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1. Executive summary

The territory of Central Europe is characterised by uneven transport connections and mobility opportunities, across and within regions, between urbanized contexts and rural and peripheral areas.

The project's common challenge is to improve accessibility and connectivity in CE peripheral and rural areas through better integration of public transport networks with Demand Responsive Transport (DRT) services, building on joint development and implementation of governance, planning, digital and operational innovations.

DREAM_PACE will develop innovative DRT concepts complementing regional mobility networks.

The project will improve DRT planning and delivery capacities of public authorities and operators.

A new generation of DRT services will become functional and integral part of regional mobility networks, enhancing accessibility for citizens, territorial cohesion and social inclusion. Integration is the key to the DREAM_PACE innovative approach, as DRT services are mostly developed as stand-alone solutions to specific needs, the potential of scalable strategies and solutions is widely underestimated.

Project Partners (thereafter PP) will jointly develop a strategy for DRT in Sustainable Urban Mobility Plans to be adopted at EU level, co-design, test and implement innovative DRT solutions enhancing mobility networks. Strategies and solutions will foster a better integration of DRT and public transport (Bologna, Pavia, Budapest areas), support a higher coordination among existing DT initiatives (East Tyrol, Baden-Württemberg) and experiment new integrated approaches for DRT "green fields" (Split-Dalmatia County).

DREAM_PACE will exploit the potential of integrated planning and digital and operational innovations for a common strategy and develop innovative DRT modular solutions. The project implementation builds on transnational cooperation to guarantee an adequate responsiveness and adaptability of project results to specific characteristics of mobility ecosystems across CE rural and peripheral areas.

This deliverable is the final report on pilot 2.1 “Enhancing existing DRT networks responsiveness in rural and peripheral areas through digital/ operational innovations” activities until 30 September 2025, developed in the pilot areas of Pavia-Oltrepò (Italy) and Budapest (Hungary) with the East Tyrol pilot as a validator. It follows the structure of the workplans presented in D2.3.1 and of the intermediate reports presented in D2.3.2. It outlines the outcomes of the testing phase, the lessons learned and the fine tuning and joint finalization of the modular components of the governance and planning model.

Chapter 2 recalls the context, objectives, and scope of pilot 2.1.

Chapters 3, 4 and 5 present the pilot 2.1 final achievements across the three pilot regions.

Chapter 6 drafts the conclusions of the deliverable at project level, summarizing the results of the pilot achieved by 30 September 2025, and highlighting their relevance for building up the DREAM_PACE solutions.

The Annex contains the local and project media releases that have been used to communicate the results of the testing actions in the pilot regions, and the summary of the respective public presentations.

2. Introduction

Pilot 2.1 "Enhancing existing DRT networks responsiveness in rural and peripheral areas through digital/ operational innovations" focuses on the testing of the solution components of a common modular digital/operational mode that have been co-designed with stakeholders through a participatory process. The goal is to enhance the existing DRT networks, providing better integration and coordination improving accessibility and linkages between peripheral-rural regions and urban nodes.

The abovementioned digital/operational model is composed by the following components in the involved pilot areas.

In Pavia-Oltrepò:

- Digital integration between DRT and Public Transport (PT);
- New approaches to inclusiveness (including the simplified booking through interactive screens).

In Budapest:

- Tools for digitalization of existing services;
- Digital integration between DRT and PT;
- Operational hybrid DRT model enhancing flexibility.

The testing activities built on the existing DRT services in the two pilot areas, enhancing them through the addition of the abovementioned digital and operational components. The tests validated the impact of the proposed innovations on the DRT services, in order to identify the conditions for replicability. In particular, the tests involving current and potential users offered an initial understanding of the receptivity of the proposed solutions within a specific territorial context, characterized by defined demographic and socio-economic features, thus providing a preliminary indication of the replicability potential in areas with similar characteristics.

A particular attention was given in the two local workplans (drafted in D2.3.1) to citizen engagement and communication actions, in order to support the acceptance of digital and operational innovations as well as to guarantee effective fine tuning with the needs of users and with the sustainability principles (reduction of unit emissions per passenger and kilometre travelled, by ensuring that trips are operated only based on actual travel requests; use of smaller, low-emission vehicles). For this reason, the participatory approach and the communication actions have become integral part of the solutions validated through the pilots and have been consolidated to be taken up within and beyond the framework of the project.

It is noted that the expected East Tyrol activities related to pilot 2.1 concerned the following components:

- Tools for digitalization of existing services;
- Digital integration between DRT and PT.

Indeed, the integration of DRT services into an existing PT-app already took place in East Tyrol and it was done by VVT into their app called "Smartride" directly and apart from the DREAM_PACE Project. This is the common app for PT in the East Tyrol region and there are no other feasible alternatives to test such an integration (which, even if RMO designed one, could not be seen as serious competition to Smartride and therefore would not deliver robust results): therefore, RMO concentrated on analysing secondary data and conducted interviews with VVT to get information on how this measure influenced usability and acceptance of the referring DRT systems. Furthermore, RMO compared and reflected those outcomes with the ones from the Pavia-Oltrepò and Budapest pilots, confronting with AG and BKK to enrich the discussion and add another point of view and experiences of VVT's implementation.

3. Pavia-Oltrepò

3.1. The pilot testing elements

Pilot: 2.1 Enhancing existing DRT networks responsiveness in rural and peripheral areas through digital/ operational innovations

Pilot area: Pavia-Oltrepò Pavese, Italy

Peer reviewers: Centre for Budapest Transport (BKK), Regions Management Osttirol (RMO), Split-Dalmatia County (SDC), Redmint

3.1.1. The solution components to be tested

Within the framework of co-design solutions components to be tested in Pilot 2.1, the activities in the Pavia-Oltrepò area focused on two components:

1. **Digital integration between DRT and PT;**
2. **New approaches to inclusiveness.**

In particular, concerning the first point, the digital/operational innovation is represented by the **display of information on traditional public transport services as well as DRT services on the same interfaces**, namely the Miobus (DRT) app, the Autoguidovie (PT) app and website, and the web app designed to be integrated in the interactive screens (totems) installed at bus stops. The abovementioned digital systems provide the following information/functionalities:

- Timetables of bus lines with interchanges at the DRT stops (routing POI);
- Possibility of booking DRT service in connection with bus line service;
- Points of interest near the DRT stops (public services, touristic attractions, cycling routes, etc.).

For the second component, i.e. new approaches to inclusiveness, as mentioned above, **interactive screens (totems) have been tested at 3 selected bus stops**. They facilitate the access to information (e.g. real time position of the vehicles) and booking of services. Dedicated testing and demonstration of the digital functionalities to the citizens were organised on the territory and will continue as screens will be permanently installed in locations decided as result of the testing phase.

The reference area is a territory of about 30 small municipalities, where Stradella (main urban municipality of the area) represents the main travel destination for commuters (workers and students) as well as for leisure purposes. In this area, the DRT service operates with free itineraries between a predefined set of stops, in the following service hours:

- In the school period: from Monday to Friday 9.30-11.30 / 16.30-18.30; Saturday 6.00-10.00 / 12.00-14.00 / 17.00-19.00;
- In the non-school/summer period: Monday to Saturday 6.00-10.00 / 12.00-14.00 / 17.00-19.00.

It is worth adding here that, as emerged during the Living Lab co-design process, one of the major challenges for the success of DRT in the Oltrepò area is represented by the difficulties of communicating the existence and user friendliness of the service. Testing activities are accompanied by tailored communication and engagement activities on the territory, with the triple objective of raising awareness on the service and its potential, training current and potential users on the use of digital features and monitoring the impact of tests through surveys and interviews.

3.1.2. Stakeholders' involvement, competences and role

The following table provides an overview of the stakeholders involved in the pilot between 1 July and 30 September 2025, outlining their main competences, roles, and specific contributions to the activities carried out during this period.

