## **RUMOBIL** Rural Mobility in Regions Affected by Demographic Change





### **MOBILITY IN RURAL AREAS**

#### Dear readers,

We can look back on exciting, eventful and successful three years of European cooperation in our Interreg project RUMOBIL.

The idea of this collaboration was born from the insight that we face similar demographic challenges in our regions. For years, our rural regions have been struggling with emigration and an aging population. This synthesis of demographic problems makes it more difficult to maintain comprehensive, public services of general interest. We therefore have to respond to these changed situations in our home country in a future-oriented way.

Mobility is an important component of this. In particular, citizens of our older generation can pose problems for the daily routines to the supermarket, hairdresser or doctor. Weather because of physical limitations or because they no longer feel confident enough to drive by themselves.

Therefore, we need innovative and sustainable concepts for public transport. This is exactly where RUMOBIL comes in. As a cooperation of 12 partners from 7 countries, we are testing the solutions of the future in various pilot projects. In addition to the realization of the pilots, it is also about crossborder exchange of experience and a detailed documentation of our findings. This is to ensure that in future, players with similar problems all over Europe can learn from our experience. This brochure is part of this documentation. Therefore, we'll present our pilot projects as well as the key data. I wish you a lot of enjoyment and valuable insight in reading this brochure.



Wilfried Köhler Ministry of Regional Development and Transport Saxony-Anhalt

## INTRODUCTION TO THE RUMOBIL PROJECT

RUMOBIL (Rural Mobility in European Regions affected by Demographic Change) is a transnational cooperation project between public administrations and their local transport entities.

The goal of the project is the joint development and testing of new approaches for connecting rural areas particularly affected by demographic change to local public transport (PT) and supra-regional transport routes.

Eight different pilot actions, which have been implemented in the various participating countries, are part of the RUMOBIL project. The pilot actions touch on various topics of public transport. These include the design of new bus and train services (Germany, Czech Republic and Croatia), the creation of passenger information services (Italy and Poland) and the construction of new infrastructure (Hungary and Slovakia).

The project is supported by the European Regional Development Fund (ERDF), a structural fund of the European Union. More than 2,7 million euro has been earmarked for this purpose.

#### **PROJECT PARTNERS**





#### **PILOT PARTNERS**

- 1 Citizen Buses (Saxony-Anhalt)
- 2 GPS Transmitters (Mazovia)
- 3 Integrated Bus Service (South Bohemia)
- 4 Integrated Bus Service (Vysocina Region)
- 5 Multimodal Transport Hub (Žilina Region)
- 6 Better Bus Stops (Nagykálló, Szabolcs-Szatmár-Bereg)
- 7 Real-time Infomobility (Modena Region)
- 8 Tourist Train Service (Zagreb Ozalj)

#### OTHER PROJECT PARTNERS

- 9 T-Bridge (Italy)
- 10 University of Žilina (Slovakia)

# IMPLEMENTATION OF CITIZEN BUSES

#### OVERVIEW

Region:	Saxony-Anhalt, Germany
Investment costs:	29.000 EUR
Implementation period:	10/2017 - 04/2018
Туре:	Public Transport Service
Partner:	Ministry of Regional Development and Transport Saxony-Anhalt
	Nahverkehrsservice Sachsen-Anhalt GmbH

#### DESCRIPTION

In the course of the RUMOBIL project, new mobility services in Saxony-Anhalt were to be implemented to complement the existing public transport services and thus contribute to improving local mobility and the fine development of small municipalities. To this end, the state of Saxony-Anhalt supported the two Citizen Bus initiatives in the municipalitites of Möser and Osterburg in procuring the vehicles and relevant infrastructure, and in planning and implementing the schedule. The two citizen buses operate on three to four days per week and connect important access points and facilities in each town (e.g. train station, doctors or grocery stores). Additionally both citizen buses were provided with tablets, ticket printers and a distribution software enabling the bus drivers to sell tickets directly onboard. Furthermore the technical equipment is being used to track the vehicle and inform potential passengers in real-time through INSA, the public transport information system of Saxony-Anhalt.

