



MAA-AMET 30

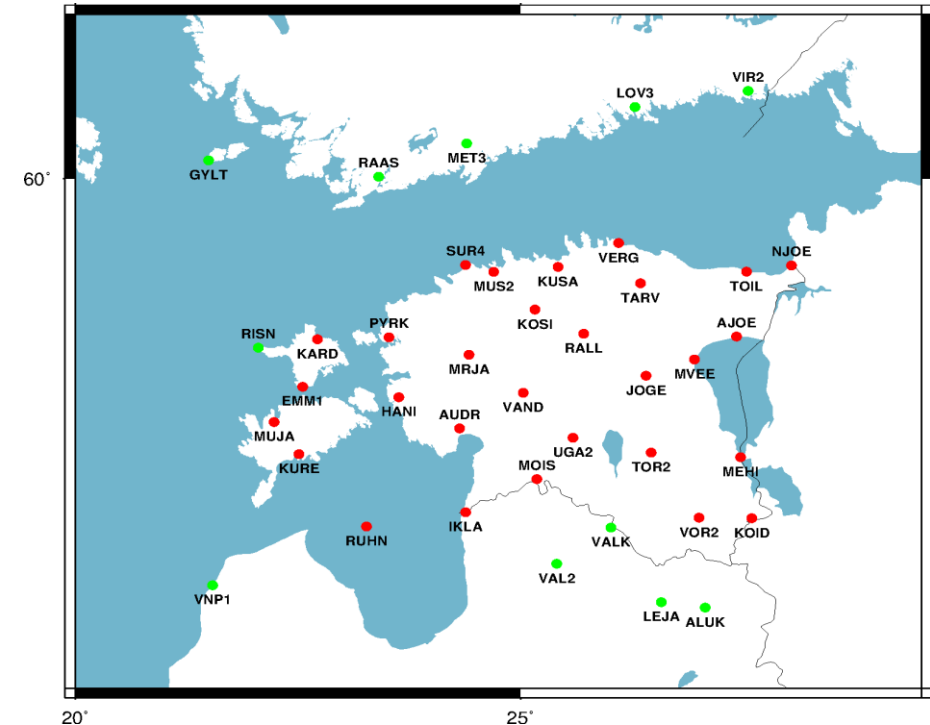
National Report ESTONIA

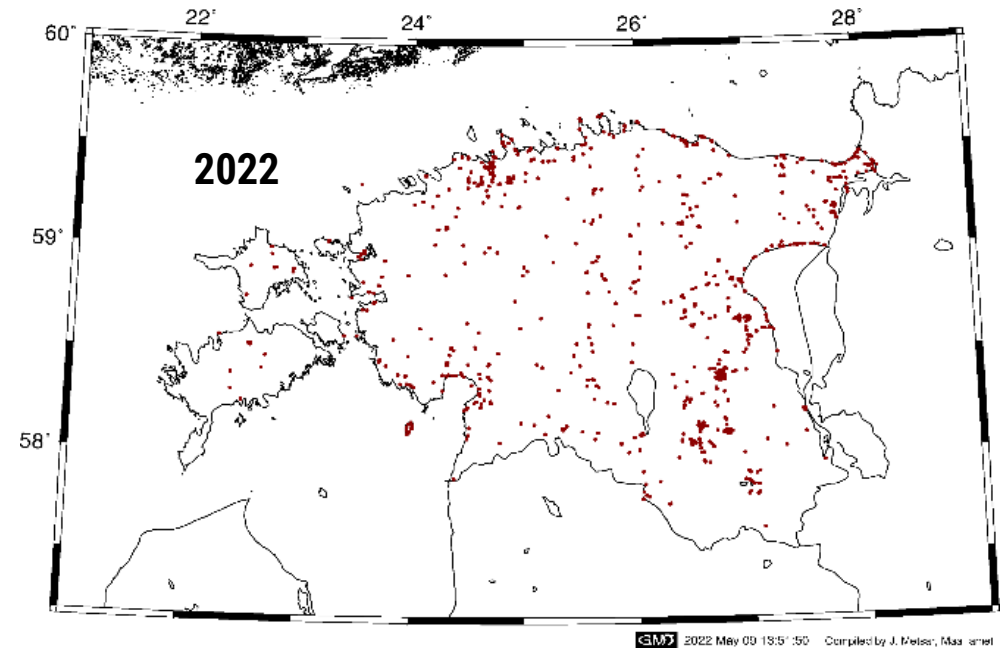
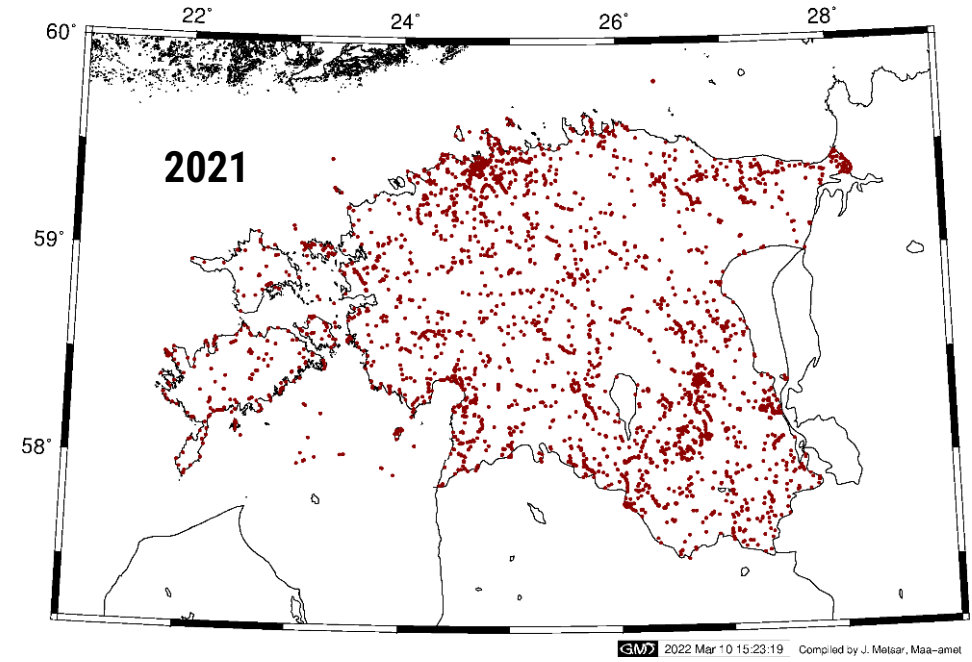
