

We enable automated driving in harsh conditions.

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ROAD ANALYZER



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# VTT expertise in automated driving in harsh conditions



## Expertise in connected automated driving

- 25 years of perception, automated driving, communication and mission control
- Specialists in the challenges of harsh weather conditions



## Assessment and validation methods

- Expertise in and methods of analysis for the challenges presented by safe automated driving in a variety of scenarios and driving tasks
- Includes technical feasibility, traffic safety, human factors and acceptability

# VTT facilities – e.g. for rapid prototyping

## In-house software

Software pool for sensor fusion algorithms, connectivity, and automated driving.

The modules are tested in various field demonstrators.

The pool is neither OEM-dependent, nor based on public domain middleware like ROS.

## Robot vehicles

VTT has

- 3 cars
- 1 bus
- 1 trailer, and
- 1 tracked off-road vehicle

equipped with the latest sensors and ITS G5/LTE/5G connectivity.

The vehicles have no OEM linkages.

# VTT robot vehicles



## 'Marilyn'

First car in Finland authorised for automated driving in real traffic.



## 'Martti'

Same VTT architecture, and similar sensors as in Marilyn. Good for rural roads.



## 'eLvira'

Same VTT architecture, 360° perception and remote operation functionality.



## 'eLLi'

Same VTT architecture and camera-based driver monitoring system.



## 'Pate'

Same VTT architecture and remote operation interface.



## 'Marsu'

Roadside unit  
Used to establish new infrastructure functionalities.

# bey<sup>0</sup>nd

## the obvious

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