

GREATER LONDON AUTHORITY

REQUEST FOR DIRECTOR DECISION – DD1163

Title: Network Utilities - Stage 1

Executive Summary:

London's utility companies work on assets with age ranges from Victorian to brand new, all squeezed into a dense urban environment. Data sharing is slow and is often repeated for new works programmes. Building a complete view of infrastructure assets in cities could transform delivery of new and renewal of existing assets.

Using £3m funding secured from the *Technology Strategy Board (TSB) Smart Cities Programme*, permission is sought to commission consultants to advise on how a co-ordinated system of utility mapping could be implemented across London. This would include reviewing and summarising existing smart utility mapping projects across London. It will also identify key stakeholders, build a contacts database and establish an industry supported data sharing process for collating, verifying, uploading data to a shared database and any subsequent utilities data update.

Decision:

That the Director approves:

- Expenditure of up to £125,000 for Stage 1 of the Network Utilities project of the Smart London Demonstrator Programme (MD1247) for the procurement of services and entry into and execution of contracts for consultancy services.

AUTHORISING DIRECTOR

I have reviewed the request and am satisfied it is correct and consistent with the Mayor's plans and priorities.

It has my approval.

Name: Fiona Fletcher-Smith

Position: Executive Director-Development,
Enterprise & Environment

Signature:



Date:

11.2.2014

PART I - NON-CONFIDENTIAL FACTS AND ADVICE

Decision required – supporting report

1. Introduction

TSB's Future Cities

The Technology Strategy Board (TSB) is a non-departmental body tasked with accelerating economic growth by supporting UK innovation. It is investing up to £24m in large-scale demonstrator for 'future cities'.

The Future Cities programme aims to bring together emerging concepts and opportunities in Smart Cities and Sustainable Cities to demonstrate the economic, social and environmental value that can be created through the application of digital (data-driven) solutions, systemic approaches to city infrastructure and services, and collaborative models.

The GLA Environment team led a bid to the TSB in 2012 involving three strands: reduction in traffic congestion; reduction in local air pollutant and carbon emissions; and job creation. This resulted in an award of £3m over three financial years.

The £125k will be used to carry out an Assessment of the capabilities of existing and potential solutions. It will also identify key stakeholders and will provide a costed implementation plan and exit strategy for the GLA investment. Phase 2 will commission the demonstrator programme itself using the implementation plan identified in phase 1.

This task was not specifically itemised on the IPB milestones and projected cost but it picks up on the "Data collation; links to utility and borough systems and system compatibility; integration of TfL datasets" identified in the IPB paper. The other milestones will be picked up in Phase 2.

The £1.5 Million for the network utilities stated in the IPB paper was based on high level estimates using information available at the time. The budget has now been re-profiled to account for support cost. These figures will be finalised post tender when we have actual costings. The variations will not impact on delivering the project and outcomes.

Background to Networked Utilities project

London's utility companies work on assets with age ranges from Victorian to brand new, all squeezed into a dense urban environment. Data sharing is slow and is often repeated for new works programmes. Data quality is variable and usually describes three-dimensional worlds in only two dimensions. Excavations are repeatedly dug in the same location by different utilities. Permit and lane rental costs can be as high as £2,500/day, with overrun charges of around £5,000 per day. Adoption of collaborative approaches to repair, renewal and planning of new assets is a complex organisational task.

Damage to underground assets costs £150m per year across the UK, including 20 strikes per year on London Underground's assets. These accidents can result in serious injury and incur costs of several million pounds. Shallow, unregistered installations of business-critical broadband cabling may augment this problem several hundred-fold in the future, without better data sharing and up-to-date 3-D visualisations.

Roadworks in London account for 36% of road disruption costs, equating to an indirect annual cost of around £720m per year to the London economy. Stalled traffic in London has been found to lead to 8% more CO2 emissions, 6% more PM10 and up to 9% more NOx than free-flowing traffic.