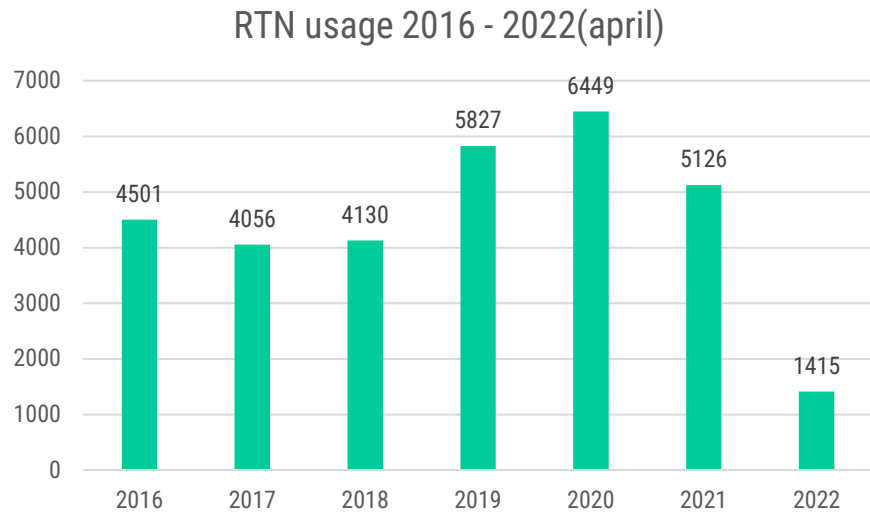
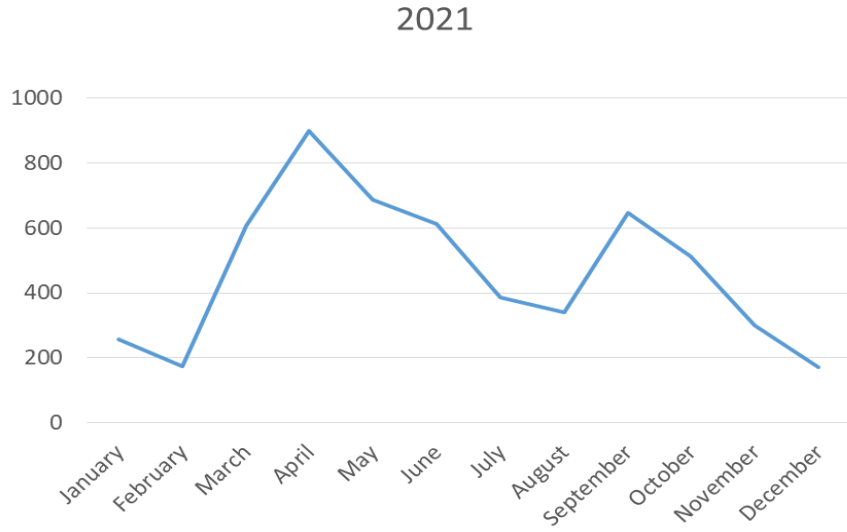
Karin Kollo, Jaanus Metsar, Andres Rüdja
Department of Geodesy, Estonian Land Board

