



Aurora – the Arctic Intelligent Transport Test Ecosystem

Alina Koskela
Project manager
Finnish Transport Agency

Where's the lane? Self-driving cars confused by shabby U.S. roadways

THE ROAD AHEAD

You are here: [Home](#) » [Blogs](#) » [Technology New-Model Development](#) »



Richard Truett

Technology and Engineering Reporter



Email



Subscribe to RSS

The other bump on path to driverless cars: Crumbling roads

August 30, 2016 @ 11:30 am

0
Shares

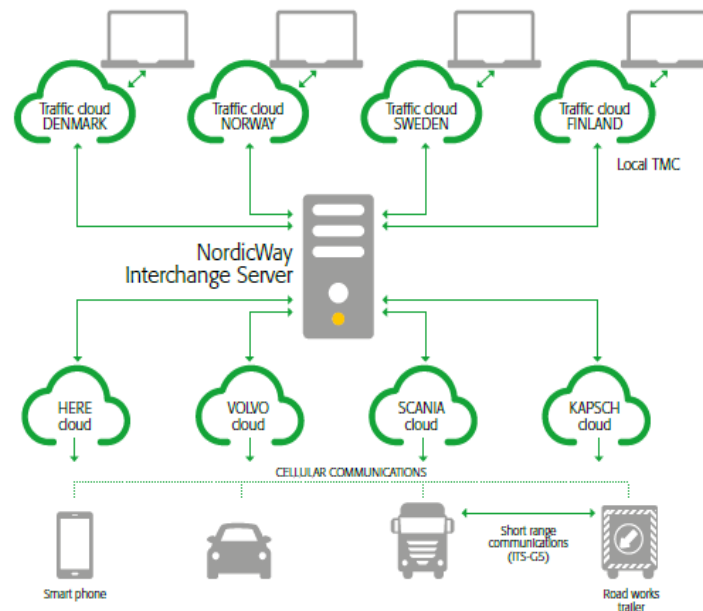


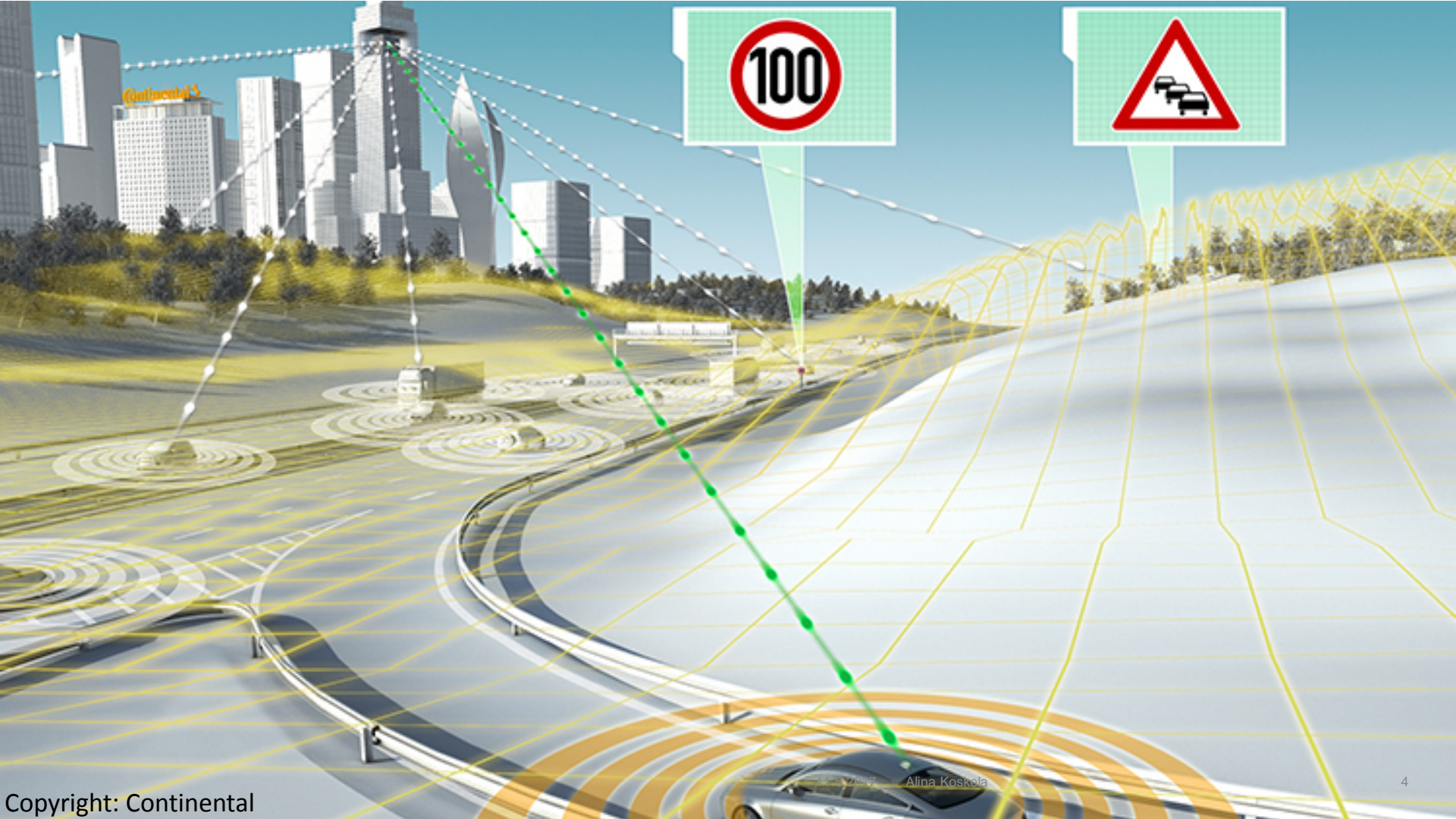


Infrastructure aspects - the road 2.0

- Maintenance backlog of roads over 1 billion euros in Finland
- Need to know what SAE level 3/4 requires from physical & digital infrastructure
 - New technologies – IoT, 5G...
- Impacts on planning, building, maintenance and operation
- Feasible solutions via testing
- Learning by doing

NORDICWAY ARCHITECTURE – ALL ABOUT CLOUDS









Follow

Making snow angels in Tahoe! We're testing our self-driving Pacificas in cold weather & collecting snow data to train our software

10:07 PM - 27 Mar 2017

52 126

How will self-driving cars handle the snow?

