

## NEW SOFTWARE TO BETTER DIRECT ON-DEMAND BUS SERVICES TO CUSTOMER NEEDS IN THE RURAL AREAS OF THE PROVINCE OF MODENA

Country: Italy, Emilia Romagna Region

### OVERVIEW

ProntoBus is an on-demand bus service which aims to integrate urban and extra-urban public transport services with the neighbouring villages and rural areas in the Province of Modena.

Within the framework of the RUMOBIL European Project, a new software has been developed with the aim of improving the quality of information of the service. The software has started to be implemented in the small Municipality of Castelfranco Emilia (~ 30k inhabit.), where the ProntoBus service is active from 2006, since October 2017, with very positive results. The new software system provides real-time information to the user via a web portal or smartphone app and allows the booking of the service; on the back-office hand, it allows the call center to manage the reservation with a dedicated web interface, to collect information about each single reservation (origin and destination stop, hour, duration and length of single trips, etc) and to communicate with the bus drivers via tablet. In June 2018, the software has also started to be implemented in the Municipality of Mirandola (~ 23k inhab.) on previous experience.



Prontobus

### Main aspect/issue addressed by the good practice

The good practice is addressing the following aspects:

- Technologies that enable more efficient planning of journeys
- Real time travel information

Moreover, ProntoBus offers a flexible transport solution usable by all population including mobility-impaired people (the service is carried out with small buses equipped for the get-on/get-off of disabled passengers)

### Main objectives of the good practice

The new software, designed and developed by The Agency for mobility and local public transport Modena S.p.A. – "aMo", aims to improve the quality of services of the ProntoBus DRT operated in rural areas, with the main goal of significantly improving the user information and the management of the service operation procedures

### DESCRIPTION OF THE AREA

Region	Target area	Population	Population density
Prontobus is implemented in the Emilia Romagna region	Isle of Texel 102.47 [Km <sup>2</sup> ]	The total population in the target area is 32174 inhab.	304 [inhab. /Km <sup>2</sup> ]

## Other

The territory of the Castelfranco Emilia Municipality includes 8 small villages/rural areas where the predominant activity is agriculture. In the territory there is a small health district and a railway station that allows an easy connection to the neighbouring urban centres

## Target user groups and needs

The Prontobus service connects low demand area and sparsely hamlets with the relevant centres and/or with the main axes of the transport network. The service is available for all population groups including mobility-impaired people.

## DETAILED DESCRIPTION OF THE PRACTICE

### Timeframe(s)

The Prontobus on-demand service has been active in the Castelfranco Emilia Municipality since 2006. The new software was tested during September 2017. At the end of September, the software started to be implemented in the small municipality of Castelfranco Emilia. At the end of October, all the (minor) bugs were solved and all the tests were successfully completed without errors. In June 2018, the software was extended also to the small municipality of Mirandola.

### Bodies involved

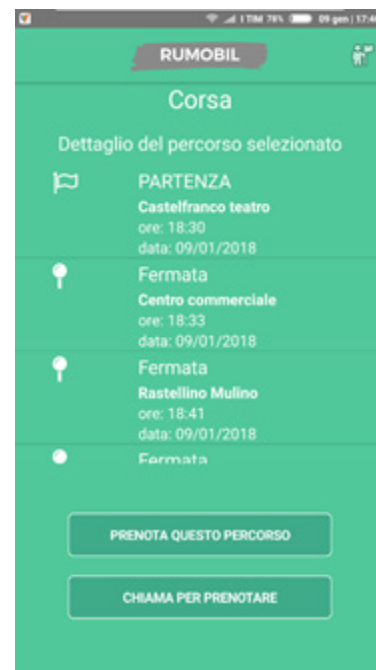
In the framework of the European Project RUMOBIL (Rural Mobility in European Regions affected by Demographic Change), funded by the Interreg Central Europe programme, the new software has been developed by "aMo" and has started to be implemented with the collaboration of the Municipality of Castelfranco Emilia. The Prontobus service is operated by SETA, the public transport operator of the Province of Modena, and is managed and planned by "aMo", the public mobility Agency of the Province of Modena.

### Mobility services provided/addressed

The new software is specifically related to the public transport service "Prontobus".

"Prontobus" connects the sparsely inhabited areas of the Castelfranco Emilia Municipality, that are not served by conventional transport services, with the neighbouring urban centres. The service is a general-purpose DRT (the service is opened to the general public) where passengers can board only at the dedicated bus stops, that are marked with the service logo and an identification number that must be communicated at the time of booking.

