Transport for London

Invitation to Tender

TfL Engineering Services

Reference Number: TfL93601

Specification

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1.1 Background

TfL has embarked upon an ambitious transformation, driven by the need to:

- Significantly reduce our cost over next five years (includes mitigating the removal of TfL Operating Grant of £700m pa) and "break even" on our ongoing operation
- Whilst at the same time:
    a. Maintain and improve operational performance and reliability in response to the growth of London
    b. Continue to deliver our investment programme – but at less cost, and on a more assured footing
    c. Deliver Mayoral commitments, supporting the ongoing success of the city

Key building blocks of this transformation are:

- A new Executive structure - moving to four focused delivery businesses with a centralised, streamlined set of professional services
- A more agile, efficient and accountable organisation - less layers, right-sizing spans of control
- New 'One TfL' ways of working e.g. no duplication of process, common behaviours, strong leadership capability

The TfL Transformation programme is responsible for co-ordinating the delivery of the new operating model across TfL. One of the most significant elements of this change is the set up of a new pan-TfL engineering professional service, bringing together engineers from across the business and professionalising delivery of the service. The aim is to create an effective engineering directorate on a journey of continuous improvement. This project will contribute significantly to helping TfL achieve its objectives.

A small TfL Project team has been established which has developed an operating concept and identified key work streams to progress.

We are looking for a delivery partner with specialist engineering delivery expertise to support the detailed design and implementation of the new Engineering Directorate within the timescales of the broader TfL Transformation Programme, reporting to the Engineering Director and in close collaboration with the existing team.

1.2 Delivery Partner Requirement

We are looking for a specialist delivery partner with proven engineering expertise, and a track record of designing and delivering large Engineering change programmes in organisations similar to TfL, with a unionised, front line operation. The partner must demonstrate strong knowledge and successful experience within a railway environment or similar industry, and the ability to build capability in the broader TfL Engineering workforce to ensure successful implementation of the change programme throughout the new Engineering organisation.

The delivery partner must also be able to demonstrate that they have successfully:

- Programme managed and transformed an organisation in a regulated and or safety critical environment into a professional service delivery model including delivery of long term cultural change.
- Developed and deployed resource management processes taking a long term strategic approach, including make or buy decision making framework(s). The process should also underpin the day to day resource deployment.

- Developed and deployed the business and technical governance requirements to ensure that legal and business requirements are effectively and efficiently delivered.
- Developed and deployed a meaningful suite of benchmarked performance measures, both business and technical, that can be used to demonstrate the value and benefit of the future engineering organisation.

The delivery partner will need to work with several key stakeholders, including:

- The TfL Engineering project team
- The Pan-TfL and LU specific transformation teams
- Senior advisors for Engineering
- Delivery partner for the LU operating model / organisational development

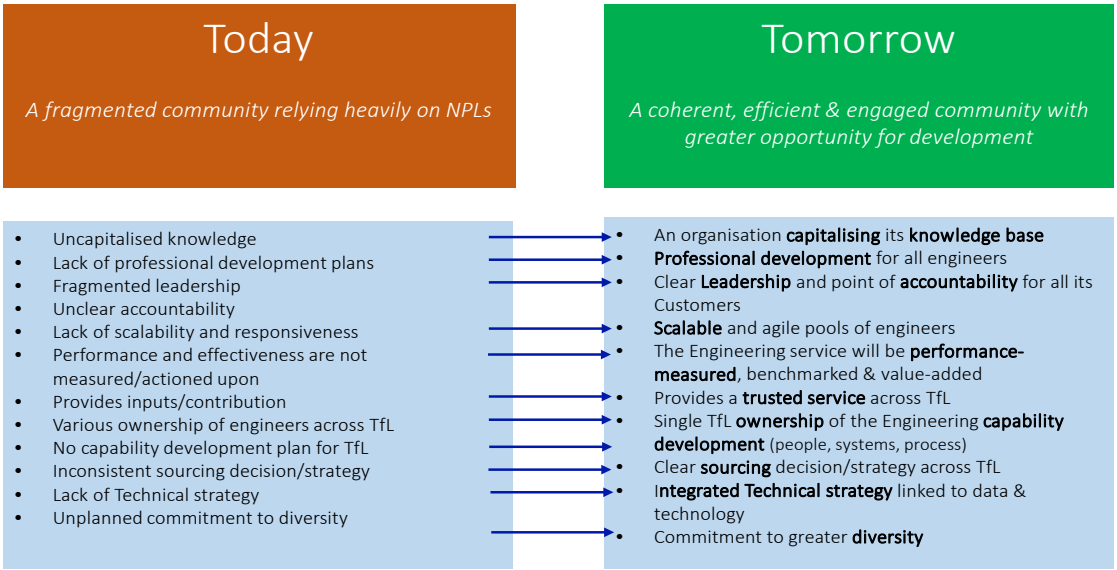
The delivery partner must be able to manage these stakeholders in the sensitive environment of large organisational change.