NKG WGRF meetings 19-20 May 2022



- 29 ELB operated stations
- 1 station from Maritime Administration
- 10 stations from neighboring countries
- GPS+GLONASS+GALILEO,
- 14 meteosensors
- 2 receivers updated/replaced



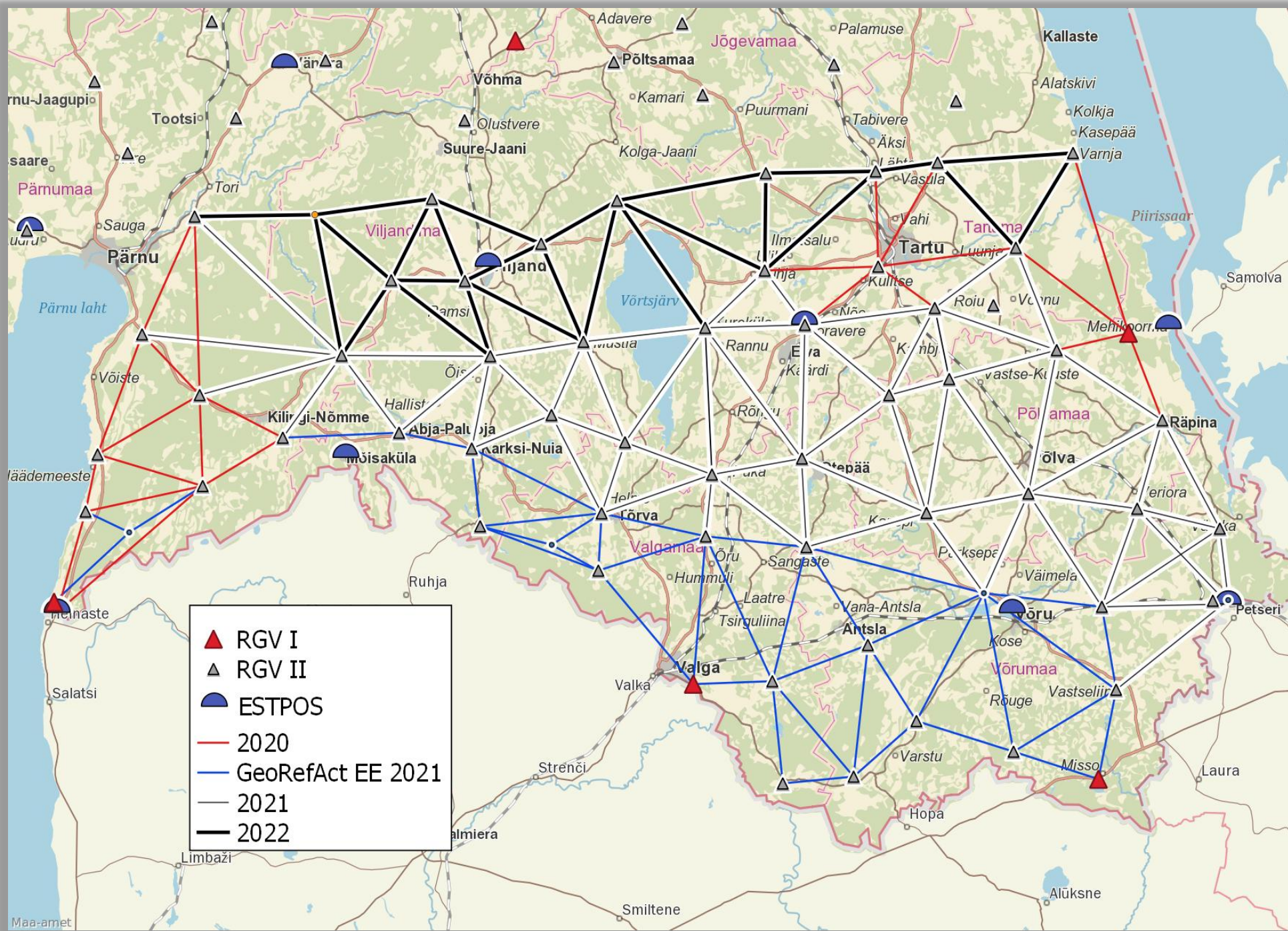











Assessment of national geodetic network

- II Order Net, test area
 - Summer/fall 2020
 - GeoRefAct 2021 EE
 - Summer/fall 2021
 - Spring 2022
 - Static GNSS, 6h sessions
 - some outsourced levellings in this area for GNSS levelling

