition, to ensure strong local commitment, promoters should contribute at least 5% of total scheme costs for schemes. This can be made up of both local authority and other third party funding. Bid applications must identify the source of the local contribution and explain how the funding has been secured. We would expect to see a letter from the promoter's Section 151 Officer confirming that the authority has the available funds to meet the total local funding contribution.

13 The application process set out in a later section of this guidance explains the requirements for submitting proposals for the competition.
5. Assessment Criteria

Essential Criteria

14 The Department for Transport's assessment of the bids will be consistent with the Transport Business Case process covering strategic, financial, economic, commercial and management cases. These sections are set out in the application form, with further guidance therein.

15 Given the objectives of the competition, particular attention will be given to the factors set out below:

Strategic Case

16 The strategic case should demonstrate the case for technologies proposed – that is, a clear rationale for making the investment; and strategic fit, how an investment will further the aims and objectives of the relevant local authority. Bids should include evidence such as:

- the aims of the proposed scheme, and how it addresses the problems identified;
- the demographic of the area and unquantified benefits to the local community;
- the identified problem(s), with timescales and the key drivers?
- the target and/or affected population(s) and what is known about their needs, current behaviours and attitudes?

Value for Money

17 Value for Money will form part of our assessment of the bids but will not be the only factor. The Department will reserve the right to request further information from the scheme promoter in respect to the value for money case and monitoring and evaluation plan and/or to award funding on a provisional basis subject to further information.

18 If available, promoters can provide a robust estimate of the Benefit Cost Ratio (BCR) of the scheme. Where a BCR is provided please provide an Annex to the bid setting out the data and assumptions used in deriving that BCR, including whether it has been subject to any external or independent review.
19 Commensurate with the value of the scheme, other value for money aspects of the bid could include:
   a. a description of the do minimum situation (i.e. what will happen without the funding);
   b. description of the potential costs and benefits of the scheme,
   c. number of vehicles within scheme if estimable: (AADT in vehicles – if possible split by vehicle type);
   d. forecast of traffic management benefit, where appropriate;
   e. forecast number of accidents and or accident rate with and without the scheme),
   f. number of existing pedestrians, cyclists and other vulnerable road users with and without the scheme.

Financial Requirements

20 To ensure strong local commitment, promoters should contribute at least 5% of total scheme costs for schemes. Higher levels of contribution would be welcome but are not essential. This can be made up of both local authority and other third party funding. Bid applications must identify the source of the local contribution and explain how the funding has been secured. We would expect to see a letter from the promoter's Section 151 Officer confirming that the authority has the available funds to meet the total local funding contribution.

21 Responsibility for estimating and controlling all project costs lies entirely with the bidding authority or authorities. The Department's agreed contribution will be the maximum that the scheme will receive and the Department will not entertain any contribution to cost increases that may arise. The bid should also provide a narrative setting out how the authority will mitigate against any financial risks associated with the scheme.

Deliverability

22 This will be a decisive factor in determining the awards. Realism of scheme deliverability is of paramount importance and bids should demonstrate that the scheme will be delivered within the funding timetable with supporting evidence. Schemes which include a clear statement of intent from a high-level political representative and/or local authority representative will be prioritised.

23 Delivery risks identified from previous Departmental programmes include:
   a. timescales taken by statutory undertakers
   b. supply chain capacity and procurement timescale risks
   c. over ambitious timeframes (with no contingency built in at all)
   d. securing third party contributions to timetable; and/or
   e. the local authority's capacity and capability.

24 Procurement is also important and proposals that involve lengthy procurement processes may struggle to meet the delivery timeframes of the Competition and those schemes that can be delivered through existing framework contracts may be assessed higher than those who have to go through a tendering process.

25 The Senior Responsible Owner for the project should be identified and details of the project management arrangements should be provided (where appropriate - and for schemes costing more than £100,000). All applications should include a
short summary of the key risks to delivery and planned measures for managing those risks.

**Monitoring of Scheme Impacts, Evaluation and Benefits Realisation**

26 Bidders must commit to monitor/evaluate the impact of the scheme before and after it is implemented. As part of the application process promoters will be expected to provide details on the likely benefits and how they will be measured and reported during and on completion of the project. A more comprehensive evaluation may also be required for large schemes, depending on their size and scale.

27 A wide range of pilots and tests are needed to demonstrate benefits and coordination of their results to gain an evidence base for the UK. The learning needs to be coordinated.
6. Application Process

28 An application form, sets out the criteria against which applications will be assessed (as set out in Chapter 5 of this Guidance). This can be found at: https://www.gov.uk/government/publications/co-operative-intelligent-transport-systems-funding-competition. Applicants should complete all sections on the form and any necessary supporting material (as set out in the application form) should be annexed and clearly referenced in the bid document itself.

29 As stated in Chapter 2, applications for funding are welcomed from any English local highway authority.

30 The deadline for submitting bids is 5pm, 30 September 2016. Decisions on successful bids will be made as soon as possible.

Submission of Bids

31 The Department requires an electronic version of the bid and this should be submitted to: TRAFFIC.COMP@dft.gsi.gov.uk.

32 Local authorities should also publish the applications on their websites and provide the web link to the Department for Transport.

Enquiries

33 If you have any questions about this guidance, including clarification on the information and appraisal requirements for bids to the Fund, please contact:

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Q. Are authorities allow to submit more than one bid?
A. Yes.

Q. Why is the focus of the bid on Cooperative ITS (C-ITS)?
A. C-ITS (where vehicles communicate with each other and/or with the infrastructure) has the potential to greatly increase the quality and reliability of information available about the vehicles, their location and the road environment. We want to support local authorities to deploy C-ITS to help demonstrate how this information will help better manage their road network and lead to greater transport efficiency and increased safety.

Q. Does the Competition allow for multi-modal C-ITS schemes?
A. No. The purpose of the competition is to promote C-ITS for traffic management purposes, to help improve road network efficiency. We would be pleased to receive bids which prioritise and/or protect vulnerable users.

Schemes which provide priority for public transport will be eligible where there is a demonstrable traffic management/safety benefit.

Q. How strict is the guidance on the number of pages of submissions?
A. It would be helpful if you could stick to the limit as much as possible.

Q. If we submit a scheme bid we will not have all of the economic case ready in time? How do we deal with this issue?
A. We will be assessing the economic case on the basis of the information that promoters supply – and the more robust that information is, then the more confidence we can have in the assessment. Clearly, this should be appropriate to the level of schemes put forward; as such, a cost benefit analysis is not required, although for larger schemes costing above £100,000 we would expect some indication of the value for money.

Q. Can authorities submit a joint bid?
A. This is for local highway authorities to decide. The Department is happy to receive separate bids but is also happy to receive a joint bid.

Q. Can we use staff time/resources as the council's local contribution?
A. No.

Q. Will feedback be provided on failed bids?
A. Yes, that is our intention.

Department for Transport
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