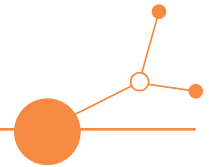
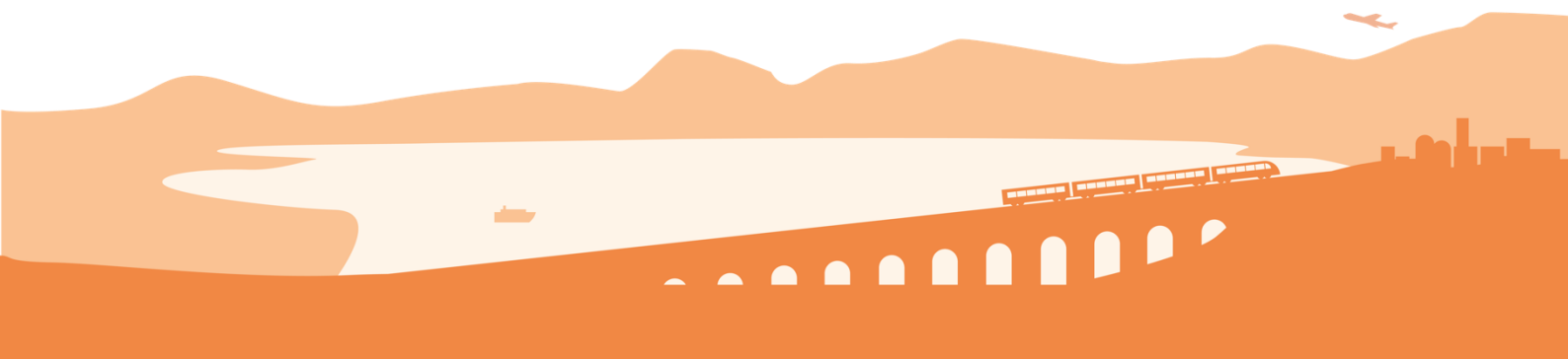


D1.2.4 Co-designed solutions blueprint of coordinated DRT implemented /tested through pilot activities



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Contents

1. Summary and structure of the blueprint.....	3
2. Component 1: Strategic planning framework for low demand and rural areas	5
2.1. Objective 5	
2.2. Target groups	5
2.3. Description and functionalities.....	6
3. Component 2: Governance scheme and introduction of coordinator for flexible mobility initiatives	
7	
3.1. Objective 7	
3.2. Target groups	7
3.3. Description and functionalities.....	8
4. Component 3: Quick scan and service planning guideline	9



4.1. Objective 9	
4.2. Target groups	9
4.3. Description and functionalities	9
5. Component 4: Crowdsourcing options - DRT as Bürgerbus	11
5.1. Objective 11	
5.2. Target groups	11
5.3. Description and functionalities	11
6. Expected change	13
7. Transferability and replicability	15
8. Targeted actions to influence decision makers' attitude towards change	16
9. Conclusions	17
10. References	18
11. Annexes	19
11.1. Annex 1: DREAM_PACE_Strategic Planning Approach	19
11.2. Annex 2: DREAM_PACE_Governance Scheme	19
11.3. Annex 3: DREAM_PACE_Quicksan and attachments	19
11.4. Annex 5: DREAM_PACE_Buergerbus	19



1. Summary and structure of the blueprint

The goal of DREAM_PACE is to develop innovative Demand Responsive Transport (DRT) concepts for peripheral and rural areas, complementing regional mobility networks to improve connectivity, sustainability, inclusiveness.

From the governance and planning perspective, two different context-based approaches have been defined:

- for territories where comprehensive governance and planning frameworks govern composite networks from a top-down perspective, with the objective of enhancing efficiency and effectiveness through the integration of services with different nature in a MaaS (Mobility-as-a-Service) logic.
- for territories where services are being designed and implemented at different governance levels, often as expression of bottom-up approaches lead by local authorities to fulfil specific needs of the citizens, with the objective of better coordinating the composite framework of initiatives in a more rational, efficient and inclusive model.

This document describes activities carried out in reference to the second approach, , those related to the first approach are described in Deliverable D1.2.3. Project Partners have jointly designed a **modular governance and planning model blueprint for coordinated DRT enhancing accessibility in peripheral and rural regions**.

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 governance and planning model is composed by governance, planning, financial and procurement elements, designed to support the decision-making process in efficiently and effectively coordinating DRT services with and within 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 model blueprint is composed by the following elements:

1. **Strategic planning framework for low demand and rural areas:** a strategic guideline for the implementation and coordination of DRT initiatives in low demand and rural areas.
2. **Governance scheme and introduction of coordinator for flexible mobility initiatives:** an exemplary scheme presenting stakeholders engaged in the DRT and local mobility governance process and their roles and responsibilities; a detailed profile of the mobility coordinator within the governance scheme.
3. **Quick scan and service planning guideline:** a methodology for quick scanning local needs and starting DRT service planning processes in low demand and rural areas.
4. **Crowdsourcing options - DRT as Bürgerbus:** guideline on crowdsourcing options, designed around the exemplary case of the Bürgerbus model in Germany as possible sustainable financing and operational scheme for DRT in remote areas.

The figure below represents the framework of components and highlights their role in the planning process (from strategic to tactical).

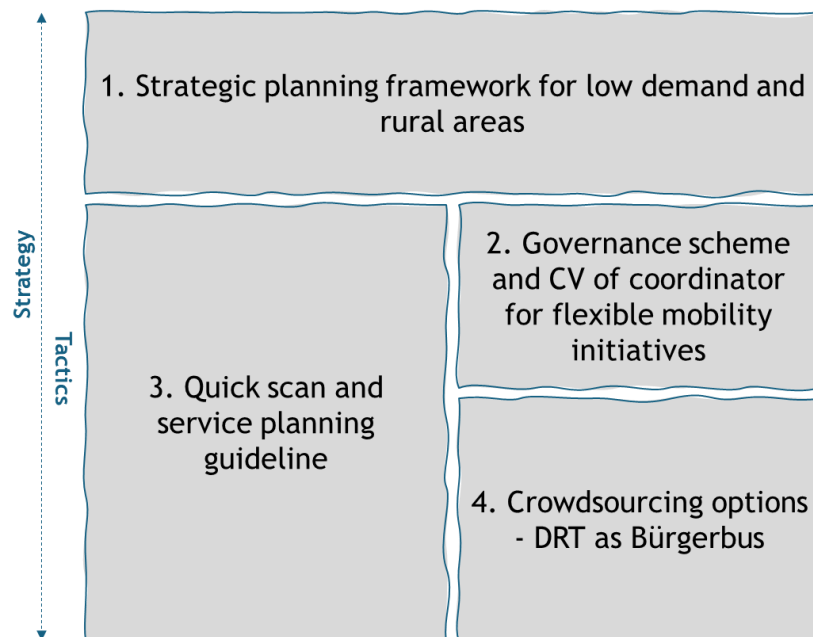


Figure 1: A modular governance and planning model blueprint for coordinated DRT enhancing accessibility in peripheral and rural regions

In the following chapters (2 to 5) objectives, target groups and main functionalities are presented for each solution components.

Chapters 6 and 7 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 8 highlights a set of planned targeted actions which can help to influence decision makers' attitude towards change.



2. Component 1: Strategic planning framework for low demand and rural areas

2.1. Objective

The main aim of this solution component is to guide the improvement of the overall service quality of public transport in rural regions by using DRT approaches increasing efficiency and extending service areas without forcing a cost explosion. In the context of East Tyrol, a mountainous, rural and peripheral region with a pronounced valley structure and sparse, wide-spread population patterns it is key to allocate the resources for public transport wisely. By using DRTs it is possible to extend and modernise existing services and also implement new ones. It is a more flexible mode of transport that serves larger areas rather than tight corridors, and this increases the overall attractiveness of public transport.

Main challenges are related to large underserved areas, scattered schedules, morning and evening hours without service and lack of service on the weekends. These are common issues in public transport in rural, peripheral regions. Therefore, the features of this solution component are expected to be easily replicable for similar areas and can be taken as a guideline to design similar solutions in other regions.

By adding DRT-Systems to the area and fine-tuning them in a proper way with the backbone of classic PT, cost-effectiveness and extension of service areas can be achieved and this will also increase the transport offer quality perceived by the residents and tourists.

2.2. Target groups

The strategic framework supports relevant stakeholders throughout the mobility planning and coordination process, including:

- Municipalities and Local Authorities, active in the definition of services to fulfil the accessibility needs of citizens.
- Mobility experts and planners, receiving guidance in the local planning of services.
- Public Transport Authorities (PTAs) that can assume or support the role of coordinators.
- Public Transport Operators (PTOs) for the implementation and operational management of DRT services.

The adoption of the planning approach is expected to positively affect a wide range of target groups, reflecting the diverse mobility needs of a peripheral alpine region. Regular public transport users, particularly schoolchildren and employees commuting to regional hubs, represent a central group. Reliable valley services and well-integrated timetables are essential for them. The improvements aim to provide more frequent services and better coordination between trains and buses, reducing dependence on private cars.

In rural areas with dispersed settlements, elderly residents often lack access to private cars. Demand Responsive Transport (DRT) services directly address their need for accessible, flexible, and affordable connections to healthcare, shopping, and social activities. Barrier-free vehicles and easy-to-use booking options are central for this group.

In most peripheral and rural regions, tourists are a key driver of mobility demand. Seasonal shuttles, DRT extensions to hiking areas, and better integration with long-distance rail links allow sustainable travel options and reduce car dependency during holidays.



Residents of less accessible areas benefit most from DRT expansion. Here, the solutions target groups who are currently underserved by traditional PT lines.

By exploring synergies between PT and DRT, the solutions also target employees of local companies. Coordinated services can reduce individual company fleets and provide shared benefits for both workers and the general public.

2.3. Description and functionalities

The strategic planning framework is designed for peripheral and rural regions with mountainous geography, where dispersed settlements and seasonal tourism create complex mobility needs. In the pilot area of East Tyrol, it addresses mobility along the main valley corridors, in peripheral settlements, and in side valleys that are not adequately served by conventional bus or rail lines. Its application covers both daily mobility and seasonal tourism demand. Beyond East Tyrol, the model provides transferable insights for other alpine regions and rural areas in Europe facing similar demographic and geographic challenges.

Main Features of the solution component are:

- Backbone represented by classic public transport (bus and rail services in valley corridors with hub in main centres e.g. Lienz).
- Complementary DRTs for peripheral and underserved areas, integrated into the PTA's/PTO's ecosystem regarding booking and reservation, ticketing and informational matters.
- Stakeholder involvement through living labs including municipalities, operators, companies and the tourism sector to align transport with synergies of the most important user groups.
- Governance model centred on Public Transport Authority, supported by municipalities and regional actors, with operators delivering services.
- Mobility coordinator role as a bridging function to ensure communication, innovation, and continuous feedback loops.
- Participatory planning methods (living labs, bilateral discussions, GIS analyses) to build evidence-based, locally accepted solutions.

Innovative Elements of the proposed strategic approach consist in:

- Integration of DRT and classic PT; positioning on-demand services not as competitors but as complements to fixed routes, ensuring system-wide efficiency.
- Mobility coordinator as a new governance actor; a dedicated role ensuring that mobility, often a secondary concern for stakeholders, becomes a continuous priority.
- Combination of participatory and technical planning tools: Using living labs for stakeholder engagement, bilateral discussions for local specificity, and GIS mapping for objective analysis.
- Scalability and transferability: Solutions are embedded in the PTA ecosystem, enabling replication in other rural and alpine regions.
- Exploring integration of business shuttles as small-scale, local and voluntary services to expand service coverage and efficiency.



3. Component 2: Governance scheme and introduction of coordinator for flexible mobility initiatives

3.1. Objective

The main aim of the solution component is to design a coordinated governance framework for rural mobility that ensures efficiency, inclusiveness, and long-term sustainability. Rural and mountainous regions face particular challenges – low population density, dispersed settlements, and fluctuating demand – that make conventional public transport systems inefficient. The solution component therefore seeks to bring together all relevant stakeholders, from transport authorities and municipalities to service providers, employers, and citizens, in order to design mobility services that are both practical and socially inclusive.

At the core of this approach is the establishment of a regional mobility coordinator. This role acts as the linchpin of the governance system, overcoming fragmented responsibilities by ensuring strategic alignment, fostering cooperation, and keeping mobility high on the regional agenda. By integrating demand-responsive transport (DRT) with traditional public transport, municipal initiatives, and digital tools, the coordinator helps to avoid duplication, reduce inefficiencies, and maximize the use of available resources.

Ultimately, the solution component aims not only to improve daily mobility for residents and visitors, but also to embed mobility governance into broader regional development strategies. This ensures that transport contributes to economic vitality, social inclusion, and environmental sustainability while being adaptable to local contexts and future challenges.

The solution component directly addresses the key challenges highlighted in earlier stages of the project, particularly the fragmentation of responsibilities, the lack of coordination among stakeholders, and the limited adaptability of mobility systems in rural and mountainous regions. Previous analyses showed that while many institutions have some form of mobility strategy, these actions are often isolated and insufficiently aligned, leading to inefficiencies, duplicated efforts, and missed opportunities.

The introduction of a governance framework centred on a regional mobility coordinator can ensure that diverse actors – municipalities, PTAs, operators, digital providers, enterprises, and citizens – are systematically connected through both formal and informal mechanisms. This contributes to overcoming the challenge of dispersed priorities by creating a continuous platform for dialogue, negotiation, and decision-making.

Furthermore, the solution strengthens the ability to adapt to seasonal fluctuations, demographic changes, and varying demand levels. Coordinated integration of DRT with conventional public transport, local initiatives, and digital tools ensures flexibility and resilience, addressing the challenge of low population density and uneven service demand.

Finally, the approach supports the challenge of sustainability by embedding mobility within broader regional development goals. It links transport to economic growth, social inclusion, and environmental objectives, thereby transforming mobility from a peripheral issue into a central driver of rural resilience and innovation.

