This is a published notice on the Find a Tender service: https://www.find-tender.service.gov.uk/Notice/010407-2024

Planning

Tfl_scp_2473 Automated Passenger Counting Trial

Transport for London

F04: Periodic indicative notice – utilities
Reducing time limits for receipt of tenders
Notice identifier: 2024/S 000-010407
Procurement identifier (OCID): ocds-h6vhtk-044e86
Published 28 March 2024, 4:17pm

Section I: Contracting entity

I.1) Name and addresses

Transport for London

5 ENDEAVOUR SQUARE

LONDON

E201JN

Contact

Deepa Halai

Email

deepahalai@tfl.gov.uk

Telephone

+44 7510500312

Country

United Kingdom

Region code

UKI - London

Transport for London

Transport for London

Internet address(es)

Main address

www.tfl.gov.uk

I.3) Communication

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted to the above-mentioned address

I.6) Main activity

Other activity

Buses

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Tfl_scp_2473 Automated Passenger Counting Trial

Reference number

tfl_scp_002473

II.1.2) Main CPV code

- 72000000 - IT services: consulting, software development, Internet and support

II.1.3) Type of contract

Services

II.1.4) Short description

Bus Crowding information for TfL passengers isn't currently aligned with our vision of where we want to be. The primary objective of this project is to generate and make live bus crowding data available to bus passengers for better decision making and empower them to feel 'in control' of their journeys.

With accurate and live bus crowding data available from Automated Passenger Counting (APC), we will be able to help:

• Passengers - empowering our customers to make more informed travel decisions when planning a bus journey and letting them know what to expect prior to boarding.

• Service Controllers - allowing for more informed decision making by knowing passenger loading (bus occupancy) for each vehicle in service.

• Traffic management - enabling traffic light control systems to favour crowded buses.

• Service Planners - creating access to more accurate passenger flow information; and

• Drivers - affording them a clearer indication of how crowded a bus is when their immediate view is blocked.

Description of the desired solution

We are looking for a solution that can generate readings on all the 6 parameters below in real-time which form the complete scope of the project:

1. Number of passengers boarding at a stop

2. Number of passengers alighting at a stop

3. Number of passengers on the bus (occupancy on departure of the bus from that bus stop) (derived from points 1 and 2)

4. Loading (the total occupancy as a percentage of capacity).

5. Occupancy of wheelchair area (occupied/available)

6. Type of occupant in the wheelchair area:

• Wheelchair space available (no occupancy/people standing)

• Wheelchair space occupied by wheelchair

• Wheelchair space occupied by others (buggies/ pram/ trolleys/ any other object)

LBSL are currently agnostic to the technologies that can provide us the optimum APC solution and are keen to understand the scope of potential solutions in the market.

The Early Market Engagement will seek views on a number of aspects including supplier and service provider appetite, capacity and capability, as well as well as gauging the general level of interest in this opportunity.

Based on the responses we gather from the PIN, we will be calling the interested suppliers to 1:1 meetings, between 13th - 23rd May 2024 (exact date will be communicated later). We would appreciate if potential suppliers could present a brief presentation about their solution (including relevant videos, dashboards, demo whichever applies) followed by a Q&A session.

Following this market engagement process, TfL may invite selected suppliers to produce a trial to determine the viability of the solution and test if it fulfils our requirements. Details on the specifics of the trial will be shared with the suppliers later.

To express an interest for this contract, interested bidders must confirm by email to: DeepaHalai@tfl.gov.uk by 18:00, 2nd May 2024.

You must provide:

• your single point of contact first name and surname

• your email address

• your position in the organisation

• your organisation name

If you have any questions regarding this PIN please contact: DeepaHalai@tfl.gov.uk

PLEASE NOTE: Automated Passenger Counting - Market brochure can be requested by emailing aidanpadfield@tfl.gov.uk

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 30237475 - Electric sensors
- 32323500 - Video-surveillance system
- 38651000 - Cameras

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

1.0 Purpose of the document

This Market Brochure has been issued along with the Prior Information Notice PIN and has been produced to provide information about the Automated Passenger Counting project and the potential future procurement for a solution.

This Market Brochure aims to:

•Explain the Early Market Engagement (EME) process and provide some high-level timescales.

•Outline the project's background, objectives, and expectations of the project's solution.

2.0 The EME process & indicative timescales

This section details how the EME process will be conducted, including information on each stage in the process and the associated timescales.

Early Market Engagement process

Figure 1. EME Process

Prior Information Notice (PIN)

The PIN has been released to the market as the first stage of this Early Market Engagement, this is to inform the market of TfL's current strategy and business requirements as it pertains to passenger counting systems and how to register their interest should a supplier wish to be informed when the Market Sounding Questionnaire is

released.

Market Brochure

The Market Brochure is this document and contains all the relevant and available details about the project and the associated EME activity which TfL will be undertaking. Prior

Information

Notice &

Market

Brochure

Expression of

interest

Release of

Marketing

Sounding

Questionnaire

Supplier 1:1

meetings

Decision on

next steps

4 Expression of Interest (EOI)

To express an interest for this contract, interested bidders must confirm by email to: DeepaHalai@tfl.gov.uk

You must provide:

• your single point of contact first name and surname

•your email address

•your position in the organisation

•your organisation name

Market Sounding Questionnaire (MSQ)

The MSQ seeks to obtain feedback from the market in relation to the project and its requirements. The MSQ should be read in conjunction with this Market Brochure to ensure that parties completing the MSQ understand the project and its associated objectives.

