

DEMO FINAL REPORT MODENA (SMART MOBILITY CONCEPTS)

D.T2.5.8.

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1. Objectives of the pilot

Following the principle of capitalization of previous projects, the pilot carried out by aMo within the European Project RegiaMobil represents an evolution of what has been achieved in the RUMOBIL Project but from a MaaS (Mobility as a Service) perspective.

Inside the RUMOBIL Project, a new app was developed giving to the users of the DRT services of Castelfranco Emilia (and then to the users of all the DRT services of the province of Modena) the possibility to have a real time timetable of the reservations to the on-demand service Prontobus. Furthermore, from the app was also possible to make reservations on existing trips lightening the work of the call center since at the end of the project about 10% of the bookings out of over 90 thousand were made through the app. The RUMOBIL system is still working, and this has allowed it to be a base for an evolution into RegiaMobil.

The intention of the RegiaMobil pilot is to integrate the DRT public transport services, which by their nature are typically not manageable in travel planning activities, with other modalities such as ordinary public transport on buses, rail transport and also other modalities collateral to public transport such as electric bike or scooters rental. The idea behind the aMo pilot project is therefore to expand the functions and use of the app that was developed in the RUMOBIL Project, thus making it a travel planning tool that does not focus only at the on-demand services but also able will be able to provide information on mobility services connected to DRT services.

At the beginning of RegiaMobil it was planned to include in the mobility services connected to the DRT ordinary public transport services, railways services and e-bike rental; this was the initial idea developed in agreement with the Municipality of Castelfranco Emilia which had planned the construction of a bike station close to the railway station equipped were it was planned to install an e-bike station to be used in RegiaMobil.

During the pandemic, the Municipality of Castelfranco Emilia changed some priorities and the activation of the aforementioned bike storage was postponed and the availability and possibility of equipping an e-bike rental station was not yet given. For this reason, the connection with the rental of electric bicycles was not included in the pilot project. Then the RegiaMobil pilot project has concretized it in the production of a new app able to verify an innovative approach to MaaS by connecting it to DRT services that are which are inherently difficult to incorporate into a planning system.

The pilot project was carried out in the same context where the RUMOBIL Project took place and that is the city of Castelfranco Emilia, focusing at the railway station which is located on the main Italian line connecting Milan to Rome; but thanks to the experience gained in RUMOBIL it was decided to activate it in all DRT services that have connections with ordinary public transport services (5 services out of 6).

2. Pilot area description

Castelfranco Emilia is a city with 33.000 inhabitants, is located about 15 km from Modena and is equipped with an important school center, a hospital, and numerous industrial and handicraft activities.

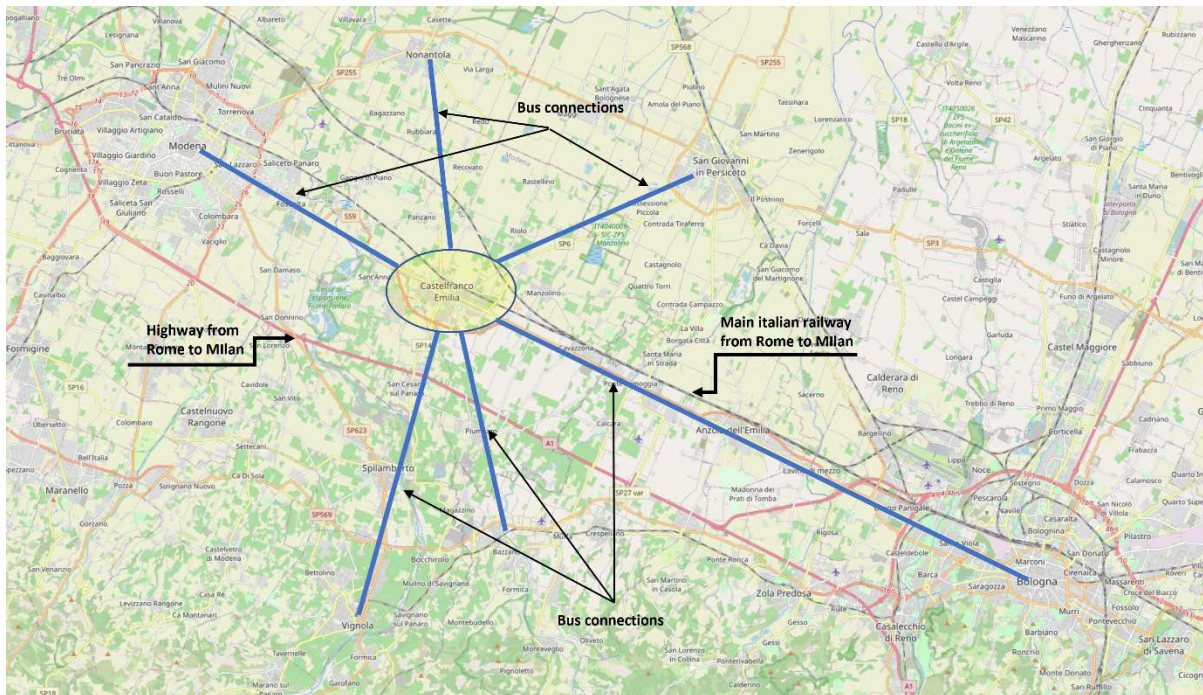


Fig. 1 - Position and connections of Castelfranco Emilia

Castelfranco is a city that has had a very strong growth in the number of inhabitants over the years and this growth is still ongoing, as can be deduced from the following table (Fig. 2).

