Road Lab 2 – Funding Opportunity Brief

1. Overview

Description	Open Innovation at Transport for London (TfL), with sponsorship from the Lane Rental Governance Committee (LRGC), is seeking to fund up to eight projects focused on solutions to overcome the following two problem statements: **Problem Statement 1 – Portable Traffic Signals** How might TfL improve the reliability and efficiency of Portable Traffic Signals (PTS) to reduce congestion and emissions? **Problem Statement 2 – Pedestrian & Cyclist Flow Data** How might TfL obtain better data on trips and journeys undertaken by pedestrians and cyclists to improve TfL's offering to vulnerable road users during road works? **Competition** This Competition will award up to eight applicants £20,000 each to deliver a 12 week trial of their proposed solution. At the end of the 12 week trial, projects may be extended and receive further funding to better understand potential solutions, at TfL's discretion. Your project must align to the scope of this competition. In applying for this competition, you are entering into a competitive process. This competition closes at 12pm (midday) UK time on the competition close date, detailed in Section 4 – Dates, of this document.
Funding Type	Financial Assistance
Funding Amount	£20,000

2. Eligibility

Your Project	Your project must:
	• commence within eight weeks of contract award
	• be delivered solely in the UK
	• publish your project findings from or in the UK within eight weeks of completion
	• be innovative by way of new solutions
	• be a registered UK Entity including:
	    ○ business of any size
	    ○ academic institution
	    ○ charity
	    ○ not for profit
	    ○ public sector organisation
	    ○ Research and Technology Organisation (RTO)

Number of Applicants	Your registered Entity (Applicant) can only submit one application. If your Entity is not submitting any application, it can collaborate in any number of applications.
Funding	Up to £160,000 has been allocated to fund the projects in this competition. This will fund up to eight successful Applicants at £20,000 each. The funds will be split into two payments of £10,000. The first payment will be at project commencement and the second payment once the project design and implementation plan have been approved. Funding will be in the form of financial assistance under Section 159 Funding of the Greater London Authority Act 1999.

3. Scope

Project Objectives	Your project must seek to design, develop and deliver new solutions by working with TfL that overcomes our two problem statements. At the end of the trial (Phase 1), results will be presented to TfL stakeholders and at this stage TfL may choose to use the results of the trial to inform the specification(s) of a future procurement. TfL is undertaking London RoadLab 2 for several reasons including: • Building on the successes and lessons learned from RoadLab 1 to deliver innovation challenges more efficiently and bring improved value to the business. TfL is still learning and iterating our approach on how we run these challenges. • Help TfL do things cheaper – whether that's savings from congestion, direct savings by streamlining processes or savings in time for deploying roadworks – all problem statements considered have a cost element to it and cost is a key driver. • To continue to improve the lives of Londoners – whether that's

	through improving the safety of vulnerable road users, safety of network operators, and more generally, improving the customer experience for anyone who uses our network. • Doing the great things we do in a more sustainable way by doing better for the planet and reducing our net carbon emissions. • To harness the powerful advantages of emerging technologies, novel products, services and business models; and turn these into opportunities which are tailored towards London's problems. In short, we are hoping to help direct innovation towards solutions which delivers for London.
Problem Statement 1	**Portable Traffic Signals** How might TfL improve the reliability and efficiency of Portable Traffic Signals (PTS) to reduce congestion and emissions? TfL is looking for solutions that can improve the efficiency of PTS. PTS are a form of traffic management which can cause serious delays to transport users: • 80% of bus delays are caused by roadworks. Additional delays are caused when PTS break down or are not optimised for changing traffic conditions. • Safety issues arise for pedestrians and cyclists when crossing or junctions are no longer available for use. • 20k+ sets of PTS are used in London every year causing thousands of hours of lost productivity, wasted time and excess carbon emissions and pollutants. • Controls of PTS is highly variable with negative effects for operators, road users and transport authorities. Temporary Urban Traffic Control (UTC) is a solution in some circumstances, but not all. TfL wants to improve the road user experience by reducing delays caused by PTS. **Current Situation** TfL manages thousands of traffic lights in London, and carefully plans and manages the network to optimise it efficiently and to achieve our strategic objectives. Short, unexpected road works are an unavoidable part of managing our network, but often the use of PTS can cause delays to users with no remote control of signal timings and low reliability. **Areas of Focus** TfL is looking for innovative solutions that can reduce delays for road users, increase safety and reduce environmental impact. This could include products that:

	• Are improved portable traffic signals themselves. • Are add-ins which can be used with existing PTS stock. • Optimise signal timings to adapt to changing road. conditions and/or adjusted remotely. • Can be two-way and multi-way operated with pedestrian crossing and cycle lane functionality. • Are able to identify pedestrians and cyclists waiting. • Transcends current technology to work with nearby permanent traffic signals. • Can self-report faults or self-correct if needed. It is important that solutions are: • Portable and quick to deploy • Reliable • Provide an accessible service for vulnerable road users

Problem Statement 2	**Pedestrian & Cyclist Flow Data**
	
	How might TfL obtain better data on trips and journeys undertaken by pedestrians and cyclists to improve TfL's offering to vulnerable road users during road works?
	
