



Department
for Transport

Transport Technology Research Innovation Grant (T-TRIG)

Briefing webinars 9th & 14th December 2016





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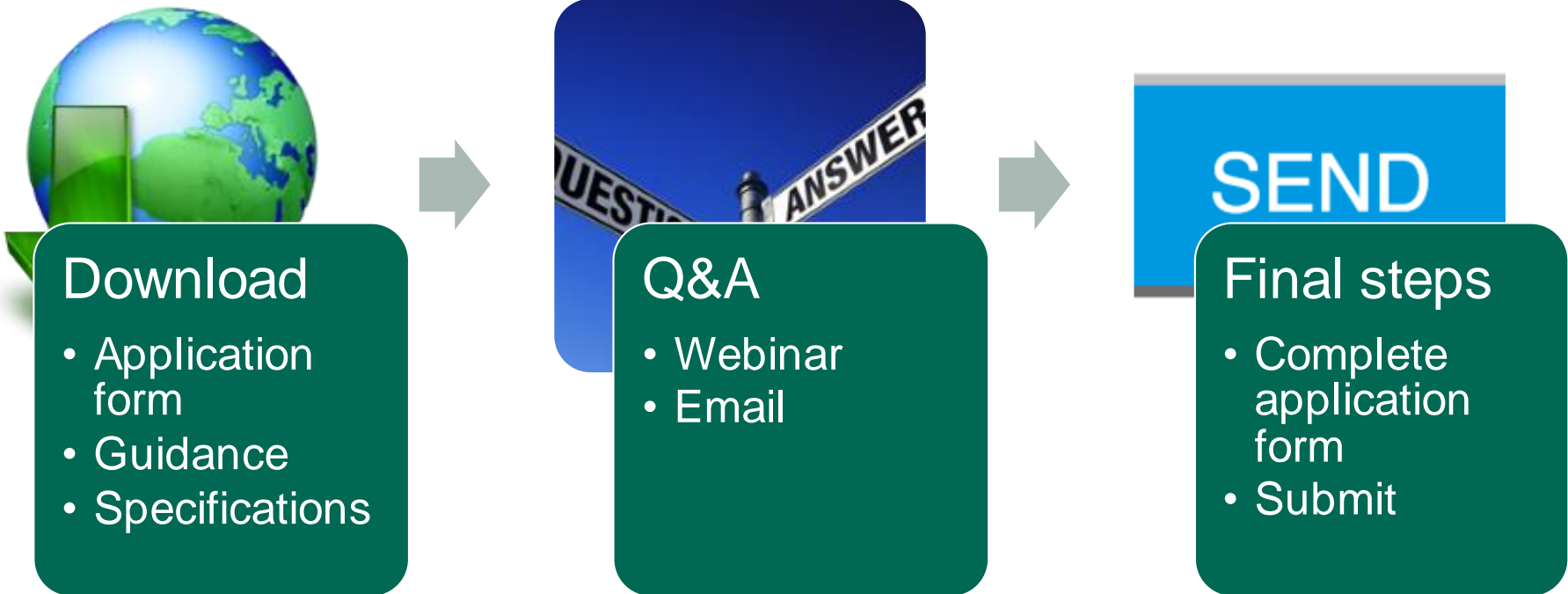
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Introduction

- ▶ Funds early-stage research projects in support of innovative ideas or concepts that facilitate a better transport system
- ▶ 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
- ▶ Open to all
- ▶ Novel and innovative solutions that use science, engineering or technology focussed on [Department priorities](#)
- ▶ Enable advancement of technology-based transport products, processes and services (TRL 2-4)



Application process





Application form

- ▶ Sections A – G are important but not assessed
- ▶ Section H – questions 1 – 5 are very important and assessed
- ▶ Good quality applications:-
 - ▶ Read the question carefully
 - ▶ Consult the notes for each question in the Guidance document
 - ▶ Consult the assessment criteria (Guidance document)



Questions	Weighting factor	Maximum score	
1. The Challenge	1	10	
2. Innovation	4	40	★
3. Project Management	1	10	
4. Impact and Exploitation	3	30	★
5. Project Finances	1	10	
Total	10	100	

- ▶ Questions are weighted
- ▶ Questions 2 & 4 have a weighting of 4 and 3 respectively
- ▶ Innovation is key
- ▶ What is the potential impact on UK transport?



