Technology Strategy BoardDriving Innovation

Results of competition: Integrated transport - In-field solutions - Feasibility studies

Total available funding for this competition was £500k from the Technology Strategy Board.

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Chronos Technology Limited (lead) AB Ports AIMES Grid Services CIC Avanti Communications Limited Cambridge Consultants Limited CATAPULT General Lighthouse Authorities - GLA Institute for Sustainability Keyfort Limited Mix Telematics Limited National Physical Laboratory – NPL PIE Mapping Satellite Transport Systems Catapult UK Hydrographic Office University of Bath University of Hull	Solutions for Integrated Seamless Transport Across Land and Sea (SISTALS)	£62,260	£49,325

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Project description (provided by applicants)

The SISTALS study will consider the feasibility of a national transmodal integrated logistics information and command and control system. It will address urgent needs for closer integration within and between two complex logistics systems for land and sea and their interaction through ports; and study backup of currently unreliable communications and positional awareness systems with robust and resilient options. This will help ensure the right things are in the right place at the right time, safely, securely, together with huge economic benefits from reduced congestion, and lower environmental impacts throughout the existing port, road and rail infrastructure.

Building on legacy systems and associated project contributions, SISTALS will facilitate the integration of stakeholders and disjointed elements along the supply chain using state-of-the art Command, Control, Communications and Information (C3I) technologies. The study will identify users and their needs, undertake a technology gap analysis, design the enterprise architecture, and capture the risks and mitigation measures as the basis of an outline project plan for rapid initiation of in-field trials of the SISTALS solution.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Co-Wheels Community Car Club CIC (lead)	Enhanced Corporate & Public Vehicle Sharing Initiative	£69,603	£53,576
Derbyshire Community Health Services			
NHS Trust			
Proteo Limited			

Project description (provided by applicants)

Co-wheels is a successful social enterprise car club that seeks to extend the benefits of car sharing to all parts of the country. A partnership with Derbyshire Community Health Services NHS Trust and Proteo Limited is creating an innovative vehicle management system that will allow significant changes to the way that cars are owned and used.

This innovative new scheme will allow the sharing of vehicles between organisations and the general public to reduce car ownership in communities, and provide environmental and financial benefits to both individuals and organisations. As a social enterprise, Co-wheels seeks to create social and environmental benefit rather than commercial profit.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Esoterix Systems Limited (lead) First Great Western North Bristol NHS Trust University of West of England West of England Local Enterprise Partnership	Demand-based Urban Bus Integrated with Rail And Health (DUBIRAH)	£61,236	£42,720

Project description (provided by applicants)

A citizen rarely finds bus, rail and/or health service provisions seamlessly aligned; scheduled bus services do not provide sufficiently direct door-to-door journeys, e.g. between railway stations and final destinations; or at the needed times, e.g. to make a train connection or hospital appointment. The result in the north and west of Bristol is an over-reliance on the car, causing congestion that will cost £600m a year in an area that is, in theory, well served by rail, and a lack of access to employment and services for those without a car.

This project will assess the viability of developing and operating a commercially sustainable, on-demand, local, bus service in the area that is integrated with rail services (through adjustment in response to rail delays and integrated ticketing) and health care provision (through the making of transport-friendly appointments).

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
EValu8 Transport Innovations Limited (lead) E-Car Club Limited Future Transport Systems Limited Hourbike Limited	E-Mobility hubs	£65,909	£46,267

Project description (provided by applicants)

This project is aimed at creating e-mobility hubs and providing a demonstrator project of their use and potential impact. E-mobility hubs are defined as combining electric vehicle charging points, electric car club, bike and e-bikes for hire from a single location situated at key transport nodes, bookable from a single website.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Interdigital UK Inc (lead) Buckinghamshire County Council Ovearup & Partners International Ltd Traak Systems Ltd Worldsensing Limited	OneM2M-based Open Ecosystem for Transport Modal Shift	£74,036	£53,331

Project description (provided by applicants)

This project directly addresses the issue of traffic congestion through a novel approach that will facilitate intelligent transport modal shifting while at the same time opening up potential new revenue models for Local Authorities, which will be trialled with the Buckinghamshire County Council. The project will explore the feasibility of a world's first ITS platform design based on the emerging international standard oneM2M.

