



MAA-AMET

Rail Baltic as the Land Consolidation Project

Tambet Tiits
and Merje Krinal

21. April 2017

Rail Baltic as the Land Consolidation Project

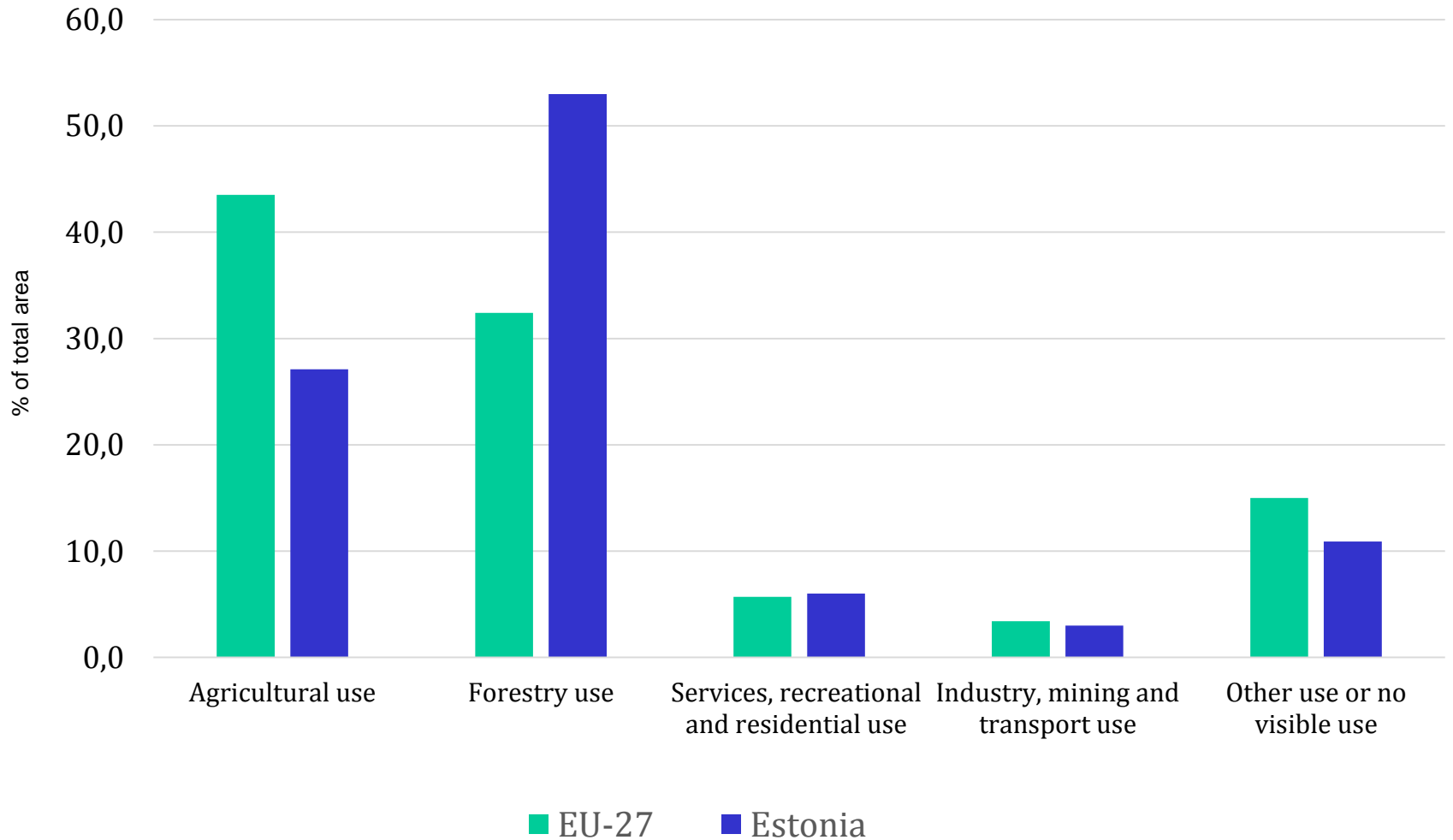
- National Land Board
- Land acquisition
- Rail Baltic in brief
- Land consolidation
- Summary