1.3 Scope

1.3.1 Work to date

TfL has already identified a preferred operating model for the future TfL-wide Engineering Services capability. The top-level operating model has been approved by the Executive. We anticipate the next Executive session on this topic will be before the end of the first quarter of 2017, during which the more detailed operating model/high level organisation will be reviewed.

The vision for this future Engineering Services capability and the shift required to transition to the new ways of working are illustrated below:



We have selected a delivery partner for the operating model and organisational design across TfL. This partner is providing "embedded" support in a number of high priority workstreams (such as Engineering) and will ensure that our approach and operating model is consistent across TfL. They will also focus on helping Engineering identify the more detailed operating model design and how it interfaces with TfL.

1.3.2 Work we are tendering for

TfL is now tendering work to support the Engineering Services Project and carry out detailed preparation and implementation activities specifically required to successfully stand up and optimise the Engineering Directorate.

All work packages in this Engineering Services Project will be led by senior managers from TfL. Key areas of focus and requirements will be set out by the existing project team.

There are two different implementation steps for which we require support. The first is the immediate standing up of the Engineering Directorate, and the second is the more detailed, longer-term implementation and optimisation of the directorate.

As well as support in both work packages as specified below a project manager is required to deliver the following programme management support in both step 1 and 2.

The required programme management support for steps 1 & 2

	Programme management	**Role of external partner**
1.	The plan	- Co-ordinate and create the resource loaded project Gantt chart for the Engineering transformation change. - Work with all stakeholders to ensure the plan is detailed and robust. - Design and implement visualisation processes to monitor and drive the organisational change.
2.	TfL change governance	- Ensure the programme is aligned to the organisational change governance. - Support the creation of all key organisational change documentation & ensure it is developed and evolved through the various stages of the transformation life cycle eg Change Assurance Plan, Business Case, etc.. - Create and maintain all of the necessary project documentation to deliver the Engineering transformation change. i.e stakeholder management plan, communication plans, etc.

3.	Process support	- Design and facilitate workshops to drive the engineering change forwards. - Support and deliver key documentation required to stand up the engineering directorates i.e. Job descriptions etc - Provide specialist Lean skills to develop visualisation, value stream mapping and practical problem solving techniques as necessary. - Ensure the project documentation is capture and recorded, with robust change control.

Step 1: Standing up the Engineering directorate

This module will be 4-6 months and includes tasks to support the existing project team to accelerate the standing up of the Engineering directorate. The key work packages are outlined below.

	Work package	Role of external partner
1	Organisational Design Support	Support the project team and LU organisational design delivery partner as required, with potential responsibilities including: • Optimise and deliver competency frameworks required to stand up the engineering directorate. • Support the testing of specific design options with relevant TfL process examples. • Develop detailed process maps outlining how the function would interface with the rest of the business (e.g. the interface with maintenance and the handover of assets). • Develop a tier visualisation structure from director down into the delivery teams • Undertake an independent check that the outcomes will resolve the key deficiencies in Engineering identified in 12 previous reviews of the profession. • Identify Engineering specific risks associated with the operating model and proposing mitigating solutions.
2	Governance Model Support	Support the existing project team as required, with potential responsibilities including: • Benchmark Engineering governance against best practices in similar regulated environments • Critique detailed Engineering governance options, and testing whether they will work. Areas of interest include: how we would provide a technical guiding mind on projects, adequate project risk management, the handover of assets and Engineering sign-off process, clear and quick issue escalation and resolution process. • Develop and deliver an engineering competency frame work to stand up the engineering directorate.
3	Metrics	Benchmark metrics to track the performance of an Engineering Directorate and lay out the processes required to track them. Propose granular performance benchmarks for specific Engineering groups.
4	People & Capability Assessment	Assess specific capability of the current Engineering workforce, and identify gaps and areas of strength by discipline Develop menu of capabilities for delivery businesses and RACI of these capabilities
5	Culture and Change	Support production of a detailed transition and change assurance plan to stand up the Engineering Directorate whilst limiting disruption to service delivery, including phasing and interim governance. The change assurance plan demonstrates that TfL operational safety case is maintained whilst the engineering change is delivered. E.g compliance with ROGs with the (Office of Rail and Road).