In particular, in this period AG involved the stakeholders that should host the testing activities, promote the service and its features among citizens and support the monitoring (Municipalities of Stradella, Santa Maria della Versa and Broni) and some representatives of consumers and/or consumers groups, obviously, in order to support and monitor the tests with direct engagement. The other stakeholders involved in the previous period were not involved in this specific phase because their role is more linked to large-scale territorial planning and contributes to the construction of project scenarios more than to operational aspect.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
Public Transport Authority (Regulatory Body)	Agenzia Trasporto Pubblico Locale Milano, Monza e Brianza, Lodi e Pavia	Competences: the agency is the PTA, in charge for service planning. Role and contribution to the pilot: supervising and validating the results of the pilot tests.	Not involved between 1 July and 30 September 2025.
Local authority	Provincia di Pavia	Competences: the province is a relevant governance actor of the territory; the whole area is part of the province. Role and contribution to the pilot: representing the needs of the territory, supervising and validating the results of the pilot tests.	Not involved between 1 July and 30 September 2025.
Local authority	Comune di Stradella	Competences: local administration, directly interested in the DRT service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	Involved - between 1 July and 30 September 2025 it played a key role in testing activities and pilot implementation.
Local authority	Comune di Broni	Competences: local administration, directly interested in the DRT	Involved - between 1 July and 30 September it played a key role in testing activities and pilot implementation.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	
Local authority	Comune di Casteggio	Competences: local administration, directly interested in the DRT service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	Not involved between 1 July and 30 September 2025.
Local authority	Comune di Santa Maria della Versa	Competences: local administration, directly interested in the DRT service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	Involved - between 1 July and 30 September 2025, it played a key role in testing activities and pilot implementation.
Local authority	Comune di Montù Beccaria	Competences: local administration, directly interested in the DRT service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	Not involved between 1 July and 30 September 2025.
Local authority	Comune di Ponte Nizza	Competences: local administration, directly interested in the DRT	Not involved between 1 July and 30 September 2025.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	
Local authority	Comune di Rovescala	Competences: local administration, directly interested in the DRT service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	Not involved between 1 July and 30 September 2025.
Local authority	Comune di Bosnasco	Competences: local administration, directly interested in the DRT service generating benefits for citizens. Role and contribution to the pilot: host testing activities, promote the service and features among citizens, support the monitoring.	Not involved between 1 July and 30 September 2025.
Digital service provider	Via Transportation	Competences: DRT digital platform. Role and contribution to the pilot: implementsolution components, support the tests and monitoring.	Not involved between 1 July and 30 September 2025.
Local economic activity	ITP S.p.A. Bosnasco	Competences: big employer. Role and contribution to the pilot: support the monitoring of tests by engaging employees.	Not involved between 1 July and 30 September 2025.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
Association	Consumer's groups	Competences: representative of consumers. Role and contribution to the pilot: support the monitoring of tests by engaging citizens.	Involved - between 1 July and 30 September 2025 they played a key role in testing activities.
General public	Customers/Users (see details in LL reports - ref. D2.2.2)	Competences: consumers or potential consumers of the service. Role and contribution to the pilot: support the monitoring of tests with direct engagement.	Users were involved in the 5th (held in Stradella on 8 July) and 6th (held in Santa Maria della Versa and Broni on 17 July) LL meeting to test the display/totem on site, allowing them to interact directly with the system and explore its main digital functionalities.

***Stakeholder types: National/Regional/Local Authority; PTO/PTA; Digital service provider (specify if SME); Association; General public; Other (specify).**

3.2. Pilot management and testing implementation

3.2.1. Activities and responsibilities

The following table lists the different steps - in form of consequent activities - that were envisaged for the testing of the pilot solution components.

For each testing activity, the expected results to be achieved are reported, together with the relevant KPI / target for the validation of the testing activity itself.

The last column reports on the status of the testing activity and the respective KPI / expected result by 30 September 2025 (Final report).

#	Activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
1	Preparation of the digital platform (AGI and Via)	Preparation of the new digital tools in the App and Web App for the totems.	Functionalities activated: 3 (timetables, routing, booking). Digital channels: 3 (Miobus App, AGI App, Web App).	Result achieved. Functionalities activated: 3/3 implemented, tested and operating Digital channels: 3/3 (Miobus App, AGI App, Web App) implemented, tested and operating.

#	Activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
2	Identification of the device model (screen/totem) (AG)	Internal discussion between different business areas (planning & design, marketing, IT and infrastructures) to identify the device model (totem).	Selection of the device.	Result achieved. Device model identified, tested in July together with the Web App.
3	Locations identification (AG and local authorities)	Discussion for the identification of the best locations for the totems (e.g. main stops in the main municipalities).	Identification of the locations for the installation.	Result achieved. 3 Locations identified (Stradella, Santa Maria della Versa and Broni - municipality halls)
4	Launch of the first phase of the pilot, training and monitoring (AG, local authorities, Via, Redmint, associations)	A day in one of the main municipalities (probably Stradella, during a market day).	1 event organized.	Result achieved. Done on 6 May 2025 (market day) in Stradella market square.
5	Installation of the totem (AG)	Installation of totems on the territory.	3 totems installed.	Pending. Installation dates to be defined, by January 2026.
6	Launch of the second phase of the pilot, training and monitoring (AG, local authorities, Via, Redmint, associations)	A day in one of the installation sites. Stakeholders will be invited in order to try the functionalities: the objective is to identify also possible “ambassadors”, sharing knowledge and fostering the use of the totems.	1 event organized.	Result achieved. 2 events (LL meetings) organized; on 8 July in Stradella (5th LL meeting) and on 17 July 2025 (6th LL meeting) in Broni and Santa Maria della Versa.
7	Test monitoring closure and next steps	Collection, analysis and processing of test results.	Integration of the results in the Action Plan.	Result achieved. Done during August 2025.

3.2.2. Focus on procurement

The main procurement elements for the implementation of pilot activities were the followings:

1. Upgrade of the existing Apps and creation of the Web App: this procurement process involved the platform provider Via, which delivered the upgrade and translated the information requested in the Web App;

2. Screens: a market research was performed to identify the most suitable provider, and the procurement process included the installation of the screens.

These elements did not represent a major barrier as the services are supplied by the same provider as the DRT IT system and the screens are off-the-shelf products. The main uncertainty was connected to the installation in public spaces where local rules and availability had to be verified with the municipalities.

3.2.3. Timeline

The following table refers to the activities described above (see Activities and Responsibilities table) and outlines the timeline for their implementation and any deviations that occurred during the reporting period.

In the Pavia / Autoguidovie (AG) case, there were some brief postponements of the deadlines initially planned in relation to some punctual activities, in particular the ones related to external suppliers; these postponements did not significantly impact the deadlines of the overall project.

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
1	Preparation of the digital platform (AGI and Via)	01/06/2024	01/11/2024	No deviations after 30 June 2025
1-MI	Digital platform running		15/11/2024	No deviations after 30 June 2025
2	Identification of the device model (screen/totem) (AG)	01/11/2024	31/12/2024	Real end: 01/07/2025
3	Locations identification (AG and local authorities)	01/01/2025	31/01/2025	Real end: 17/07/2025
3-MR	Media release announcing the first event		20/03/2025	Real end: 24/04/2025 (through App and social media)
4	Launch of the first phase of on-field activities, training and monitoring (AG, local authorities, Via, Redmint, associations)	21/03/2025	30/04/2025	Real end: 06/05/2025
4-MR	Media release describing the event and the start of tests, and announcing the second event		05/04/2025	Real end: 25/07/2025
5	Installation of the totem (AG)	15/04/2025	15/06/2025	Installation dates to be defined, by January 2026.
5-MI	Totems installed		15/06/2025	Installation dates to be defined, by January 2026.
6	Launch of the second phase of on-field activities, training and monitoring (AG, local authorities, Via, Redmint, associations)	15/06/2025	31/07/2025	No deviations after 30 June 2025.

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
6-MR	Media release describing the event and the full testing		31/07/2025	No deviations after 30 June 2025 25/07/2025 and 07/08/2025 (press release and social media post)
7	Test monitoring closure and next steps	01/08/2025	31/08/2025	No deviations after 30 June 2025

***Milestones and other:**

MI: Milestone (only has and end/achievement date)

MR: Media Release (please plan one at the beginning and one at the end of the pilot tests, and if relevant in correspondence of the milestone achievements

PM: Periodic meeting (can be LL meetings with the stakeholders in order to launch/monitor/fine tune the tests

PR: Peer Review of the tested solution component (with one or more project/associate partners)

3.2.4. Analysis of deviations

The following table provides a detailed explanation of the deviations to the timeline as identified in the table above, specifying their severity level and the adaptation or mitigation measures implemented where applicable.