National Land Board

- Land cadastre
- Mapping and GIS
- Geodesy, geological survey and topographic data
- Land valuation
- Land administration, management

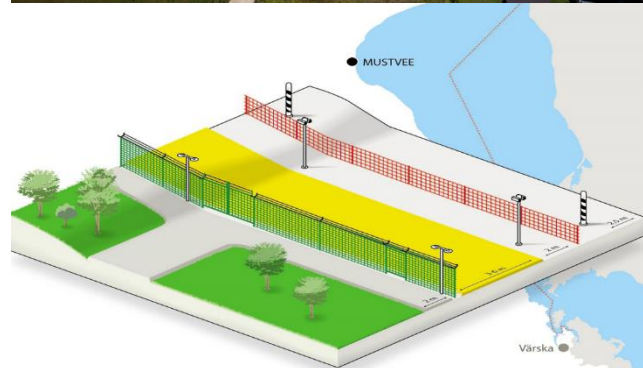


Primary Land Use by Land Use Type



Acquisition of Land

- Infrastructure construction
- Military and defence
- Nature conservation areas
- Establishing a state border



Rail Baltic in Brief

- Railway from Tallinn to Central Europe (creating potential for extension through tunnel to Helsinki)
- Cooperation with Latvia, Lithuania, Poland and Finland
- 700 km (213 in Estonia), European rail standard (gauges 1435 mm)
- Electrified, speed up to 240 km/h
- For cargo and passenger trains
- In operation by 2025/2026



Challenges



- Rail Baltic is the first-of-its-kind new infrastructure project
- More than 800 parcels, 1359 ha
- Lot of opponents
- Legislation requires updating
- Valuation for compensation
- Limited consolidation experiences



Need for Land Consolidation

- Land consolidation provides economically and legally feasible solutions
- Land consolidation keeps the acquisition costs down
- It has a positive public impact
- NLB is looking for the use of consolidation for the other projects
- NLB, when analysing the acquisition case, will first look into the consolidation options.

Land Board's Role in Rail Baltic

Legislation

Valuation for compensation

Land acquisition

Cadastral procedures



Land consolidation

Mapping services

Expropriation

<http://inspire.maaamet.ee/map> Estonian geoportal

Eesti geoportaal
 Eesti ruumandmete infrastruktuur

MAA-AMET

eea grants European Union Eesti Riiklik Geograafiline Keskus

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Search the site

Layers Search

Filter:
 Filter text

All layers

- Information holders
 - Geoportaal
 - Maa-amet
 - Bureaus of land Board
 - Height models
 - False color forestry orthophoto (CIR-1)
- INSPIRE
 - My layers (registering necessary)

Selected layers

- Bureaus of land Board 100%
- Map 100%

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 Mustamäe tee 51, 10021 Tallinn
 Phone: +372 685 0030

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Addresses (AD)
 Buildings (BU)
 Geology (GE)
Administrative units (AU)
 Hydrography (HY)
 Protected sites (PS)
 Cadastral parcels (CU)
 Geographical names (GN)
 Utility and governmental services (US)
 Elevation (EL)
 Land cover (LC)
 Mineral resources (MR)
 Orthomagery (OI)
 Soil (SO)
 Transport networks (TN)
 Which software is suitable for WMS

Administrative units (AU)

Spatial dataset
 Administrative units from [Estonian Land Board geoportal](#)
 Metainfo from [Administrative units from Estonian Land Cadastre](#)

View Service (WMS)
<http://inspire.maaamet.ee/arcgis/rest/services/public/au/MapServer/txnts/inspireView/service?>
 Metainfo from [INSPIRE \(AU\) - Estonian administrative units and maritime zones \(WMS\)](#)
[GetCapabilities \(URL\)](#)

Layers

Selected layers

- Administrative Boundary 50%
- Administrative Unit 50%
- Baseline 50%
- Maritime Boundary 50%
- Internal Waters 50%
- Territorial Sea 50%
- Exclusive Economic Zone 50%
- Map 100%

