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DREAM_PACE

D1.3.3 Final report pilot 1.1: governance and planning model for integrated DRT public transport

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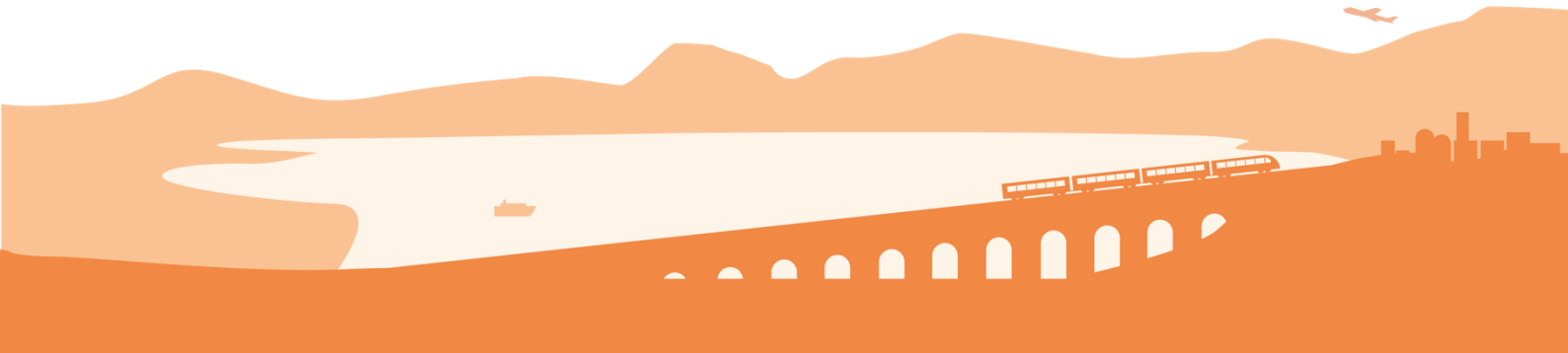

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Contents

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 1.1 “Governance and planning of integrated DRT-public transport in a MaaS logic for peripheral and low demand areas” activities developed in the pilot areas of Bologna Metropolitan Area (Italy), Budapest (Hungary), Pavia-Oltrepò (Italy), Split-Dalmatia County (Croatia) until 30 September 2025. It follows the structure of the workplans presented in D1.3.1 and of the intermediate reports presented in D1.3.2 and 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 1.1.

From this point forward, chapters 3 to 6 present the pilot 1.1 final achievements across the four pilot regions.

Chapter 7 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 1.1 “Governance and Planning of Integrated DRT-Public Transport in a MaaS logic for peripheral and low demand areas” focuses on the design, implementation and testing of a modular governance and planning model for integrating Demand-Responsive Transport (DRT) into public transport systems using a Mobility as a Service (MaaS) approach. This pilot aimed to address the challenges faced by peripheral and low-demand areas due to uneven transport connections, limited mobility opportunities, and the inefficiency of traditional public transport solutions, which often result in reduced accessibility and service frequency. To do so, the pilot promoted innovative strategies that could enhance accessibility, operational flexibility and sustainability in public transport systems, and ensure better integration within the broader mobility network.

The scope of the pilot included:

- Strategic planning approach tested within SUMPs and Master Plan’s processes, in Bologna Metropolitan area and Budapest;
- Recommendations on data governance and integration, tariff and funding, in Bologna Metropolitan area;
- Business planning tool for flexible management of DRT-PT (tested on running services), in Pavia-Oltrepò and in Budapest;
- DRT dedicated tendering procedure (demonstrated on field), in Bologna Metropolitan area and in the Split-Dalmatia County.

The testing activities focused on real-world service scenarios across the four pilot regions involved in the pilot. The insights gained validated the pilot's approaches and also contributed to developing the SUMP Topic guide 3.0 in WP3. The project activities also supported the broader adoption of the solutions.

The success of Pilot 1.1 hinged on the active engagement of stakeholders through the Living Labs (LLs). These collaborative spaces bring together Public Authorities, Public Transport Operators (PTO) and Agencies (PTA), Digital service providers, the General Public and other relevant actors to co-design, implement, and test the solutions.

Through this participatory approach, pilot 1.1 ensured that the developed solutions were feasible and aligned with the local context, paving the way for effective testing and eventual deployment.

3. Bologna metropolitan area

3.1. The pilot testing elements

Pilot: 1.1 GOVERNANCE AND PLANNING of INTEGRATED DRT public transport in a MaaS logic for peripheral and low demand areas

Pilot area: Bologna Metropolitan Area, Italy

Peer reviewers:

- Centre for Budapest Transport (BKK), Split-Dalmatia County (SDC) as peer reviewers of the tested solution component;
- Redmint, Dyvolve, and Technische Universität Berlin (TUB) will also act as peer reviewers, as they will review this deliverable.

3.1.1. The solution components to be tested

Bologna Metropolitan area includes 55 municipalities with a population of approximately 1 million inhabitants, combining densely populated urban centres with low-demand rural and mountainous regions, making it a diverse and complex territory. The Bologna pilot's intervention spans the entire metropolitan area, addressing a range of mobility challenges. Key objectives include improving accessibility in underserved areas while integrating these solutions with existing urban transport networks. The primary focus of DRT services is to meet the mobility needs of “low-demand” users in areas where traditional Public Transport (PT) is not sustainable / effective, ensuring accessibility for all. Through DREAM_PACE activities, efforts concentrated on:

- Integrating the DRT planning and governance in the PT system and in the SUMP (Sustainable Urban Mobility Plan) framework;
- Enhancing the coordination and integration of local and regional mobility networks to improve connectivity of rural and peripheral areas, through a co-design process with local stakeholders;
- Developing the DRT governance in a MaaS logic, from SUMP strategic level to tendering and Contracts of Service.

The components of the Bologna pilot are structured as follows.

Component 1: **Strategic planning approach for DRT in PT**. This component focused on testing the strategic planning approach for integrating DRT services in the next SUMP of the Bologna Metropolitan Area. This means to identify opportunities and spaces for future implementation of DRT, ensuring that services are effectively incorporated into long-term mobility strategies and contribute to a seamless and inclusive PT ecosystem.

Component 2: **Recommendations on the integration of DRT services in MaaS**. This component addressed the analysis of the MaaS ecosystem under development at the regional level, and the identification of the requirements for the seamless integration of DRT into the MaaS framework. The target was to provide detailed recommendations for including DRT in a MaaS system that serves both urban and peripheral areas in the Metropolitan City of Bologna.

Component 3: **DRT dedicated tendering procedure**. This component aimed to integrate DRT into the PT offer and to simulate a PT tendering procedure that includes DRT services, as these are currently not part of the existing Contract of Service.

For the development and testing of the Bologna pilot and its components, SRM contracted the external technical support of GO-Mobility Srl (for more details on the procurement see chapter 3.2.2). The actions developed with this support include the following activities as coded in the DREAM_PACE Application Form (AF): A.1.2 Living labs: "Support to stakeholder - local advisory group establishment and management"; A.1.3 pilot actions: "Study on DRT and MaaS how to: (i) integrate DRT into the public transport offer from the planning phase onward, and in the next public procurement tender documents; (ii) include DRT into a MaaS system in the Metropolitan City of Bologna, ensuring MaaS in rural/peripheral areas".

The pilot actions were split down as follows:

a) Study on the integration of DRT services into the public transport supply and into a MaaS system;

b) Analysis of potential demand and definition of areas of weak demand at the metropolitan level (in terms of geographic, socio-economic, temporal, and inter-territorial characteristics);

c) Study on DRT costs and the possibility of their inclusion in the Public Transport Contract of Service;

d) Study on potential integrations between demand assessment methodologies and parameters and city and metropolitan planning tools (i.e., SUMP);

e) Management of the Bologna LL stakeholder group;

f) Exchange experiences with DREAM_PACE project partners and international experts;

g) Identification of potential weak demand areas by analysis and geographic visualization of the O/D matrix starting from telephone SIM data.

It is noted that the contract for the external technical support, awarded to GO-Mobility Srl and conceived in synergy with the MIND project (further details below), also includes the activity "h) Study on mobility demand from city users, focusing on the mobility needs of non-residents by quantifying daily and seasonal demand and identifying the most requested routes or destinations" (for further details on the procurement, see Chapter 3.2.2).

The listed actions from “a” to “g” were an integral part of the successful implementation of the Bologna pilot and its three components, as specified here below.

Component 1: **Strategic planning approach for DRT in PT**. The component was fed by following actions:

- Action b): the “Analysis of potential demand and definition of areas of weak demand at the metropolitan level (in terms of geographic, socio-economic, temporal, and inter-territorial characteristics)” developed a replicable methodology to assess demand levels, defined an optimal local PT network for metropolitan connections, and pinpointed DRT opportunities in low-demand areas;
- Action c): the “Study on DRT costs and the possibility of their inclusion in the Public Transport Contract of Service” took into account specific features such as flexibility and route optimization, evaluated the cost structure of DRT services and their potential incorporation into the PT Contract of Service. It included developing models for equivalent kilometres, simulating economic feasibility through parametric frameworks, and establishing regulatory guidance with KPIs tailored to DRT services;
- Action d): the “Study on potential integrations between demand assessment methodologies and parameters and city and metropolitan planning tools (i.e., SUMP)” provided results that inform and enhance the PT strategic planning process; those results included the development of guidelines for evolving the suburban local PT network and defining the role and characteristics of mobility hubs;
- Action g): the “Identification of potential weak demand areas by analysis and geographic visualization of the O/D matrix starting from telephone SIM data” defined the quantitative structure

of demand with as much detail as possible considering spatial, temporal and user category (resident, non-resident, foreign, etc.) features.

Component 2: **Recommendations on the integration of DRT services in** MaaS. This component particularly benefited from the results of the following action:

- Action a): the "Study on the integration of DRT services into the public transport supply and into a MaaS system" included the identification of data exchange protocols to facilitate service information sharing and reservation functionalities, and the development of integration models for DRT services that can be replicated in other contexts within the MaaS4RER project, along with the provision of practical implementation guidelines to support the planning and management of DRT services embedded in a MaaS effectively.

Component 3: **DRT dedicated tendering procedure**. The objective of this component was to ensure that DRT services are incorporated into future public transport offerings, enabling their formal integration into in Contracts of Service. The actions contributing to the previous components were crucial for implementing this as well, in particular the following ones:

- Action b): the "Analysis of potential demand and definition of areas of weak demand at the metropolitan level (in terms of geographic, socio-economic, temporal, and inter-territorial characteristics)" helped to estimate the overall demand and identify areas compatible with different public transport systems to be included / foreseen in future Contract of Service;
- Action c): as described for Component 1, the "Study on DRT costs and the possibility of their inclusion in the Public Transport Contract of Service" evaluated the cost structure of DRT services, considering their specific features such as flexibility and route optimization. It included the development of models for calculating equivalent kilometres and simulating economic feasibility (Economic-financial plan). Those results inform the preparation of tender documentation and ensure that DRT services are integrated effectively within the PT framework;

Actions e) "Management of the Bologna LL stakeholder group" and f) "Exchange experiences related to the activities covered by this request through interaction with DREAM_PACE project partners and/or international experts" are horizontal for all the pilot components. Indeed, the testing and validation of the components and activities of the Bologna pilot directly involved the LL stakeholder group. The various stages of the stakeholder group activities within the Living Lab were aligned with the execution of the aforementioned activities and their outcomes. As detailed further in the timeline, the LL meetings with stakeholders were scheduled to coincide with the results of those activities. This approach ensured not only the validation of the activities but also helped maintain a high level of interest and engagement among stakeholders throughout the process.

It is noted that the activities of the Bologna pilot have significant synergies with those planned in the MIND project. MIND – Mobility-Insight-Data project ("Sistema di raccolta, analisi e presentazione di dati per la pianificazione e il monitoraggio della mobilità e per la gestione contrattuale - Bacino di Bologna"), which began in November 2024, is implemented by SRM and funded under PR FESR Emilia-Romagna 2021-2027 Programme. Specifically, it aligns with Priority 3 "Sustainable Mobility and Air Quality," Specific Objective 2.8 "Promoting sustainable multimodal urban mobility as part of the transition to a net-zero carbon economy," and Action 2.8.2 "Systems for Intelligent Mobility," with a focus on innovative software for transport planning and infomobility management. MIND aims to analyse and make accessible mobility-related data to reconstruct both potential and actual demand for local PT services. This reconstruction of the transport demand is essential for improving the service planning, while optimizing data exchange between operators and the metropolitan Agency for mobility (SRM).

In particular, both MIND and DREAM_PACE leverage on mobility demand reconstruction through the acquisition and processing of mobile phone cell data. This overlap has allowed SRM to optimize the use of

resources from both projects by contracting the activities with a synergistic approach through a unified procurement procedure. This approach enhances the efficiency and impact of both projects, ensuring a consistent methodology for analysing mobility data while addressing complementary objectives.

The total cost of external support for the integrated activities amounts to € 117.000 (excluding VAT and legal charges) and is distributed as follows: € 70.000 allocated to the DREAM_PACE project; € 47.000 allocated to the MIND project. This financial integration ensures optimized use of resources while delivering high-quality outputs for both initiatives. By pooling efforts, MIND and DREAM_PACE strengthen their ability to address the Metropolitan City of Bologna's strategic mobility objectives, fostering sustainable, data-driven transport planning solutions.

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.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
Local Authority	Metropolitan City of Bologna (CMBO) - DREAM_PACE Associated Partner CMBO is one of Italy's 14 Metropolitan cities, it is a federation of 55 municipalities organized into 7 Unions. Its territory coincides with that of the former Province of Bologna.	Competences: CMBO, with its high institutional capacity, focuses on governance and planning of DRT within a MaaS framework, ensuring integration with the SUMP. Role: decision maker. Contribution to the pilot: it plays a key role in the Bologna pilot, contributing to the co-design process and strategic decision-making, and will also act as a peer reviewer for selected sub-activities of the pilot.	As a competent public authority and Associated Partner of the project, CMBO was directly involved in the validation of the zoning used in the interactive dashboard (ref. pilot action "g"). CMBO participated in all six LL meetings. In particular, between 1 July and 30 September 2025, its involvement was as follows: 4th LL meeting: tested and validated the study on DRT costs and the possibility of their inclusion in the Contract of Service (pilot action "c"). 5th LL meeting: contributed to the validation of the analysis on potential demand and the identification of weak demand areas at the metropolitan level (pilot action "b"). 6th LL meeting: together with COBO, was the only stakeholder present.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
			Actively participated in shaping and validating the inputs to the study on potential integrations between demand assessment methodologies and metropolitan planning tools (pilot action “d”), and supported the refinement of the analysis of potential demand and weak demand areas (pilot action “b”).
Local Authority	Municipality of Bologna (COBO) COBO is the administrative body of the Municipality of Bologna. The city covers an area of approximately 140 km² and has a population of around 400.000 inhabitants. It is the central urban hub and the capital of the Metropolitan city of Bologna.	Competences: COBO aims to ensure social cohesion, economic development, and territorial protection through PT services and strategic planning tools such as the SUMP and the General Urban Transport Plan (PGTU), alongside specific implementation measures. In this capacity, COBO plays a crucial role in coordinating and establishing PT policies that align with the broader goals of the Bologna Metropolitan Area. Role: decision maker. Contribution to the pilot: it plays a key role in the Bologna pilot, contributing to the co-design process and strategic decision-making, especially in the urban context, focusing on local needs and ensuring alignment with the broader metropolitan planning.	As a competent public authority COBO was consistently updated on the progress of the Bologna pilot. Between 1 July and 30 September 2025, COBO took part in the subsequent LL meetings: 4th LL meeting: tested and validated the study on DRT costs and the possibility of their inclusion in the Contract of Service (pilot action “c”). 5th LL meeting: contributed to the validation of the analysis on potential demand and the identification of weak demand areas at the metropolitan level (pilot action “b”), with participation from personnel of the Statistics Department. 6th LL meeting: together with CMBO, was the only stakeholder present. Actively participated in shaping and validating the inputs to the study on potential integrations between demand