3.2. Target groups

The governance scheme defines an effective structure to organise the contribution of relevant stakeholders throughout the mobility planning and coordination process, including:

- Municipalities and Local Authorities, active in the definition of services to fulfil the accessibility needs of citizens.



- Mobility experts and planners, receiving guidance in the local planning of services.
- Public Transport Authorities (PTAs), that can assume or support the role of coordinators.
- Public Transport Operators (PTOs), for the implementation and operational management of DRT services.

The adoption of the scheme is expected to positively affect a wide range of target groups, reflecting the diverse mobility needs of a peripheral alpine region. reflecting the diverse mobility needs of rural regions. Residents form the most important group, including daily commuters, students, older people, and those without private cars who rely on accessible and affordable transport options. Tourists are another central target group, given the region's dependence on seasonal visitors. Tailored services such as ski shuttles, hiking buses, and integrated digital information platforms ensure that visitors can access destinations sustainably without depending on private vehicles.

In addition, the outcomes of better coordination address the needs of employers and employees. Large enterprises and local businesses benefit when their workers have reliable mobility options, reducing commuting barriers and contributing to economic resilience. Vulnerable groups, such as people with reduced mobility, low-income households, and young people, are also a focus, as DRT and flexible services can improve their social participation and access to essential services.

3.3. Description and functionalities

The solution component focuses on **improving governance for public transport and Demand Responsive Transport (DRT)** in rural and mountainous regions with low population density and fluctuating demand. Its scope is not limited to the pilot area of East Tyrol but is designed to be transferable to other rural European regions facing similar challenges. It provides a framework that aligns local needs with regional and national strategies while ensuring flexibility for seasonal variations and specific community requirements.

At the core of the solution is the introduction of a **regional mobility coordinator**, who acts as the central junction between PTAs, municipalities, operators, service providers, and citizens. Key features include strategic coordination of mobility services, integration of DRT into the wider transport system, continuous stakeholder engagement, and monitoring through data collection and evaluation. The solution also emphasizes transparent governance structures, participatory processes such as living labs, and the use of digital tools to improve accessibility and user experience.

The innovative strength of this solution lies in **institutionalizing coordination as a dedicated role** rather than treating mobility as a side task within existing institutions. It combines formal responsibilities with informal, participatory approaches, ensuring that governance is both efficient and responsive. This hybrid model bridges gaps between institutions, fosters innovation such as shared mobility services, and creates a scalable, people-centred governance framework for sustainable rural mobility.



4. Component 3: Quick scan and service planning guideline

4.1. Objective

The main aim of this component is to provide a structured methodology for analysing and improving Demand Responsive Transport (DRT) services at local and regional level. By combining field data collection, persona methodology, and participatory workshops, the guideline supports local communities and stakeholders in identifying user needs, barriers, and opportunities for service improvement. This contributes to the key challenges identified in earlier project stages, namely: low awareness of DRT services, underutilization, and the lack of sustainable models for small and remote areas. The solution ensures that user perspectives are systematically captured and translated into actionable service adjustments, which can then be monitored and iterated over time.

4.2. Target groups

The solution includes multiple target groups:

- **Primary users and non-users of DRT services** within the pilot areas, including citizens with diverse mobility behaviors and needs.
- **Local authorities and public transport planners** who need tools to better understand mobility demands and optimize services.
- **Network of regional DRT providers** who want to combine forces and struggle with similar issues.

4.3. Description and functionalities

The component is a **guideline on “quickscan and planning”** that provides a recurring, step-by-step model to analyze, adapt, and improve DRT services.

- **Scope of application:** It can be applied in any local or regional context where mobility services need to be assessed, adapted, and made more user-centered.
- **Main features:**
 - Data collection in the field via structured questionnaires for users and non-users.
 - Use of the **persona method** to translate mobility patterns and attitudes into representative user profiles.
 - Participatory elements such as the “living statistics” poster tools for citizens to visualize their mobility habits.
 - Semi-structured interviews with passengers during trips.
 - Stakeholder workshops, structured in two phases: (1) exchange on common DRT challenges across regions, (2) co-creation of solutions with local actors.
 - Templates and materials (persona templates, posters, sticker-based tools) for direct use in the field.
- **Innovative elements:** The evaluation of requirements by users of the DRT are analyzed from many perspectives: users, non-users as well as DRT-providers. This ensures that expectations of the DRT



provider and perspectives of citizens can be compared to uncover misconceptions and find the best possible solutions for all.



5. Component 4: Crowdsourcing options - DRT as Bürgerbus

5.1. Objective

Bürgerbuses are community-run, volunteer-driven services that complement the regular public transport network where fixed routes are uneconomic. They are locally designed, embedded in the community and bridge gaps in rural or small-town areas – typically with small minibuses and volunteer drivers. This bottom-up, engagement-based model targets concrete local needs and strengthens social participation, especially for older or mobility-restricted people.

Pros and cons of this model in terms of funding and organization are the following:

Pros: very cost-effective because personnel costs are largely avoided through volunteering; locally tailored routing and operating times; strong community anchoring and social benefits. Funding sources are diversified (state grants for vehicles, admin-cost subsidies, e-mobility support, municipal co-funding, sponsorships, fares).

Cons/trade-offs: dependency on continuous volunteer engagement; higher ongoing organizational effort for booking/dispatch and visibility in demand-responsive formats; clarification of permits, insurance and role-sharing between municipality/association needed.

The **Crowdsourcing options - DRT as Bürgerbus** solution component provides guidance on how to implement Bürgerbus services

Typical pathway: assess local mobility needs → choose operating form (line, semi-flexible, fully flexible) → set up association or municipal setup and define task-sharing → secure funding (e.g., L-Bank vehicle grant up to €35,000; admin-cost subsidy; BW-e support; small grants like “Beteiligungstaler”) → procure an 8-seat minibus (M1, class-B license sufficient) → recruit/train volunteers → launch service with clear information/booking and ongoing PR → monitor via simple passenger counts and quarterly stats.

5.2. Target groups

Target groups are Municipalities but also civil initiatives who want to improve and support crowdsourced alternatives for sustainable transport

Additional target groups: local transport associations/operators partnering on integration and publicity; volunteer groups and NGOs hosting the driving service; and end-users—particularly seniors and mobility-restricted residents—who benefit from tailored access and a personal atmosphere.

5.3. Description and functionalities

Bürgerbusse are designed and organised locally, aligning stops, operating days and trip purposes with village/town rhythms (shops, doctors, events) and connecting to regional PT nodes (e.g., stations).

The innovation aspect lies in the fact that - in the Bürgerbus case - public transport can be built bottom up, through civil engagement. It makes public transport an urban common everyone can be part of, instead of a mere top-down given service. The approach reframes PT as a co-produced community service: initiated “from the community, for the community”, it yields immaterial gains (participation, communication, inclusion) in addition to mobility output.



Main features of the model are the following:

- Scope of the application: local or regional (that's where the bus drives and where engagement of citizens is realistic).
- Operating forms & scheduling: classic line, line with return on demand, partly or fully flexible; tailored weekday operations and special timetables for events.
- Personnel & vehicles: volunteer drivers (class B); small M1 minibuses with ~8 passenger seats; accessibility aids recommended.
- Routing & stops: locally planned; good area coverage and, where suitable, flexible boarding concepts; alignment with onward PT for connections.
- Ticketing & counting: local fare rules; in practice, some accept network tickets on a goodwill basis; simple passenger counting by ticket type for quarterly reporting.
- Organisation & roles: typically an association (e.V.) cooperates with the municipality; tasks split between vehicle/insurance/operating costs (often municipality) and driving/PR/timetable (association). Alternatives exist where the municipality coordinates directly.
- Legal/insurance basics: permit situation depends on offer; insurance covers passengers, volunteers and vehicles with state frameworks for volunteers available.



6. Expected change

The expected change stemming from the **Strategic planning framework for low demand and rural areas** lies above all in the improved accessibility of peripheral and rural settlements through DRTs which will complement the established backbone of bus and rail transport along the main valleys. By aligning bus, train, and DRT timetables more effectively, service quality is expected to improve, with reduced waiting times and better connections. At the same time, resources can be allocated more efficiently, with fixed routes maintained where they make sense, and flexible offers implemented where traditional public transport cannot be operated sustainably. This is likely to increase user satisfaction, as services will be tailored to specific needs, providing barrier-free access, flexible booking options, and reliable connections. In governance terms, the blueprint fosters a cultural shift towards stronger cooperation, since municipalities, operators, and stakeholders will work more closely under the coordination of the mobility coordinator.

The uptake of the solution component by relevant organisations ensures that its results will not remain theoretical. PTAs should incorporate the findings into future tenders and service planning, while municipalities can use the recommendations to advocate for tailored services and co-finance local solutions. Community initiatives such as “Gemeindemobile” will be better integrated into the formal system, which strengthens rather than replaces their contribution.

Also, there are multiple benefits for target groups. Commuters and pupils will gain from more frequent valley services and improved coordination between buses and trains. Elderly residents and people with limited mobility will experience better access to mobility. Tourists will be able to reach their destination more easily and sustainably, reducing car dependency during their stay. Residents of peripheral settlements will have improved access to public transport due to area coverage of DRTs. Companies and employees benefit from coordinated transport solutions that lower costs, reduce traffic, and strengthen a sustainable regional labour mobility.

All in all, the strategic planning framework provides a hands-on model that delivers improvements for local residents and visitors but also establishes lasting structures and approaches. By combining participative governance, integrated planning, and targeted mobility offers, the region’s mobility offer will be improved with flexible DRTs building on the strong basis of classic PT.

The **Governance scheme and introduction of coordinator for flexible mobility initiatives** can generate tangible results in similar regions by establishing a coordinated governance model for rural mobility. The introduction of a mobility coordinator can improve stakeholder cooperation, reduce duplication of efforts, and create more efficient links between DRT, conventional public transport, and locally financed services.

Over time, the solution is expected to deliver greater flexibility in responding to fluctuations, ensure inclusiveness by addressing the needs of vulnerable groups, and increase the attractiveness of public and shared mobility options. It will also strengthen trust among municipalities, operators, and users by providing a stable point of contact and transparent communication.

The approach anchors mobility governance within broader regional development strategies, supporting sustainable tourism, economic resilience, and social participation. By embedding coordination into institutional structures, the solution ensures continuity beyond individual project lifecycles.

Relevant organisations such as PTAs, municipalities, employers, and tourism associations are expected to adopt the model, while citizens, tourists, and workers will benefit from more reliable, accessible, and user-friendly services. Ultimately, the solution strengthens regional cohesion and sets a transferable example for other rural areas in Europe.



The methodology at the basis of the **Quick scan and service planning guideline** is expected to generate several lasting effects:

- Increased awareness and uptake of DRT services among citizens by directly involving them in the process.
- More tailored and efficient services, as operators and authorities gain concrete insights into local user needs and barriers.
- Strengthened collaboration between local communities and service providers.
- Empowerment of local stakeholders to monitor, evaluate, and adapt mobility solutions on a recurring basis.

The following changes are expected from the **Bürgerbus model**:

- Support to elderly vulnerable groups: through Bürgerbuses, especially elderly are targeted to use DRT more, the flexible routing allows them to commute to exactly the place they need to go; elderly and mobility-restricted residents benefit from fine-grained coverage and a personal, trust-based atmosphere; demographic trends suggest increasing relevance of this user group.
- Strengthening of community through engagement: the engagement, participation and power to shape the everyday life together enhances the feeling of self-efficacy and strengthens a community; trust is built, and loneliness is tackled; because projects are developed within the local community, these initiatives strengthen social ties and create additional opportunities for participation and communication beyond the pure transport function.

Additional effects may include cost-efficient service where classic lines are not viable; clearer local visibility of sustainable mobility; structured cooperation between municipalities and civic associations.



7. Transferability and replicability

The blueprint and its solution components are designed to be easily transferable to other territorial contexts, offering a robust technical foundation for supporting the coordinated planning of PT and DRT services at various levels and in different territorial contexts.

Concerning the **Strategic planning framework for low demand and rural areas**, the concept can be transferred to other areas with similar conditions, as rural and mountain regions in Austria and Europe, dealing with the same challenges: small populations spread across many villages, long travel distances, and strong seasonal changes due to tourism. The model that combines a strong public transport backbone in the main valleys with DRTs for side valleys and small settlements can therefore also work in other territories.

With reference to the **Governance scheme and introduction of coordinator for flexible mobility initiatives** its transferability relies in the fact that in many territories the planning of a relevant part of mobility services is poorly coordinated to the main networks, and requires the activation and cooperation among territorial stakeholders in order to maximize the benefits of jointly planned, efficient and effective services across the territory.

The **quick scan and service planning guidance** elaborated and tested in rural and low demand areas is highly transferable to other territories, sectors and target groups. The methodology can be applied in any rural, peri-urban, or small-town setting where flexible mobility services are needed. It can be upscaled to urban areas as well, by repeating the workshops and surveys for a wider area. The participatory approach can also be adapted to other service areas that require strong user engagement (e.g. healthcare, energy, local digital services). By adjusting questionnaires and persona models, the method can address diverse user populations. Planned measures to support transfer include providing open-source templates, step-by-step guidelines, and documentation of best practices from the pilot experience.

The **DRT as a Bürgerbus** model can be replicated wherever a volunteer base and minimal co-funding exist. Frameworks differ by state, so legal/funding details must be checked locally; however, guidance, contacts and checklists provided by the state (e.g. for the German case NVBW, L-Bank, Allianz für Beteiligung) support transfer and scaling.



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

The testing and validation process of the solution components, structured through the involvement of key stakeholders in the LL meetings as well as through direct engagement, constitutes a targeted action aimed at establishing a virtuous exchange for the development of the component, which also influences the decision makers.

