



# ASK-IT – Ambient Intelligence System of Agents for Knowledge-based and Integrated Services for Mobility Impaired Users

## ASK-IT

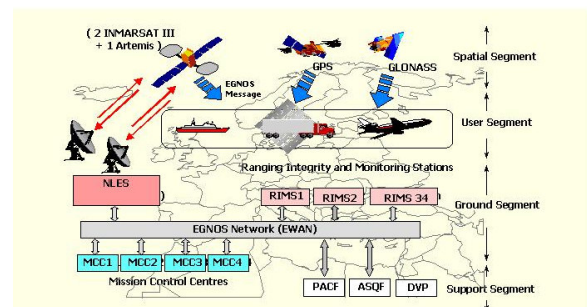
Mobility-Impaired (MI) people have a wide variety of functional limitations, from different types of physical impairments to activity limitations. ICT systems following the "design for all" ethos and adequate content are required in order to take advantage of both internet and mobile-based services. ASK-IT integrated project aims to establish Ambient Intelligence (Aml) in semantic web-enabled services, to support and promote the mobility of disabled persons, enabling the provision of personalised, self-configurable, intuitive and context-related applications and services, and facilitating knowledge, content organisation and processing. Info-mobility content is collected, interfaced and managed focussing on the needs of the mobility impaired. To offer the content, a number of advanced tools are being developed, such as the Enhanced Accuracy Localisation Module (EALM), which will combine different localisation techniques, including first interfaces to GALILEO services. Content and tools are integrated with the help of a Multi Agent System of Intelligent Agents and a self-configurable user interface, offering service personalisation according to user profiles, habits, preferences and context of use. The integrated ASK-IT service and system will be tested in 7 interconnected European sites to prove that full travel accessibility for MI users can be achieved in a reliable, seamless and commercially viable manner.

- ▷ Aggregation and preparation of the necessary content in more than 7 European test sites
- ▷ Development of an ontology and implementation of an agent system platform for handling user requests
- ▷ Development of interfaces to assistive devices which are used by MI people, and integrating them into mobile devices such as SmartPhones, PDA and Tablet PC
- ▷ Development of a mobile device application which integrates all system features for different environments, such as on-trip, in-house, in-car, eLearning, eCommerce and eHealth
- ▷ Development of a high-precision positioning module for pedestrians by integrating different positioning technologies

## RDM Contributions

- ▷ Development of a high-precision positioning module that incorporates different positioning technologies such as GPS, EGNOS, WLan, etc.
- ▷ Development of a navigation application that makes use of the above-mentioned localisation module based on highly detailed maps.
- ▷ Coordination of subproject 2 which deals with the development of all necessary tools and services.
- ▷ Extending the in-door routing demonstrator of the Frankfurt International Airport.

Contractor: **European Commission 6<sup>th</sup> FP IST**  
 Task: Implementation of info-mobility services for mobility impaired people  
 Duration: October 2004 - September 2008  
 Total volume: €5.8m (Funding: €3.5m)  
 Partners: more than 40 European companies  
 Infoline: Dept. RDM (PTV AG), [www.ask-it.org](http://www.ask-it.org)



First steps to GALILEO services

## Tasks

The user group of "mobility-impaired" people requires many specialities to be integrated into a travel information and assistance system. Special content has to be aggregated, special features have to be implemented allowing high-accuracy positioning.

## Results

The project will lead to a variety of innovative services that are designed to assist the disabled user in his daily life, regardless of whether he is on a trip, at home, travelling by car, using eCommerce or improving his skills through eLearning programs.