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
			assessment methodologies and metropolitan planning tools (pilot action “d”), and supported the refinement of the analysis of potential demand and weak demand areas (pilot action “b”).
Regional Authority	Regione Emilia-Romagna (RER) RER is one of Italy's 20 regions, encompassing 9 provinces and 328 municipalities. It plays a pivotal role in regional planning and governance, including mobility, environmental sustainability, and innovation initiatives.	Competences: RER has a very high institutional capacity and focuses on the governance and planning of DRT within a MaaS framework, particularly as it is working on the development of a regional MaaS system, where DRT services are expected to be integrated in the future. Role: regulatory body. Contribution to the pilot: it contributes to the co-design process, providing valuable information and expertise related to the ongoing development of the regional MaaS system and its integration with DRT services.	As a competent public authority RER was consistently updated on the progress of the Bologna pilot. Between 1 July and 30 September 2025, RER took part in the subsequent LL meetings: 4th LL meeting: contributed to the testing and validation of the study on DRT costs and the possibility of their inclusion in the Contract of Service (pilot action “c”). 5th LL meeting: supported the validation of the analysis on potential demand and the identification of weak demand areas at the metropolitan level (pilot action “b”). Since the 6th LL meeting focused mainly on metropolitan mobility planning tools, it was decided to involve only the competent local authorities (CMBO and COBO).
PTA	SRM (Lead partner) SRM is the Local Authority for Public Transport in Bologna area.	Competences: SRM has high institutional capacity, supported by internal staff with expertise in mobility planning and project management. As Authority for Public Transport in the Bologna area, SRM is	SRM has continued to fulfil its role of DREAM_PACE lead partner, coordinating the co-design process of the pilot 1.1 and overseeing the implementation of the Bologna pilot actions in

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		responsible for promoting initiatives to enhance and expand local public transport, managing transport infrastructure, and ensuring the governance and integration of public transport and private mobility services. Role: contracting body for PT services in the CMBO territory. Contribution to the pilot: it plays the central role in coordinating the co-design process and overseeing the implementation of the Bologna pilot, ensuring that all activities are executed in line with project goals and timelines.	particular. SRM organised and participated in all the LL stakeholder meetings.
Local Authority	Territorio Turistico Bologna-Modena (former Bologna Destinazione Turistica) Joint team of the territories of the Metropolitan city of Bologna and the Province of Modena to promote and enhance their diverse regional tourism offerings.	Competences: while having limited decision-making influence, Territorio Turistico Bologna-Modena has strong connections and influence within both urban and peripheral areas, with a particular interest in implementing DRT services to enhance the tourism offer in these territories. Role: local authority responsible for developing and promoting tourism within the Emilia-Romagna Region. Contribution to the pilot: it contributes to co-design and implementation process, ensuring that DRT services are also aligned with tourism development objectives and enhance mobility options for visitors.	Not involved between 1 July and 30 September.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
General Public	Confcommercio ASCOM Bologna Association representing over 16.000 companies, entrepreneurs and professionals from Bologna and its Metropolitan city.	Competences: with medium sponsoring capacity and a mandate to represent the interests of over 16.000 local businesses and professionals, Confcommercio ASCOM Bologna provides a direct connection to the economic activities of Bologna and its Metropolitan area. It can bring insights into the needs and priorities of local enterprises, particularly in relation to improved accessibility and transport solutions. Role: local economic activities association. Contribution to the pilot: it contributes to the Bologna pilot by participating in co-design and implementation process, ensuring that the DRT services could also align with the needs of local businesses. It also supports awareness-raising among its network, fostering engagement and highlighting the potential benefits of enhanced mobility for economic development, especially in underserved areas.	Not involved between 1 July and 30 September.
Other (University)	University of Bologna - Department of Civil, Chemical, Environmental, and Materials Engineering – DICAM The DICAM carries out advanced research in Civil, Chemical, Environmental and Materials Engineering,	Competences: high-level expertise in the field of transport Role: expert and potential advisor on theoretical aspects of DRT and MaaS governance and planning. Contribution to the pilot: it contributes to the co-design and implementation process, offering research-based	Not involved between 1 July and 30 September.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
	from the design, construction and operation of residential structures and infrastructure, to the study of the related materials and their insertion and impact in/on the territory.	insights to enhance the governance and planning of DRT services within the Bologna pilot. It enriches the project by integrating academic perspectives into transport solutions.	
General Public	Comitato Consultivo degli Utenti (CCU) User advisory committee representing consumer and user associations and the annual subscribers to the Bologna public transport service.	Competences: high capacity for moral persuasion towards institutions and expertise in informing and engaging citizens, also on mobility issues affecting rural areas. CCU's position as the sole advisory committee of this kind in RER enables it to serve as a unique platform to advocate for underserved territories and raise awareness in areas less engaged with mobility issues. Role: user association representing citizens, with a perspective on rural areas experiencing mobility challenges. Contribution to the pilot: it contributes to the pilot implementation. Mobility and DRT are considered crucial issues to convey to citizens, and to this end, the CCU has the potential to promote events showcasing the results achieved in DREAM_PACE. These events can serve as platforms for collecting feedback and proposals while raising public awareness about the project's outcomes. By leveraging its unique regional role, it can also act as a regional pioneer, spreading best	Not involved between 1 July and 30 September.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		practices and influencing other territories.	
Local Authority	Diversity Team of the Municipality of Bologna It is part of the COBO structure and works to promote inclusion and equal opportunities, addressing diversity across gender, culture, ability, and age.	Competences: high institutional capacities as part of COBO, with a strong focus on promoting inclusive mobility policies and ensuring equitable access to transport systems for all user groups, aligned with the SUMP. Role: decision maker (as part of COBO). Contribution to the pilot: it contributes to the co-design process, bringing a strong perspective on inclusivity and ensuring that the planning and implementation of DRT services address the needs of diverse user groups.	Not involved between 1 July and 30 September.
PTAs	Public transport authorities (Mobility Agencies) of the Emilia-Romagna region. Local Authority for Public Transport in the other provinces of Emilia-Romagna region. The list included: - Tempi Agenzia Piacenza - S.M.T.P. - Società per la mobilità ed il trasporto pubblico di Parma - AMI - Agenzia Mobilità Impianti Ferrara - Agenzia Mobilità Reggio Emilia - aMo - Agenzia per la mobilità di Modena	Competences: implement the decisions of local authorities (Provinces and Municipalities) in their relationships with public transport operators, managing the public service contracts. Role: contracting body for PT services in the Emilia-Romagna region. Contribution to the pilot: they contribute to the co-design and implementation process by providing relevant feedback on the governance and planning of DRT services, integrating the perspective of other territories in the region.	Their involvement was decided after the 2nd LL stakeholder meeting, following the definition of the development and testing plan for the Bologna pilot components — carried out in collaboration with GO-Mobility. In particular, between 1 July and 30 September 2025, their involvement was as follows: 4th LL meeting: tested and validated the study on DRT costs and the possibility of their inclusion in the Contract of Service (pilot action “c”). 5th LL meeting: contributed to the validation of the analysis on potential demand and the identification of weak demand areas at the

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
	- AMR - Agenzia Mobilità Romagnola		metropolitan level (pilot action “b”).
PTOs	Trasporto Pubblico Bolognese (TPB) Public Transport Operators in the Bologna metropolitan area. The list included: - TPER - SACA - S.T.A.R.	Competences: hold operational expertise in service planning (including DRT), vehicle deployment, and passenger operations, as well as experience in testing and adapting innovative mobility solutions. Role: main public transport operators in the Bologna metropolitan area. Contribution to the pilot: they contribute to the co-design and implementation process by providing relevant feedback from the operational perspective of a transport operator, supporting the validation of solutions based on service delivery feasibility.	Their involvement was decided after the 2nd LL stakeholder meeting, following the definition of the development and testing plan for the Bologna pilot components — carried out in collaboration with GO-Mobility. In particular, between 1 July and 30 September 2025, its involvement was as follows: 4th LL meeting: tested and validated the study on DRT costs and the possibility of their inclusion in the Contract of Service (pilot action “c”). 5th LL meeting: contributed to the validation of the analysis on potential demand and the identification of weak demand areas at the metropolitan level (pilot action “b”).
Digital service provider (in-house RER’s company)	Lepida Lepida is the in-house company of the Emilia-Romagna Region, which is responsible for managing digital infrastructures and services for the regional public administration.	Competences: manages digital platforms, data infrastructures, and interoperability systems at the regional level. It supports the implementation of Information and Communication Technologies (ICT) services for public institutions, with specific expertise in data governance, healthcare, and MaaS-related frameworks Role: digital infrastructure and data governance provider for public services in the Emilia-Romagna Region.	Its involvement was decided after the 2nd LL stakeholder meeting, following the definition of the development and testing plan for the Bologna pilot components — carried out in collaboration with GO-Mobility. In particular, between 1 July and 30 September 2025, its involvement was as follows: 5th LL meeting (with a specific focus on data management aspects): supported the validation of the analysis of potential

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		It also represents the Region's Regional Access Point (RAP) within the national MaaS for Italy programme. Contribution to the pilot: it contributes to the co-design and implementation process, offering insights on data management, with a specific focus on the integration of DRT services within a MaaS system.	demand and the identification of weak demand areas at the metropolitan level (pilot action "b").
Digital service providers (commercial players)	IT commercial players in the DRT and MaaS sectors. This category includes small and medium-sized enterprises operating in the field of digital mobility services, with specific expertise in the development of platforms and solutions for DRT and MaaS systems. The list included: - Padam Mobility - Instant System - My Cicero (Pluservice) - SHOTL - Nemi - Ioki - VIA - Open Move - Optibus - MAIOR	Competences: strong technical expertise in the development of governance and planning tools for on-demand transport services, with experience in platform design, data integration, and service optimisation. Role: technology providers and advisors. Contribution to the pilot: they contribute to the co-design and implementation process by offering technical feedback and use-case insights.	Their involvement was decided after the 2nd LL stakeholder meeting, following the definition of the development and testing plan for the Bologna pilot components — carried out in collaboration with GO-Mobility. In particular, between 1 July and 30 September 2025, its involvement was as follows: 5th LL meeting: supported the validation of the analysis on potential demand and the identification of weak demand areas at the metropolitan level (pilot action "b"), providing insights from the perspective of market operators active in the DRT and MaaS sectors.
National authority	Istat (Istituto Nazionale di Statistica)	Competences: high-level expertise in official statistical data collection,	Its involvement was decided after the 3rd LL stakeholder meeting,

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
	Public research institute responsible for producing and disseminating official statistics in Italy.	processing, and interpretation, with strong knowledge of mobility and demographic datasets. Role: expert and data provider. Contribution to the pilot: contributed to the co-design and implementation process by providing official statistical data, methodological guidance, and validation of analyses on demand assessment.	following the update of the development and testing plan for the Bologna pilot components — carried out in collaboration with GO-Mobility. Between 1 July and 30 September 2025, its involvement was as follows: 4th LL meeting (primarily as an observer): contributed to the testing and validation of the study on DRT costs and the possibility of their inclusion in the Contract of Service (pilot action “c”). 5th LL meeting: supported the validation of the analysis on potential demand and the identification of weak demand areas at the metropolitan level (pilot action “b”). Its contribution was particularly relevant, as Istat data sources were directly used in the methodology developed for pilot action “b”.
Regional authority	ITL – Istituto sui trasporti e la logistica Publicly supported Foundation which contribute to the development and promotion of the logistics and transport systems in the Emilia-Romagna region by providing research, consulting and training services.	Competences: expertise in analyzing mobility demand and supporting regional transport planning. Role: expert and advisor, providing methodological guidance and sharing best practices. Contribution to the pilot: provided valuable insights and recommendations based on experiences from other European projects related to DRT and mobility demand.	Its involvement was decided after the 3rd LL stakeholder meeting, following the update of the development and testing plan for the Bologna pilot components — carried out in collaboration with GO-Mobility. Between 1 July and 30 September 2025, its involvement was as follows: 5th LL meeting: supported the validation of the analysis on potential demand and the

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
			identification of weak demand areas at the metropolitan level (pilot action "b"). Its contribution was useful in providing comparative examples and lessons learned from other European projects.

***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 are envisaged for the testing of the pilot solution components.

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

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

#	Testing activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
1	Testing and validation of the zoning for the visualization of the potential weak demand analysis (pilot action "g")	Validation of the zoning used in the interactive dashboard, developed under action g), with the associated partner CMBO. Confirmation of the appropriate level of representation for the visualization of the potential weak demand analysis. Collecting of feedback to refine the framework as needed.	Zoning validated for accurate representation in the interactive dashboard.	Result achieved. The zoning (pilot action "g") was validated by SRM with the associated partner CMBO, confirming the zoning level.
2	Testing and validation through the LL stakeholder meeting of the	Presentation of the study developed under action a) during the 3rd LL stakeholder	Study on the integration of DRT services into the public transport supply and into a MaaS system	Result achieved. The study (ref. pilot action "a"), which was validated during the 3rd

#	Testing activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
	study on the integration of DRT services into the public transport supply and into a MaaS system (pilot action "a")	meeting for validation to the technical stakeholders (IT and MaaS provider, PT operators). Gathering of insights and feedback towards further refinement of the study.	validated by technical stakeholders. Potential KPIs: – Level of data sharing (ref. D3.1.1 Annex 4); – Level of service integration (ref. D3.1.1 Annex 4).	LL stakeholder meeting, includes a set of KPIs to monitor the integration of DRT within the PT. Namely: - User intermodality levels; - Number of DRT-PT interchanges; - O/D matrix analysis to assess functional connectivity.
3	Testing and validation through the LL stakeholder meeting of the first draft of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b")	Presentation of the first draft of the analysis (also called territorial diagnosis) developed under action b) during the 4th LL stakeholder meeting for validation to the stakeholders. Feeding of the territorial diagnosis through stakeholder discussion and validating what has been done so far.	First draft of the analysis of potential demand and definition of areas of weak demand at the metropolitan level validated.	Result achieved. The first draft of the analysis (ref. pilot action "b") was validated during the 5th LL stakeholder meeting.
4	Raising awareness about the DRT applicability and introduction to its integration with the PT	Introduction of the topic of DRT-PT integration, based on the reorganization of the PT during the 4th and 5th LL stakeholder meeting. Gathering of feedback from the stakeholders on which different type of DRT is best suited to the CMBO territory.	Comprehensive feedback gathered on DRT-PT integration, including insights into the most suitable types of DRT for the diverse needs and characteristics of the CMBO territory.	Result achieved. Stakeholder feedback (ref. pilot action "d") was collected during 4th and 5th LL meetings on 1 July 2025.
5	Testing and validation of the interactive dashboard for the visualization of the potential weak	Testing of the interactive dashboard developed under activity g), which visualizes the O/D matrices derived from	Interactive dashboard tested and validated.	Result achieved. The interactive dashboard (ref. pilot action "g") was validated by SRM with the Associated Partner

#	Testing activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
	demand analysis (ref. pilot action "g")	SIM data, with CMBO. Assessment of tool functionalities, including filtering capabilities and effectiveness in identifying weak demand areas and associated mobility patterns. Collection of feedback to refine the dashboard and ensure it meets practical needs.		CMBO, confirming the tool's ability to represent O/D matrices in a clear and functional way, enabling the identification of weak demand areas at the metropolitan level.
6	Testing and validation through the LL stakeholder meeting of the study on DRT costs and the possibility of their inclusion in the Contract of Service (ref. pilot action "c")	Presentation of the study developed under action c) during the 5th LL stakeholder meeting with the stakeholders directly involved in the process (CMBO, RER and PT operators). Identification of the forms of financing and economic sustainability of the solution.	Study on DRT costs and the possibility of their inclusion in the Contract of Service validated. Potential KPI: – Cost of the service (ref. D3.1.1 Annex 4).	Result achieved. The study (ref. pilot action "c") was validated during the 4th LL meeting on 1 July 2025.
7	Testing and validation through the LL stakeholder meeting of the final results of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b")	Presentation of the final results of the analysis developed under action b) during the 6th, and final, LL stakeholder meeting for final validation to the stakeholders. Collection of last-minute comments and suggestions.	Analysis of potential demand and definition of areas of weak demand at the metropolitan level validated.	Result achieved. The analysis (ref. pilot action "b") was validated during 5th LL meeting on 1 July 2025.
8	Testing and validation through the LL stakeholder meeting of the study on potential integrations between demand	Presentation of the approach and gathering ideas together with the stakeholders (e.g., strategies and actions, indicators for monitoring) for the	Ideas and inputs collected from stakeholders to feed into the final study from pilot action "d".	Result achieved. Ideas and input (ref. pilot action "d") were collected during 6th LL meeting on 17 July 2025.

