



Department
for Transport

Transport Technology Research Innovation Grant (T-TRIG) Guidance

Moving Britain Ahead

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1. Introduction

- 1.1 The Transport Technology Research Innovation Grant (T-TRIG) is a scheme that enables the Department for Transport (DfT) to fully fund early-stage research projects in support of innovative ideas or concepts that facilitate a better transport system.
- 1.2 The T-TRIG scheme commenced in 2014 as a pilot, and subsequent rounds have followed. The purpose of the scheme is to:
 - Reduce barriers to innovation and advance technology in transport;
 - Enable a better transport system in the UK;
 - Exploit smart ideas that have the potential to develop further;
 - Fund early-stage innovations to take to the next stage of development.
- 1.3 The scheme funds research into a wide-range of novel and innovative solutions that use science, engineering and technology to advance the UK's transport system. The purpose of T-TRIG is to stimulate ideas in transport technology and systems, encourage innovations, and support the advancement of technology-based transport products, processes and services. Funded projects may also have wider benefits for the Department, such as developing the evidence base for policies or informing decision-making.
- 1.4 T-TRIG provides 100% funding and is open to all businesses including micro, small and medium-sized enterprises, academia and other organisations, to support research projects which could lead to enabling a safe and efficient transport system.
- 1.5 The Department is looking to explore and exploit technology, capabilities and knowledge that seeks to address transport problems/issues and move transport forward in the UK. One way that we are approaching this is through delivery of short, focussed ambitious projects that are capable of delivering tangible benefits.

2. Application process

- 2.1 In order to apply to the T-TRIG scheme you **must** be:-
 - UK based; and
 - a business of any size; or,
 - a research organisation, local authority or university.
- 2.2 In addition to the criteria above, your project **must** be innovative, transport-related and focussed on science, engineering or technology.
- 2.3 Your application **must** be within the scope of the competition you are applying to.
- 2.4 The Department will consider proposals from consortia. However, a lead applicant, who will be the grant recipient should be identified.
- 2.5 Previous unsuccessful applicants are welcome to apply again with improved revised bids.

How to apply

- 2.6 Carefully read this guidance document and the grant specifications document. Decide which competition you are applying to and complete your application form.
- 2.7 Your application must be completed in the grant application form and submitted in a Word document to T-TRIG@dft.gsi.gov.uk.
- 2.8 Only information in your application form will be assessed. No other documentation should be attached to your submission. Any document attached in addition to your application form will not be considered.
- 2.9 Applications must be submitted by 23:59 on the day of the submission deadline. Late submissions will not be considered.
- 2.10 Keep within the maximum word counts noted in each of the sections of the grant application form.
- 2.11 There is no guarantee of future funding for further developments.

Application questions

- 2.12 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. The application should also highlight when and what input you will expect from the Department and when active contributions will be required. Applicants

should also refer to the assessment scoring criteria section to help them write good quality applications and to maximise their score.

Question 1 The Challenge

- 2.13 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 transport challenge and the wider benefits your idea could potentially have on the economy, society and environment. Similarly, if relevant, any applications to targeted calls should clearly articulate what challenge you are addressing within the defined scope of the targeted topic area. You should not give full details of your innovation here, however, you should focus on why it is needed. Discuss what the possible unmet need or shortcoming is in the current practise.

Question 2 Innovation

- 2.14 You should clearly describe your innovative solution that will address the challenge you have set out in question 1. Please include relevant diagrams or figures to clearly explain your concept. You should note what solutions currently exist and how your proposed innovation is different. Explain how your solution will improve the current state of the art. Provide evidence of how or why your innovation solution is likely to work. Supporting evidence will be helpful, however, avoid listing a series of publications.

Question 3 Project Management

- 2.15 Clearly set out your project plan in a Gantt chart. Please detail the aims and objectives of your research, how you plan to accomplish them and who will deliver this project effectively. Please note what deliverables you expect to produce at what stage in the project. There is an expectation to see clear work packages, milestones and deliverables. Clearly describe relevant risks to this project and how you plan to mitigate them. Describe the roles, skills and relevant experience of the project team, including any sub-contractors.