	Work package	Role of external partner
		Develop and propose a cultural and behavioural change management programme to ensure effective delivery of the Directorate across all bands and disciplines, including the design and of methodology and training to embed the change. All training and methodology will need to be integrated into the wider TfL governance.

Step 2: Implementing and optimising the Engineering directorate

This module will be up to 18 months, but will run generally in parallel with the first and will focus on implementing and transforming the new Engineering function longer-term. This will include deeply embedding the change required (behaviours, processes, etc.) and ruthlessly challenging and optimising what we do and how we do it. A key aspect of this phase is to both embed the change and transfer the knowledge of good change management, brought by the Delivery Partner, into the new engineering organisation. The key work packages are outlined below.

	Work package	Role of external partner
1	Technical Governance	Support the development of a detailed Technical Governance Framework covering: • Defining the scope of the Engineering directorate, evaluating the portfolio of both the technical direction and service delivery. • Defining the Technical strategies for the Engineering directorate, in terms of both assets and / or disciplines. • Optimising the delivery and asset technical controls, looking at standards, processes, assurance, etc. The governance process must provide workforce competency development and controls of internal staff and assess the supply chain's maturity to deliver. Benchmark TfL's approach to standards against other industries, and identify areas where TfL could make significant improvements. In these areas, develop tangible efficiencies by focusing on TfL's top 5 opportunity areas In developing this framework, the delivery partner should benchmark against best practices in similar regulated environments, and apply a risk based approach that appropriately balances cost, safety, quality and time
2	Resource Planning	Support the development of a demand, workforce planning and delivery framework covering: • Short and long term requirements and demand from different delivery businesses, and long-term demand forecasting • Long term workforce planning. • Identification of future capability gaps to inform recruitment decisions • Delivery of the workforce, ensuring project requirements are met whilst balancing risk across the portfolio Develop and help implement a tailored make / buy framework to evaluate resourcing options for the new engineering directorate, and to identify where we need to invest in our capability using a risk based approach and considering maturity of the supply chain. Support the development of a procurement strategy to ensure

	Work package	Role of external partner
		appropriate commercial arrangements within the Engineering Directorate supply chain, in close collaboration with the Commercial function and focusing on efficiencies
3	People & Capability	Optimise and implement a single engineering competency framework to guide the professional development of engineers and their career paths through the engineering directorate. Develop and pilot staff training courses, including topics such as: • Leadership and staff management • Stakeholder management and contractor relationships • Lean training in 5S and value stream mapping • Practical problem solving • All new systems / frameworks brought in as part of the project, e.g. new business management systems and standards framework
4	Support Tools	Define a set of tools to manage and deliver TfL's engineering requirements, including: • Technical support systems, e.g. CAD/BIM, performance modelling, asset data interfaces, etc. • Specialist delivery tools e.g. NDT, survey tools, etc. • Management systems e.g. activity/worksheets, automated performance monitoring, etc. This should be based on assessing the existing TfL tools to deliver engineering services relative to best practice and identifying gaps. Where gaps exist, elicit and define requirements, discuss options and propose solutions.
5	Implementation	Develop a detailed roll-out plan for all elements of the Engineering directorate to be completed after the end of the delivery partner's assignment, including a risk register, communications plan, etc. Identify key dependencies, investments and requirements to achieve successful implementation of the Engineering Directorate (e.g. training, tools and equipment). Embed an effective and efficient engineering change process that properly considers & balances cost, safety, quality, and time. Ensure that knowledge, skills and experience are constantly transferred from the delivery partner, to ensure that when the delivery partner leaves a sustainable organisation on a journey of continuous improvement remains.
6	Outcome tracking & Benefits	Identify, quantify and track all potential benefits related to the programme, including: • Reduced cost • Reduced / optimised standards and processes • Reduced customer business unit risk • Reduced programme risk • Accelerated timescales to deliver earlier customer benefit Benchmark and develop appropriate performance measures to track all outcomes related to the programme, with an initial set of targets to ensure continued improvement.