Estonian Land Board 2017. [Look closer from Catalogue Geoportal](#)

Download Service (WFS)
<http://inspire.maaamet.ee/arcgis/rest/services/public/au/MapServer/txnts/inspireFeatureDownload/service?>
[GetCapabilities \(URL\)](#)

Download Service (AtomFeed)
http://inspire.maaamet.ee/arcgis/rest/directories/arcgisforinspire/public/au/_MapServer/serviceatom1.xml
 According to your preference in data format, choose a right link for download

Land Cadastre

X-GIS X-GIS(1) - Maainfo Portaal

Rakendused

Interneti avalik teenus

KIIRPÄRING MAAREGISTRIST

Sisestage otsitav aadress või tunnus. Teenus pakub jooksvalt vastuseid. Otsingu kohta täpsemat infot soovides vajuta otsingu taga oleval küsimärgil.

Otsingutulemused

Katastriüksuse täisaadress	Tunnus			
Harju maakond, Tallinn, Kristiine linnaosa, Mustamäe tee 51	78407:701:6840	Andmed	Kaardid	Kaardiserver
Harju maakond, Tallinn, Nõmme linnaosa, Vana-Mustamäe tn 51	78404:406:7430	Andmed	Kaardid	

Katastriüksuse aadress või tunnus
mustamäe tee 51

Maakond

Vald/Linn/Linnaosa

Asustussüksus

Otsi Puhasta

Kasutusjuhend (pdf)
Kasutajatugi:
e-post: kaardirakendus@maamet.ee
tel: 6 750 866

X-GIS X-GIS(1) - Maainfo Portaal

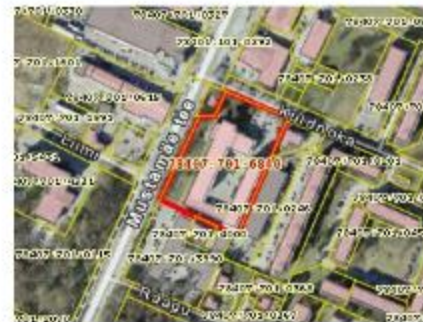
Rakendused

Interneti avalik teenus

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Sisestage otsitav aadress või tunnus. Teenus pakub jooksvalt vastuseid. Otsingu kohta täpsemat infot soovides vajuta otsingu taga oleval küsimärgil.

Katastriüksuse aadress või tunnus
mustamäe tee 51



1:6840

Trükk (andmed) Trükk (kaart+andmed) **Kaardiserver** Järgmine

Maakond	Harju maakond
Omaavalitsus	Tallinn
Asustussüksus	Kristiine linnaosa
Address	Mustamäe tee 51
Tunnus	78407:701:6840
eerimise aeg	29.juuni 1998. a.
eerimise aeg	24.oktoober 2014. a.
ühitstarve 1	Ühiskondlike ehitiste maa 100%
ühitstarve 2	-
ühitstarve 3	-
Pindala	11685 m ²
tealune maa	7068 m ²

MAA-AMET

Maa-ameti kaart

Katastriüksuse tunnused

Tunnus: 78407:701:6840

Uus registratsioon

Vana registratsioon

Esipost, Kava valitud, Kava kinn, Otsi

Otsingutulemused: 0/1

Tunnus	Address	Registratsioon
78407:701:6840	Mustamäe tee 51	1338501

Registreeritud KUI Aadress

XY: 6587188.20, 6356226.52
 RE: 58.4701027, 24.8974018
 DE: 58.25143047, 24.41521587
 H: 6 m

Maakond	Harju maakond
Omaavalitsus	Tallinn
Asustussüksus	Kristiine linnaosa
Address	Mustamäe tee 51
Tunnus	78407:701:6840
Registreerimise aeg	29.juuni 1998. a.
Muudatuse registreerimise aeg	24.oktoober 2014. a.
ühitstarve 1	Ühiskondlike ehitiste maa 100%
ühitstarve 2	-
ühitstarve 3	-
Pindala	11685 m ²
ühitstarve alune maa	7068 m ²
Muu info	Andmed