#	Testing activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
	assessment methodologies and parameters and city and metropolitan planning tools (ref. pilot action “d”),	study developed under activity d) during the 6th, and final, LL stakeholder meeting. Delineation of the path / form for DRT integration into the planning tools.		
9	Testing through the LL stakeholder meeting of the inclusion of DRT into the PT tendering procedure	Presentation of the simulation of the tendering procedure for Public Transport including DRT services during the 6th, and final, LL stakeholder meeting; final results from pilot actions b) and c) will be used as well. Identification of the areas for DRT service integration and alignment with PT offer, identification of sustainable and economically viable DRT solutions for future inclusion in the Contract of Service.	Simulated PT tendering procedure validated by the stakeholders.	Result achieved. Recommendations on how to develop a PT tendering procedure integrating DRT services (ref. pilot action “b” and “c”) were validated during 4th and 5th LL meetings on 1 July 2025.
10	Co-designed development and validation of the inputs to the study on potential integrations between demand assessment methodologies and city and metropolitan planning tools (ref. pilot action “d”)	Collection and discussion of ideas for the completion of the study being developed in action d), based on the input received during the 6th LL stakeholder meeting. Packaging of the final study and final internal validation.	Study on potential integrations between demand assessment methodologies and planning tools validated. Potential KPIs – DRT territorial coverage, passengers on peripheral lines (ref. D3.1.1 Annex 4); – Length of DRT network/number of bus stops (ref. D1.1.3); – N° of passengers (ref. D1.1.3);	Result achieved. The study (ref. pilot action “d”) was validated during 6th LL meeting on 17 July 2025

#	Testing activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
			– N° of km driven (ref. D1.1.3); – Hours of availability of the service (ref. D1.1.3).	
11	Refinement of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b")	Incorporation of feedback and last-minute observation on the analysis developed under action b), based on the input received during the 6th LL stakeholder meeting. Packaging of the analysis for official reporting and further use in the pilot.	Analysis of potential demand and definition of areas of weak demand at the metropolitan level validated.	Result achieved. The final results of the analysis (ref. pilot action "b") were packaged and validate during 6th LL meeting on 17 July 2025.

3.2.2. Focus on procurement

Since some of the Bologna pilot activities include sub-activities that could not be carried out internally due to the need for strong IT expertise, SRM deemed it necessary to outsource the execution of those tasks while maintaining internal control and coordination of the work. For that reason, already in the AF it was foreseen a dedicated budget for contracting an external technical expert support. This budget covered activities to be carried out with the LL stakeholder group, a study on DRT and MaaS. The study focused on integrating DRT in the public transport offer since the planning phase, on including it in the next PT procurement tender documents, and on including DRT into a MaaS system in the Metropolitan city of Bologna.

Following the AF, SRM set up a procurement process to contract such an external technical support to carry out those activities.

As recalled in chapter 3.1, the activities outlined in the DREAM_PACE project are synergistic with and closely related to those of the MIND - Mobility-Data-INsight project (funded by the "PR FESR Emilia Romagna 2021-2027" and of which SRM is a beneficiary), particularly in reconstructing mobility demand through data from mobile phone operators. Given this alignment, the MIND project's activities were included in the informal market survey, and it will contribute to the financing of the related specific tasks (in particular, pilot action "h" in the list in chapter 3.1.1).

The procurement procedure was awarded to GO-Mobility Srl, which is an engineering company that provides technical consulting services to businesses and local authorities, specialized in mobility and transport planning. Over the years, the company has gained extensive experience collaborating with public administrations and public transport agencies, offering analysis and decision-support tools for strategic mobility interventions and assisting in European projects. Their specialized expertise in MaaS and DRT integration is key to designing and executing the pilot activities successfully, ensuring high-quality and effective solutions tailored to the specific needs of the Bologna Living Lab.

Additionally, the collaboration with the MIND project strengthened the overall impact of the DREAM_PACE pilot. The integration of resources and data from both projects enhanced the quality and scalability of the pilot.

The link among the pilot components and the activities detailed in the procurement is clarified in chapter 3.1.

It is noted that there are a few considerations that were taken into account during the rolling out of the activities to ensure their successful implementation:

- Data accessibility and quality: the success of the MaaS and DRT integration depends on the availability and quality of mobility data. Timely and reliable access to this data is crucial to ensure that the pilot activities meet the project's goals;
- Stakeholder engagement: the effective management of the LL stakeholder group is vital to guide the pilot activities. Ensuring active and productive participation from the stakeholders will enhance the relevance and success of the proposed solutions;
- Stakeholder perception on DRT services: stakeholders and target groups might perceive the adoption of DRT as a downgrade with respect to traditional scheduled services. Effective communication activities can increase awareness of the potential of DRT solutions;
- Timely implementation of activities: given the complexity of the tasks it is important to ensure that all activities are implemented within the planned timeframe. Close coordination and monitoring will help to address any potential delays and keep the project on track.

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.

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
1	Study on the integration of DRT services into the public transport supply and into a MaaS system (ref. pilot action "a")	01/10/2024	28/02/2025	Real end: 07/03/2025
2	Identification of potential weak demand by analysis and geographic visualization of the O/D matrix starting from telephone SIM data (ref. pilot action "g")	01/10/2024	30/04/2025	Real end: 10/06/2025
3	Testing and validation of the zoning for the visualization of the potential weak demand analysis (ref. pilot action "g")	01/11/2024	30/11/2024	No deviations after 30 June 2025
4	Testing and validation of the study on the integration of DRT services into the public transport supply and into a MaaS system (ref. pilot action "a")	01/03/2025	31/03/2025	Real end: 03/04/2025

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
	through the 3rd LL stakeholder meeting			
MI	Study on the integration of DRT services into the public transport supply and MaaS system validated (ref. action "a")	N.A.	31/03/2025	Real end: 03/04/2025
MR	Media release in coincidence with the 3rd LL Stakeholder Meeting	01/03/2025	31/03/2025	Real end: 16/04/2025
5	Analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b")	01/01/2025	30/06/2025	Real end: 23/07/2025
6	Testing and validation of the first draft of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b") through the 5th LL stakeholder meeting	01/04/2025	30/04/2025	Real end: 01/07/2025
7	Raising awareness about the DRT applicability and introduction to its integration with the PT	01/03/2025	30/04/2025	Real end: 01/07/2025
8	Testing and validation of the interactive dashboard for the visualization of the potential weak demand analysis (ref. pilot action "g")	TDB (indicative 01/04/2025)	TDB (indicative 30/04/2025)	Real end: 11/06/2025
9	Study on DRT costs and the possibility of their inclusion in the Contract of Service (ref. pilot action "c")	01/01/2025	31/03/2025	Real end: 30/05/2025
10	Testing and validation of the study on DRT costs and the possibility of their inclusion in the Contract of Service (ref. pilot action "c") through the 4th LL stakeholder meeting	01/05/2025	31/05/2025	Real end: 01/07/2025
11	Testing and validation of the final results of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot	01/06/2025	30/06/2025	Real end: 01/07/2025

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
	action “b”) through the 5th LL stakeholder meeting			
12	Presentation of the approach and gathering ideas for the study on potential integrations between demand assessment methodologies and parameters and city and metropolitan planning tools (ref. pilot action “d”), through the 5th LL stakeholder meeting	01/05/2025	31/05/2025	Real end: 01/07/2025
13	Simulation of a tendering procedure for Public Transport including DRT services	01/06/2025	30/06/2025	Real end: 01/07/2025 Recommendations on how to develop a PT tendering procedure integrating DRT services were validated during the 4th and 5th LL meetings.
MI	Analysis of potential demand and weak demand areas at the metropolitan level (including the replicable methodology, preliminary TPL service network, and identification of DRT demand) validated (ref. action “b”)	N.A.	30/06/2025	Real end: 01/07/2025
MR	Media release in coincidence with the 6th (and last) LL Stakeholder Meeting	01/06/2025	30/06/2025	Real end: 15/07/2025 The media release was released in coincidence with the 4th and 5th LL meetings
14	Co-designed development and validation of the inputs to the study on potential integrations between demand assessment methodologies and city and metropolitan planning tools (ref. pilot action “d”)	01/07/2025	31/07/2025	No deviations after 30 June 2025
15	Refinement of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action “b”)	01/07/2025	31/07/2025	No deviations after 30 June 2025

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
MI	Study on potential integrations between demand assessment methodologies and parameters and city and metropolitan planning tools (i.e., SUMP) validated (ref. pilot action "d")	N.A.	31/08/2025	No deviations after 30 June 2025
PM	3rd LL stakeholder meeting	N.A.	March 2025	Real date: 03/04/2025
PM	4th LL stakeholder meeting	N.A.	Apr 2025	Real date: 01/07/2025
PM	5th LL stakeholder meeting	N.A.	May 2025	Real date: 01/07/2025
PM	6th LL stakeholder meeting	N.A.	June 2025	Real date: 17/07/2025
PR	Peer Review on the tested solution component with Project Partners	01/06/2025	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 #1 - Study on the integration of DRT services into the public transport supply and into a MaaS system (ref. pilot action "a"): real end: 07/03/2025, delay 7 days. This delay is due to the complexity of the topics addressed and the resulting additional time required by the external technical support partner to finalize the study.	1 - low	The final study was delivered on 07/03/2025, with sufficient time for review, discussion, and validation within the planned project activities. Given the limited extent of the delay, no further adaptation measures were required, and the overall timeline of the pilot remained unaffected.
Activity #2 - Identification of potential weak demand by analysis and geographic visualization of the O/D matrix starting from telephone SIM data (ref. pilot action "g"): real end 10/06/2025, delay 1 month and 10 days.	1 - low	SRM (and the technical partner GO-Mobility) reorganised the timeline of the LL activities by overlapping part of the work related to this activity with the preparation of the subsequent activities. Additional effort was dedicated to accelerating the validation of outputs once the

Deviation	Severity*	Adaptation/Mitigation measure
This delay is due to the late availability of data for the reference months of the analysis (in particular October 2024), which required additional time to finalise and consolidate the work.		data became available. As a result, the updated data allowed for a more accurate interpretation and increased the robustness of the final output. The updated LL timeline remained aligned with the overall project schedule.
Activity #4 - Testing and validation of the study on the integration of DRT services into the public transport supply and into a MaaS system (ref. pilot action "a") through the LL stakeholder meeting: real end 03/04/2025, delay 3 days. This delay is a direct consequence of the postponement in the delivery of the study, as described in Activity #1. The validation phase was therefore rescheduled accordingly.	1 - low	The validation through the 3rd LL stakeholder meeting was postponed to the beginning of the following month (03/04/2025). The short delay of three days did not require any specific mitigation measures. The updated timeline remained aligned with the overall project schedule.
MI - Study on the integration of DRT services into the public transport supply and MaaS system validated (ref. action "a"): real end 03/04/2025, delay 3 days. This delay is a direct consequence of the deviation reported for activity #4.	1 - low	Ref. activity #4
MR - Media release in coincidence with the 3rd LL Stakeholder Meeting: real end 16/04/2025, delay 16 days. This delay is a direct consequence of the deviation reported for activity #4.	1 - low	Ref. activity #4
Activity #6 - Testing and validation of the first draft of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b") through the 5th LL stakeholder meeting: real end 01/07/2025, delay 2 months and 1 day. This delay is also due to the complexity of the analysis and the additional time needed by the external technical support partner to complete the first draft, as well as a reorganization of the work timeline between pilot actions b) and c) in the Bologna pilot. As a result,	1 - low	Since the validation through the LL stakeholder meeting was postponed to the month of July, it was decided to proceed directly with the validation of the final results of the analysis (ref. activity #11), integrating feedback collection into a single step. This mitigation measure simplifies the process but requires extra coordination to make sure stakeholders could provide input within a shorter timeframe. The updated timeline remained aligned with the overall project schedule.

Deviation	Severity*	Adaptation/Mitigation measure
the 5th LL stakeholder meeting was postponed accordingly.		
Activity #8 - Testing and validation of the interactive dashboard for the visualization of the potential weak demand analysis (ref. pilot action "g"): real end 11/06/2025, delay 1 month and 11 days. This delay is a direct consequence of the postponement of activity #2. The validation phase was therefore rescheduled accordingly.	1 - low	SRM coordinated closely with CMBO to reschedule this validation immediately after the completion of Activity #2. Additional effort was dedicated to performing testing and feedback collection efficiently. The updated timeline remained fully aligned with the overall project schedule, and no further mitigation measures were required.
Activity #9 - Study on DRT costs and the possibility of their inclusion in the Contract of Service (ref. pilot action "c"): real end 30/05/2025, delay 2 months. This delay is due to the complexity of the analysis and the additional time needed by the external technical support partner to complete the first draft, as well as a reorganization of the work timeline between pilot actions b) and c) in the Bologna pilot.	1 - low	The work timeline for pilot actions b) and c) was adjusted to take into account the extended drafting time needed for the related studies, while some activities were carried out in parallel to maintain progress. The coordination with the external technical support partner GO-Mobility was reinforced to secure delivery of the study on 30/05/2025, leaving sufficient time for review, discussion, and validation within the planned project activities.
Activity #10 - Testing and validation of the study on DRT costs and the possibility of their inclusion in the Contract of Service (ref. pilot action "c") through the 4th LL stakeholder meeting: real end 01/07/2025, delay 1 month and 1 day. This delay is a direct consequence of the postponement in the delivery of the study, as described in Activity #9. The validation phase was therefore rescheduled accordingly.	1 - low	The validation of this study through the LL stakeholder meeting was postponed to the month of July, thus also creating the opportunity to organize the 4th and 5th meetings on the same day. This facilitated the involvement of relevant stakeholders common to both sessions, although it required additional organisational effort in preparing and managing two consecutive LL meetings. The updated timeline remained aligned with the overall project schedule.
Activity #11 - Testing and validation of the final results of the analysis of potential demand and definition of areas of weak demand at the metropolitan level (ref. pilot action "b") through the 5th LL stakeholder meeting: real end 01/07/2025, delay 1 day.	1 - low	This validation through the LL stakeholder meeting was postponed to the month of July, creating the opportunity to organize the 4th and 5th meetings on the same day. This facilitated the involvement of relevant stakeholders common to both sessions, although it required additional organisational effort in preparing and managing two consecutive LL meetings. The

