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DREAM_PACE

D2.2.4 Co-designed solution blueprint implementing new DRT, implemented /tested in pilot activities

Final Version

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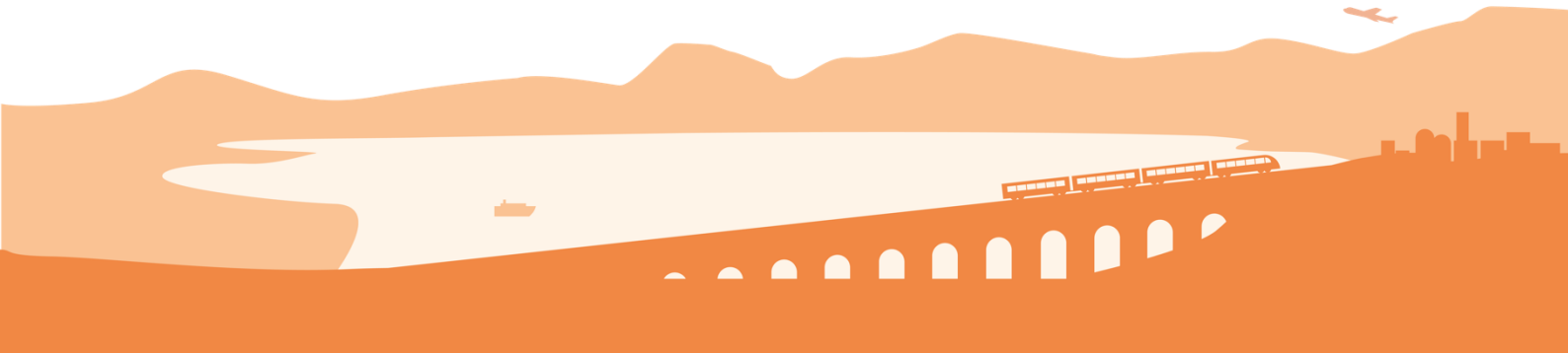

Authors and log change of the document

Partner No.	Partner Acronym	Name of the author	Action	Version
2	Redmint	Gabriele Grea Anja Seyfert	Structure of the document, template for input collection	1
5	Dyvolve	Dijana Mišerić Beganović	Inputs solution component #1	2
2	Redmint	Gabriele Grea Anja Seyfert	Finalisation of the document	3
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Contents

1. Summary and structure of the blueprint

DREAM_PACE aims at developing innovative Demand Responsive Transport (DRT) concepts for peripheral and rural areas, complementing regional mobility networks to improve connectivity, sustainability, inclusiveness.

From the **digital and operational innovation perspective**, two different context-based approaches have been defined:

- for territories where DRT services are already in place, with the objective of enhancing existing DRT networks responsiveness in rural and peripheral areas through digital/operational innovations.
- for territories representing greenfields concerning DRT, with the objective of testing a first-of-a-kind approach to deliver flexible mobility services.

This document describes activities carried out in reference to the second approach, those related to the first approach are described in Deliverable D2.2.3 "Co-designed solution blueprint improving existing DRT, implemented / tested in pilot activities". Project Partners (PPs) have jointly designed **solution blueprint implementing new DRT**.

On this basis, the tools presented in this document are meant to support the conception, implementation and scaling up of a new generation of DRT services, designed as functional and integral part of regional mobility networks, enhancing accessibility for citizens, territorial cohesion and social inclusion.

The model blueprint is described through **guidelines for the experimentation of DRT services in a new regulatory framework**, designed to facilitate the implementation and scaling up of DRT services designed to increase accessibility by complementing local and regional mobility networks.

The project will improve DRT planning and delivery capacities of public authorities and operators. This will be supported by promoting the presented tools through targeted actions to influence decision makers' attitude towards change.

The figure below represents the framework of the solution, according to the general layout of the DREAM_PACE solutions.

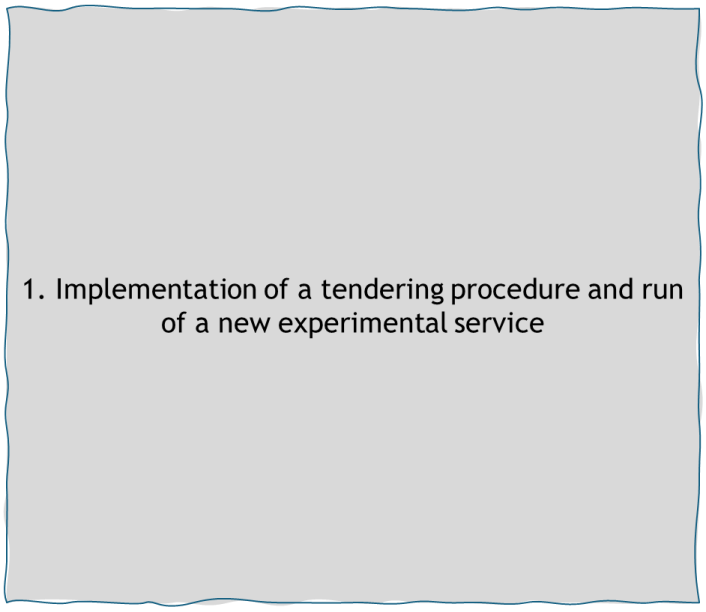

Figure 1: New DRT service model enhancing accessibility in peripheral and rural areas

Chapter 2 presents the objectives, target groups and main functionalities of the solution component.