Question 4 Impact and Exploitation

- 2.16 Clearly describe how the results of your research will benefit UK transport. You should demonstrate how your project aligns to the Department's priorities and how your project can deliver against those. Similarly, if you are applying to a targeted call, you should demonstrate how your project aligns with the scope of the competition. Projects should be taken forward beyond the funding offered here. Detail how you plan to exploit your results. The deliverables you produce will allow you to disseminate your research as wide as possible. Please list here what deliverables you expect to produce. A report is required as a minimum.

Question 5 Project Finances

- 2.17 Projects should demonstrate value for money. All cost information provided should be clearly explained and all rates must reflect fair market value. Sub-contractor and material costs should be justified. Your answer should clearly describe what you will spend the funding on and why.

How your application is assessed

- 2.18 After the deadline, only applications that meet the eligibility criteria and scope of the competition will be assessed. You will be notified if your application is out of scope with full reasons as to why. The Department reserves the right to declare applications as out of scope.
- 2.19 This scheme will operate on an open and transparent basis; proposals will be assessed against the assessment scoring criteria, detailed in this document.
- 2.20 Applications will be assessed by up to 3 assessors from across the Department and partner organisations. As far as possible, your application will be assigned to assessors with knowledge in the area of your innovation. Assessors with knowledge in other areas will also mark your application. You should therefore write clearly in layman terms, avoiding acronyms and jargon.
- 2.21 Successful applications are all required to meet a quality threshold which is relative to other applications received.

Notification of assessment outcome

- 2.22 Once all applications have been assessed, you will be informed of the final decision by email. If you are the lead applicant you need to let the other collaborators and partners know the decision.
- 2.23 A breakdown of the scores achieved for each section of the application form will be provided. Please note that detailed feedback will NOT be provided to unsuccessful candidates.

Successful applications

- 2.24 You will be asked to select which grant aid option you are applying under and will have to provide sufficient evidence to the Department that you are eligible to receive the grant under the terms of the selected grant option.
- 2.25 You will be sent a conditional grant offer letter that you must sign and return.
- 2.26 Any additional finance documentation that you are asked for will need to be completed and returned within stated timelines.
- 2.27 We will review your project costs to check that they meet our funding rules. You may be asked to provide further information on the detail in your finance forms.
- 2.28 There will be a project initiation meeting within two weeks of awarding the grant to discuss the details of the project. You will be asked to discuss your application and how you will deliver the project effectively. The Department shall have the right to request any reasonable changes to the project. The meeting can take place either at DfT offices in London or via telephone.

3. Project reporting

- 3.1 You will provide monthly updates to demonstrate that progress is in line with the expected milestones and that the research will deliver or disprove the expected solution. If at any point you discover that the solution is no longer viable and/or if external factors make it unviable, you must inform the Department as soon as possible.
- 3.2 Key findings/first draft of the final report will be delivered one month in advance of the final project end date. You will be given feedback on the report and may be asked to make changes before the final report is due.
- 3.3 The final report upon completion of the project should be no more than 20 pages long, excluding references or data tabulation annexes. It will be comprehensive and succinct. Payment of the grant will be on condition of a high quality report which clearly sets out:
 - The problem, issue or challenge;
 - The solution proposed;
 - The work conducted and how this advances the solution;
 - The project findings;
 - Next steps to deploy the solution, if proven.
- 3.4 The final project report must cover:
 - Executive summary, including project outcome;
 - Aim of the project;
 - Objectives of the project;
 - Outline of the concept (including scientific basis) on how the technology is going to help to solve a transport problem;
 - How the idea was generated (e.g. is it an application from another industry?) and any intellectual property rights;
 - Assumptions made;
 - Technologies/equipment used;
 - Limitations;
 - Practical applications of the concept to the UK transport system (including costs);
 - Next steps for testing and implementation;
 - Conclusions.
- 3.5 The final report will be disseminated across the Department, key stakeholders and made publicly available.
- 3.6 All reports should be written and presented to a professional standard and suitable for non-specialists, with all acronyms and unavoidable technical language clearly explained.