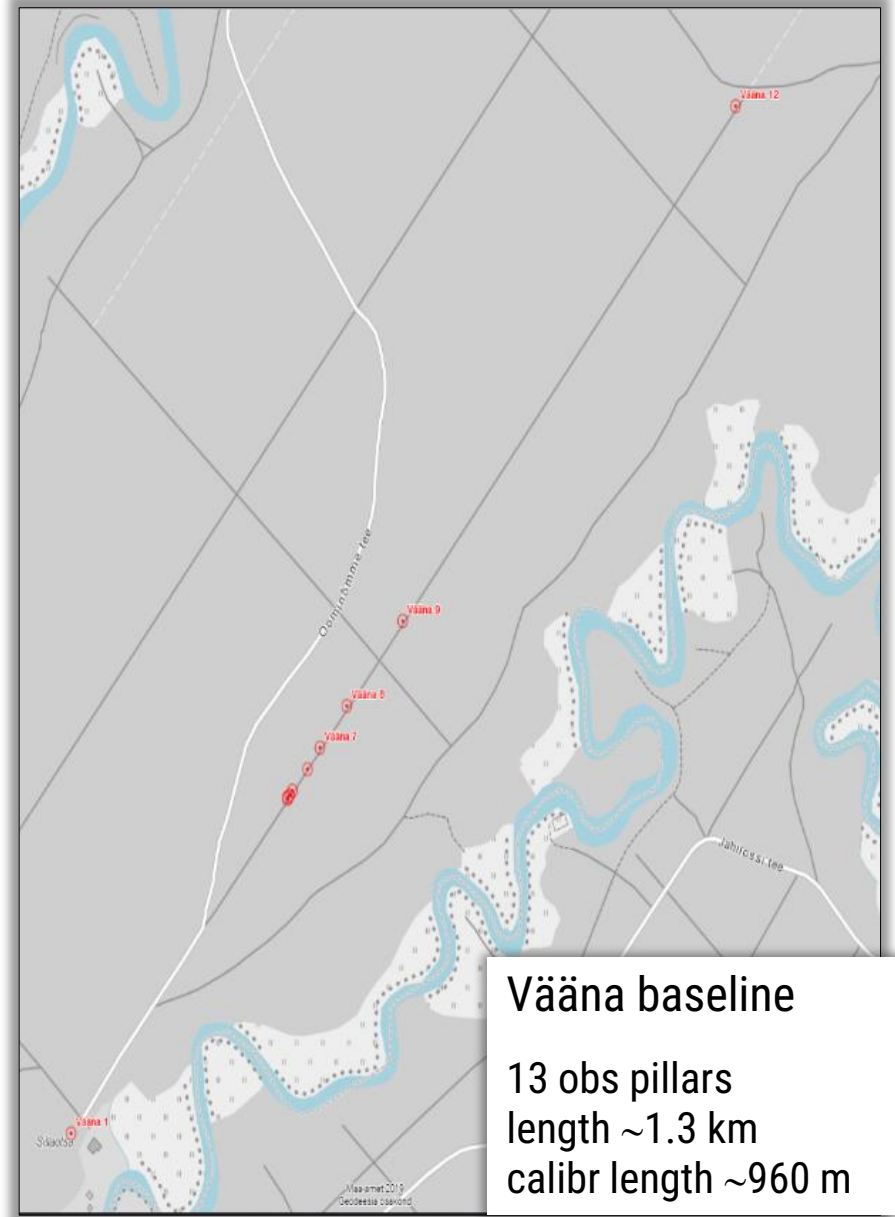




-  RGV I
-  RGV II
-  ESTPOS
-  2020
-  GeoRefAct EE 2021
-  2021
-  2022



Metrology of geodetic instruments





Metrology of geodetic instruments

- Update the communication network for meteosensors
- Software updated
- The status of legal metrology is in preparation
- Calibration of LGIA's total stations in November 2021
- Calibration of ELB's total station in June 2022 (Vääna/Nummela)





