

Technology Strategy Board

Driving Innovation

21 July 2009

£5M TO BE INVESTED IN ADAPTING AND DEVELOPING TECHNOLOGY TO HELP PEOPLE MAKE SMARTER TRAVEL CHOICES

The Technology Strategy Board is to invest nearly £5 million in 12 new research and development projects aimed at providing reliable, accurate, and credible information for people to manage their journeys. The total value of the projects is £9.6 million.

Focusing on accelerating the deployment of Informed Personal Travel (IPT) information, the projects will look at how to provide innovative real-time information that effectively informs about the journey, both in the planning stage and once it is underway should disruption occur. By adapting existing technology, and developing cutting edge innovation, the research and development projects will help to find the best ways for people to access and use reliable, accurate and credible information to plan their journeys.

The projects to be funded include:

Title: Empowered Personal Travel Itinerary Monitoring Service (EPTIMS)

Summary: The project will design, develop and demonstrate an 'Empowered Personal Travel' service platform. The objectives are to (a) demonstrate a multi-modal, personalised, context-aware online 'virtual travel assistant' service for travellers, both before and throughout their journey, based on; (b) information that the traveller can easily understand, trust and want to continue to use; (c) accelerate development of the concept for multi-modal real-time journey information service provision.

Partners: Logica (lead), ACIS.

Title: FlexiRide

Summary: FlexiRide is an R&D project that will deliver enhanced personalised travel information via the integration of car-sharing into multi-modal travel thereby positioning it as a mainstream travel option. Its key objectives are to create a proof of concept prototype providing (a) convenient access to web services about car-sharing availability showing comparative costs and environmental impacts against other options, (b) easy planning of itineraries in which car-sharing is involved, (c) improved personal security, and (d) automatic secure payment.

Partners: HW Communications Ltd (lead), Liftshare Ltd, Penrillian Ltd, Lancaster University.

Title: Improved information sharing for the more intelligent use of Demand Responsive Transport: A UK booking Portal

Summary: This project will trial a DRT (Demand Responsive Transport) Management Portal that will match the demand for shared transport to the supply and allow passengers to actually book transport in real time. This will include at least one existing DRT operator and will introduce a new rural scheme based in Scotland. The trial will demonstrate how existing operators can interface to their current systems and new, smaller, operators can offer their services directly. The project will show how such an approach can remove the barriers to shared travel.

Partners: Mobisoft UK (lead), Transport Research Institute, Edinburgh Napier, Quotient Associates, University of Aberdeen.

Title: Seamless Navigation and Positioning (SNAP)

Summary: The SNAP project will define, design, develop and demonstrate an innovative solution to providing seamless navigation and positioning in all environments. The approach will permit GNSS (Global Navigation Satellite System; GPS, Galileo, etc) enabled devices to operate in locations where they have previously been unable to operate, such as in indoor and underground locations. By developing pseudolite (a ground based GNSS signal transmitter) and software defined radio GPS technologies, the SNAP solution will deliver continuity of service, improved accuracy and availability of positioning for virtually all IPT applications and services.

Partners: Nottingham Scientific Ltd (lead), EADS Astrium UK.

Title: Customer Relationships in Shopper Travel Decisions

Summary: This project will market test a new approach to personalised marketing and loyalty business services for retail travel by bus. Smartmedia have in recent years allowed multiple organisations to share the same technology platform, but personalised marketing in the bus industry has not yet exploited the benefits of data sharing. Using a technology based solution with customer incentives to drive retail and bus market growth within a sustainable and expandable local business structure is a new approach.

Partners: DHC (lead), Arriva, Fortress, Drumbeat Creative.

Title: Promoting Informed Personal Travel (PIPT) - for socially-responsible travellers & thought leading businesses

Summary: PIPT will help develop 'Carbon Diem' (created by Carbon Hero), a software application for mobiles, to encourage individuals to adopt cost- and carbon-efficient travel behaviour. The software combines GPS tracking with a unique on-board algorithm to automatically define users' modes of travel, calculating each journey's carbon impact. This anonymous data can be consolidated with corporate regulatory reporting systems or displayed on the handset. The objective for this project is to provide the incentive for a behavioural shift to reduce congestion and CO2, using business drivers as the catalyst.

Partners: Carbon Hero (lead), Wax RDC Ltd, Interface FLOR, University College for the Creative Arts.

Title: Our Travel: Real-Time Context-Sensitive Travel Information for Communities

Summary: The Our Travel project aims to support informed personal travel through the provision of user generated real-time multi-modal context-sensitive travel

information. The key innovations in the Our Travel project are that we propose to explore the use of travel information within the context of communities rather than individuals and that we rely on user-generated content as a primary source of travel information. Users will be able to register with the system and implicitly and explicitly generate and share context-sensitive travel information while they are planning and executing their journeys. This information will be supplemented with travel information provided by maintainers of the transport infrastructure.

Partners: In Touch Ltd (lead), Carillion, Lancaster University.

Title: eXtraNav - UTMC Navigation Unit Interface

Summary: Current satellite navigation units' abilities to re-route during congestion, and hence their impact on driver behaviour, is limited to motorways and trunk roads, not town centres. Equally, local authorities are not able to use sat-navs as a tool for actively managing traffic, as they have no influence over their route choices. This project overcomes that gap, by unlocking data already held in local authorities' UTMC systems. Information would be broadcast to future sat-navs using the far more versatile TPEG standard and higher bandwidth, low cost DAB radio. The aim is to develop a commercial service that will access and broadcast UTMC data as a TPEG stream, to understand how drivers react to and value this, to develop the market for new products and allow local authority traffic managers to influence travel directly.

Partners: ITIS Holdings plc (lead), Envita Ltd, University of Kent.

Title: Open Travel

Summary: This proposal aims to build an open travel platform that will provide organisations with a quick, easy and cost-effective way to share & distribute travel information (routes, timetables, locations etc.) with 3rd parties.

Partners: eCourier.co.uk, Ideas.org.

Title: SpamJam: Adaptive Travel Alerts using continuous position monitoring

Summary: The goal of this project is to make travel alerts both self-configuring and richer, based on automated observation of the actual behaviours of each traveller. By continuously tracking travellers' location, and using other data sources that reveal location or intent, such as journey planning queries or calendar entries, a personal travel map can be built up, with regular journeys and patterns of variation inferred by the system. This data can then be used to dynamically configure subscriptions and switch them on and off to match the actual behaviour of the user on a particular day.

Partners: Kizoom (lead), Telephonica Europe plc, Imperial College, Tactical Systems Designers Ltd.

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