In the case of the **strategic planning framework**, the **governance scheme** and the **introduction of the coordinator**, stakeholders in the pilot Osttirol region are undertaking several coordinated actions: evidence-based communication to policymakers, companies, and interest groups, stakeholder engagement platforms such as living labs, bilateral meetings, and regional workshops ensuring that stakeholders perspectives are considered, and building ownership and trust in the governance model. Furthermore, cooperation with regional actors such as regional transport authorities, chambers of economy and labour, and large employers provide leverage. By aligning the solution with broader policy objectives (sustainability, digitalisation, accessibility), players aim to position the component not only as a transport measure, but as a strategic tool for economic and social resilience.

In the case of the **Quick scan and service planning** methodology, engaged partners foresee stakeholder workshops with municipal authorities and transport operators to co-develop solutions, actions to demonstrate financial and organizational models for crowdsourcing and co-production, engaging local businesses, community groups, and municipalities in supporting and financing DRT services, the establishment of recurring evaluation cycles that reassure policymakers of continuous monitoring and adaptability.

With regards to the **DRT as a Bürgerbus** model especially in the Stuttgart Region, awareness among municipalities and operators on the benefits of its application will be increased through targeted actions such as (i) joint workshops with municipalities and local operators using NVBW materials/checklists; (ii) funding briefings highlighting vehicle grants, admin-cost subsidies and support, plus small participation funds (e.g., "Beteiligungstaler"); (iii) presenting local demand evidence and user stories (seniors, evening links, event specials) to show concrete value; (iv) clarifying task-sharing and insurance upfront to reduce perceived risks.

In the last period of the project, targeted events, dialogues with relevant institutions and communication actions will be organised in order to demonstrate the potential of the solution and of the specific components to public and private decision makers, in order to embark them in the promotion of flexible mobility options as integral part of existing mobility networks and exploit their mobility enhancement, environmental and socioeconomic potential.

The components of the blueprint will also be displayed on an interactive dedicated website developed by the Project Partners, guiding decision makers to select the suitable modules and tools to support their planning process.



9. Conclusions

The deliverable, with its Annexes, summarizes and displays the work done by the DREAM_PACE consortium to co-design and test a modular governance and planning model blueprint, dedicated to the coordination of Demand Responsive Transit to enhance accessibility in peripheral and rural regions.

The model - representing one of the outputs (solution) of the project - is composed by governance and planning elements that have been validated and tested with the support of relevant stakeholders and - in some cases - with precious inputs provided by the business and tech community build 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 planning process from the more strategic to the tactical level, across identification of strategic objectives, data processing, fostering participation and economic evaluation.

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.



10. References

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11. Annexes

11.1. Annex 1: DREAM_PACE_Strategic Planning Approach

Ref. solution component 1

- Strategic planning framework for low demand and rural areas

11.2. Annex 2: DREAM_PACE_Governance Scheme

Ref. solution component 2

- Governance scheme and introduction of Coordinator

11.3. Annex 3: DREAM_PACE_Quickscan and attachments

Ref. solution component 3

- Quick scan and service planning guideline

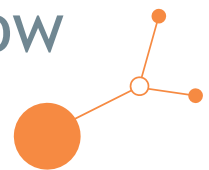
11.4. Annex 5: DREAM_PACE_Buergerbus

Ref. solution component 4

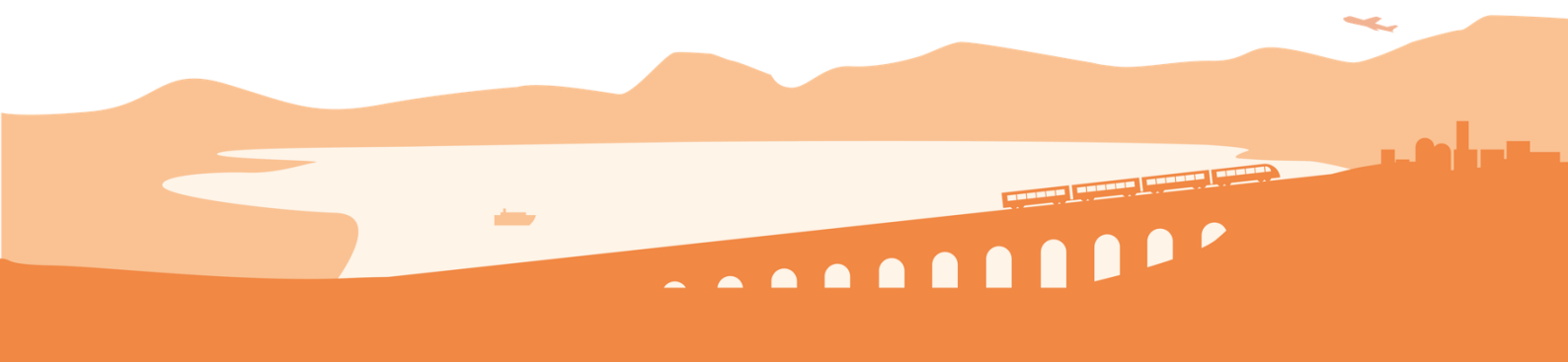
- DRT as Bürgerbus

DREAM_PACE

Strategic planning framework for low demand and rural areas



Final Version
09 2025





Authors and change log of the document

Partner No.	Partner Acronym	Name of the author	Action	Version
9	RMO	Jakob Britz	Drafting of East Tyrol blueprint	1
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Contents

1. Executive summary	3
2. Analysing regional characteristics	4
3. Existing offers in public transport	5
4. Stakeholder mapping and Governance	7
5. Engagement of municipalities, general public and stakeholders	8
6. Technical Analyses and Tools	9
7. Define Service Options	12
8. Integrated Network	13
9. Funding and procurement	14
10. Conclusions	15

List of tables

Table 1: Dates and topics of Living Labs	8
Table 2: percentage of population served by PT-quality grades	10
Table 3: Example of municipality profile	11

List of figures

Figure 1: Impression of East Tyrol ©TVB Osttirol/Peter Maier	4
Figure 2: Route map East Tyrol ©VVT	5
Figure 3: bubble chart of overnight stays in East Tyrol per municipality	6
Figure 4: simplified governance scheme in East Tyrol	7
Figure 5: GIS Analysis of population and PT-quality grade cross-cut	9
Figure 6: line based DRT in East Tyrol (RegioAST) ©TVB Osttirol/VVT/Johannes Plattner	12
Figure 7: Funding key in East Tyrol	14



1. Executive summary

Rural and peripheral areas across Europe, such as East Tyrol, Austria, face mobility challenges that differ fundamentally from those encountered in urban areas. The characteristics that shape rural regions - dispersed settlements, low population density, and seasonal fluctuations caused by tourism - create structural barriers to maintaining conventional forms of public transport. Buses and trains, designed for urban contexts where demand is consistently high, are often unable to provide the frequency or coverage required to meet the needs of residents in mountain villages, students commuting to school, elderly people seeking access to healthcare, or visitors arriving during tourist seasons.

Demand Responsive Transport (DRT) can be a promising tool to complement traditional public transport (PT). Unlike rigid bus or train timetables, DRT services can adapt to fluctuations in demand, offering flexibility and efficiency in areas where conventional systems struggle. This blueprint sets out a strategic planning framework for introducing and sustaining DRT services in rural contexts. It draws on the experiences and lessons learned in East Tyrol, while providing guidance that can be transferred to similar rural regions.

The work concentrates on three key challenges:

- the difficulties posed by mountainous geography and widely dispersed settlements
- the financial and logistical constraints resulting from low population density
- and the pronounced peaks and troughs in demand caused by seasonal tourism.

To address these, the document highlights a series of strategic solutions: strengthening backbone services in valley corridors, introducing flexible DRT in underserved areas, and connecting governance structures through the role of a regional mobility coordinator. Together, these solutions form a pathway towards more inclusive, resilient, and efficient rural mobility.

The following sections present the strategic planning steps in a structured way. Each step is illustrated with insights from East Tyrol, which serve as inspiration and example for other rural regions.



2. Analysing regional characteristics

The first stage of planning a Demand Responsive Transport system is to develop a comprehensive understanding of the regional characteristics. Without such a foundation, subsequent measures risk being ill-suited to local realities. Strategic planning must therefore begin with a detailed analysis of geography, settlement structures, demographic trends, and patterns of mobility demand.

In East Tyrol, this meant looking at a region composed of 33 municipalities spread across three major valleys. The city of Lienz serves as the administrative and economic hub, but many smaller settlements are situated far from the main transport corridors. Tools such as Geographic Information System (GIS) mapping allowed planners to visualise these dispersions and identify which areas were underserved. Municipalities like Heinfels and Stronach, for instance, were revealed as blind spots in the existing transport network.



Figure 1: Impression of East Tyrol ©TVB Osttirol/Peter Maier

The lesson here is straightforward: peripheral settlements, often located at the ends of valleys or at higher altitudes, can easily be overlooked when planning is driven only by aggregate statistics. Detailed visual mapping provides an evidence base that ensures no community is left out. At the same time, planners must remain aware of the risks of overgeneralisation. Every rural settlement has its own specific needs, and these should not be glossed over in the pursuit of a uniform regional solution.

Once the physical and demographic characteristics of the region are well understood, the next logical step is to assess what forms of mobility already exist. Mapping demand without simultaneously evaluating supply would provide only a partial picture. The next step therefore focuses on analysing the existing public transport system and identifying the gaps that a DRT scheme could fill.



3. Existing offers in public transport

After mapping the settlement structure and other relevant characteristics of the region, the second step is to assess the existing transport infrastructure. This involves evaluating backbone services such as railways and main bus lines, but also extends to school buses, company shuttles, and tourism-related services. The goal is to create a complete picture of what is already available, where redundancies exist, and where integration is lacking.

In East Tyrol, the Drautalbahn railway and the bus system along the valley floors form the backbone of the regional network. These services are robust in terms of spatial coverage, but frequency and reliability remain limited. Moreover, seasonal variations caused by tourism heavily affect demand and ask for adjustments in the offered number of busses. These fluctuations undermine the economic viability of conventional services and highlight the need for flexible solutions. In East Tyrol there are specific bus lines only operated in winter and summer respectively.

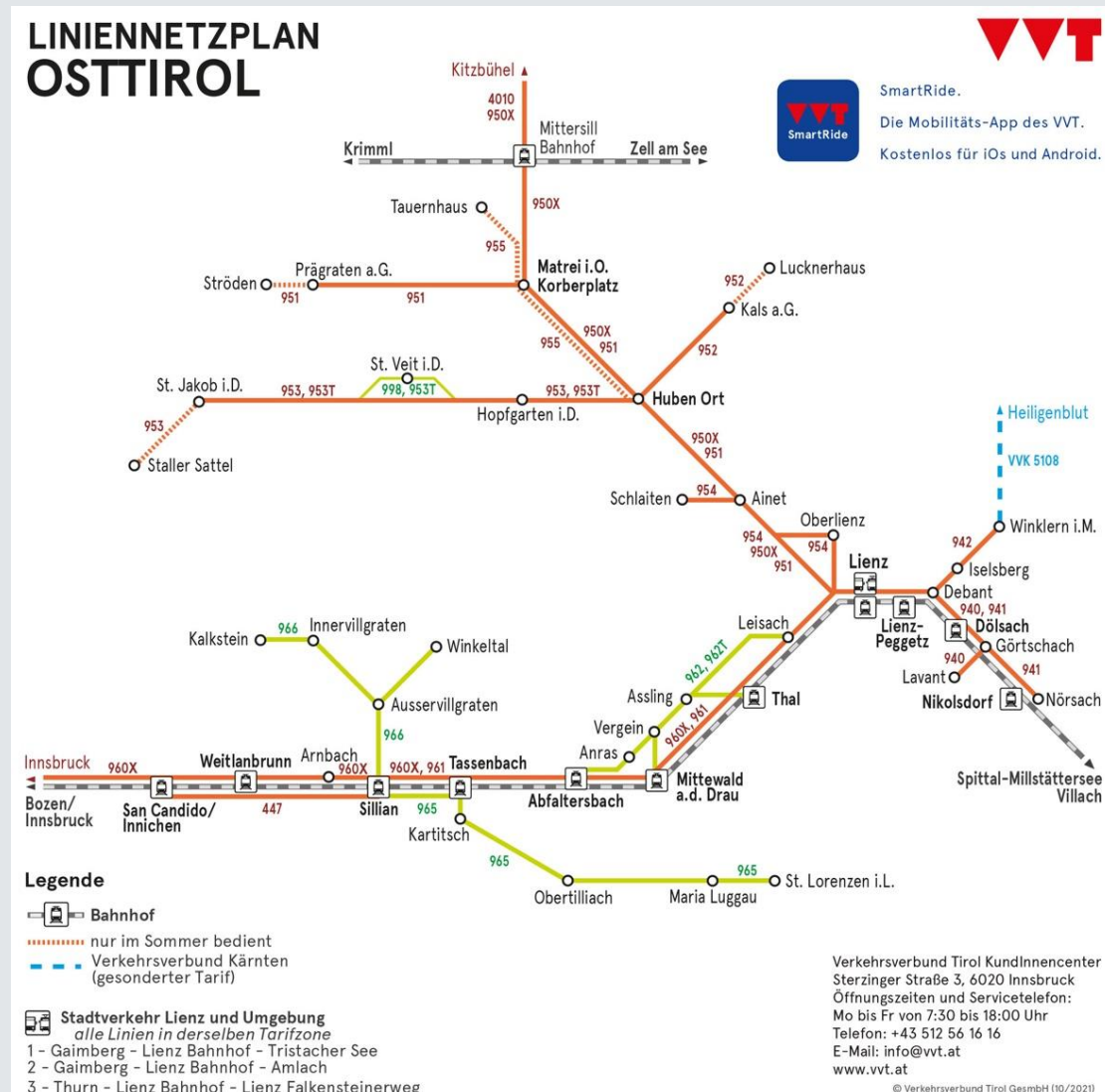


Figure 2: Route map East Tyrol ©VVT

What we can take away from this, is that tourism must be explicitly factored into planning. Ignoring the pronounced peaks in demand associated with tourism can lead to mismatches between capacity and real needs. On the other hand, overbuilding capacity to cater to tourism risks creating unsustainable systems during off-peak months. The risk is thus one of imbalance: without careful analysis, either local residents are underserved, or public funds are spent inefficiently.

