

## Invitation to dialogue conference How can we transform public transport with automated on-demand mobility?

Date: 13<sup>th</sup> of June 2022  
Time: 8:30 – 17:00 (UTC+2 / CEST)  
Location: Ruter S, Jernbanetorget 1, 0154 Oslo, Norway  
Streaming: The conference will also be streamed via Microsoft Teams. Link will be provided after registration  
Registration: [Registration form](#). Registration deadline: 3<sup>rd</sup> of June 2022

***Ruter hereby invites players from the entire industry of shared, automated vehicles to this dialogue conference to discuss and collaborate for the future of automated vehicles in the Oslo region.***

### 1. Aim of the conference

Ruter has great ambitions for shared automated vehicles (AVs). For the Oslo region alone, studies show that a fleet of 30.000 shared AVs is able to fully substitute the ownership and use of private cars. Not only will this lead to substantial environmental impacts, but also a richer and better mobility offer for all inhabitants in the area. However, to reach this goal, we think the market and different market players lack the maturity and readiness to support this vision within short time horizon.

Ruter sees a need to facilitate the dialogue between industry players that on their individual position are part of the complete service-offering in the future of shared AV's. Local and global, horizontal as well as vertical industry players. Thus, Ruter invites all forward-looking players in the AV-space to take part of this journey.

With this dialogue conference Ruter will:

1. Create unprecedented opportunity for forward-looking players in the AV-space
2. Provide an arena for collaboration – a marketplace for co-creation, innovation, and new business. Connect technology developers, vendors and buyers to accelerate the introduction of shared AVs in Norway
3. Communicate the unique opportunities for shared AVs in Norwegian public transport, including



- Expansion potential and our willingness to pay
- Market access opportunity
- Close connection with important enabling partners
- Political proximity facilitating enabling regulatory changes
- World class digital infrastructure
- Digital inhabitants with trust in public sector
- Gateway to other European cities

Consequently, the main activities for the conference are as follows:

- Share how Ruter as a Public Transport Authority look at the AV space
- Share Ruter's strategy and ambitions for shared, automated mobility, as well as insights and challenges from four pilot projects with automated vehicles in the Oslo region
- Gather and share insights and input from players in the market
- Facilitate collaboration between players in the market and enable new consortiums across the value chain (both with and without Ruter)
- Share insights from potential investors' points of views

Thus, Ruter invites players from the entire value chain of shared, automated vehicles to this dialogue conference. This includes, but is not limited to, self-driving technology developers, original equipment manufacturers (OEMs), vehicle importers, mobility companies, investment companies and venture capitalists, insurance companies, demand responsive transport players and fleet management as well as other advisors to the industry.

## 2. Ruter's ambitions and plans for automated mobility

Ruter has ambitions to replace all private cars in the Oslo area with shared AVs. We believe that a fleet of demand-responsive AVs has the potential to give customers better and more attractive services, leading them to abandon their private cars. According to the Oslo study<sup>1</sup>, approximately 30.000 shared, demand-responsive AVs are required to reach this goal in the Oslo region alone.

After four pilot projects we are beyond driving with safety driver. The roadmap forward consists of SAE level 4/5 vehicles, operating in speeds up to 90-110 km/h in mixed traffic. This is the only way to provide real customer value and a viable alternative to the private car. Additionally, vehicles must be tailored for public transport and ridesharing. The entire operational value chain must be fully automated, in order to deliver sustainable services both socially, economically and environmentally.

Ruter focuses on customer experience – we intend to inspire to extreme adoption of our AV services among the public. Thus, the entire *automated* customer journey, from morning coffee to good night story needs substantial attention. Customers should be able to have a vehicle outside their doorstep

---

<sup>1</sup> <https://ruter.no/globalassets/dokumenter/ruterrapporter/2019/the-oslo-study.pdf>



within two minutes from ordering, a service that is individualized to everyone's respective needs – and at the same time we must inspire customers to share the ride with others, for the environment.

We will create everyday magic by providing a fleet of different vehicles, tailored to different customer needs – from fast commuting shuttles to universally designed vehicles with professional care takers.