Deviation	Severity*	Adaptation/Mitigation measure
This delay is due to the complexity of the analysis and the additional time needed by the external technical support partner to complete the first draft, as well as a reorganization of the work timeline between pilot actions b) and c) in the Bologna pilot.		updated timeline remained aligned with the overall project schedule.
Activity #12 - Presentation of the approach and gathering ideas for the study on potential integrations between demand assessment methodologies and parameters and city and metropolitan planning tools (ref. pilot action "d"), through the 5th LL stakeholder meeting: real end 01/07/2025, delay 1 month and 1 day.	1 - low	The activity was postponed in alignment with the rescheduling of the 5th LL stakeholder meeting. The revised timing supported continuity with the validation of the final study (ref. activity #14).
Activity #13 - Simulation of a tendering procedure for Public Transport including DRT services: real end 01/07/2025, delay 1 day.	1 - low	Given the progress of the Bologna pilot and the related studies (ref. pilot actions "b" and "c"), it was decided to implement Recommendations on how to develop a PT tendering procedure integrating DRT services. These recommendations were validated during the 4th and 5th LL meetings. The delay required additional workload to adapt the content compared to the original plan.
MI - Analysis of potential demand and weak demand areas at the metropolitan level (including the replicable methodology, preliminary TPL service network, and identification of DRT demand) validated (ref. action "b"): real end 01/07/2025, delay 1 day. This delay is a direct consequence of the deviation reported for activity #11.	1 - low	Ref. activity #11.
MR - Media release in coincidence with the 6th (and last) LL Stakeholder Meeting: real end 15/07/2025, delay 15 days.	1 - low	Given the number of stakeholders involved and the topics covered, the MR was released in coincidence with the 4th and 5th LL meetings. The delay is absorbed within the revised timeline of the LL activities and do not affect the dissemination objectives. Given the limited extent of the deviation, no specific mitigation measures are required.
PM - 3rd LL stakeholder meeting: real end 03/04/2025, delay 3 days.	1 - low	The validation through the 3rd LL stakeholder meeting was postponed to the following month. The short delay of three days did not require any

Deviation	Severity*	Adaptation/Mitigation measure
Since the LL meetings are scheduled to coincide with the results of the pilot activities, this delay is due to the late completion of key technical materials required for discussion.		specific mitigation measures. The updated timeline remains aligned with the overall project schedule (ref. activity #4).
PM - 4th LL stakeholder meeting: real end 01/07/2025, delay 2 months and 1 day. Since the LL meetings are scheduled to coincide with the results of the pilot activities, this delay is due to the late completion of key technical materials required for discussion.	1 - low	The validation through the LL stakeholder meeting was postponed to the month of July, creating the opportunity to organize the 4th and 5th meetings on the same day. This facilitated the involvement of relevant stakeholders common to both sessions, although it required additional organisational effort in preparing and managing two consecutive LL meetings. The updated timeline remained aligned with the overall project schedule (ref. activity #10).
PM - 5th LL stakeholder meeting: real end 01/07/2025, delay 1 month and 1 day. Since the LL meetings are scheduled to coincide with the results of the pilot activities, this delay is due to the late completion of key technical materials required for discussion.	1 - low	The validation through the LL stakeholder meeting was postponed to the month of July, creating the opportunity to organize the 4th and 5th meetings on the same day. This facilitated the involvement of relevant stakeholders common to both sessions, although it required additional organisational effort in preparing and managing two consecutive LL meetings. The updated timeline remained aligned with the overall project schedule (ref. activity #6 and #11).
PM - 6th LL stakeholder meeting: real end 17/07/2025, delay 17 days. Since the LL meetings are scheduled to coincide with the results of the pilot activities, this delay is due to the late completion of key technical materials required for discussion.	1 - low	The validation through the LL stakeholder meeting was postponed to July, using the meeting to validate the inputs to the study on potential integrations between demand assessment methodologies and city and metropolitan planning tools (ref. pilot action “d”). Additional coordination was carried out to ensure all materials were ready for the final meeting. The updated timeline remained aligned with the overall project schedule (reference to activity #14).

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

3.3. Results of peer-review and alignment actions after 30 June 2025

#	Peer reviewer contribution / input	Description	Consequent alignment in the pilot activities
1	Redmint, Dyvolve, and TUB	Review of deliverable D1.3.3 Final report for pilot 1.1: governance and planning model for integrated DRT public transport.	Approval of contents and planned activities.
2	BKK and SDC	BKK and SDC are designated as peer reviewers for the tested solution component. They will review and test them once the final versions of the deliverables are available. Further peer review will also take place when the solution components developed by SRM are uploaded to the public online platform developed as the repository of the solution components and are presented at the Final Conference.	N.A. at the moment

3.4. Conclusions of the testing phase

3.4.1. Outcomes of the testing phase

Outcome #1: Governance model, including the roles of key stakeholders and data exchange protocols, for integrating DRT services into the PT offer and into a MaaS system (ref. pilot action “a”).

Outcome #2: Increased awareness of DRT applicability and identification of the geographical and functional areas where to plan and award local PT services (including DRT), as well as the mapping of the potential mobility demand to be addressed (ref. pilot action “b”).

Outcome #3: Funding models and financial sustainability strategies for DRT services, which provides useful elements to guide their inclusion in PT Contracts of Service (ref. pilot action “c”).

Outcome #4: Framework for integrating DRT services into strategic planning tools (e.g., SUMP) (ref. pilot action “d”).

Outcome #5: Recommendations on how to design and implement PT tendering procedures integrating DRT services.

3.4.2. Lessons learned

Lesson learned #1: Importance of early and inclusive stakeholder engagement

The involvement of a broad and diverse set of stakeholders from the early stages of the pilot was crucial to ensuring the robustness and credibility of the analyses. By engaging Local, Regional, and National Public Authorities, PTAs, PTOs, MaaS integrators, and other technical stakeholders, the Bologna pilot was able to validate results that were not only technically but also institutionally relevant. This broad participation fostered ownership of the outcomes, improved the alignment between technical studies and policy objectives, and created the conditions for a future integration of DRT services into existing planning and regulatory frameworks.

Lesson learned #2: DRT as a strategic lever for innovative and inclusive mobility

The testing phase with the stakeholders highlighted the increasingly central role of DRT as tool for achieving more widespread and inclusive mobility across metropolitan territories. The challenges encountered (economic sustainability, operational management, service planning, etc.) were not seen as obstacles but rather as opportunities to innovate existing models and strengthen integration with the metropolitan PT network. This perspective positioned DRT not as a marginal or experimental tool, but as a future (and desirable) component of the PT ecosystem, capable of contributing to territorial cohesion and accessibility.

Lesson learned #3: Testing and validation LL meetings as co-design moments

LL meetings went beyond simple validation moments and effectively evolved into co-design phases. Their format encouraged open discussion, exchange of perspectives, and the refinement of technical content based on experts' insights. This participatory approach significantly improved the quality and applicability of the outputs (i.e., the pilot action studies), ensuring they could be more easily adopted by the relevant actors, such as Local Authorities and PTAs/PTOs.

Lesson learned #4: Balancing technical output with communicability

Another key lesson concerned the challenge of translating technically complex outputs (e.g., mobility demand analysis based on multiple data sources – ref. pilot action "b") into results that could be easily presented to stakeholders and then used by Public Authorities and PTAs/PTOs. Producing clear visualizations and concise recommendations is fundamental to maximize the usability and policy impact of the studies. This proved the importance of communication as an integral component of technical work.

3.4.3. Fine tuning and joint finalization of the modular components

Component 1: Strategic planning approach for DRT in PT

The core aim of the solution component no. 1 "Strategic planning approach for DRT in PT" is to support Public Authorities in planning and governing DRT services as a permanent part of the PT ecosystem. This involves recognizing DRT as both a tool to cover underserved and low demand areas and an instrument for achieving broader goals such as territorial cohesion, social inclusion, and sustainability.

This solution component builds particularly on Bologna pilot action "d - Study on potential integrations between demand assessment methodologies and parameters and city and metropolitan planning tools (i.e., SUMP)", as it deals with the development of the strategic planning approach for DRT in PT. Indeed, it is crucial for providing insights that directly inform and enhance the PT strategic planning process. This study explorer the possible integrations between advanced mobility demand analysis methods and strategic planning tools and investigates how the results obtained through a multi-level demand estimation approach based on data-fusion techniques (ref. pilot action "b") can effectively support the planning and restructuring of PT services, especially in low-demand areas, with a focus on the deployment of DRT services.

It is important to highlight the interdependence of this pilot action with the other actions of the Bologna pilot. In particular with pilot action "b", since the approach adopted for planning and restructuring PT services in the Metropolitan City of Bologna, and especially for the deployment of DRT services, is grounded in the mobility demand analysis methodology developed in that study.

The draft contents of the study and the approach of pilot action "d" were presented during the 5th LL meeting, held on 01/07/2025, also with the purpose of collecting preliminary ideas from stakeholders. During this meeting, the stakeholders present validated the contents and the initial approach (ref. activity #12).

Subsequently, the contents of the study were validated during the 6th Bologna LL meeting, held online on 17/07/2025. In this meeting, the composition of the stakeholder group was tailored to reflect the technical and planning-oriented nature of the activity. For this reason, the stakeholders invited were the Local Authorities responsible for mobility planning in the Bologna metropolitan area, ensuring that the study's results and proposed guidelines could be directly discussed with, and absorbed by, the relevant planning bodies, i.e. CMBO (responsible for SUMP development and updating) and COBO. CMBO and COBO co-designed and validated the content of the study (ref. activity #14).

The solution component no. 1 was finalized in the form of a strategic document, with the objective of providing a guide for integrating DRT services into the Sustainable Urban Mobility Plan (SUMP) of the Bologna metropolitan area. This strategic document is available as an annex to deliverable D.1.2.3 "Co-designed solutions blueprint of integrated DRT implemented/tested through pilot activities".

Component 2: Recommendations on the integration of DRT services in MaaS

The solution component no. 2 "Recommendations on the integration of DRT services in MaaS" builds on the analysis of the existing Emilia-Romagna regional MaaS ecosystem, and consider the technological, operational, and governance dimensions of the integration of a DRT service with/in it. Their aim is to ensure that DRT services become an effective, flexible, and sustainable component of the overall mobility offering in the Bologna metropolitan area, particularly in areas underserved by conventional PT.

The solution component no. 2 lies on the study developed under pilot action "a - Study on the integration of DRT services into the public transport supply and into a MaaS system". This study defines the operational and technical framework required to guarantee interoperability between DRT and conventional public transport, as well as their accessibility within MaaS platforms. It outlines operational protocols and functional/technical requirements to ensure cohesion and coordination among the different actors involved, promoting integration into the mobility network and the MaaS ecosystem.

The contents of the study "a" were validated during the 3rd LL stakeholder meeting, held online on 03/04/2025 (ref. activity #4). The meeting brought together technical stakeholders with diverse expertise and perspectives, including (see chapter 3.1.2 for details):

- Local and Regional Authorities: CMBO, COBO and RER.
- PTAs (Mobility Agencies) of the Emilia-Romagna Region.
- PTOs active in the Bologna area.
- MaaS Integrator: Lepida.
- IT players operating in the DRT and MaaS sectors.

The solution component no. 2 was finalized in the format of a guideline/checklist, with the objective of offering a concrete and actionable tool to support the full integration of DRT into public transport systems and MaaS platforms. Specifically, it provides the technical and operational basis for integration, defining protocols, service requirements, and responsibilities for both the main transport operator and the DRT operator. This guideline/checklist is available as an annex to deliverable D.1.2.3 "Co-designed solutions blueprint of integrated DRT implemented/tested through pilot activities".

Component 3: DRT dedicated tendering procedure

The solution component no. 3 "DRT dedicated tendering procedure" aims to lay the groundwork for the formal integration of DRT services into future public transport tenders, thus also enabling their inclusion in the PT Contracts of Service.

This solution component lies on pilot actions “b” and “c”, which are particularly relevant as they provide the strategic foundations for designing a DRT tender. Specifically, they deliver the demand-side justification and the cost-based feasibility elements necessary for drafting a realistic tender.

The study developed under pilot action “b” defines the geographical and functional area where to plan and award local public transport services, while identifying the potential mobility demand to be met. This analysis goes beyond a simple description of observed mobility demand and includes latent needs as well as structural and socio-economic characteristics of the Metropolitan city of Bologna (morphology, urbanization, demographic profiles, and the local economic system).

The study developed under pilot action “c” analyse the costs of DRT services, identifying criteria for a remuneration model consistent with the standard cost system and the operational specificities of this type of service. It also highlights useful elements for including DRT in PT Contracts of Service, with a focus on economic sustainability and conditions of applicability.

The results of the analysis from pilot action “b” were tested and validated during through the 5th LL stakeholder meeting (ref. activity #6 and #11). The meeting brought together technical stakeholders with diverse expertise and perspectives, including (see chapter 3.1.2 for details):

- Local public authorities: CMBO, COBO (Mobility Dept. and Statistics Dept.).
- Regional public authorities: RER and ITL (Istituto sui Trasporti e la Logistica).
- PTAs of the Emilia-Romagna Region.
- PTOs active in the Bologna area.
- IT players operating in the DRT and MaaS sectors.
- National public authority: Istat (Istituto Nazionale di Statistica).
- MaaS Integrator: Lepida.

Subsequently, the final version of the analysis on potential demand and weak demand areas (ref. pilot action “b”) was refined by SRM, in collaboration with the technical partner GO-Mobility, following the validation of the study from pilot action “d – Study on potential integrations between demand assessment methodologies and planning tools (SUMP)” (ref. activity #15). This step was necessary due to the interdependence between pilot actions “b” and “d”, as certain indicators and data from the demand analysis were validated during the 6th LL meeting.

The results of the analysis from pilot action “c” were tested and validated during through the 4th LL stakeholder meeting (ref. activity #10). This meeting also gathered technical stakeholders, including (see chapter 3.1.2 for details):

- Local and Regional public authorities: CMBO, COBO, and RER.
- PTAs (Mobility Agencies) of the Emilia-Romagna Region.
- PTOs active in the Bologna area.

The solution component no. 3 was finalized in the format of recommendations on how to develop a PT tendering procedure integrating DRT services. These recommendations enable local authorities to assess demand levels, design an optimal PT network at the metropolitan scale, and identify areas where DRT can be most effective. They also provide a basis for integrating DRT into long-term PT funding and contractual mechanisms, ensuring both sustainable operation and financial viability. These recommendations are available as an annex to deliverable D.1.2.3 “Co-designed solutions blueprint of integrated DRT implemented/tested through pilot activities.”

4. Budapest

4.1. The pilot testing elements

Pilot: 1.1 GOVERNANCE AND PLANNING of INTEGRATED DRT public transport in a MaaS logic for peripheral and low demand areas

Pilot area: 16th district, Budapest, Hungary

Peer reviewers: SRM – Società Reti e Mobilità Srl

4.1.1. The solution components to be tested

The new flexible Demand Responsive Transport (DRT) system in Budapest serves a mixed-use residential area, located in the eastern part of the 16th district of the city, with approximately 2.500–3.000 inhabitants. The designated area was underserved by public transport (PT) services and didn't feature any specific trip-attracting facilities; however, a supermarket that opened at the beginning of 2025 is attracting 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 get to the locations of the stops made these transport links uncompetitive and uncomfortable for a huge proportion of residents in the area, like the elderly population. As a result, car dependency within the territory is remarkable and serves as the dominant transport mode.

The components of the Budapest pilot are structured as follows.

Component 1: Strategic approach for DRT in PT, transforming traditional lines in DRT and designing new DRT in developing areas. The component focuses on testing new regulations related to DRT systems. In Hungary, transport infrastructural elements, such as stops, need to meet various infrastructural requirements in order to be approved by certain authorities. Although BKK - Budapesti Közlekedési Központ (BKK Centre for Budapest Transport) has introduced the so-called "simplified boarding points" in existing DRT services, the company aims to elaborate and test new solutions to make DRT systems more flexible. As part of the project, BKK developed more simplified stop points, where – due to the flexibility of the new DRT service – vehicles are enabled to approach them from different directions (at crossings), and thus no designated stopping areas would be established. The area of the stop marked with a single sign consisting of all necessary information about its operation.