Year	0-14 years	15-64 years	65+ years	Total inhabitants	Average age
2002	3.173	17.033	5.007	25.213	43,1
2003	3.353	17.316	5.166	25.835	43,1
2004	3.499	17.750	5.286	26.535	43,0
2005	3.761	18.230	5.333	27.324	42,7
2006	3.945	18.454	5.532	27.931	42,7
2007	4.129	18.876	5.565	28.570	42,6
2008	4.365	19.497	5.614	29.476	42,4
2009	4.653	20.188	5.686	30.527	42,2
2010	4.799	20.683	5.747	31.229	42,2
2011	5.025	21.256	5.821	32.102	42,2
2012	5.066	20.722	5.836	31.624	42,3
2013	5.144	20.928	5.971	32.043	42,5
2014	5.286	21.077	6.214	32.577	42,7
2015	5.293	21.102	6.329	32.724	43,0
2016	5.240	21.042	6.395	32.677	43,2
2017	5.173	20.966	6.468	32.607	43,5
2018	5.094	21.295	6.505	32.894	43,6
2019	5.022	21.367	6.584	32.973	43,8
2020	4.879	21.442	6.662	32.983	44,0
2021	4.775	21.420	6.713	32.908	44,3

Fig. 2 - Inhabitants' statistics



This strong evolution has obviously led to an increase in the services of the city in various fields: health, school, public transport, commercial activities. This growth in particular was favored by the fact of being between two important urban centers such as Modena and Bologna and of being on the main Italian railway line that between these two cities offers a somewhat metropolitan service. Being a center very connected to the main cities together with the fact that the cost of houses is lower than that of the main urban centers, over time more and more people have chosen to live in Castelfranco Emilia and the municipal administration has favored this growth.

Castelfranco is surrounded by large rural areas in which there are small villages and numerous isolated residential settlements; this aspect has made the possibility of providing public transport services particularly jeopardized and the use of DRT services has proved decisive in this context. The possibility of offering adequate public transport services is further exacerbated by the fact that the average age starting from 2009 is gradually rising, reflecting a national trend (see Fig. 3).

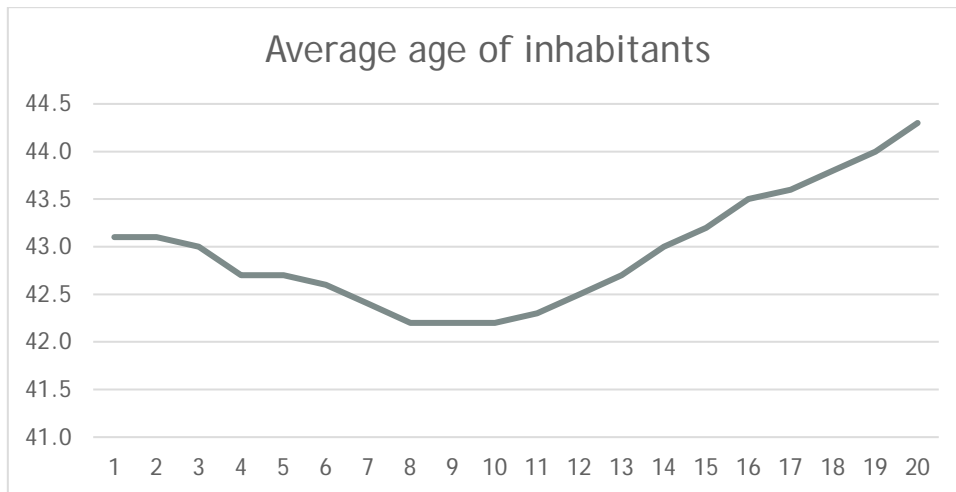


Fig. 3 - Average age

The dispersion is highlighted by the following table (Fig. 4) from which it can be seen that almost half of the inhabitants of the municipality of Castelfranco Emilia reside in rural areas; this aspect highlights the need to provide an adequate public transport service also in consideration of the fact that all services reside in Castelfranco.

Village	Inhabitants	%
Castelfranco	18.636	56,63%
Cavazzona	1.856	5,64%
Gaggio	2.030	6,17%
Manzolino	2.373	7,21%
Panzano	1.145	3,48%
Piumazzo	5.275	16,03%
Rastellino	415	1,26%
Recovato	546	1,66%
Riolo	632	1,92%
Total	32.908	100,00%

Fig. 4 - Distribution of the inhabitants in the various localities

In this context, it was considered appropriate to provide an improvement in accessibility to public transport services (ordinary, rail and on-demand) through the app that was developed, also considering that an important share of the trips made with the DRT service have as origin or destination the railway station of Castelfranco Emilia which is also a hub which also includes all bus services.



3. Pilot implementation

3.1. Realization of the pilot

The implementation of the pilot project was obviously affected by the pandemic, especially in the phase relating to the start which has been postponed several times due to the situation at various periods. In fact, the original schedule of the pilot was in the period when the pandemic reached its peak (Autumn 2020) and due to its persistence, the start was postponed until November 2021.

