Transport Research and Innovation Grants Programme 2023

Application Guidance

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1. Introduction

1.1. The Department for Transport is offering grant funding of up to £45k to innovators for the development of research, technology, products and services that could make a real difference to the future of the UK's transport network.

1.2. For the 2023 programme, as well as their traditional open call, DfT is particularly interested in solutions that address the following challenges:
- Airport Decarbonisation
- Maritime Decarbonisation
- The Future of Freight
- Local Transport Decarbonisation
- Connectivity, Artificial Intelligence and Digital Twins

1.1. A total of £1.8 million in grant funding will be allocated to up to 40 awardees. This funding is intended to facilitate the advancement of projects that are currently at an early Technology Readiness Level (TRL). The goal of the Programme is to take research and innovation concepts along the TRL scale to a state of proven feasibility (TRL 4).

1.2. TRIG 2023 provides 100% grant funding and is open to all businesses including micro, small and medium-sized enterprises. The competition also welcomes applications from universities and other academic institutions. Applications from local authorities and large organisations will also be considered, however a clear rationale is required as to why the proposed idea cannot be funded by internal resources and/or R&D budget.

1.3. We welcome multi-partners / consortia applications; however, a lead organisation must be identified for contractual reasons, and must complete the application form. Funding will be released to only one organisation per consortium; it is the responsibility of the consortium lead to distribute the funding amongst the partners.

1.4. The TRIG 2023 Programme will be delivered by Connected Places Catapult (CPC). CPC will play an active role in various aspects of the Programme and will offer successful projects additional business support throughout the grant funding period.

1.5. In alignment with the Department for Transportation (DfT)'s Diversity & Inclusion Strategy (2022-2025), the TRIG Programme seeks to drive accessible and inclusive opportunities in the urban, transportation and mobility sectors. The competition will ask applicants to consider their own Equality, Diversity & Inclusion (EDI) practices and how EDI is built into the proposed solution design. This will help foster a future diverse innovation system that enables and inspires improvements in EDI across the United Kingdom.

2. Application Process

2.1. To apply for the TRIG 2023 Programme, you must be:
- A business of any size or a university/academic institution; and
- A UK registered company.

2.2. Projects will start in April 2024 and must be delivered by the end of September 2024.

2.3. Previous unsuccessful applicants are welcome to apply again with improved and/or revised bids.

2.4. Applicants making more than one application will need to demonstrate an ability to deliver the projects concurrently.

How to Apply

2.5. Please note that by applying, you accept that any resulting Grant Offer shall be subject to the provisions of this guidance document and the terms outlined in the Grant Agreement.

2.6. Carefully read this guidance document.

2.7. Register and complete your application form, which is available via the CPC website. Only information in your application form will be assessed. No other documentation should be attached to your submission unless this is requested.

2.8. **Applications must be submitted by Monday, 27 November 2023 at midnight (GMT).** Late submissions will not be considered.

2.9. Keep within the maximum word counts noted in each of the sections of the application form.

2.10. We welcome and encourage applications from people of all backgrounds and are committed to making our application process accessible to everyone. This includes providing support, in the form of reasonable adjustments, for people who have a disability or a long-term condition and face barriers applying to us. Applicants requiring assistance in completing the application or alternatives forms of accessing the application should contact the project team at TRIG@cp.catapult.org.uk as early as possible (at least 15 working days before the competition closes) during the open application process to allow for appropriate support and sufficient time for the completion of the application.

Application Questions

2.11. In addition to the information included in the application form, further guidance on what should be included in your response to the application form question is given below. You should also refer to the assessment scoring criteria as that will help to maximise your score.

Equality, Diversity and Inclusion

2.12. Promoting equality of access to the competitions and supporting a diverse portfolio of companies is integral to both the Department for Transport (DfT) and the Connected Places Catapult (CPC). We seek to ensure that the organisations we work with are also committed to demonstrating Equality, Diversity & Inclusivity (EDI) practices in both current and future projects and operations. Throughout their application, we recommend all applicants demonstrate their commitment to EDI as best as possible.