Map Products

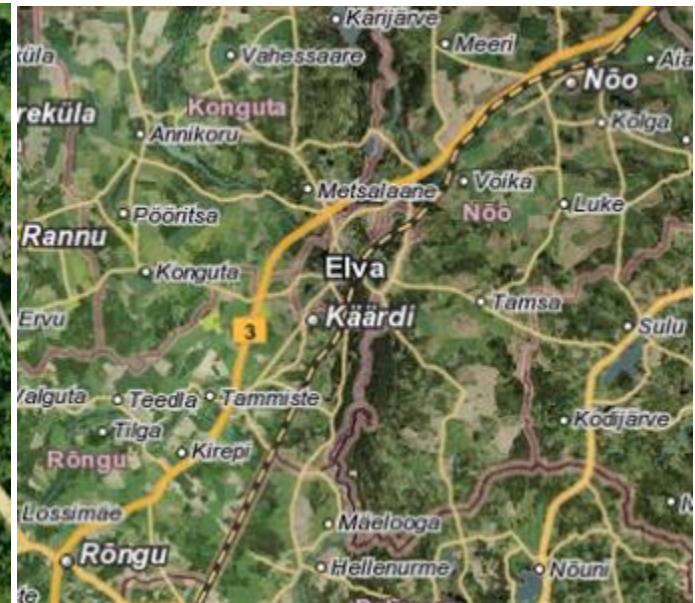


ETD –
Estonian Topographic
Database
natural and/or physical
features of a landscape

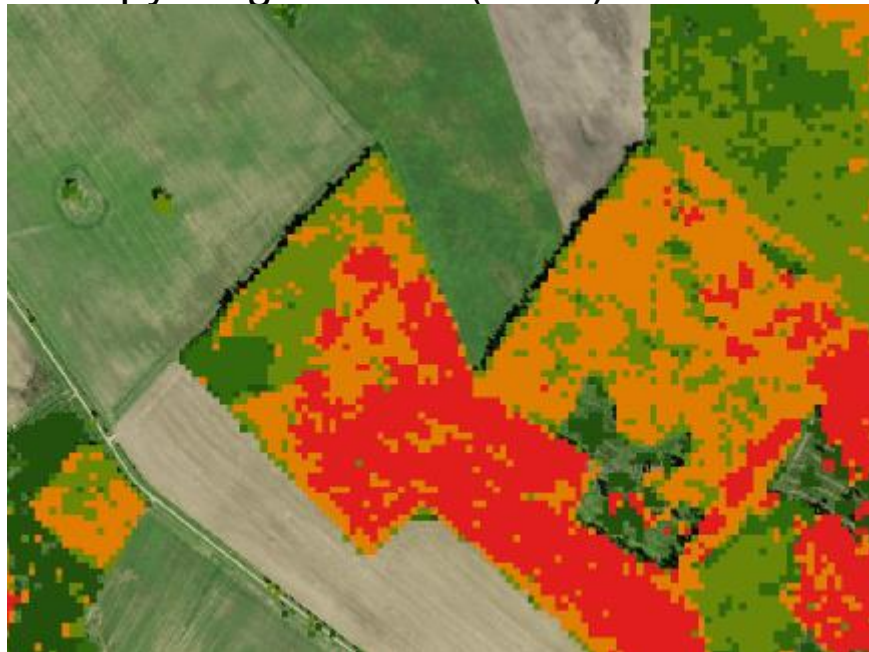
In land consolidation the
valuation map is compiled
based on ETD data