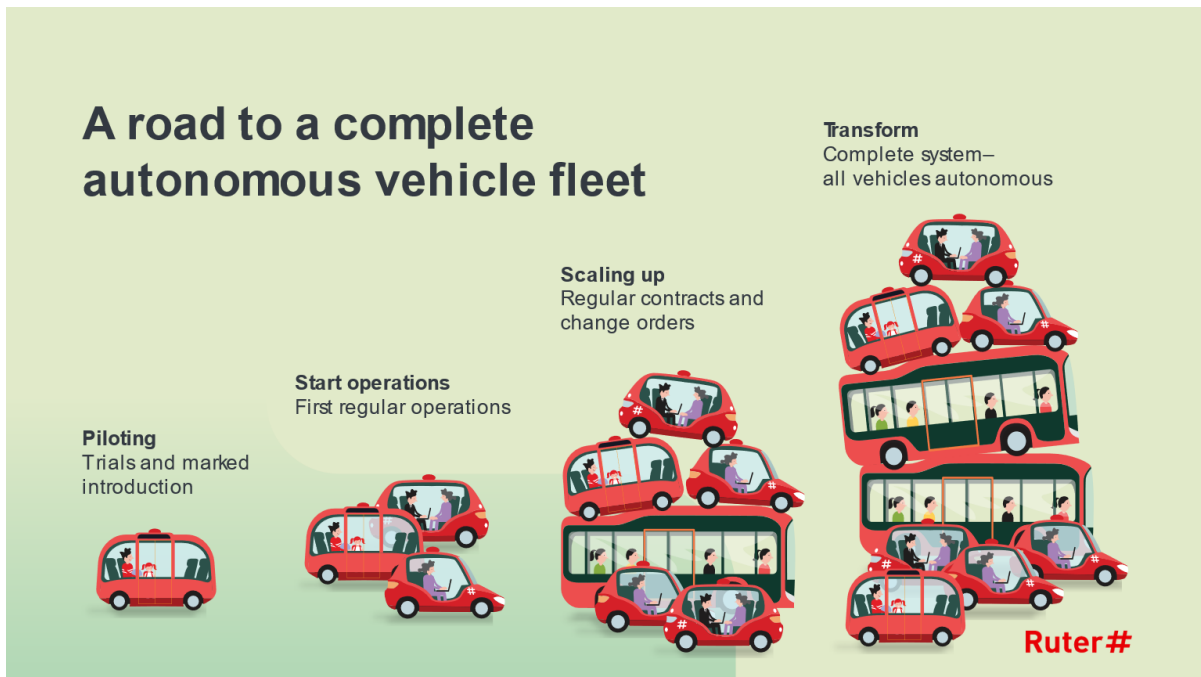


Figure 1: Ruter's plans for automated vehicles

To reach a complete automated vehicle fleet, Ruter has defined a stepwise approach, as shown in Figure 1. The first phase consisted of piloting and trials of new solutions to derive valuable insights and learning outcomes. This is what Ruter has done in the Oslo area so far. Now, we are moving into the next phase, where we will introduce AVs as an ordinary service to significantly more customers in a greater area. At the same time, we are preparing for upscaling. This will lead to market opportunities including R&D partnerships, change orders on existing contracts, new regular contracts and other business ventures.

Ruter aim to scale these services as soon as possible, but we see that the market still lacks maturity. Thus, we need market players that, individually or in new consortiums, can join us on this journey and reach our ambitions together.



### 3. Conference structure and tentative agenda

The conference will be carried out according to the agenda below. To get market insight and stimulate discussions and sharing of ideas, Ruter expects participating organizations to prepare an 8-10-minute presentation, giving their views on the questions outlined in chapter 4 of this document. The presentation must be submitted along with detailed contact information to [selvkjorende@ruter.no](mailto:selvkjorende@ruter.no) at least three workdays in advance of the conference. Further information and detailed agenda will be made available to registered attendees at a later point.

Time (UTC+2 / CEST)	Topic
8:30	Registration
9:00	Welcome and introduction
	Ruter presentation: strategy, ambitions and experience
	Participant presentations (10 min each)
	Open dialogue and Q&A
17:00	Closing of conference

Table 1: Agenda for the dialogue conference

To create a marketplace and enable collaboration, co-creation and innovation among participating players, Ruter will provide available meeting rooms during the day. These will be located in the same building, at Ruter S. Participants may use these rooms for collaboration meetings with each other, as desired.