Question 36 - Project Title [20 word limit]

2.13. Please provide a project title.

Question 37 - Project Summary [100 word limit]

2.14. Use this question to give a clear, comprehensive yet succinct overview of exactly what your TRIG project will entail.

Question 39 - TRIG Challenge

2.15. You must identify which challenge you are applying for. Please note only one challenge area can be selected, therefore ensure it is the one that your proposal best align to. Please refer to the **Grant Specification document** available on the website for more information on each of the challenge areas.

Question 41 – Challenge [500 word limit]

2.16. This question seeks to understand the main motivation for your project. You should clearly describe the problem or challenge you are seeking to address. You must clearly articulate why you consider this to be a high priority challenge for the DfT and why it is a major barrier within the industry. Your response should include how the challenge may affects equality, diversity, and inclusion.

Question 42 - Solution [500 word limit]

2.17. Please provide a strong case as to how your innovation meets the challenge set out in the previous question, along with solid supporting evidence.

2.18. Your response should explain the innovative aspect of the solution, i.e., are you applying existing technologies in new areas, is it about developing new technologies for existing areas or is it a totally novel approach? Innovative proposals could include either novel ideas, technology or processes or ideas, concepts or solutions from other sectors that could be applied to improve the transport industry.

2.19. It is very important that you have thought about how you will design and develop your technology in an inclusive way. In this question you should demonstrate how you have taken the needs of different groups into account in designing your solution and the evidence of consideration around how it could help more people use the transport system safely, easily, and confidently. Taking the needs of end users into account and tailoring your solution accordingly will be fundamental in achieving commercial success and long-term positive impacts.

Question 43 - Innovation [500 word limit]

2.20. Please elaborate on the innovative aspect of your solution which make it stand out from existing solutions. These include, but are not limited to:

2.21. **Uniqueness**: ensure you explain what are the unique, groundbreaking features and functionalities that enable your solution to solve the identified challenge in ways previously unexplored. What cutting edge technologies and/or approaches are you making use of?

2.22. **User-centric approach**: an innovative application prioritises the needs of its potential users. Explain how your solution is designed with a deep understanding of its target audience, ensuring an intuitive and seamless user experience.

2.23. **Compatibility**: how does your solution seamlessly integrate with other (or existing) platforms or devices to facilitate a more connected and efficient digital ecosystem?

2.24. **Scalability**: how do you envisage your solution to easily adapt to a different scale of operation or accommodate a growing user base to ensure long-term viability?

Question 44 - Impact [500 word limit]

2.25. Use this section to explain how the desired outcomes of the product, service or solution will create impact and how impact might be measured.

2.26. Please structure your response under the following headings, which are the DfT's Strategic Aims:

- Grow and level up the economy - *Improve the connectivity across the UK and grow the economy by enhancing the transport network on time and on budget*

- Improve transport for the user - *Improve transport users' experience, ensuring that the network Is safe, reliable and inclusive*

- Reduce environmental impacts - *Tackle climate change and Improve air quality by decarbonising transport*

Question 45 - Commercialisation [500 word limit]

2.27. Your application must include an implementation plan that summarises and provides clear steps on how you intend to further develop your product or solution and what your route to market is. Your application should demonstrate a clear understanding of your chosen market and be supported by data to support any assumptions about potential market value, size, and access. The project's market opportunity should be comprehensively understood, with a clear and achievable route to market identified.

2.28. Please note that TRIG projects should have a life beyond the end of the funding offered by this programme. You should be able to show that following successful demonstration of your technology, you have a thorough understanding of your approach to commercialisation and how this will be delivered.