Key points

- ▶ Only information in responses to questions 1 – 5 will be assessed
- ▶ No other documents should be attached to your application
- ▶ Submit in Word format to t-trig@dft.gsi.gov.uk by 23:59 9th January 2017
- ▶ No extensions or late submissions considered
- ▶ Complete all sections of the form
- ▶ Figures/charts/diagrams should be included within the text box areas
- ▶ Obey word limits stated
- ▶ Assessors will score questions from 0 - 10



Funding

- ▶ 100% funding
- ▶ Grant options:-
 - ▶ De minimus
 - ▶ Non-economic research
- ▶ Payment options
 - ▶ 30% early payment
 - ▶ 100% at the end
- ▶ Grants are outside the scope of VAT. VAT cannot be added on the invoice to the Department
- ▶ Finance contact details are essential



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Dates and deadlines

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
Initiation meetings	w/c 6 th February 2017
Projects start	6 th February 2017
Interim report	13 th April 2017
Final report, projects end	1 st May 2017



Competitions

T-TRIG

Open call

(Targeted
call)

Maritime
security

(Targeted
call)

Big data



Open call competition



Scope

- ▶ Innovative ideas to address a UK transport challenge
- ▶ Aligned with DfT's priorities
- ▶ Research focussed on science, engineering or technology
- ▶ Early-stage ideas – proof of concept or feasibility studies

- ▶ Budget
 - ▶ Maximum available grant - £25k
 - ▶ Budget available - £300k to fund approx. 12 projects



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Maritime security



Innovation for Maritime Security Solutions

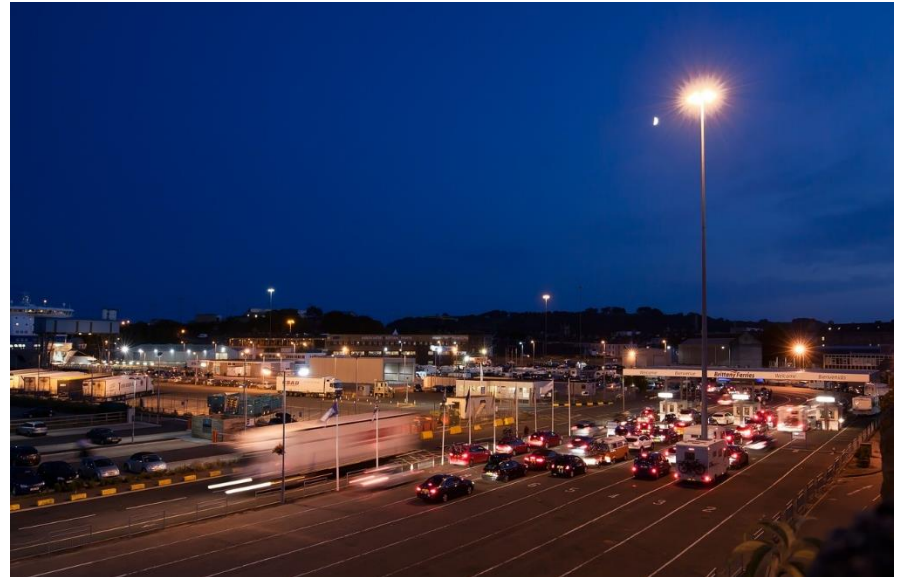
- ▶ Looking for security innovations in the maritime environment
- ▶ Enhance existing capability against current threats
- ▶ Single, short-term projects
- ▶ £100,000 to fund 3-5 projects





What's in scope?