Posted on December 19, 2016 in [TRANSPORT](#)

Over 70 percent of the nation's roads are located in snowy regions that receive more than five inches of average snowfall each year. According to the Federal Highway Administration, over 70% of the United States population also live in those areas.

3D MAPS ENSURE FORD'S AUTONOMOUS CARS WON'T GET SNOW BLIND

By Stephen Edelstein — Updated January 10, 2016 8:13 pm

5 + Subscribe Share





Information services

5G test network, precise positioning with reference stations and HD map services available.



Connected vehicles

Advance traffic safety and automated driving by collecting and forwarding information of road, traffic and weather conditions as well as disturbances and disruptions on the road.



Automated driving

In snowy and icy extreme weather conditions.



Intelligent Road

Digital and physical infrastructure support testing of automated driving, ITS and intelligent infrastructure asset management solutions.



1

Aurora facilitates testing of automated driving, ITS and intelligent infrastructure asset management solutions.

2

Automated vehicle trials are allowed in road traffic in Finland.

3

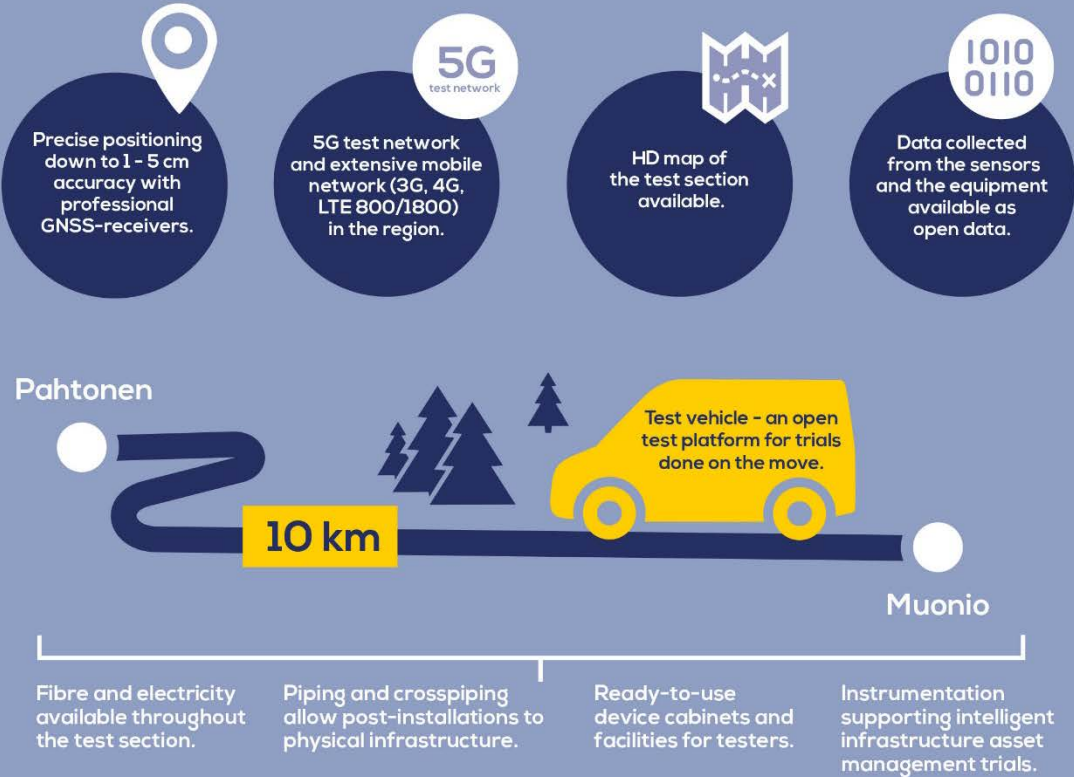
Test ecosystem enables testing on public roads and on closed tracks.

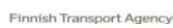


Public test section supports connected and automated driving trials in road traffic.



Testers can utilize a 10 km long test section on the main road E8. The physical infrastructure of the test section is equipped to support test activities and extensive information services are available for test use. In addition, a test vehicle can be used for trials done on the move.





THE R&D



THE ARCTIC CHALLENGE 2017-2019

- Call for intelligent infrastructure and road vehicle automation solutions and their performance and impacts in Arctic conditions
- Bases on [Road transport automation Road map and action plan 2016 – 2020](#)
- Examples of research areas:
 - Physical infrastructure (landmarks)
 - Communications
 - Location data and positioning
- Technical performance of the solutions needs to be verified with field trials using automated vehicles in the AuroraBorealis corridor (E8)
- R&D activities expected to start in autumn 2017



THE INFRA CHALLENGE 2017 - 2018

- Which roads and how should be instrumented to support CAD?
- How connected and automated driving will affect the wearing of the road?
- How new technologies can be utilised to automate maintenance and data collection processes?



Do you
SNOWHOW?
CONNECT WITH AURORA.



[Video](#)

aurora

snowbox.fi



Thank you!

Alina Koskela
Project manager
Finnish Transport Agency
Firstname.lastname@fta.fi