Question 46 - Project Management and Team [500 word limit]

2.29. You should submit a credible project plan with aims, objectives, deliverables, milestones, and associated timescales. Your project plan should provide

confidence that your project will be delivered effectively. *Please note that your project should be completed by 30 September 2024.*

2.30. You should describe the roles, skills, and relevant experience of the project team, including any sub-contractors. Please demonstrate how your company is working to support and promote EDI initiatives in the selection of your project team. Should you not demonstrate a diverse and inclusive team, you should outline how you will implement EDI initiatives in the future.

2.31. Clearly describe relevant risks to this project and how you plan to mitigate them. In a wider sense, you should also demonstrate that you will implement the required health and safety procedures within your project.

2.32. Please **upload a Gantt chart** that clearly outlines your project plan. Ensure that the Gantt chart clearly outlines the activities or work packages that you intend to deliver as part of your TRIG project.

Question 47-48 - Project Budget

2.33. You can claim up to £45k of your project costs from the TRIG programme. Where the total value of projects is higher than £45k, the additional funding required will need to be directly contributed by the applicants. In addition, all in-kind contributions (cash or otherwise) must be detailed.

2.34. You can claim for **direct** project costs, including staff resource, consumables, equipment, lab/testing costs and travel/subsistence. All rates and costs must be competitive and reflect fair market value.

2.35. Projects should demonstrate excellent value for money and all costs should be fully justified; the value add for DfT's investment must be clear.

2.36. We would expect that reasonable and market-value day rates to be applied to your labour cost. Applicants need to demonstrate why the resource is critical to the delivery of the project.

2.37. Subcontracting is permitted, however no more than 50% of the total project cost is permitted to be awarded to a subcontractor registered and/or operating from outside of the United Kingdom.

2.38. Staffing resource (labour cost) must be inclusive of overheads and on-costs, including NI and pension contributions.

2.39. We would reasonably expect that an amount of approximately £500 is included in your budget to cover expenses for the attendance of TRIG related events, for example the Cohort Launch event and the Showcase Event. All expenditure needs to be evidenced with receipts to justify the spend and this should be taken into consideration when presenting the budgeted amount.

2.40. Before completing your project budget, please refer to Section 4 of this document – Funding Rules.

How your application is assessed

2.41. After the deadline, only applications that meet the eligibility criteria and scope of the competition will be assessed. CPC and DfT reserve the right to declare applications as out of scope.

2.42. Applications that progress to the assessment and interview stage will be reviewed by expert assessors from DfT and Connected Places Catapult.

2.43. This scheme will operate on an open and transparent basis and all proposals will be assessed against the same assessment scoring criteria, available to view and download from the TRIG Website page. Assessors with a broad technical knowledge across different areas of transport and technology will mark your application. You should therefore write clearly in layman's terms, avoiding acronyms and obscure jargon.

2.44. Applications will be assessed to ensure you have all the appropriate skills and expertise to successfully carry out the project. Should there be several projects with the same scores, preference will be given to those projects receiving higher scores for challenge, solution, and impact.

2.45. A score from 0-10 will be given for each assessment area. In total there are six assessment areas, with different weightings (as listed below). As aforementioned, the full scoring criteria is available on the TRIG webpage.
- Challenge – 25%
- Solution – 25%
- Impact – 25%
- Commercialisation – 15%
- Project Management – 5%
- Project Budget – 5%

2.46. The assessment panel will be asked to review your commitment to wider EDI initiatives through your responses. Although scored, these questions are not weighted and will not impact the final application score. Your responses will be considered as a long-term impact of any funding given to your proposal.

2.47. Following the assessment of all applications, a number of projects (up to 65) will be shortlisted for interview. The final shortlist of projects to be funded will be agreed upon completion of all interviews. The final funding decisions are made following approval by the Chief Scientific Adviser to the DfT.

Notification of application outcome

2.48. If your application progresses to the assessment stage but is not shortlisted for interview, we may not be able to provide in-depth feedback to all unsuccessful applicants due to the volume of expected applications.

2.49. If your application progresses to the interview stage but is ultimately unsuccessful in achieving funding, you will be provided with some general written feedback from both the technical assessment and the interview.