Deviation	Severity*	Adaptation/Mitigation measure
Activity #2 - Identification of the device model (screen/totem) (AG): postponed as it requires previous identification of the suitable locations with the stakeholders	1 - low	New activity planning: 1. Media release announcing first event; 2. First event to start the identification of locations; 3. Identification of location and of device model (contextually)
Activity #3 - Locations identification (AG and local authorities): following new plan	1 - low	Adapted to the new planning to engage municipalities
Activity #4-MR - Media release describing the event and the start of tests, and announcing the second event: following new plan	1 - low	Adapted to the new planning to engage municipalities
Activity #4 - Launch of the first phase of on-field activities, training and monitoring (AG, local authorities, Via, Redmint, associations): postponed as functional to the identification of locations, alignment with municipalities' timeplan	1 - low	Adapted to the new planning to engage municipalities
Activity #5 - Installation of the totem (AG): delay following the evolution of the planning	1 - low	Adapted to the new planning; the interactive screens were tested during the

Deviation	Severity*	Adaptation/Mitigation measure
		pilot in the three municipalities, and will be installed in the selected location in RP6

*** 1 - low; 2 - moderate; 3 - high; 4 - very high**

3.3. Results of peer-review and alignment actions by 30 September 2025

In the case of the Pavia-Oltrepò pilot, the feedback of the reviewers (BKK, RMO, SDC, Redmint) did not require to adjust the activities.

3.4. Conclusions of the testing phase

3.4.1. Outcomes of the testing phase

Component 1: Digital integration between DRT and PT

The testing of the **display of information on traditional public transport services as well as DRT services on the same interfaces** generated positive outcomes for the users - as confirmed by a survey conducted in May 2025 that collected around 200 feedback) - and for the operations. They can be summarized as follows.

Outcome #1: **Intermodal planning**: users can see also PT timetables on different interfaces and plan their intermodal trip.

Outcome #2: **Intermodal booking**: users can book DRT services in connection with scheduled services.

Outcome #3: **Optimisation of service**: when origin and destinations of DRT trips are compatible, the user is rerouted on scheduled services, enhancing synergies and potentially reducing costs.

Outcome #4: **Enhanced experience with POIs**: the interfaces show Points of Interest near the DRT stops (public services, touristic attractions, cycling routes, etc.).

Component 2: New approaches to inclusiveness

The testing of a simplified webapp, accessible via public interactive screens, generated theoutcomes listed in the following.

Outcome #5: **Simplified access to the service for non-digital natives**: the interfaces and the interactive screen are useful to users for planning their trips and booking the service.

Outcome #6: **Choice of location for screen installation**: during the pilot activities different options were explored and discussed and optimal locations were found.

3.4.2. Lessons learned

Component 1: Digital integration between DRT and PT

Lesson learned #1**: promoting the synergies between DRT and scheduled services is fundamental to increase acceptance.** Even if more than half of the users give a high rating to the options and in general the rating is positive, there are some cases of low satisfaction when DRT users are redirected to scheduled PT.

Lesson learned #2: **intermodal planning and booking can be further integrated to attract more users**;

Lesson learned #3: **Point of Interests can be enriched with further information targeting different users (e.g. tourists)**.

Component 2: New approaches to inclusiveness

Lesson learned #5**: interactive screens are a good entry point to the service and can guarantee digital accessibility to non-native citizens**, also replacing or complementing phone booking systems,

Lesson learned #6**: local engagement and trainings are necessary,** involving local communities, administrators and more skilled citizens.

3.4.3. Fine tuning and joint finalization of the modular components

Component 1: Digital integration between DRT and PT

The results of the testing highlighted the need for a systemic approach to intermodality, and for a comprehensive design of the services, interfaces and communication campaigns that valorise the synergies between DRT and scheduled services.

The outcomes of the testing will be translated into a guidance document for the digitalisation and integration of DRT into user interfaces, combining technical and strategic guidance.

Component 2: New approaches to inclusiveness

The testing identified key success factors as the simplification of the access and booking process, the localisation of the interactive screens and the communication and training activities, including the promotion of the “mobility ambassador” concept among local communities.

The outcomes of the testing will result in a guideline dedicated to the development of solutions to guarantee the digitalisation process of DRT is inclusive and effective, designed around the experience of the pilot.

4. Budapest area

4.1. The pilot testing elements

Pilot: 2.1 Enhancing existing DRT networks responsiveness in rural and peripheral areas through digital/operational innovations

Pilot area: 16th district, Budapest, Hungary

Peer reviewers: Autoguidovie (AG), Regions Management Osttirol (RMO), Split-Dalmatia County (SDC), Redmint

4.1.1. The solution components to be tested

Within the framework of co-design solutions components to be tested in Pilot 2.1, the activities in Budapest area focused on three components:

1. **Tools for digitalization of existing services;**
2. **Digital integration between DRT and PT;**
3. **Operational hybrid DRT models enhancing flexibility.**

Component 1: **DRT in MaaS App**. The new DRT service was aimed to be displayed in the BudapestGO journey planner application used in Budapest and in its urban area. The location of the vehicles can be tracked on a live basis and live on-time departure times are shown to its users. Users can plan journeys with the new service as it is integrated in the trip planning system. The ticketing system for the new service is the same as the one used in BKK's existing public transport network. Journey requests, however, need to be indicated in a dedicated website developed exclusively for the project. This website is stand-alone integrated in the BudapestGO app: users can reach the online request website (csobajbusz.bkk.hu) in the BudapestGO app via a hyperlink and can login to the csobajbusz.bkk.hu with their existing BudapestGO account.

Component 2: **Display of DRT and traditional services in the same interface to foster integration**. The new service is stand-alone integrated into the BudapestGO application, like the already operating demand-responsive transport systems (Telebusz), but in this case it is possible to log in with an existing BudapestGO account. The location of the vehicles can be tracked on a live basis in the BudapestGO application along with other existing BKK and MÁV-HÉV services.

Component 3: **New DRT services without fixed itineraries**. This is a flexible DRT service without a pre-fixed designated route in a suburban area of the capital city of Hungary. This is supported by a newly developed software, which had to be acquired through a procurement from an experienced company that handles state-of-the-art transport solutions. The goal of the tests was to gain experience and help identify potential opportunities to extend demand-responsive transport solutions in Budapest. The new flexible DRT system serves a mixed-use residential area, located in the eastern part of the 16th district in Budapest, which was underserved by public transport (PT) services. The area does not feature any specific trip-attracting facilities; however, a supermarket that opened at the beginning of 2025 can attract more people to the territory. The neighbourhood is surrounded by a main road where regular bus services are currently operating and by a suburban railway line, which leads to a nearby suburban town, Csömör. Nevertheless, despite the existing PT connections, the large distances that were required to go to the locations of the stops made these transport link uncompetitive and uncomfortable for a large proportion of residents in the area, like the elderly population. As a result, car dependency is very high and cars are the dominant form of transport among the residents of the pilot area.

4.1.2. Stakeholders' involvement, competences and role

The following table provides an overview of the stakeholders involved in the pilot between 1 July and 30 September 2025, outlining their main competences, roles, and specific contributions to the activities carried out during this period.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
PTA	Budapesti Közlekedési Központ (Centre for Budapest Transport - BKK) BKK is the transport organising authority of the Municipality of Budapest and aims to coordinate the transport processes.	Competences: planning and developing PT systems, contracting transport services, organising traffic in the city, maintaining municipality owned public roads. Roles: pilot responsible, decision maker. Contribution to the pilot: main project partner. It contributed through designing, strategic decision-making and organising the new DRT service.	Involved - Several departments of BKK have been working on the development of the new DRT system. They organized and participated in the press conference on the launch of the new DRT service on 15 August 2025.
SME	Mobilissimus Mobilissimus is a mobility planning and consultancy company.	Competences: research, planning and consultancy in the field of sustainable urban mobility for public and private clients. Role: Expert and advisor. Contribution to the pilot: co-design process, designing and analysing research to gather more information about the potential demands for the planned DRT service.	Involved - Mobilissimus participated in the press conference on the launch of the new DRT service on 15 August 2025 and shared the news about the launch of the service on its website.
Local authority	Municipality of the 16th district of Budapest. The 16th District of Budapest is a suburban area located in the northeastern part of the Hungarian capital, which is currently underserved by PT services.	Competence: the pilot area is located in the 16th district of Budapest, which is governed by the local municipality. Role: Local Authority. Contribution to the pilot: it contributed to the pilot implementation by providing support in potential barriers, which are required to be abolished to carry out the project.	Involved - corrected the critical speed bumps in the pilot area, which were too high for low-floor bus transport. It distributed 2,000 flyers to the inhabitants of the pilot area regarding the launch of the new DRT service; participated in the press conference on the launch of the new DRT service on 15 August 2025 and shared the news about the launch

