The European Union project Flipper[1] addresses the key factors of eco-sustainable, competitive development and social cohesion of European areas and regions. Funded as part of the Interreg4C initiative, the tasks of the four-year project, which began in late 2008, are to investigate, exchange experiences, transfer best practice and encourage cooperation on Flexible Transport Services (FTS) to boost mobility in cities, rural areas and small towns.

Further aim of Flipper includes delivering capability-building environmental, sustainable and innovative solutions for public transport. To achieve this, partners will evaluate their viability and real impacts, as well as gathering best practices identified at site level. Furthermore an existing Virtual Library dedicated to FTS will be improved and linked to the Flipper website over the four-year period.

Consortium – 11 partners, 9 countries

The Flipper consortium is composed of 11 partners from 9 different European regions representing entities that include public transport companies and authorities, universities and research institutes, local authorities plus one not-for-profit association. Such a cross section of actors provides an ideal context for exchanging experiences and best practice on accessibility to mobility services, environmentally-friendly transport services and ways of reducing the social exclusion of vulnerable groups of citizens. Maintaining the right balance between the public, research and operators is a guarantee the work will remain practical and successfully influence future policies on public transport.

However to achieve these ambitious results it is vital local policy makers, representatives of transport authorities and operators are all actively involved in the work; they are often interested in implementing such a system but lack the resources to plan it on their own. However they are the actors who can really make a difference in public transport services. The core idea of Flipper is to bring good practices close to home and facilitate the starting up of new experiences.

Over the past 12 months, two training courses – in Austria and Italy – plus two workshops – in the U.K. and Spain – have been held. Amongst the project results, 11 feasibility studies will be delivered: most of them are already in the data collection and analysis phases.

Meeting different mobility needs

The challenge of providing a cost-effective, integrated public transport system is an essential prerequisite to reducing pollution and congestion, whilst simultaneously encouraging sustainable economic growth. Traditional fixed route services are ideal for clustered travel demand areas, but changes in living patterns and the nature of work activities in today’s society have created different mobility needs to which conventional transport systems are unsuited and incapable of proving cost-effective.

Studies have demonstrated that inadequate transport services may create barriers and limit individuals and groups from participating in the normal range of social activities. Hence the importance of making sustainable transport services available to all.

What are Flexible Transport Services?

The wide range of FTS includes the possibility of changing different elements within a service: road, stops, timetables, etc. It is important to note that FTS aim to achieve the following goals:

• increase sustainable mobility and create new trips
• decrease the use of and need for a car
• provide a local feeder/distributor for conventional transport
• create efficient and cost-effective commuting options both for established workers and job seekers alike

Over the past few years, FTS have proved a solution for public transport services: they complement conventional passenger transport and usually serve no scheduled mobility needs, either low demand time periods and or in weak demand areas. Given this flexibility, such offerings are suitable for serving niche market customers and different demographics, e.g. people with disabilities and the elderly, students and tourists. They are usually run using small buses with flexible routes and scheduling,
ITS

The Flipper consortium

SRM – Società Reti e Mobilità Spa (Networks and Mobility) – IT – lead partner
ATAF (Florence Transport Operator) – IT
AUTH (Aristotle University of Thessaloniki) – GR
BOKU Institute for Transport Studies; Department of Landscape, Spatial and Infrastructure Sciences; University of Natural Resources and Applied Life Sciences, Vienna – AT
Municipality of Purbach – AT
University of Aberdeen (UNIABDN) – UK
The Municipality of Volos – GR
ATL – Azienda di Trasporti Livornese (Livorno Transport Operator) – IT
Conseil Insular de Formentera – ES
Camara Municipal de Almada (Almada City Council) – PT
Ring a Link (Carlow Kilkenny & Tipperary South Rural Transport Ltd) – IE

Based on users’ needs and requests (off-peak hours, low demand zones, disadvantaged citizens like the elderly and disabled people) and include a range of different transport services such as local buses on routes with some flexibility (routes, times, meeting points, etc).

