

REQUEST FOR MAYORAL DECISION – MD1522

Title: Innovate UK for City Modelling - Witan

Executive Summary:

A partnership between the GLA and Mastodon C (a respected London-based Big Data SME) has received a grant of £2m including VAT (£1.6m excluding VAT) from the Department of Business, Innovation & Skills for work on a system for modellers and policy makers. This Mayoral decision seeks to approve expenditure in relation to £576k including VAT (£480k excluding VAT) for parts of the project to be directly delivered by the GLA Intelligence Unit. The remaining outputs will be delivered by Mastodon C.

As London grows, it is increasingly important to be able to explore the effectiveness of policies on different future scenarios, supported by predictive analytics and modelling. The importance of this was highlighted in the Infrastructure Plan 2050 and recent work to better understand the need for more school places, following the Mayor's Education Enquiry.

The Witan partnership was one of 3 winning partnerships each receiving £2m (inc VAT) and the GLA will also participate in 'Sync' led by UCL.

Decision:

That the Mayor approves the GLA's:

- receipt of £480,000 from Mastodon C in consideration of its participation in the Witan project; and
- expenditure of up to £480,000 to:
 - (i) create 3 fixed term posts at a cost of up to £270,000; and
 - (ii) procure relevant datasets at a cost of up to £210,000,


to enable the GLA's delivery of its participation in the Witan project.

Mayor of London

I confirm that I do not have any disclosable pecuniary interests in the proposed decision, and take the decision in compliance with the Code of Conduct for elected Members of the Authority.

The above request has my approval.

Signature:



Date:

24/07/15

PART I - NON-CONFIDENTIAL FACTS AND ADVICE TO THE MAYOR

Decision required – supporting report

1. Introduction and background

- 1.1. City leaders need to make major infrastructure and policy decisions on the basis of sound evidence. Improving our modelling capacity will better facilitate the exploration and understanding of different scenarios by policy makers.
- 1.2. An opportunity to bring additional resources to the GLA for this purpose arose through a competition administered by Innovate UK, on behalf of BIS ('An Integrated Future for Cities'). From over 100 applicants, a bid led by Mastodon C, naming the GLA as a subcontractor was one of three successful groupings, each winning £1.6m of 100% funding.
- 1.3. The project will be delivered over a three year period by existing Mastodon C staff, with additional specialists recruited for specific parts of the project. To ensure adequate participation in the project, a small number of additional fixed-term staff will also be employed at the GLA (see section 2.4 below) and specialist datasets purchased (at a cost of £480,000 to be funded by Mastodon C's provision of the same amount from its "An Integrated Future for Cities" funding package. Officers will work with TfL Procurement to identify and procure the datasets required.
- 1.4. The Investment and Performance Board (17th June) approved in principle the GLA's acceptance of the offer of £480,000 and works with Mastodon C to further develop London's predictive modelling capacity.
- 1.5. Accordingly, the Mayor is asked to approve the acceptance and receipt of £480,000 from Mastodon C and expenditure of up to a maximum of £480,000 to deliver the GLA's participation in the Witan project, fully funded by the sums to be paid by Mastodon C in consideration of the GLA's participation in the project.

2. Objectives and expected outcomes

- 2.1. In comparison to many other cities, we have a strong group of specialist staff who have developed and now operate these models. Demographic and Economic models in particular have been successfully examined in public, for example as part of the London Plan.
- 2.2. The aims of this project are to use recent advances in computing technology to:
 - improve the detail of the models, allowing them to better address the needs of the 2050 Infrastructure Plan and evidence base for the London Plan
 - allow them to scale up and include interactions with the wider South East
 - improve the automation of models, allowing a range of scenarios to be run through them by policy makers; and
 - improve the integration with TfL's transport planning models.
- 2.3. **Objective 1** – The creation of a new, secure online platform allowing the GLA's modellers to explore more advanced techniques and potential linkages between models.
- 2.4. **Objective 2** – The provision of a simplified interface through which policy makers can adjust certain input variables or assumptions and see the changes in outputs without needing to edit the detailed equations or programming.

