

STUDY VISIT REPORT RUMOBIL 2

D.T2.2.4.

Version 1
11.11.2020.



STAATSMINISTERIUM FÜR
REGIONALENTWICKLUNG



Freistaat
SACHSEN



SAMORZĄD WOJEWÓDZTWA
WIELKOPOLSKIEGO





Title Study visit report Rumobil 2
Deliverable D.T2.2.4
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Contributors Sandra Obermeier
Status Final
Reviewed by Domokos Esztergár-Kiss, Attila Aba, Tamás Mátrai
Submission 11.11.2020



1. General information

Date: 07. October 2020

Location: virtually

Host partner: Modena Local Public Transport and Mobility Agency (aMo): Andrea Burzacchini, Daniele Berselli and Federica Parmagnani

Visitor partner: District of Rottal-Inn: Sandra Obermeier and Martin Siebenmorgen; DB Regio Bus (Ludger Jürgens and Lisa Wolf)

Number of participants: 7

2. Objectives of the host project

The exchange took place within the framework of the Interreg project "RegiaMobil". In a virtual visit in October, the project "Prontobus", an on-demand bus system in operation there was presented and explained in more detail to the district and DB Regio Bus. The Prontobus has been established in the area of responsibility of the aMo, from which learnings which is the subject of this study visit.

Der first on-demand service in the region of Modena has been established 15 years ago based on the following Goals: integration in, establishment of and replacement of public transport service in low demand areas/hours, in area with low population density or dispersion and in fractional areas, where no service by LPT is ensured. Another objective was to offer a complementary and integrated service. The on-demand service should represent an intermediate between the traditional service (bus lines), and the door to door service (taxi). Prontobus should offer a high-quality public transport service, closer to the needs of users, thanks to the personalization and the duration of the journey. Prontobus should meet the transport need of the guests as well as be ecological and economic.

The RUMOBIL pilot project of aMo started in Castelfranco, with the aim of better connecting the rural areas with the city centre to the railway station, as the area of the city is very extensive.

In contrast to the normal public transport no information about the DRT (demand responsive transport) service was issued digitally. The information could only be obtained via the call centre. In order to fill this information gap, within the RUMOBIL pilot project a new software was developed. It allows the call centre to record reservations (no automatic tasks are done) and provides real time information to users via Web Portal and Smartphone App. With this digitalization of processes, the project aims to optimise the routing, attract additional passengers, increased transparency when booking, optimized and standardised processes and managing.

3. Stakeholders

The province of Modena is located the region of Emilia-Romagna, in the north of Italy. In Italy govern regional and local authorities' mobility and local public transport. Responsible for the region of Emilia Romagna is the aMo (Modena Local Public Transport and Mobility Agency).

The tasks of aMo include planning and design of LPT = Local public transport services (urban, suburban and on demand services), public tenders for the operation of public transport, procurement and control of public transport. In the area of on-demand services, the aMo manages the six services "Prontobus" in rural areas in the following municipalities: Modena, Castelfranco Emilia, Carpi, Mirandola, Maranello and Pavullo



1. Figure District of Rottal Inn, Germany



2. Figure Modena, Castelfranco Emilia, Carpi, Mirandola, Maranello and Pavullo, Italy

The district of Rottal-Inn is located in the south of Bavaria and borders the Upper Austrian district of Braunau am Inn in the south. The region is characterised by cross-border commuter and leisure traffic. For cross-border traffic an on-demand traffic system should be designed, which is adapted to the individual needs of the inhabitants. The district is the body responsible for organising and ordering public transport for the region, which includes public tenders, procurement, control and funding.

DB Regio Bus offers planning services for regions, counties, cities and associations in addition to classic transport services (regular service, school transport). DB Regio Bus will plan cross-border on-demand transport on behalf of the district of Rottal-Inn. In addition to mobility concepts, the planners are also working on projects in the fields of autonomous mobility, digital customer interfaces, local transport plans or on-demand transport.

The stakeholders met on equal terms, openly exchanging experiences, problems and reflections and discussing the functioning of the system, as well as similarities and differences between the Modena and Rottal-Inn use cases.

4. Knowledge transfer

The objective of the study visit was a transfer of experience and knowledge through direct exchange. It gives first-hand impression on how projects were implemented, which problems arose and how to overcome them. Useful information and ideas for the implementation of the new projects should be exchanged together.

After a short introduction, the participants were given a brief insight into the structures of Governance of local Public Transport in the Emilia-Romagna region, as well as a video insight into the region. The province of Modena, with a population of 700.000 and the largest cities Modena and Carpi, is known for its varied nature and traditional cuisine, especially balsamic vinegar, Lambrusco or tortellini. Monte Cimone in the Apennines and the Alto Appennino Modenese Regional Park attract tourists both in summer and winter. The ceramics industry and the automobile industry (Maserati and Ferrari) are also important economic factors.

Public transport and private transport

Modena is indeed connected to the train system via the Milan-Bologna railway line. However, the overall rate of use of private transport is extremely high, resulting in many traffic jams. The use of public transport is low. The use of bicycles, which was widespread until the 1980s, is now also negligible.

How is "Prontobus" working?