A complete view of infrastructure assets in cities could transform delivery of new and renewal of existing assets. New collaborative models and digitisation of London's above and below ground systems will provide an invaluable asset to urban planners and infrastructure owners, enabling efficient investment decision-making and stimulating smart app developers to create novel business applications.

2. Objectives and expected outcomes

Objectives

The Networked utilities project will be managed in two distinct stages, of which this DD seeks approval for Stage 1.

Building on previous projects, the objectives of this project are to:

- Review and summarise existing smart utility mapping projects across London. This will ensure the GLA does not unnecessarily duplicate existing efforts.
- Identify key stakeholders and build contacts database
- Establish a data sharing process for collating, verifying, uploading data to share database and any subsequent utilities data update.
- Gain stakeholder buy in with main utility companies to the data sharing process which can be rolled across London.
- Establish consensus for implementation of a common utility mapping system

Expected Outcomes

The primary outcome will be an enhanced understanding of the Potential for a co-ordinated approach to mapping utilities network data across London

- An Assessment of the capabilities of existing and potential solutions providers
- An Assessment of obstacles that have stopped an efficient, collaborative data management service being adopted to date and the means and costs of overcoming those obstacles
- Securing buy-in and consensus from asset and data owners, involving them in the development of solutions
- A detailed understanding of data owners' information management arrangements, the processes involved in aligning them and the associated costs
- Identifying appropriate technical and organisational solutions that build on or replace those already developed and establish the costs of proposed solutions
- Establishing an implementation plan and exit strategy for the GLA investment that is most likely to lead to a system and overall approach that is viable, sustainable and has sector-wide adoption.

3. Other considerations

a) Risk and Issues

Reputational damage:

- Lack of stakeholder buy in from utility companies

Mitigation: Agree clear rules around commercial confidentiality for data provided.

- *Proposed mapping system not adopted or endorsed by utility companies*

Mitigation: Including key stakeholders in the early stages design and implementation of the project to incentive participation.

Financial

- Budget underspend/Overspend

Mitigation: Fixed cost contract will eliminate risk of project overspend.

Poor quality advice and report from consultants

- Using appropriate categories on the TFL Engineering and Project management framework will ensure that consultants with the required level of expertise will be invited to tender
- Interview process and appropriate references will be sought for shortlisted consultants to guide selection process.
- Regular progress meeting are incorporated into project plan to ensure project deliverables are achieved.

b) *Links to Mayoral Strategies and Priorities*

The proposed projects address London Plan Road Network and Air Quality Policies i.e.

Policy 6.11 - smoothing traffic flow and traffic congestion

Policy 6.12 - Improving road network capacity

Policy 7.14 - Improving air quality and associated Carbon reduction

c) *Impact assessments and Consultation*

The project team will continue to consult and engage with key stakeholders including Transport for London Asset Manager as well as GLA Transport team. External stakeholders active in this area will also be consulted e.g. UK Power Network, Cross Rail, National Grid etc.

Impact assessments and evaluation of the project will be carried out to determine the effectiveness of the project in meeting the required outcomes.

4. Financial comments

4.1 MD1247 approved the three-year Smart London Demonstrator Programme, funded from a grant award of £3m from the Technology Strategy Board (TSB) under its Future Cities Demonstrator programme.

4.2 This programme is currently profiled to be spent as follows 2013/14 - 2015/16 :

- | | |
|--------------------------------|------------|
| • Agile Urban Logistics | £890,000 |
| • Networked Utilities | £1,047,300 |
| • Work & Volunteering Platform | £750,000 |
| • Support costs | £312,700 |

4.3 Approval is being sought to undertake a procurement exercise relating to consultancy services for Stage 1 of the Networked Utilities project.

4.4 The estimated cost of this contract is up to £125,000.

- 4.5 The revenue cost of up to £125,000 will be funded from the Networked Utilities element of the £3m grant.
- 4.6 It is expected the commission will all be incurred in 2014/15.
- 4.7 All appropriate budget adjustments will be made.
- 4.8 As this decision relates to a contract, officers have to ensure that the requirements of the Authority's Contracts and Funding Code are adhered to.
- 4.9 As this contract is consultancy based, officers also have to ensure that the requirements relating to consultancy services within the Authority's Financial Regulations and Expenses & Benefits Framework are adhered to.
- 4.10 Any changes to this proposal must be subject to further approval via the Authority's decision-making process.
- 4.11 The Environment Team within the Development, Enterprise & Environment Directorate will be responsible for managing this project.