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
			of the service on its website.
Infrastructure and service provider	BKV Budapest Transport Privately Held Corporation BKV is the main public transport operator in Budapest. It is one of the subcontractors of BKK. Its task includes the responsibility to operate certain services by providing vehicles and operational support.	Competence: expertise in operating services Role: Transport Operator. Contribution to the pilot: it held the responsibility to operate the new DRT service (vehicle, bus drivers).	Involved - providing the minibus and drivers to the new DRT service and participated in the press conference on the launch of the new DRT service on 15 August 2025.
Other (University)	Budapest University of Technology and Economics - Faculty of Transport Engineering and Vehicle Engineering)	Competences: academic knowledge and practices among designing transport systems. Role: expert and potential advisor Contribution to the pilot: it provided academic perspectives to transport solutions.	Not involved between 1 July and 30 September 2025.
General public	Residential community in the pilot area More than 300 participants from the pilot area.	Competences: experience, opinions about local transport. Role: residential advisor. Contribution to the pilot: participated in the public consultation and completed the online survey, with the results contributing to the design of the new DRT line.	Involved - they are the users of the new DRT line. They were informed about the new DRT line through the flyers, which were distributed by the Municipality.
Digital service provider	MÁV-HÉV Zrt. *(From 1 January 2025, integrated into MÁV Passenger Transport Ltd.)* It operates the five suburban railway lines in Budapest.	Competences: transport co-operator. Role: potential collaboration in the project. Since the suburban railway lines that the DRT service aims to feed are operated by MÁV-HÉV Zrt., cooperation may be required. Contribution to the pilot: collaborated and provided information from the DRT	(Slightly) involved - informed them about the new DRT line: the new DRT line connects the pilot area with the suburban railway (HÉV), operating as a shuttle service synchronised with the suburban railway departures and arrivals.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		planning. The new DRT line starts and end at Cinkota HÉV station and connect to suburban railway lines to provide transfer possibilities.	
Other (Sectorial agency)	KTI Hungarian Institute of Transport Sciences and Logistics KTI supports the transport administration and the decisions of the sectoral actors with data, studies and preparatory material.	Competences: good practices and knowledge among designing transport systems. Role: potential advisor. Contribution to the pilot: DRT planning - suggestions, good practices.	Not involved between 1 July and 30 September 2025.
SME	realCity ITS Ltd. realCity is a Budapest-based company specializing in innovative, cloud-based public transport management and passenger information systems.	Competences: developing modular public transport software solutions, cloud-based architecture, end-to-end system integration. realCity has played a key role in developing Budapest's FUTÁR system and has deployed full-stack solutions in cities like Szombathely. They also contribute to national platforms like utas.hu and are involved in European innovation projects supporting electric bus operations and sustainable urban mobility. Role: external contractor. Contribution to the pilot: developing the IT system for the new DRT service with flexible route planning	Involved - realCity developed and is operating the IT system for the new DRT service with flexible route planning. RealCity participated in the press conference on the launch of the new DRT service on 15 August 2025.

***Stakeholder types: National/Regional/Local Authority; PTO/PTA; Digital service provider (specify if SME); Association; General public; Other (specify).**

4.2. Pilot management and testing implementation

4.2.1. Activities and responsibilities

The following table lists the different steps - in form of consequent activities - that are envisaged for the testing of the pilot solution components.

For each testing activity, the expected result to be achieved is reported, together with the relevant KPI / target for the validation of the testing activity itself.

The last column reports the status of the testing activity and the respective KPI / expected result by 30 September 2025 (Final report).

#	Activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
1	Planning process	Designing and planning the technical description of the flexible DRT system, selecting the appropriate location (pilot area).	Technical description of the planned DRT system finalized	Result achieved. The technical description was completed in January 2025.
2	Social engagement activities	Engaging the local authorities and local citizens by organising an on-site public consultation and a social consultation (in a survey form) that enabled to share their opinion and demands regarding the planned service.	Actual public demands for the planned DRT service identified through the results of the social consultation, that help to shape the system.	Result achieved. On-site public consultation was held in the pilot area on 14 October 2024 and the survey process was completed in November 2024. (BKK is planning another online survey about the first experiences with the new DRT service in autumn 2025.)
3	Development of the DRT Software	Launching a procurement. The winner of the tender designs and operates the software that supports the flexible DRT system.	Winner of the tender announced. The selected company gains the right to design the software and operate the IT system of the DRT service through the designated test period.	Result achieved. The original tender was unsuccessful in February 2025. It was completed successfully by the end of April 2025.The contract was signed on 9 May 2025.The first live operation of the DRT software was on 25 August 2025.
4	Implementation of the service	Launching the DRT service for a designated test period.	Operation of the service initiated.	Result achieved. The new DRT service with flexible route started on 25 August 2025.

4.2.2. Focus on procurement

The development of a flexible DRT required the development of an IT system. The IT system was developed by an external contractor. The BKK's original plan was that the partner who currently operates the DRT system (Telebusz) would implement the IT solution for the flexible DRT system. However, the originally planned solution was not feasible, as the onboarding systems needed to be updated.

Therefore, BKK had to find a new solution, which was a procurement of a brand-new, independent white label software. For the new solution, BKK also had to revise the existing technical description for the procurement. Because of this, and the need to find a new solution, BKK started the procurement later than planned and the launch of the pilot was delayed.

The procurement required three valid bids. Nationally [in Hungary, ed.] there are not that many potential partners, so BKK invited foreign tenderers as well. The procurement process was conducted in both Hungarian and English.

It was important that within the framework of this procurement, the successful tenderer could develop a software solution for the implementation of the flexible route demand responsive transport system, which was operated during the pilot period (up to one year). The Contracting Authority purchased a service and therefore the procurement did not include the purchase of any software or licenses with a right of use beyond one year, but rather the testing of a new type of flexible demand-responsive routing system with software support.

The procurement process closed unsuccessfully in February 2025, the required three bids were not received. The procurement process was restarted by expanding the pool of potential providers and successfully completed by the end of April 2025. The contract was signed on 9 May 2025. The winning external contractor was the realCity ITS Ltd., a Budapest-based company specializing in innovative, cloud-based public transport management and passenger information systems.

4.2.3. Timeline

The table below refers to the activities described above (see Activities and Responsibilities table) and outlines the timeline for their implementation, as well as any deviations that occurred during the reporting period.

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
1	Planning process of the system	03/2023	11/2024	+3 months
1-MI	Technical description completed		02/2025	No deviations after 30 June 2025
2	Social engagement activities	05/2024	02/2026	No deviations after 30 June 2025
2.1-MI	On-site public Consultation for the citizens of the pilot area		14/10/2024	No deviations after 30 June 2025
2.2-MI	Online public consultation (survey)		13/11/2024	No deviations after 30 June 2025
2-MR	Media release about the planned flexible DRT service	01/10/2024	31/10/2024	No deviations after 30 June 2025

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
3	Procurement process for IT services	07/2024	09/2024	+7 months Real end: 04/2025
3-MI	Provider awarded		09/2024	+7 months (but it was not successful in the first round) Real end: 04/2025
4	Procurement process for IT services (after an unsuccessful round)	02/2025	04/2025	No deviations after 30 June 2025
4-MI	Provider awarded (after an unsuccessful round)		04/2025	No deviations after 30 June 2025
5	Implementation of the DRT service	11/2024	11/2025	+9 months Real start: 25/08/2025 Foreseen end: 31/01/2026
6-MR	Media release (press conference) about the activation of the service	11/2024	11/2024	+9 months Real end: 15/08/2025

***Milestones and other:**

MI: Milestone (only has and end/achievement date)

MR: Media Release (please plan one at the beginning and one at the end of the pilot tests, and if relevant in correspondence of the milestone achievements

PM: Periodic meeting (can be LL meetings with the stakeholders in order to launch/monitor/fine tune the tests

PR: Peer Review of the tested solution component (with one or more project/associate partners)

4.2.4. Analysis of deviations

The following table provides a detailed explanation of the deviations to the timeline as identified in the table above, specifying their severity level and the adaptation or mitigation measures implemented where applicable.

