FAMS Flexible Agency for Collective, Demand responsive Mobility Services
Contract EU n° IST-2001-34347 (Commencement date 1st March 2002, duration 20 months)

THE FAMS IST PROJECT:
TOWARDS THE AGENCY FOR FLEXIBLE MOBILITY SERVICES

Demand Responsive Transport (DRT) systems provide flexible services by dynamically responding to customer demand. With respect to process implementation and management, the flexibility of the system is expressed along two main directions: on one hand, users of DRT systems must be provided with user-friendly instruments for accessing the services (such as information, reservation, query update) in several different flexible ways (the so called “anywhere and anytime” access). On the other hand, the organisation providing flexible services, the “Agency” must be itself flexible, with the capability of managing dynamic relationships between different transport providers and a pool of transport resources (vehicles), which may sometimes have to change to better adapt the transport supply to the dynamic demand.

The technical and business FAMS objectives

Most often, the DRT schemes have been (or are) operated as single mode, by a single operator, with little or no integration with the other transport schemes. However, the experience gained shows wide potentials for improved operation and large scale take up of DRT concepts, models and technologies.

The objective of the FAMS Trial Project is to scale up technology, service and business models currently adopted in Demand Responsive Transport and support the evolution from single DRT applications towards the concept of a Flexible Agency for Collective Demand Responsive Mobility Services.

By capitalising on the results, experience and practices gained in previous RTD projects, FAMS implements and trials the Flexible Agency concept, evaluates the viability and impacts in real business cases and gather knowledge and best practice to ensure dissemination and subsequent adoption at the European level.
FAMS System Concept and Architecture

Starting from the existing DRT management components and architectures, technology adaptation is carried out to achieve networking of the different transport operators involved in DRT and Flexible Transport services and to allow sharing of information and service interoperability among them. Such adaptation allows scaling-up from state-of-the-art Travel Dispatch Centre technology to the Flexible Agency for Mobility Services. The FAMS Agency enables operation of a Virtual/Extended Enterprise of transport operators. Despite the physical location of the operators, the different types of fleet, booking systems, services provided, etc., the Agency manages the entire service chain – from customer booking to service planning, monitoring and control – operating as unique entity, as “one operator with one fleet and one booking system”, providing an effective response to the mobility needs of the different user groups. The following figure provides an outline of the operational reference model for the FAMS Agency.

Main components of the FAMS

Three are the main components/subsystems of the FAMS Agency Architecture:

- a common FAMS Service Centre (TDC) sharing a number of services for:
  - service and route planning
  - service monitoring and management
  - common information and data management

- e-Business services between the Agency’s DRT management service components and the different actors involved in the DRT process chain, both operators and users. These include:
  - Business-to-Business (B2B) services, allowing interaction and teamwork among the different transport service providers co-operating through the Agency
  - Business-to-Consumer (B2C) services, supporting access to information and services different associations, user groups, communities, etc.

- a communication network among the TDC and the vehicles operating the services, based on cellular technology – GSM and GPRS
Innovation In FAMS

FAMS innovate existing solutions for DRT planning and operation by implementation and trial of the Flexible Agency. Existing DRT management tools have been adapted and made interoperable within an e-Business collaborative environment allowing cooperation among transport service suppliers and operation of a new service value chain allowing:
- different transport operators to benefit from a shared IT infrastructure and common;
- services for the management of the Flexible Services they are individually offering;
- the FAMS service operator to have a global view of travel needs and service offer, ensuring the best matching of users’ demand and available services;
- DRT and Flexible Transport users and users’ groups to benefit from a unique service centre able to serve their travel needs in the most integrated and best possible way.

TRIALS in FAMS

The FAMS Trial Project involves two sites:

- The trial site in Florence Metropolitan Area (IT) has the base DRT technologies already in place and already gained valuable knowledge about DRT through previous demonstration projects. This site is in the ideal situation to scale-up the local systems, develop and trial the technological infrastructure and the collaborative service models underlying the Flexible Agency concept. Four different transport providers - ATAF, SITA, LiNEA and CAP - operate in Florence through the FAMS action, with different DRT services in six different areas. A private transport provider cooperates as well through the FAMS action for the provision of special services for disabled and elderly users.
- The trial site in Angus region (UK) is new to DRT applications, although local plans exist to introduce DRT and the Flexible Agency in the site. This site covers the rural Angus area surrounding Alyth, Kirriemuir and Brechin allow evaluation of transferability issues, both on the technical and organisational level.

FAMS Consortium

Two transport operators / authorities – SITA (I) and Angus Transport Forum (UK) – implement the Flexible Agency concept in the region Toscana and Angus, respectively. Two IT suppliers, Mobisoft Oy (FI) and Softeco Sismat SpA (I) provide the required technology transfer by adapting solutions obtained in previous EU RTD projects. One Public Transport service operator, ATAF (I), provides transfer of expertise on DRT planning and management and support in implementing best practice in community transport and DRT at end-user organisations. Finally two IT and Transport Consultancy, MemEx Srl (I) and ETTS (IE) guarantee the technical trials coordination and the Common Evaluation framework.
FAMS in European context and overall dissemination/exploitation approach

The target of dissemination of FAMS Project results and the FAMS dissemination strategy is to ensure that the FAMS achievements and take-up experiences can and will be used in the nearest future to plan, develop and implement demand responsive transport services for citizens, including special user groups, both in FAMS countries and elsewhere, for further development and deployment of the services, systems and applications that have been piloted/demonstrated.

FAMS looks at long-term dissemination and exploitation of project results and achievements, naturally starting from the activities that are implemented during the project life time proper but also looking at the objectives for the post-FAMS phase. The following figure shows the position of FAMS project in European context, starting from the existing DRT knowledge developed under previous European projects, and the overall dissemination and exploitation strategy for FAMS.

![Diagram showing the position of FAMS project in European context, starting from the existing DRT knowledge developed under previous European projects, and the overall dissemination and exploitation strategy for FAMS.]

- **Pre-FAMS**
  - SAMPO
  - SAMPLUS
  - SIPTS
  - INVETE

- **Existing DRT Knowledge**
- **Current DRT Technology**
- **Technology Transfer & Best Practice**
  - Site specific
- **Dissemination, interaction with associations, training tools**
- **Political level, EU Policies**
- **User Group for Discussion & Promotion**
  - Chaired by Ireland
  - UK / Scotland (Angus Region)
  - Italy (Tuscany Region)

**European Level**

**National Level**

**Post-FAMS**

- **SAMPO**
- **SAMPLUS**
- **SIPTS**
- **INVETE**