

# Road Traffic Control Centre

## Tallinn Transport Department

Raimond Nõugast



**Tallinn**



# Road Traffic Control Centre



# Tallinn 159.2 km<sup>2</sup>, population 437 811, density 2800/km<sup>2</sup>

- Traffic light management - **293** controllers and **403** intersections, **66** VSL  
175 controllers in OMNIA, 128 controllers in OmniVue (19.01.23)

All of the controllers can be managed from the central management system from the beginning of 2020 (In 2014 there were 60 controllers integrated to the central management) 2018-2019 from observer to informant!

- **49** intersections with public transport prioritisation
- Vehicle counting system (46 intersections, **440** detectors) (01.02.23)

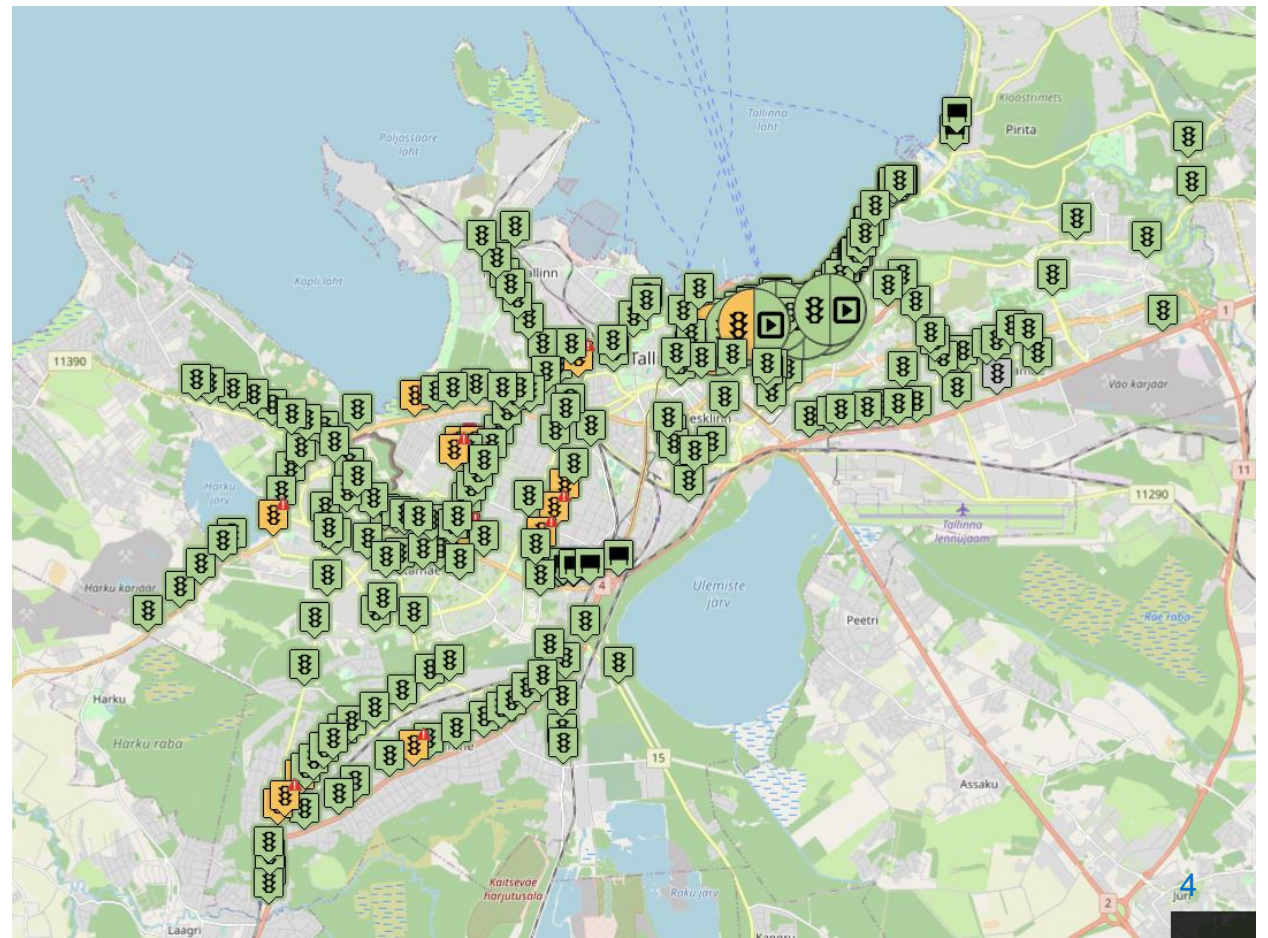
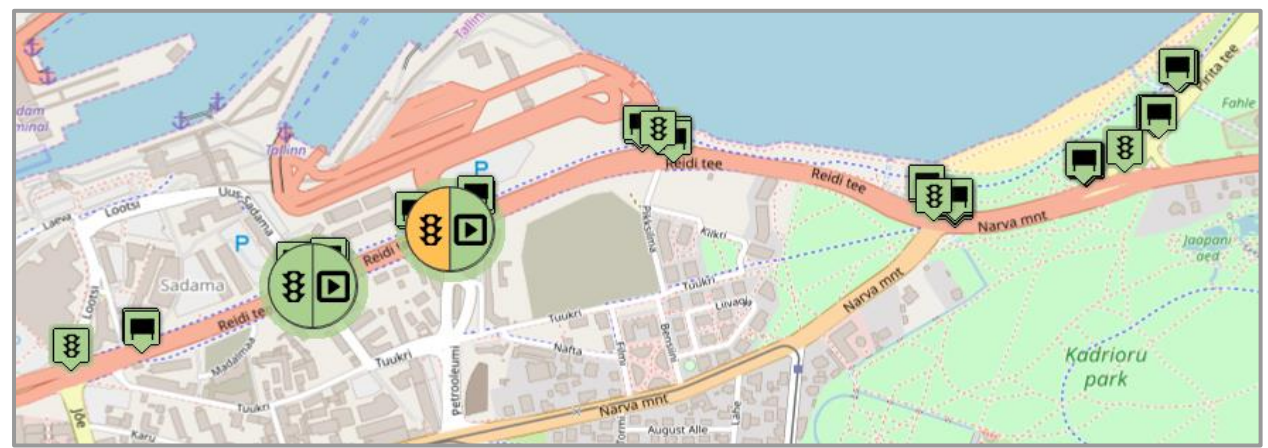
<http://seire.tallinn.ee/>