Component 2: Business model for flexible management of DRT-PT - provided by AG/Redmint (Pavia Oltrepò). The business planning tool helps to plan the opportunity costs for the DRT service in low demand areas. A test with abstract data allowed the validation of the model. The pilot chosen the test line but it should work in different contexts. The evaluation model needs to be validated with an existing service or a new one. This evaluation model shared by Redmint, which was validated by BKK, highlighting the importance of this validation process. BKK tested the model on two planned DRT services in Budapest and shared the results with AG/Redmint to finalise the model.

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) 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. Role: pilot responsible, decision maker. Contribution to the pilot: it is the main pilot partner. It contributes through designing, strategic decision-making and organising the new DRT service.	Involved - Several departments of BKK have been working (and are currently 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 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, design and analysis 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.	Competences: 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: provides 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

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
			15 August 2025, and shared the news about the launch of the service on its website.
PTO	BKV Budapest Transport Privately Held Corporation BKV is the main public transport operator in Budapest. It functions as one of the subcontractors of BKK. Its tasks include the responsibility to operate certain services by providing vehicles and operational support.	Competences: expertise in operating services. Role: transport operator. Contribution to the pilot: hold 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: potential advisor. Contribution to the pilot: provides 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: participates in the public consultation and complete 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.)*	Competences: transport co-operator. Role: potential collaboration in the project. Since the suburban railway lines that the DRT service aims to feed	(Slightly) involved – informed them about the new DRT line, which connects the pilot area with the suburban railway (HÉV), operating as a shuttle service

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
	It operates the five suburban railway lines in Budapest.	are operated by MÁV-HÉV Zrt., cooperation may be required. Contribution to the pilot: collaborates and provides information from the DRT planning. The new DRT line will start and end at Cinkota HÉV station and will connect to suburban railway lines to provide transfer possibilities.	synchronised with the suburban railway departures and arrivals.
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.
Other (Authority)	Bus Market Surveillance and Passenger Rights Authority of Hungary Bus supervisor and coach market in Hungary.	Competences: perform tasks specified in the law in the given fields with national competence. Role: legal issues advisor. Contribution to the pilot: consultation on legal issues related to simplified boarding points.	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	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.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
		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.	

***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).

#	Testing 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	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

		regarding the planned service.		completed in November 2024. (BKK is planning another public consultation or online survey about the first experiences with the new DRT service in autumn 2025.)
3	Consultation with the authorities	Consulting with authorities on legal issues related to the DRT system, related to the elaboration of simplified boarding points.	Amendment of the Terms of Service finalized.	Result achieved. The BKK's terms and conditions have been updated with the regulatory of the simplified boarding points on 5 January 2025.
4	Implementation of the DRT service	Launching the DRT service for a designated test period.	Testing of the service initiated.	Result achieved. The new DRT service with flexible route started on 25 August 2025.
5	Testing of the DRT-PT model	Testing of the business planning tool developed by AG/Redmint for flexible management of DRT-PT.	DRT-PT model tested.	Result achieved. BKK tested the model on two planned DRT services in Budapest and shared the results with AG/Redmint to finalise the model.

4.2.2. Timeline

#*	Activity/ Milestone/other	Start	End/ Achievement	Deviations
1	Planning process of the system	03/2023	11/2024	+3 months No deviations after 30 June 2025
2	Social engagement activities	05/2024	02/2026	No deviations after 30 June 2025

#*	Activity/ Milestone/other	Start	End/ Achievement	Deviations
MI	Online public consultation (survey)	09/10/2024	13/11/2024	No deviations after 30 June 2025
3	Consultation with the authorities	09/04/2024	09/04/2024	No deviations after 30 June 2025
4	Implementation of the DRT service	11/2024	11/2025	+9 months. Real start: 25/08/2025 Foreseen end: 31/01/2026
5	Testing of the DRT-PT model	15/05/2025	30/06/2025	+4 months Real start: 01/09/2025 Real end: 09/2025
PM	1st LL meeting: Local Workshop		12/09/2023	No deviations after 30 June 2025
PM	2nd LL meeting: Scenario Development Workshop		04/03/2024	No deviations after 30 June 2025
PM	3rd LL meeting: Site-visit and testing the area to be served in a collaboration with the local authorities		06/08/2024	No deviations after 30 June 2025
MI/PM	4th LL meeting: On-site public consultation for the citizens of the pilot area		14/10/2024	No deviations after 30 June 2025
PM	5th LL meeting: Testing the new minibus (specifically purchased for the pilot project) in the pilot area		22/05/2025	No deviations after 30 June 2025
PM	6th LL meeting: Experiences of the DRT service running		10/2025	No deviations expected
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
MR	Media release about the start of the DRT service operation	11/2024	08/2025	+9 months Real end: 15/08/2025
MR	Media release about the end of the DRT service pilot and, hopefully, about the continued operation of the system	15/01/2026	15/02/2026	No deviations expected

***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)

4.2.3. 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 D2.3.3 “Final report pilot 2.1: DRT digital /operational model improving existing DRT networks responsiveness”, Chapter 4.2.2 Focus on procurement process).	2 - moderate	The duration of the pilot was reduced from 12 months to 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 #4 - Implementation of the DRT service (+9 months): 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 5 months.
Activity #5 - Testing of the DRT-PT model (+4 months)	1 - low	BKK received the model from Redmint on 1 September 2025. BKK tested the model for two planned DRT line.

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

4.3. Results of peer-review and alignment actions after 30 June 2025

#	Peer reviewer contribution / input	Description	Consequent alignment in the pilot activities
1	SRM	SRM is designated as peer reviewer for the tested solution component "Business planning tool for flexible management of DRT-PT", developed by the Redmint and tested by BKK.	SRM tested the "Business planning tool for flexible management of DRT-PT" based on their experiences with DRT services. SRM sent the results of the testing to BKK and Redmint, who can finalize the model based on these feedback.

4.4. Conclusions of the testing phase

4.4.1. Outcomes of the testing phase

Outcome #1: The new flexible Demand Responsive Transport (DRT) service was successfully launched by BKK in an underserved area of Budapest's 16th district on 25 August 2025.

Outcome #2: Public consultations and online surveys helped shape the service according to local needs.

Outcome #3: The technical implementation of the DRT service (e.g. simplified boarding points, flexible routing) complied with legal requirements, and BKK updated its Terms of Service accordingly.

Outcome #4: The business planning model developed by Redmint was tested by BKK on two planned DRT services, and feedback was provided to support model refinement.

Outcome #5: Strong cooperation was established among BKK, Mobilissimus, BKV, the district municipality, and realCity ITS throughout the pilot.

4.4.2. Lessons learned

Lesson learned #1: Engaging the local community and conducting social consultations are essential for increasing acceptance of new and innovative DRT services.

Lesson learned #2: Adapting to the regulatory environment (e.g. boarding point design) requires flexible and innovative solutions.

Lesson learned #3: Involving technology partners (e.g. realCity ITS) is crucial for implementing flexible routing and passenger information systems.

Lesson learned #4: DRT services can effectively reduce car dependency in underserved areas when well-integrated into the existing public transport network.

4.4.3. Fine tuning and joint finalization of the modular components

Component 1: Strategic approach for DRT in PT – simplified boarding points and flexible routing

- Input and outputs of the fine-tuning actions: BKK tested new types of boarding points that allow vehicles to approach from multiple directions – one sign per crossings. Legal consultations led to updates in the BKK Business Regulations.
- Finalization process: The boarding point design and technical description of the service were finalized by January 2025, and the service was launched in August. Modifications and regulations regarding the boarding points of flexible route demand-driven services have been included in the BKK Business Regulations on January 7, 2025. The updated Business Regulations is available at https://bkk.hu/utazasi-informaciok/kozossegi-kozlekedes/utazasi-feltetelek/.

Component 2: Business model for flexible management of DRT-PT (Redmint)

- Input and outputs of the fine-tuning actions: The business model developed by Redmint was tested on two planned DRT services in Budapest.
- Finalization process: Based on BKK's feedback, Redmint will refine the model, which will be applicable to other low-demand areas.

5. Pavia-Oltrepò

5.1. The pilot testing elements

Pilot: 1.1 GOVERNANCE AND PLANNING of INTEGRATED DRT public transport in a MaaS logic for peripheral and low demand areas

Pilot area: Oltrepò Pavese, Province of Pavia, Italy

Peer reviewers: SRM – Società Reti e Mobilità, Redmint, CMBO - Bologna metropolitan city (Associated Partner)

5.1.1. The solution components to be tested

In the Pavia region, Oltrepò is a mainly hilly rural area, composed by about 30 small municipalities, with a total population of approximately 63.000 inhabitants. Stradella is the main urban municipality of the area and the main travel destination from other municipalities: this is due to work reasons - thanks to the considerable development of all production sectors (especially logistics), to study reasons - thanks to the presence of secondary schools, and to leisure and shopping reasons - thanks to the presence of some commercial activities and an important market on a bi-weekly basis. The urban sprawl is a significant feature of the territory, and the car dependency is very high, with a motorisation rate of approximately 600 cars per thousand inhabitants.

DRT service is currently organized with free itineraries among a predefined set of 256 stops. During the booking phase, the passenger can choose the departure and arrival stops, and the desired departure or arrival time; the management system accepts the request and organizes the trip according to the availability of the buses. In the same area, in addition to the DRT service, there are some fixed lines that allow to reach other destinations outside the area, where interchange with the DRT service in possible.

The pilot has one sole component, co-developed by Autoguidovie and Redmint, that is detailed here below.

Component 1: New model for the identification of DRT services in the network, and for the analysis of economic performance and compensations. The business planning tool for flexible management of DRT-PT (tested of running services) is designed in order to support the planning of DRT services in low demand areas according to relevant territorial, socioeconomic and mobility data. The tool is developed to be tested on existing services, to identify: a) the parameters to be taken in consideration for the identification of DRT suitable areas, b) the applicable DRT operational models, c) the optimal layout of flexible and scheduled options. The tool was be tested internally on defined areas and routes within the network, then validated by relevant stakeholders. A second round of testing was conducted by the other partners involved in the pilot action (BKK and SRM) for a comprehensive validation.

5.1.2. 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.

The stakeholders involved in the Pavia-Oltrepò pilot testing action can be clustered in three main groups:

- Stakeholders with competences in public transport governance and planning, selected on a territorial scope basis (responsible in the testing area or other pilot areas).

- Stakeholders with competences in public transport operations, selected on a type of operational territory basis (responsible for services in low demand areas, with similar characteristics).
- Stakeholders with competences in digitalization and DRT, selected considering experiences and market scope (one is a SME with strong focus on phone market, one has experience at EU level and the third operates globally).

Their contribution has been useful to validate the planning approach from three different perspectives, and identify potential for improvement to be consolidated in the validated solution.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
PTA	Agenzia Trasporto Pubblico Locale Milano, Monza e Brianza, Lodi e Pavia - DREAM_PACE Associated Partner	Competences: public transport governance and planning. Role and contribution to the pilot: testing and validation.	Not involved - it has been decided that the Agency, informed about the development of the tool, will not be involved in its testing at pilot level as the tool is being developed from the PTO perspective, with data coming from the operations side.
PTO	Dolomiti Bus Public Transport Operator in the Province of Belluno.	Competences: Public transport operations. Role and contribution to the pilot: testing and validation.	Involved in the testing. Simulations based on existing, planned or under discussion DRT services to be integrated in the operator's network were run, analysed and discussed.
PTO	MOM Mobilità di Marca Public Transport Operator in the Province of Treviso.	Competences: Public transport operations. Role and contribution to the pilot: testing and validation.	Involved in the testing. Simulations based on existing, planned or under discussion DRT services to be integrated in the operator's network were run, analysed and discussed.
PTO	Cavourese Public Transport Operator in the Province of Torino.	Competences: Public transport operations. Role and contribution to the pilot: testing and validation.	Involved in the testing. Simulations based on existing, planned or under discussion DRT services to be integrated in the operator's network were run, analysed and discussed.
Digital service provider (Sme)	Nemi - DREAM_PACE Associated Partner DRT IT service provider based in Spain and active in several EU countries.	Competences: Digitalization and DRT. Role and contribution to the pilot: testing and validation, international benchmarking.	Involved in the testing.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
Digital service provider	Padam – DREAM_PACE Associated Partner DRT IT service provider based in France, part of the Siemens group, active in several EU and extra EU countries.	Competences: Digitalization and DRT. Role and contribution to the pilot: testing and validation, international benchmarking.	Not involved in the testing (only one digital service provider has been chosen).
Digital service provider	VIA – DREAM_PACE Associated Partner Global DRT IT service provider, active in several EU and extra EU countries.	Competences: Digitalization and DRT. Role and contribution to the pilot: testing and validation, international benchmarking.	Stakeholder already involved in the validation, but not involved in testing.
PTA/PTO	BKK Project Partner.	Competences: public transport governance and planning. Role and contribution: testing and validation.	Involved in the testing

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

5.2. Pilot management and testing implementation

5.2.1. 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 calculation model	The calculation model (excel) will be prepared with main parameters and functions, to be tested on different service scenarios and areas.	Model draft (version 1) developed.	Result achieved.
2	Internal testing of the calculation model on different service scenarios	Data collection and running of simulations in different areas and service scenarios.	Model draft (version 1) tested.	Result achieved.
3	Internal discussion of the results and fine tuning	Fine tuning of the model according to the results, and preparation for sharing with stakeholders	Second version of the model developed.	Result achieved.
4	Presentation of the model and testing results to at least 4 stakeholders (mobility experts/PTA/PTOs, platforms and discussion)	Bilateral meetings with stakeholders to present the results and validate the model.	Comments and recommendations by stakeholders on the second version of the model collected.	Result achieved.
5	Update of the model	Adaptation of the model according to stakeholder feedback received.	Third version of the model developed.	Result achieved.
6	Presentation for validation to other pilot partners	Project internal workshop to share model and results, and propose for further testing within the partnership.	Third version of the model validated.	Result achieved.
7	Testing by partner	Testing by project partners on local use cases (BKK, in case SRM).	Third version of the model tested.	Result achieved.
8	Finalization of the solution component	All feedback including testing results by other partners are processed to be translated into the solution.	Final version of the model developed.	Result achieved.

5.2.2. 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.

The component has been finalised according to the plan, no deviation has occurred between 30 June 2025 and 30 September 2025

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
1	Preparation of the calculation model	10/12/2024	28/02/2025	No deviations after 30 June 2025
1-MR	Media Release (social media) announcing the starting of tests		01/03/2025	Not performed
2	Internal testing of the calculation model on different service scenarios	01/03/2025	21/03/2025	No deviations after 30 June 2025
3	Internal discussion of the results and fine tuning	21/03/2025	28/03/2025	No deviations after 30 June 2025
3-MI	Version 2 of the model (to be validated by stakeholders)		07/04/2025	No deviations after 30 June 2025
4	Presentation of the model and testing results to at least 4 stakeholders (mobility experts/PTA/PTOs, platforms and discussion)	01/04/2025	21/04/2025	+3 months Real end: July 2025 No deviations after 30 June 2025
5	Update of the model	22/04/2025	08/05/2025	+2 months Real end: July 2025 No deviations after 30 June 2025
5-MI	Version 3 of the model (to be validated by project partners engaged in the pilot)		10/05/2025	+2 months Real end: July 2025 No deviations after 30 June 2025
6	Presentation for validation to other pilot partners	13/05/2025	14/05/2025	+3 months

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
				Real end: August 2025 No deviations after 30 June 2025
7	Testing by partners engaged in the pilot	15/05/2025	31/06/2025	+2 months Real end: August 2025 No deviations after 30 June 2025
8	Finalization of the solution component	01/07/2025	31/08/2025	No deviations after 30 June 2025
8-MI	Final version of the model		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)

5.2.3. 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 #4 - Presentation of the model and testing results to at least 4 stakeholders (mobility experts/PTA/PTOs, platforms and discussion) (+2 months): further internal validation needed to make the model more usable to third parties	1 - low	Extra data and parameters were collected and integrated in the model in order to improve its usability
Activity #5 and #5-MI - Version 3 of the model (to be validated by project partners engaged in the pilot) (+2 months): data from previous action will be integrated.	1 - low	The third version for testing was consequently ready.
Activity #6 - Presentation for validation to other pilot partners (+3 months)	1 - low	Model was shared as soon as it was available.

