

## ISTmobil: Customer Needs Orientated, Individual Mobility Services in Suburban Areas (Individual Mobility as a Service)

Alexander Fürdös, Thomas Sager, Stefan Brunner, Alexander Stiansny

(DI Alexander Fürdös, ISTmobil GmbH, Graz, alexander.fuerdoes@istmobil.at)

(Thomas Sager, BSc, ISTmobil GmbH, Graz, thomas.sager@istmobil.at)

(Mag. Stefan Brunner, ISTmobil GmbH, Graz, stefan.brunner@istmobil.at)

(Alexander Stiansny, BSc, ISTmobil GmbH, Graz, alexander.stiansny@istmobil.at)

### 1 ABSTRACT

January 2014, challenges concerning urban mobility worldwide and strategies for cities to shape urban mobility better are identified (Arthur D. Little, UITP (2014)). The study indicates that in most cities the potential of urban mobility measures is not achieved and most cities are still badly equipped to cope with the challenges ahead.

According to the Arthur D. Little study developments toward individualization and sustainability will require mobility services portfolio extension as well as business model transformation (Arthur D. Little, UITP (2014)). So the development of urban mobility systems that are able to respond to this challenges is one of the greatest challenges facing cities today.

#### Connection ISTmobil and Urban Mobility

Initially the concept of ISTmobil was developed for rural or sub-urban areas. These areas are often characterized by marginal public transport supply.

In some cases inhabitants and visitors depend on the private car and have no other choice. One aspect which is linked to this problem is the high rate of motorization within the communities.

Looking at the initial situation and the urbanisation trend, which forces people from rural areas to commute in urban areas, there is also a connection to the topic urban mobility.

In order to strengthen the use of public transport systems and at the same time mitigating commuting flows of motorised individual transport in the cities the ISTmobil system was developed. Therefore a special offer for commuters, the so called „Pendlerabo“, was developed.

#### The ISTmobil concept

The underlying idea behind the concept ISTmobil is the creation of micro public transport systems for rural and suburban areas which are cross-linked to existing public transport supply. Moreover, it should be possible to travel in a region or in near future in the whole country with one card and one booking number.

A „One-stop shop“ supply of complete mobility services would ease the usage of the mobility services.

Another important aspect is to foster cooperations and increase coordination of the different mobility services, which leads to the pooling of regional transport providers.



Figure 1: ISTmobil vehicle

Keywords: micro transport, urban mobility, public transport, individual mobility, rural areas

### 2 THINKING MOBILITY NEW

Foreseeing the future of “physical” mobility in a time of rushing technical development is hardly possible.

Who is for example able to say which impact “virtual working”, “3D printing”, “automated driving” will have? Even more important could be the continuous changes in society: How will the working world of tomorrow look like? How will the financial power of average individuals develop?

There are only a few factors that have an influence on physical mobility which can be taken as granted:

- The growth of population will continue worldwide
- Urbanisation will continue and effect even sub-urban areas
- Requirements of individuals will become even more versatile, and for example depend on:
  - Age (education / working / support travels)
  - Preferred type of housing (“My garden”)
  - Working Live (8 hour working day? Several jobs? Work from home?)
  - Environmental attitudes of the individual
  - Financial potential of the individual
  - Cooperation within families may decrease
- Individual mobility with cars in cities will become more and more politically defeated because of:
  - Space restrictions (Congestions / Parking Space)
  - Infrastructure costs (build & maintain)
  - Environmental restrictions (Dieselabgase, CO2 Goals, Saving resources)
- Internet shopping will increase

It is also important to realise the limitations of current planning procedures and transportation systems:

- Spatial planning is a longterm issue and does not (cannot) consider the continuously changing mobility requirements of the different individuals in a region (static planning – dynamic planning)
- High speed train systems cannot serve widespread areas
- Conventional bus systems are expensive and not very flexible
- Current law (trade law, ÖPNRVG) mainly protects the current status of transportation systems and thus prevents the development of new mobility solutions through legal restrictions
- Current tenders for public transport service are often thinking “old fashioned”: instead of challenging transport providers to present “best solutions for the mobility demand of a region” often only the operation of already existing train/bus routes are subject of very restrict tenders where only the cheapest – not the best – provides have a chance to win
- There is hardly any marketing for mobility services (because we are not used to it)

Taking into account these facts, a modern, future-orientated society should consider to:

- Review the organisation forms of the public transport systems (planning – buying – operation – financing)
  - Solely state planned, financed and organised public transport alone will not be able to solve the challenges of the future
- Review the current legislation about transportation and traffic, thus allowing the development of new mobility services
- Promote cooperations and sharing
  - between cities and their surrounding
  - between individuals
- Apply planning processes with the individuals, not only for them:
  - Observing the mobility behaviour is not sufficient, people should have the chance to state their requirements on mobility continuously

## 2.1 Individual MOBILITY SERVICES with ISTmobil

Main goal of ISTmobil is to provide individual, affordable mobility services in rural and sub-urban areas.

It shall be possible to live in such areas without owning a car and without abandonment of quality of life. If people share a ride, it becomes cheaper for them.

The main effects of such services are:

- The quality of life for the inhabitants increases
- The region becomes more attractive (better transport service = less traffic = less pollution)
- New regional jobs arise
- Fostering co-operation

## **2.2 Constraints, Requirements and Quality Parameters**

### **2.2.1 Constraints**

Today, many constraints hinder the development of individual mobility services.