Deviation	Severity*	Adaptation/Mitigation measure
Activity #1 - Planning process of the system (+3 months): this postponement was due to the need to redesign the original planned technical specification of the new DRT system. (See the detailed reasons in Chapter 4.2.2 Focus on procurement process).	2 - moderate	The duration of the pilot was reduced from 12 months to around 5 months. Despite the delay, BKK (the pilot responsible) was able to develop a specification that was innovative and better adapted to the flexible route of the DRT service.
Activity #3 - Procurement process for IT services (+7 months, real end: 04/2025): This delay was	3 - high	Despite the delay, BKK was able to develop a specification that was

Deviation	Severity*	Adaptation/Mitigation measure
due to the need to redesign the originally planned technical specification of the new DRT system and the first round of the procurement process was unsuccessful, so the process had to be restarted (See the detailed reasons Chapter 4.2.2 Focus on procurement process).		innovative and better adapted to the flexible route of the DRT service and selected the best external contractor to implement it.
Activity #3-MI - Provider awarded (+7 months, real end: 04/2025): This delay was due to the need to redesign the originally planned technical specification of the new DRT system and the first unsuccessful first round of the procurement process (See the detailed reasons in Chapter 4.2.2 Focus on procurement process).	3 - high	Despite the delay, BKK was able to develop a specification that was innovative and better adapted to the flexible route of the DRT service and selected the best external contractor to implement it.
Activity #5 - Implementation of the DRT service (+9 months, real start: 25/08/2025): this delay was due to delays of the planning process of the system and of the procurement process.	3 - high	The duration of the pilot was reduced from 12 months to around 5 months.
Activity #6-MR - Media release (press conference) about the activation of the service (+9 months, real start: 15/08/205): due to the delay of the launch of the DRT service.	1 - low	BKK actively promoted the launch of the DRT system in the media (flyers, press conference, local and national media articles).

*** 1 – low; 2 – moderate; 3 – high; 4 – very high**

4.3. Results of peer-review and alignment actions by 30 September 2025

In the case of the Budapest pilot, the feedback of the reviewers (AG, RMO, SDC, Redmint) did not require to adjust the activities.

4.4. Conclusions of the testing phase

4.4.1. Outcomes of the testing phase

Outcome #1: A flexible demand-responsive transport (DRT) service was successfully launched in the 16th district of Budapest, serving a previously underserved suburban area. The service operates without fixed routes and is supported by a newly developed IT system.

Outcome #2: The DRT service was integrated into the BudapestGO journey planner application, allowing users to track vehicles in real-time and plan trips using the same ticketing system as other public transport services.

Outcome #3: The pilot demonstrated the feasibility of hybrid operational models and digital integration between DRT and traditional PT, fostering multimodal connectivity.

Outcome #4: Stakeholder collaboration was successfully established, including local authorities, public transport operators, SMEs, and the general public, contributing to the co-design and implementation of the pilot.

4.4.2. Lessons learned

Lesson learned #1: Procurement processes for innovative transport solutions require flexibility and contingency planning. The initial failure of the tender highlighted the importance of broadening the pool of potential providers and adapting technical specifications.

Lesson learned #2: Digital integration is key to user adoption. The inclusion of the DRT service in the BudapestGO app significantly improved accessibility and user experience.

Lesson learned #3: Local engagement is essential. Public consultations and surveys helped shape the service according to actual user needs, increasing acceptance and relevance.

Lesson learned #4: Launching a new transport service in suburban areas requires addressing infrastructure barriers (e.g., speed bumps) and ensuring operational readiness.

Lesson learned #5: Shorter pilot durations (due to delays) can still yield valuable insights if the testing phase is well-structured and supported by strong stakeholder cooperation.

4.4.3. Fine tuning and joint finalization of the modular components

Component 1: DRT in MaaS App

- Input and outputs of the fine-tuning actions:
    - Integration of the DRT service into the BudapestGO app required adjustments to the trip planning and vehicle tracking modules. A dedicated booking website was created and linked to the app.
- Finalization process:
    - The service was finalized with real-time vehicle tracking, synchronized departure times, and unified ticketing. The booking interface was tested and refined based on user feedback.

Component 2: Display of DRT and traditional services in the same interface, fostering integration

- Input and outputs of the fine-tuning actions:
    - Users can log in with existing BudapestGO accounts and view DRT vehicles alongside other PT services.
- Finalization process:
    - The integration allows for live tracking of DRT, BKK, MÁV-HÉV (surburban railway) and some regional services ensuring a unified user experience.

Component 3: New DRT services without fixed itineraries

- Input and outputs of the fine-tuning actions:
    - The flexible routing algorithm was tested and optimized using realCity ITS's software. Feedback from users and operators was used to refine route logic and scheduling.
- Finalization process:

- The system was finalized to operate in a mixed-use residential area with dynamic routing, improving accessibility and reducing travel times for residents.

The outcomes of the testing of the three components will result in: a) a guidance document for the digitalisation and integration of DRT into user interfaces integrated with MaaS, and b) in a guideline dedicated to the implementation of a new DRT service without fixed itineraries.

5. East Tyrol

As stated in the Introduction (chapter 2), the circumstances in East Tyrol regarding operational and digital situation of PT and the presence of a *quasi*-monopoly for relevant Apps led RMO to change the approach in this pilot. RMO concentrated on analysing the current offers in East Tyrol and compared them to offers by other operators in Austria, and to the findings from the other pilot regions.

The following paragraphs are based on the results of the LL meetings, dialogues with VVT[1] and the work of external experts who were consulted to advise on creating a blueprint of PT and DRT in East Tyrol.

5.1. Status Quo

Being part of the administrative region of Tyrol, with regards to PT administration, East Tyrol is also covered by VVT. Therefore, the operational and digital solutions of VVT also come into play when using PT in East Tyrol. VVT offers several apps for the use of their services, i.e. SmartRide, VVT Tickets and RegioFlink, all with different focus and purpose. SmartRide focuses on schedules and live timing, VVT Tickets is a special app to buy and manage tickets and RegioFlink is the app for booking one of VVT's DRTs (RegioFlink).

A comparison between standard applications in East Tyrol and other applications commonly used in Austria shows that, for applications not available in East Tyrol, a combination of timetable information, real-time information and ticket purchasing is the minimum standard. In East Tyrol, this combination is only available in the ÖBB app. Furthermore, it is evident that outside East Tyrol, demand-responsive transport and rental systems are also not integrated - or only insufficiently integrated - into standard applications. As with the applications in East Tyrol, offline use of these functions is usually limited.

5.2. Comparison to other solutions

A comparison between the applications available in East Tyrol and the standard applications commonly used in the rest of Austria in the field of public mobility, including compliance level and standard functions, is shown in the table below.

App	Schedule info	Live Timing	Tickets	DRTs	Rentalsystems	Offline-Use
VVT-SmartRide*	☑	☑	✗	✗	✗	partially
Wegfinder in OT*	☑	☑	partially	✗	✗	✗
ÖBB-App*	☑	☑	☑	✗	✗	partially
OsmAnd*	✗	✗	✗	✗	✗	☑
VVT-Ticket-App*	✗	✗	☑	✗	✗	partially
südtirolmobil	☑	☑	✗	✗	✗	✗
LinzMobil	☑	☑	☑	✗	✗	partially
GrazMobil	☑	☑	☑	✗	✗	partially
Salzburg Verkehr	☑	☑	☑	✗	✗	partially
VOR AnachB*	☑	☑	☑	✗	✗	✗

*Table 1: Comparison among applications available in Austria in public mobility; *app available in East Tyrol*

[1] Verkehrsverbund Tirol (VVT) has been responsible for local public transport (ÖPNV) in Tyrol since 1995 as a mobility service provider of the state of Tyrol. [Source: https://www.vvt.at/]

In a European comparison, there are other applications that offer advanced functions, thereby expanding the range of services within individual applications. The Berlin application Jelbi[2] integrates timetable information, real-time information and ticket purchasing with on-demand transport and rental systems, thus already offering a very wide range of services. The only area where there still has potential for optimisation is offline use. The same applies to the Finnish application Whim[3]. Omio[4], on the other hand, offers only a few functions in comparison, with timetable information, real-time information (limited) and ticket purchasing. However, tickets can be purchased for a large number of countries.

A comparison between the applications available in East Tyrol and advanced European applications in the field of public mobility, including compliance level and standard functions is shown in the following table.

App	Schedule info	Live Timing	Tickets	DRTs	Rentalsystems	Offline-Use
VVT-SmartRide*	☑	☑	✗	✗	✗	partially
wegfinder OT*	☑	☑	partially	✗	✗	✗
ÖBB-App*	☑	☑	☑	✗	✗	partially
OsmAnd*	✗	✗	✗	✗	✗	☑
VVT-Ticket-App*	✗	✗	☑	✗	✗	partially
südtirolmobil	☑	☑	✗	✗	✗	✗
Omio	☑	partially	☑	✗	✗	✗
Jelbi	☑	☑	☑	☑	☑	✗
myScotty*	✗	✗	☑	✗	☑	✗
TIER Mobility	✗	☑	☑	✗	☑	✗
Dott	✗	☑	☑	✗	☑	✗
Citymapper	☑	☑	partially	partially	partially	✗
Whim	☑	☑	☑	☑	☑	✗

*Table 2: Comparison among applications available in East Tyrol and advanced European applications in public mobility; *app available in East Tyrol*

5.3. Advanced features

In addition to what is presented in the previous paragraphs, there are some apps and algorithms (which can be used by third party apps) that offer further advanced features.