It was considered appropriate to postpone the start as proposing new services or technologies at a time when there were severe restrictions on the mobility of people would have been counterproductive. Consequently, the entire phase of preparation and updating of the software suffered delays as some activities should have taken place in the period in which there was a strong lockdown in Italy and most companies (also aMo) reduced their activities and redefined the work procedures.

In the second half of 2020, the technical specifications relating to the new features for the new system were defined.

In particular, these concerned the following points:

- visualization of bus and train timetables in connection with DRT services;
- indicative definitions of the new app user interface;
- management of the calendar of public transport services;
- structure of the association between the stops of the DRT service and those of ordinary public transport services (bus and train);
- methods of interfacing the app with systems that provide real-time timetables for buses and trains;
- development to the drivers app to also provide them with timetables in real time;
- adjustment of the backend to manage new functionalities and for the reporting system.

Particular attention was on the possibility of using the new system on all active DRT services (not only the one in Castelfranco Emilia) in a modular way and also considering the possibility of adding others in the future.

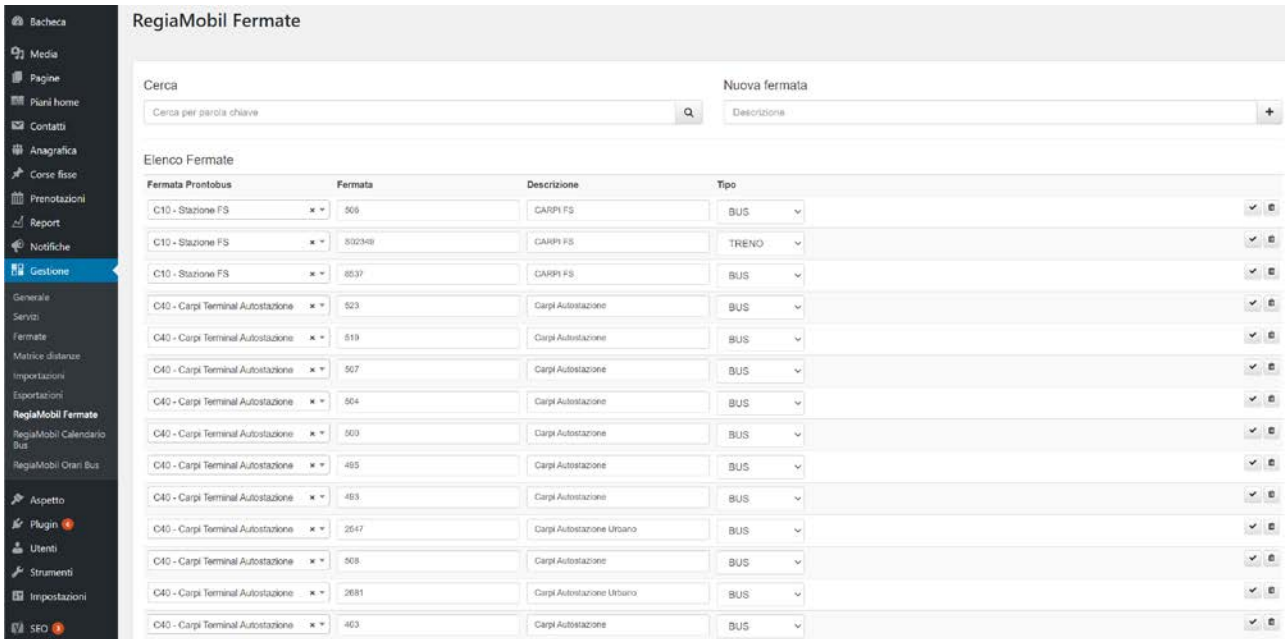
The technical specification was ready at the end of 2020 but only in the spring of 2021 it was possible to carry out the related public procurement. The public procurement envisaged an amount equal to € 19,500 to implement the planned activities and was won by the same company that had developed the RUMOBIL software.

After the award of the public tender, software development began and was delivered on schedule in June 2021 and made operational in July 2021 after a period of testing and the final acceptance procedure. Then the new schedule provided for the activation of pilot was at the beginning of the school year (the moment when the attendance of public transport services is maximum) but the relaxation of the precautions against Covid during the summer meant that there was a new pandemic peak causing yet another delay in the pilot's departure.

In a moment of following slowdown in the pandemic, it was therefore possible to start the pilot also to be able to carry it out within the duration of the Project; in any case it began in a period in which the pandemic was not totally over, and people have shown a form of reticence in the use of public transport which was wrongly identified as a place at high risk of contagion. These issues still persists and limitations in the use of public transport with the capacity of the buses reduced by 20%; these limitations in capacity should end on March 31, 2022, when the end of the emergency period is expected.



Apart from the pandemic, no particular problems were encountered in the implementation of the pilot project. The software was found to be fully functional right from the start of tests for the user's part as well as for the driver app and the backend. The only criticality encountered in the implementation of the pilot was to renounce the inclusion in the MaaS system of the use of electric bicycles, as described above; however, this was a deficiency that had an impact in the amount of services offered but not in the implementation of the pilot.



The screenshot shows the 'RegiaMobil Fermate' management interface. It includes a search bar for 'Cerca per parola chiave' and a 'Nuova fermata' button. Below is a table listing various stops with columns for 'Fermata Prontobus', 'Fermata', 'Descrizione', and 'Tipo'.