#### CHALLENGES



Decline of population in rural areas up to 15 per cent until 2030



Changing mobility needs due to demographic change



Environmental impact of transport sector (CO<sub>2</sub> and PM)

#### APPROACH



Implementation of Citizen Buses in secondary network



Operating with fixed routes and timetables



Intermodal connection between bus and rail services

#### CONTACT

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Raise awareness for public transport through participation



Denser bus stop network with short walking distance to nearest bus stop



Reduction of travel costs per trip up to 37 per cent



Strengthen of local mobility through new public transport service

## REAL-TIME INFOMOBILITY FOR A DRT SERVICE

#### OVERVIEW

Region:	Emilia-Romagna, Italy
Investment costs:	40.000 EUR
Implementation period:	09/2017 - 08/2018
Туре:	Public Transport Service
Partner:	Agency for Mobility and Public Transport of the Province of Modena

#### DESCRIPTION

In the communication age it is unthinkable that information about a public transport service is not provided. It is this consideration that guided the pilot action of aMo; in fact with regard to DRT services, no information is normally provided to users and with RUMOBIL an effective response has been given to this lack. A website (www.prontobus-ru mobil.eu) and a mobile app (Prontobus-RUMOBIL) have been developed for RUMOBIL with the purpose to give to users real-time information about the DRT service in Castelfranco Emilia. The results were very satisfying especially for the increase in travelers that occurred and which showed how important the infomobility is.

#### CHALLENGES



Mobility in rural areas not covered by traditional PT services



Making DRT services more accessible with real-time infomobility



Increase usage of DRT services with more users and trips

#### APPROACH



Overcome main limitation of DRT services: lack of information



Close contact to main stakeholders to create an useful service



Build an entire system useful for all subjects involved in the DRT service

#### CONTACT

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Increase in number of trips by 13,3 per cent and steadily increasing number of users



High appreciation and use of the infomobility system among DRT users



Availability of useful data to further analyse the public transport service



Improved the call center activity that now manages the DRT service reservations with an IT tool

### ZAGREB - OZALJ RAILWAY LINE AND TOURIST TRAINS

#### **OVERVIEW**

Region:	
Investment costs:	
Implementation period:	
Туре:	
Partner:	

Karlovačka County, Croatia 30.000 EUR 03/2017 - 08/2018 Public Transport Service HŽ Putnički prijevoz d.o.o.

#### DESCRIPTION

In the course of the RUMOBIL project so called "tourist trains" were implmented to connect the isolated rural areas of the Karlovac County with the city of Ozalj. Each of the trains was linked to an event at the destination. A total of 35 trains were planned - 39 trains were organised. While the train services were implemented by HZPP, said events were organised by the city of Ozalj. Additionally a marketing campaign and a communication strategy were developed by HZPP to promote the service to visitors of the region. This included social media activities, arranged radio commercials and TV appearancs, as well as leaflets to inform the public about the new rail service.

#### CHALLENGES



Communication with stakeholders and local government



Changing mobility needs as a result of demographic change



Marketing activities and promotion

#### APPROACH



Introduction of a new rail service for tourists



Fixed-route and fixed-schedule operation



Intermodal: connection with bus and taxi services

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Promoting cultural goods and heritage of the region



Raising awareness of public transport through participation in the project



Strengthening of local mobility through existing public transport services



Continuance of transport service and co-operation between national rail operator and local self-government

## NEW BUS LINE THROUGH SLEPIČÍ HORY

#### **OVERVIEW**

Region:South BohInvestment costs:50.000 EUImplementation period:04/2018 -Type:Public TranPartner:JIKORD s.r

South Bohemia, Czech Republic 50.000 EUR 04/2018 - 07/2018 Public Transport Service JIKORD s.r.o.