Having understood the strengths and weaknesses of the existing network, planners must next turn their attention to the institutional and organisational framework. Transport is never just a technical matter; it is also about governance, responsibilities, and the alignment of diverse stakeholders. Step 3 therefore addresses the question of governance and stakeholder involvement.

For regions for which tourism is a relevant economic and social factor, making capacity and demand visible for mobility planning purposes isn't a hard task. In the case of East Tyrol, a bubble chart for both bed capacity and demand of overnight stays was designed and clearly highlights the relevant points and lines where touristic demand of mobility offers has to be taken into account. As the below map of East Tyrol with overnight stays per summer shows.

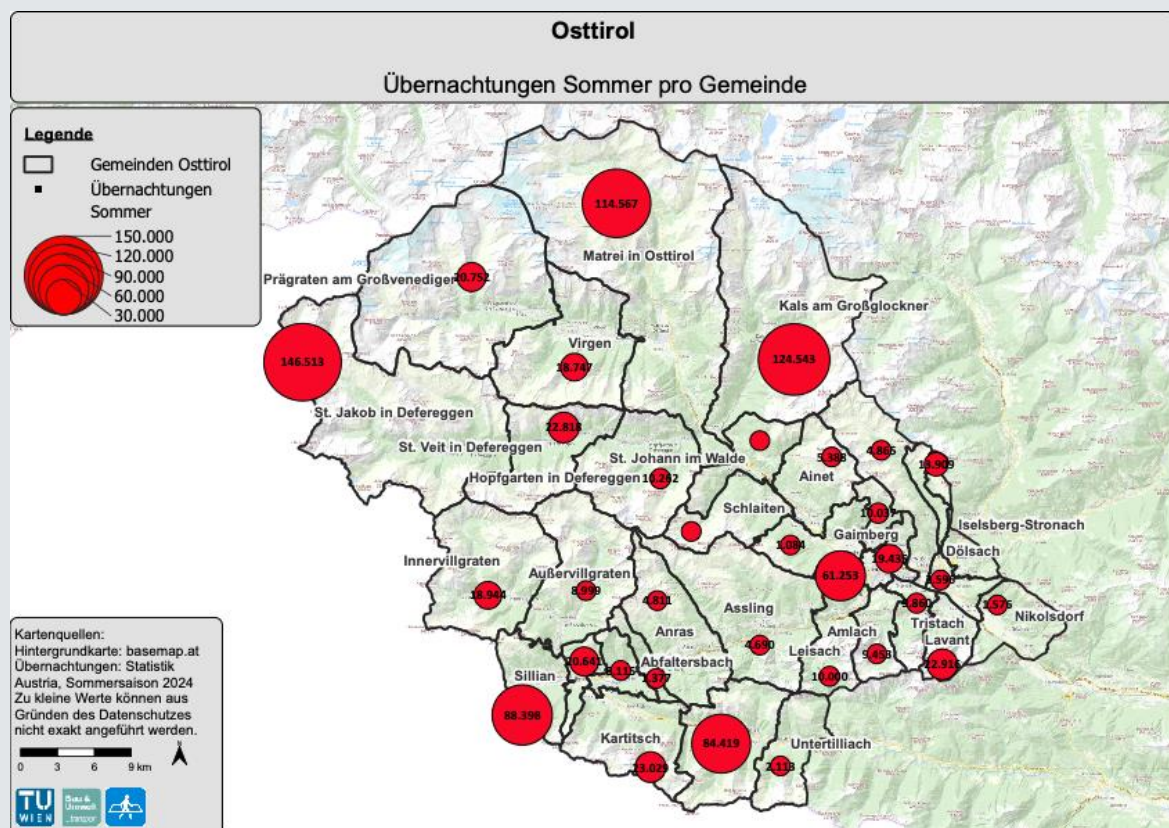


Figure 3: bubble chart of overnight stays in East Tyrol per municipality



4. Stakeholder mapping and Governance

The successful implementation of DRT hinges on cooperation among a wide range of stakeholders. Public transport authorities, municipalities, private operators, employers, schools, tourism boards, and social service providers all play roles in shaping mobility demand and supply. Clearly defined responsibilities and transparent communication channels are essential to prevent duplication, conflict, or neglect.

In East Tyrol, the Verkehrsverbund Tirol (VVT) acts as the regional public transport authority, setting the framework for services and coordinating with municipalities. Local initiatives such as the so-called 'Gemeindemobile'—community-based vehicles—illustrate how municipalities can directly engage in mobility provision. Yet without a higher-level coordinator, these efforts risk fragmentation. The appointment of a regional mobility coordinator has therefore proven vital, ensuring alignment across partners and continuity over time. A simplified figure of the governance scheme in East Tyrol illustrates the before mentioned relations. These can vary from region to region.

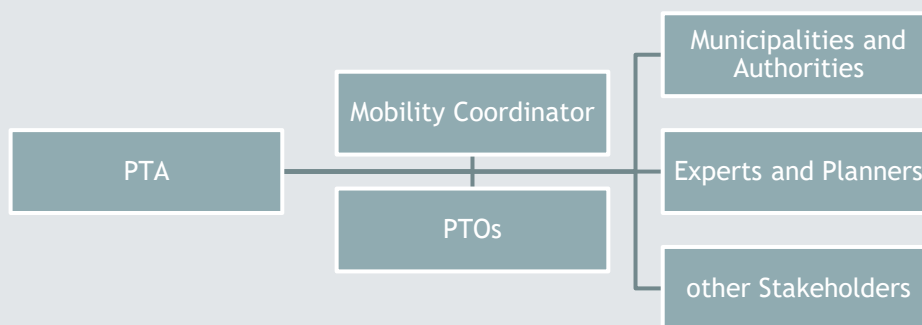


Figure 4: simplified governance scheme in East Tyrol

The lesson learned is that governance must not be an afterthought. Mobility often ranks low on the agenda of individual stakeholders, who may prioritise education, healthcare, or tourism. The risk is that without a dedicated structure, progress will stall. The mobility coordinator role is thus not merely symbolic, but a functional necessity to bridge diverse interests and keep DRT initiatives on track.

With the local governance structures clarified, the next logical step is to involve those who are ultimately meant to benefit from the system: the users, municipalities and other stakeholders. The next step therefore is about engagement and participation as cornerstones of sustainable planning.



5. Engagement of municipalities, general public and stakeholders

User engagement is central to ensuring that local needs are genuinely understood and addressed. Planning without listening risks creating services that look good on paper but fail in practice. Engagement can take many forms: living labs, bilateral discussions, community surveys, and participatory workshops. Each of these methods provides a platform for citizens to express their expectations and concerns.

In total five living labs were held during the project lifetime. They started off with a general perspective on PT in East Tyrol and developed a more specific view in cooperation with experts towards the end. The final workshop contained the presentation of the findings and included the most important stakeholders to discuss the integration of these findings into a new tender of PT in the region. The dates and topics discussed during the individual living labs were the following:

Date	Topics discussed
1 st living lab: DEC 11 th 2023	Stakeholder Mapping, Awareness and Engagement, Synergies with other modes of transport
2 nd living lab: Feb 22 nd 2024	Scenario development, schedules and offers in early and late hours, unifying Apps, broadening accessibility
3 rd living lab: JUN 17 th 2024	DRT integration to PT, extending DRTs, comparison to best practices, prioritization of solutions
4 th living lab: MAY 6 th 2025	Discussion of first results, Company transport integration, planned knowledge exchange by study tour, funding opportunities
5 th living lab: JUN 25 th 2025	Discussion of results, presentation of DRT-solutions by experts, identification of most relevant approaching points and next steps

Table 1: Dates and topics of Living Labs



6. Technical Analyses and Tools

Evidence-based planning depends on reliable technical analyses. Tools such as GIS mapping and demand modelling are indispensable for identifying underserved areas and projecting potential ridership. These tools not only provide a scientific basis for decision-making but also serve as powerful communication instruments. For this step, it is advisable to cooperate with external experts who provide the know-how and skills to conduct these analyses.

In East Tyrol, GIS maps highlighted clear coverage gaps in municipalities such as Heinfels and Stronach. Presenting these visualisations to stakeholders proved far more convincing than abstract data tables. A map showing communities cut off from reliable transport evokes immediate understanding and urgency.

In the below figure, population (white-blue squares) and PT-quality grades (red-green-grey areas) were cross-cut. By doing so, it is easily recognizable which settlements are outside of the areas served by PT. Therefore, the potential areas for an improved PT- or DRT system are identified.

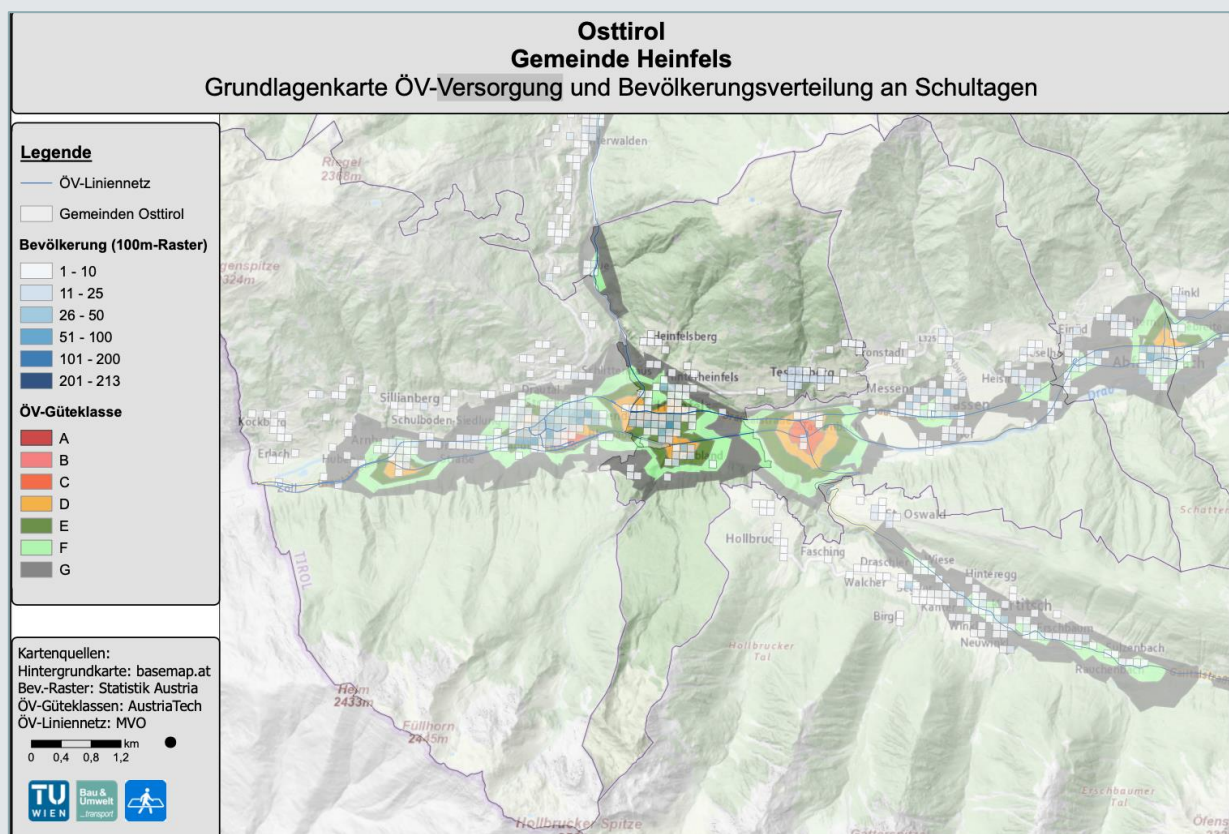


Figure 5: GIS Analysis of population and PT-quality grade cross-cut



Out of this analysis, we could learn that over 16% of the region's population is living outside of any PT quality grade and is thereby not unserved by public transport. Another 46% are only served in the two lowest quality grades out of seven, as the below table illustrates:

PT-quality grade	Sum population	% of total population
A	426	0,9
B	1027	2,1
C	2046	4,2
D	6909	14,1
E	7719	15,8
F	12056	24,7
G	10777	22,1
außerhalb	7895	16,2
	48855	

based on 100m-scheme of PT-quality grade in 2024 and population in 2024

Table 2: percentage of population served by PT-quality grades

Visual representation strengthens argumentation and decision-making. Yet reliance on data also brings risks: gaps, inaccuracies, or biases can distort conclusions. Care must therefore be taken to validate data sources and cross-check with local knowledge.

To deepen the discussion and take the situation of the individual municipalities of the region into account by themselves, also bilateral discussions with most of them were held and by that individual profiles for each of them were designed. The profiles include the municipalities' number of residents, distance to the capital city of Lienz, schools and kindergartens, touristic attractions and hotspots, the current PT-offer and Lines available as well as the objectives and wishes from the residents and municipality.

This method shows very well the big differences in the both the current situation of the PT-offer in the municipalities and also in their needs and objectives for future considerations which also proves the importance of taking these profiles into account when designing new PT and DRT offers. Some municipalities, especially those along the main valleys will be quite satisfied with the current PT offer, others with a bit more peripheral setting will have a lot of objectives and ask for change and improvement of the PT and DRT System.

An example for a municipality profile is illustrated in table 3 below.