Estonian-Latvian cooperation

- Interreg V-A Estonian-Latvian programme
- Project „Harmonization of Estonian and Latvian geodetic systems in border areas“ (GeoRefAct)
- Project period 2021-2022
- Estonian Land Board and Latvian Geospatial Information Agency
- Activities:

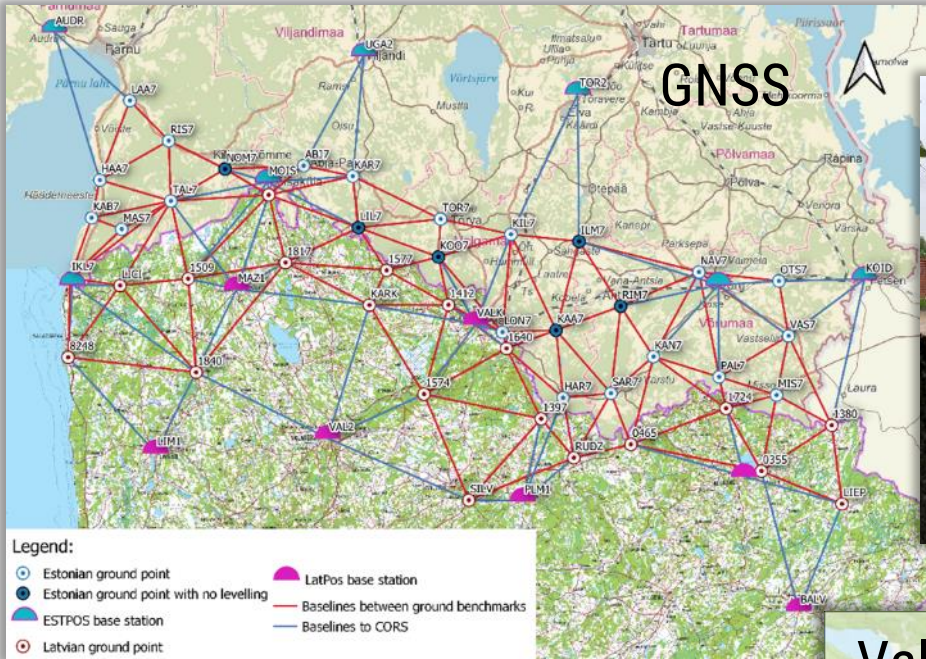
Measurements and computations of national GNSS and levelling networks in border area, local network of twin-city Valga/Valka and gravity survey in Northern Latvia