Fermata Prontobus	Fermata	Descrizione	Tipo
C10 - Stazione FS	368	CARPI FS	BUS
C10 - Stazione FS	802348	CARPI FS	TRENO
C10 - Stazione FS	8537	CARPI FS	BUS
C40 - Carpi Terminal Autostazione	523	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	619	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	567	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	564	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	503	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	485	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	483	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	2647	Carpi Autostazione Urbano	BUS
C40 - Carpi Terminal Autostazione	508	Carpi Autostazione	BUS
C40 - Carpi Terminal Autostazione	2681	Carpi Autostazione Urbano	BUS
C40 - Carpi Terminal Autostazione	463	Carpi Autostazione	BUS

Fig. 5 - Backend sample: stops management

3.2. Involved stakeholders

The stakeholder groups involved in the project were mainly three:

- the Mobility Councillors of the main Municipalities of the province of Modena (including that of Castelfranco Emilia) who are part of the Permanent Committee for the mobility of aMo;
- users of the DRT service, and in particular those who use it in connection with other ordinary bus and rail services;
- Modena call center staff who manage reservations for all DRT services in the province of Modena;
- bus drivers of the six Prontobus services that are active in the province of Modena.

The stages of their involvement were mainly the following.

Initially, the Administrators of the Municipality of Castelfranco were consulted as it was indicated as the original seat of the pilot; subsequently it was decided to extend the pilot to all the provincial on-demand services and all the related Public Administrators were therefore involved. This activity was carried out in particular within the aMo Permanent Mobility Committee.

The aMo Permanent Mobility Committee is a structure provided for by the aMo Statute that gives political and operational guidelines to the Agency very quickly and frequently with respect to the main directives of the Assembly of Shareholders of aMo which is consulted for longer-term indications.



The Permanent Mobility Committee is convened approximately every month (while the aMo Assembly of Shareholders is convened approximately three times a year) and is composed of the Mobility Councillors of the main municipalities of the province; given the frequency with which it is convened, it allows strategic indications to be given in a short time and in a concrete way. It was therefore the Permanent Mobility Committee that decided to extend the new MaaS RegiaMobil system to all on-demand services managed by aMo, recognizing their usefulness; something similar had been done for the RUMOBIL Project when it was the same Committee that decided to extend it to all DRT services, not limited to Castelfranco Emilia.

Before activating the RegiaMobil pilot, users of the Prontobus service were consulted with questions from the operators of the call center that manages the Prontobus reservations. In particular, users who requested the use of the DRT service in connection with ordinary bus services but above all rail services were asked if it would be useful to provide information also regarding their timetables and the feedback was of great encouragement as the new function it would have been of great help in being able to manage the construction of trips between services connected to each other at an organizational level but not at an informational level.

About the Public Transport Operator that was another Stakeholder interested from the pilot, the people involved were from the call center staff and the bus driver of the DRT services. Then the call center staff was also involved in the definition of the pilot as on their part there is knowledge of how the service is used by users as, by collecting reservations, they are aware of the specificities that these have especially for the use of DRTT services in connection with other public transport services.

Similarly, the various bus drivers of the DRT services were consulted to understand whether providing the real-time schedules of the connections would be useful and collecting proposals on how to provide this information; it should be underlined that in the aMo experience this represents the first case of involvement of the personnel who carry out the service, but which was deemed appropriate considering the type of service (DRT) involved. Also, in this case the feedback was even enthusiastic as that of the management of coincidences has always been a critical aspect for them; since most bookings are made at stops near bus or railway stations, knowing for example if a train with which a user with a Prontobus reservation will arrive late or not would have been crucial to be able to wait for it and not leave the stop before he arrives.

In the same way it would have been easier to manage the schedules of the Prontobus knowing at what time a user would absolutely have to be at the train station to take the train thus allowing, for example, to modify the sequence of stops to touch to ensure that the connection was not lost.

Then, in conclusion, the Stakeholder engagement was both at operational and addressing levels exploring previously all the needing of a new service to be supplied.

3.3. Promotional activities

The marketing activity to raise awareness of the new pilot project of the RegiaMobil Project was divided into various fields of application that are described here.

First of all, it should be noted that a company that deals with communication was selected through a public procurement and the winner was charged with defining an "image" for the new service declining it in various fields of application: social networks, websites, posters (Fig. 6).



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PARTONO DA TE**

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- Chiama il **numero 840 001 100** per richiedere una nuova corsa Prontobus
- Usa **l'app RegiaMobil** per scoprire le corse Prontobus già attive, prenotarne una e **conoscere le coincidenze con autobus e treni**

Per maggiori informazioni visita il sito prontobus-regiamobil.eu

SCARICA L'APP PRONTOBUS REGIAMOBIL

Servizio disponibile su
App Store
Google play

Fig. 6 - Graphic main image

The practical applications were the following:

- a campaign was carried out on the social tools of the various Municipalities interested in the Prontobus service, which used the coordinated image provided;
- a dedicated website has been set up and can be consulted at Prontobus-rumobil.eu (Fig. 7 and Fig. 8);