Whim, for example, offers options in the area of MaaS and is the only app among those considered that provides information on the CO2 consumption of travel options.

Citymapper[5] provides information on the physical energy consumption of travel options and also offers information in the area of advanced navigation, not only planning a trip with a fixed mode of transport but comparing several available modes and propose the best mix.

The Jelbi application also integrates real-time capacity utilisation.

Apart from PT and Sharing apps, there are also apps enhancing ride pooling.

[2] https://www.jelbi.de/en/home/
[3] https://www.transdev.com/en/solutions/whim-maas/
[4] https://www.omio.com/
[5] https://citymapper.com/

In addition to these applications, there are optimization algorithms that can be embedded in third-party mobility services to improve efficiency. An example is the Advanced Optimization Core from the software company inola GmbH[6], a self-learning optimisation algorithm that offers intelligent routing and ride pooling thanks to artificial intelligence and can be used in the background by mobility apps. Based on trip requests, this algorithm calculates the optimal carpools and departure times and thus the most customer-friendly and economical route between virtual stops, physical stations of regular service or even GPS coordinates.

The on-demand transport service hvv hop[7], powered by ioki[8], is integrated into the fare system of the Hamburg Transport Association (hvv). The ioki's product portfolio also includes the coordination of planned DRT services and the optimisation of existing transport services; for instance, the PT in Speyer (DE) uses ioki to optimize its routes. No information is available on whether and in what form the AI is used for these services; however, the company name ioki (acronym for Input Output Artificial Intelligence) suggests that it is used.

The Berlin-based tech company Tracks[9] uses artificial intelligence to improve its customers fuel and emissions management, thereby reducing costs. Data from telematics systems, which are installed as standard in trucks, are used to create a digital twin of the truck and optimise journeys in order to reduce fuel consumption and CO2 emissions.

Major players in the mobility sector, such as Deutsche Bahn, also use AI in a variety of applications. For example, AI is used to determine peak utilisation and, in the event of delays, to prioritise suburban trains. Other applications include intelligent delay forecasting, an AI-based voice dialogue system and the automated feedback platform Railmate[10]. Deutsche Bahn also uses AI for train maintenance and the associated material planning.

Although the applications used by Tracks and Deutsche Bahn cannot be adopted one-to-one for Demand Responsive Transport operations, they do demonstrate some of the possibilities for using AI in the field of public mobility. They therefore appear to be ideally suited as approaches for implementing similar solutions in the field of demand-responsive transport.

5.4. Lessons learned and recommendations

Although the range of public mobility applications available in East Tyrol is supplemented by more additional functions compared to the rest of Austria and Europe, it is nevertheless clear that none of the applications considered above combine all functions. There is still great potential to make applications more advanced and thus (further) increase their usability, particularly in the areas of offline use of time schedules and mapping, CO2 tracking, physical energy consumption, advanced navigation, accessibility, gamification, MaaS and real-time utilisation and capacities.

The usability of digital tools directly influences satisfaction, frequency of use and acceptance of services. The usability of the app largely determines whether the service is perceived as practical, efficient and attractive. Successful usability reduces the perceived complexity of multimodal mobility. Easy usability, reduced complexity and mobile accessibility lower digital access barriers, especially for older people or groups who are not tech-savvy.

The app is the main interface for information, booking and management of all forms of mobility. In addition to a booking process that should be divided into logical steps, the literature primarily mentions the provision

[6] https://www.inola.at/
[7] https://vhh-mobility.de/hop/
[8] https://ioki.com/en/home/
[9] https://www.tracksfortrucks.com/
[10] https://railmate.de/

of accurate real-time data and direct feedback systems for errors or booking confirmations as key elements/functions.

Other important elements/functions are:

- The selection of journeys, time slots and stops, and the integration of route network maps;
- Access for and the coverage of the information needs of different user groups;
- Information on operating hours and area of operation as well as transparent pricing and a fare overview;
- Quick access to relevant information.

With regards to the possibility of later expanding the application, the principle of modularity is recommended.

With regards to information transfer, the integration of tutorials or in-app guides, better labelling of stops (physical and digital) and the combination of digital and analogue infrastructure (e.g. digital booking + physically marked stops) are cited as important components of applications. Furthermore, limiting the search function to the actual area of use is recommended in order to avoid incorrect bookings. Information campaigns, training courses or digital consultation hours are further possibilities for increasing the use of applications.

Clear and simple navigation within the application is uniformly recommended. In addition, the use of simple language and clear terms and labels is recommended. Furthermore, the ability to search for departure locations and time, as well as the preselection of popular destinations and the display of alternative connections or dynamic route display contribute to intuitive operation.

Applications should be accessible to all user groups. In addition to apps, telephone bookings, web portals, SMS solutions and personal assistance should also be offered. In addition to simple language, barrier-free design is essential for inclusion. Consistent use of symbols is also recommended. Easy usability, reduced complexity and mobile accessibility reduce digital access barriers, especially for older people or groups with little technical expertise.

However, it should not be overlooked that some individuals (or groups of individuals) do not (or cannot) use digital applications. Appropriate measures must therefore be put in place, such as the option to order DRT systems by telephone, as is possible with RegioFlink.

In East Tyrol there are currently no digital information and booking options for DRT available and customers have to call by phone to reserve the RegioTax in Defereggen and Puster Valley. However, VVT offers this information and booking option in other regions of Tyrol (Jenbach, Wattens, Talkessel Reutte) via RegioFlink which is (as for now) under discussion to be implemented as a Pilot also in Defereggen Valley.

6. Conclusions

The areas engaged in the pilot activities - i.e. Pavia-Oltrepò, Budapest and East Tyrol - tested a set of innovations aiming at enhancing the performance and the acceptance (and inclusiveness) of the existing DRT concepts in their territories. In the case of Pavia-Oltrepò the innovations focus on improving the digitalisation level of existing services. In Budapest, in addition to that, a service based on a new operational approach enabled by digital innovation has been implemented and tested. East Tyrol concentrated on the analysis of usability and acceptance of the DRT systems integrated into PT through the monitoring of users' behaviour. In both Pavia-Oltrepò and Budapest, particular attention was given to the citizen engagement and communication actions, in order to support the acceptance of digital and operational innovations as well as to guarantee effective fine tuning with the needs of users and with the sustainability principles. In East Tyrol secondary data were analysed and interviews conducted with the manager of the app providing integrated PT services including DRT, which allowed to get information on how this integration influences usability and acceptance of the referring DRT systems.

This deliverable provides a comprehensive summary of pilot 2.1 activities in the involved areas, structuring the operational and testing phases, identifying specific steps for each region, and ensuring that the tests reflected local needs and implementation conditions. Additionally, it highlights the structured stakeholder engagement, which involved key actors such as Public Authorities, PTOs, and digital service providers. Stakeholder involvement remains a key component of the local workplans, ensuring that governance, operational, and technical aspects are validated through meaningful engagement.

The deliverable, together with the other pilot final reports (D1.3.3, D1.4.3 and D2.4.3), represents a crucial reference point for the timeline of the DREAM_PACE project, as it describes the outcomes and lessons learned of the pilot activity, and provides the ground for the delivery of the corresponding solution that will be described in D2.2.3, consisting in a digital and service model blueprint enhancing existing DRT networks responsiveness in rural/peripheral areas, composed by digital and operational innovative elements.

7. References

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2) DREAM_PACE D1.2.2 “Living labs meetings documentation on the co-design process for governance / planning in pilot areas”. 2025.
3) DREAM_PACE D2.1.1 “Analysis report on DRT digital and operational innovations in CE Regions and engaged areas”. 2023.
4) DREAM_PACE D2.1.2 “State of the art report on digital and operational approaches for DRT in the pilot areas”. 2024.
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10) DREAM_PACE D3.1.2 “DRT strategy draft and setup of the consultation process”. 2025.
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12) DREAM_PACE D3.3.1 “Report on set up and development of community and measures to animate the debate on DRT trends”. 2025.
13) DREAM_PACE D3.3.2 “Report on actions accompanying the development of pilot activities”. 2025.