Deviation	Severity*	Adaptation/Mitigation measure
Activity #7 - Testing by partners engaged in the pilot (+2 months)	1 - low	Thanks to the extra parameters and data integrated, the testing required considerably less time.

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

5.3. Results of peer-review and alignment actions after 30 June 2025

#	Peer reviewer contribution / input	Description	Consequent alignment in the pilot activities
1	BKK	Review of the model	Fine tuning according to the feedback received
2	SRM	Review of the model	Fine tuning according to the feedback received

5.4. Conclusions of the testing phase

5.4.1. Outcomes of the testing phase

Outcome #1: **The validated DRT business planning tool has been successfully finalised integrating the outcomes of the testing and review actions**.

The tool has proven a good capability of analysing the financial implications of the application of different DRT models, and the tests allowed to develop solid use cases and to integrate an iterative process to fine tune the analysis from a PTO, a mobility planner or a PTA perspective.

5.4.2. Lessons learned

Lesson learned #1: The financial sustainability of a DRT service depends on a plurality of factors that need to be finetuned. A systemic approach can optimise costs (in particular software and fleet related), also in a scaling up perspective.

Lesson learned #2: Financial sustainability analysis must be integrated by the assessment of the compliance with policy objectives, in order to identify the preferrable model.

Lesson learned #3: Operational models can perform differently according to the characteristics of the demand, and sometimes fine tuning of the service is necessary to identify the better performing and most efficient solutions.

Lesson learned #4: Different scenarios can emerge during the testing and rolling out phases of the services. Understanding the potential and the evolution of the demand is fundamental to make the services sustainable, and in some cases communication/marketing and incentivisation actions can drive the demand towards sustainable paths.

Lesson learned #5: in order to maximise the value generated for the citizens and local communities, compensation schemes and tariff models must be fine-tuned periodically; a flexible and collaborative planning approach is important to achieve long term sustainability.

5.4.3. Fine tuning and joint finalization of the modular components

Component 1: DRT business planning tool.

As mentioned above, the inputs provided by testers and reviewers have been embedded in the final version of the component described, which is a part of the jointly developed output. Furthermore, the component is ready to be displayed in a common online toolbox prepared by partner TUB and will be then promoted to be taken up by further organisations to support the strategic and tactical planning of future DRT services.

6. Split-Dalmatia County

6.1. The pilot testing elements

Pilot: 1.1. GOVERNANCE AND PLANNING of INTEGRATED DRT public transport in a MaaS logic for peripheral and low demand areas

Pilot area: Split-Dalmatia County (SDC), Croatia

Peer reviewers: Redmint, SRM

6.1.1. The solution components to be tested

Split-Dalmatia County (SDC) is the largest county in the Republic of Croatia in terms of area. It includes the coastal region, islands (Brač, Hvar, Vis, and Šolta), and the hinterland (Dalmatian Zagora). According to the latest census, the county has a population of approximately 420.000. The highest population concentration is in coastal cities, while Dalmatian Zagora is less populated. The main economic activities are tourism, shipbuilding, trade, fishing, and agriculture. The SDC area includes 16 cities and 39 municipalities. Split is the largest city and administrative centre of the county. Public transport is traditionally organized. In the county area, transportation is still carried out based on issued permits. Ongoing projects aim to organize public transport in the county as a public service in accordance with Directive 1370/2007. Before DREAM_PACE, there was no DRT model in the county or anywhere else in the Republic of Croatia. The plan in the DREAM_PACE pilot is for the DRT service to meet the needs of different groups of residents with insufficient mobility options, especially socially vulnerable individuals, students, pensioners, persons with disabilities, or those with reduced mobility.

The DRT is being tested in the municipalities of Dugopolje and Dicmo and city of Trilj. Key objectives included improving accessibility and mobility in areas where traditional public passenger transport services do not exist due to low or occasional demand. In the regulatory area, activities through pilot testing focus on activities encompassing the tender process for the implementation of DRT solutions.

The pilot has one sole component, described here below.

Component 1: Tender Procedure for the Introduction of DRT Service (DRT dedicated tendering procedure - demonstrated on field). The goal of this activity was to design and implement a structured tender procedure for selecting a DRT service provider in a part of the SDC area. The focus of the activity was on efficiency, sustainability, and adaptability of the tender to local needs. The activity included needs analysis and criteria definition, preparation of tender documentation, evaluation and selection of the service provider, as well as monitoring and evaluation after service implementation. These activities were tested during the tender process for the SDC pilot area. The proposed tender documentation emphasized the requirements for the economic operator (a license authorizing the provision of public transport services in the Republic of Croatia) and experience in providing passenger public transport services. Among the conditions for technical capability, applicants had to demonstrate that they have an established information system with key components for providing DRT services and that they have at least two M2 category vehicles available. The vehicles should minimally meet technical specifications (passenger space cooling and heating, equipped with tablets a platform for using the driver application, and connected to the information system for managing the micro-transport service). The contract lasts a total of six months under the 5+1 model, with the first month dedicated to the establishment and testing of the service itself.

6.1.2. 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.

The stakeholders involved in the SDC pilot included local authorities (the municipalities of Dugopolje and Dicmo and city of Trilj), regional authorities, the selected DRT service provider, the Digital service provider, and the General Public. The local authorities were expected to collect basic information about the areas in need of DRT services and identify potential new areas in the future. The DRT service providers and digital service providers are expected to maintain a high level of professionalism in delivering the service and engage in continuous communication with the SDC monthly.

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
Local authorities	Municipality of Dugopolje Local administrative unit situated in the Split-Dalmatia County, Croatia. It is known for its strategic location between the city of Split and the inland regions, making it an important hub for both urban and rural connectivity.	Competences: direct insight into the needs of the population, infrastructural capabilities and information gathering (identifying the needs of the population). Role: stakeholder collaboration and DRT service promotion. Contribution to the pilot: evaluation of the service and its impact. It is expected to collect basic information on areas requiring DRT services and identify potential new locations for future expansion.	Not involved between 1 July and 30 September
Local authorities	Municipality of Dicmo Local administrative unit situated in the Split-Dalmatia County, Croatia. It is known for its strategic location between the city of Split and the inland regions, making it an important hub for both urban and rural connectivity.	Competences: direct insight into the needs of the population and infrastructural capabilities and information gathering (identifying the needs of the population). Role: stakeholder collaboration and DRT promotion. Contribution to the pilot: evaluation of the service and its impact. It is expected to collect basic information on areas requiring DRT services and identify potential new locations for future expansion.	Not involved between 1 July and 30 September
Local authorities	City of Trilj Local administrative unit situated in the Split-Dalmatia County, Croatia.	Competences: direct insight into the needs of the population and infrastructural capabilities and	Not involved between 1 July and 30 September

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
	It is known for its strategic location between the city of Split and the inland regions, making it an important hub for both urban and rural connectivity.	information gathering (identifying the needs of the population). Role: stakeholder collaboration and DRT promotion. Contribution to the pilot: evaluation of the service and its impact. It is expected to collect basic information on areas requiring DRT services and identify potential new locations for future expansion.	
PTO	Joint venture FROM CITY TO CITY (Simple LLC) and LENDIĆ, DRT service provider in the Dugopolje and Dicmo area. He will be selected through a public tender. It is essential for the successful operation of the service as it provides transport infrastructure, vehicles, and drivers, ensuring the service is adapted to users.	Competences: ensuring vehicles and drivers, using digital platforms. Role: providing the service to users, adapting the service to users. Contribution to the pilot: increasing transport availability in low-demand areas. It is expected to maintain a high level of professionalism in delivering the service and maintain continuous communication with the SDC monthly.	Involved: • In the preparation of monthly reports for June, July and August. • Helped to conduct the DRT user survey during August and September.
Digital service provider	Digital service provider NEMI Provider of the technical solution in the DRT field. NEMI are essential for the successful operation of the service as he provides the technical solution (receiving user requests, generating routes). He ensures the technical infrastructure for the transport operator and enables a successful service for users.	Competences: providing technical solutions and services. Role: bringing route planning, booking, and payment of different services into one app. Contribution to the pilot: improving usability for residents and tourists. It is expected to maintain a high level of professionalism in delivering the service and maintain continuous communication with the SDC monthly.	Involved in the implementation of the DRT service. NEMI expressed interest in the status of promotional activities and the implementation of surveys
Regional authority	Split-Dalmatia County (SDC)	Competences: representing the interests of citizens, bringing	Involved in engaging a

Type of stakeholder*	Name and brief description	Competences, role and contribution to the pilot	Involvement between 1 July - 30 September 2025
	Regional administrative unit in the Republic of Croatia. It is known for its coastal cities and tourism, as well as the rural area (Dalmatian hinterland), which is not connected by traditional transport methods.	information of hotspots for activities and during tourists' season. Role: bringing information about hotspots for activities and tourist seasons. Contribution to the pilot: coordinating co-design/implementation, contributing to co-design/implementation, and implementing the service while enhancing its relevance based on the needs of citizens and tourists.	company for promotional activities during July, August and September.
General Public	Business zone Podi, Dugopolje. One of the largest business zones in the SDC area. The zone is home to companies offering manufacturing and service activities.	Competences: understanding of the working environment in the business zone, knowledge of employee commuting patterns and working hours, familiarity with the needs of workers and potential users of new public transport services. Role: representing the interests of workers and potential users of new public transport services in the business zone, gathering input from the companies operating in the zone to support the design and implementation of the pilot. Contribution to the pilot: engaging at least five people from major companies in the business zone to provide key information, ensuring that the new public transport services are tailored to meet the specific needs of the employees in the zone. Additionally, parking spaces will be provided, and potential users of the service will be identified.	Not involved between 1 July and 30 September.

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

6.2. Pilot management and testing implementation

As part of the pilot project, two in-person Living Lab (LL) workshops and four online LL workshops were held.

The first in-person workshop was held on December 7, 2023, in Dugopolje. It was attended by stakeholders from service providers, infrastructure maintenance, representatives of cities and municipalities, and associations interested in implementing DRT solutions. Participants had the opportunity to gain insight into the main project objectives and general information about Demand-Responsive Transport (DRT). Stakeholders linked the surrounding settlements of Dugopolje and Dicmo within the selected area, defined stops, and proposed DRT travel routes.

The second in-person Living Lab workshop was held on February 8, 2024, in Dugopolje, where stakeholders analyzed the vision for DRT services in Dugopolje, Dicmo, and the city of Trilj. Challenges and needs were identified, including the target user groups, strategic goals, indicators, expected impacts, and limitations. After this, stakeholders conducted a SWOT analysis of proposed scenarios. The group analyzed four scenarios: commuting to work, shopping trips, doctor visits, and traveling for leisure activities. For each scenario, the target user group and their mobility needs were defined, along with a functional description of the DRT service, user stories, areas of application, operational parameters, and success factors aimed at increasing usage and attractiveness. Regarding the general public, the most significant areas to be covered with the DRT service during the pilot phase are the business zones of Podi and Dugopolje, where potential DRT users are located. At least five people from the business zone are expected to be involved (at least one from each major company operating in the zone), providing data such as working hours, number of employees per shift, and locations from which employees commute. This data will be used to improve the DRT service.

After the second LL workshop, a more precisely defined testing area for the DRT service was determined (the area of Dugopolje, Dicmo, and Trilj). Accordingly, corrections were made to the list of stakeholders, as shown in the previous chapter.

The third LL workshop was held online via Google Meet on June 5, 2024. The workshop focused on presenting software solutions from two providers NEMI and SPARE. In addition to representatives of the software providers, participants included potential future DRT service providers as well as representatives of SDC and Dyvolve. The goal was to introduce future DRT transport providers to technical solutions and foster cooperation between technical and transport stakeholders. Key discussion points included presentations of driver apps, user apps, and back-office systems. The discussion on driver apps emphasized real-time navigation, while the user app discussion focused on booking and trip planning from the end-user perspective. Back-office systems were highlighted as crucial tools for service coordination, enabling real-time monitoring and operational adjustments. The emphasis was on ensuring smooth communication between software providers and the transport operator. The LL session enabled both providers to showcase their solutions and opened the door to potential collaboration. Participants exchanged contacts to continue the discussion beyond the meeting.

The fourth LL workshop was held online via Google Meet on July 9, 2024. Participants included project partners Dyvolve and the Split-Dalmatia County (SDC), as well as representatives from the City of Trilj and the municipalities of Dugopolje and Dicmo areas where the DRT service will be introduced. The primary goal of the workshop was to present the proposed DRT routes and service structure for the targeted areas and to coordinate the next steps in project implementation. Participants were shown route maps and stop locations, DRT operating hours, the required number of vehicles and drivers, and general implementation logistics. There was a discussion about launching a public procurement process for selecting a DRT service provider, and an agreement was reached on the importance of conducting local promotional activities to inform and engage citizens.

The fifth LL workshop was held on April 7, 2025, online via Google Meet. Participants included project partners Dyvolve and SDC, the selected DRT service provider Smodlaka Ltd., and the software company NEMI. Prior to the workshop, NEMI shared an Excel file containing questions related to visual identity, route names, and other app-related organizational details. SDC, the DRT provider, and Dyvolve filled in the required information. NEMI presented progress in developing the DRT app, including route and stop mapping and the concept for displaying free tickets in the user app. It was agreed that Dyvolve would translate the app content from English to Croatian. SDC and Dyvolve would begin work on producing magnetic vehicle signs and designing free user tickets.

The sixth LL workshop was held on April 23, 2025, online via Google Meet. Participants included project partners SDC and Dyvolve, as well as representatives from the selected DRT provider Smodlaka Ltd. and the software company NEMI. The main purpose of the workshop was to present the user and driver applications developed by NEMI and to discuss practical aspects of their implementation. Since the DRT Zagora service allows for two routes, the group discussed whether users could book both routes at the same time. It was concluded that during the testing phase, users would need to make two separate bookings (one for each line). A more integrated (intermodal) approach may be developed later if the service area expands. NEMI requested feedback on simplifying stop names for improved visual clarity in the user app. SDC will work on standardizing these names. The driver app is available only on Android devices, while the user app is available on both Android and iOS. The launch date for the DRT service was confirmed as May 2, 2025. A press conference to announce the launch will be held on April 25, 2025, led by the SDC Prefect. The next workshop will be scheduled as needed, depending on implementation progress. The workshop successfully aligned the technical and operational aspects of the app rollout and confirmed the final steps before the public launch of the service.

A **final (7th) Living Lab workshop is planned to be held online on 28 October 2025**. The purpose of this final session will be to present the procurement procedure and the results of the pilot phase, including key operational data such as the total kilometres covered and the number of passengers transported.

6.2.1. 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	Publication of tender for the DRT	Publication of tender for the DRT using Croatian public procurement platform (EOJN).	Public tender published.	Result achieved. The tender was published on 17/02/2025.
2	Analysis of the collected offers received	Analysis of all collected offers across all defined criteria.	All collected offers analysed and evaluated.	Result achieved. The received offers were analysed on 17/03/2025.