Fig. 7 - Dedicated internet site

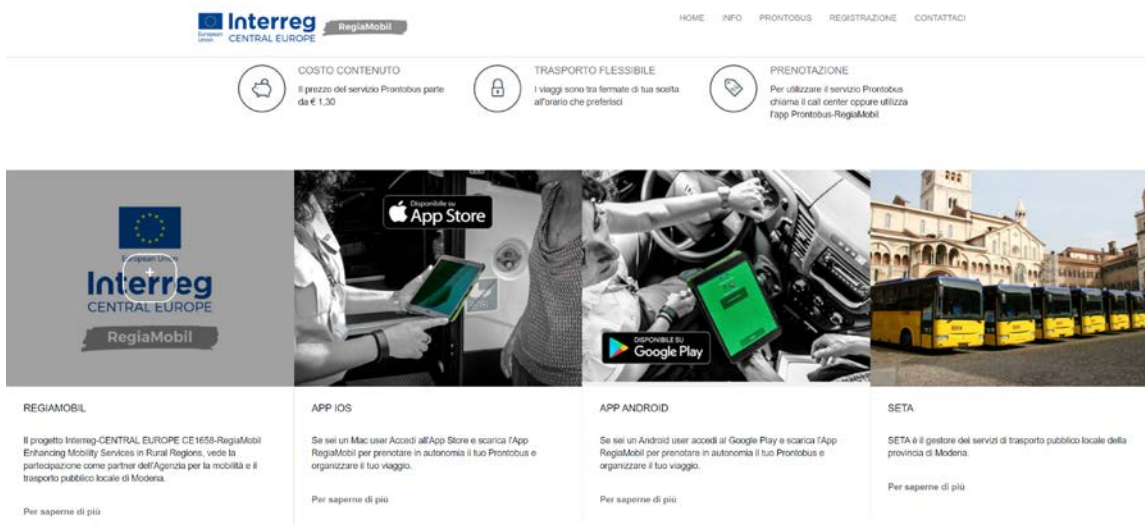


Fig. 8 - Dedicated internet site

- Posters were posted (Fig. 10) in all the main municipalities affected by the DRT services for a total of 290 posters for three weeks (Fig. 9) to involve and inform people who do not usually frequent social media or institutional sites (this methodology has produced good results in the RUMOBIL Project)



Modena	80
Carpi	40
Castelfranco Emilia	40
Nonantola	20
San Cesario sul Panaro	10
Maranello	20
Mirandola	40
Pavullo	40

Fig. 9 - # of posters for each town

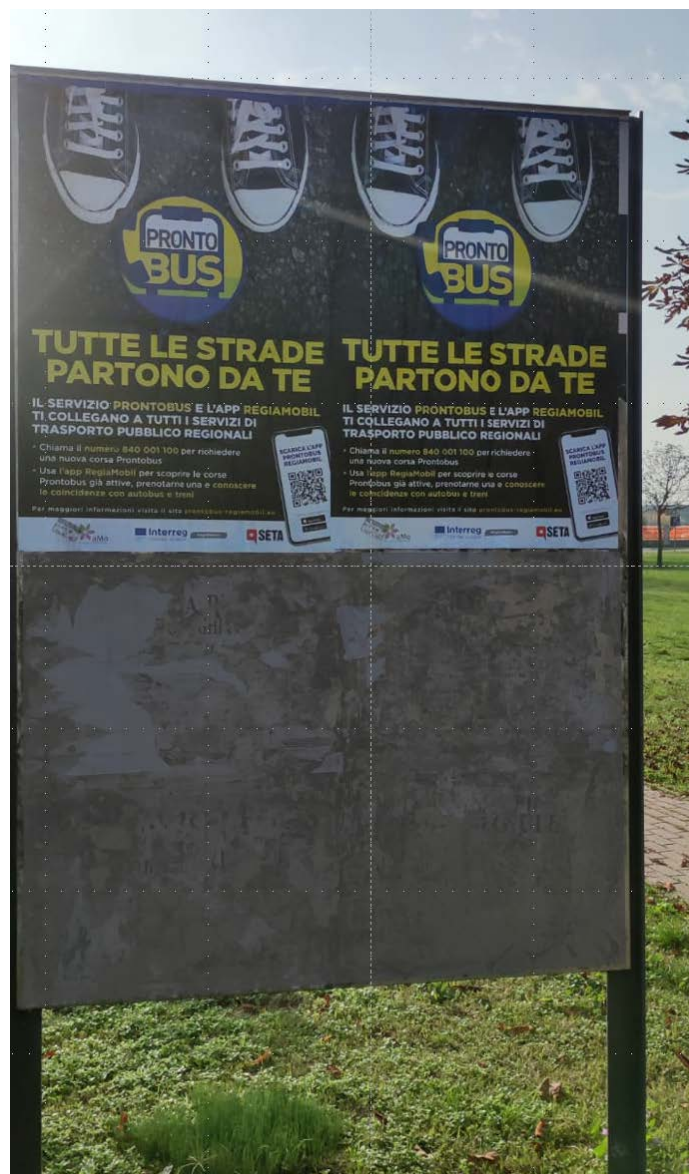


Fig. 10 - Posters

3.4. Final service

The final service offers a development of the RUMOBIL app with new features provided by the RegiaMobil Project from a MaaS perspective.