- 2.5 **Objective 3** – Much of the data needed to supply this and other projects such as the LIP 2050 contains licencing restrictions or personal data and so cannot be hosted on the London DataStore. The creation of a private 'City Data' version the DataStore will bring the benefits of well organised and described data to the much wider set of GLA data.
- 2.6 **Objective 4** – Develop a further interface which allows the general public to explore some of the different scenarios at a high level, without being able to change the underlying equations or assumptions.
- 2.7 For the first 18 months of the project, Mastodon C will work primarily with the GLA, to create a system for London's needs. The system will be available to the GLA for the second 18 months, fully funded by the SBRI grant. During the second 18 months, Mastodon C will explore adapting the system for other cities, although it will not be supplied with any bespoke GLA models.

2.8 Outline timetable

	June '15	Jan '16	June	Jan '17	June	Jan '18
Initial workshops & attend team mtgs						
Build & test system for modellers						
Build & test system for policy staff						
Explore visualisations of scenarios for the public						
Explore using the system (although not all of the data/models) in other cities						

2.9 Outline budget

Econometrist (12 months, inc Pension, NI, overheads)	£79k
Senior Data Analyst (18 months, inc Pension, NI, overheads)	£95.5k
Modeller (18 months, inc Pension, NI, overheads)	£95.5k
Specialist datasets (£70k/year for 3 years)	£210k
TOTAL	£480k

3. Equality comments

- 3.1 The project will adhere to accessibility best practice for print, website and other means of communication.
- 3.2 The purchase and usage of this data will work towards advancing equality of opportunity amongst people from the 8 protected characteristic backgrounds of the Equalities Act 2010. While this work does not target one particular group, by increasing the availability of modelling data, individuals and organisations will gain a better understanding of their communities, opportunities and development impacts in their areas through this data.
- 3.3 Making this information publicly available through an accessible format will encourage Londoners to participate in public opportunities to which they may not have been aware of or have previously been able to access.

4. Other considerations

Key risks and issues

- 4.1 **Risk 1** – The system created is not suitable for use by the GLA.

Mitigation – Mastodon C are a well-respected company in its field, providing open source big data technology on a number of public health and energy projects. The GLA were involved in the development of the bid and will be closely involved in developing and testing the system as it develops.

The proposed system will have significantly more storage and processing power than that currently used by the GLA, allowing it to scale up to more complicated models, covering the wider South East as well as London

4.2 **Risk 2 – security**

Mitigation – The system will be based on a secure web-server with security levels defined down to the dataset and user level to ensure that only the correct GLA staff can see each dataset or model.

4.3 **Risk 3 – financial risk**

The project is 100% funded and underwritten by BIS (as 'committed funds' it is not subject to the budget review). The GLA will be able to claim quarterly throughout the project, limiting the cashflow implications to the GLA. The items and timing are covered by a separate sub-contract between Mastodon C and the GLA.

Key Intelligence Unit staff will be involved in supporting the project as part of their existing roles and responsibilities

4.4 **Risk 4 – Intellectual Property Rights (IPR)**

Officers have ensured through a sub-contract between GLA and Mastodon C that GLA IPR is retained by GLA. During the delivery of this project, officers will ensure that IPR is apportioned as set out in this sub-contract. At the end of the project, the code for the system will be made available by Mastodon C under an open source licence (this will not include the GLA's data or models). This will ensure continued access to the system by the GLA.

If the system is supplied to any other cities by Mastodon C either during the 3 project period or after its end the GLA's models and data will not be included, as set out in the sub-contract agreement.

Mayoral Strategies

4.5 This project links to a number of Mayoral Strategies which make use of demographic, employment, housing or other projections. Specific examples include:

- The London Plan
- The London Infrastructure Plan 2050
- The London Energy Plan

5. Financial comments

5.1 There will be no net cost to the GLA for this project. The GLA will work with the London-based Big Data SME Mastodon C (who are the lead partner for this project) to develop London's predictive modelling capacity up to the value of £1.6m.

5.2 Over the course of three years (from 2015-16 to 2017-18), to ensure that there is sufficient GLA participation in the project, the GLA will be purchasing data and establishing fixed term posts at the maximum cost of £480,000, which will be funded from the £1.6m grant awarded to Mastodon C for use on the project by the Department for Business, Innovation & Skills, which will be accounted for

within the GLA accounts but be transferred via Mastodon C. The balance of £1.120m will be utilised directly by Mastodon C, the lead partner for the project.