Using the service experience and ICT tools developed by certain members, the Flipper partnership will guarantee the transfer of know-how on FTS schemes and the ICT platform concept in different EU areas, as well as promoting them at European level. One of the project’s main goals is to identify best practice in the implementation of these types of services and systems, and disseminate findings amongst government bodies, research organizations, transport operators and private companies.

Pilots

The pilot projects foreseen in Austria, Italy, Greece and Ireland are at different stages: in Bologna the service started in June 2009 and a survey is scheduled for January 2010; one of the services being studied in Austria has been running since 2006; and pilots in Ireland and Greece will start after the feasibility studies are completed.

Dora Ramazotti, project leader
Flipper

References

[1] www.interreg4cflipper.eu

Subscription Form

Please make your payment to BLUE LINE & Bro

- Cheque drawn on a French bank
- Bank transfer to:

SEND COMPLETED FORM AND PAYMENT TO MOBILITY

Service des abonnements • 78, avenue de la République • 75011 Paris

Our subscribers’ names and contact details are only used internally by Blue Line & Bro. This information may be accessed and/or modified in accordance with legal requirements.
FLEXIBLE TRAVEL IN GREECE

The Transport Systems Research Group at Aristotle University of Thessaloniki is responsible for the dissemination of information on Flipper, as well as producing relevant materials such as brochures, posters, press releases and newsletters. Moreover it is performing two feasibility studies for the provision of Flexible Transport Services (FTS) – one in Langadas County and one in Kastoria City. The latter will include a pilot application based on its conclusions.

The feasibility study for the Langadas site is being implemented in cooperation with the Thessaloniki Transport Council (SASTh) and concerns a FTS for local citizens aimed at improving the current low quality of transport services. The County of Langadas comprises 56% of the Thessaloniki Prefecture, covering 2,059km². With a low population density of just 63,614 inhabitants (2001 census) it is a rural area poorly served by public transport and many poles of attraction are insufficiently exploited, e.g. spa, beaches, lakeside forest, traditional and folklore customs and festivals, churches, ‘natural monuments’ and two protected lakes.

As far as progress of the study is concerned, some data on the basic characteristics of the area (such as demography, spatial distribution of settlements and economic activities), as well as the existing transport services, has already been collected and analysed. Moreover, a questionnaire addressed to the 13 municipalities that constitute Langadas County has been finalised, while an open call for a demand assessment involving a demand-stated preference analysis has been concluded.

The tasks of the upcoming feasibility study include technical visits, a stakeholder analysis, local meetings with stakeholders and interviews. At the FTS design stage, a series of workshops with representatives of the
the stakeholders involved is planned to enable
them to contribute to the design of service
schemes. This method of jointly developing
the possible alternative scenarios for FTS
will guarantee the most appropriate and viable
solution is chosen through consensus. Several
tools, such as simple multi-criteria analysis,
the SWOT analysis and cost estimation will be
used to evaluate the scenarios prior to final
selection.

A list of alternative schemes has been already
prepared. Here the balanced scenario of applying
FTS services, in addition to the urban and
interurban transport system (OASTh and
KTEL respectively), appears promising.

The second feasibility study, as well as the pilot
application in Kastoria City, concerns FTS
for local citizens and tourists. It will be imple-
mented in cooperation with the local
authorities. The population of Kastoria is
approximately 16,200 (2001 census) and the
municipality covers a total of 5,732 hectares.
Kastoria City is located on the peninsula
surrounded by the Kastoria Lake. Basic char-
acteristics of the current situation are poor
transport services, a municipal minibus and
tourist boat offering services around the lake
without any stops, plus many poles of attrac-
tion, e.g. over 100 Byzantine churches, the
‘Dragon’s Cave’ (approximately 7,000 years
old), archaeological sites, monuments, muse-
ums and fur stores.