- Management of traffic cameras (**208** cameras) (01.02.23) <http://ristmikud.tallinn.ee/>
- Development of VIP traffic service (2017)
- Development of traffic weather station (2017-2018)
- Development of overspeeding and red light driving violation system (2023)



# OMNIA

- Central management for ITS infrastructure (traffic lights system, VMS/VSL, detectors)
- Supports adaptive traffic light control (needs SPOT unit at the adaptively controlled intersection)
- Allows to replay phases of signal lights



# VSL (Variable Speed Limit) 66 pcs.

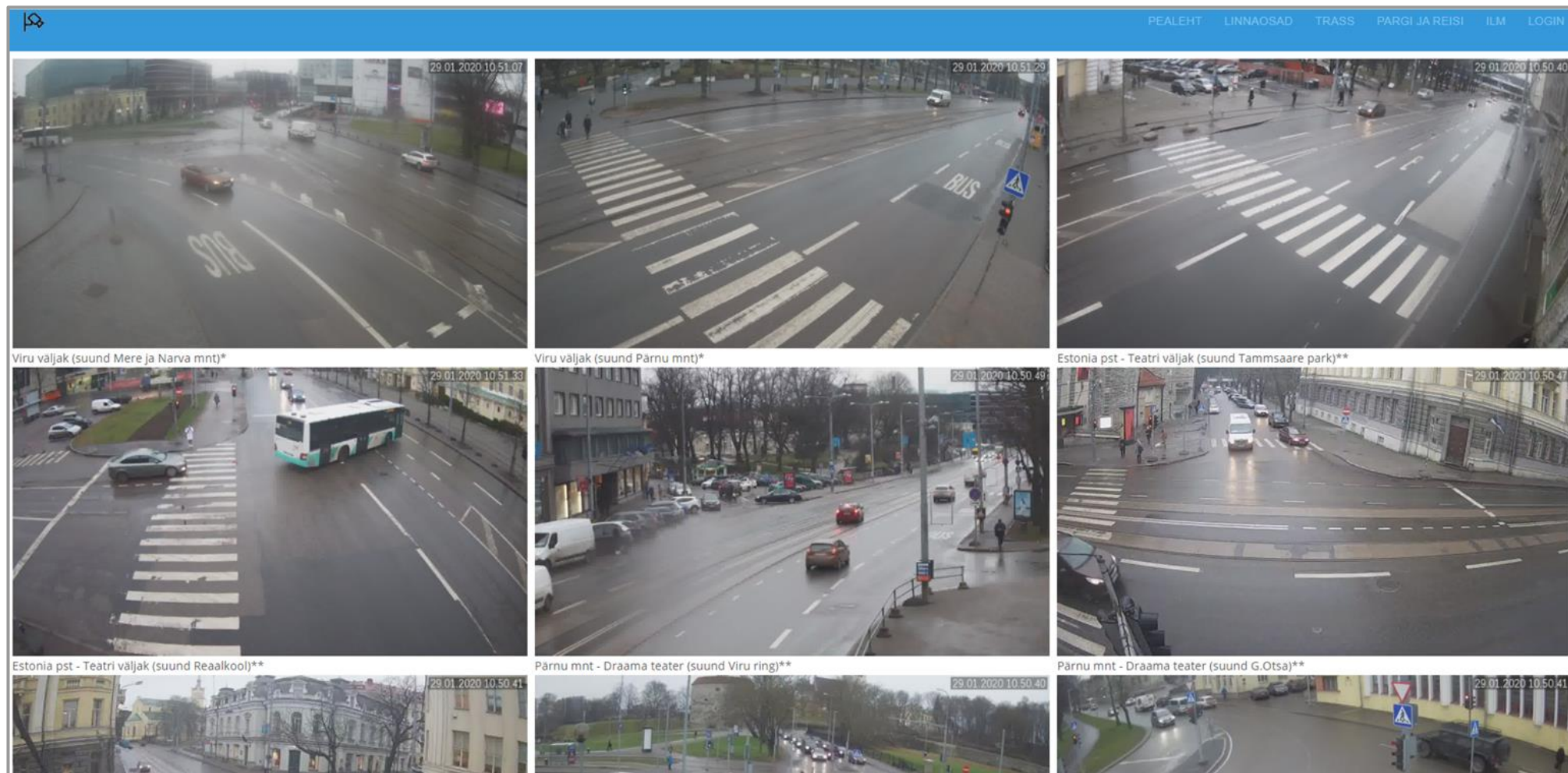
- All of the VSLs in OMNIA in the end of 2020
- Different programmed scenarios or changing based on need (temporary traffic management because of events, congestions, accidents *etc.*)



Foto: [Erik Tikan, Postimees](#)



# Traffic cameras ([ristmikud.tallinn.ee](http://ristmikud.tallinn.ee))



# AID based VMS management (FLUX tunnel) (2013)

The screenshot displays the FLUX VMS management interface. At the top, the 'FLUX' logo is visible on the left, and navigation buttons for 'REAL-TIME', 'REPORTING', and 'DASHBOARDS' are on the right. The main area is titled 'Real-time Event Messages' and features a search bar with 'Tunnel Ülemiste' entered. On the left, a 'Logical view' sidebar lists event sources, with 'K10' selected. The central panel shows a grid of detector locations (K09-K12) with a video window for 'K10' displaying a tunnel camera feed. A table at the bottom lists event sources and timestamps.