State-of-the-art behavioural and predictive analytics will process an array of transport relevant information rendering prescriptive personalised transport guidance to end users via a Smartphone application, to 'nudge' behavioural choices. This approach is scalable, standardised, and non-proprietary and can ignite the open data developer community.

It offers compelling benefits for Local Authorities with strong or poor infrastructure, with realistic potential for national and global adoption. The Feasibility Study will focus on specific system design, logistical and business framework aspects of the proposed project and planning for an In-Field trial in Buckinghamshire.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Intouch Ltd (lead) Connect M25 Ltd	SITI-M: Smart Integrated Transport Infrastructure Maintenance	£111,583	£79,996

Project description (provided by applicants)

Traditionally transport maintenance activities are planned and implemented in silos based on the mode of transport (road, rail etc), the type of asset (e.g. motorways vs trunk roads) and the contractors involved. This silo-based approach has been compounded by the fixed maintenance schedules that have been employed on many transport assets. However, recent advances in mobile computing and new forms of maintenance contract means that, for the first time there is the possibility to consider how maintenance can best be planned and conducted in a smart, integrated fashion that spans across transport modes and that can be effectively communicated to travellers – enabling the UK to maximise the use of its transport infrastructure in a holistic manner.

In this study we will explore the feasibility of creating an in-field trial of such an approach using the M25 as a test site. The study will consider the benefits to both transport infrastructure owners and maintainers and the general travelling public with the overall aim of assessing whether it is possible to both reduce congestion and maintain the transport infrastructure more effectively and efficiently.

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Results of competition: Integrated transport - In-field solutions - Feasibility studies

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Preston Motorsport Ltd (lead)	Oxford Transport Laboratory	£79,085	£ 63,513
The Zeta Group			
Elisa Interactive Ltd (DBI)			
University Of Oxford			
Oxford Brookes University			

Project description (provided by applicants)

The project aims to create an integrated transportation eco-system ("Oxford Transport Laboratory") that will be used to manage and optimise transportation in the city of Oxford with short term goal of minimising the effect of the Westgate development scheduled to start in 2014 and as a longer term goal of increasing economic activity in Oxford while reducing traffic congestion.

The project aims to create know-how and technology that can be transferred to similar city centres in the UK and then to develop economic benefit by expanding this expertise to the world.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Siemens (lead) South Yorkshire Passenger Transport Executive	Feasibility Study: "Integrated, Multi- modal Mobility Platform for South Yorkshire"	£91,015	£61,033

Project description (provided by applicants)

Siemens and the SYPTE are planning to offer a unique and innovative IT solution for South Yorkshire in order to improve local citizen and traveller access to comprehensive, yet personalised, travel information (particularly across the various transport modes) enabling better informed journey choices to be made.

The Feasibility Study will focus on specific local use cases, describing the potential integrated and multi-modal approaches that will be possible once the final system has been implemented. The Integrated Mobility Platform will enable an integrated transport network to become a reality for South Yorkshire and beyond, encouraging the utilisation of multiple transport modes within a single journey.

The Feasibility Study will demonstrate the added value for all stakeholder groups: the end traveller, the local citizen, the local authorities, the passenger transport executive and the public and private operators. The project will promote more efficient journeys allowing South Yorkshire residents to be more productive, taking advantage of the integrated connections available and, ultimately, encouraging more inward investment for the area.