Hybrid map buildings and
constructions

Administrative,
settlement boundaries,
roads, waterbodies



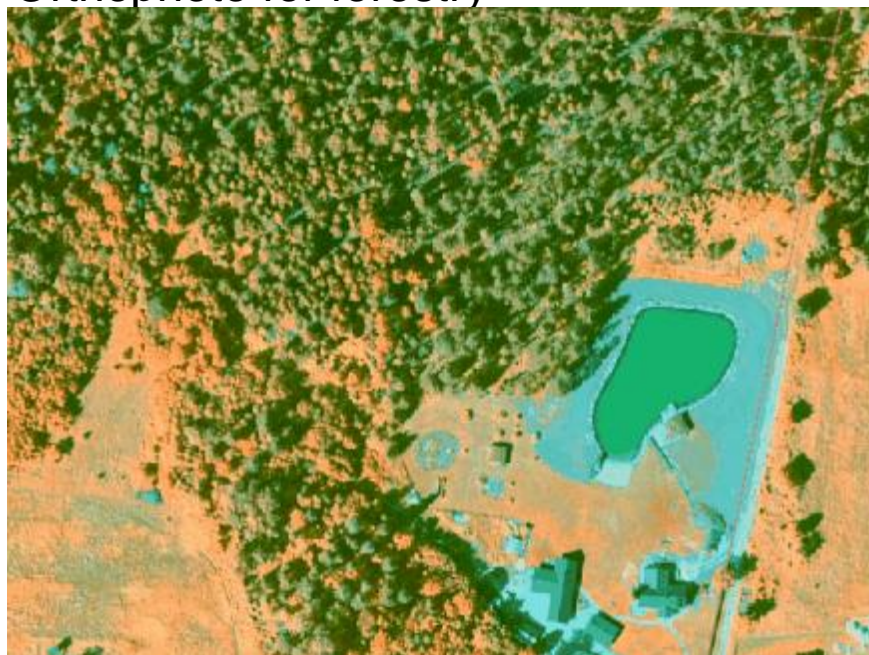
Canopy height model (CHM)