8. Annex: Pilot 2.1 local and project media releases communicating the results of testing actions, and public presentations summary (from 1 July 2025 ahead)

The Annex collects the local and project media releases that have been used to communicate the results of pilot 1.1 testing actions, and the public presentations summary.

8.1. Pavia-Oltrepò

The articles published by Telenord and Rotta Dei Trasporti (on 25 July and 8 August 2025 respectively, after the conclusion of the testing and sum up of the activities) illustrate the test activities conducted by Autoguidovie on digital totems for DRT service and that technology and participation are central concepts of a new model of sustainable mobility in the rural areas of the Oltrepò Pavese.

Below are the paper version and the online version of both articles.

07/08/2025 15:08
Sito Web

rottadeitrasporti.it

Autoguidovie sperimenta i totem digitali per il trasporto a chiamata

LINK: https://www.rottadeitrasporti.it/mobilita/autoguidovie-sperimenta-i-totem-digitali-per-il-trasporto-a-chiamata/

Autoguidovie sperimenta i totem digitali per il trasporto a chiamata Conclusa la sperimentazione per il servizio Miobus: tecnologia e partecipazione al centro di un nuovo modello di mobilità sostenibile nelle aree rurali dell'Oltrepò Pavese. Di Redazione - 7 Agosto 2025 3 Si è conclusa con successo la sperimentazione dei totem digitali interattivi per prenotare in autonomia il servizio di trasporto pubblico a chiamata nei comuni di Stradella, Broni e Santa Maria della Versa. L'iniziativa rientra nel progetto europeo DREAM_PACE, che mira a rendere la mobilità pubblica più accessibile e sostenibile nelle aree rurali dell'Europa centrale. Autoguidovie, partner e coordinatore del caso pilota italiano, ha installato tre totem touchscreen dotati di webapp per prenotare il servizio Miobus Oltrepò, facilitando l'accesso al trasporto a chiamata e migliorando l'integrazione con la rete tradizionale. Coinvolgendo cittadini, amministrazioni e stakeholder locali, la sperimentazione ha posto le basi per una mobilità più inclusiva e flessibile, capace di adattarsi alle esigenze delle comunità meno servite. Il progetto proseguirà nei prossimi mesi con l'obiettivo di estendere e consolidare questo modello innovativo, valorizzando la collaborazione pubblico-privato e puntando su tecnologie digitali al servizio del territorio. Maggiori informazioni: pavia.autoguidovie.it adv

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laROTTAdeiTRASPORTI

Autoguidovie sperimenta i totem digitali per il trasporto a chiamata

Conclusa la sperimentazione per il servizio Miobus: tecnologia e partecipazione al centro di un nuovo modello di mobilità sostenibile nelle aree rurali dell'Oltrepò Pavese.

Di **Redazione** - 7 Agosto 2025

Si è conclusa con successo la sperimentazione dei totem digitali interattivi per prenotare in autonomia il servizio di trasporto pubblico a chiamata nei comuni di Stradella, Broni e Santa Maria della Versa. L'iniziativa rientra nel progetto europeo DREAM_PACE, che mira a rendere la mobilità pubblica più accessibile e sostenibile nelle aree rurali dell'Europa centrale.
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25/07/2025 00:07
Sito Web

telenord.it

Tpl: Autoguidovie conclude la sperimentazione dei totem digitali per prenotare il servizio a chiamata

LINK: https://telenord.it/tpl-autoguidovie-conclude-la-sperimentazione-dei-totem-digitali-per-prenotare-il-servizio-a-chiamata-92237

Tpl: Autoguidovie conclude la sperimentazione dei totem digitali per prenotare il servizio a chiamata di R.S. Ven 25 Luglio 2025 3 min, 28 sec Autoguidovie ha coordinato il caso pilota dell'Oltrepò Pavese, uno dei quattro living lab europei insieme a Spalato (Croazia), Budapest e Lienz (Austria) Si è conclusa la sperimentazione dei totem digitali interattivi che consentono agli utenti di prenotare in autonomia il servizio di trasporto pubblico a chiamata. Dopo la prima installazione a Stradella lo scorso 8 luglio, i test si sono estesi oggi anche ai comuni di Broni e Santa Maria della Versa. L'iniziativa fa parte delle attività previste dal progetto europeo DREAM_PACE, che mira a rendere il trasporto pubblico più accessibile, integrato e sostenibile nelle aree periferiche e rurali dell'Europa centrale. Partner del progetto è Autoguidovie che ha coordinato il caso pilota dell'Oltrepò Pavese - uno dei quattro living lab europei insieme a Spalato (Croazia), Budapest e Lienz (Austria) - sviluppando con il supporto di Redmint Impresa Sociale una strategia partecipativa per l'integrazione del trasporto a chiamata nella rete di mobilità esistente. La sperimentazione ha visto protagonisti i cittadini, gli stakeholder locali e le amministrazioni comunali, con l'obiettivo di testare sul campo strumenti digitali pensati per semplificare l'accesso al servizio, ridurre le barriere tecnologiche, migliorare i collegamenti nelle zone rurali e periferiche e potenziare l'integrazione tra servizio a chiamata e trasporto pubblico di linea a orario fisso. Il risultato sarà molto concreto: l'installazione di tre totem touch screen, uno per Comune, dotati di webapp per la prenotazione del servizio Miobus, con relativi orari e tariffe. In pratica, dei punti di informazione per declinare al meglio sul territorio tutte le opportunità offerte dalla rete di Autoguidovie e avvicinare la mobilità pubblica alle esigenze dei cittadini. Anche in questo caso Autoguidovie conferma il proprio impegno nello sviluppo del trasporto collettivo attraverso l'adozione di soluzioni tecnologiche innovative, ponendo al centro i bisogni dei clienti e offrendo loro servizi di mobilità personalizzati, a misura di cittadino. "Con il progetto DREAM_PACE, anche a Stradella si compie un primo passo verso una mobilità più vicina alle persone, capace di coniugare innovazione, inclusività e attenzione al territorio. La sperimentazione del totem informativo non è stato solo un gesto simbolico, ma rappresenta l'avvio di un percorso che potrà migliorare concretamente l'esperienza di chi utilizza il trasporto pubblico in particolare nelle aree più periferiche o per chi ha

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esigenze specifiche - ha dichiarato Gianpiero Bellinzona, Sindaco di Stradella -. Il servizio a chiamata rappresenta una risposta moderna e flessibile ai nuovi bisogni di mobilità. Ringrazio Autoguidovie e tutti i partner del progetto per aver condiviso questa visione: il nostro impegno è quello di continuare a collaborare per rendere il servizio sempre più accessibile, efficiente e sostenibile per tutta la comunità". Soddisfazione anche da parte del Comune di Santa Maria della Versa, dove il totem è stato testato oggi: "L'installazione rappresenta un passo concreto e simbolico verso una mobilità sempre più moderna e centrata sui bisogni reali delle persone - ha affermato la Sindaca Anna Zucconi -. Con il progetto Dream Pace, realizzato in collaborazione con Autoguidovie, confidiamo che venga offerto un servizio che non solo innova gli strumenti informativi, ma ridefinisce il rapporto tra cittadinanza e trasporto pubblico. In questo contesto, il servizio a chiamata diventa una risposta concreta e flessibile alle esigenze quotidiane di chi si muove, soprattutto nelle aree meno servite o in fasce orarie più delicate, garantendo inclusione, efficienza e sostenibilità. La mobilità pubblica - ha concluso la Sindaca - oggi più che mai, deve essere in grado di evolversi e adattarsi, ponendo al centro la persona. L'auspicio è che la presentazione ufficiale di oggi e l'installazione temporanea del totem siano solo l'inizio di un percorso che guarda al futuro con attenzione e responsabilità". Attraverso il progetto DREAM_PACE - finanziato dal programma Interreg CENTRAL EUROPE - Autoguidovie continuerà nei prossimi mesi a promuovere il servizio di trasporto a chiamata Miobus Oltrepò (extraurbano diurno), integrando tecnologie digitali e co-progettazione per offrire soluzioni di mobilità flessibili e personalizzabili, in grado di rispondere in maniera efficace alle sfide del trasporto pubblico in aree a bassa densità abitativa. Per restare sempre aggiornati sulle principali notizie sulla Liguria seguiteci sul canale Telenord, su Whatsapp, su Instagram, su Youtube e su Facebook.

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TRANSPORT

Tpl: Autoguidovie conclude la sperimentazione dei totem digitali per prenotare il servizio a chiamata

di R.S.