The Kastoria study will use the same stated
preferences analysis for demand evaluation as
that of Langadas. A major challenge is linking
Kastoria’s tourist attraction, with a possible
solution being a call centre to coordinate serv-
ices by bus, boat and taxi.

Aristotelis Naniopoulos & Vangelis Genitsaris
Transport Systems Research Group, AUTh*
*www.auth.gr

The Institute for Transport Studies at the
University of Natural Resources and
Applied Life Sciences Vienna (BOKU) is
another Flipper partner carrying out feasibility
studies. In this case it involves two rural regions
of Austria.

Feasibility study in
Defereggental (Tyrol)

The task is to propose a service scheme for three
municipalities in rural Alpine region with 2,500
inhabitants. The valley covers 20 kilometres
and its villages are located between 1,100
and 1,500 metres above sea level. The study
involves estimating the potential demand and
costs for such a service in addition to the
existing ‘traditional’ public transport offer.
In the spring of 2009 a mobility survey (mail-
out, mail-back) was carried out. This showed a
significantly higher modal share of public trans-
port (9.8% of all trips) in Defereggental compared
to Eastern Tyrol in general, with a share of 5.8%
(year 2007). In order to collect the views and
gauge attitudes to using such a service by those
concerned, a survey was sent out to all households
in the valley. Findings revealed that people
willing to use such a service are, on average, older
members of the population. Most importantly,
it turned out that the biggest challenge to estab-
lishing a demand responsive service in the valley
would be providing additional links from
Defereggental to the conventional public trans-
port lines in the main valley of the region
(Iseltal). Good access to the regional capital of
Lienz already exists from this point.

In the third part of the survey, car passengers
were screened and interviewed by telephone.
Seventy percent of them are female and their
main reasons for making journeys are shopping
and services. Seventy five percent of car pas-
sengers have no or limited access to private car
use. Respondents were asked to state their
opinion on a modal shift towards demand
responsive transport based on concrete trips
they made. The results show that only 15% of
them would refuse such a service for the trip
discussed in the interview. Based on the survey
findings, four alternative concepts for establishing a demand responsive transport system in Defereggental were developed. The main aim of these concepts is to fill the gaps in the traditional public transport services. They differ in terms of the following characteristics:
(1) daytime service only
(2) night service
(3) an additional link to housing located beside a main road
(4) a synchronised timetable; which means modifying the existing timetable of the traditional public transport line too

Feasibility study in Purbach (Burgenland)

Contrary to the Defereggental case, in Purbach a demand responsive service called ‘GmoaBus’ has been running since 2006. This provides a door-to-door pick up, with fully flexible routes and departure times between 5am and 9pm on workdays, and 8am to midday on Saturdays. The feasibility study began in the spring of 2009 with a survey of the mobility behaviour of GmoaBus users. And its drivers were asked to record demand figures, origins, destinations and trip purposes throughout the duration of their shifts. Additionally, interviews were carried out with passengers either during the trip or, when more appropriate, by telephone. Demand peak is between 9 and 11am and – with lower values – in the evening between 4 and 7pm. The main trip purpose is leisure (usually evenings in the week), followed by shopping (before midday if unemployed, plus evenings). Among the users there is a clear bias towards the elderly out of the overall population of Purbach (2,700 inhabitants). There is a clear bias in gender too: the majority of passengers are female. Additionally the majority of passengers are unable to use a car for the same trip. So these findings reveal that the social component of this service is more important than reducing car mileage and CO₂ emissions.

Nevertheless if there were no such service in the municipality, about 5% of the trips would be made by car; 19% using ‘traditional’ public transport. In the autumn of 2009, a survey on attitudes was carried out to explore possible alternatives for making service improvements (changing vehicles used, the service time and area) or cost reductions (introducing a timetable). In early 2010 a mobility survey will be performed. All the results from the work described above will provide the input for a modified service concept, which will include estimated changes in demand and costs.