5 Legal comments

- 5.1 Sections 1 and 2 of this report indicate that the decisions requested of the director (in accordance with the GLA's Contracts and Funding Code and her delegated authority granted pursuant to MD 1247 fall within the GLA's statutory powers to do such things considered to further or which are facilitative of, conducive or incidental to the promotion of economic development and wealth creation, social development or the promotion of the improvement of the environment in Greater London; and in formulating the proposals in respect of which a decision is sought officers have complied with the Authority's related statutory duties to:
- pay due regard to the principle that there should be equality of opportunity for all people;
 - consider how the proposals will promote the improvement of health of persons, health inequalities between persons and to contribute towards the achievement of sustainable development in the United Kingdom; and consult with appropriate bodies; and
- 5.2 The decisions requested of the Director (in accordance with the GLA's Contracts and Funding Code and her delegated authority granted pursuant to MD 1247 fall within the GLA's statutory powers, to do such things considered to further or which are facilitative of or conducive or incidental to the promotion of economic development and wealth creation, social development or of the improvement of the environment and in formulating the proposals in respect of which a decision is sought officers have complied with the Authority's related statutory duties to:
- a. pay due regard to the principle that there should be equality of opportunity for all people;
 - b. consider how the proposals will promote the improvement of health of persons, health inequalities between persons and to contribute towards the achievement of sustainable development in the United Kingdom; and consult with appropriate bodies.
- 5.3 The services required must be procured by Transport for London Procurement who will determine the procurement strategy to be adopted in accordance with the GLA's Contracts and Funding Code;

5.4 Officers must ensure that appropriate contract documentation is put in place and executed by the successful bidder(s) and the GLA before the commencement of the services. Such documentation must reflect any terms agreed between the GLA and TSB in relation to the funding received from TSB by the GLA

6. Planned delivery approach and next steps

Set out how the project will be delivered and complete the outline timetable

| Stage 1 Activity | Timeline |
|------------------------------------------------------|-----------------|
| Procurement of contract (Issue Invitation to tender) | 14/02/2014 |
| Delivery Start Date | 25/03/2014 |
| Delivery End Date | 04/08/2014 |
| Project Closure | 08/09/2014 |

Appendices and supporting papers:

MD1247

Public access to information

Information in this form (Part 1) is subject to the Freedom of Information Act 2000 (FOI Act) and will be made available on the GLA website within one working day of approval.

If immediate publication risks compromising the implementation of the decision (for example, to complete a procurement process), it can be deferred until a specific date. Deferral periods should be kept to the shortest length strictly necessary.

Note: This form (Part 1) will either be published within one working day after approval or on the defer date.

Part 1 Deferral:

Is the publication of Part 1 of this approval to be deferred? YES

If YES, for what reason:

Until what date: 25 March 2014 when contract is in place

Part 2 Confidentiality: Only the facts or advice considered to be exempt from disclosure under the FOI Act should be in the separate Part 2 form, together with the legal rationale for non-publication.

Is there a part 2 form -NO

ORIGINATING OFFICER DECLARATION:

Drafting officer to confirm the following (✓)

Drafting officer:

Kizzian Owen has drafted this report in accordance with GLA procedures and confirms that:

✓

Assistant Director/Head of Service:

Stephen Tate has reviewed the documentation and is satisfied for it to be referred to the Sponsoring Director for approval.

✓

Financial and Legal advice:

The Finance and Legal teams have commented on this proposal, and this decision reflects their comments.

✓

EXECUTIVE DIRECTOR, RESOURCES:

I confirm that financial and legal implications have been appropriately considered in the preparation of this report.

Signature *M. J. Allen*

Date 10.2.14

