PROJECT SUMMARY

The OPTI-TRANS project (FP7-228382) aims to create a Mobile GNSS platform which will provide commuters/travellers with the ability to plan their trip in an efficient manner in order to utilise and share a combination of public/private transportation by combining information from various public transport authorities and other private vehicle owners. It will display to the commuters the optimum router/routing combinations for their trips, based on their location.

The OPTI-TRANS platform will also create peer-to-peer ad-hoc groups of passengers based on predefined geographical areas and commuter profiling information to allow commuters of similar destinations/routing information to car-pool and share different modes of transport.

OPTI-TRANS will interface with existing database systems providing public transport information (timetables, routes, etc.) to give the most optimal multi-model solutions for the commuters’ requirements. It will incorporate Transport-on-Demand (ToD) through the Car Pooling services and Passenger-on-the-Curb facilities that allow privately owned vehicles to be shared with others subscribed to the service.

The OPTI-TRANS project fully meets the objectives in demonstrating the potential for Location Based Services (LBS) and GNSS technology both to the general public and the public transport authorities.

The OPTI-TRANS system will not only provide the means to investigate the feasibility of a dynamically updated, location-aware pedestrian and public transport navigation tool, but will offer this service as an end product. This will be made possible by the development of both the OPTI-TRANS platform and the OPTI-TRANS GNSS-enabled mobile application.

SCIENTIFIC & TECHNOLOGICAL OBJECTIVES

- To provide an innovative, multi-modal personal navigation mobile LBS application which will interface with a core platform providing an optimum combination of use of public transport and car pooling facilities to the commuter
- To develop the highly intuitive OPTI-TRANS platform consisting of the LBAG algorithm which will combine information from various sources (public transport DBs, personal commuter profiles, car-pooling services, etc.) in order to provide optimum routing and co-modal transportation to the commuter/traveller.
- To support the status of LBS as a key technology for implementing transport policies with the implementation of the OPTI-TRANS platform and the mobile LBS application which will demonstrate the feasibility of a dynamically updated, location-aware pedestrian and public transport route planning tool.
- To endeavour to standardise interfaces to Public Transport Authority databases in order to allow applications such as the OPTI-TRANS solution to be utilised across Europe (and consequently traversing border beyond Europe), thus providing seamless roaming to the users of the OPTI-TRANS solution.
- To assess the user requirement, evaluate and determine the adoption of available state-of-the-art technology enablers (LBS services and applications) and derive the technical specifications of the OPTI-TRANS platform while taking into consideration the early study performed on the technical feasibility of the overall system.
- To determine the specification of the OPTI-TRANS representative test cases and pilot scenarios, define concrete and measurable validation criteria and to define the architecture specification of the OPTI-TRANS platform and GNSS-enabled mobile LBS application. The user-defined test cases and technological evaluation results will be acquired during the evaluation phase of the project. The participation of the Europe-wide leading players will ensure the importance of the OPTI-TRANS user-defined test cases and demonstrations.
- To conduct market surveys and develop a business model in order to determine the most efficient, functional and user-acceptable operational model for the system as well as to demonstrate the commercial feasibility of the end product. The business model pertaining to the commercial exploitation of the OPTI-TRANS system will be defined from the perspectives of the various players involved in the concept (network operators, public transport authorities, end users, etc.). The OPTI-TRANS concept will be measured and the system’s added value will be demonstrated by conducting extended user trials, representative of the user-defined test cases.
- To effectively facilitate and encourage the dissemination (i.e. organisation of workshop embracing awareness sessions, presentations, feedback, etc.) in order to promote awareness of the OPTI-TRANS solution, and advance exploitation of existing and emerging expertise and practices in the field of Location Based Services, and active participation in workshops, forums, tradeshows, etc.
- To build on previous FP6 work, namely to extend the Taxi-on-Demand system developed within the context of the FP6 IST project LEAPON, and to provide the appropriate experience for building this LBS solution to the Mass Market utilising work and findings from the FP6-Galileo project AGILE.
OPTI-TRANS Consortium

OPTI-TRANS Information

OPTI-TRANS planned duration is 24 months.

**Project Start:** 5th January, 2009

**OPTI-TRANS trial** is planned for M17 of the project—to take place in Madrid

**OPTI-TRANS Workshop** is planned for M18 of the project—to take place in Athens

**Total Cost:** €1,846,762.00

**EC Contribution:** €1,138,638.00

http://www.optitrans-fp7.eu

Partners

- NATIONAL CENTER FOR SCIENTIFIC RESEARCH—Greece (Project and Technical Coordination)
- TELEFONICA I+D—Spain
- MAPFLOW—Ireland
- EMPRESA MUNICIPAL DE TRANSPORTES DE MADRID—Spain

Contacts:

Administrative and Technical Manager
Stelios C. A. Thomopoulos
Tel: +302106503155
scat@iit.demokritos.gr