Roman Klementschitz
Institute for Transport Studies
BOKU University*

*www.rali.boku.ac.at/verkehr.html?&L=1
Our role in Flipper

The Centre for Transport Research is acting as research partner and assisting the Flipper consortium by providing technical support. We are also building an online resource as part of the project, using our experience gained through the Connect portal and information services (1: Coordination Action within the sustainable development section of the EU’s 6th Framework Programme, ended in 2005).

From our position as researchers, through Flipper we are extending our own knowledge and gaining more practical experience from our contacts with operators and transport authorities active in the field. Flipper is rather like a forum for debate where all its members come together from different segments of the transport industry to differ, agree and exchange their experiences and knowledge.

The problematic of Flexible Transport Services

From a research perspective, FTS means broadening the scope of ‘traditional’ public transport systems to include offers such as car and lift sharing, shared taxis etc.

The problem today is that a number of services, like dial-a-ride for example, are now firmly established as niche offerings and perceived by the general public as being destined for a particular group of users, such as the elderly or mobility impaired. So they remain closed to a potentially wider audience.

However since the introduction of transport telematics – namely the application of IT to enhance booking services, offer real-time booking facilities on the Web, by phone and text, plus real-time dispatching – the use of FTS is definitely broadening.

As researchers, we want to push the Flexible Transport concept one step further by promoting services such as car clubs, which are extremely popular in Switzerland. Here people give up owning a car and book and share a
pool of vehicles. Then there are taxis: the ultimate mode of Flexible Transport, you book them when you want, for wherever you want and for a fixed time and destination. Taxi sharing is another approach that seems to work well in certain countries and contexts, less so in others. On the Continent, at airports there is an option for sharing your taxi or not. You also have spontaneous sharing initiated by people queuing; however this still isn’t common behaviour. We would like to encourage such behaviour.

Part of our work as researchers is to help change perceptions of established modes of transport such as the car and taxi.

**Pros and cons**

One argument against is the cost: yes FT is more expensive than traditional transport services, but it is a premium offer. It is important to weigh up the pros and cons. Another criticism of FTS is that although it’s a great idea, surely the concept is simply tinkering at the margins and won’t make a serious impact on volumes of people travelling. The answer here is yes volume-wise, but there is clear evidence that FT can help the unemployed and job seekers back into work. So FT offers an additional social advantage. It ticks all the social inclusion and accessibility boxes for

*Professor John Nelson, Centre for Transport Research*

*University of Aberdeen*

[1]www.flexibletransport.eu

[www.abdn.ac.uk/ctr

---

**EMBEDDED VIDEOSURVEILLANCE SYSTEMS**

With their proven experience in the domain of railway security, FIRSTEC (since 1985) and PIMENTIC SOLUTIONS design, develop, manufacture, and promote complete embedded security systems for vehicles.

These embedded systems collect data such as video recording, GPS tracking, passenger information and are available as turnkey standalone systems or ready to be integrated into a larger management system. Today over 1,300 trains are equipped with FirstSecur systems, including the Swiss Federal railway vehicles (SBB-CFF).

The sophisticated FirstSecur portable computer and power supply developed by FIRSTEC and PIMENTIC SOLUTIONS, is a key tool to provide high security management system within the rigorous performance standards of international railway transport services.

A modular hardware design allows easy deployment of the complete system which includes one or more digital recorders, video cameras, GSM alarm modules, IP network ready functionality, and high quality cables.

In addition, the software package delivers many options, including a video viewing application, direct voice communication with security services (police, emergency services, ..), upload of alarms and images remotely for immediate notification, onboard maintenance, remote maintenance, fleet tracking and monitoring, information to passengers, remote updates. The FirstSecur system is open and allows software and hardware evolutions and quick adaptations for specific client requirements. A new generation of our onboard security technology is available under a new FIRSTEC-PIMENTIC brand, bringing innovative solutions such as reversible selected blurring (patents pending).

Contact sales@firstec.ch | contact@pimentic.com

For more information, www.firstec.ch and www.pimentic.com