The vehicles have to stop in the predefined stops only if a request has been made. To use the service, it is necessary to book the ride at least 30 minutes before the time of departure and it is possible to book a ride for the same day, for the following days or for the following week; the service must be booked by phone call at the dedicated call center. The call center is managed by SETA and covers all the Municipalities where Prontobus is operated.



The service is entirely flexible and allows all possible trips to and from the network collection points (dedicated stops) ("many to many" DRT service) and each race can be booked by one or more people. The service is in operation from 7 am to 12 pm and from 2.30 pm to 7.30 pm. The Prontobus services are carried out with small buses equipped for board and deboard of disabled/mobility impaired passengers. The cost of a Prontobus ticket is estimated on the average distance to travel.

## DETAILED DESCRIPTION OF THE PRACTICE

### Legal Framework

At local level the main Authorities involved in the design, assignment and control phases of the Prontobus services are:

- the Emilia Romagna Region that has the availability of the economic resources and defines the guidelines for one harmonised and comprehensive transport policy upon homogenous areas both from a geographic and mobility point of view.
- "aMo - Agenzia per la mobilità e il trasporto pubblico locale di Modena S.p.A", that is the agency for mobility and local public transport in the Province of Modena. It signs the service contract through which rights and duties of the operators are defined and the economical amounts for the development of the service are set; in addition, "aMo" is in charge of planning, defining and managing the local public transport services in the Province.
- SETA S.p.A, the Public Transport Operator which operates the local transport services in the province of Modena, Reggio Emilia and Piacenza.

The Prontobus service is operated within the same contract of the conventional public transport services of the Modena Province basin. The assignment of this on-demand service has been implemented by "aMo" according to the art. 19 of the Regional Law 30/1998. The assignment has been carried out through procedures to public evidence, and the reference territory for the tender has been identified in the territorial homogeneous areas supra-basin as defined by the Region in coherence with the above mentioned legislation.

Inside the service contract, the engagements and obligations relate to the transport and the activities connected to the service supply, the fare system, the investments (buses, service infrastructures, technology, ...), the monitoring of the performances, the qualitative standards of the service, the level of satisfaction of the customers.

### Cost and Financing sources

For the realisation of the new software, Amo received some funding from the European Commission within the framework of the European Project RUMOBIL (Rural Mobility in the European Regions affected by

Demographic Change), funded under the Interreg-CENTRAL EUROPE program.

The Prontobus service, as well as the other transport services in the Modena Province, are funded by the resources allocated by the State within the National Transportation Fund and the own resources of the Emilia Romagna region. In particular, the Prontobus service is funded by the municipalities too.



CASTELFRANCO EMILIA - POMERIGGIO - BUS


 Corris 7  
 Capacità bus: 7 persone

**PARTENZA**  
 18:30 - CE35 CASTELFRANCO TEATRO

**ARRIVO**  
 19:22 - CE35 CASTELFRANCO TEATRO

[ELENCO FERME](#)

ORA	FERMA	NUMERO VIAGGIATORI
18:30	CE35 - CASTELFRANCO TEATRO	1
18:33	CE30 - CENTRO COMMERCIALE	2
18:41	CE06 - BASTELLO MULINO	1
18:42	CE39 - RECOVATO MULINO	0
19:03	CE49 - MORGARO MULINO	1
19:22	CE35 - CASTELFRANCO TEATRO	0

Within the contract service, the amount is fixed on a "remunerazione binomia" (binomial remuneration) basis; in particular, the remuneration is based on either the cost (fixed) for the hours of service ("costo orario per ore di servizio") and on the cost for the distance travelled ("produzioni chilometriche").

### Organizational set-up

Since the software system for the on-demand service "Prontobus" in Castelfranco Emilia was released from the supplier on the 28th August 2017, the first test phase was started by aMo on the 29th August 2017 in order to verify all the functionalities foreseen by the technical specifications of the public procurement.

Subsequently, starting from the 4th September 2017, the software was made available to the call center to start loading the reservations and verify the functionality of the program from their point of view. During this first phase few changes were necessary, mainly due to minor bugs detected, which were immediately solved by the supplier.

On the 19th September 2017, the press conference for the launch of the RUMOBIL project was held in

## DETAILED DESCRIPTION OF THE PRACTICE

Castelfranco Emilia and starting from the same date the software system started to work completely. During the first phase of use no problems were detected and everything worked as expected. Starting from the date of the press conference, the advertising activity of the RUMOBIL Project began with posters posted in the main points touched by the Prontobus service.