Chapters 3 and 4 focus respectively on the expected change generated by the adoption of the described solution and on the transferability and replicability of the components, while chapter 5 highlights a set of planned targeted actions which can help influence decision makers' attitude towards change.

2. Component 1: Implementing an experimental DRT service in a new regulatory framework

2.1. Objective

The objective of the solution is the creation of an operational, functional, and sustainable DRT system capable of providing flexible, safe, and efficient passenger transport, particularly in areas with limited access to conventional public transport such as rural and peripheral regions.

In Split-Dalmatia County (SDC), this objective was realised by carrying out a structured tender procedure for selecting a DRT service provider in a part of the SDC area (in the municipalities of Dugopolje and Dicmo and the city of Trilj). The DRT service in SDC was the **first-of-a-kind DRT experimental service in Croatia**, built on the recently issued regulatory framework at national level. The procured DRT service included transport organization software, applications for users and drivers, and vehicle equipment.

This solution aims to address key challenges identified in the earlier stages of the project, including the lack of available public transport services, weak alignment between existing routes and user needs, limited monitoring and evaluation systems, and financial sustainability constraints. By tackling these issues, the component contributes to improving accessibility, service efficiency, and overall system performance.

To achieve this, the developed solution integrates core functionalities such as timetable organisation, real-time vehicle tracking, user request management, and data collection for continuous service optimisation. These elements enable a more responsive and demand-driven transport system.

More specifically, the component is designed to:

1. **Enable flexible route planning based on actual user demand**, allowing transport services to be dynamically generated from user requests.
2. **Improve connectivity by linking different parts of the service area into a coherent micro-transport network**, while strengthening integration with the broader transport system.
3. **Support monitoring and evaluation through data-driven tools** that track operational performance, safety, and user satisfaction under real conditions.

Overall, the objective is to enhance the effectiveness, accessibility, and sustainability of transport services in low-demand areas, fostering greater adoption and long-term viability of DRT solutions.

2.2. Target groups

The DRT solution targets a diverse range of user groups, with the aim of ensuring both strong local acceptance and the potential for future expansion of the concept to other territories.

Primary target groups include residents of rural and remote areas who have limited access to conventional public transport services. Within this group, particular attention is given to elderly people and persons with reduced mobility, who require more flexible, accessible, and safe transport options. Students and the working population also represent key users, as they depend on reliable connections to urban centres, schools, and workplaces. In addition, local communities and Public authorities are important stakeholders, as they benefit from improved accessibility, reduced transport gaps, and more efficient mobility systems.

Beyond the pilot area, the solution is also relevant for a broader set of actors. These include Local authorities and transport planners interested in replicating and adapting DRT models in their own regions, as well as public transport operators seeking to integrate flexible services into existing networks. The

general public in other rural and peripheral areas represents a further potential user base as the system expands.

A key objective is to support the gradual scaling-up of the solution, using the experience and data collected during the pilot phase to inform adaptation in new contexts. Ensuring a high level of user acceptance is essential to demonstrate the effectiveness of the DRT concept and to enable its successful transfer and replication, taking into account local conditions and the specific needs of different target groups.

2.3. Description and functionalities

The scope of application of the DRT solution includes improving connectivity between smaller settlements and larger urban centres, as well as key points of interest such as schools, healthcare facilities, and employment areas. The system should enable flexible booking options through multiple channels, including phone calls, mobile applications, and web platforms, ensuring accessibility for different user groups.

Core functionalities also include real-time monitoring of timetables, vehicle locations, and trip status, allowing users and operators to access up-to-date information. In addition, the solution includes the systematic collection of data on service usage, which supports continuous evaluation and optimisation of the network.

The definition of the service area and operational scope should be based on consultation with stakeholders and the public, for example through workshops or participatory processes. The selected area must be clearly described in all relevant documentation, including the identification of key points of interest, stops, and where applicable route structures and schedules in the case of models with fixed stops.

3. Expected change

The implementation of an experimental DRT service in a new regulatory framework aims to pursue the following changes:

- **Increased transport accessibility**: residents of remote and underserved areas gain improved access to key destinations within the region, including essential services and economic centres.
- **Increased flexibility**: users can adapt journeys to their actual needs, reducing dependence on fixed schedules and enabling more demand-driven mobility patterns.
- **Improved coordination with existing public transport**: the DRT system is integrated with conventional services, reducing empty mileage and optimising the use of operational resources.

Ensuring long-term impact within the service area is a key objective. This includes establishing a sustainable and scalable DRT network — a proven operational model that can be extended to other parts of the region or country. Demonstrating successful implementation is also essential to build trust among local stakeholders, thereby increasing the willingness of public authorities to support and finance long-term deployment.