	TfL is looking for solutions which can provide journey movement data for pedestrians and cyclists in London at a granular level.
	
	More Londoners than ever before are walking and cycling to get around the city. Despite this increase in popularity, data is lacking on these activities meaning that we cannot use real-time data to make decisions on road closures and diversions for road works, or more widely, for our strategic planning.
	
	    • Some cycling routes are seeing as much as a 200% increase in use**
	    • 862 cyclists suffered serious injuries in 2020 – an increase of 89 from 2019+
	    • Improving London high streets for walking and cycling led to a 216% increase in people stopping, sitting and socialising*
	
	TfL manages the strategic road network in London and makes decisions on a daily basis which affect these road users. We want to be able to make these decisions (from small diversions to large project justifications) on real-time dynamic data, to provide a safe and reliable journey for vulnerable road users.
	
	Current Situation
	
	TfL currently relies heavily on static counts for pedestrians and cyclists but we need real-time data showing both numbers and route choice at a granular level. This will make it possible to effectively plan for demand

	when implementing road works and improve road safety at these works and at other locations for these vulnerable modes.
	Area of Focus
	TfL is looking for innovative data solutions that can strengthen our current modelling and analytical capability. This could include products that:
	• Provide raw data on movements including origin, destination and GPS way point data for pedestrians and cyclists, capable of being accurately assigned to road space such as a protected cycle way or pavement.
	• Enable the capability, if possible, to receive this data in real-time or close to real time in a way that provides a consistent sample of dynamic movement of these modes over different time frames.
	• Provide the ability to assign the data to road links as pre-defined by TfL as a GIS shape file.
	• Provide a validation that demonstrates that the solution provides a consistent representative sample of the real-time cycle and pedestrian population as seen on street.
	Potential Solutions
	TfL expects to see solutions from data location integrators, telecoms providers, other providers that hold app related movement data and data SMEs.

4. Dates (Maybe subject to change)

- **Competition Opens:** Monday, 21 November 2022
- **Competition Closes:** Friday, 23 December 2022 at 12pm (midday)
- **Invite to Pitch Day:** Monday, 23 January 2023
- **Pitch Day Commences:** Monday, 30 January 2023
- **Pitch Day Concludes:** Friday, 10 February 2023
- **Applicants Notified:** Tuesday, 28 February 2023

5. How to Apply

Before you Start	You must read the "RoadLab 2.0 – Application Guidance" document before you start.
	Before submitting, it is the Applicant's responsibility to ensure:
	• that all the information provided in the application is

	correct • your project meets the eligibility and scope criteria • all questions have been completed If you think you need more support, it is important that you contact us as early as possible during your application process. You should aim to contact us no later than 10 working days before the competition closing date. Please email Innovationfunding@tfl.gov.uk
Assessment Process	The assessment will be a two-stage process. **Stage 1** Shortlist up to twenty of the highest scoring applicants who pass the Pass/Fail questions and score equal to or above 2 – Satisfactory on average across all questions once the weighting is applied. Applications will be assessed against the non-scored and scored questions. Each application is assessed by three (minimum) to five assessors across various competencies. Each assessor will submit individual scores against the application questions with comments which will form the application feedback. All individual scores are then collated by the P&C facilitator who will lead a consensus meeting to agree final scores to determine the top twenty shortlisted applicants. **Pitch Day** Stage 1 shortlisted applicants will then be invited to a mandatory pitch day to assure the assessors of their individual scores which can only remain unchanged or decreased. **Stage 2** Shortlist up to 8 of the highest scoring applicants. All individual scores are then collated by the P&C facilitator who will lead a consensus meeting to agree final scores to determine the stage 2 shortlisted applicants. **Approval and Award**

	Stage 2 shortlisted applicants will then be recommended to the Open Innovation Leadership Team for approval of award. Both successful and unsuccessful applicants will then be notified of the outcome via email at the end of either stage 1 or 2 of the evaluation.
Scoring Guidance	Applicants will be scored from 4 to 0 as follows: **4 – Outstanding:** Exceptional demonstration by the applicant of the relevant ability, understanding, experience, skills, and resource & quality measures required to deliver the project. **3 – Good:** Above average demonstration by the applicants of the relevant ability, understanding, experience, skills, resource & quality measures required to deliver the project. **2 – Satisfactory:** Demonstration, with some minor reservations, by the applicant of the relevant ability understanding, experience, skills, resource & quality measures required to deliver the project. **1 – Poor:** There are reservations about the applicant's relevant ability, understanding, experience, skills, resource & quality measures required to deliver the project. **0 – Unacceptable:** The response does not meet the requirement. Does not comply and/or insufficient information provided to demonstrate that the applicant has the ability, understanding, experience, skills, resource & quality measures required to deliver the project.
Applicant Information	• This provides the background information about you, is not scored and includes the following: • Entity Name • Entity (multi-choice) • Entity Combined Size (multi-choice) • Contract Email Address • Contract Phone Number • Problem Statement • Project Name • Project Maturity (Multi-choice) • Public Description (200 Word Limit) • Project Summary (400 Word Limit) • Access to TfL assets (200 Word Limit)