On the 26th October 2017 the entire system was officially tested by aMo, as required by the contract with the supplier; all the tests were successfully completed without errors.

### Supporting technologies

The new Prontobus software system consists of:

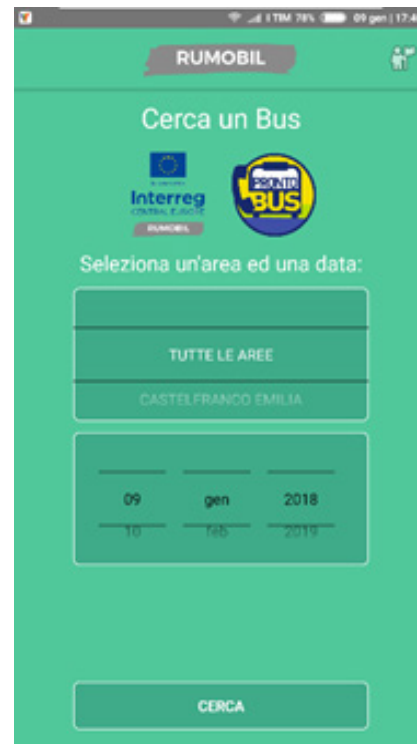
- web portal ([www.prontobus-rumobil.eu](http://www.prontobus-rumobil.eu)) for the users of the Prontobus service with information about the Prontobus service and the situation of reservations updated in real time, with the possibility to register in order to receive mails or sms about interesting services recognized for the day after;
- back-office site, dedicated to the management of reservations for the call center;
- app for users of the Prontobus service to view reservations updated in real time and with the ability to book an existing trips directly from the app;
- app for drivers of the Prontobus service to get information about reservation in real time and the trips to be made.

In particular, the software, owned by "aMo", is operated for the services that takes place from San Cesario center to Sant'Anna and vice versa, from Sant'Anna to any stop in the city in Castelfranco, from Nonantola to Castelfranco and vice versa and anywhere within the city of Castelfranco.

- In terms of the back-office, the software allows the SETA operators to organise the travels and to manage the rides booked by the users and all the data related to the service; in terms of the user, the software provides the Prontobus information in clear and readable way.
- In particular, on the homepage of the website it is possible to consult the Prontobus service trips that are currently booked; the list of booked journeys is updated in real time as new bookings arrive at the

call center. In the search for existing journeys it is possible to see them all or only those relating to an area of interest.

- If the user is signed in, he can receive e-mails or text messages that notify if the Prontobus services are active on the following day on those preferred stops the user has indicated at the time of registration.
- The mobile APP, available for IOS and Android, also allows the user to book the service and to consult (and eventually book) those trips that have already been booked by other users.
- Thanks to the dedicated tablet installed on the bus, the driver can see in real time the new booking added by the call centres.



## INNOVATION ASPECTS

### ORGANISATIONAL RESPONSIBILITIES AND PARTNERSHIP WORKING ARRANGEMENTS

A good level of cooperation has been established between the Agency for mobility and local public transport Modena S.p.A. and the local Public Transport operator (SETA) for the definition of the characteristics of the on-demand transport service.

### LEVEL OF PUBLIC SECTOR FINANCIAL SUPPORT

Not applicable

### INTERCONNECTIONS BETWEEN SHARED AND PUBLIC TRANSPORT SERVICES

Prontobus can be defined as a hybrid transport service between conventional (fixed route and schedule based) transport and taxi services. The vehicles are small buses that bring people to a bus stop and/or to main transport hubs.

### ICT CONNECTIONS AND IMPACTS OF THE TECHNOLOGICAL SOLUTIONS IMPLEMENTED

The software developed within RUMOBIL project is certainly an innovation component in the organisational structure of the service. The software from one side reduce the operational procedure for the booking and programming of the transport service thanks to the algorithmics implemented in the software, from the other it offers a user-friendly platform (web and APP) where the users can easily consult the Prontobus service trips that are currently booked and, eventually, to book a ride.