As previously mentioned, the possibility has been added for users to build a journey by connecting services that are all public transport but which between them have a quite different operative characteristic. DRT services are in fact by their nature indeterminate a priori, therefore they do not have a predefined timetable that allows them to be easily used in the construction of a travel itinerary; for this reason, the RegiaMobil pilot can be considered not a travel planner but a MaaS tool since it represents if not the only case at least one of the first in which an attempt was made to connect DRT services with ordinary PT services.

From a practical point of view, the app is implemented in this way: starting from the reservations present - updated in real time - for the Prontobus service, selecting the area and date of interest (Fig 11 and Fig. 12) it is possible to view which are the existing trips formed from the existing bookings.



Fig. 11 - User app - image 1



Fig. 12 - User app - image 2

In the backend system, have been identified which stops of the Prontobus service correspond to modal interchange points between on-demand services and ordinary LPT services; these stops are then highlighted in the list of stops touched by the Prontobus (Fig.13) and by clicking on them it is possible to see all the ordinary services in correspondence, updated in real time (Fig. 14). Information about the type of connecting service (train or bus), the departure time, the destination, the railway track or the bus stop where the line can be accessed and the indication of any advance or delay are provided. (Fig. 14).



Another feature offered by the app that has to be remembered, is the possibility to book an existing Prontobus trip; this function was already present starting from the RUMOBIL Project and is remembered because with the introduction of the RegiaMobil app its use has increased (see the following chapters relating to the evaluation of the pilot). This is certainly a positive aspect as the workload on the call center is reduced, which can therefore devote more time to the other activities it deals with and always referring to information on local public transport services.

The backend system has also been updated to be able to manage the functions described. The part that allows the connection between the Prontobus stops and those of the connecting public transport services has been inserted; for example, the Modena railway station is reached by the North service of the Prontobus of Modena and in addition to the various railway tracks there are various stops of the urban public transport service (north and south side of the station) and of the extra-urban service (north side).



Fig. 13 - User app - image 3

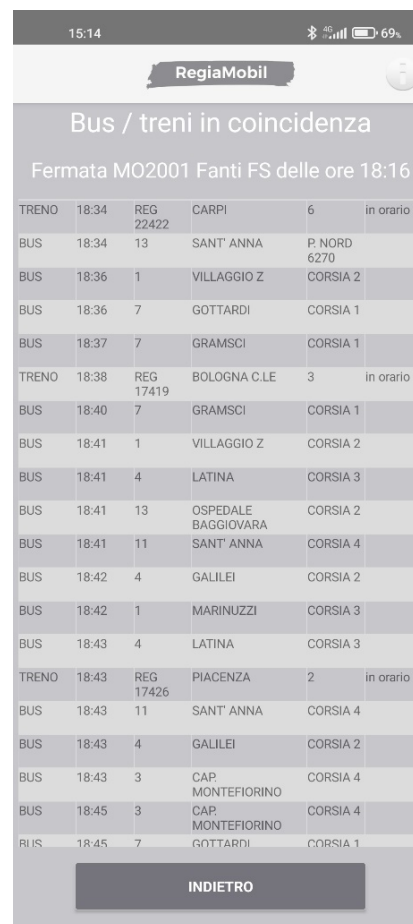


Fig. 14 - User app - image 4

All these stops and tracks have been linked to the Prontobus stop to provide a complete overview of the connecting services offered in that point. To compensate for any connection problems with the services that provide timetables of the connecting service in real time, the scheduled timetables of the bus services are also loaded on the platform; in this way, in the event of communication problems with the real-time timetable web services, the programmed timetables are provided (Fig. 15) and are loaded via automated procedures developed from aMo.



RegiaMobil Orari Bus

Cerca Nuovo orario

Elenco Orari

Fermata	Periodo	Ora Partenza	Linea	Destinazione	Corsia				
8578 - Mirandola FS	* *	SVE	* *	19:31:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	19:08:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	18:47:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	18:22:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	18:02:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	17:30:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	15:08:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	14:47:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	14:22:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	13:54:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	13:28:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	13:13:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	12:54:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	12:34:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	08:47:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	08:25:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	07:47:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	07:22:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SVE	* *	07:01:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SSA	* *	19:31:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>
8578 - Mirandola FS	* *	SSA	* *	19:08:00	FRONTOBUS	MIRANDOLA.AUTOS	FERMATA M02	<input type="checkbox"/>	<input type="checkbox"/>

Fig. 15 - Backend: timetable management

3.5. Changes

One change that was necessary compared to what was initially planned was that relating to the failure to include in the system the possibility of renting electric bicycles in Castelfranco Emilia it was not possible to make connections of e-bike usage with the DRT service.

Initially it was also planned to carry out the pilot only in Castelfranco Emilia while it was then decided to activate it simultaneously on all existing Prontobus services. Apart from these changes, there were no further deviations.

4. Pilot evaluation

4.1. Results

In summary the main KPIs expected to evaluate the pilot's results, foreseen in D. T2.3.7 Demo launch report, were the following:

- variation number of travellers for the DRT service of Castelfranco Emilia before and after the pilot;
- evaluation of the use of the rented e-bikes;
- increase of app downloads.

With regard to the use of e-bikes, as previously mentioned, this service has not been activated and therefore no data is available to feed the related KPIs.



