

The logo for Aurora, featuring the word "aurora" in a white, lowercase, rounded sans-serif font. The letters are thick and have a friendly, approachable feel. The background is a solid dark blue with a subtle pattern of lighter blue circles on the right side.

aurora

**THE ARCTIC INTELLIGENT
TRANSPORT TEST ECOSYSTEM**

Reija Viinanen, Fell Lapland Business Services

From Autonomous Driving to SNOWTONOMOUS DRIVING

Forbes / Autos

Top 20 Stocks for 2016

JAN 22, 2016 @ 12:25 PM 4,353 VIEWS

Would You Trust A Self-Driving Car In A Snowstorm?



Jim Gorzelany
CONTRIBUTOR

I write about how to maximize your automotive investment and more.

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Think about the above question this weekend, whether you're inching your way through snow-packed traffic or are merely watching the big blizzard unfold via television news reports while sitting toasty and warm at home.



How will self-driving cars fare in a blizzard? If they're smart they'll just stay in the garage and wait for the plows to come.

The first wave of self-driving cars will essentially employ an array of cameras and sensors as electronic eyes in what's expected to be an advanced cruise control system for primarily highway driving to keep a car centered within lane markers, maintain a set speed and distance from traffic ahead, anticipate and slow the car down for curves in the road, and so forth. Eventually, autos should be able to operate as if they had invisible chauffeurs behind the wheel, picking us up at the front door, dropping us off at work, and then parking itself, perhaps at a remote off-site parking lot to save a few bucks.

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A woman with blonde hair is shown in profile, looking towards the right. She is positioned in the lower-left quadrant of the frame. The background is a dark blue field with a pattern of light blue circles. To the right, there is a vertical strip of light blue background containing text. In the background, there are blurred, colorful lights (yellow, red, green) that look like city lights or traffic lights.

WHY AURORA?

Future trends and innovations must be verified in the Arctic environment

Robotisation and evolution of mobile technologies, like 5G, will impact heavily to transportation

Maps and location technologies are foundation for co-operative ITS

C-ITS enables new innovations like MaaS and autonomous driving

AURORA'S VISION

A unique intelligent infrastructure
for the automated transport

Economically viable facilities for
companies and authorities to
validate, market and assess impacts
and performance of autonomous
vehicle functions