- Network of Collection Points: The user chooses one of the collection points as start and end point, there are no structural stops.
- Call Centre: The booking is made by telephone by indicating the desired start and end point and time.
- Disposition: The call centre takes over the acceptance, refusal or change of the journey (stop and time).
- Booking deadline: 60 min before the trip, max 7 days in advance.
- Price: The on-demand service is tariff integrated in the other LPT services, ticket purchase is possible on board
- Period: There is no fixed timetable, different periods depending on Prontobus (e.g. operates between 6 am and 6 pm or between 9 am to 12 pm and 2.30 pm to 5.30 pm)
- Usable routes (for driver) are defined

KPIs Prontobus

Year	# of Km	# of trips	# of users per hour
2014	449.389	70.640	3,41
2015	457.581	67.546	3,29
2016	466.298	74.588	3,62
2017	479.384	73.085	3,45
2018	486.803	80.959	3,68

Prontobus area	# of stops	Customers 2018
Castelfranco	69	13.865
Carpi	121	6.451
Modena	290	20.935
Pavullo	433	16.452
Mirandola	128	22.355
Maranello	69	901
Night Taxi		10.626
Totale		91.585



3. Figure KPIs and map of Prontobus

RUMOBIL and PRONTOBUS

In contrast to the normal public transport no information about the DRT (demand responsive transport) service is issued digitally. The information can only be obtained via the call centre. In order to fill this information gap, within the RUMOBIL pilot project a new software was developed. It allows the call centre to record reservations (no automatic tasks are done) and provides real time information to users via Web Portal and Smartphone App.

- Managing reservations (Web interface for the Call centre), a matrix of all relations and travel times was defined in the system. Once a reservation is made, the system automatically suggests the duration of the trip.
- Passenger Information: As soon as the reservations are registered in the system it is possible for customers to view them on the app
- Online Reservation: As soon as a trip is displayed in the app, the customer can book this trip online. (This only works if a trip has already been booked through the call centre, not for a new trip) □ App and Web App
- App for Drivers: Driver receive the reservations via app, not via phone calls



Results

- Increased passenger: Within the first 12 month of pilot action the numbers of passengers in Castelfranco Emilia increased by 15%.
- 10% der Reservations are made with the App
- Data analysis: New and more data will be collected that can be analysed (e.g. ratio of regular and occasional passengers, frequently searched start and end points, time, duration) This data serves as a basis for planning future improvements.
- After the pilot in Castelfranco, the system was introduced in the other regions.

5. Conclusions

In the concluding discussion, some differences and similarities between the target regions in Italy and Germany were identified.

In Italy, unlike in Germany, there are no associations; the public transport agencies are responsible for public transport in the region. In Rottal-Inn, for example, there is a transport association, but not all transport companies are included. The train company is integrated in this transport community, which results in a joint public transport ticket. In Italy, separate tickets are required for bus and train. When planning the bus services, the train connection is usually taken into account. Bus and train are managed independently in Italy and Germany. There is a further difference between the operators. In the region of Modena, all transport is managed by one company, whereas in Rottal-Inn there are many transport companies.

The two institutions are facing similar problems, especially during the Corona period (Problems in finding bus drivers, capacity problems...).

Local public transport in Germany is more strongly funded, and the local authorities usually have more money at their disposal. Italy's larger cities have a very good urban and suburban system, but in smaller cities and regions deficits can be observed.

The scope of application differs in size and number of inhabitants: 120.000 inhabitants live in the district of Rottal-Inn, 700.000 in the region of Modena.

The Prontobus in Pavullo can be considered as a possible object of comparison (population of Pavullo: 17.000; Pfarrkirchen: 13.000). But in Pavullo only the town is served by the Prontobus, not the neighbourhoods, which already shows another difference. In Modena the public transport system was supplemented by the Prontobus, with a focus on the neighbourhoods. In the old city centre the conventional public transport system can be found. The on-demand service solved problems like urban sprawl and wide areas. In Rottal-Inn, the existing lines and on-demand network is to be supplemented by a new system. In the other systems in Italy the Prontobus is the only public transport system (e.g. Castelfranco). The systems therefore serve different purposes: complementing or creating public transport.

The Prontobuses in the different areas features a similar system with fixed collection points. Only in Maranello fixed trips with fixed stations (start train station) can be found.

Further differences can be seen in the operating times, an event or night service does not exist. This was defined as a potential success factor to be developed.



For Rottal-Inn the question arises which type of on-call bus is reasonable and feasible. There are different forms of flexibility. From completely free service, line-based service to stops or collection points-based service. Further questions that must be considered are e.g. if there should be offered an online booking, or if a disposition tool is needed or if a management tool is enough. Modena has shown that some kind of technology is needed to manage the DRT service, only this will result in an improved travel experience, improved call centre performance and optimised mileage.



6. Documentation

6.1. Agenda

9:00-9:10	Getting to know each other
9:10-9:30	Welcome in Modena! Some pictures of our Province
9:30-10:00	Short presentation of activities (aMo & Rottal-Inn Public Transport Department)
10:15-10:45	Expectations of Rottal-Inn within RegiaMobil
11:00-12:00	Presentation of Prontobus, the DRT service in Modena, and RUMOBIL
12:00-12:20	Planning further steps in the project - how can we support each other?
12:20-12:30	Final considerations

6.2. List of participants

Sandra Obermeier	• District of Rottal-Inn
Martin Siebenmorgen	• District of Rottal-Inn
Andrea Burzacchini	• aMo
Daniele Berselli	• aMo
Federica Parmagnani	• aMo
Ludger Jürgens	• DB Regio Bus
Lisa Wolf	• DB Regio Bus



6.3. Photos



