

Table S1: Overview of the governance arrangements and legal basis of the presented mobility concepts

Project	Governance Arrangement	Legal Basis	Connection with other services
REGIOtim	Decentralized contractual relationships with external support and central public control by regional management.	Intercommunal Cooperation along the Law on Planning and Development of the Province of Styria and its Regions (StLREG).	Locally connected with PT, no intermodal routing including the car-sharing option (planned via project MaaS*).
GUSTmobil	Decentralized contractual relationships with external operators and central public control by regional management.	Intercommunal Cooperation along the Law on Planning and Development of the Province of Styria and its Regions (StLREG) and province of Styria.	Directly connected with PT** time tables and dispatching routes intermodal between DRT*** and PT.
Bicikelj	Operated by external contractor through a public-private partnership between the local authority (City of Ljubljana) and an advertising company	Local authority responsibility for providing public transport and urban mobility.	Locally connected with PT, primarily in the urban area of Ljubljana, but expanding to the P+R**** thus enabling multimodal mobility between rural and urban areas.
EURBAN	Operated by the Public Transport Utility owned by the local authority, i.e. City of Ljubljana, but as a partnership with another local authority (Municipality of Škofljica).	Local authority responsibility for providing public transport.	Initially a DRT service directly connected with PT time tables (filling the gap in time of low frequency of PT) and dispatching routes intermodal between DRT and PT. The key principle was increased service frequency. The Škofljica pilot was a DRT service connecting locations without PT to the PT. Key principle was the service expansion.
Grass Routes	Operated by a single local authority using an in-house fleet.	Local authority responsibility for providing public transport.	Theoretically possible but not explicitly developed or promoted. Fleet shared with school transport services.
Bwcabus	Operated by county, but as a partnership between 3 local authorities, the Welsh Government, Traveline and the University of South Wales.	Actually, a bit uncertain – but returning to local authority responsibility for public transport.	Connections with interchanges for longer-distance TrawsCymru bus services. Connectivity is underdeveloped to date but a key principle in the service expansion.

\*Mobility as a Service, \*\*Public Transport, \*\*\*Demand Responsive Transport, , \*\*\*\* Park + Ride

Source: Own compilation, 2021

Table S2: Overview of the obstacles, gains and outlooks of the presented mobility concepts

Project	Obstacles	Gains	Outlook
REGIOtim	REGIOtim was set up from the outset in such a way that it can be financed by the individual municipalities without subsidies during operation. Therefore, high start-up subsidies for the implementation of the infrastructure and the purchase of the e-cars were provided by EU, state and regional funds (StLREG).	Cooperation in everyday operations not only brings advantages in joint communication and marketing, which can be coordinated very well via a regional interface such as regional management, but also synergies through cost sharing of e.g. server operation and customer hotline.	The regional management plays an important interface and driver role in this project. In addition, it is being examined whether outsourcing to a regional body instead of several individual operators would be advantageous for REGIOtim in the future.
GUSTmobil	The public sector is already investing a great amount of money in the expansion or densification of public transport in Styria. The additional financing of a comprehensive micro-PT* system like the GUSTmobil raises many fundamental questions of necessity. Without the high subsidies, the communities and the region would not be able to operate this system for the promotion of the basic function of existence in the long run!	If you already invest a lot of money in public transport, but it has to increase its popularity, especially in rural, sprawling areas, then a complementary mobility offers such as the GUSTmobil with its attractive feeder function can help to make the PT more attractive as a backbone. For this purpose, joint planning, routing, and booking is indispensable in the near future.	Instead of individual contracts between the municipality and the operator, the regional management will in future act as client and take on more responsibility in the fields of marketing and communication. Also, the ticket integration between PT and DRT** system is an important point on the development roadmap.
Bicikelj	For widespread use, the BickeLJ bicycle-sharing system requires costly installation of self-service terminals. While the system is almost free for the users, the public-private partnership needs to be adequately adjusted to make such expansion interesting and viable for both the public and private partners. This, in combination with the spatial distribution focused along main thoroughfares and the weight of the robust bicycles makes the system less suitable for longer distances, e.g. to/from rural and periurban areas. In addition, the distribution of bikes between stations must be ensured to offset unidirectional use in peak hours.	By expanding the Bickelj network to P+R**** and shopping areas in the periphery of Ljubljana, commuting (including from/to rural areas) in Ljubljana Urban Region has become increasingly multimodal. The number of terminals and bicycles has almost doubled in 6 years. Along the way, the cycling infrastructure has been improving both in the City of Ljubljana and in the rural municipalities surrounding it.	Bicikelj is an initiative by the City of Ljubljana, however other municipalities of Ljubljana Urban Region have shown interest into accounting for and possibly integrating Bicikelj into their local transport plans and multimodal initiatives. There is an opportunity to develop the Bicikelj network to solve the first and last mile gap, including in the rural areas, however the public-private partnership would need to be thoroughly revised for that and include other municipalities of Ljubljana Urban Region as well.

EURBAN	Overall the number of users was not high enough compared to the high operational costs to justify the project extension and expansion, though the first scheme was popular enough to increase the bus frequency. Recognition of the service among potential users has not been evaluated. The convenience of the service might be too low as it was limited to off-peak hours and limited routes, thus suited only to some user groups and inconveniently short for multi-purpose trips.	EURBAN and the Škofljica pilot project showed that there is potential demand for responsive micro-public transport and interest of other local authorities in Ljubljana Urban Region. However, the booking needs to be simplified, the timing improved and extensive promotion are needed for the potential users to switch from private cars to DRT. In addition, fleet optimisation using routing, GPS and predictive algorithms could balance range limitations with user demand. The Škofljica pilot project where the local charging stations were used already improved this aspect.	Both the initial EURBAN and Škofljica pilot needed to be subsidised. The Local Authorities are financially strained; thus, the project did not get upgraded to regular service as the low demand did not justify the costs.
Grass Routes	High costs of expanding and upgrading the existing fleet (e.g. to ULEVs) and implementing new technologies (such as an online platform), especially given local authority budget cuts and withdrawal of previous sources of European funding.	Further development would enable the system to offer expanded hours and cater to new user groups, such as commuters for the first and last mile. The ability to provide an on-demand model using a digital platform would also open the service to younger people and tourists.	Whether Grass Routes is better remaining as a Monmouthshire-centric service or joining the Bwcabus-TrawsCymru franchise could be debated. The current governance model is very straightforward, but poses limits to finance and user awareness. However, the local authority is very forward-looking and has ambitions for MaaS*** development.
Bwcabus	Offered in a limited number of counties, which may pose restrictions for users at county borders. Financially limited by local authority funding and support provided by the Welsh Government. Overall responsibility for direction and operation is unclear.	The service has been moving closer to integration with TrawsCymru, which is very promising. TrawsCymru is itself a relatively new brand, but has been developing a promising national 'light' infrastructure (e.g. bus interchanges and information boards) which increases visibility. These gains could be passed on to Bwcabus.	The partnership with Traveline offers interesting possibilities for moving the service closer to MaaS. The Welsh Government's involvement in the partnership could also provide future direction for active travel integration. It would be good to see Bwcabus expand to cover the 9 predominantly rural local authorities in Wales, although this would involve complex negotiation especially where there are existing services like Grass Routes.

\*Public Transport, \*\*Demand Responsive Transport, \*\*\*Mobility as a Service, \*\*\*\* Park + Ride

Source: Own compilation, 2021