For example, it is currently for financial reasons only possible to develop such new services within the existing framework for public transport services. Unfortunately, these frameworks are not really designed for such services yet.

In Austria, also a strict legislation has to be followed, unfortunately the current legislation favors protection and is not made for fostering cooperation.

Furthermore, people are simply not used to new types of mobility service. Today it is still “EITHER (own car) OR (public transport). Everything else is either not available in rural/sub-urban areas or very expensive.

All in all, public transport is still dominated of very conventional thinking (state planned, financed and organised) and therefore it is a challenge to create new services.

### **2.2.2 Requirements on individual mobility services**

The requirements for individual mobility services are many and manifold and can therefore hardly be described here.

Currently the main focus of the ISTmobil service is on:

- Spontaneous trips in the service region (mainly used by elderly people for shopping, health travels, visiting friends, social reasons)
- Commuter trips (special priced transport service for commuters to public transport intersections in suburban regions)
- Door to door mobility services for elderly people
- Parcel services for the last mile (in development)
- Easy payment for the ISTmobil service by mobilCard

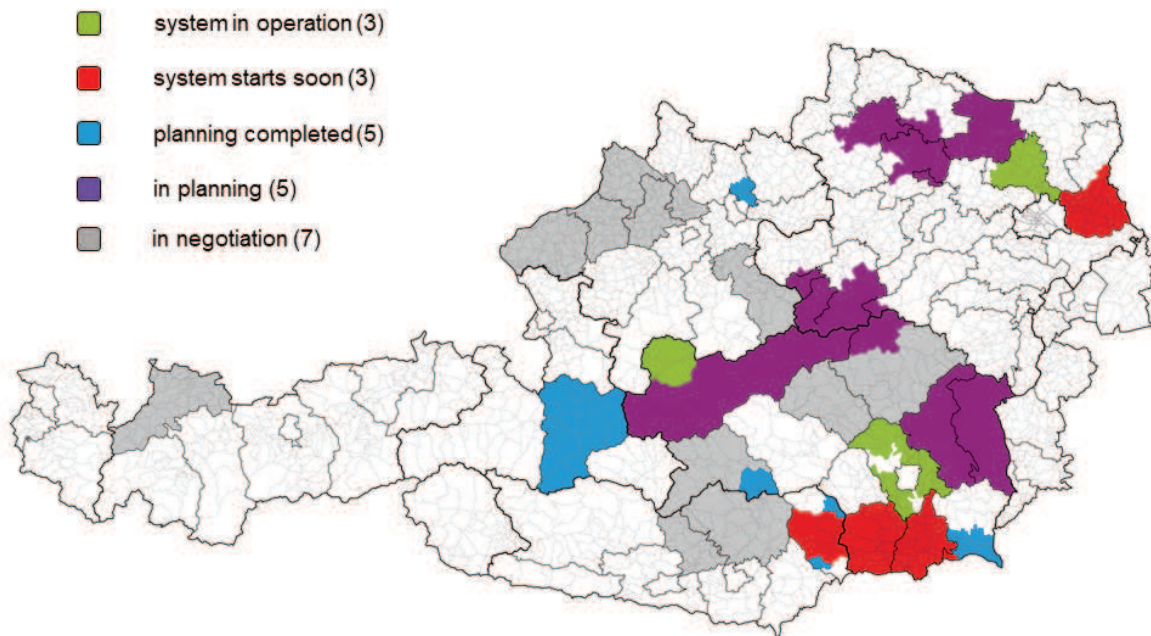
### **2.2.3 Quality Parameters**

When establishing new services it is always a good idea to take into account critical success factor right from the start. From our experience, we can state, that the following issues are especially important:

- Availability, Reliability, Safety, Payment Opportunities (one accounting), Price

### 3 CURRENT AND UPCOMING ISTMOBIL PROJECTS

## ISTmobil regions Austria



Korneuburg	Lavanttal	Pongau	Oststeiermark	Mittelkärnten
Graz Umgebung	Mobil Südwest	Neumarkt Mühlen	Liezen	Obersteiermark Ost
Narzissenjet	Marchfeld	Bad Radkersburg	Ybbstal/Ötscher	Murtal
		Gusental	Kamptal	Reutte
			Hollabrunn	Innviertel
				Steyr Land

### 4 CONCLUSION

- Individual mobility services in sub-urban areas will be a “must have” in the future.
- A solely state planned, financed and organised public transport system alone will not be able to solve the challenges of the future.
- Therefore it is necessary to rethink the current planning procedures and organisation form of public transport systems. In accordance current legislation has to be modernized, changing its focus from “protectionism” to “enableism”.
- To be able to design effective and accepted / demanded mobility services, it is also necessary to take individual needs and requirement of potential customers (planning with the customer!) into account.
- Finally succesfull service requires continuous development, improvement and marketing.
- We know what has to be done. Let´s do it!

### 5 REFERENCES

Stefan Brunner, Organisation of individual transport towards public transport through the concept of ISTmobil , Graz, 2015  
 Arthur D. Little, UITP, 2014  
 Beirão, G. & Cabral, Understanding attitudes towards public transport and private car: A qualitative study. Transport Policy, 14(6), 478-489, J.A.A., 2007