AURORA SNOWBOX



Real winter conditions



Public Private Partnership

Finnish permissive legislation

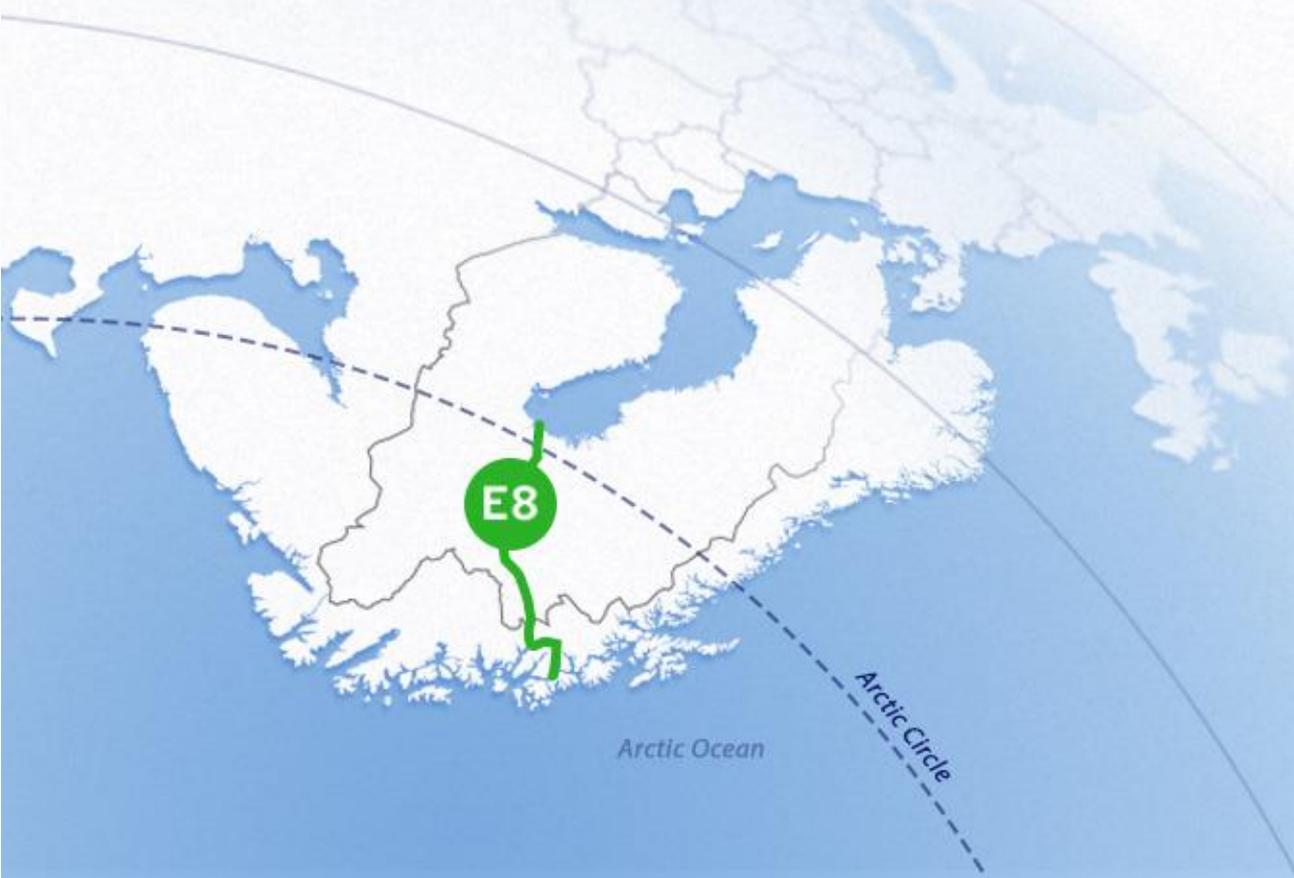


Professional network

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ARCTIC SNOWHOW FROM THE NORTH

“Rethink potentials of Europe”



AURORA



1. Arctic testing for intelligent transport automation

Technology test sites in real winter conditions with broad selection of services

3. Infrastructure asset management

Data collection and refined traffic management and maintenance processes in the era of automation

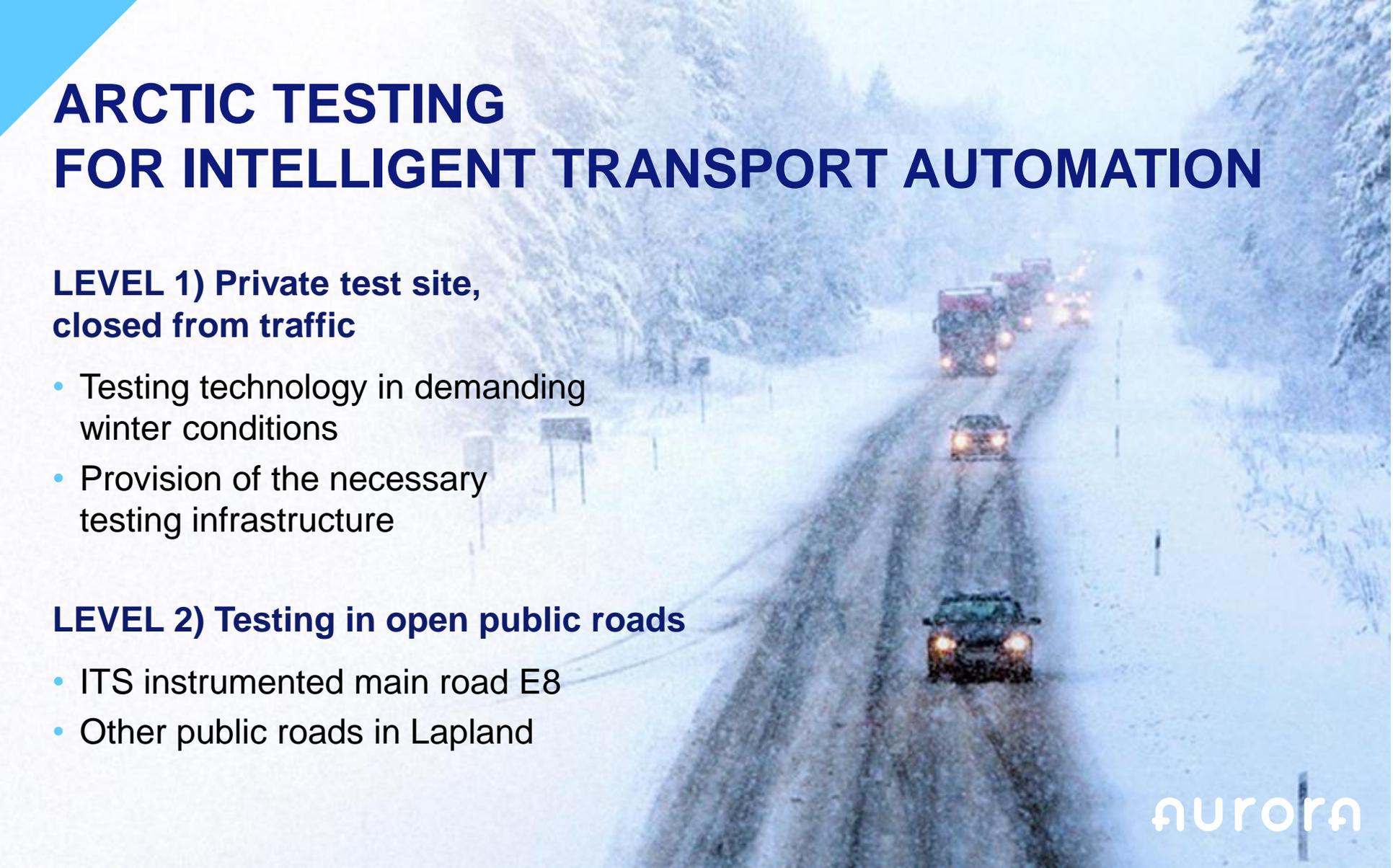
2. Digital transport infrastructure and connected cars