2.50. It is expected the final funding decisions will be made inMarch 2024It is the lead applicant's responsibility to inform the other collaborators and partners about any funding decisions.

2.51. If you are successful in winning a TRIG grant, you will be sent a conditional grant offer letter and additional documentation that you must sign and return by the deadlines that will be communicated in due course.

3. Technology Readiness Level

3.1. TRIG is designed to support the development of initial prototypes, proof of concept or feasibility studies that demonstrate an innovative solution to transport challenges. In terms of TRL, we would expect projects entering TRIG to be at least TRL 2, with the aim of progressing to TRL 4. This means that basic research would already have been completed prior to applying to TRIG. The aspiration is to arrive at a proof of concept, feasibility, or small-scale prototype by the end of TRIG.

3.2. For more information on technology readiness levels, see list below:

- TRL 1: Idea stage. Basic principles observed.
- TRL 2: Basic research; technology concept formulated.
- TRL 3: Experimental proof of concept achieved.
- TRL 4: Small scale prototype; technology validated in a lab or testing environment.
- TRL 5: Large scale prototype; technology validated in an operational environment.
- TRL 6: Technology demonstrated in operational environment.
- TRL 7: Prototype demonstration in operational environment.
- TRL 8: First of a kind commercial system; all technical process to support commercial activity are in a ready state.
- TRL 9: Full commercial application; technology is readily available on the market.

4. Funding Rules

Subsidy

4.1. The DfT supports investment in research, development, and innovation in transport. Subsidy rules apply to grant schemes like TRIG. In principle, subsidies are not allowed under the UK's various trade arrangements with other countries. However, some subsidies are beneficial to the economy and support growth and other policy objectives. Subsidies can be given to support a wide variety of activities including research and development, environmental protection, and aid for small to medium-sized businesses. The subsidy rules allow for aid to be granted which is necessary to deliver growth and other important objectives.

4.2. The funding awarded to successful applicants will be given as Minimal Financial Assistance under the subsidy rules. This allows an organisation to receive up to £315,000 of state support during the current and previous two fiscal years. You will be asked to declare any other public aid which your enterprise and any enterprises linked to it may have received during your current and previous two fiscal years so that we can ensure that any grant support given to you under this scheme does not constitute a subsidy. Public aid includes not only grants but also assistance such as free or subsidised consultancy services, marketing advice etc which were funded by a public body.

VAT

4.3. The payment of this Grant in accordance with this Agreement is believed to be outside the scope of VAT, but if VAT is chargeable, all payments of this Grant will be deemed to be inclusive of all VAT and Connected Places Catapult shall not be obliged to pay any amount over and above the amount of the Grant.

4.4. If you expect to pay VAT during the delivery of the research, (e.g. for consultancy/sub-contracting charges, material costs and other expenses), and you are unable to recover VAT from HMRC, you must ensure that the cost of these VAT payments is included in the finance section of your Grant Application Form.

4.5. Any VAT payment during delivery of research that is not recoverable from HMRC and not identified in the finance section of the Grant Application Form will not be paid under the TRIG programme.

Payment Schedule

4.6. Grant payment is staged. An up-front payment of 60% of the total budget will be awarded to enable the start of the project. The remaining 40% of the grant will be awarded upon:
- completion of the project and acceptance of the project outputs (final reports and one-pager summaries);

- completion of the pre- and post-programme questionnaire and programme survey, and
- submission of evidence of expenditure.

Financial Reporting

4.7. Upon completion of your project , you will be expected to complete a statement of grant usage form to explain the costs incurred. This should detail staff time utilised, cost of materials, sub-contracting charges, travel expenses and other costs. Please note that only economy-class travel claims will be accepted.

4.8. Only costs incurred between project start and end dates will be paid. All claims made in the statement of grant usage form will be checked and the TRIG team may query or ask for further clarifications.

4.9. Throughout the project period, you will be responsible for maintaining detailed records and documentation of the costs incurred. Individual items costing £20 or less do not require a receipt. However, the total cost of non-receipted items should not exceed £100.