Ven 25 Luglio 2025

3 min, 28 sec

Autoguidovie ha coordinato il caso pilota dell'Oltrepò Pavese, uno dei quattro living lab europei insieme a Spalato (Croazia), Budapest e Lienz (Austria)

SettimoLink | WEB AGENCY GENOVA

Si è conclusa la sperimentazione dei totem digitali interattivi che consentono agli utenti di prenotare in autonomia il servizio di trasporto pubblico a chiamata. Dopo la prima installazione a Stradella lo scorso 8 luglio, i test si sono estesi oggi anche ai comuni di Broni e Santa Maria della Versa. L'iniziativa fa parte delle attività previste dal progetto europeo DREAM_PACE, che mira a rendere il trasporto pubblico più accessibile, integrato e sostenibile nelle aree periferiche e rurali dell'Europa centrale.

Partner del progetto è **Autoguidovie che ha coordinato il caso pilota dell'Oltrepò Pavese – uno dei quattro living lab europei insieme a Spalato (Croazia), Budapest e Lienz (Austria) –** sviluppando con il supporto di Redmint Impresa Sociale una strategia partecipativa per l'integrazione del trasporto a chiamata nella rete di mobilità esistente.

La sperimentazione ha visto protagonisti i cittadini, gli stakeholder locali e le amministrazioni comunali, con l'obiettivo di testare sul campo strumenti digitali pensati per semplificare l'accesso al servizio, ridurre le barriere tecnologiche, migliorare i collegamenti nelle zone rurali e periferiche e potenziare l'integrazione tra servizio a chiamata e trasporto pubblico di linea a orario fisso. Il risultato sarà molto concreto: l'installazione di tre totem touch screen, uno per Comune, dotati di webapp per la prenotazione del servizio Miobus, con relativi orari e tariffe. In pratica, dei punti di informazione per declinare al meglio sul territorio tutte le opportunità offerte dalla rete di Autoguidovie e avvicinare la mobilità pubblica alle esigenze dei cittadini. Anche in questo caso Autoguidovie conferma il proprio impegno nello sviluppo del trasporto collettivo attraverso l'adozione di soluzioni tecnologiche innovative, ponendo al centro i bisogni dei clienti e offrendo loro servizi di mobilità personalizzati, a misura di cittadino.

"Con il progetto DREAM_PACE, anche a Stradella si compie un primo passo verso una mobilità più vicina alle persone, capace di coniugare innovazione, inclusività e attenzione al territorio. La sperimentazione del totem informativo non è stato solo un gesto simbolico, ma rappresenta l'avvio di un percorso che potrà migliorare concretamente l'esperienza di chi utilizza il trasporto pubblico in particolare nelle aree più periferiche o per chi ha esigenze specifiche – ha dichiarato Gianpiero Bellinzona, Sindaco di Stradella -. Il servizio a chiamata rappresenta una risposta moderna e flessibile ai nuovi bisogni di mobilità. Ringrazio Autoguidovie e tutti i partner del progetto per aver condiviso questa visione: il nostro impegno è quello di continuare a collaborare per rendere il servizio sempre più accessibile, efficiente e sostenibile per tutta la comunità".

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Attraverso il progetto DREAM_PACE – finanziato dal programma Interreg CENTRAL EUROPE – Autoguidovie continuerà nei prossimi mesi a promuovere il servizio di trasporto a chiamata Miobus Oltrepò (extraurbano diurno), integrando tecnologie digitali e co-progettazione per offrire soluzioni di mobilità flessibili e personalizzabili, in grado di rispondere in maniera efficace alle sfide del trasporto pubblico in aree a bassa densità abitativa.

Per restare sempre aggiornati sulle principali notizie sulla Liguria seguiteci sul canale Telenord, su **Whatsapp,** su **Instagram,** su **Youtube** e su **Facebook**.

Condividi:

8.2. Budapest

The new DRT service with flexible route planning was launched on 25 August 2025. The first experiences were very positive: there were more than 100 interested passengers already **on the first day**, and the news was picked up both by local and national media. Ahead of the launch, BKK also held a press conference on **15 August** to introduce the pilot.

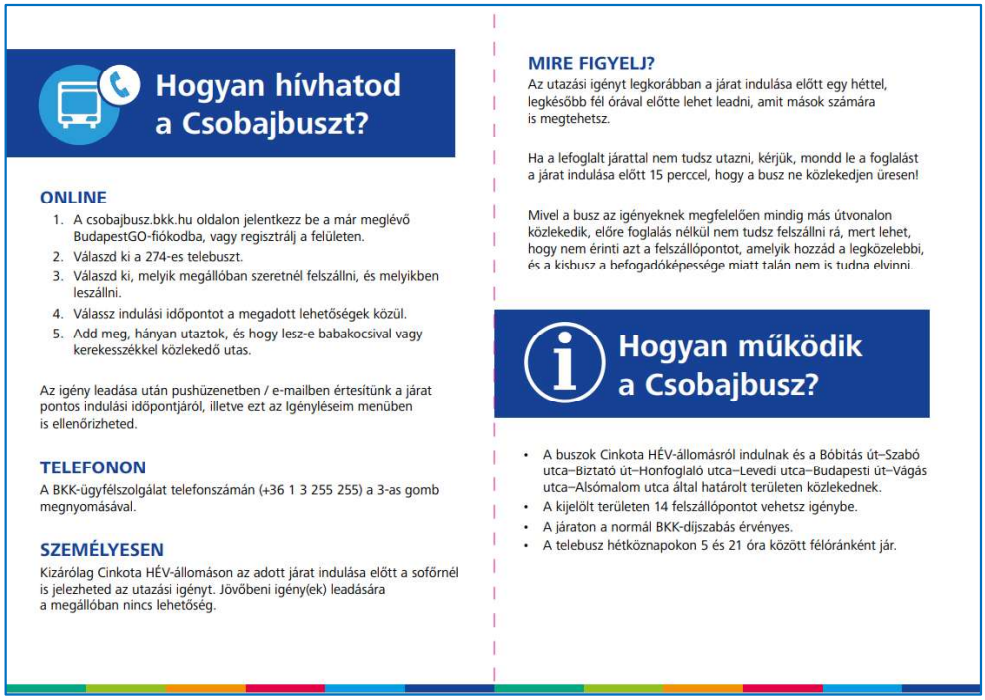
Here below some photos of the press conference and the DRT service are included.

Some other news about the launch of the new DRT service can be found online at the following links:

- https://www.linkedin.com/posts/bkkbudapest_%C3%Bajdons%C3%A1gnak-sz%C3%A1m%C3%Adt%C3%B3-szolg%C3%A1ltat%C3%A1s-haz%C3%A1nkban-activity-7363168249615650816-P62b?utm_source=share&utm_medium=member_desktop&rcm=ACoAACkkKvcB3ChrPk26X7yyq7w7yrenwAwtcdU
- Új, innovatív buszjárat Budapesten - rugalmas útvonalon, az utasok igénye szerint közlekedik majd a 274-es busz - BKK.hu
- 🚌 Rugalmas útvonalú... - BKK - Budapesti Közlekedési Központ | Facebook
- Javul a közösségi közlekedés a XVI. Kerületben: itt a Csobajbusz!
- XVI. Kerület | Indul a Csobajbusz, a főváros első, rugalmas útvonalú járata
- Telex: Az utasok dönthetik el, merre menjen a BKK új busza a XVI. Kerületben
- 🚍 Új, innovatív buszjárat indul Budapesten!... - Budapest Városháza | Facebook
- Elindul az első fővárosi buszjárat, ami rendelésre érkezik
- Holnap indul a Csobajbusz, a BKK új, rugalmas útvonalú járata - BKK.hu
- Mit szólnál egy olyan buszhoz, ami arra megy,... - Karácsony Gergely | Facebook
- https://index.hu/belfold/2025/08/26/budapest-bkk-busz-menetrend-utvonal-utas-taps-cinkota/
- Vitézy Dávid - Új buszjárat a XVI. Kerületben - indul a 274-es! A... | Facebook
- Útjára indult a Csobajbusz! | Fejlődő Kertváros

There is also aWikipedia page of the new DRT line with flexible route („Csobajbusz”): https://hu.wikipedia.org/wiki/274-es_busz_(Budapest)

Videos are also available at the following links:

- https://www.facebook.com/watch/?v=747907748115857
- https://www.instagram.com/reel/DNp3Q46pz49/
- https://www.facebook.com/reel/700375029717532
- https://www.youtube.com/watch?v=IOnKkEHpxAc

The flyer about the launch of the new DRT service, operating from 26 August 2025, is presented here below.