Data collection plays a central role in supporting future planning and continuous improvement. The system should generate reliable data to enable route optimisation, capacity assessment, and evidence-based transport planning at regional level.

Regular monitoring by relevant organisations is crucial. Local authorities and transport planners are expected to play a leading role in assessing system performance, using data for decision-making, and recognising its contribution to regional development. Transport operators should be actively involved in operational management, ensuring effective integration with existing public transport services.

User communities should also be engaged in the monitoring process, reflecting service acceptance and providing feedback based on usability, reliability, and perceived benefits in daily mobility.

The benefits of the system extend across multiple target groups. Residents of remote areas gain easier and faster access to essential services such as education, healthcare, and employment. Vulnerable users — including elderly people and persons with reduced mobility — benefit from safer and more flexible transport options. Students and workers experience more reliable connections to urban centres, while local communities and authorities benefit from more efficient use of resources and reduced traffic congestion.

4. Transferability and replicability

The main objective is to establish an operational, functional, and sustainable DRT system capable of delivering flexible, safe, and efficient passenger transport in areas with limited transport availability. The solution contributes to addressing key challenges by improving accessibility in rural and remote areas, strengthening connectivity between users and essential points of interest, and integrating monitoring and evaluation mechanisms to support continuous optimisation and long-term sustainability.

Expanding the range of target groups is essential to ensure broader uptake and scalability. This includes the active involvement of local authorities, transport planners, service providers, and the wider public in rural and peripheral areas, as well as organisations promoting sustainable mobility. Achieving a high level of user and stakeholder acceptance is a key condition for enabling replication and expansion in other regions.

To support implementation and transfer, a set of accompanying measures should be put in place, including:

- Development of detailed documentation and implementation guidelines.
- Training and capacity-building for transport operators and administrative staff.
- Deployment of software tools for dynamic route planning and capacity management.
- Implementation of pilot phases in new areas to test and refine the solution.
- Active engagement of local stakeholders to strengthen acceptance and long-term adoption.

5. Targeted actions to influence decision makers' attitude towards change

To support the adoption of the solution by decision makers, a range of complementary actions are considered, combining evidence-based communication, stakeholder engagement, and practical guidance for transfer.

One important element is the presentation of evidence from pilot experiences, illustrating how the solution works in practice and what results it can achieve. This may include data on service usage, user satisfaction, and operational efficiency, supported by visual materials such as maps, charts, or demonstrations to make the benefits more tangible.

It is also useful to explore how the solution can be adapted to different local contexts. This can involve analysing specific mobility needs, presenting scalable approaches, and providing examples or simulations tailored to the characteristics of the target territory or organisation.

Engaging key stakeholders throughout the process is another relevant aspect. Workshops, meetings, and informal exchanges with policymakers, transport authorities, operators, and user representatives can help present the solution, gather feedback, and build a shared understanding of its potential and requirements.

In addition, highlighting the benefits for different target groups can support decision-making, by showing both user-level impacts — such as improved accessibility and service quality — and organisational advantages, including more efficient use of resources and better service planning.

To facilitate transfer, it can be helpful to make available clear guidelines and supporting materials, outlining possible implementation steps, operational considerations, and monitoring approaches. In some cases, pilot or trial phases in new contexts may also be considered to test the solution and reduce uncertainty.

Finally, ongoing communication and knowledge-sharing - through reports, case studies, and exchanges of experience - contribute to maintaining interest, supporting learning processes, and encouraging wider uptake of the solution.

This component will also be displayed on the website DRT4all (https://drt4all.eu/), which aims to guide decision makers to select the suitable modules and tools to support their planning process[1].

[1] DRT4all website is a dedicated online depository and dissemination platform designed to remain active beyond the project's formal end (for further details about DRT4all website see D3.4.4 "Report on Final Event and future initiatives supporting DRT 3.0 concepts").

6. Conclusions

The deliverable, with its Annex, summarizes and displays the work done by the DREAM_PACE consortium to co-design and test an innovative digital and service model blueprint experimental DRT service in a new regulatory framework.

The model – representing one of the outputs (solution) of the project - is composed by digital and operational innovative elements that have been validated and tested with the support of relevant stakeholders and – in some cases – with precious inputs provided by the Business&Tech community built around the project.

The co-designed and tested solution has been built in order to foster a substantial change of attitude of decision makers toward the potential of DRT in integrating and enhancing existing public transport networks, accompanying the innovation process with a user-oriented approach.

The solution components are characterised by a high level of transferability and replicability thanks to the joint and co-design process developed and to the modular nature of the solution blueprint.

On this basis targeted actions are being put in place in order to influence decision makers' attitude towards change, by showcasing the solution components and their potential applications and promoting their adoption in the planning process.

7. References

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16) DREAM_PACE D3.3.2 “Report on actions accompanying the development of pilot activities”. 2025.
17) DREAM_PACE D3.3.3 “Report on digitalization and business innovation trends in DRT and integrated mobility industries”. 2026.
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8. Annex: DREAM_PACE_D2.2.4_Annex_Experimental DRT in new regulatory framework

Ref. solution component 1

- Implementing a tendering procedure and running a new experimental service.