#### DESCRIPTION

In framework of RUMOBIL project, a new bus line connecting intermodal point Kaplice railway station (part of Trans-European Transport Network [TEN-T]) with surrounding municipalities, was implemented. The primary goal of the line was to provide transport services for local residents and improving their access to the regional city, on the other hand it was possible to access a naturally unique area for tourists.

#### CHALLENGES



Ensure daily regular connections for inhabitants



Open the region for possibility of tourism



Reduce the amount of motorised individual traffic

#### APPROACH



Implementation of new bus line in region of Kaplice



Operating daily with fixed route and timetable



Intermodal: connection with regional train services

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Reduction of travel times to the regional city



Promotion of public transport in rural areas



Increase of new passengers in public transport



Connecting public transport with touristic offer

### GPS TRANSMITTERS FOR KOLEJE MAZOWIECKIE

#### **OVERVIEW**

Region:Mazovia, PolandInvestment costs:38.150 EURImplementation period:08/2017 - 07/2018Type:Public Transport ServicePartner:Mazowieckie Voivodeship"Koleje Mazowieckie - KM" sp. z o.o.

#### DESCRIPTION

As part of the RUMOBIL project, the Mazowieckie Voivodeship has carried out a pilot project consisting in creating the tracking system of the "tropKM" trains. DMU trains that are operated by Koleje Mazowieckie on the railway lines Nasielsk - Sierpc -Płock - Kutno have been equipped with GPS devices. In this way, information about the location of trains and potential delays was obtained. The information collected, after processing, was made available through the application, which every passenger could have installed for free on his mobile device (smartphone, tablet, etc.)

#### CHALLENGES



Optimisation of travel planning process

#### APPROACH



Implementation of the tracking system "tropKM"



Improving passenger information system



Increasing the modal share of public transport



Involvement of local stakeholders in the project implementation

#### CONTACT

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Mobile application has been used more than 115.600 times



Increase in the number of people using public transport



Better promotion of public transport services in rural areas

### NEW PUBLIC TRANSPORT SERVICES IN THE VYSOCINA REGION

#### **OVERVIEW**

Region: Investment costs: Implementation period: Type: Partner: Vysocina Region, Czech Republic 158.800 EUR 03/2017 - 06/2018 Public Transport Service Vysocina Regional Authority

#### DESCRIPTION

The RUMOBIL pilot aimed at improving offer of public transport connections in the Vysocina Region, as a key condition for development of mobility of population, in terms of linking rural areas to major settlements as well as to transport networks of national and EU importance. The pilot strived to test and verify actual demand for new public bus transport connections in the context of a territory with fragmented settlement structure and in the context of the planned overall public transport optimisation and tariff integration in Vysocina.

#### CHALLENGES



Gradual decline and ageing of the population in the region



Fragmented settlement structure with lots of small villages



Low prestige and attractiveness of public transport

#### APPROACH



Implementation of a new public bus service



34 new bus connections on working days and weekends



Intermodal: connection with rail services

#### CONTACT

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Better accessibility of rural areas



Improved public transport services in rural areas



Gained knowledge and lessons learned regarding public transport integration



Promotion of public transport in rural areas and attracting new passengers

## PUBLIC PARTICIPATION FOR BETTER BUS STOPS

#### **OVERVIEW**

Region: Investment costs: Implementation period: Type: Partner: Nagykálló, Szabolcs-Szatmár-Bereg, Hungary 97.500 EUR (SZSZBMÖ: 33.500 EUR, Nagykálló: 64.000 EUR) 08/2018 - 05/2019 Public Transport Infrastructure Szabolcs-Szatmár-Bereg County Government Municipality of Nagykálló

#### DESCRIPTION

The joint pilot project by both Hungarian partners aimed to change the use of public transport by the renewing of 8 bus stops along the route between Nagykálló town and Nyíregyháza city. Nagykálló was responsible for the realisation of the built infrastructure (including network access, Wi-Fi for waiting passengers and street furniture like selective waste collectors, bicycle storages, flower boxes), while SZSZBMÖ integrated the stops in its transport information system and installed digital passenger information panels. This way, best information about the buses can be displayed and calculated for waiting passengers. Thanks to the new developments public transport becomes more comfortable and predictable and indicates much more local passengers as public transport user.