4. Technology Readiness Level

- 4.1 T-TRIG is designed to support the development of initial prototypes, proof of concept or a feasibility studies that demonstrate an innovative solution to transport challenges.
- 4.2 In terms of Technology Readiness Levels (TRL), this funding route will indicatively support projects between **2 and 4 on the TRL scale** (see Figure 1). Funding at this early stage enables researchers to carry out basic exploratory studies which could lead to pioneering ideas being developed into new products, processes, models or services for transport applications.

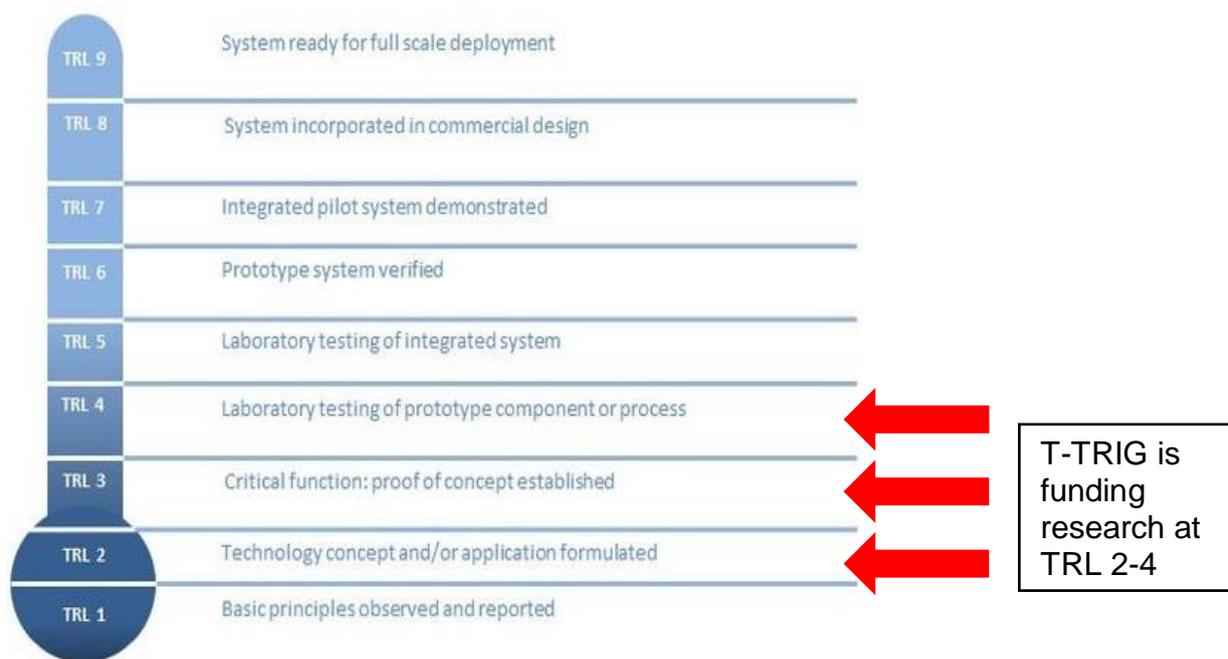


Figure 1: Technology Readiness Level (TRL) Scale

5. Funding rules

Grant options

- 5.1 T-TRIG provides 100% grant funding under two grant options:-
 - *de minimus* (classified as state aid);
 - Non-economic research (not classified as state aid).
- 5.2 To qualify for the competition grant, your organisation must conform to at least one of the two grant aid options available. If successful, you will have to demonstrate that you are eligible to receive the grant under the terms of the selected grant option.
- 5.3 You should read all the available guidance on the two options before deciding which is most appropriate for you.