- 5.4 As the posts being created are fixed term in nature, any costs applicable at the end of the contract will need to be contained within the grant, at nil cost to the GLA.
- 5.3 Even though this project is funded wholly by income, given that there will be a new Mayor in place in 2016-17, where policies and priorities may change, all contracts entered into with regards to this project will need to contain an annual break clause to ensure that there is an option to close the project if required.
- 5.4 The receipt of the £480,000 income and the associated expenditure will be accounted for within the Intelligence Unit. Any changes to this proposal, including budgetary implications will be subject to further approval via the Authority's decision-making process. All appropriate budget adjustments will be made.
- 5.5 The Intelligence Unit within the Communities & Intelligence Directorate will be responsible for managing this project and ensuring that all activities and associated expenditure complies with the Authority's Financial Regulations, Contracts & Funding Code, Expenses & Benefits Framework and with regards to the fixed term staffing requirements for the project, the GLA's HR protocols.

6. Legal comments

- 6.1 The foregoing sections of this report indicate that the decisions requested of the Mayor falls within the GLA's statutory powers to do such things considered to promote or which may be considered facilitative of or conducive 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 GLA's related statutory duties to:
 - 6.1.1 pay due regard to the principle that there should be equality of opportunity for all people;
 - 6.1.2 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
 - 6.1.3 consult with appropriate bodies.
- 6.2 The GLA may seek sponsorship when exercising the above statutory power may charge third parties (such a Mastadon C) for the provision of discretionary services under section 93 of the Local Government Act 2003 provided that the charges levied do not exceed the costs of provision.
- 6.3 Officers must ensure that:
 - 6.3.1 they are content that the GLA can meet the conditions of its proposed contract with Mastadon C seeking legal and finance advice as necessary;
 - 6.3.2 they do not act in reliance of the proposed income until the GLA and Mastadon C have agreed and executed that contract;
 - 6.3.3 they comply fully with all GLA HR/Head of Paid Service protocols in respect of staffing proposals; and
 - 6.3.4 any services or supplies required are procured by Transport for London Procurement, who will determine the detail of the procurement strategy to be adopted in accordance with the GLA's Contracts and Funding Code, and appropriate contract documentation is put in place

and executed by the GLA and any contractor(s) before the commencement of any such supplies or services.

7. Investment & Performance Board

- 7.1 The Board received a report setting out proposals for new modelling capacity designed to facilitate the exploration and understanding of different scenarios by policy makers. The Assistant Director of Intelligence explained that the funding would create three new posts within the Intelligence Unit for the period of the contract with Mastodon C.
- 7.2 The Board discussed the high quality of the data held on the datastore and noted that further improvements could be made if the Office for National Statistics was to provide data relating to London in a more timely fashion.
- 7.3 Decision: That the grant offer and works with Mastodon C to further develop London's predictive modelling capacity be approved in principle. Further details can be found here:
<http://www.london.gov.uk/moderngov/ielistDocuments.aspx?CId=234&MId=5587&Ver=4>

8. Planned delivery approach and next steps

Activity	Timeline
Delivery Start Date (Mastodon C, with existing GLA staff)	15 th July 2015
Delivery Start Date (GLA full participation)	Aug 2015
Working system for use on London Plan and other projects:	May 2016
Delivery End Date [for major system development]	Dec 2016
Project Closure: [for end of SBRI funding]	June 2018

Appendices and supporting papers: None

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? NO

If YES, for what reason:

Until what date: (a date is required if deferring)

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:

Paul Hodgson has drafted this report in accordance with GLA procedures and confirms the following have been consulted on the final decision.

✓

Assistant Director/Head of Service:

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

✓

Sponsoring Director:

Jeff Jacobs has reviewed the request and is satisfied it is correct and consistent with the Mayor's plans and priorities.

✓

Mayoral Adviser:

Matthew Pencharz has been consulted about the proposal and agrees the recommendations.

✓

Advice:

The Finance and Legal teams have commented on this proposal.

✓

EXECUTIVE DIRECTOR, RESOURCES:

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

Signature

M. D. Allen

Date

21.7.15

CHIEF OF STAFF:

I am satisfied that this is an appropriate request to be submitted to the Mayor

Signature

Edmund H. -

Date

22/7/15