Results: coordinate and height transformation models incl web-based services

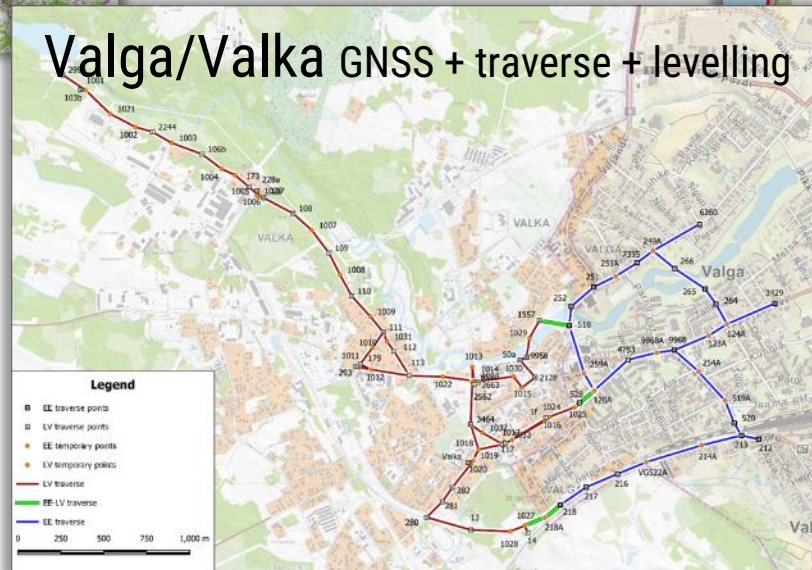
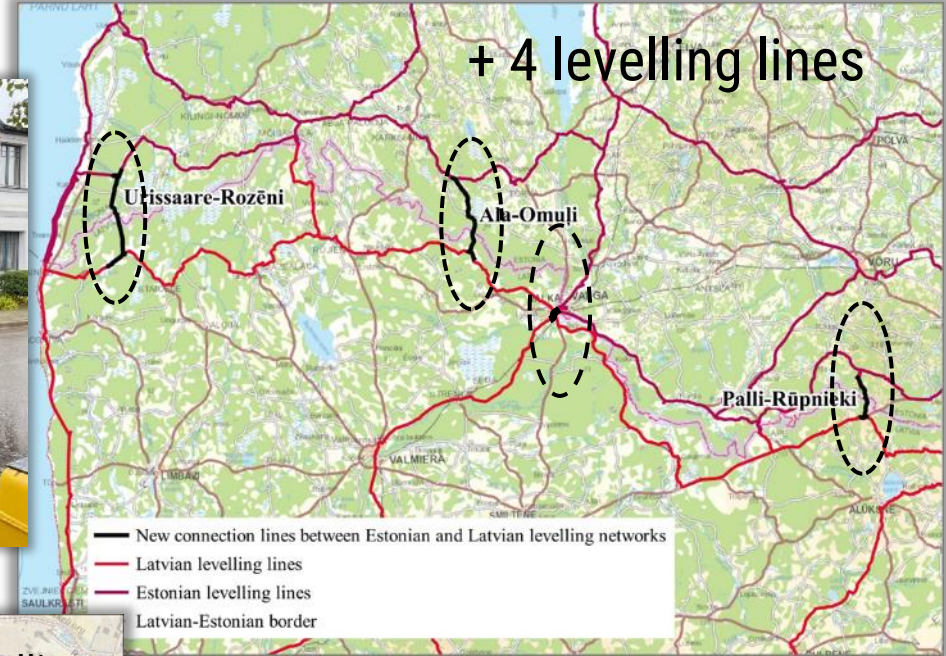


MAA-AMET 30

GeoRefAct 2021



Directors-General in Valga/Valka





Revision of geodetic point database

35 000 geodetic points in the geodetic points database

45% from national networks, 55% from local networks

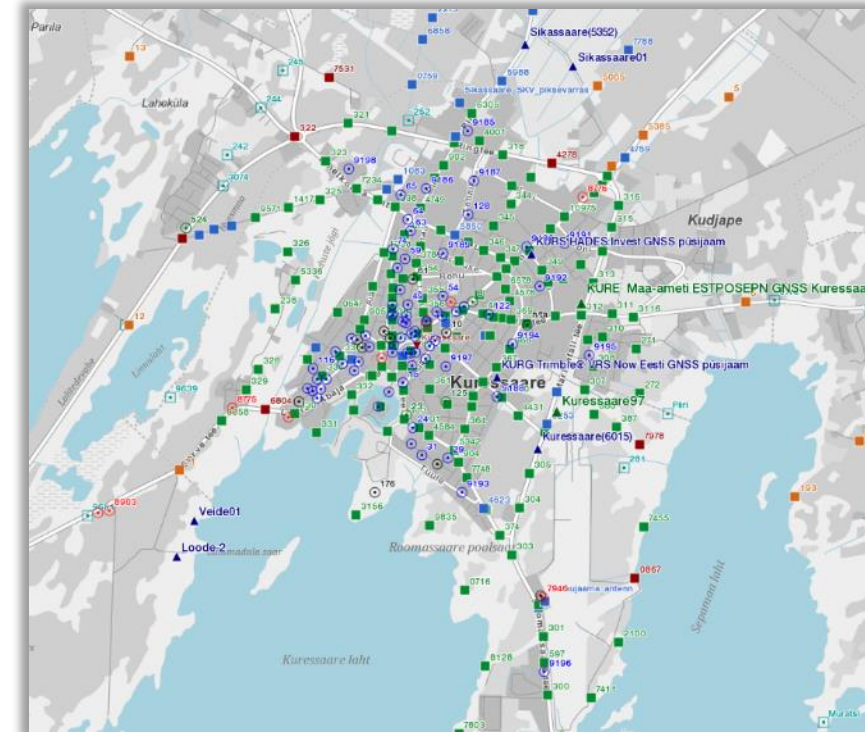
de jure, local authorities are obliged to take decisions on local geodetic infrastructure