Scored Application Questions	The assessors will score all your answers. You must answer all questions. Do not include any website addresses (URLs) in your answers. Scored Application Question include: • Scope (500 Words) (Pass/Fail) • Approach and Innovation (30% Weighting) (500 Word Limit) • Team and Resources (15% Weighting) (300 Word Limit) • Market Awareness (10% Weighting) (250 Word Limit) • Project Management (15% Weighting) (300 Word Limit) • Mobilisation (Pass/Fail) • Risks (5% Weighting) (200 Word Limit) • Value (15% Weighting) (300 Word Limit) • Measuring Success (10% Weighting) (250 Word limit)
Pitch Day	Shortlisted applicants from stage 1 will be invited to a pitch day. The pitch day is mandatory and to assure assessors of their individual scores which can only remain the same or decrease as a result of the pitch day. The pitch day may take place online, however if TfL decides to undertake the pitch day in person, applicants will be expected to travel to TfL offices in London. The date and time of your pitch day will be included in your invitation. Your pitch day presentation must not be no longer than 20 minutes in total. More detailed information as to the content of the pitch day will be provided to applicants as part of the Invite to Pitch Day After your presentation the panel may spend up to 30 minutes asking questions. You will be expected to answer based on the information you provided in your application form, presentation and the response to feedback.
List of pitch day attendees	Up to five people from your project can attend. TfL may be unable to reschedule slots once allocated so please confirm your attendance as soon as possible.
After the pitch day	The assessors will revisit their individual scores for your application. These scores will supersede those communicated to applicants at the shortlist stage.

6. Supporting Information

Background	TfL has a strong history of innovation, from the very first underground railway to contactless payment and open data, TfL has always sought to make the most of new technologies, products, and business models to deliver a world-class transport network. Innovation is continuing apace across a number of sectors and TfL wants to work with innovators in new ways to help solve the challenges faced in keeping London moving every day. London RoadLab 2.0 aims to do this – the goal of RoadLab 2.0 is to continue to develop our approach for how TfL can work with innovators to solve some of its most pressing problems. Through London RoadLab, TfL is looking to trial and test technologies and solutions which improve the way London operates, aiming to do things quicker, better and cheaper, with the main goal of reducing the impact that roadworks have London and TfL's transport network. Many organisations have already realised significant benefits by developing incubation programmes to help shape, trial and implement new ideas with market innovators. TfL have adopted a similar model, with support from industry Partners, as previously seen with the success of London RoadLab, London Freight Lab, and the Bus Driver Fatigue Innovation Challenge. This programme is funded through the Lane Rental Scheme. This scheme, implemented by TfL in 2012, charges for the use of strategic roads on TfL's road network, encouraging road works to take place at off-peak times, to take less time, and to be grouped in order to minimise cost to the companies that work on our roads.
Further Information	Applicants are highly encouraged to visit Tfl.gov.uk and the Open Innovation web page to ensure other similar projects have not already been undertaken or are in progress.
Freedom of Information	TfL is committed to open government and to meeting their legal responsibilities under the Freedom of Information Act 2000. Accordingly, all information submitted to a public authority may need to be disclosed by the public authority in response to a request under the Act. TfL may also decide to include certain information in the publication scheme, which TfL maintains under the Act. If an interested party considers that any of the information included in their response is commercially sensitive, it should

	identify it and explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity.
	Interested parties should be aware that, even where they have indicated that information is commercially sensitive, TfL might be required to disclose it under the Act if a request is received.
	Interested parties should also note that the receipt of any material marked 'confidential' or equivalent by TfL should not be taken to mean that TfL accepts any duty of confidence by virtue of that marking.
Data Sharing	This competition is operated by the Open Innovation team at TfL and is directly accountable to you for its holding and processing of your information. This includes any personal data and confidential information.
	Data is held in accordance with our own policies. Accordingly, Open Innovation will be data controllers for personal data submitted during the application. TfL's Privacy Policy is accessible here.
	Open Innovation complies with the requirements of GDPR, and is committed to upholding the data protection principles, and protecting your information.
	The Information Commissioner's Office also has a useful guide for organisations, which outlines the data protection principles.
Contact Us	If you have any questions which require clarification about your application or you require further information about how to apply, please email InnovationFunding@tfl.gov.uk