#### CHALLENGES



Low attractiveness of public transport



Reduce the amount of individual traffic in the region



Great migration from rural settlements to county seats or capital

#### APPROACH



Real time passenger information system



Wider involvement of local stakeholders



More attractive and comfortable bus stops

#### CONTACT

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More passengers in public transport



Raise awareness for public transport



Decrease in population decline in Nagykallo town

### IMPROVING A RURAL MULTIMODAL TRANSPORT HUB

#### **OVERVIEW**

Region: Investment costs: Implementation period: Type: Partner: Žilina, Slovakia 77.772 EUR 05/2018 - 04/2019 Public Transport Infrastructure Žilina Self-Governing Region

#### DESCRIPTION

One of the basic objectives of the RUMOBIL project was to restore the intermodal transport hub in the town of Rajecké Teplice in order to serve better to the local people and promote intermodal transport in the rural partner territory. It is a new organization of the connecting point at the bus station in Rajecké Teplice. The project aims to modernize the area in the bus station, to provide monitoring panels informing about the departure and arrival of the public transport lines, to provide barrier-free access and to provide a place of connection with a sufficient number of parking spaces for bicycles and cars. The improved station acts as an interface between the various modes of transport and potentially it increases the ratio of people going to work using PT and consolidate the entire PT system in the pilot area.

#### CHALLENGES



Decrease of total number of passengers in public transport



Further ageing of the population



Maintaining and improving of public transport services

#### APPROACH



Continue to build more multimodal transport hubs



Attractive tariff conditions for passengers



Making public transport more attractive for public

#### CONTACT

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Better accessibility at the station for people with bicycles



Creation of a barrier-free station to improve accessibility for the elder and people with disabilities



Raise awareness for public transport

### ELABORATION OF THE RUMOBIL STRATEGY

#### INTRODUCTION

The RUMOBIL strategy is outlined in a work paper created by T Bridge and Uniza. It highlights the necessity to link rural areas to European and national transport networks and shows how this can be accomplished with the limited resources available.

Furthermore, the RUMOBIL strategy is the step thanks to which the solutions that could be accepted by the decision makers for the improvement of the sutainable mobility in their own rural and peripheral areas have pointed out.

In terms of transnationality and transferability, the Strategy will allow other regions' transport actors to clarify their expectations concerning the objectives and solutions of RUMOBIL project and, in more general terms, of the improvement of the mobility in rural areas.

Finally, the Strategy is based on a common starting point that is composed mainly of comparative and unique analysis of good practices and lessons learnt, pilot test results and recommendations.

#### **KEY ASPECTS**

The key aspects of the definition of the RUMO-BIL strategy for the development of public transport in rural areas are the main goal of the project activities, which is the necessity to contrast the population decreasing, the economic and technical self-sustainability in order to guarantee the transferability of the strategy outside the partner territories and beyond the end of the project, the target users, to which solutions should be addressed, and the users' needs, which should be satisfied. To ensure the transferability of the strategy several inputs have been taken into consideration, such as good practice analyses, workpapers on macro-economic effects of PT in rural areas and demand patterns for PT in the light of demographic change as well as the policy conference, which took place in Wittenberg (Germany) in October 2017.



Figure 1: Scheme of the four steps of activities to achieve the strategy

#### **OUTLINE PROCESS FOR STRATEGY**

The project provides four steps of activities regarding the creation of the strategy and the consequent building up of the actions and solutions that could be received from every local decision process (see fig. 1). The carrying out of the Outline Strategy is the first step of this set of tasks.

#### THE RUMOBIL STRATEGY

Considering all the inputs collected and analysed, the strategy has been built on the identification of the solutions. The solutions and recommendations have systematised consistently with the five types of actions to be done, which are:

- 1) Transport network integration and coordination
- 2) Tariff system, in order to create and promote integrated systems
- 3) New specific public transport services
- 4) Infomobility
- 5) Social cohesion, promoting cultural activities and also through implementation of solutions to make easier the transport accessibility.