### OTHER (E.G. SOCIAL INNOVATION, ETC.)

Not applicable

## ASSESSMENT

### Ridership and other key metrics/results (through key-indicators, where applicable)

In the Castelfranco Area, including the municipalities of Castelfranco Emilia, San Cesario sul Panaro e Nonantola, the number of users in 2016 was 11 000, with an average value of 5 passengers per hour. The website [www.prontobus-rumobil.eu](http://www.prontobus-rumobil.eu), designed by "aMo" has been activated in September 2017 for the Prontobus service operated in the Municipality of Castelfranco Emilia. The main objective was to improve the usability of the on-demand service, to maximise its efficiency and to improve the number of users.

In the period from October to March an increase of 17.3% of passengers was detected on the Prontobus service in Castelfranco Emilia compared to the same period of 2016-2017.

In the same period, the smartphone app was downloaded by 178 people, while 7 persons registered themselves on the web portal for the automatic information service of the web portal.

About the use of the web portal, during the reporting period, there were 1384 accesses corresponding to 385 different users.

In 2017, the Prontobus service has been used by 12926 travellers, with 1853 more passengers in respect to the year before (+16,7%). Now the service operates with an average value of 6 passengers per hour. In addition, due to the increased number of travellers, SETA is thinking about using vehicles with a higher number of seats.

### Good Governance

The Cooperation between the Mobility Agency of Modena and the primary Stakeholder, i.e. the users of the Prontobus service, allowed to develop a software which better answers the mobility needs of the users. The development of the RUMOBIL software was preceded by a telephone survey with the usual users of the Castelfranco call service. In April 2017, around 300 users were contacted, who were asked to respond to 5 open questions in order to increase the user's expectations regarding the possibility of improving the service and increasing the use and knowledge of the DRT service among citizens. Half of the users surveyed collaborated.

During the project presentation conference, three habitual passengers (raffled off from those who participated in the telephone survey) received a multi-race carnet valid for 12 journeys.

The collaboration with the Stakeholders has been maintained throughout the preparation, launch and execution phases of the project; this activity was fundamental to the success of the project.

### Success factors/strengths

The increase in travellers registered after the activation of the RUMOBIL project was significant and exceeded expectations providing valuable information to be used for the definition of the RUMOBIL strategies.

Positive feedback came from the primary Stakeholder, the users of the Prontobus service, that in contacts with call centre reported appreciation in particular for having real-time reservations available.

Another good result is for the call centre that has improved the management of reservations and is very satisfied with the introduction of the RUMOBIL system; also they are requiring the extension of the RUMOBIL system to the other Prontobus to improve their operation also on those services.

The drivers also expressed satisfaction with the introduction of the RUMOBIL system as they now receive the information faster and safely and are no longer distracted from driving by the calls received from the call centre if there are any changes to the bookings. Before the implementation of the new software, the level of detail of information available was only the number of passengers per day. Through a reporting tool it is now possible to elaborate detailed statistics that was not available before; this information is indispensable in order to be able to intervene in the services for a better tuning.

### Difficulties encountered/weakness

There is still the presence of a lot of websites addressing the Prontobus Service. It could be good if each stakeholder web platform has a link to the same RUMOBIL platform.

### FEATURES THAT ARE CONSIDERED TO BE GOOD PRACTICE (LESSON(S) LEARNT)

Through the new software, the quality of information provided to the users, to the call centres operators and to the bus drivers has strongly improved, and this resulted in the increase of the passengers using the Prontobus service.

## REFERENCES FOR FURTHER DETAILS

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### *Contact of the operator and of relevant stakeholders*

**Organization:** aMo – Agenzia per la Mobilità di Modena

**Person contact:** Antonio Nicolini - Planning Referent

**Email:** [nicolini.a@amo.mo.it](mailto:nicolini.a@amo.mo.it)

**Organization:** aMo – Agenzia per la Mobilità di Modena

**Person contact:** Daniele Berselli - Technical Referent

**Email:** [berselli.d@amo.mo](mailto:berselli.d@amo.mo)

### Websites

- [www.prontobus-rumobil.eu](http://www.prontobus-rumobil.eu)
- [www.amo.mo.it](http://www.amo.mo.it)
- [www.interreg-central.eu/Content.Node/rumobil.html](http://www.interreg-central.eu/Content.Node/rumobil.html)
- [www.setaweb.it/homepage](http://www.setaweb.it/homepage)
- [www.tbridge.it](http://www.tbridge.it)
- [www.comune.castelfranco-emilia.mo.gov.it](http://www.comune.castelfranco-emilia.mo.gov.it)
- <https://play.google.com/store/apps/details?id=eu.prontobus.rumobil>