- ▶ Any research or development which would significantly improve any aspect of the maritime security system.
- ▶ Aspects may include improved security for one or more of:-
 - ▶ Passengers
 - ▶ Maritime shipping
 - ▶ Infrastructure in ports
 - ▶ Infrastructure at sea





What's not in scope?

- ▶ Incremental improvements to existing security
- ▶ Demonstrations of existing capabilities, unless they being used innovatively in a new context
- ▶ Other threats are out of scope, these are being addressed in other government programmes
 - ▶ Cyber-attacks
 - ▶ Safety issues
 - ▶ Import or export of banned or controlled substances (weapons and explosives ARE of interest)



What would we be interested in?

- ▶ Any proposals that would enhance aspects of maritime security, for example:
 - ▶ Enhanced human factors
 - ▶ Better use of data or systems integration
 - ▶ Improved reliability in threat detection
- ▶ Or allow, for example:
 - ▶ Faster screening
 - ▶ A friendlier passenger experience
 - ▶ Reduced cost (both purchase, maintenance and operation) of security equipment





What would we be interested in?

- ▶ Deterrence or identification of suspicious activity in the vicinity of vessels:
 - ▶ in ports both over and above water
 - ▶ on land in busy environments
- ▶ Alternative approaches to screening of
 - ▶ Passengers
 - ▶ Vehicles
 - ▶ Cargo boarding a vessel
- ▶ Increasing the physical security of personnel and passengers on-board a vessel





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Big data



Enhancing the Digital Agenda in Transport

- ▶ Big Data is already transforming the way we conduct science, deliver healthcare, improve performance, run cities and operate businesses
- ▶ However, in the transport sector benefits exploitation is a much lower level of maturity
- ▶ Consequently, DfT and Innovate UK are jointly funding 6-8 projects to the value of £300k to demonstrate what benefits can be achieved in transport from Big Data, Artificial Intelligence (AI) and Machine Learning (ML) technologies
- ▶ Single, short-term projects



What do we mean by “Big Data”?

Both **large volumes** of data with high level of **complexity** and the **analytical methods** applied to them which require more **advanced techniques and technologies** in order to derive **meaningful information and insights in real time.**



What do we mean by “AI” and “ML”?

AI allows a system to exhibit human-like intelligence in its responses through use of rational reasoning and deductive solutions.

ML is a form of AI that allows a system to learn from results and amend itself accordingly.



What's in scope?

- ▶ ML to enhance data analysis
- ▶ Using AI in transport
- ▶ Data linking and bringing together of disparate data sets to demonstrate benefits
- ▶ Using enhanced computing to process existing transport or transport-related data



What's not in scope?

- ▶ Incremental improvements to existing data systems, tools or approaches
- ▶ Compilation of new datasets
- ▶ Smartphone apps (unless an AI or ML element)
- ▶ Data visualisation
- ▶ Statistical analysis of existing data sets
- ▶ Demonstrations of existing capabilities, unless they being used innovatively in a new context



What would we be interested in?

- ▶ Proposals that would:
 - ▶ Build on innovation excellence
 - ▶ Boost economic growth and opportunity
 - ▶ Turning scientific excellence into commercial opportunities
 - ▶ Building national technical and innovative capability
 - ▶ Unlocking business models



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Further questions

T-TRIG@dft.gsi.gov.uk

Thank you



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FAQs

- ▶ VAT – A grant is not payable on any VAT that the grant beneficiary is able to recover from HMRC. Grants are outside the scope of VAT and therefore you cannot add VAT on the invoice to the Department;
- ▶ The DfT expects a quality comprehensive final report of the research conducted that clearly sets out the objectives of the project, how the grant was spent and what was achieved with it;
- ▶ Unsuccessful applicants will NOT be given feedback (due to the expected large number of applications). Transparent Assessment Criteria is provided to help you strengthen your application;
- ▶ Revised or new applications from unsuccessful applicants of the previous T-TRIG schemes are welcome.
- ▶ IP ownership resides with the researcher, however, the Department may disseminate any information, know-how, system or process learned from or created as part of the project