In 2021 -> local authorities shall start to take actions *de facto* as well

Legislative changes are planned

Discussion about the rearrangement of geodetic points database

New web interface for geodetic point database





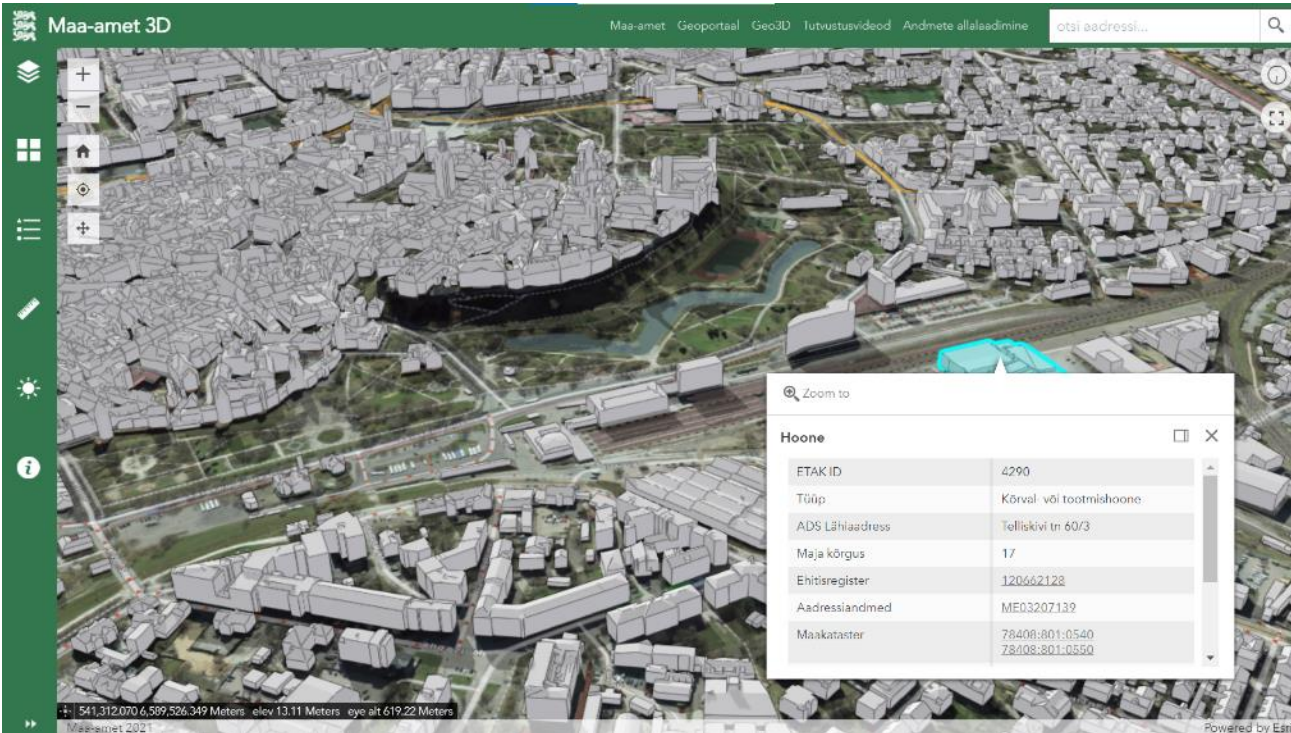
Moving Toward the Digital Twin

- 3D Estonia, country-level coverage
- Fully automated processing

31 March 2021 <https://3d.maaamet.ee/kaart/>



Department of Geoinformatics



Vision: Reality and augmented reality application: 3D buildings, building information, route information