1.4 Deliverables

It is expected that the chosen supplier hits the ground running from the Contract Award date, and that any learning curve about the organisation and its current and 'to be' ways of operating is minimised, due to the tight timescales for delivery. For project management deliverables please refer to 1.3.2 Programme management.

The selected supplier shall provide the following tangible deliverables:

Step 1: Standing up the Engineering directorate

	Work package	Deliverables
1	Organisational Design Support	Audit of the operating model against the 12 previous engineering reviews Process maps outlining interfaces with other business areas and how they would work Detailed case studies to demonstrate how the function would work in practice
2	Governance Model Support	Engineering governance benchmarks against best practice organisations
3	Metrics	Dashboard of best practice metrics against which to track the Engineering Directorate Defined toolkit for measuring performance against these metrics
4	People & Capability Assessment	Capability map of TfL Engineers, outlining gaps by discipline
5	Culture and Change	Detailed transition and change assurance plans Delivery of a culture and change management programme including sessions across the organisation

Step 2: Implementing and optimising the Engineering directorate

	Work package	Deliverables
1	Technical Governance	Detailed technical governance framework covering all topics outlined in the scope section above Framework for optimising standards across TfL and transition plan to achieve this vision Delivered efficiencies (or detailed plan to deliver efficiencies) on top 5 opportunities
2	Resource Planning	Finalised Make or Buy strategy incl. including characterisation criteria for decision making Efficiencies through optimised and consolidated commercial arrangements with suppliers Defined requirements for a Resource planning tool / framework and

	Work package	Deliverables
		a proposal for a tool /framework with an associated process. Tool / framework populated with initial set of data
3	People & Capability	Competency framework and associated career ladder for the Engineering Directorate Training sessions and materials across a number of topics to address the capability gap across the organisation
4	Support Tools	Tool capability assessment Defined set of new tools to address deficiencies in current TfL model, including Technical support systems, specialist delivery tools and management systems
5	Implementation	Detailed roll-out plan for remaining elements of the programme Prioritised list of investments and dependencies required to sustain model and develop engineering capability, as well as an associated risk register. Knowledge transfer seminars/ masterclasses on the engineering specific apsects of change management
6	Outcome tracking & Benefits	Benefits tracker outlining all benefits related to the programme, including future forecast benefits Performance dashboard to track outcomes of the programme, include short term and long term targets

All deliverables will be regularly reviewed by the Engineering Services Project team (Programme Manager and relevant work package leads).

On behalf of TfL, acceptance of all deliverables shall be assessed and appropriately given by the Engineering Services Programme Manager before 30th June 2017.

All deliverables shall be produced using the relevant TfL format so that draft and final deliverables can be used for internal TfL review meetings with the Steering Group and other senior stakeholders.

The selected supplier will be required to provide input as appropriate to an independent third party acting on behalf of the Managing Director in a challenge capacity.

1.5 Estimated Resource Requirement

To support developing the resource model for the delivery partner please use the following has a guide.

- 0-6 Months – Programme setup and readiness to implement a new engineering directorate **(starting off with a low resource levels and building up to medium resource levels)**
- 6-12 Months – Implementing the new engineering directorate - **(High resource levels)**
- 12-18 Months – Optimising the new engineering directorate. **(starting off with high resource levels and ramping down to low resource levels)**

It isn't expected that resource levels will exceed 20 heads at anyone point in time, and we welcome different lower resource model options that balance the use of the delivery partner resource with TfL internal resource.