With regard to the number of travellers transported on the Prontobus service of Castelfranco Emilia, the data shown in the following table were collected; as it was decided to extend the pilot project to all DRT services active in the province of Modena, global data relating to all Prontobuses are also provided. The results are the following (Fig. 16) and are related to the comparison between the months of December, January and February 2021 and 2022 (please note that the pilot started in mid-November 2021):

# TRIPS				
	CASTELFRANCO	%	ALL PRONTOBUS	Variation
Before RegiaMobil	2.370		14.031	
After RegiaMObil	2.641	+11,4%	15.892	+13,3%

Fig. 16 - # of Prontobus trips

Since it was established that the KPI had to be considered positive in case if the increase of travellers during the pilot period should have been more than 10% compared to the same period of the previous year, it has to be considered a good result. It should be noted that the KPI was measured over three months instead of twelve (that was the expected duration of the pilot) and that in general from previous experiences it was found that over time the curve of increases tends to flatten but in any case, not to decrease and an increase of users tends to be maintained.

As regards the pandemic, it should also be noted underlined that apart from the lockdown period, this did not greatly affect the number of users of the DRT services who are not aimed at commuters and for this reason the use was always maintained high.

About the KPI related to downloads as shown in the following table (Fig 17), the number of app installations has grown during the RegiaMobil pilot so also this KPI has to be considered positive. We add the information that since in the iOS and Android app stores the RegiaMobil app had been inserted as an update of the RUMOBIL app, the RegiaMobil app was installed by all those who used the RUMOBIL one; then all the owners of an app of the Prontobus service in Modena benefit from the MaaS approach introduced with RegiaMobil.

# APP DOWNLOADED		
	# downolads	Variation
Before RegiaMobil	3.116	
After RegiaMobil	3.389	+8,1%

Fig. 17 - # of app downloads

One of the objectives that we had set ourselves with the RUMOBIL project was to be able to have more data and information regarding the use of the Prontobus services; this objective has been strengthened with the RegiaMobil project so that with these data it is possible to provide further indicators which confirm the success of the RegiaMobil project. Even these results are related to the comparison between the previous and current period based on the months of December, January and February.

About the number of single persons that used the Prontobus services before and after the pilot (Fig. 18), it is confirmed that now there are more users than before (+12,0%).

# PERSONS		
	# persons	Variation
Before RegiaMobil	1.615	
After RegiaMobil	1.808	+12,0%

Fig. 18 - # of persons that used Prontobus



As mentioned before, it is increased the number of users of reservations made via the app; this helps the call center activities as this aspect give them more time to manage other important activities that they have in charge.

Considering that the number of reservations per year of the Prontobus services exceeds 90,000 and taking into account the period in which the Prontobus services is active, with the current percentage of bookings made by the app, around 42 out of 320 daily bookings are made independently by users (Fig. 19).

# RESERVATIONS VIA APP		
	%	Variation
Before RegiaMobil	10,2%	
After RegiaMobil	13,6%	+3,4%

Fig. 19 - # of persons that used Prontobus

Still looking at the numbers, another element was found that confirms the success of the RegiaMobil project: the number of trips of the various Prontobuses that have as their origin or destination a stop where it is possible to make exchanges with other services has increased for almost all the stops. LPT bus or rail. This aspect is highlighted in the following two tables (Fig. 20 and Fig. 21) as well as underline the importance of having data in order to be able to evaluate in detail services performed, which allows them to be monitored adequately and, if necessary, to intervene to improve them.

DEPARTURES FROM THE INTERCONNECTION STOPS						
stop #	City	Stop type	Before	After	Variation	
C10	CARPI	Railway station	128	136	6,3%	
C40	CARPI	Bus station	158	209	32,3%	
CE01	CASTELFRANCO EMILIA	Bus & railway station	224	240	7,1%	
M01	MIRANDOLA	Bus Station	505	658	30,3%	
M02	MIRANDOLA	Railway station	1.756	1.665	-5,2%	
MO1001	MODENA	Railway station	730	777	6,4%	
MO2001	MODENA	Bus station	158	201	27,2%	
TOTAL			3.659	3.886	6,2%	

Fig. 20 - Departures from interconnection stops

ARRIVALS TO THE INTERCONNECTION STOPS						
stop #	City	Stop type	Before	After	Variation	
C10	CARPI	Railway station	102	119	16,7%	
C40	CARPI	Bus station	83	101	21,7%	
CE01	CASTELFRANCO EMILIA	Bus & railway station	215	243	13,0%	
M01	MIRANDOLA	Bus Station	611	601	-1,6%	
M02	MIRANDOLA	Railway station	1.175	1.650	40,4%	
MO1001	MODENA	Railway station	839	855	1,9%	
MO2001	MODENA	Bus station	170	284	67,1%	
TOTAL			3.185	3.863	21,3%	

Fig. 21 - Departures of interconnection stops



4.2. Target groups

Based on the results obtained, it can be said that the main target group, represented by users of the Prontobus service and the RegiaMobil app was reached from the pilot as good results was reached both in terms of use of the app and in terms of use of the service.

The same can be said for two other target groups: the drivers of the Prontobus service and the call center staff who have seen their work activity improved (see the following feedback paragraph). These target groups were also Stakeholders who were consulted before the Project for which they were positively reached by the pilot also in this role.