In regard of the transport network integration the main common actions in the different cities have been oriented towards a double goal: improving the PT offer and/or its attractiveness. In fact, there can be observed plans of spatial densification of stations/stops and interchange terminals, better integration among existing services, as well as redefinition of timetables. All this goes along with a huge stakeholders' involvement, which is considered as an essential step for an efficient planning process. Last but not least, promotion campaigns, publicity,

making people aware of implementations and innovations, is considered the perfect corollary, whatever the design object was.

Consistent with pilot cases, good practices analysed and analysis and studies carried out, the actions regarding the upgrading of tariff systems have implemented in the framework of a wider set of solutions and tasks, which include often new services implementation, optimisation of interchange nodes and intermodality, etc.

Analysing new practices suitable for rural and peripheral areas, the introduction of new specific services is obviously needful. In particular, implementation of on demand services is the prevailing strategy, considered in all its potentialities. These are sometimes an integration to an existing PT service and aims to support it reaching low density areas or covering particular time frames, but in other cases they are even more important because they could represent the only PT alternative.

Strategies about infomobility are probably the ones more considered and various, and it could not be in a different way. Actions concern a lot of fields, all important to make a service more attractive and, above all, simple. Many of them refer to the matter of real-time information (which is for sure very heartfelt by users) that can really improve the perceived quality of a service. Other actions focus on helping people in their trip planning, to make useful decisions, while other propose to manage booking services and to make ticket buying easier users.

The following recommendations concern social cohesion, considered as a complementary matter. In fact, the strategies which have been proposed aim to make people's awareness grow, operating with collateral actions, for example combining promotion campaigns with other events. In this way, people gathered for another reasons, can take part also to explanations and demonstrations regarding a new service or an implementation.

In addition to this, a particular attention for disabled citizens is very important both for passengers with reduced mobility and for all people, to understand how the attention for the customer is deep. More common points characterise all the practices pointed out around the Central Europe. In particular, the analysis highlights implementing a good rural and peripheral transport service mainly needs:

• aiming at the investments in people and high social technology orientation

- assuring the service "package" is properly designed and well recognizable from actual and possible users
- involving the stakeholders in a continuous way and starting from the initial phase of the improvement action
- assuring comfort and the perception of security for users
- taking into account clients' reassurance given by the service availability and how the service is supplied (personnel, equipment, accessibility, infrastructure, etc.)
- referring to the client's perception of the quality of service
- assessing customer expectations, analysing com-

petitive strengths and weaknesses, and aligning customer expectations with service capabilities

• promoting an adequate level of the PT service (e.g. frequency, daily time of service, no. of stops).

Moreover, in a context in which the availability of financial resources is limited, it is interesting to point out the practices analysed required a pretty low level of funding. In particular, the implementation of communication campaign, to raise citizens' awareness of PT services, improvement actions of bus stops, services for disabled and elderly people and planning activities on the already existing PT offer require a low or medium level of resources (approx. between  $\in$  20,000 and 75,000 per single pilot case ). The actions concerning the implementation of new PT services necessarily require a higher level of funding (approx. >  $\notin$  75,000 per pilot case).

### GLOSSARY

infomobility	The use and distribution of dynamic information to users (pre- and on-trip), in pursuit of attaining higher transport efficiency and quality.
intermodal	The use of at least two different modes of transport (e.g. car, bike, bus) in one travel chain or trip.
modal share	The share of different modes of transport within a determined group or area (usually measered by number of users or traffic performance).
multimodal	The use of at least two different modes of transport within a certain period of time (e.g. a day or week).
stakeholder	A person or group who has a legitimate interest in the progress or outcome of a process or project (e.g. government, administration or communities).
ABBREVIATIONS CO <sub>2</sub>	Carbon Dioxid
DRT	Demand Responsive Transport
GPS	Global Positioning System
РМ	Particulate Matter
РТ	Public Transport

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