



Objectives of the measure

At measure level:

- Investigate the effect of on-demand and same day ordering on productivity and capacity of age friendly transport.
- Increase the number of vehicles reserved for same day/on-demand ordering.
- Reduce the pre-booking rate of RAT

Contributing to city level objectives of:

- Enabling freedom of movement for everyone
- Reducing traffic

Description of the measure

Situation before:

Ruter Age-Friendly Transport (RAT), which is a door-to-door public transport service reserved for people of retirement age, has evolved since its launch in 2017 and has become a valued transportation service among its users. Over time, the demand for this service has increased, stretching its capacity thin. A known consequence of Demand Responsive Transport (DRT) systems operating at maximum capacity is the increase in pre-booking, and RAT is no exception. The service is now typically booked days in advance. This affects the productivity of the system and reduces overall service quality. The most effective DRT systems are also known to be on-demand only.

RAT has recently received increased funding from the city government, and this coming fall people will be able to travel to and from 4 new city districts which were previously unserved. This will increase fleet capacity from 16 to 27 vehicles. Past experiences indicate that it takes time for the service to meet the anticipated demand when expanding to new districts. This presents us with a “window of opportunity” to experiment with new solutions and approaches such as same-day and on demand booking.

General description:

This measure aims to explore methods for enhancing and gaining experience in same-day and on-demand ordering for age-friendly transport. To be ready for the upcoming “window of opportunity” this fall, we must acquire the necessary skills and experience to operate on-demand DRT systems, whilst also taking into account the unique needs of RAT users. Key issues to investigate include (1) the impact of reserving vehicles for on-demand/same day on productivity, (2) the effect of on-demand/same day on trip aggregation, and (3) determining the number of vehicles needed for on-demand/same day to observe systemic effects, among other considerations.

Measure outputs:

This measure will deliver:

Testing on-demand/same day booking of the RAT service using our current planning system. Specifically, we want to:

- Reserve at least 2 vehicles for on-demand/same day booking in the period leading up to the expansion.
- Iterate and experiment with parameters and settings for these vehicles in our planning system.
- Gain requisite experience with on-demand/same day booking within our organization.

- Utilize the “window of opportunity” this coming fall by expanding the number of on-demand vehicles.

▪ **Supporting activities:**

N/A.

▪ **Interaction with other city measures: UPPER and non-UPPER measures**

This measure is related to the following measures in Oslo:

- **OSL_05 Adapt segmented demand responsive transport (DRT) solutions to a broader group**

Target groups and/or geographical impact areas

The following stakeholders will be required for/have an interest in the implementation of this measure:

- **Target groups:** Existing users of RAT, and team DRT in Ruter.
- **Geographic implementation area:** Current areas serviced by RAT in Oslo.

Stakeholders

The following stakeholders will be required for/have an interest in the implementation of this measure:

- **Department of Health, Ageing and Municipal Services:** Financing existing age friendly service
- **Relevant city districts:** Representing end user.
- **Ruter:** PTO for bus fleet.

U-tools support

- **U-GOV**

Link to other UPPER measures

This measure is similar to UPPER measures implemented in other cities, especially:

N/A

Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	Formulating hypotheses, organizing, preparing and informing relevant stakeholders within Ruter, creating a structured project plan and identifying how to implement this measure technically.	<ul style="list-style-type: none"> - Getting everyone on board - Successfully integrating this measure into our planning system - Finalizing a starting date
Testing	Iterating and experimenting with different parameters, such as number of vehicles, pick-up windows, same day/only on-demand etc.	<ul style="list-style-type: none"> - Identifying critical elements and parameters that need to be in place to implement a partial on-demand fleet. - Implementing selected parameters into an on-demand solution of at least 2 vehicles in the testing period.

Implementation	Selecting the most well-suited parameters for an on-demand solution based upon previous testing and iteration and implementing them on up to 11 vehicles this coming fall.	<ul style="list-style-type: none"> - Noticeable increase in productivity (Passenger trips per hour per vehicle). - Noticeable increase in same day/ on-demand ordering. (Number of trips ordered same day, Reduction in "seat unavailable" statistic. - Noticeable increase in trip aggregation. - Determining the "critical mass" of on-demand vehicles necessary for achieving systemic benefits in a DRT system with both pre-booked and on-demand rides.
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Sub-measures and preliminary indicators

Measure	Sub-measure <i>(if applicable)</i>	Impact indicators
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Data Collection

report?

- Data on number of pre-bookings and at what time + number of "seat unavailable"
 - Data on passenger trips per hour per vehicle (productivity)
 - Data on trip aggregation.
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- Does the city have planned data collection/reporting activities for any of these indicators? When?