#	Activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
3	Selection of the best offer and public informing of the parties involved	Selection of the best offer according to defined criteria and public informing of all vendors participating in the tender as well as public using Croatian public procurement platform (EOJN).	Best offer selected and public informed.	Result achieved. The best offer has been selected on 24/03/2025.
4	Contracting with the selected vendor	Signing the mutually reviewed and accepted contract for the DRT service according to the public procurement procedures.	Service provider contracted.	Result achieved. The contract was signed on 01/04/2025.
5	Public presentation of DRT service	Promotion of the service to all interested.	DRT service promoted. Potential KPIs: • No. of media announcements / publications (at least 3); • No. of participants at the presentation (at least 10).	Result achieved. Press conference for the public and media held on 25/04/2025. • 9 articles about the launch of the DRT Zagora service were published on online news portals. • Around 20 participants participated at the press conference.
6	DRT service running / implementation	Implementation of a DRT service available from 6am to 10pm.	SDC pilot implemented KPIs): • No. of km per lines • No. of passengers (number of bookings, average travel time).	Result achieved. Number of kilometres: • Line Dugopolje 3.117 km/per month (of May), 3.253 km/per month (of June), 3.621 km/per month (of July), 3.967 km/per month (of August) and 3.567 km/per month (of September). • Line Trilj 2.801 km/per month (of May), 3.102 km/per month (of June) and 3.592 km/per month

#	Activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
				(of July), 3.754 km/per month (of August) and 3.479 km/per month (of September). Number of bookings: • According to the report from the DRT service provider: 41 bookings were recorded by the end of May and 60 bookings were recorded by the end of June; 106 bookings were recorded by the end of July and 117 bookings were recorded by the end of August; and 87 bookings were recorded by the end of September. Average number of daily users and travel times: • 1.44 passengers (of May) and 1,7 (of June) 3 (of July) 4,58 and (of August) and 1 (of September), with an average travel time of 38.8 minutes (of May) and 37,2 minutes (of June) and 38,7 minutes (of July) and 33,4 minutes (of August) and 29,8 minutes (od September).
7	Final presentation of DRT pilot results	Final presentation of results delivered to the invited stakeholders.	Results of the pilot presented	Pending It is planned to be held after the completion of the pilot project (planned during the month of October 2025).
8	Collection of user feedback	Collection of survey	Survey conducted KPI: - At least 10% of collected surveys	Result achieved. Around 57 surveys collected (the remaining survey will

#	Activity	Description	Expected result/ KPI	Status of the KPI by 30 September 2025
			in relation to the total number of transported passengers.	be provided with the next monthly report).
9	Final presentation of DRT user feedback (users using the DRT service during the pilot)	Final presentation of DRT user feedback delivered to the invited stakeholders.	Final DRT user feedback presented	Pending. It is planned to be held after the completion of the pilot project (planned during the month of October).

6.2.2. Focus on procurement

The tender documentation for the DRT service in SDC consists of the project task, selection criteria for bidders, and forms. The project task contains information for bidders, including the area where the DRT service should be provided, the frequency of the service, and the required features of the software supporting the DRT service. During the public procurement process, the emphasis was on:

- Conditions for economic entities.
- Conditions for technical capability.

Regarding the conditions for economic entities, the bidder was required to minimally meet the basic criteria prescribed by law for providing DRT services (a license allowing the operation of public transport in the Republic of Croatia, the necessary number of technical and human resources, and experience at an appropriate quality level).

In the area of technical capability, the bidder had to provide specific means of transport and characteristics of the information system for managing the DRT service. This includes software for organizing and managing the DRT service, applications for drivers and DRT service users, as well as vehicle equipment. The contract was to last a total of 6 months according to the 1+5 model, where the first month was dedicated to establishing and testing the service itself. After that, the production phase of providing the DRT service followed, lasting a total of five months (until the end of September). The criteria for selecting the DRT service provider were the offer with the lowest price and the average age of the vehicle fleet. During the tender process, the following risks were possible:

- Delays in the public procurement process due to complaints.
- The possibility that no bidders would respond.
- Delays in contract negotiations.

The tender process was opened on February 17, 2025, and remained open until March 7, 2025, at 10:30 AM. After the tender process closed, the received offers were analysed on the same day. A total of one offer was received from the consortium of bidders FROM CITY TO CITY (Simple LLC) and LENDIĆ as the DRT transport service provider, and the company NEMI as the provider of the software solution for the DRT service. The contract was signed on April 1, 2025, and the trial operation of the DRT service began on May 2, 2025 (May 1 was a public holiday).

6.2.3. 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.

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
PM	1st LL meeting: presentation of the main project objectives and receive general information about DRT	07/12/2023	07/12/2023	No deviations after 30 June 2025
PM	2nd LL meeting: analysis of the vision of DRT in the area of Dugopolje, Dicmo and Trilj	08/02/2024	08/02/2024	No deviations after 30 June 2025
PM	3rd LL online meeting: presenting software solutions from two providers	05/06/2024	05/06/2024	No deviations after 30 June 2025
PM	4th LL online meeting: presentation of scenarios for the DRT service	09/07/2024	09/07/2024	No deviations after 30 June 2025
1	Publication of tender for the DRT	17/02/2025	07/03/2025	No deviations after 30 June 2025
MI	Tender for the DRT published		17/02/2025	No deviations after 30 June 2025
2	Analysis of the collected offers received	07/03/2025	24/03/2025	No deviations after 30 June 2025
MI	Collected offers analysed		24/03/2025	No deviations after 30 June 2025
3	Selection of the best offer and public informing of the parties involved	20/04/2025	20/04/2025	No deviations after 30 June 2025
MI	Best offer selected and public informing of the parties involved		20/04/2025	No deviations after 30 June 2025
4	Contracting with the selected vendor	21/04/2025	30/04/2025	No deviations after 30 June 2025
MI	Contracting with the selected vendor signed		30/04/2025	No deviations after 30 June 2025
PM	5th LL online meeting: inputs for the software solution for providing the DRT service	07/04/2025	07/04/2025	No deviations after 30 June 2025
PM	6th LL online meeting: presentation of the final application solution for providing the DRT service	23/04/2025	23/04/2025	No deviations after 30 June 2025
5	Presentations and peer reviews of DRT service pilot	15/05/2025	20/10/2025	No deviations after 30 June 2025
MR	Public presentation of DRT service (service introduction to the public)	15/05/2025	15/05/2025	No deviations after 30 June 2025

#*	Activity/ Milestone/other	Start	End/Achievement	Deviations
6	DRT service running / implementation	01/06/2025	30/11/2025	Real start: 01/05/2025 Real end: 30/09/2025 No deviations after 30 June 2025.
MR	Public presentation of DRT service results (pilot end presentation to the interested public and stakeholders)	01/10/2025	01/10/2025	No deviations expected
PR	Peer review of DRT pilot results with partners	15/10/2025	20/10/2025	No deviations expected
7	Final presentation of DRT pilot results	21/10/2025	21/10/2025	No deviations expected
MR	Final presentation of DRT pilot results	21/10/2025	31/10/2025	+3 months Foreseen in January 2026
8	Collection of user feedback	25/10/2025	25/10/2025	No deviations expected
9	Final presentation of DRT user feedback to Project Partners	27/10/2025	31/10/2025	No deviations expected
PM	7th LL online meeting: final presentation pilot results and DRT user feedback	27/10/2025	31/10/2025	No deviations expected

***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)

6.2.4. 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.

In accordance with the previous table, two activities experienced deviations from the initially planned dates. The first one concerned the pilot project duration activity, which, according to the available organizational and financial resources, were organized according to the 1+5 model, where the first month was dedicated to service testing and the following five months to service delivery.

It is worth mentioning that, to ensure the smooth running of LL activities, additional LL online workshops with stakeholders were held as needed to define inputs for the pilot project implementation. Activities related to the public procurement process were also completed in a significantly shorter timeframe and without risks related to delays or complaints.

Deviation (see previous table and add a description)	Severity*	Adaptation/Mitigation measure
Activity #6 - DRT service running / implementation	2 - moderate	During the SDC LL meetings it was decided to operate in two service areas instead of one. The business model was defined on a cost-per-availability basis, rather than on a cost-per-km basis, reflecting the on-demand nature of the service. The final service design included 2 vehicles and 4 drivers (instead of 2), to cover longer service times through two shifts. As a result, the overall cost of the redesigned service is higher, and the available budget allows for a shorter run time. Nevertheless, the estimated cost per km is lower than in the original plan, demonstrating improved efficiency of the budget spent. The adaptation ensured that the service could still be implemented within the available budget, while maintaining higher efficiency and broader coverage.
MR - Final presentation of DRT pilot results	1 - low	The in-person presentation of the pilot results was postponed, as the new timing better suited the pilot partner's schedule. The delay has no impact on the pilot implementation.

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

6.3. Results of peer-review and alignment actions after 30 June 2025

#	Peer reviewer contribution / input	Description	Consequent alignment in the pilot activities
1	Redmint and SRM	Redmint and SRM were designated as peer reviewers for the tested solution component. They provided support in the conceptualisation, refinement, and testing of the public procurement process implemented in the SDC pilot area.	Redmint supported the pilot partner throughout the entire duration of the SDC pilot by contributing to the conceptualisation, refinement, and testing of the procurement process, as well as by supporting the completion of the annexes related to the DRT dedicated tendering procedure. SRM contributed to the review of the testing phase and to the sections related to the solution design, providing information based on its previous experience in PT tendering procedures.

6.4. Conclusions of the testing phase

6.4.1. Outcomes of the testing phase

Outcome #1: **Public procurement procedure for the introduction of the DRT service.** A public procurement procedure has been launched for the introduction of the DRT service, marking the first time such a procedure has taken place in the Republic of Croatia. Accordingly, guidelines have been issued that can serve as a tool for launching similar tenders in the field of DRT services across the wider SDC area, as well as within the territory of the Republic of Croatia.

6.4.2. Lessons learned

Lesson learned #1: Users prefer making requests via phone call. It was recorded that a larger number of users opted for booking the service through a phone call rather than through the mobile application (in August, 87 bookings were made via phone call, compared to 30 through the mobile application). This indicate that it could be considerate to establish a call center as an integral part of the system.

Lesson learned #2: Importance of promotional activities. The results show an increase in service requests following the implementation of promotional activities, which included social media posts and posters placed at public transport stops. A rise in passenger numbers was recorded during August (87 via phone call compared to 74 requests during July).

Lesson learned #3: Potential for changes in the modal split in favour of sustainable modes. The results show a trend of growth in the average number of daily users. The average number of daily users during May was 1.44 passengers, while in August it was 4.58. This increase indicates the prerequisites for changes in the modal split in the pilot area.

6.4.3. Fine tuning and joint finalization of the modular components

Component 1: Tender Procedure for the Introduction of DRT Service

The goal of this activity was to design and implement a structured public procurement procedure for selecting a DRT service provider in part of the SDC area. The focus of the activity was on efficiency, sustainability, and adapting the tender to local needs. Activities within the public procurement process included the legislative framework, needs analysis of DRT in the selected area, criteria definition, the service provider selection procedure, and monitoring after service implementation (through regular monthly reports).

The proposed tender documentation emphasized requirements for the objective selection of the economic operator (a license authorizing the provision of public transport in the Republic of Croatia) and experience in providing passenger public transport. Among the conditions for technical capability, candidates had to demonstrate that they had an established information system with key components for providing DRT services and that they had at least two M2 category vehicles available. The vehicles were required to minimally meet technical specifications (passenger space cooling and heating, equipped with tablets as a platform for using the driver application, and connected to the information system for managing the micro-transport service).

The contract lasted a total of six months under the 5+1 model, with the first month dedicated to the establishment and testing of the service itself.

During the period from 1 May, when the service started operating, until 31 July, a very small number of requests were recorded through the application. One influencing factor was the course of local political

elections, conducted in two rounds, which caused promotional activities to stagnate. In July, the SDC project partner engaged a company for promotional activities, which led to a significant increase in passengers during August and September.

Following the successfully conducted public procurement procedure, guidelines for the DRT public procurement process were issued. These guidelines will serve as a tool across the wider SDC area and the Republic of Croatia, considering that this was the first public procurement procedure implemented for DRT service deployment in the country.

7. Conclusions

The pilot areas involved in Pilot 1.1 - Bologna Metropolitan Area, Budapest, Pavia-Oltrepò, and SDC - completed the testing of innovative governance and planning models for integrating DRT into PT systems under a MaaS logic. The activities described in this deliverable covered the implementation period, mapping and detailing all actions carried out until 30 September 2025.

Through the pilot actions, each area tested complementary approaches to DRT integration. Bologna focused on embedding DRT within strategic planning and procurement processes, developing methodologies to identify weak demand areas and assessing DRT economic feasibility and inclusion in PT tenders. Budapest experimented with governance and planning tools and evaluated how flexible services could better connect suburban and rural areas. Pavia-Oltrepò built on ongoing DRT services to explore financial and operational models that improve service efficiency and integration. Split-Dalmatia County, in turn, implemented and tested a fully new DRT service, from tendering and promotion to operation and monitoring.

The involvement of Local and Regional Authorities, PTAs and PTOs, IT providers, and other stakeholders was a cornerstone of all pilots. Their contribution ensured that the outcomes were both technically robust and institutionally relevant, fostering shared ownership of the results and supporting the future replication of the tested solutions.

The lessons learned during the testing phase highlighted several cross-cutting aspects that are relevant for future DRT implementation. For example, the importance of early and structured stakeholder engagement, the growing recognition of DRT as a strategic tool for enhancing accessibility and territorial cohesion, and the need to align technical work with governance and financial frameworks. Some pilots also demonstrated that financial sustainability analysis should be complemented by an assessment of compliance with policy objectives in order to identify the most suitable operational models.

Altogether, the results achieved through this deliverable represent a consolidated reference point for the next steps of the DREAM_PACE project. The deliverable, together with the other pilot final reports (D1.4.3, D2.3.3, 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 D1.2.3 “Co-designed solutions blueprint of integrated DRT implemented /tested through pilot activities”, consisting in a joint design of a modular governance and planning model blueprint for the integration of DRT services into public transport systems within a MaaS logic.

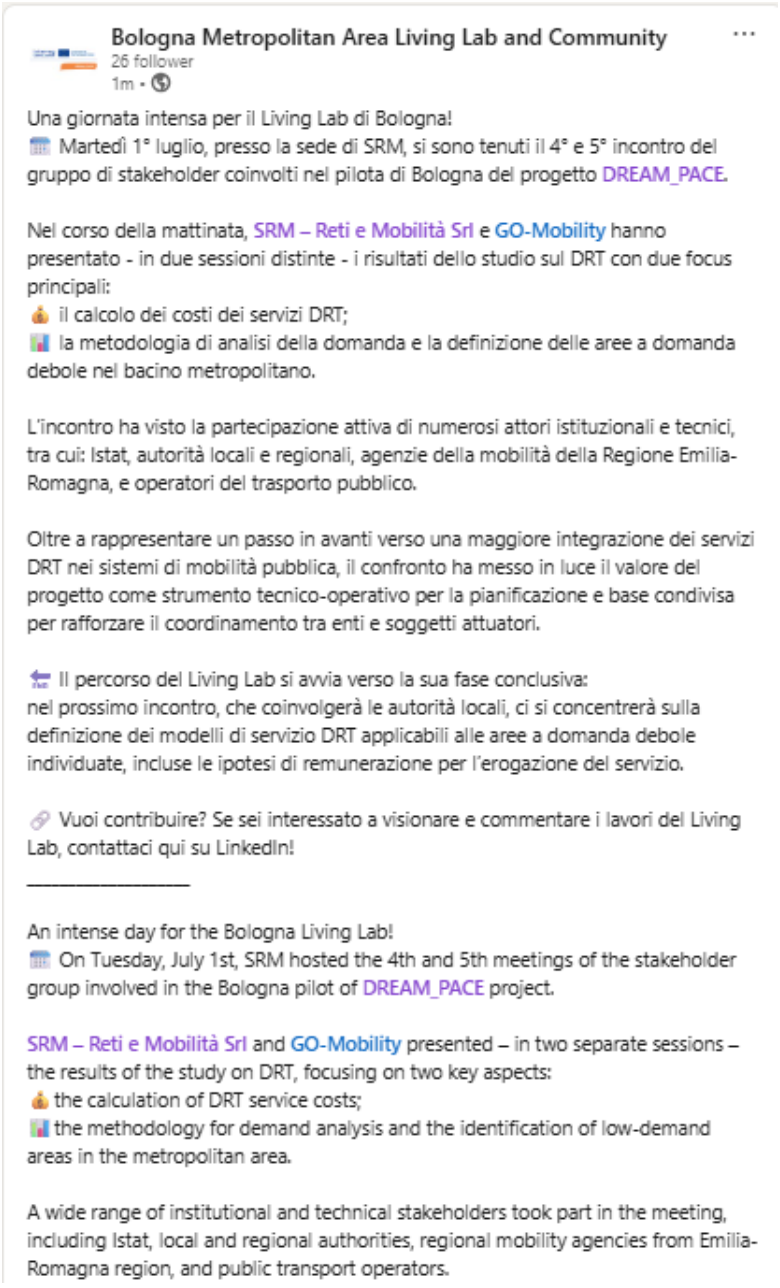
8. References

1) DREAM_PACE Application Form, Version 3.0. 2025.
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 D1.1.1 “Report on governance and planning for public transport, mobility innovations and DRT in CE Regions”. 2023.
4) DREAM_PACE D1.1.2 “State of the art report on governance structures and planning processes for DRT in the pilot areas”. 2024.
5) DREAM_PACE D1.1.3 “Development scenarios for DRT innovative governance and planning approaches”. 2024.
6) DREAM_PACE D1.3.1 “Detailed workplan for pilot 1.1 local testing actions”. 2025
7) DREAM_PACE D1.3.2 “Report on the progress of pilot 1.1 local testing activities”. 2025.
8) DREAM_PACE D2.2.2 “Living labs meetings documentation on the co-design process for governance /planning in pilot areas”. 2025.
9) DREAM_PACE D3.1.1 “Methodological background for the design of DRT integrated solutions”. 2023.
10) DREAM_PACE D3.1.2 “DRT strategy draft and setup of the consultation process”. 2025.
11) DREAM_PACE D3.2.1 “Action plan drafts in the six pilot regions”. 2025.
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.

