



Specification

Updating Agglomeration Elasticities
Analysis and Science:
Transport Appraisal and Strategic Modelling

Contract Reference: P4043026

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1. Introduction

The Department for Transport (DfT) invites proposals for the following research project on agglomeration elasticities: updating the evidence base. This contract will be subject to the DfT Standard Conditions of Contract.

The DfT is keen to continue its work examining how well connected an area is and how productive its workers are by refreshing and extending the evidence base on agglomeration elasticities. The work is intended ultimately to inform the development of national appraisal guidance.

Bidders intending to bid for this requirement are requested to confirm their intention to submit / or not to submit proposals via email to David Bean (david.bean@dft.gov.uk), Group Commercial Directorate.

2. Background to the Requirement

The DfT's [wider economic impacts transport analysis guidance](#) contains guidance on how to estimate agglomeration impacts – the relationship between how well connected an area is and how productive its workers are. DfT is the only department to have an evidence base to estimate these impacts. The evidence base and method underpinning the guidance were developed in 2009/10 as a first attempt to capture agglomeration impacts within transport appraisal. However, in recent years there has been increasing criticism about the quality and scope of the evidence.

In 2016 the DfT launched a research project to improve the agglomeration elasticities evidence base and guidance.

The first phase of the project reviewed the existing academic literature on agglomeration elasticities and made recommendations for future work. The resulting report was published in May 2018:

<https://www.gov.uk/government/publications/agglomerations-elasticities-literature-review>

The DfT is now looking to commission the second phase of this research; re-estimating agglomeration elasticities, building on the first phase report's recommendations and, considering how they can be put into guidance.

3. Procurement Timetable

Description	Date
Issue ITT to suppliers	10/09/18
Clarification Closes	28/09/18 @17:00
Tender Submission Deadline	12/10/18 @17:00
Evaluation & clarification of responses	16/10/18 (WEF)
Award contract	22/10/18



4. Scope

The second phase of the project is to both re-estimate the elasticities and consider how the findings can be implemented by putting into national transport analysis guidance.

Re-estimation of agglomeration elasticities should focus on the following priority areas (in order of importance):

1. Heterogeneous agglomeration effects
This should include examining nonlinearities; estimating separate agglomeration elasticities for sub-samples of the data based on area type and size (for example intra-urban and inter-urban effects); a more granular sectoral decomposition; an occupational decomposition and alternative approaches to estimate distance decay of agglomeration (including short and long distance improvements).
2. Different measures of productivity
Agglomeration elasticities should be estimated via both wage and Total Factor Productivity (TFP) models, using consistent measures of Access to Economic Mass (ATEM) for the same spatial units over the same time period. Results should be compared and a judgement made as to which evidence is most robust and suitable for use in appraisal.
3. Different measures of impedance (connectivity)
Re-examine different metrics for connectivity to measure travel impedance including distance, generalised travel cost and a potential metric based on travel data, which comes directly from transport models, in particular flows of people into/out of particular areas.
4. Urbanisation and localisation effects
Models that distinguish localisation (with industry concentration) and urbanisation (across industry urban concentration) effects should be estimated with a view to deciding whether the resulting evidence is suitable for use in appraisal.

It is important that the most robust model specification should be used consistent with best econometric practise.

The second part of this phase should consider products related to how any new elasticities should be implemented by updating national transport analysis guidance.

5. Implementation and Deliverables

The contract is expected to start once permissions have been granted to access all relevant datasets.

The contract is expected to start in November 2018.

The duration of the contract is expected to be 8 months.



The bidder should set out the stages needed to reach these key deliverables.

Deliverable Number	Deliverable Description	Completion Date
WP001	Project Initiation Document	22 November 2018
WP002	Phase 2 Draft Econometrics Report	1 March 2019
WP003	Phase 2 Final Econometrics Report	30 April 2019
WP004	Phase 2 Draft Guidance Update Report	1 May 2019
WP005	Phase 2 Final Guidance Update Report	30 June 2019

There will be continued discussions with the project team about how the priority areas are being taken forwards and the preliminary results.

The plans and pricing schedule should provide a sufficiently detailed breakdown of costs associated with the individual components of the work.

6. Specifying Goods and / or Services

The following two service outputs are expected:

- Econometric modelling to re-estimate agglomeration elasticities with a focus on heterogeneous agglomeration effects; measures of productivity; measures of impedance (connectivity); and, urbanisation and localisation effects.
- Advice on updating national transport analysis guidance with the results of the econometric modelling.

The following performance measures are to be monitored over the period of the contract:

- Time and cost spent on different parts of the project compared with those outlined in the project initiation document.
- Short term milestones in terms of econometric results for the 4 different areas of analysis compared with those outlined in the project initiation document.
- Identification, monitoring and management of risks associated with project deliverables.