State aid

- 5.4 The Department supports investment in research, development and innovation in transport. Some of the support we provide operates under European Commission state aid rules.
- 5.5 State aid is any advantage granted by public authorities through state resources on a selective basis to any organisations that could potentially distort competition and trade in the European Union (EU).
- 5.6 State aid rules apply to grant schemes like T-TRIG. In principle, state aid is not allowed in the EU. However, some state aid is beneficial to the economy and supports growth and other policy objectives. State aid 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 state aid rules allow for good aid, which is necessary to deliver growth and other important objectives.

Definitions

- 5.7 The following definitions provide a limited explanation of the two options.
- 5.8 *De minimus*

In order to minimise distortion of competition the European Commission sets limits on how much assistance can be given without its prior approval to organisations operating in a competitive market.
- 5.9 The *de minimis*¹ regulation allows an organisation to receive small amounts of aid up to a maximum limit of €200,000 [€100,000 for undertakings in the road freight

¹ Under EC Regulation 1407/2013 (De minimis Aid Regulation) as published in the Official Journal of the European Union 24 December 2013/42.

transport sector] over a three fiscal year period (i.e. your current fiscal year and previous two fiscal years).

- 5.10 Any *de minimis* aid provided to you under this scheme will be relevant if you wish to apply, or have applied, for any other *de minimis* aid. You will need to declare this amount to any other aid awarding body who requests information from you on how much *de minimis* aid you have received.
- 5.11 You will be asked to declare any *de minimis* aid which your enterprise and any enterprises linked to it may have received during your current and previous two fiscal years.
- 5.12 *de minimis* aid includes not only grants but also assistance such as free or subsidised consultancy services, marketing advice etc.

5.13 Non-Economic Research

Where an organisation carries out activities of both economic and non-economic nature, the public funding of the non-economic activities will not fall under Article 107(1) of the Treaty if the two kinds of activities and their costs, funding and revenues can be clearly separated so that cross-subsidisation of the economic activity is effectively avoided. Evidence of due allocation of costs, funding and revenues can consist of annual financial statements of the relevant entity.

- 5.14 The Commission considers that the following activities are generally of a non-economic character:-
- a) primary activities of research organisations and research infrastructures, in particular:
 - Independent R&D for more knowledge and better understanding;
 - Wide dissemination of research results.
 - b) Knowledge transfer activities.

Further information

- 5.15 Further information on the grant options is available from the following links:
- [State Aid: The Basics Guide \(July 2015\)](#)
 - [State Aid: Frequently Asked Questions](#)
 - [State Aid in Research, Development and Innovation: A Guide for Universities](#)
 - [BEIS State Aid guidance](#)
 - [European Commission's information on state aid.](#)

6. Intellectual Property Rights

- 6.1 The ownership of any intellectual property to emerge from the project will reside with the grant recipient. However, they will be expected to agree that the Department may disseminate any information, know-how, system or process learned from or created as part of the project among persons or bodies who have responsibility for similar projects.
- 6.2 Grant recipients will be expected to agree that such persons may share and use freely all such information, know-how, system or process for their own purposes.
- 6.3 The funding agreement will also require the successful applicant to grant a licence to the Department under section 91(3) of the Copyright Designs and Patent Act 1988 in relation to the future copyright in works funded in whole or in part by the grant. The licence will be non-exclusive and granted without provision for the payment of royalties for the full period protected by copyright in the works. This will allow the Department to copy, issue or adapt any such works for its own purposes.

7. Finance summary

- 7.1 Along with a grant offer letter, successful applicants will be asked to complete a F001 grant vendor creation form, and provide their bank account details on company letter headed paper. This will allow the Department to set up an account for you to receive your funding.
- 7.2 Two options will be available for grant payment:-
- An early payment of 30% once the grant offer letter terms and conditions have been accepted and signed. The remaining 70% will be paid at the end of the project provided that financial documentation such as receipts and the final project report is approved by the Department;
 - 100% of the grant to be paid at the end of the project provided that financial documentation such as receipts and the final project report is approved by the Department.
- 7.3 When claiming the final payment, applicants 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. You must provide receipts for all claims.
- 7.4 Individual items costing £20 or less do not require a receipt. However, the total cost of non-receipted items should not exceed £100.
- 7.5 Rates for staff time should already include some overhead costs and therefore no further overheads charges should be made. However, the salary rates must be justified and appropriate, reflecting market values.
- 7.6 The final invoice should be based on costs only. There should no profit margins added to the costs. The grant is paid to research a concept or technology, not provide profit. Therefore, the only claim that can be made is for costs incurred in the research of this concept.
- 7.7 Only costs incurred between project start and end dates will be paid. All claims made in the statement of grant usage form will be closely scrutinized.