9. Annex: Pilot 1.1 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.

9.1. Bologna



Bologna Metropolitan Area Living Lab and Community
26 follower
1m •

Una giornata intensa per il Living Lab di Bologna!
🗓️ Martedì 1° luglio, presso la sede di SRM, si sono tenuti il 4° e 5° incontro del gruppo di stakeholder coinvolti nel pilota di Bologna del progetto DREAM_PACE.

Nel corso della mattinata, SRM – Reti e Mobilità Srl e GO-Mobility hanno presentato - in due sessioni distinte - i risultati dello studio sul DRT con due focus principali:
💰 il calcolo dei costi dei servizi DRT;
📊 la metodologia di analisi della domanda e la definizione delle aree a domanda debole nel bacino metropolitano.

L'incontro ha visto la partecipazione attiva di numerosi attori istituzionali e tecnici, tra cui: Istat, autorità locali e regionali, agenzie della mobilità della Regione Emilia-Romagna, e operatori del trasporto pubblico.

Oltre a rappresentare un passo in avanti verso una maggiore integrazione dei servizi DRT nei sistemi di mobilità pubblica, il confronto ha messo in luce il valore del progetto come strumento tecnico-operativo per la pianificazione e base condivisa per rafforzare il coordinamento tra enti e soggetti attuatori.

🔚 Il percorso del Living Lab si avvia verso la sua fase conclusiva:
nel prossimo incontro, che coinvolgerà le autorità locali, ci si concentrerà sulla definizione dei modelli di servizio DRT applicabili alle aree a domanda debole individuate, incluse le ipotesi di remunerazione per l'erogazione del servizio.

🔗 Vuoi contribuire? Se sei interessato a visionare e commentare i lavori del Living Lab, contattaci qui su LinkedIn!

———————

An intense day for the Bologna Living Lab!
🗓️ On Tuesday, July 1st, SRM hosted the 4th and 5th meetings of the stakeholder group involved in the Bologna pilot of DREAM_PACE project.

SRM – Reti e Mobilità Srl and GO-Mobility presented – in two separate sessions – the results of the study on DRT, focusing on two key aspects:
💰 the calculation of DRT service costs;
📊 the methodology for demand analysis and the identification of low-demand areas in the metropolitan area.

A wide range of institutional and technical stakeholders took part in the meeting, including Istat, local and regional authorities, regional mobility agencies from Emilia-Romagna region, and public transport operators.

Media release (MR) in coincidence with the 4th and 5th LL Stakeholder meetings - Posts published on Bologna LL LinkedIn showcase page, in Italian and English, on 15/07/2025.

9.2. 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, we 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.


Különjárat
BUDAPEST
BKK


Különjárat
BUDAPEST
BKK

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

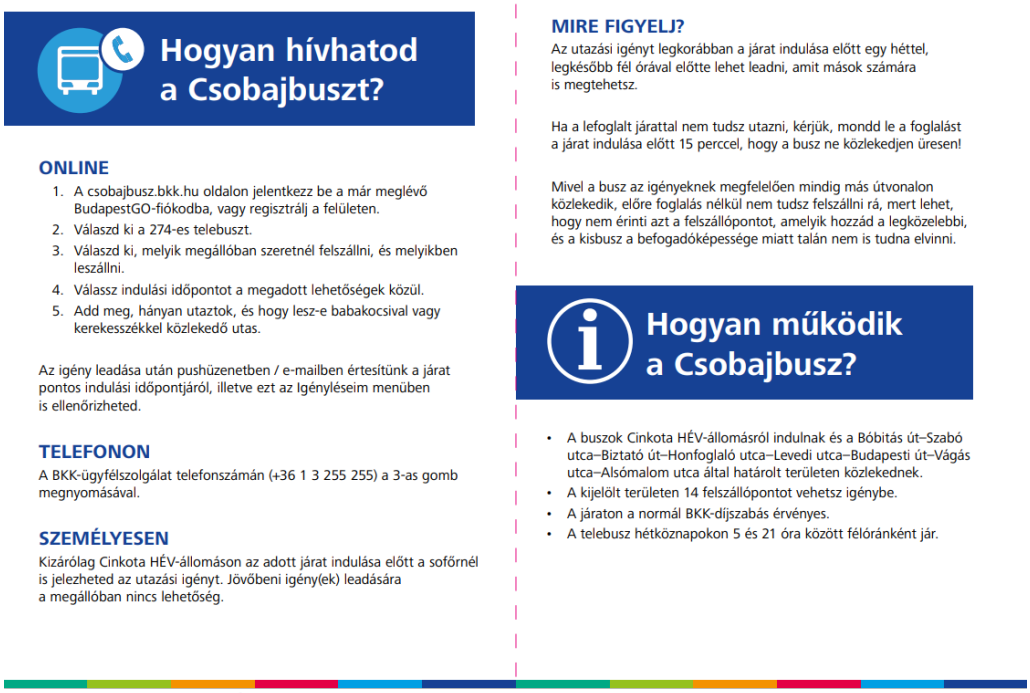
- https://www.linkedin.com/posts/bkkbudapest_%C3%BAjdons%C3%A1gnak-sz%C3%A1m%C3%ADt%C3%B3-szolg%C3%A1ltat%C3%A1s-haz%C3%A1nkban-activity-7363168249615650816-P62b?utm_source=share&utm_medium=member_desktop&rcm=ACoAACkkKvcB3ChrPk26X7yyq7w7yrenwAwtcdU
- Új, innovatív buszjárat Budapesten – rugalmas útvonalon, 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.



9.3. Split-Dalmatia County

Project assignment

Communication activities within the DREAM_PACE project were focused on increasing the project's visibility, informing citizens and businesses, and encouraging the use of the free DRT system service through the Nemi application. The activities were carried out during the period July – September 2025.

Objectives of Communication Activities

The objectives of Communication Activities are:

- Increase the project's visibility in the targeted local communities in the areas of Dugopolje, Trilj, and part of Dicmo.
- Encourage citizens to download and use the Nemi application.
- Inform businesses about the opportunities and benefits of the project.
- Ensure media presence and continuous public information.

Activities

The campaign was conducted on the social media platforms Facebook and Instagram during the period from August 8 to 15 September 2025. The activities included creating visuals and running paid advertisements aimed at informing and engaging citizens.

Campaign results

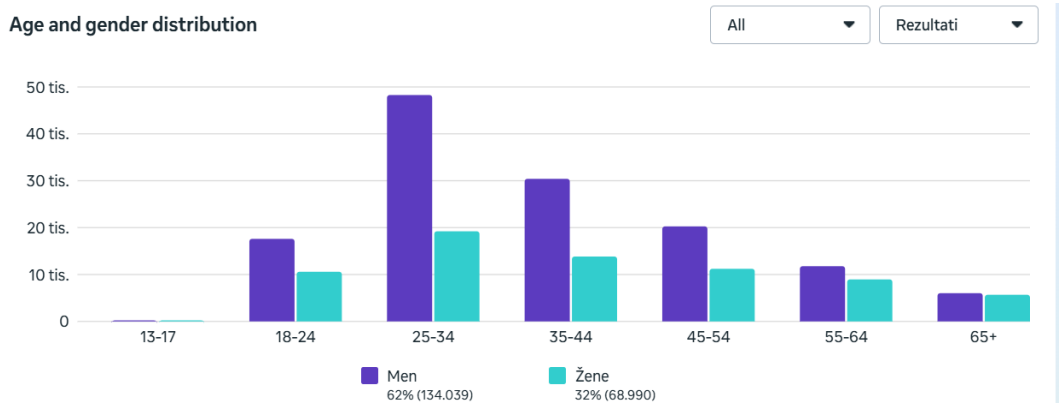
The campaign results are:

- Total reach: 216,334 users
- Number of ad impressions: 307,502
- Average frequency of impressions: 1.42
- Highest reach: age group 25–34 (predominantly men, 62%)
- Ad format: Facebook Stories

The results show that the most engaged age group was 25–34, which can be linked to the fact that the younger working-age population more frequently uses digital platforms, is open to new services, and is more inclined to try innovative transportation solutions. Men made up the majority of users (62%), but the female audience also showed significant interest. These data indicate that the digital campaign effectively reached the targeted group of active users.

#	Campaign name	Reach	Number of visits	Frequency	Results
1	SDŽ 2025-08-07	216.334	307.502	1,42	216.334 Reach
2	Total results 1/1 row displayed	216.334 Accounts Center accounts	307.502 Total	1,42 Per Accounts Center account	216.334 Reach

Facebook Ads Manager



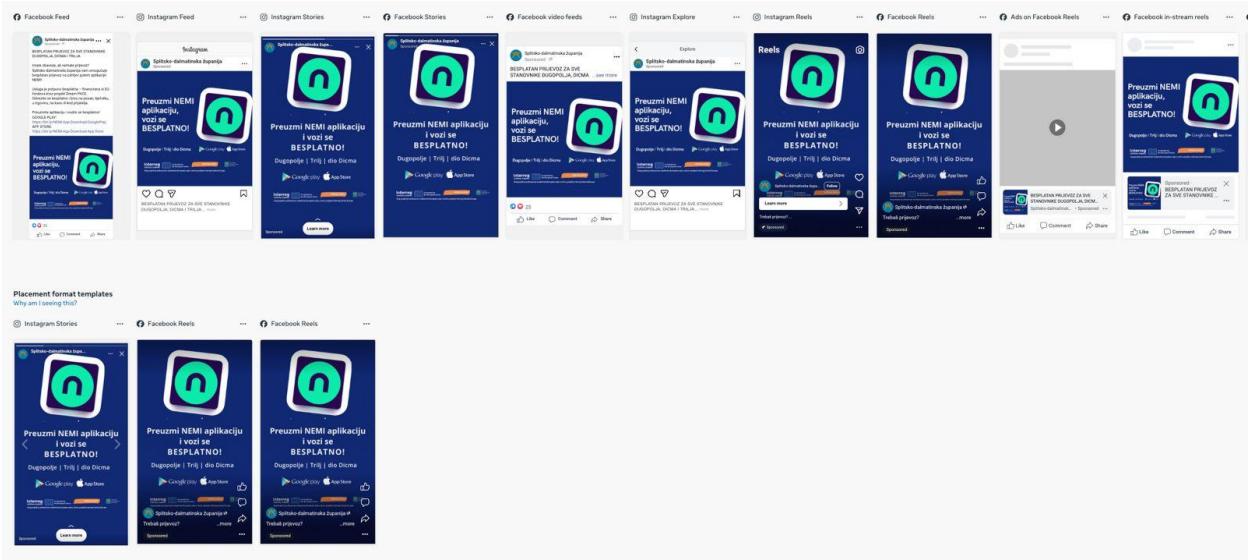
Distribution of users by gender and age

Examples of Visuals and Ads

The campaign utilized various ad formats and channels on the social media platforms Facebook and Instagram. Ads were adapted for:

- Feed (Facebook and Instagram) – standard posts in users' news feeds
- Stories (Facebook and Instagram) – vertical format for quick and visually engaging communication
- Reels (Facebook and Instagram) – short video format primarily targeting a younger audience
- Explore (Instagram) – ads in the space for discovering new content
- Video feed and in-stream ads (Facebook) – placement within video content

By combining multiple formats and channels, the campaign achieved broader coverage of the target audience and increased the likelihood of user interaction with the ads.



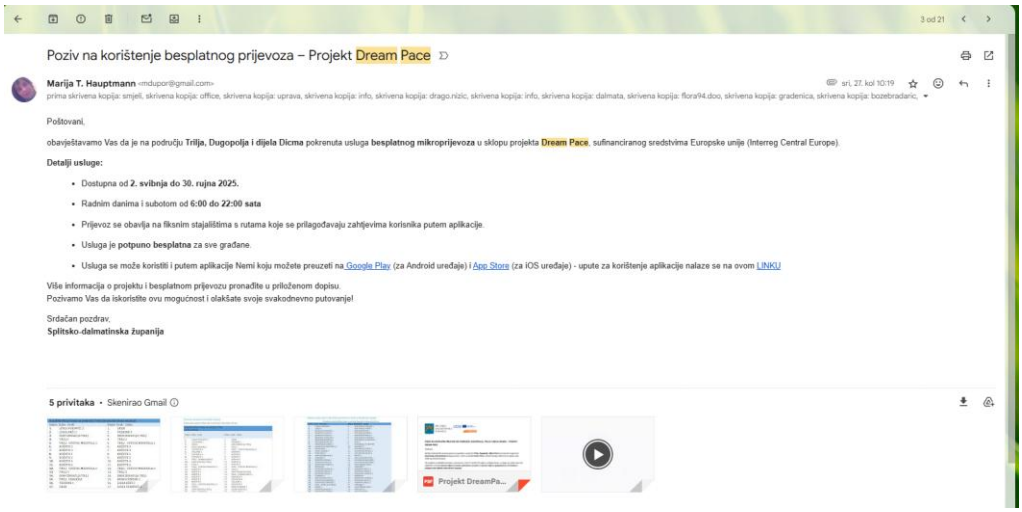
Examples of ads on Facebook and Instagram

Database adaptation

For promoting the service to business users, a database from the Dugopolje area and surroundings containing 288 business entities was used. Addresses, contacts, and the status of the business entities were further verified through the Court Register. It was determined that some business entities had gone bankrupt, but all active businesses were contacted.

Communication with Business Users

Active business entities were contacted via an email campaign and official letters. In addition, video instructions for using the Nemi application were sent to facilitate understanding of the reservation process and the use of the free DRT service. Furthermore, business users were provided with a list of bus stops where the service can be used, enabling precise information for employees and clients about transport availability. This approach ensured targeted communication with local entrepreneurs and potential partners, accompanied by practical support in the form of educational materials and accurate operational information.



Proof of activity conducted: email campaign