Inhabitants	1.015
Distance to region's capital city and mobility hub	29 km
Schools and kindergartens	Day care, after-school care, Volksschule in Tessenberg with 4 municipalities, Abfaltersbach, Strassen, Heinfels, Sillian until 16/17:30 Uhr, supplemented by company-run after-school care with the involvement of large companies, transport by municipalities/volunteers, vehicle available from Hella, expansion desirable
Touristic attractions and hotspots	Hiking trails, Heinfels Castle, Thurntaler ski area, Loacker including Moccheria Café (approx. 420 employees in total), Drau cycle path



Current PT offer	<p>960X (IBK-Lienz): all year round, 4 times daily</p> <p>961 (Sillian-Lienz): all year round, Monday-Friday: 7 times daily, Saturday: 2 times, Sunday: no service</p> <p>965 (Obertilliach-Sillian): all year round, hourly</p> <p>966: all year round, Monday-Friday: almost hourly, Saturday: 8 times, Sunday: 6 times, to Villgratental</p> <p>Station Heinfels: S2, 1 time hourly per direction, in general good demand</p> <p>Nightliner 901N: Friday/Saturday night and before public holidays 4 times per night between 20:30 and 4:30 Uhr</p> <p>Tessenberg no connection at all, ca 200 inhabitants!</p>
Objectives and wishes of municipality and residents	<p>Closing the gap between the train station and bus lines, e.g., 965 (most frequent service)</p> <p>Restaurants near Burg open on May 1, 2026</p> <p>Route Tessenberg, Heinfels, Strasse Hintenburg, Burg, Loacker (?)</p> <p>Loacker factory transport, Hella, etc.</p> <p>Stop name Villgratental junction (?)</p> <p>Tessenberg connection/service</p>

Table 3: Example of municipality profile



7. Define Service Options

Once demand and supply have been mapped, and user needs identified, planners face the task of defining service options. DRT is not a single model but a spectrum of approaches. Line-based services mimic bus routes with flexible stops, while area-based services allow pick-up and drop-off almost anywhere within a defined zone. Each model has its advantages and limitations.

In East Tyrol, the RegioAST service represents a line-based approach, while the RegioFlink and Postbus Shuttle operate area-based. The experience shows that while area-based services increase coverage and accessibility, they require greater coordination and are more complex to manage.



Figure 6: line based DRT in East Tyrol (RegioAST) ©TVB Osttirol/VVT/Johannes Plattner

Important to notice is, no model fits all contexts. Vulnerable groups, especially elderly citizens unfamiliar with digital tools, must not be excluded. Providing alternatives such as telephone booking or on-site assistance reduces the risk of exclusion in a digital-first system like area-based DRTs.



8. Integrated Network

DRT should not be a standalone experiment. For long-term sustainability, it must be embedded into a wider, integrated mobility system to reach a well-balanced and efficient overall PT-coverage. Valley corridor backbones need to be strengthened, while DRT services cover peripheral and side-valley settlements. Integration with school transport, company shuttles, and seasonal services ensures efficiency and avoids duplication.

In East Tyrol, proposals included “modernizing” fixed-line services in Deferegggen and Pustertal, while introducing new DRT zones in Virgen, Kals, and Villgraten. Some other areas might also be interesting to DRT-offers but probably do not have enough user potential. The experience demonstrated that DRT works best when layered on top of a reliable backbone, rather than substituting for it.

In the end, efficiency and user trust require strong backbone services first. Overextending DRT into too many areas risks raising costs and diluting service quality. Therefore, in rural regions with widespread population, valley structures and long travel times, the right mix of classic PT, DRTs and other modes of transport should be tailored to each region itself.



9. Funding and procurement

Even the best-designed mobility plan will fail without sustainable financing. Funding models must be negotiated transparently between public transport authorities and municipalities. Pilot projects may be supported through temporary budgets, but long-term stability requires clear commitments. Especially during financially tough times, there is no budget to improve PT with increasing cost at the same time. Therefore, it is of even higher relevance to design PT as efficient as possible by implementing DRTs where it is most useful.

Also, local sponsors or foundations can be contacted to fund a pilot or even some years of providing the service. After a while, if the service is successful it can be taken up into the general offer of the PTA or PTO. Finally, also for the local municipalities' mobility offers are factors to be more attractive as home or location.

In East Tyrol, the funding model of the public transport authority VVT comes into play in which the VVT contributed 75% of costs, with municipalities covering the remaining 25% (see figure 7 below). For additional services, the split is at around two-thirds to one-third. Such clarity reduces conflict and allows municipalities to plan reliably.

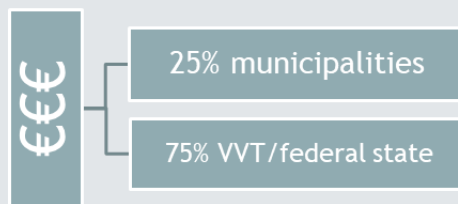


Figure 7: Funding key in East Tyrol

Transparent and stable funding arrangements build trust among partners. The risk is evident: without secure financing, pilot projects—even when successful—often disappear once the initial funding runs out.



10. Conclusions

Planning mobility in rural, peripheral, or mountainous regions is quite complex. Unlike dense urban areas, where high passenger volumes allow for frequent services and straightforward route planning, rural areas must balance geographical constraints, dispersed settlement patterns, demographic realities, and limited financial resources. Seasonal peaks, often linked to tourism further complicate planning. These characteristics create unique mobility needs that require both flexibility in service design and strong coordination among stakeholders.

Across such regions, analyses repeatedly show that while public transport networks along main corridors can provide a reliable backbone, many peripheral areas remain underserved. Fixed bus routes and rail lines typically connect central towns, yet smaller settlements at higher elevations or inside valleys often remain dependent on private cars. Here, demand responsive transport (DRT) emerges as a valuable complement. By providing flexible, smaller-scale services that can be booked on demand, DRT helps bridge accessibility gaps and ensures that residents, tourists, and vulnerable groups remain connected to the wider transport system.

At the same time, lessons learned underline that DRT should not be understood as a replacement for conventional public transport. Its role is to complement strong backbone services with targeted solutions in areas where regular lines are not feasible. Flexible systems—often using app-based reservations, small vehicles, and defined service areas—offer a useful model, but they also introduce challenges, such as higher coordination needs, digital literacy requirements, and the risk of inefficiency under high demand. Careful integration of DRT into existing transport ecosystems is therefore essential.

A sound governance framework provides the foundation for such integration. Successful governance in rural areas depends not only on public transport authorities but also on municipalities, transport operators, tourism boards, schools, and social service providers. Each of these actors brings unique perspectives and responsibilities: schools influence timetables, the tourism sector drives seasonal demand, and social services safeguard accessibility for vulnerable groups. Effective governance is therefore multi-layered, requiring cooperation, transparency, and shared responsibility.

A particularly important governance tool is the role of a regional mobility coordinator. Since most stakeholders deal with mobility only as one among many priorities, a dedicated coordinator ensures that local needs are heard, feedback loops are established, and innovative solutions are pursued. Beyond technical coordination, this role also includes awareness-raising, quality monitoring, and fostering shared mobility options. In this way, the coordinator becomes a catalyst for both incremental improvements and transformative change.

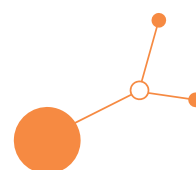
Also, the methodology of planning is a key factor. Participatory and evidence-driven processes, such as living labs, bilateral consultations, and GIS-based analyses, help ensure that plans are both legitimate and actionable. Living labs create spaces for dialogue and co-creation, bilateral discussions reveal the diversity of municipal needs, and GIS analyses provide an objective foundation for identifying underserved areas. Together, these methods not only distil concrete measures but also build trust and legitimacy among stakeholders.

Looking ahead, several strategic directions stand out for rural and low-demand regions more generally. First, strengthening backbone services along central corridors remains crucial, especially during peak commuting and school hours. Second, upgrading fixed-line DRT into flexible, area-based services can significantly improve accessibility in peripheral communities. Third, ensuring digital inclusion is vital so that booking systems do not exclude older residents or those without smartphones.

Ultimately, mobility in rural and peripheral areas is not simply about building infrastructure. A well-balanced combination of fixed routes and flexible services, embedded within a participative governance model and supported by a local mobility coordinator, offers a resilient and inclusive pathway. By aligning traditional public transport with innovative DRT solutions, regions can provide efficient, sustainable, and high-quality mobility even under challenging conditions.

DREAM_PACE

Governance scheme and CV of a mobility coordinator



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Contents

1. Executive summary	3
2. Governance scheme.....	4
3. Mobility Coordinator	6
3.1. Candidates and Profile	7
3.2. Responsibilities.....	8
3.3. Daily Tasks	10
4. Conclusion	11

List of tables

Table 1: List of regional stakeholders	5
--	---

List of figures

Figure 1: Simplified governance scheme	6
--	---



1. Executive summary

The East Tyrol pilot project highlighted the importance of involving a broad range of stakeholders. Public Transport Authorities (PTAs), municipalities, digital service providers, tourism associations, chambers of labour and economy, large employers, and the general public each contribute specific competences. Their interaction is shaped by both formal mechanisms (planning responsibilities, contracting, financing) and informal mechanisms (living labs, bilateral discussions, participatory workshops). Together, these channels ensure that local knowledge informs planning, while regional authorities maintain strategic oversight.

However, the pilot also revealed gaps in coordination. While many stakeholders have their own mobility strategies, actions are often fragmented and not sufficiently aligned at the regional level. To address this, the concept of a regional mobility coordinator was introduced. Positioned as the junction point of the governance model, the coordinator ensures continuity, avoids duplication, and maintains mobility as a priority on the regional agenda.

The mobility coordinator's responsibilities are wide-ranging: from strategic alignment and stakeholder management to data analysis, communication with citizens, and innovation in service delivery. Daily tasks include coordinating transport services, monitoring performance, engaging with municipalities and operators, managing financial processes, and promoting new initiatives. This dedicated role is essential to transforming mobility from a fragmented field into an integrated system that supports sustainability, accessibility, and regional development.

Several institutional options exist for hosting such a role, including regional development agencies, municipal consortia, local government associations, regional transport authorities, or dedicated offices. Each comes with advantages and limitations, but all underline the need for a clear mandate, adequate resources, and strong legitimacy.

The experience of East Tyrol offers lessons beyond its borders. By combining formal governance structures with participatory approaches and anchoring coordination in a dedicated role, rural regions across Europe can move toward inclusive, efficient, and sustainable mobility systems that reflect local realities while connecting to wider regional and national frameworks.



2. Governance scheme

The governance of public transport and, in particular, demand responsive transport (DRT) in rural and low-demand regions is rather complex. Unlike urban environments, where passenger volumes are high and services can be standardised, rural areas face challenges arising from dispersed settlements, low population density, and seasonal fluctuations in demand. In these contexts, mobility governance must bring together a wide range of actors with different competences, responsibilities, and interests. This requires cooperative structures, transparent decision-making, and a continuous balancing of priorities. Effective governance therefore does not emerge automatically; it must be designed and actively maintained.

The case of East Tyrol illustrates these dynamics. Multiple stakeholders - ranging from transport authorities and municipalities to service providers and social partners - had to be involved in order to design solutions that are both efficient and socially inclusive. While this chapter builds on the East Tyrol pilot, its reflections and conclusions are transferable to other rural regions facing similar challenges.

A rural transport system rests on the cooperation of diverse stakeholders. Each actor contributes specific competences and perspectives, which together shape the planning, operation, and evaluation of mobility services. Table 2 provides an overview of the main stakeholder groups as identified in the pilot region of East Tyrol. The table summarises their roles and involvement in the governance structure. While the exact composition may differ in other regions, the general categories of actors and their respective functions remain comparable.

The governance model in practice demonstrates how standardized systems can be adapted to regional needs. For example, municipal initiatives such as 'Gemeindemobile' complement PTA services by offering locally financed transport solutions with volunteer drivers. Seasonal services, such as ski shuttles or hiking buses, illustrate the flexibility required in regions with strong tourism demand. In each case, coordination by the mobility coordinator and communication between PTA, operators, and municipalities were crucial to avoid duplication and inefficiencies.

Type of stakeholder	Name and brief description	Competences, role and contribution to the pilot	Involvement
PTA	ÖPNV Verband Osttirol, PTA representing public interests	Can influence PT providers like VVT or ÖBB and their offers.	Involved permanently, attended living labs, cooperated in procurement for external expertise and permanent bilateral contact
Local Authorities	33 Municipalities of East Tyrol	Collect and Provide information from public.	Involved permanently, attended living labs, bilateral discussions and they are updated constantly on progress
Digital Service Provider	ÖBB 360° Wegfinder App	Brings together route planning, booking and payment of different services to one app, could make useability easier for residents and also tourists.	Involved when needed, giving expertise bilaterally on demand.
Regional Authority	TVB Osttirol	Representing interests of tourists, accommodation providers, bring information of	Involved permanently, attended living labs, bilateral discussions and also using synergies to



Type of stakeholder	Name and brief description	Competences, role and contribution to the pilot	Involvement
		hotspots for activities and during tourists' season.	develop tourism mobility not related to DREAM_PACE Project
General Public	Residents of East Tyrol and Tourists	Interests represented by Municipalities and TVB. Most important target group, also provider of information.	Involved indirectly through Municipalities and TVB.
Regional Authority	Land Tirol	Also funds the project; high interest for successful outcomes and high potential influence.	Involved partially, network meetings with other mobility managers out of Tyrol, supporting role when needed.
Regional Authority	Chamber of Labour	Represents interests of workers; potential users of new PT-Services.	Involved, participated in living labs and gets informed of progress
Regional Authority	Chamber of Economy	Represents interests of organisations and economic growth.	Involved, participated in living labs and gets informed of progress
Other (enterprises)	Liebherr, Loacker, Hella, IDM	Biggest companies in the region, could support the use of new offers, promote it to their workers, funding/sponsoring,	Involved, participated in living labs, building synergies with previous projects
PTA/PTO	VVT and ÖBB. They coordinate and operate PT in Tyrol Region	High power and influence on all PT and DRT offer, since they operate most of the services.	Involved permanently, important decision maker since co-tendering the new PT-programme together with ÖPNV-Verband. Attended living labs, permanent contact and bilateral discussions

Table 1: List of regional stakeholders

The interaction of stakeholders is shaped by both formal and informal mechanisms. Formal structures include the planning and financing responsibilities of the Public Transport Authority (PTA) and the service delivery role of operators. Informal mechanisms arise through workshops, bilateral consultations, and living labs, where local knowledge and user feedback are integrated into planning. Cooperation is not without challenges: stakeholders differ in priorities, levels of engagement, and capacities. For municipalities, mobility is only one among many tasks, while for schools or tourism providers, it is relevant only at specific times of the year. This makes transparent communication and clear coordination structures essential.