Accurate mapping of road infrastructure and signage enabling connected driving and analytics for traffic management

4. Mobility as a Service

Flexible and affordable mobility services for tourists and locals without car dependency

ARCTIC TESTING FOR INTELLIGENT TRANSPORT AUTOMATION



LEVEL 1) Private test site, closed from traffic

- Testing technology in demanding winter conditions
- Provision of the necessary testing infrastructure

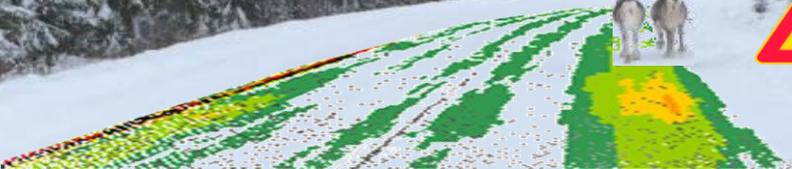
LEVEL 2) Testing in open public roads

- ITS instrumented main road E8
- Other public roads in Lapland

DIGITAL TRANSPORT INFRASTRUCTURE AND CONNECTED CARS

- Connecting road users and traffic management via standard telecom network
- Transport related message delivery for connected cars, service providers and authorities
- Safety related information services, for example
 - Reindeer warning system
 - Remote stopping of malfunctioning autonomous vehicle





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INFRASTRUCTURE ASSET MANAGEMENT

- Collection of accurate data from road performance, structure and weather with different sensors
- Utilising the database in real-time follow-up and steering of road maintenance and repair operations
- Tackling the potential risks caused by autonomous driving





NOVOTEL

BORDEAUX

PALAIS DES CONGRÈS
BORDEAUX

EZIO

M 653 GT

MOBILITY AS A SERVICE IN YLLÄS

YlläsMaaS targets

- Taylor-made and cost-effective mobility services
- Proving the business point of view how high season tourist peaks enable the transportation services year around for locals
- Rural MaaS test environment with dozens of nationalities for transport services including sharing economy and autonomous vehicles
- Option to connect mobility services between Ylläs and some other MaaS case



- 200 km above Arctic Circle
- 850 inhabitants
- 23.000 tourist beds
- Peak season: Dec-Apr



AUTONOMOUS DRIVING IN ALL CONDITIONS

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snowbox.fi

Reija Viinanen

Managing Director

Fell Lapland Business Services