TfL expect to release the MSQ in the Week Commencing 15th April 2024. Interested parties are invited to complete the MSQ and return their responses.

Any feedback received will be reviewed, analysed, and may be considered by the project team in developing any subsequent procurement strategy for any potential procurement activity.

Supplier 1:1 Meetings

After receiving and reviewing the MSQ responses, TfL may invite individual suppliers to engage in further 1:1 supplier meetings to discuss and clarify the supplier's response.
EME Feedback and Next Steps

Following the EME process, TfL will provide feedback on our findings to all parties that have indicated interest and in the event that TfL proceeds with any procurement such information will be included in the relevant procurement documents.

Indicative Timescales

Please note that the below timescales are indicative only and are subject to change.

Prior Information Notice (PIN) Published

28th March 2024

Market Sounding Questionnaire Release

15th April 2024 MSQ Response Deadline

2nd May 2024 Supplier 1:1 meetings

13th - 23rd May 2024

5

3.0 Automated Passenger Counting Project

Background

The Mayor's Transport Strategy (MTS) seeks to "deliver real-time data, information and visualisations for the Tube, rail, buses and streets to improve the communication of overcrowding and congestion information to customers". The Bus Action Plan, formulated in line with the MTS, further commits to "renewing and improving our bus customer information systems and infrastructure, to provide the live arrival, disruption, crowding and congestion information our customers need to feel in control of their journeys".

With accurate and live bus crowding data available from Automated Passenger Counting (APC), we will be able to help:

•

Passengers - empowering our customers to make more informed travel decisions when planning a bus journey and letting them know what to expect prior to boarding.

•

Service Controllers - allowing for more informed decision making by knowing passenger loading (bus occupancy) for each vehicle in service.

•

Traffic management - enabling traffic light control systems to favour crowded buses.

•

Service Planners - creating access to more accurate passenger flow information; and

•

Drivers - affording them a clearer indication of how crowded a bus is when their immediate view is blocked.

TfL aims to improve provision of data for bus customers on how busy a bus is. A customer needs to know how busy a given bus of interest is at a given point in time.

•

"Bus of interest" is a specific bus which will be in service on a route and will be approaching or arrived at a stop, i.e. some kind of stop-related context. Whilst the customer is not necessarily concerned with the identity of the bus it must be uniquely identifiable (fleet or registration number).

•

"How busy" is an indication of space available (or not available) on a bus and will involve occupancy and capacity.

Proof of Concept trials

The section below outlines proof of concept trials TfL has completed up to this stage to gather information on APC technologies.

In 2017/18 TfL conducted a market sounding exercise on the passenger counting technologies available in the market:

•

Footfall cameras

•

CCTV analytics

•

Sensors over each set of doors

•

Telematics

6

•

Historical travel data held in TfL's data warehouse

•

Wi-Fi detection

Phase I of the trial was a three-month testing period on a number of buses fitted with one of the technologies outlined above. The report recommended that footfall cameras, sensors and telematics be considered for Phase 2. It noted that the reported low accuracy of CCTV analytics was contrary to market intelligence and suggested that further work be done to improve the performance of the technology involved.

TfL launched a more targeted market engagement in 2019 to examine in more detail the options for CCTV analytics as a passenger counting solution. A subsequent Request for Proposals from software and hardware partners returned a set of submissions for evaluation in September 2020. Unfortunately, the altered landscape that emerged during the coronavirus pandemic prevented that initiative from continuing. In 2022 the Bus Automated Passenger Counting project was relaunched as part of the Bus Customer Action Plan programme.

In 2022/23 trials were initiated to further explore CCTV analytics and stereoscopic sensors to gain insight on performance of the technologies in more recent times. Some of the challenges facing CCTV analytics were as follows:

•

The absence of continuous parallel feeds from cameras covering each door effectively prevented passenger counting using CCTV analytics from being possible without a software update to enable to RTP feeds.

•

The inclusion of bus stop level data would be required to get an accurate view of boarders and alighters at stops.

•

To identify wheelchairs; further development work is potentially needed to distinguish between wheelchair-like items (i.e. wheelchairs, buggies and other items with wheels).

Expectations

This section sets out TfL's expectations and aspirations for an automated passenger counting (APC) solution. At this stage TfL is seeking to understand the capabilities of the solutions available.

TfL are looking for a solution that could generate readings on six parameters below in real-time:

1.

Number of passengers boarding at a stop

2.

Number of passengers alighting at a stop

3.

Number of passengers on the bus (occupancy on departure of the bus from that bus stop) (likely derived from points 1 and 2)

4.

Loading (the total occupancy as a percentage of capacity)

5.

Occupancy of wheelchair area (occupied/available)

6.

Type of occupant in the wheelchair area:

oWheelchair space available (no occupancy/people standing)

o Wheelchair space occupied by wheelchair

II.2.14) Additional information

Prior Information Notice (PIN) Published 28th March 2024

Market Sounding Questionnaire Release 15th April 2024

MSQ Response Deadline 2nd May 2024

Supplier 1:1 meetings 13th - 23rd May 2024

II.3) Estimated date of publication of contract notice

28 August 2024

Section IV. Procedure

IV.1) Description

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: Yes

IV.2) Administrative information

IV.2.2) Time limit for receipt of expressions of interest

Date

2 May 2024

Local time

6:00pm

IV.2.4) Languages in which tenders or requests to participate may be submitted

English

Section VI. Complementary information

VI.4) Procedures for review

VI.4.1) Review body

Transport for London

London

Country

United Kingdom