Digital surface model - DSM



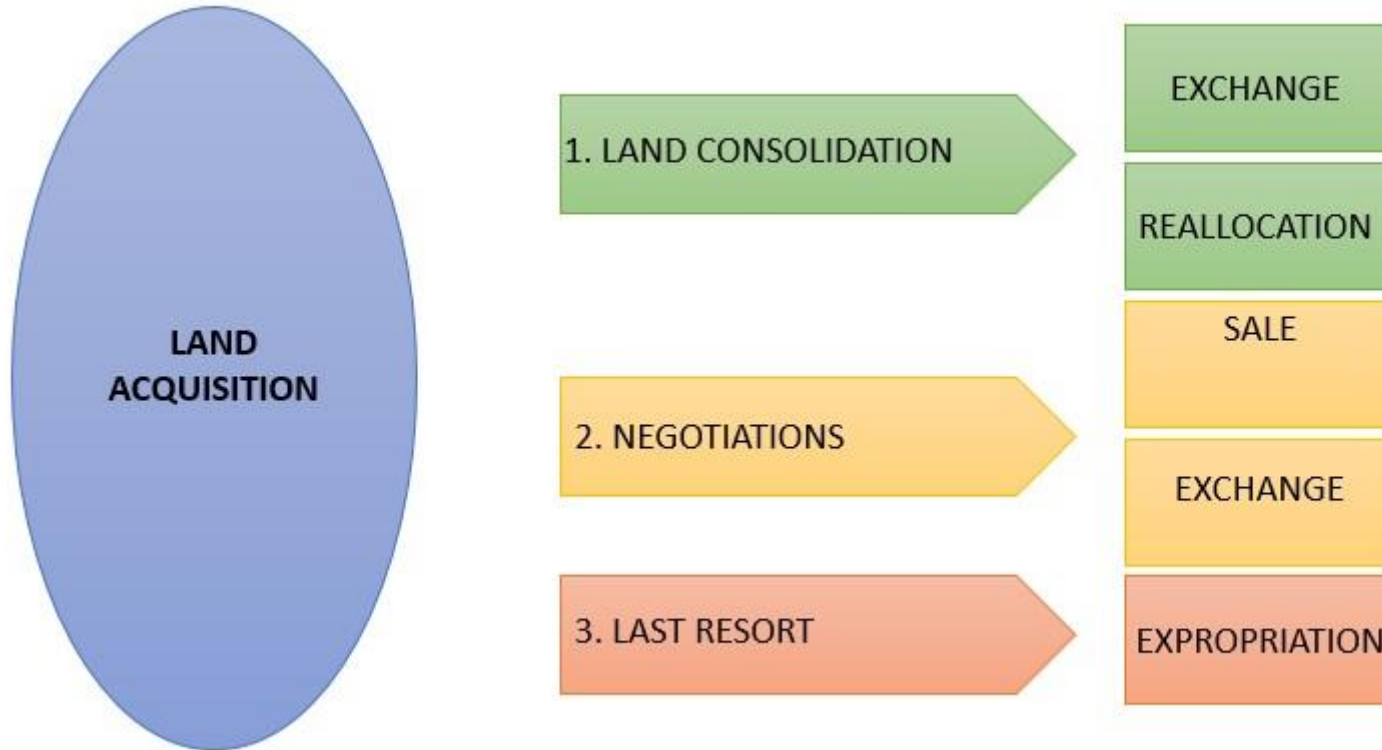
Orthophoto for forestry