It is expected that econometrics be undertaken to re-estimate agglomeration elasticities considering the following four areas as detailed in the scope:



- Heterogeneous agglomeration effects
- Different measures of productivity
- Different measures of impedance (connectivity)
- Urbanisation and localisation effects

It is not expected that econometrics be undertaken to re-estimate other areas associated with agglomeration elasticities such as different measures of economic mass and segmenting elasticities by mode.

It is expected that advice be given on the practical issues and risks and mitigation strategies associated with putting the results of the econometric modelling into national transport analysis guidance.

It is expected that the client will have full visibility of the data and econometric methodology used and will have the opportunity to independently verify the results. The client intends to use independent experts to peer review the results. Bidders should ensure resource is allocated to engaging with the client and its external peer reviewers to ensure the robustness of the results.

It is not expected that fully drafted, transport analysis guidance be written incorporating the updated agglomeration elasticities.

7. Quality Assurance Requirements

The bidder should set out detailed plans on how it intends to quality assure the work following the principles set out in the [Strength in Numbers: the DfT analytical assurance framework publication](#).

The winning bidder will be expected to produce a Quality Assurance report outlining the checks that have been undertaken and the findings of these checks, including an assessment of any outstanding risks with the analysis.

8. Service Conditions and Environmental Factors

There are no restrictions on where the work can be carried out.

9. Management and Contract Administration



Invoices are expected and payment shall be made as two lump sums after satisfactory completion of the two key deliverables of the project. Namely, the Phase 2 Final Econometrics Report by 30th April (WP003) and the Phase 2 Final Guidance Update Report by 30th June 2019 (WP005).

Performance and progress should be monitored through fortnightly communication between the winning bidder and the Department's Project Managers. The format of these communications should be included in proposals, and it is expected that frequent progress reports/meetings in the Department's offices in London/teleconferences will be required to ensure the project stays on track to deliver.

The content of such meetings will vary fortnight by fortnight but should include a regular monitoring of hours spent on different parts of the project together with a monitoring of risks. The winning bidder should also ensure sufficient time is built in for documents to be reviewed prior to their discussion at meetings.

10. Security

We expect any data requirements to be clearly set out by the bidders. All bidders should ensure they are in compliance with the latest data protection laws.

Permission should be sought to access data from the Office of National Statistics: Virtual Microdata Laboratory Service Desk before beginning the research.

All research findings should be treated as confidential, the details only shared with the immediate project team and more general findings with the project and steering group only, prior to the publication of the findings.

11. Documentation

Payment can only be made following satisfactory delivery of all pre-agreed certified products and deliverables.

A Purchase Order Number for this requirement will be provided to the successful supplier. Invoices must be sent to:

Shared Service Arvato
Accounts Payable
5 Sandringham Park
Swansea Vale
Swansea SA7 0EA

The invoices must be copied, with the relevant timesheets, to the DfT Contract Manager with the specified Purchase Order number.

Payments are released for deliverables (upon being notified, notes, reports etc.) once these have been approved by DfT.



12. Evaluation Criteria

Quality Factors:

"Selection will be based on the evaluation criteria encompassing the most economically advantageous tender, which demonstrates a high degree of overall value for money, competence, credibility and ability to deliver.

This tender will be evaluated using the following weightings, 70:30, to obtain the optimal balance of quality and cost.

Only those tenders scoring a minimum of 60% for the quality score will be accepted.

The Quality Factors will be assessed against the criteria specified in Annex 1.

13. Point of Contact

Procurement Contact	Name	David Bean
	e-mail	david.bean@dft.gov.uk
	Address	Great Minster House, 33, Horseferry Road, London, SW1P 4DR

All queries/ questions should be sent to the procurement contact



14. Annex 1 – Evaluation Criteria: Quality Factors

Primary Criteria	Primary Criteria Weighting (%)	Sub-criteria weighting and description	Individual Sub - Criteria Weighting (%)
Resources and capabilities (12 pages maximum)	50	Suitability of key personnel, including: <ul style="list-style-type: none"> • Experience in econometrics and particularly experience of evaluating transport schemes; • Record of academic achievement including publication of econometrics articles or papers; • Evidence of having worked on regional and/or local growth issues; and, • A core understanding of WebTAG. 	40
		Capability and expertise of additional staff/resource	5
		A project plan detailing an appropriate allocation of named personnel resources to tasks given their expertise and an identification of time expected to be spent on different aspects of the project	5
Technical solution proposed and competence (8 pages maximum)	40	An understanding of the objectives, deliverables and what the Department is trying to achieve both in terms of the four areas of priority econometrics research and suggestions for putting the results into transport appraisal guidance	20
		Robustness of the proposed model specification and econometric methods consistent with best econometric practise, including providing details of the data and methodology used to allow for independent verification.	10
		Proposed project management and quality control systems including rules of engagement with the DfT project team and governance structure.	10
Suitability of proposed processes (4 pages maximum)	10	Processes to identify, monitor and manage risks	5
		Processes and details of planned reporting on the quality assurance work to be undertaken.	5
	Total = 100%		