Most Stakeholders in regions like East Tyrol do have some kind of mobility management inside their organization or follow some kind of a mobility strategy given out by federal states or other institutions. Experience from the DREAM_PACE and previous projects shows, that even though this is the case, coordination of actions and initiatives does not or only to a limited extend happen inside the region.

This is where the role of the region's mobility coordinator comes into play. His responsibilities, competencies and daily tasks will be described in the following chapter.



3. Mobility Coordinator

At the centre of the governance system stands the **mobility coordinator**. This role should be introduced in order to overcome fragmentation and ensure continuity across diverse actors. Since most stakeholders treat mobility as one issue among many, the coordinator dedicates full attention to it. Positioned between PTAs, municipalities, operators, and users, the coordinator functions as the linchpin of the governance model.

The competencies and responsibilities of the mobility coordinator are broad and include:

- Strategic coordination: aligning DRT and conventional public transport initiatives with regional priorities.
- Stakeholder management: acting as a neutral mediator, ensuring voices from municipalities, operators, and users are heard.
- Monitoring and evaluation: tracking service quality, usage levels, and accessibility, and using this information to refine services.
- Innovation: fostering new mobility solutions such as shared rides or micro-mobility and embedding them into the wider system.
- Communication and awareness-raising: informing residents about mobility options, supporting digital literacy, and ensuring accessibility for vulnerable groups.
- Financial and procurement support: assisting in co-financing arrangements and ensuring efficient resource use.

In this way, the mobility coordinator acts not merely as an administrator but as a catalyst for change. The position ensures that mobility remains on the regional agenda, bridges institutional divides, and provides a continuous feedback loop between users and providers.

Figure 5 shows a simplified Governance scheme for rural regions with a regional mobility coordinator in place who acts as a junction point between PTAs, PTOs, municipalities and other stakeholders.

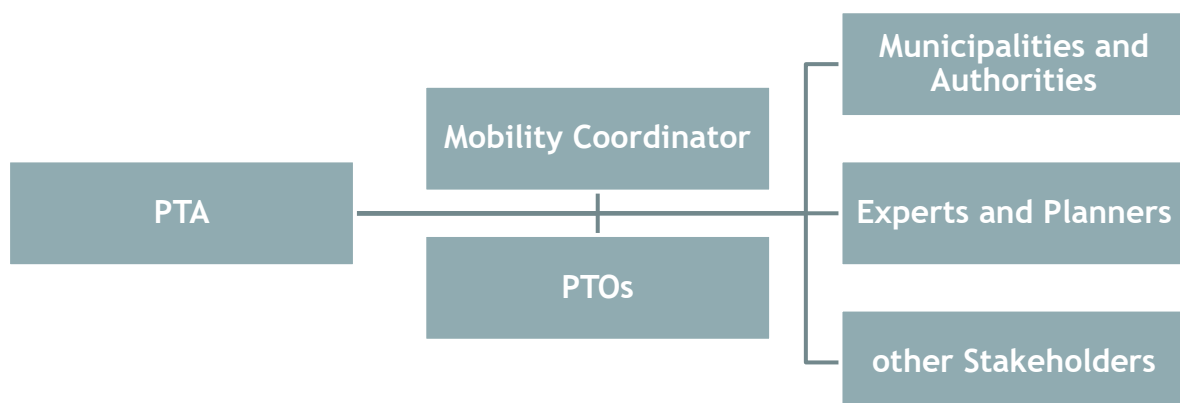


Figure 1: Simplified governance scheme

Governance in rural mobility is necessarily multi-layered, participatory, and adaptive. The experience from East Tyrol illustrates that while institutional structures provide the framework, it is the mobility coordinator who ensures functionality and coherence. By generalizing these lessons, other regions can design governance systems that are both efficient and responsive, combining local knowledge with regional authority in order to create inclusive and sustainable mobility offers.



3.1. Candidates and Profile

The role of the coordinator could be taken from members of several institutions who dedicate some of their actions to the mobility needs in the region. An important characteristic of the coordinator must therefore be the knowledge of the region and its needs and objectives regarding mobility and sustainability.

Depending on the specific characteristics and also the size of the region, several players come into play when thinking of who could take the coordination. Below, some possible institutions are listed with the note they might not be present in some regions.

Regional development agencies

These are often well placed to act as mobility coordinators, as they already manage a broad portfolio of regional development tasks, including infrastructure, economic promotion, and sustainability. Their advantage lies in their capacity to link mobility with other regional priorities. However, they may lack specialized expertise in transport planning and may need to build up specific competencies.

Consortia or associations of municipalities

When several municipalities join forces, they can establish a consortium to jointly manage mobility coordination. This structure benefits from direct democratic legitimacy and proximity to citizens' needs. At the same time, decision-making may become slow or fragmented if local priorities diverge, and resources for staffing and expertise are not always guaranteed.

Local government associations (LGAs)

LGAs bring together municipalities in a structured form and can pool resources to represent local interests at a higher level. They have experience in inter-municipal cooperation, which is valuable in rural and mountainous contexts where no single municipality can solve mobility issues alone. Their weakness is often limited operational capacity, as many LGAs act more as lobbying and coordination platforms than as service providers.

Dedicated mobility offices at local or regional level

A specialized office focusing only on mobility can ensure professionalism, continuity, and accountability in coordinating different services. It can also act as a clear contact point for citizens and operators. The main challenge is the financial sustainability of such an office in sparsely populated areas, where the demand might not justify a full-scale administrative body unless linked to wider regional functions.

Regional transport authorities

These bodies usually have established competence in public transport planning and contracting. They can bring professional expertise, access to funding, and long-term strategic planning. However, regional transport authorities are sometimes too large and centralized, risking a lack of sensitivity to the specific challenges of small, peripheral communities.



Cross-border cooperation bodies (e.g., in Interreg areas)

- In mountainous regions that straddle borders, cross-border bodies can be key players in mobility coordination. They can integrate services across national boundaries, reducing fragmentation and ensuring connectivity. The complexity of legal frameworks, funding rules, and different national regulations, however, often slows down implementation.

Public-private partnerships with transport operators

Engaging operators directly in coordination through partnerships can ensure practical solutions and strong service delivery. Such partnerships can also mobilize private investment. Yet, they may prioritize profitability over accessibility, which could conflict with the social equity goals of rural mobility.

Universities or research institutions with mobility expertise

Academic institutions can act as neutral, knowledge-based coordinators, bringing in innovation, pilot projects, and evaluation methods. They are particularly valuable for experimental or EU-funded projects. Their limitation is that universities typically do not have the mandate or the long-term operational responsibility to manage mobility services sustainably. This kind of expert often could also act as external experts who support certain projects.

Non-profit organizations with experience in rural or community mobility

Civil society organizations can be highly effective in addressing the “last mile” and in mobilizing volunteers for community-based mobility solutions, such as ridesharing or on-demand shuttles. Their flexibility and citizen trust are strong assets. On the other hand, they often lack the stable funding and administrative capacity needed to run large-scale or long-term mobility systems.

3.2. Responsibilities

A sustainable mobility in rural regions consists of several actions, initiatives and new offers like a strong backbone of classic PT, DRT-Systems, ride- and asset sharing, municipal mobility offers and digital and informational management only to mention a few. To integrate these into a functioning whole system, coordination between them and driving change management are the key responsibilities of a mobility coordinator.

Other **management-responsibilities** describing the position of the mobility coordinator could be:

- Acts as a “moderator” between stakeholders and decision makers
- Local person with a good network and well-known to support local stakeholders in reaching their objectives
- Drive change in existing topics as factory traffic and tourism mobility
- Junction point to PTAs and PTOs
- Combine financial resources and limit parallel projects, increase efficiency
- Collecting Data and Facts to support decision makers in discussions
- Develop concepts and plans together with stakeholders



But in return, the mobility coordinator should be able to count on support and cooperation from all **stakeholders**, like:

- Organise questionnaires and surveys
- Media releases
- Sharing contacts
- Collect and organize fundings
- Sharing relevant data and findings

Expected **outputs** from the position could be:

- Driving change towards sustainable mobility solutions
- Organizing pilots
- Collect information
- Acting as a contact person to relevant questions and issues
- Bringing up relevant issues inside the region and bring up potential points of action
- Building a “mobility network” inside the region which brings together all relevant stakeholder and institutions and represents a platform for discussions on relevant topics

Fields of action where a mobility coordinator is acting could be:

- Mobility Management
- Active mobility
- Public transport
- Multi-modal transport
- Traffic security
- Information and communication
- Cooperation and network

The above listed responsibilities show that there is a wide spectrum of tasks to be covered in order to coordinate the mobility development in rural regions.



3.3. Daily Tasks

From the above-described profile and responsibilities, the regional mobility coordinator will derive multiple daily tasks. With a thematic categorization, these daily tasks could include the following topics.

Stakeholder communication and networking

Regular contact with municipalities, transport operators, digital service providers, and regional/national authorities would certainly be the main objective and should be included in an ordinary daily schedule of the coordinator. Therefore, also organizing and attending meetings to align interests and collect feedback from local communities is part of the daily tasks depending on the individual project status.

Data management and analysis

In Cooperation with the specific stakeholders and experts, collecting and evaluating usage data (ticketing, app-based reservations, passenger counts) is among the tasks of the coordinator. Subsequently, identifying demand patterns to adapt services to seasonal fluctuations (e.g., tourism peaks or school transport) also comes into play and finally preparing reports for funding bodies and decision-makers based on these data analyses.

Communication with citizens

Acting as a first point of contact for inquiries and complaints about mobility services besides the municipalities themselves could be a daily task after having integrated and communicated the position well enough, speaking this will only be possible after some time operating in the position.

Also, providing information through digital platforms or local information points and promoting new services, pilot projects, and awareness campaigns to increase acceptance and usage in the general public.

Financial and administrative tasks

Depending on his involvement in special projects, managing budgets, subsidies, and reimbursement schemes with municipalities or regional authorities could be among his schedules, also including coordinating procurement processes for vehicles, digital tools, or external expertise.

Strategic development and innovation

Thinking of Innovation and bringing pilot into practise, Co-Designing and testing new mobility solutions like DRTs and ensuring integration of mobility with broader regional development goals (tourism, accessibility, etc.) and other actions will also include the mobility coordinator.

Partnership building and cross-sector cooperation

Finally, engaging with schools, employers, social services, and tourism actors to tailor mobility services and developing joint initiatives with cross-border partners if the region lies at a border to foster cross-regional and international cooperation and cohesion.



4. Conclusion

The governance of public transport and demand responsive transport (DRT) in rural and mountainous regions such as East Tyrol demonstrates both the challenges and opportunities of designing mobility systems for low-demand areas. Unlike urban contexts, where standardized approaches are feasible, rural mobility requires tailored solutions built on cooperation, flexibility, and ongoing dialogue among diverse actors. The East Tyrol case shows that no single stakeholder alone can manage these complexities; instead, it is the interplay of municipalities, transport authorities, operators, enterprises, social partners, and the general public that creates a functional system. Formal mechanisms, such as planning and contracting by PTAs and operators, provide a backbone of stability, while informal mechanisms—living labs, bilateral consultations, and participatory workshops—ensure that local knowledge and user needs inform the design of services.

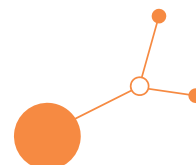
At the centre of this governance structure stands the mobility coordinator. This position embodies the recognition that fragmented responsibilities and competing priorities require a dedicated role to bridge institutional divides. The mobility coordinator not only ensures continuity but also acts as a driver of innovation, data-based decision-making, and citizen engagement. Through daily tasks such as monitoring usage data, facilitating stakeholder communication, and coordinating pilot projects, the coordinator provides the glue that holds the governance system together. Importantly, the role also anchors mobility firmly within broader regional development strategies, linking transport to goals such as economic vitality, social inclusion, environmental sustainability, and tourism development.

The lessons from East Tyrol are transferable to many rural European regions. Governance models must be designed to adapt to seasonal variations, demographic challenges, and geographic constraints. A strong backbone of conventional public transport, complemented by demand-responsive services, municipal initiatives, and digital tools, offers a viable path forward. However, efficiency and inclusiveness can only be achieved when supported by transparent decision-making, shared financial responsibility, and a willingness among stakeholders to collaborate.

There are several institutions and bodies, that could take this role in a region with regard on which are even existent in the questioned region. As the mobility system itself, this role must be custom-tailored for a certain region and therefore also grow into the above-mentioned responsibilities and tasks for which this solution component gives a rough guidance.