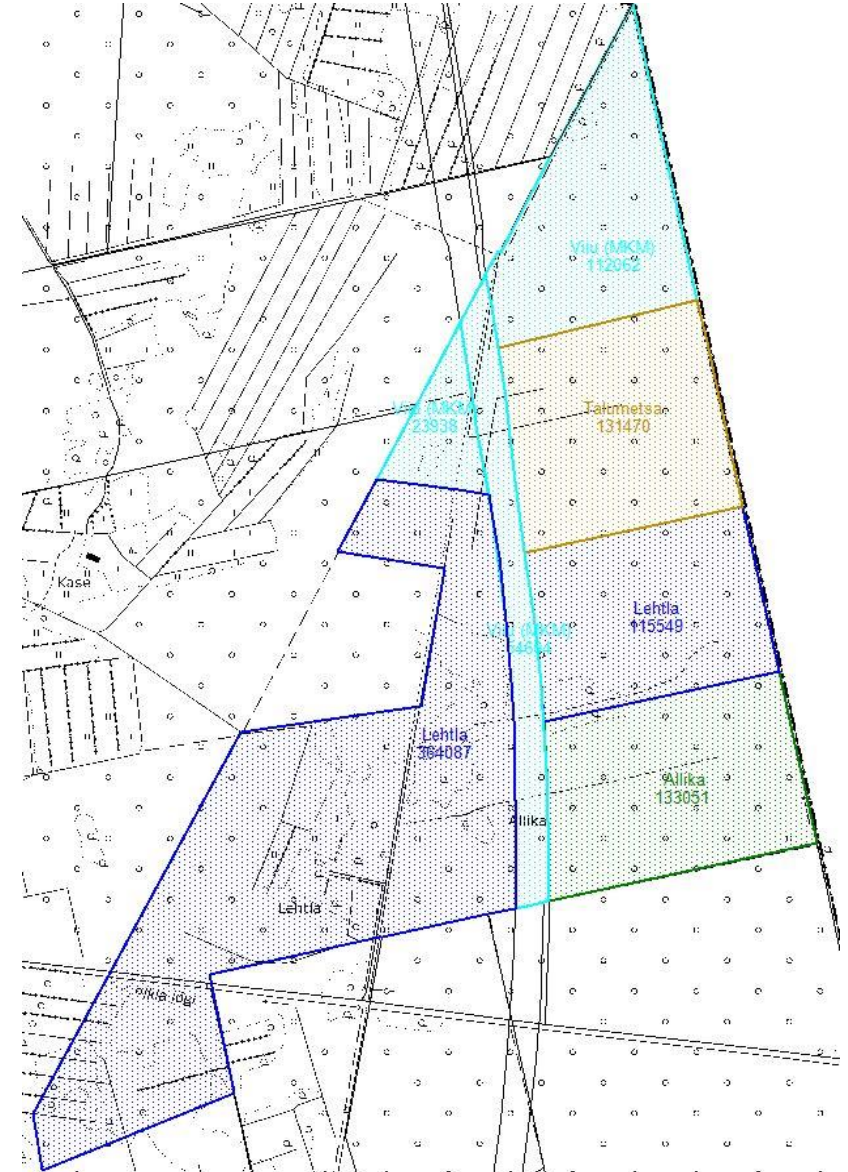
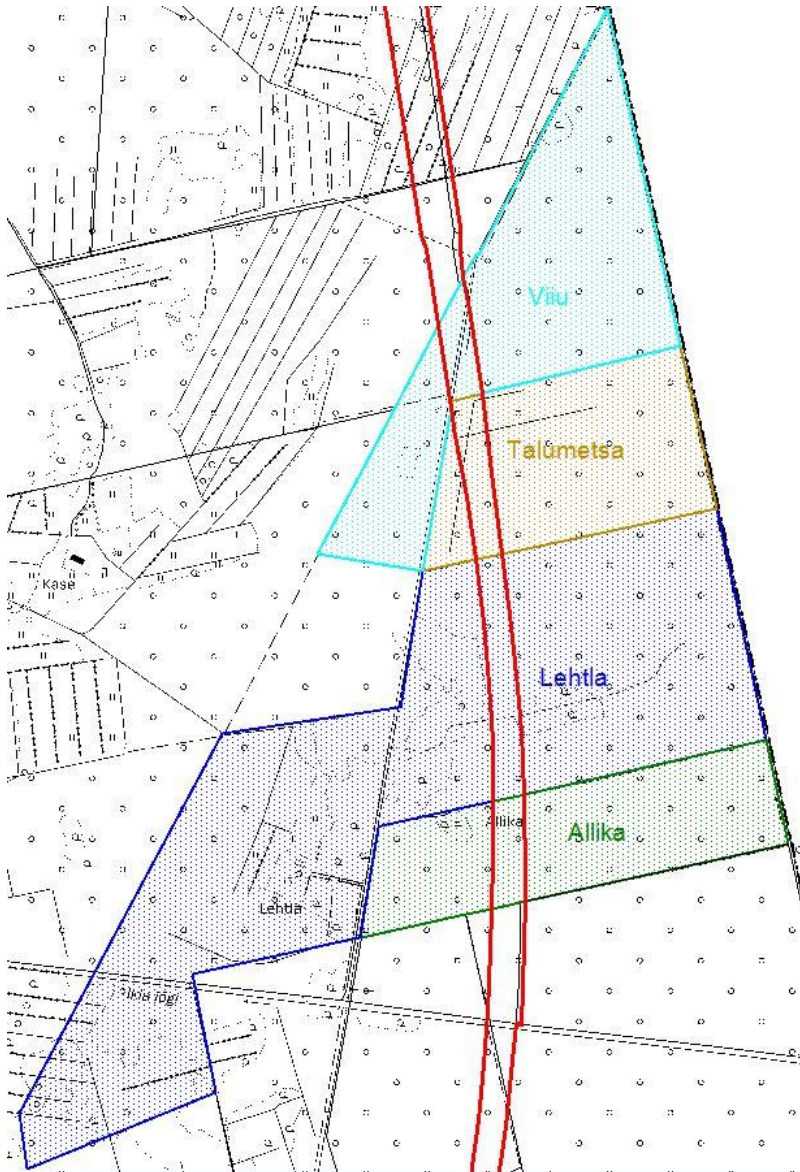
1:10 000 Soviet period topographic map