Kirke Narusk ja Andres Kasekamp



MAA-AMET 30

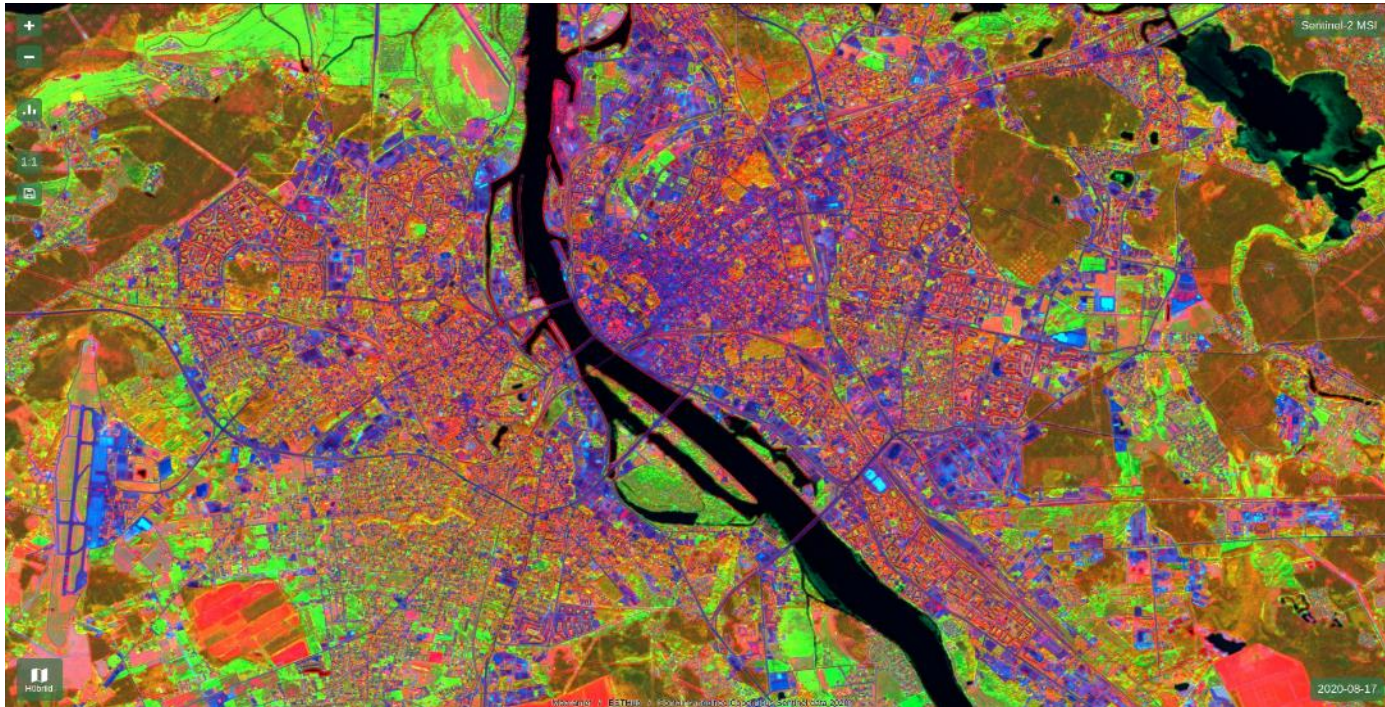
ESTHub

Department of Geoinformatics

ESTHub – a national satellite data centre

Vision, 2021

satiladu.maaamet.ee



Riikliku kaugseire satelliidandmete keskuse ESTHub arengukava



KESKKONNAMINISTEERIUM

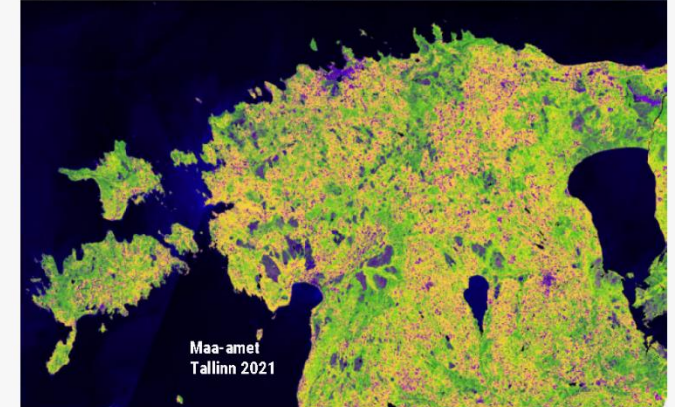


MAA-AMET

Riiklik kaugseire satelliidandmete keskus ESTHub



Arengukava



Maa-amet
Tallinn 2021