The other Stakeholders who are the directors who participate in the Permanent Mobility Committee will be involved in the next meeting scheduled for the end of March 2022 in which they will be informed of the results obtained by the RegiaMobil pilot.

4.3. Feedback

In line with the results obtained, the feedbacks detected were also extremely positive.

The staff of the call center, similarly to what it had done before the pilot's start, consulted the users of the Prontobus service who use it in connection with other LPT services and the feedback was very positive; in fact, the usefulness of the MaaS information provided by the RegiaMobil app was confirmed, which allows them to easily plan and manage their trips. Previously it was necessary to use different information sources in order to have the same data which are now instead collected in a single tool; the activity that has had the greatest benefits particularly in case in case of having the need to reschedule the trip in the presence of problems such as train or bus delays. When these events occur (for example due to a breakdown on the railway line) the RegiaMobil app has been very useful for obtaining information on delays and for finding an alternative bus service.

Also from the users of the Prontobus service it was noted that the management of train and bus delays by the drivers of the service has significantly improved, as now they are able to know whether or not they have to wait for a user at stops in proximity of bus or railway stations; before the pilot in case of delays of buses or trains the Prontobus user had to call the call center to inform that his bus or train were in delay and then the call center had to call the bus driver to inform him. This procedure, in addition to being slow and unsafe, did not always lead to the desired results generating a disservice for the Prontobus user.

The same thing was confirmed by the drivers themselves who were consulted during the pilot project to find out if the new version of the app they use was working correctly.

Positive feedback has also been received from the call center both for the fact that it facilitates their work to have satisfied users of the service, and for the fact that they have a workload further relieved by the fact that the number of bookings made with the app has increased.

4.4. Post-pilot plans

The first follow-up action consists in keeping the system developed for the RegiaMobil pilot active even after the end of the duration of the Project.

The same thing was done for the RUMOBIL project which was active when it was decided to implement it in a MaaS perspective within RegiaMobil. The DRT Prontobus app has become structural and will continue to be used.



With regard to future developments, it will be evaluated with the Municipality of Castelfranco Emilia whether it will also be possible to introduce the e-bike rental service in connection with a Prontobus or LPT services in general. Given the operation of the app throughout the provincial territory of Modena, it will also be assessed whether it may be of interest to other Municipalities served by the Prontobus.

Another field in which development of the RegiaMobil app can be evaluated is interfacing with other services such as that relating to the rental of electric scooters which is spreading a lot especially in the city of Modena. At the moment there are four different companies that provide the rental of these vehicles; unfortunately, in defining the area of operation of these operators with its own act, the Municipality of Modena has not imposed to the Operators the availability of exchanging data with other public platforms such as RegiaMobil, therefore the possibility of obtaining a connection with the various apps will have to be defined.

5. Lessons learned

With regard to the lesson learned, various aspects need to be touched upon.

First of all, it was confirmed that, for a project to be successful, a discussion with the main Stakeholders involved is essential. In order for a service to be used, it must be as close as possible to the needing of who will use it and for this it was fundamental to involve the users of the service Prontobus in order to better understand their requirements.

Furthermore, a service is able to be of good quality if the person responsible for carrying it out is involved in its structuring. This is why it was important to involve the PT Operator and in particular the call center that manages reservations and the bus drivers who physically carry out the service. From them valuable information was gathered on what characteristics the RegiaMobil pilot should have had to ensure that they were put in a position to offer an ever-better service to users. These assumptions meant that the subsequent phase of defining the pilot was as precise as possible and carried out with very clear ideas regarding the objectives to be achieved.

A pilot project has characteristics linked to the availability of time and economic resources that make it very important and vital for its success to immediately identify the path that can lead to its success, as significant corrections would be difficult to introduce for the reasons set out above. This is therefore to be considered the main lesson learned; the involvement of all the actors concerned is important because this leads to structuring a good service and if a service is done well and is perceived as useful, then it will be used.

It was also important to conceive the new system developed in a modular way so that problems such as not being able to use the e-bike rental did not mean a redesign of the entire system. This modular approach will also facilitate any future interfacing with other services such as the aforementioned scooter rental. It was also possible to assess that the increasing introduction of technological tools helps to make services more attractive.

The Prontobus services are widely used by people who do not have alternative means of transport and who must go to points of primary importance such as their doctor, the hospital to make visits; among the users of DRT services there are therefore many elderly people and we must not fall into the error of not proposing tools such as the one introduced in RegiaMobil thinking that this category of people would be disadvantaged by the progressive use of innovative technologies as it was pleasantly noted that they are able to use them more than we were supposed to.

An attempt was made to manage the RegiaMobil project with extreme pragmatism also as regards contacts with public Administrators regarding the implementation of the service and the acceptance of the results in order to take them into consideration for future choices.



In this perspective, it was certainly a good choice to involve the Permanent Committee for Mobility as it allows you to make every choice fast and productive and to make a tangible treasure of the feedback received.

A further final evaluation relates to the wealth of experience that is sedimented by participation in European Projects; it is possible to introduce novelties that otherwise perhaps would not have been made and new experiences are made which are very useful in the activities. aMo is facing a generational change within it and new and young collaborators are entering the world of public transport; European Projects contribute tangibly to giving them a vision that is not based only on the passage of information and experiences by those who preceded them but to appropriate innovative working methods coming from sources external to the company and of an international nature.