Acquisition Alternatives and Compensation



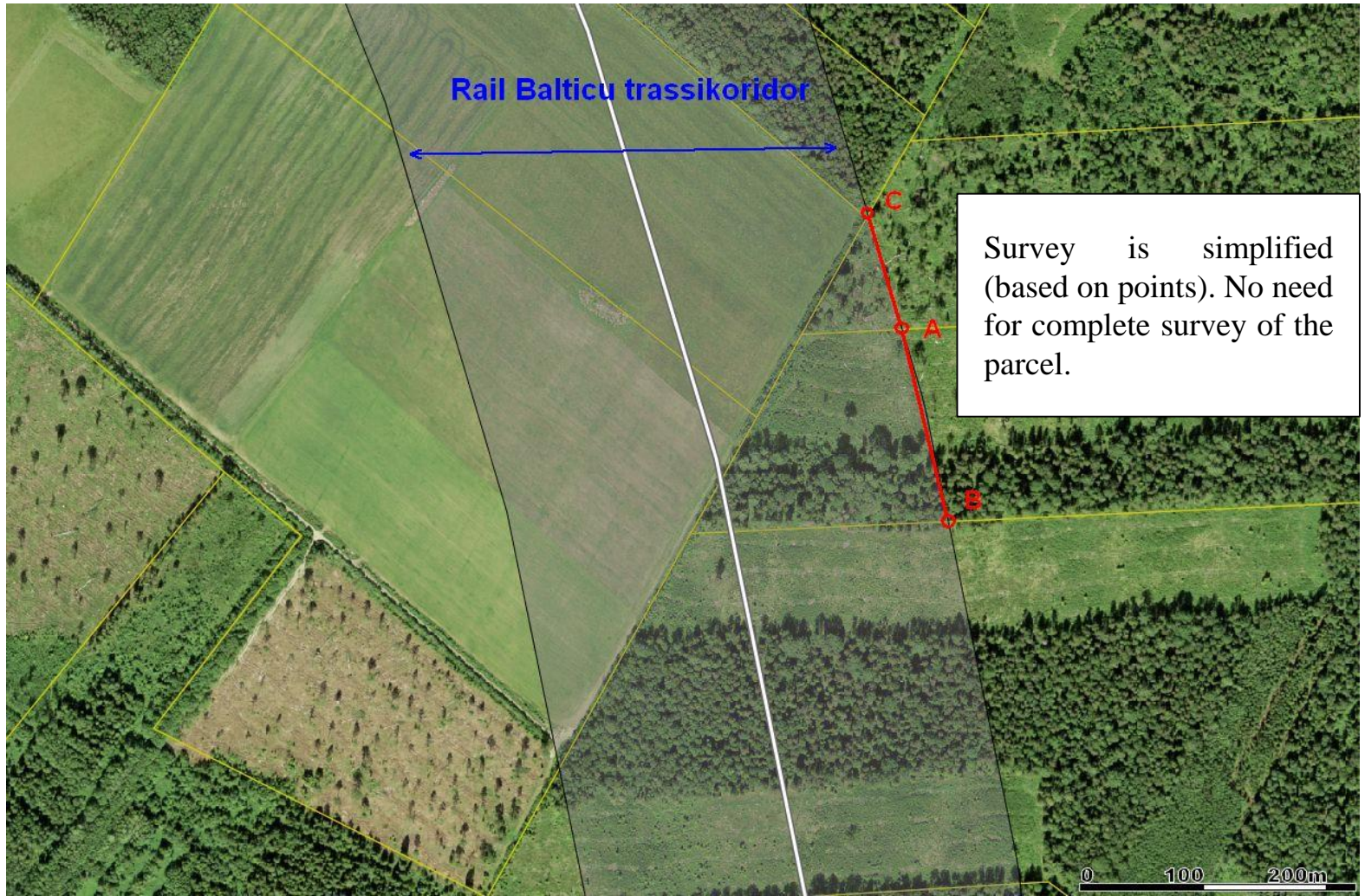
Example of Land Consolidation



Changes in Cadastre

- Introducing simplified surveying procedure for subdivisions (based on points)
- Land cover of the cadastral parcel is classified in line with topographic database
- Cadastral registrar can join or subdivide parcels without cadastral surveying
- E-Cadastre data is official and extracts can be made thereof
- The whole procedure is fully digital

Surveying of Cadastral Parcel



Summary

- Need for land consolidation for the construction of infrastructure objects
- Implementation of new infrastructure projects always requires land
- We need different compensation systems for negotiations, but equal rules for all land owners
- Land consolidation provides economically and legally feasible solutions
- Simple and quick cadastral procedure

**SOMETIMES YOU GO LOOKING
FOR MOTIVATION...**



**SOMETIMES MOTIVATION
FINDS YOU!**



MAA-AMET

Thank You!

Tambet Tiits

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