VAT

- 7.8 A grant is not payable on any VAT that you are able to recover from HMRC. Grants are outside the scope of VAT and therefore you cannot add VAT on the invoice to the Department.
- 7.9 If you expect to pay VAT during the delivery of the research, (e.g. for materials purchased or sub-contracted services), that you are unable to recover from HMRC,

you must ensure that the cost of these VAT payments are included in your response to the project finance question in the application form.

8. Dates and deadlines

Competition dates and deadlines

- 8.1 Please note the dates and deadlines for the competition below. These are indicative timings. We will adhere to this schedule as best as possible. The closing date for applications is fixed and will be **23:59 9th January 2017**.
- 8.2 Applications submitted after the deadline will not be considered. Extensions will not be granted under any circumstances.

Competition opens	5 th December 2016
Briefing webinars for all 3 calls	9 th & 14 th December 2016
Availability of webinar recordings	12 th December 2016
Competition closes, application deadline	23:59 9 th January 2017
Decision to successful applicants	27 th January 2017
Notification to unsuccessful applicants	3 rd February 2017
Projects start	6 th February 2017
Projects end	1 st May 2017

Project reporting dates and deadlines

- 8.3 An indicative project reporting schedule is given below. This is subject to change on a case by case basis.

Milestone	Deliverable	Date
Initiation meeting	_____	Week commencing 6 th February 2017
Progress reports	A brief paragraph outlining your progress to date and next steps. Any challenges or setbacks should be highlighted and how these will be overcome.	6 th March 2017 6 th April 2017
Key findings/first draft of final project report	Draft final report	13 th April 2017
Results compiled and final report completed	Final report	1 st May 2017

9. Assessment scoring criteria

- 9.1 This section contains the assessment scoring criteria for applications. Applicants should refer to this section to help them write good quality applications and to maximise their score.
- 9.2 Applications will be assessed to ensure you have all the appropriate skills and expertise to successfully carry out the project. Proposals should:
- Demonstrate an understanding of the challenges that face the UK transport system;
 - Demonstrate an understanding of the science/technology behind the proposed solution;
 - Demonstrate consideration of the practicality of implementation (including limitations e.g. legislative) to the UK transport system;
 - Name the key members of the proposed team for delivering the programme of work;
 - Outline the respective roles of all key members of the team and their relevant experience.
- 9.3 The scoring guide below and the assessment criteria give indicative marks. Assessors are free to use the full range up to the maximum score per question.
- 9.4 Should there be several projects with the same scores, preference will be given to those projects receiving the higher scores for question 2, demonstrating a high level of innovation.
- 9.5 The applications will be marked on their responses to five questions (as in the grant application form).
- 9.6 All questions have a weighting factor of 1, except questions 2 and 4 which have a weighting factor of 4 and 3 respectively.

Questions	Weighting factor	Maximum score
1. The Challenge What is the challenge being addressed by the proposed project?	1	10
2. Innovation How is your proposal innovative?	4	40
3. Project Management What is your project plan to deliver the project? What are the relevant skills and expertise of the team?	1	10

4. Impact and Exploitation How will the outcome from this research have a beneficial impact on UK transport?	3	30
5. Project Finances How much will the project cost to deliver and how will this be spent to ensure value for money?	1	10
TOTAL	10	100