Time stamp	Event source

16 online - total: 16  
Traffic events All types  
Technical events All types  
Extra All events  
0 Events (0 open, 0 closed)

# Variable Message Boards (55 pcs, 2020)





One example how ITS can help us

# Swarco Smart Intersection

Adaptive traffic control (pilot project) on Kopli-Sitsi-Tööstuse-Paljassaare intersection with tram prioritisation





# Tools

- Different detectors (video detectors, thermal detectors, buttons etc)
- Smart Intersection software

# Why ?

- Public transport prioritisation
- Not “wasting” green time
- Study

# Results

- total waiting time for cars smaller
- better distribution between different direction
- pedestrian must push the button (only negative impact)

	TRAM TRAVEL TIME BETWEEN 2 STOPS (avr.)	
<b>Maleva &gt; Sitsi</b>		
Before		2:13
After		1:49
<b>Difference</b>		<b>00:24</b>
<b>Sitsi &gt; Maleva</b>		
Before		2:04
After		1:51
<b>Difference</b>		<b>00:12</b>



# Thank you!



**Raimond Nõugast**

Tallinn Transport Department  
Traffic Control Department  
Chief Specialist of Traffic Devices

[Raimond.Nougast@tallinnlv.ee](mailto:Raimond.Nougast@tallinnlv.ee)