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Results of competition: Integrated transport - In-field solutions - Feasibility studies

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Sustainable Environment Ltd (lead) Arriva the Shires Limited Ford Motor Company Limited	Simply Connect	£69,249	£48,187

Project description (provided by applicants)

Based on our earlier work in developing the 'Small Vehicle Transport System' (SVTS), 'Simply Connect'™ will develop and (at the 'In-field trials' stage) deliver a fully integrated transport system that is based on ensuring individual journeys are managed to their satisfactory completion, across all journey types, purposes and distances, focused from the user's perspective.

Simply Connect will offer Intelligent Mobility in a form that closely reflects the way we typically travel, and which offers a practical, realistic alternative to the private car for many journeys, whilst extending to freight movements. This approach, enabled by ICT, achieves substantial macro-economic, social and environmental benefits, as well as being a commercially valid business approach.

The project will extend across business structure planning and development, transport modelling and business appraisal, vehicle design, impact assessments, and ICT development which covers the full range of requirements.

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Results of competition: Integrated transport - In-field solutions - Feasibility studies

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Telefónica UK Limited (lead)	The Smarter Travel Package	£78,180	£47,943
Arup Limited			
City Car Club			
FirstGroup Plc			
Forum for the Future			
Leeds City Council			
University of Leeds			
Metro			

Project description (provided by applicants)

The Smarter Travel Package is an ambitious project to provide a step change in the way consumers view and use public transport. The group undertaking this study is led by digital communications provider Telefónica O2 and includes public transport provider FirstGroup, sustainability charity Forum for the Future and the UK's largest car club, City Car Club.

The group is collaborating in a feasibility study exploring how to deliver the traveller a full range of options for getting to their destination; bringing together bus, rail, car club, cycle and taxi options to deliver a "one screen journey".

The project will examine options for combining these travel services with the aim of increasing choice, improving quality of life, reducing environmental impact and building economic gains.

The consortium expects the initial stages of the project to offer journey planning and real time information for travellers, and have chosen Leeds as the pilot city: Leeds City Council, West Yorkshire Metro, University of Leeds and consultants Arup are all involved with the project. Future development would aim to converge new finance approaches too, such as mobile phone payment.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Visteon Engineering Services Limited (lead)	Seamless Mobility App	£21,938	£14,964
Essex County Council University of Essex			

Project description (provided by applicants)

Support from the Technology Strategy Board has enabled the consortium of Visteon Engineering Services, Essex County Council and the University of Essex to develop the feasibility study for a seamless Traffic application for Smartphones.

Though there are significant amounts of transport data available, there is currently no single service that provides coverage for the complete commute, from start to finish, regardless of mode of transport. The consortium's proposal is to deliver a technically and commercially viable application that can be safely used in all modes of transport.

The application will combine known and trusted data with the innovative use of filtered social network data to provide pre travel, and in travel data to consumers based on their commuting profiles. The data will enhance the information already collected by Essex County Council, to provide 'real time' information and verification of traffic incidents. The consortium believe that this collaboration can deliver a product that will provide economic, social and environmental benefits to Essex, with a potential to be adopted nationally as the application matures.

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Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Zafire Limited (lead) General Information Systems Limited	UK Aerotag - Integrated baggage transport system	£59,005	£44,254

Project description (provided by applicants)

Despite online check-in for many forms of transport, flying with baggage has not changed in 40-years. Passengers still suffer the frustrations of having to drag heavy suitcases to an airport check-in desk or bag drop and queue at carousels to collect bags at the end of the flight. IATA surveys highlight baggage-related queues, waiting and delayed or lost bags as a major negative impact on the passenger experience and most passengers prefer to travel to airports by car if travelling with heavy bags.

UK Aerotag will introduce the concept of home check-in of bags, facilitate local bag drops or collection and use existing logistics infrastructure to collect and deliver bags to and from the airport. Research indicates passengers will be more willing to use public transport to travel to and from an airport without bags and new aircraft will allow more comfortable, fuel efficient, lower cost travel in the long-term.

New permanent, smart active bag tags, supply chains, regulation, process and infrastructure will be required to deliver this vision, consistent with industry vision and expectations by 2020.

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