

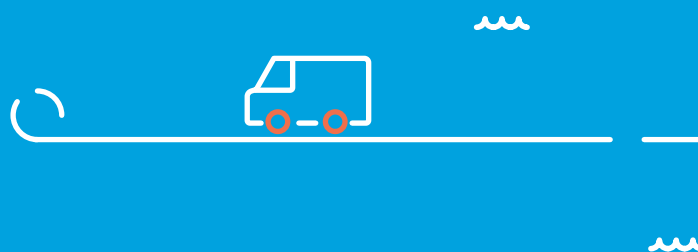
RESPONSE BRIEF | 2021

Demand-responsive transport (DRT) in the Baltic Sea Region and beyond



The insights presented in this brief are based on SEI Tallinn's report published in 2020.

See the report here / download the report here:
<http://response-project.eu/library/mapping-study-of-drt-business-models>



Demand-responsive transport (DRT) is a fit-for-purpose and flexible mode of transportation that adapts to clients' demands. It means that the service is determined by the requirements of its users, often including pick-up and drop-off location and pick-up times. DRT is increasingly considered an alternative to traditional transport, and a cost-effective and efficient way to provide transport services in rural areas.

The RESPONSE report written by SEI Tallinn on global DRT business models compares case studies across 12 countries and benchmarks these to service models operating within the Baltic Sea Region. The study provides an evidence-based analysis designed to help support policymakers when they are piloting or scaling DRT services to meet the needs of different community users. Also, it helps policymakers to consider more innovative, trans-boundary service designs and concepts. The analysis aims to help share and learn from experiences among the RESPONSE partnership in Estonia, Denmark, Sweden, Lithuania and Norway.

Photo by Alain Duss





Photo by Chuttersnap

KEY BENEFITS OF DRT

- Flexibility for all user groups. DRT can adapt to the demands of specific user groups.
- The service model varies and is distinguished by its network topology (i.e., fixed route, divergence, fully flexible routing within a predefined area). Also, there are many differences in the goals of DRT services. These include special transport services for people with disabilities or public transport service in areas of low passenger demand. Different service models combine different attributes depending on the specific needs of the area served.
- Environmental benefits through the reduction of private vehicles on the road. Private vehicles are often used if there is no alternative transportation solution for linking communities with broader transport networks. DRT increases multimodal transport and often acts as the first and last mile solution in these cases.
- Cost-efficient connectivity for rural populations. Compared to the urban areas where work, leisure and services are located more densely, DRT can help rural areas to be more attractive and cost-effective, especially when compared to running full-scale public transport.
- Supporting citizens with limited mobility. In both urban and rural areas, DRT provides services to demographics that might not otherwise be able to readily access transport, such as the elderly or people with disabilities.

OVERVIEW OF DRT BUSINESS MODELS

In total, 36 DRT business models were analyzed for the study (10 urban, 14 rural and 12 half urban/half rural), to identify their most common parameters. The study discovered the following:

- The preferred vehicles for most companies are minibuses or regular buses.

Most services operate on flexible routes, less on fixed or partially fixed lines.

- Companies in urban areas need a shorter notice period (a maximum of 30 minutes) than those in rural areas. Hence, it is very common to have DRT services in towns with short booking times, even though there can be exceptions. Most rural DRT cases have long pre-booking times and customer notice periods.

- The services mainly operate either every day, only on working days or only on Saturdays.

The most popular way of ordering the services is via an app or via phone. A few

- cases also require online booking or just contacting the driver directly (via phone).

In most cases, there is a fixed ticket price. But sometimes the ride fee is based on the number of kms travelled by users. In some cases, the service is financed

- by local municipalities.

In cases where the DRT service is part of the traditional public transport system, it mostly functions as a first and last mile solution which offers a connection to the traditional public transport service.

- Different data platforms are used for collecting the data such as pick-up and drop-off points, number of passengers, and travel time real-time data.

The most important key performance indicators for DRT cases in RESPONSE partner countries are:

- customer satisfaction,
- cost (total, per trip, compared to traditional service),
- punctuality.



BARRIERS AND RECOMMENDATIONS FOR DEVELOPING DRT SERVICE IN THE BALTIC SEA REGION

Several barriers were examined throughout the study. Barriers were grouped into common themes. These included legal and/or other administrative barriers, market penetration of DRT solutions, procurement schemes, and data flows. The table below shows some of the most common barriers that with the recommendations by Padam Mobility. Padam Mobility is a company whose software as a service (SaaS) solution rely on artificial intelligence to optimize and transform DRT.

| BARRIERS | RECOMMENDATIONS |
|---|---|
| <p>Fragmented legal framework (different authorities have separate laws for traffic management)</p> | <ul style="list-style-type: none"> • Step by step actions to reach a full-scale deployment. • Starting with the public transport-oriented pilot and finding the right targets (both area and user wise: campus, elderly, children, etc.). • Extending the services after public-transport oriented pilot. Legal barriers can be lifted once at a time as the service is adjusting. |
| <p>Market penetration barriers</p> | <ul style="list-style-type: none"> • Finding the right targets (both area and user wise: campus, elderly, children, etc.) can help to test for more innovative DRT solutions, and increase general awareness. • Acting as a proof of concept could lead to a better split between public and private stakeholders. • Allowing for more involvement from the private sector in transportation matter. |
| <p>High operation costs once the service is running (difficult to maintain)</p> | <ul style="list-style-type: none"> • Increasing the ridership in order to reach profitability. • Finding the right target for the right area and launching an adequate marketing campaign. • Working with public perception. Public should perceive DRT as an efficient, environmentally friendly and convenient option to become a preferred transport option, rather merely than a necessity. |
| <p>Costly to be the software maintainer for the DRT service provider</p> | <p>In terms of improving the quality of data, public transport authorities should discuss the important key performance indicators during the early procurement process with the software provider and choose only to have the managerial role.</p> |

Read more about the RESPONSE project here:

response-project.eu

See the report here / download the report here:

<http://response-project.eu/library/mapping-study-of-drt-business-models>