9.7 The assessment scoring criteria is given below

	Give a Score of 0	Give a Score 2	Give a Score 4	Give a Score 6	Give a Score 8	Give a Score 10
1. The Challenge	Limited detail is provided on the challenge with weak evidence. There are very weak links to Department's priorities.	The challenge is poorly described with very little evidence provided. The challenge has weak links to the Department's priorities.	The challenge is described well with little evidence. The challenge has some links to the Department's priorities.	The challenge is clearly described with satisfactory evidence provided. The challenge has good links to the Department's priorities.	The challenge is very clearly described with good evidence provided. The challenge has very good links to the Department's priorities.	The challenge is described in substantive detail with significant evidence provided. The challenge is a high priority for the Department.
2. Innovation	Limited detail is provided on the technical solution. It does not meet the needs of the challenge.	The technical approach is poorly described. It is unlikely to meet the needs of the challenge.	The technical approach is described well with little evidence. It may not be sufficient to meet needs of the challenge	The technical approach described is credible with some evidence. It is likely to meet the needs of the challenge.	The technical approach described is very credible with good evidence. It is very likely to meet the needs of the technical challenge. The innovation is significantly different from previous work.	The technical approach described is highly credible and innovative, strong evidence is provided. It shows a strong likelihood of meeting the challenge. The technical solution has practical applications.

	Give a Score of 0	Give a Score 2	Give a Score 4	Give a Score 6	Give a Score 8	Give a Score 10
3. Project Management	There is a poor project plan. No details are given of the milestones, the team, or risks. No Gantt Chart is provided.	The project plan has limited detail. It has weak evidence to suggest the project can be delivered effectively. It has weak details of milestones, the project team, and risks. A poor Gantt Chart is provided	The project plan has some detail. It has some evidence to suggest the project can be delivered effectively. It has some details of, milestones, the project team and risks. A Gantt Chart is provided.	The project plan has good detail. It has good evidence to suggest the project can be delivered effectively. It has good details of milestones, the project team and risks. A Gantt Chart is provided.	The project plan has very good detail of how the project will be delivered effectively with very good evidence. It gives very good details of milestones, the project team and risks. Suitable risk mitigation measures are given. The project team's skills and expertise are noted in sufficient detail. A Gantt Chart is provided.	The project plan is highly credible and likely to deliver the project effectively. The plan clearly conveys the aims and objectives, deliverables, timescales, milestones and skill of the project team. Appropriate risks are identified and suitable mitigation measures are given A Gantt Chart is provided.
4. Impact and Exploitation	There is minimal impact of this project on UK transport and no potential for future development.	The impact of this project on UK transport is poor and there is insufficient evidence provided. There are poor links to the Department's DfT's priorities. There is limited potential for further development.	The impact of this project on UK transport is marginal and there is poor evidence provided. There are weak links to the Department's priorities. There is some potential for future development. .	The impact of this project is likely to benefit UK transport and there is good evidence provided. There are good links to the Department's priorities. There is potential for further development.	The impact of this project on UK transport is highly likely and there is very good evidence provided. There are very good links to the Department's priorities. There is potential for further development and an exploitation route has been identified.	The impact of this project on UK transport is highly credible and strong evidence is provided. There are strong links to the Department's priorities. There is clear potential for further development and an exploitation route has been identified.

	Give a Score of 0	Give a Score 2	Give a Score 4	Give a Score 6	Give a Score 8	Give a Score 10
5. Project Finances	The cost information provided is limited.	The cost information provided is limited or lacking in detail. The information does not represent value for money.	The cost information provided is limited. The cost is somewhat broken down and some justification is given. Staff costs are given.	The cost information is given. It demonstrates value for money and there is good breakdown of the information. Staff costs are given. Some costings for materials and sub-contracting work is given but not explained in good detail	The cost information given is good. It demonstrates value for money and there is sufficient breakdown of the information. Staff costs are given and reflect market value. A clear explanation of other costs including materials and sub-contracting work is given.	The cost information given is excellent and fully justified. It demonstrates value for money and there is clear breakdown of the information. Staff costs are given and reflect market value. A clear explanation of other costs including materials and sub-contracting work is given. In kind contribution is given.