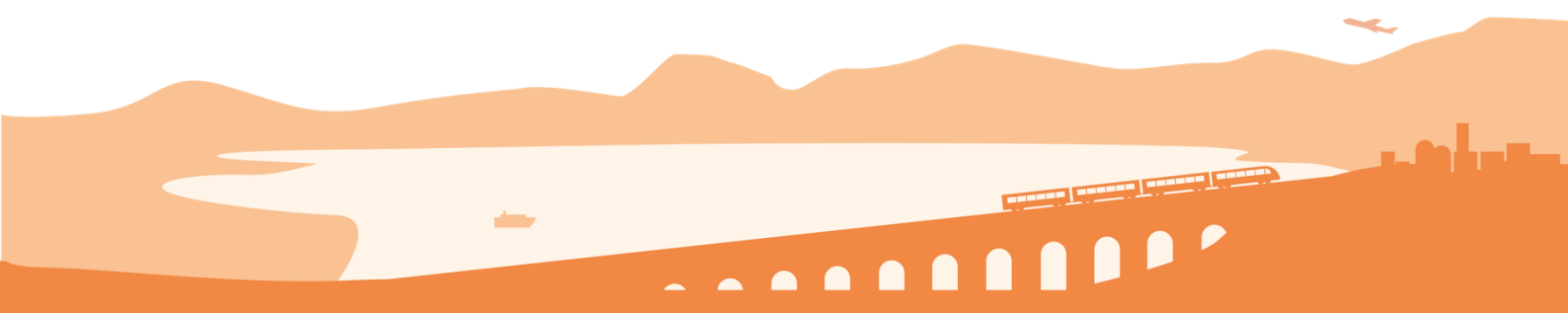
Quick scan and service planning guideline

A methodology for quick scanning local needs and starting service planning processes



Final Version

09 2025





Authors and change log of the document

Partner No.	Partner Acronym	Name of the author	Action	Version
11	nexus	Wiebke Blum, Paul Schlichting	Describing the solution component	1
2	Redmint	Gabriele Grea	Finalisation of the solution component	2
2	Redmint	Anja Seyfert	Finalisation of the document	3



Contents

1. Summary	3
2. Identification and of local struggles and goals for DRT	4
2.1. ... with the operating agency.....	4
2.2. ... with citizens	5
3. Strengthening interregional network to solve common struggles together	6
3.1. Stakeholder workshop	6
4. Annexes	8



1. Summary

The following guideline has been developed and tested within the context of the region of Stuttgart, with the support of technical project partners and inputs from other pilot sites experiences in the planning and implementation of DRT services. The DRT in the region of Stuttgart is organized by the interregional transport association NVBW and locally organized by each municipality. While the NVBW is an umbrella association that all municipalities are connected to, the fragmented operation of DRTs leads to every commune dealing separately with similar problems.

The elaborated and tested methodology helps first to identify common struggles in the operation of DRT within a municipality and second to solve common struggles together within an interregional network. The evaluation of the service is centred around the needs of users from a perspective of users, non-users and DRT operators. The following methods were used to analyse and improve the DRT, centring citizens' needs:

- **Persona method** - to identify expectations of users' needs by the DRT operator
- **Ad hoc surveys** - to gain an insight of citizens' mobility behaviour as well as knowledge and struggles with the local DRT
- **Ad hoc interviews** - to understand users motivations for choosing the local DRT
- **Stakeholder Workshop** - to strengthen local network of DRT providers and tackle common challenges together

The methods are further described in the following.



2. Identification and of local struggles and goals for DRT

2.1. ... with the operating agency

To understand the expectations of users' needs and develop a more focused understanding of the target groups for the DRT service, the persona method was used in a workshop with the local DRT provider. The persona method is loosely derived from a design thinking process, applied in product development.

Generally, the so-called Persona-Method is an increasingly popular participatory method that functions as a thought experiment allowing participants to imagine diverse lived realities of different people coming from different contexts and backgrounds. It centers around the creation of different "personas" i.e., people with different characteristics, socio-economic, familiar or cultural backgrounds, goals and so forth, for the understanding and analysis of different lived experiences with regard to a specific situation, object or intention. However, there is no blueprint or fixed plan for the method. The concrete design of the method can take different forms and must be adapted to the respective context.

An option for design could be the following: in a participatory workshop, participants are asked to take different pre-determined roles (alternatively, participants may also create their persona's themselves). The preparing group creates templates for profiles with questions for different persona's with certain characteristics. The workshop participants are asked to fill out the templates in small groups by putting themselves in the shoes of the persona. The more detailed the persona is described and imagined, the better. Questions to help imagining a concrete persona could include:

- What are their demographic data? Age, ethnicity, gender identity, etc.
- Where and how does the persona live? Big city, rural area, alone, with family...
- What is their social status?
- What is their job?
- What is the persona's relation to money? Are they rich, poor, do they like to spend money, are they good in handling their finances?
- What are the persona's flaws, what are their skills?
- What character does the persona have?
- How is their relationship to their friends?
- What motivates them in live in general (e.g. money, fame, love, feeling helpful, influence, power...)?

Afterwards, the results are presented and discussed in a plenary, opening the space for participants to jointly identify potential communalities or differences between personas and the different challenges and hurdles they face with respect to the issue at hand.

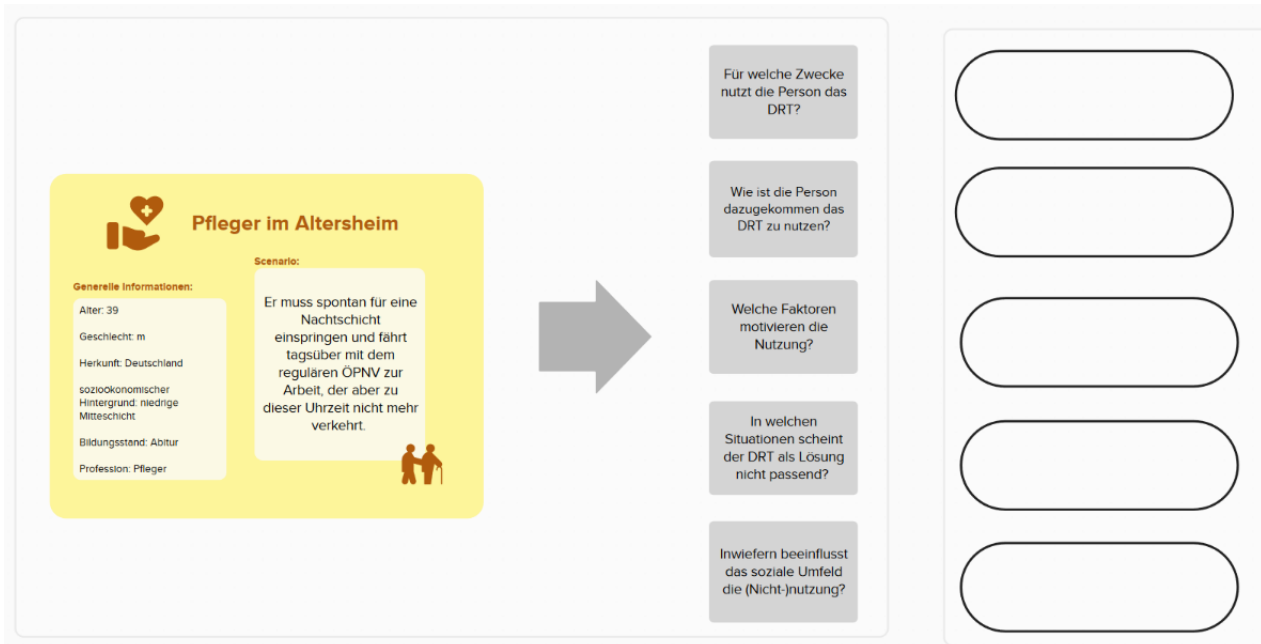
In the case of the mobility transition (and specifically DRT) the method can be very helpful for creating a better understanding of different people or groups of people's connection to mobility options and their attitude towards mobility transitions. Specifically, it can be very helpful for identifying hurdles and challenges for usage for different people or groups of people.

An example:

We are aiming to identify reasons for (non-)usage of a local DRT in a rural area in Germany. Participants are confronted with different personas. For example: a caretaker for elderly people, who usually takes regular public transport to his work, which is in the nearby city. However, we are now dealing with the following scenario: he spontaneously has to take over a night shift for someone else, who got sick. The regular busses do not drive at this hour. With this scenario and the persons specific background in mind, participants are asked to answer a set of questions, that are usually:



- WHY does the persona use the product?
- HOW does the persona use the product?
- WHAT motivates the persona to use the product?
- WHICH obstacles is the persona facing while using the product?



Example of a persona description

2.2. ... with citizens

To get an insight in the local citizens' understanding of the DRT service and their mobility behaviour, ad hoc participation is suggested. A stand in the pedestrians' area is installed to talk to as many citizens as possible and gain a broad overview of the local knowledge about the existing DRT. It was expected, to reach mainly non-users of the DRT through the stand. The questions posed and the engagement shouldn't take too much time, therefore, posters where printed, on which the passers-by could stick a point for a statistical picture. One poster asks the Question: "Do you know about the local DRT service?" and includes a scale from "never heard about it at all" to "I use it frequently". The second posters is divided into sections for different modes of transport on which the citizens are asked to mark, which is their preferred mode of transport. When people stop by to engage with the posters, they were also asked to fill out a survey that asks more detailed questions on their mobility behaviour.



Survey in pedestrian zone



Additionally, to also get insights from users of the DRT, ad hoc interviews can be made directly with passengers in the DRT.

The questionnaire for non-users, interview guideline for users as well as the templates for the two posters can be found in the annex.

3. Strengthening interregional network to solve common struggles together

3.1. Stakeholder workshop

The stakeholder workshop aims to combine forces of regional DRT providers. Since they deal with similar issues, it is useful to identify common struggles and tackle them together.

Therefore, a workshop is suggested, that is divided into two parts:

In the first part, participants exchanged views on the primary challenges in on-demand transport that they face in practice. The second part of the workshop focused on finding solutions to the challenges identified in the first part. An agenda can be found below.

Zeit	Programmpunkt
<i>Teil 1 - Operationelle Ebene Fokus: Herausforderungen im On-Demand-Verkehr</i>	
10:00	Begrüßung & Vorstellung DREAM_PACE
10:15	Vorstellungsrunde mit kurzen Inputs (jeder Landkreis circa 5 M
10:55	Diskussionen zu Herausforderungen in den 3 Themenfeldern <ul style="list-style-type: none">• Organisation des Angebots• Marketing• Finanzierung <i>inkl. Kaffeepause</i>
13:00	Mittagspause
<i>Teil 2 – Governance Ebene Fokus: Gemeinsame Lösungsansätze</i>	
13:45	Kurze Erklärung Programmablauf Nachmittag
13:50	Arbeit in Kleingruppen - Formulieren von Lösungsansätzen
14:50	Kaffeepause
15:00	Vorstellung im Plenum / ggf. kleine redaktionelle Anpassung
15:30	Ausblick/Abschluss/Feedback
15:35	Ausklang bei Kaffee und Kuchen

Example of workshop agenda



During research beforehand, three main fields have been identified, in which the DRT shows deficits. The discussion on challenges in DRT was therefore structured across these preliminary identified areas:

1. Service organization (operational level),
2. Marketing and communication, and
3. Service financing

A poster was used to specify as many problems in each field as desired while answering the following questions:

- Why is this a problem?
- What are the effects of the problem?
- Who is affected by the problem?

After identifying and describing common problems, solutions are discussed for each of them. Therefore, another template was prepared to answer the following questions for the solutions:

- Which political level addresses the solution (municipal, regional, county, national)?
- Who are the key stakeholders involved in the solution?
- What is your (the participants/local DRT providers') role in the solution?
- What exactly does the solution look like?
- How much effort does it take to implement the solution? (mark on a scale)



Stakeholderworkshop in Calw

Templates for the problem description (“Vorlage_Problembeschreibung”) as well as for the solution discussion (“Vorlage_Loesungsansätze”) can be found in the annex.



4. Annexes

- Posters from ad hoc survey (“Lebendige Statistik_InfoStand Calw.pdf”)
- Questions for users and non-users of DRT (“Fragebogen Rufbus.pdf”)
- Template problem description for stakeholder workshop (“Vorlage_Problembeschreibung.pdf”)
- Template solution discussion for stakeholder workshop (“Vorlage_Loesungsansaeetze.pdf”)



4.1. Posters from ad hoc survey (“Lebendige Statistik_InfoStand Calw.pdf”)

Which mode of transportation do you use most often in your daily life?

Car (also as passenger)

Bicycle / Pedelec /
E-bike / Cargo bike

Public transport (ÖPNV)

on foot

DRT Bus / Transport
service / On-demand
transport / Taxi

scooter / motorbike



4.2. Questions for users and non-users of DRT (“Fragebogen Rufbus.pdf”)

Info Booth Questionnaire – On-Demand Bus (Calw)

Questionnaire – Non-Users

1. Introduction

Have you already used the on-demand bus in Calw?

- ☐ Yes → Users Questionnaire
- ☐ No → Non-Users Questionnaire

2. Attitudes and Perceptions

Are you familiar with the on-demand bus in Calw?

- ☐ Yes, very well
- ☐ Yes, a bit
- ☐ No, hardly
- ☐ No, not at all

Have you ever considered using the on-demand bus?

- ☐ Yes
- ☐ No, because... (please state reasons)

Do you consider the on-demand bus a good alternative compared to conventional modes of transport?

- ☐ Yes, for me personally
- ☐ Yes, for other people
- ☐ No
- ☐ Not sure

3. Potential Use Cases and Routes

For which routes or purposes would you use the on-demand bus in Calw? (Multiple choice)

- ☐ Commuting to work
- ☐ Shopping
- ☐ Leisure
- ☐ Medical appointments
- ☐ Care work (e.g., pick up or drop off relatives)
- ☐ Other

What operating hours would make using the on-demand bus feasible for you?

- ☐ Evenings and nights only
- ☐ Daytime
- ☐ All day
- ☐ Specific peak hours (e.g., rush hour)

4. Price Expectations and Willingness to Pay

Which ticket types and corresponding prices would you consider fair for the on-demand bus (e.g., single ticket, monthly pass for the on-demand bus only or integrated into the public transport pass, multi-ride ticket)?

5. Barriers and Concerns Regarding Use

In your view, what are the barriers that keep you from using the on-demand bus? (Multiple choice)

- ☐ Costs too high
- ☐ Limited availability (e.g., at certain times)
- ☐ Difficulties with booking
- ☐ Safety concerns (e.g., traveling alone in the evening/night)
- ☐ Lack of reliability (e.g., punctuality, availability)
- ☐ No information about the service
- ☐ No suitable route or stops near me
- ☐ Other (please specify)

Could you imagine integrating the on-demand bus into your daily routine on a regular basis?