4.10. Your statement of grant usage should be signed and authorised by the highest financial authority in the company.

5. Dates and Deadlines

5.1.   Please note the dates and deadlines for the competition below. These are indicative timings, but we will endeavour to adhere to this schedule as best as possible.

Competition opens	23 October 2023
Application support webinar	9 November 2023 *To register, please see details on the TRIG webpage*
Competition closes (application deadline)	27 November (midnight)
Phase 1 review: Technical Assessment - Notification to successful / unsuccessful applicants	Early February 2024
Interviews with shortlisted applicants	February 2024
Phase 2 review: Interviews - Notification to successful / unsuccessful applicants	Early March 2024
Grant offer letters issued to TRIG 2023 winners	March 2024
TRIG 2023 Projects start	April 2024
Cohort Launch event	May/June 2024
TRIG 2023 Project close	September 2024
TRIG 2023 Showcase event	October/November 2024

6. FAQs

How much funding is available?
The TRIG 2023 programme will fund a maximum of 40 projects up to £45k each.

When will payments be made?
Grant payment is staged. An up-front payment of 60% of the total budget will be awarded to enable the start of the project. The remaining 40% of the grant will be awarded upon completion – please refer to Section 4 of this document.

Can we add some profit margin?
No. The grant is paid to research a concept or technology, not provide profit. These are early-stage grants to help to provide proof of concept. Therefore, the only claim that can be made is for costs incurred during the research process.

Is TRIG subject to Subsidy Control rules?
Yes. TRIG is publicly funded and therefore is subject to the subsidy control regime . Please refer to section 4.1 of this guidance for more information.

What can I include in the project budget?
You can apply for up to £45k of direct costs associated with delivering your proposed project. Eligible costs would be for staffing (including consultancy and subcontracting), materials, equipment, consumables, travel, and subsistence.

Should overheads be included in the salary rates (within the project budget) or shown separately?
Salary rates should be inclusive of overheads and indirect costs. Please note that salary rates must be justified and appropriate, reflecting market values. Rates will be judged on the level of staff expertise, where they are located and how they compare to market rates. The evaluation panel will assess whether the number of staff days on offer will deliver the proposed solution and whether the number of total staff days offered signifies value for money.

What if my project will cost more than £45k?
If the total project costs more than £45k, you will need to contribute the outstanding amount yourselves. Please tell us how you plan to finance this in your budget section, together with any in-kind support that your project is benefitting from.

What if my project is benefitting from non-financial in-kind support?
If your project is benefitting from any in-kind support (for example non-paid for use of a service, equipment, place) that will support the advancement of your project please detail and describe these in your budget submission.

Do I need to keep receipts?

Yes, you will need to submit relevant receipts/invoices for expenses as evidence of project costs. Before final grant payment is made you will be required to supply receipts for individual items costing £20 or more. The total cost of non-receipted items should not exceed £100. Grant beneficiaries will be required to explain costs incurred including staff time and supply receipts as outlined in the document.

How do I evidence staff time spent on the project?

Your statement of grant usage form (completed at the end of the TRIG programme) has a section for you to record staff members, days worked and associated costs. We do not require you to send us timesheets, but we may ask for a breakdown of staff resource and costs on headed paper to corroborate the records on your statement of grant usage. We will request that you keep track of your expenses and will do a review half-way through the programme.

My organisation is based overseas. Am I still eligible for TRIG?

You are, as long as you have a UK registered office and the TRIG project will be undertaken in the UK. Furthermore, the resulting technology or solution must be deployed in the UK.

Do you accept applications from consortia?

Yes, we do, however you must identify a project lead. Please refer to section 1.2 and 1.3 of this document.

I have received a TRIG grant before. Can I apply again?

Yes, we welcome applications from our TRIG Alumni. Please tell us in the application form which programme you were part of and the year.

Good luck with your application!

If you have any questions, please contact us at TRIG@cp.catapult.org.uk