Following the conference, all information put forward at the conference will be made available on Ruter's website, including minutes from the meeting as well as all presentations. This is to ensure that the same information is available to all, including those industry players unable to attend. The conference will be conducted in English. This applies to all participant presentations as well.

### 4. Focus areas – basis for presentations

All participants are expected to contribute with a brief presentation presenting their input. The presentation should be based on one or more of the questions below, where emphasis is chosen by the participant based on own capabilities.

- What deliverables and explicit value creation is the participant capable of providing, in the value chain of shared, automated vehicles? The value chain includes, but is not limited to:
  - Automated Driving technologies capable of SAE level 4/5
  - Vehicle platforms prepared for SAE level 4/5, (all categories of personal or multi-purpose transport vehicles optimized for shared mobility)
  - Fleet management systems tailored for automated vehicles



- Operations of automated vehicles
- Investment companies and venture capitalists
- Fleet financing and insurance
- Which specific products or services in the above-mentioned value chain does the participant provide today, and which are the participant preparing in near future?
- How may the participant contribute, in tangible ways, to scaling of shared, automated vehicles in Norway and the Nordics?

## 5. Registration

As meeting room capacity is limited, attendance will be restricted to registered participants. For registration, please fill in the [registration form](#) no later than 3<sup>rd</sup> of June 2022. We ask you to provide names and contact information for participating representatives. There will be a limit of two attendees from each organization.

## 6. Expected process following the conference

The dialogue conference is part of Ruter's continuous and structured processes for gaining market knowledge and insight on how to cover future needs.

Shortly after the conference, participants will be given the chance to have a digital one-to-one meeting with Ruter for further discussions. Then, Ruter will have some time to consider the information and ideas before a further process to land partnerships and/or R&D agreements.

Ultimately, Ruter aims for the conference to lead to a form of collaboration, either through R&D partnerships, change orders on existing contracts, new regular contracts, or other business ventures.

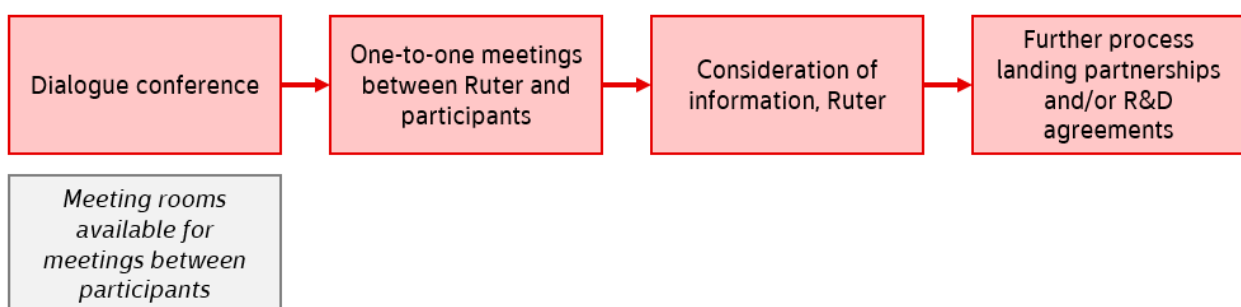


Figure 2: Expected process following the dialogue conference



## 7. Background about Ruter and previous work on automated public transport

Ruter coordinates public transport in the Norwegian capital of Oslo and the surrounding regions, covering 23 % of the Norwegian population with more than 50 % market share of public transport nationally. Ruter has strong reputation among the public, with 75 % satisfaction among the general population and 97 % customer satisfaction on board. These facts place Ruter in an extraordinary position for introducing shared, automated vehicles in the society.

Since 2019, Ruter has experimented with automated vehicles, so far successfully conducting four pilot projects with a fleet of nine vehicles. Through transporting more than 30.000 paid passenger trips and driving 50.000 kilometers, these pilot projects have provided valuable insights on a number of topics:

- Fully digital user journey for automated public transport
- Passengers'/soft road users' behavior and interactions in real traffic conditions
- Obstacles that currently stand in the way of large-scale deployment of shared, automated vehicles in public transport
- Operation in adverse weather conditions, including Nordic winter climate

Ruter's pilot projects have been in close collaboration with different research institutes, road authorities, public authorities, and other important stakeholders, providing a learning arena for key players for the enabling of shared, automated vehicles in Oslo and Norway.