- ☐ Yes, as my main mode of transport
- ☐ Yes, as a supplementary mode of transport
- ☐ No, more for occasional trips only
- ☐ No, not at all

What else would need to be offered or adjusted so that using the on-demand bus would be an option for you? (Open text)

Is there anything we haven't asked that you would still like to mention? (Open text)

6. Demographic Information

Age (18-24, 25-34, 35-44, 45-54, 55-64, 65+)

Gender (male / female / non-binary)

Questionnaire – Users

1. Introduction

Have you already used the on-demand bus in Calw?

- ☐ Yes → Users Questionnaire
- ☐ No → Non-Users Questionnaire

2. General Information on Usage

How often do you use the on-demand bus in Calw?

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Less often
- ☐ Used only once

For which routes or purposes do you most frequently use the on-demand bus?

- ☐ Commuting to work
- ☐ Shopping
- ☐ Leisure
- ☐ Medical appointments
- ☐ Other

Are there specific destinations or occasions for which you prefer to use the on-demand bus? (Open text)

3. Time of Use

Which operating hours for the on-demand bus do you consider sensible?

- ☐ Morning (06:00–09:00)
- ☐ Mid-morning (09:00–12:00)
- ☐ Midday (12:00–14:00)
- ☐ Afternoon (14:00–18:00)
- ☐ Evening (18:00–22:00)
- ☐ Night (22:00–06:00)

4. Price and Booking Preferences

Would you like additional booking options besides booking by phone?

- ☐ No, booking by phone is sufficient

☐ Booking via app

☐ Booking via website

How do you evaluate the current booking system and the payment function? (Open text)

What is the maximum price you would pay for a ride with the on-demand bus?

☐ 1 euro

☐ 2–3 euros

☐ 4–5 euros

☐ More than 5 euros

☐ No opinion

5. Satisfaction with the Service

How satisfied are you with the following aspects of the on-demand bus?

Availability (Whenever I need a ride, one is available):

☐ Very satisfied

☐ Satisfied

☐ Neutral

☐ Dissatisfied

☐ Very dissatisfied

Waiting time (How punctual is the pickup):

☐ Very satisfied

☐ Satisfied

☐ Neutral

☐ Dissatisfied

☐ Very dissatisfied

Comfort (e.g., seating, air conditioning):

☐ Very satisfied

☐ Satisfied

☐ Neutral

☐ Dissatisfied

☐ Very dissatisfied

Cost:

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Very dissatisfied

6. Experiences and Challenges

Which challenges have you experienced when using the system? (Multiple choice)

- ☐ Long waiting times
- ☐ Difficulties with booking
- ☐ Problems with payment
- ☐ Insufficient coverage in my residential area
- ☐ Unsafe stops
- ☐ Other (please specify)

Were there situations in which you could not or did not want to use the system? Why? (Open text)

Do you think the on-demand bus is a useful supplement to existing public transport?

- ☐ Yes
- ☐ No
- ☐ Not sure

How has the on-demand bus influenced your use of other modes of transport? (Open text)

7. Demographic Information

Age (18–24, 25–34, 35–44, 45–54, 55–64, 65+)

Gender (male / female / non-binary)

Survey DRT service in Calw

- for non-users -





4.3. Template problem description for stakeholder workshop ("Vorlage_Problembeschreibung.pdf")

Challenge - operational

Problem description

Why is it a problem?

What are the consequences of this problem? How does it show?

Who is affected by this problem?

Challenge – Marketing & Communication

Problem Description

Why is it a problem?

What are the consequences of this problem? How does it show?

Who is affected by this problem?

Challenge - Financing

Problem Description

Why is it a problem?

What are the consequences of this problem? How does it show?

Who is affected by this problem?



4.4. Template solution discussion for stakeholder workshop ("Vorlage_Loesungsansaetze.pdf")

Solution Component

addressed problem

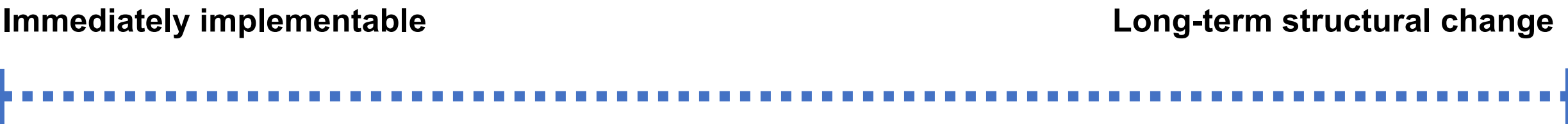
Which level is being addressed? (e.g., state politics, local politics, administration, society/passengers, etc.)

Who needs to work together to find a joint solution?

What is your role in the approach?

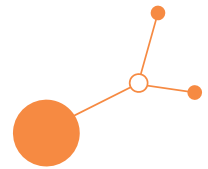
What does the solution look like in concrete terms?

How costly would implementation be?



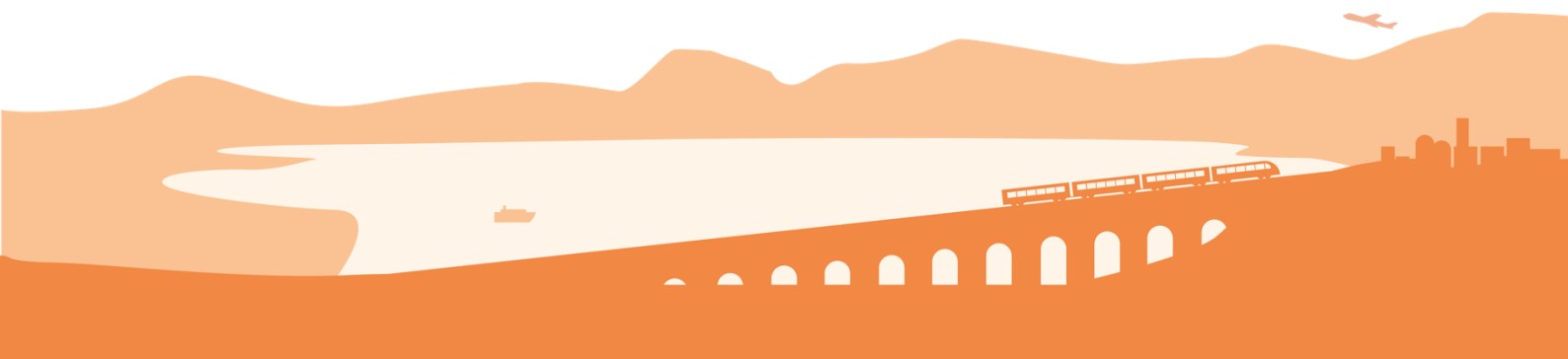
DRT as Bürgerbus

An alternative DRT model, organized
with citizens



Final Version

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Authors and change log of the document

Partner No.	Partner Acronym	Name of the author	Action	Version
11	nexus	Wiebke Blum, Paul Schlichting	Describing the solution component	1
11	nexus	Wiebke Blum	Rearranging text blocks and adding information	2
2	Redmint	Gabriele Grea, Anja Seyfert	Finalisation of the document	3



Contents

1. Summary	3
2. For whom is the Bürgerbus?	3
3. Practical information on how to establish a “Bürgerbus”	4
3.1. Initiating a Bürgerbus	4
3.2. Organizing a Bürgerbus	4
3.3. Financing the Bürgerbus	5
4. Hindrances when establishing a Bürgerbus	5



1. Summary

The present solution component has been elaborated by partners around the Bürgerbus experience, particularly common in German rural regions. In Baden-Württemberg are the counties and independent cities the legal public transport authorities for road-based local transport; they plan and (co-)finance offers and may reflect DRT elements in their local public transport plans. The DRT service organized by the municipalities operates as a call-bus, that drives along the planned bus routes and uses its stops. It can be called when needed at certain times. Besides this organized DRT, another DRT service, that is organized by voluntary citizens, is in use: the “Bürgerbus” (citizens’ bus).

The “Bürgerbus” is a voluntary service of general interest, so counties are not obliged to co-fund; cooperation agreements with operators can define roles like vehicle maintenance, booking intake and revenue accounting.

In the region of Calw, an alternative model of funding and organizing DRT based on a crowdsourcing approach is working, called “Bürgerbus”. The Bürgerbus is driven by voluntary citizens and funded by a mix of state vehicle grants (up to ~€35,000 per bus), municipal support (vehicle/insurance/operating costs), sponsorships/local businesses, fares, and small program grants such as the “Beteiligungstaler”; administration-cost subsidies are also available.

2. For whom is the Bürgerbus?

Bürgerbusse emerged to fill gaps where fixed-route services are uneconomic, acting as a local “bridge” within the public transport system. Strengths include volunteers’ local knowledge and strong anchoring in the community; beyond mobility they create social participation and communication, especially for older and mobility-restricted residents. A Bürgerbus can be initiated by either the municipality or citizens themselves, but the idea is, that citizens are eventually in charge of organizing the service, while the municipality supports financially and/or with the provision of a vehicle.

Advantages and disadvantages of Bürgerbusse compared to municipal DRT (+ flexible routing, - no fixed schedule, ...)

Advantages:

- Very cost-effective due to volunteer driving; personnel costs (normally $\geq 60\%$ of operations) are largely avoided.
- Locally embedded, needs-oriented, with social-cohesion benefits beyond pure transport.
- Multiple flexible operating forms allow fine-tuning to local demand (incl. “Wink + Fahr”, event services).

Disadvantages / trade-offs:

- Requires sustained volunteer availability and time for preparation and customer “habit change”; projects typically need ~1-2 years of build-up and ongoing PR.
- Insurance/liability and role-sharing questions must be solved; clear cooperation agreements help.
- Not intended to replace the core ÖPNV; coverage and regularity are inherently limited.



3. Practical information on how to establish a “Bürgerbus”

3.1. Initiating a Bürgerbus

If the establishment of a Bürgerbus is wanted, there are a few things to consider and resources needed.

A typical path to follow starts with a local civic group and the municipality jointly initiating the project, either based on project funds or without having settled the funding. An analysis and community outreach is needed to form a civil initiative. If municipality and civil initiative have come together, the operating form must be agreed upon. Therefore, the following questions can help:

- *Who is involved in the organization, route planning and ticketing of the Bürgerbus?* A civil initiative alone, the municipality, public transport provider, local stakeholders with an interest in transportation
- *Which route should the DRT service cover?:* pre-defined route, route calculated based on pre-booking, partly flexible or fully flexible → examples across Baden-Württemberg show weekday operations with tailored service days.
- *Where does the bus stop?* Pre-defined stops, individual agreements, just by stopping the Bürgerbus on the go
- *How does the ticketing work?* For free, included in general public transport ticket, fares defined locally → practice examples accept valid network tickets on a goodwill basis and count passengers by ticket type for quarterly statistics to the municipality/operator.
- *What is the local legal framework for operating public transport?* In Germany: permit under § 43 PBefG for non-remunerated operation, otherwise § 42 PBefG.

It is suggested that local citizens' initiatives collaborate with the municipality to answer these questions together and identify gaps in public transport, that can be closed through the additional service.

After having a clear vision of the Bürgerbus, a formal association or partnership and cooperation agreement with the operator must be set up. This can either be an agreement between the civil initiative and the municipality or a public transport provider, but also a completely newly formed association. Afterwards, the funding and the vehicle, that will be used, must be secured as well as a long-term agreement on how to recruit and keep drivers for the Bürgerbus. It is suggested to also think about PR and communication of the service, especially when newly established, to firstly inform the citizens about the option and secondly make politics aware of the citizens' engagement for possible support.

3.2. Organizing a Bürgerbus

Once the initiation is started, it must be defined, how the Bürgerbus is organized exactly. Usually an association (e. V.) cooperates with the municipality/transport company; the association organizes the driving service, PR and timetable, while the public authority or company may handle vehicle, insurance, operating costs and integrate the service into timetable media.

The association has to decide how to manage volunteers. Usually, a list with volunteers is planned into a schedule, but it is also possible that only association members can be drivers or that regular drivers are evaluated according to their driving to ensure safety.

Typical vehicles are small 8-seat minibuses (M1), with recommended accessibility aids (e.g., ramps). Usually, the vehicle is sponsored either by the municipality or a local company.



3.3. Financing the Bürgerbus

Depending on the local situation, a variety of financing options can be considered:

- **Funded by a state-based grant:** In Baden-Wuerttemberg, a grant from the state is used for Bürgerbus projects with a fixed amount up to about €35,000 (initial and replacement); e-mobility options additionally supported.
- **Running/overheads from the municipality:** since 2018, administration-cost subsidies for Bürgerbus/Bürgerrufauto; municipalities often cover insurance, electricity/fuel and some operating costs; local sponsorships and advertising help; fare revenues should contribute materially.
- **Small grants / participation funds:** In Baden-Wuerttemberg small grants for social Projects exist e.g., “Beteiligungstaler” (up to €2,000 for local engagement processes).
- **Local sponsorship:** The service can be funded by stakeholders. In return, it is possible to think of advertisement of the sponsors visualized on the Bürgerbus.

The possibilities for funding are highly dependent on the local context. The local municipality, especially the department for mobility planning, is advised to inform the initiation with knowledge about funding options.

4. Hindrances when establishing a Bürgerbus

Gathering the resources needed to secure the service in the long term

Finding and retaining enough volunteers for reliable service can be challenging. It is helpful to ask either pensioners or people who would like to use the service themselves to get involved.

Legal situation

Since the legal situation is highly context dependent, it is important to understand the legal framework. This might take a bit of time. Also having all the permits and insurance is important, in case an accident happens.

Financing

Since having sustainable funding is challenging, it is suggested to assemble mixed financing (grants, municipal support, sponsors, fares) and maintain continuous outreach to build ridership.

Overall, the Bürgerbus is a complementary, community-driven DRT option for small towns and rural areas, especially where conventional fixed routes are uneconomic and where social inclusion is a key goal. It suits areas that can mobilize volunteers and modest co-funding, and where flexible, locally tailored service adds value to the existing network.