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LAND BOARD

Cadastral services and virtual office in e-Cadastre

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Scope of data

Cadastral parcels (as of September 2016)

- ✓ **674 383 cadastral parcels**, i.e. **97,7 %** of Estonian land is registered in the cadastre
- ✓ Over **697 000 items** in the cadastral archive – of them about 2/3 are partially scanned

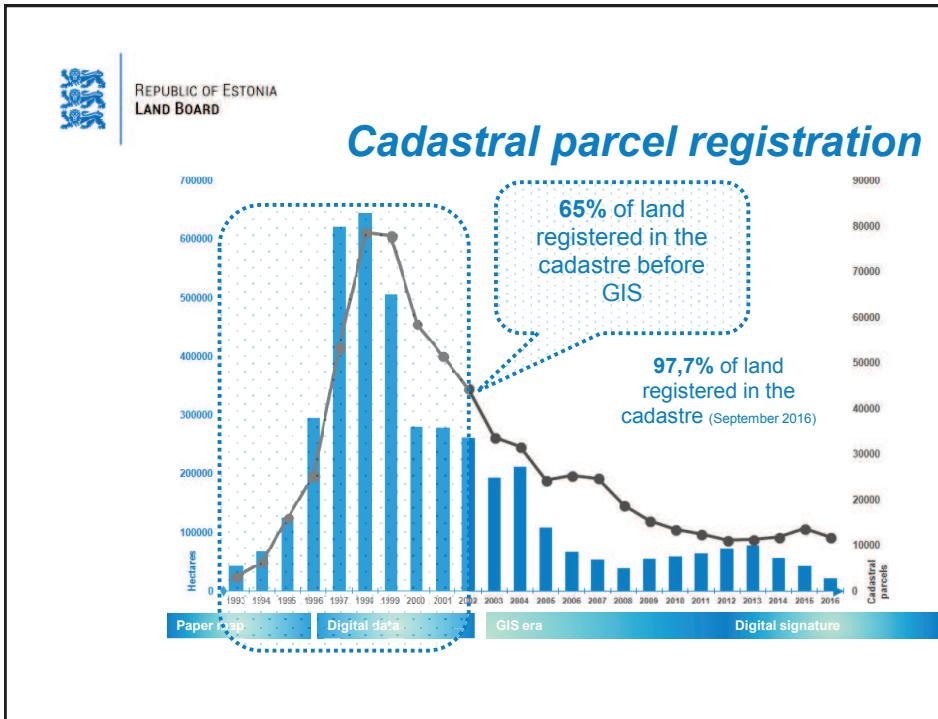
Objects causing restrictions and zones of restrictions

- ✓ Over **63 000 km² of area objects** (e.g. protected area, mineral deposit, etc)
- ✓ Over **164 000 km of line objects** (e.g. lines, roads, etc)
- ✓ Over **123 000 of point objects** (e.g. single objects of nature or heritage conservation)

Administrative boundaries

15 County; **213** Municipality; **4671** Settlement area

Estonian Republic
Area: 45 227 km²



Data content of the cadastral unit

Cadastral register includes:

- ✓ the cadastral register number
- ✓ the proximate address;
- ✓ the date of registration in the cadastre;
- ✓ the date of registration in the land register;
- ✓ the intended use;
- ✓ the total area;
- ✓ the area by land cover
- ✓ the assessed value
- ✓ the data pertaining to boundary points / Spatial data in rectangular coordinate system L-EST97

Attribute	Value
Area	10000 m ²
Assessed value	1000000
Intended use	Residential
Land cover	Grassland
Boundary points	10
Coordinates	X: 1000000, Y: 1000000

Spatial data X Y coordinate



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Cadastral documents

Every person can apply an official document from cadastral archive.

- ✓ These documents are certified by the seal and signature:
- ✓ A statement of registration of a land unit
- ✓ A copy of a cadastre plan
- ✓ A printout of cadastral map



Charges are:

- ✓ 4 € per page of a statement of registration
- ✓ 6 € per A3-format page of a cadastre plan
- ✓ 25 € A2 – 30€ A0 of a printout cadastral map

Issue of paper documents!



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Cadastral data services

An application can be fulfilled in Estonian Land Board's geoportal.

- ✓ ESRI Mapping Software Shape File SHP
- ✓ MapInfo Table TAB, MAP, ID, DAT
- ✓ MicroStation DGN

Year 2015:
1058 requests
Up to 13000 €

Average cost 3100 units
100 €

Fee is calculated:

- ✓ 7 € in the case of up to 50 cadastral units and an additional 0.01 € per each cadastral unit
- ✓ 8 € in the case of more than 50 cadastral units and an additional 0.03 € per each cadastral unit

Ordering a vector format data!



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Cadastral data services

Signed license policy and contract of using data by authorities of government or local municipality

Public servants can log in using **identity card** there they can access data in three basic formats:

- ✓ ESRI Mapping Software Shape File SHP
- ✓ MapInfo Table TAB, MAP, ID, DAT
- ✓ MicroStation DGN



Download service for public institutions!



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Cadastral data services

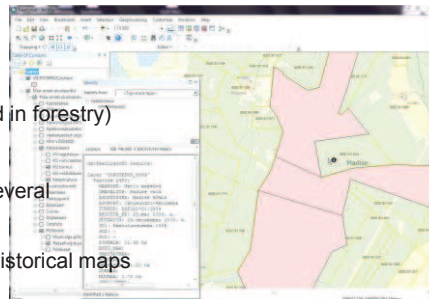
Depending of the data, there are couple of URL-s

<http://kaart.maaamet.ee/wms/alus?>

Cadastral data
Administrative and Settlement Division
Restrictions
Estonian Basic Map (color and monochrome)
Orthophotos (including NGR photo layer used in forestry)
Soil Map
Corine land cover

<http://kaart.maaamet.ee/wms/fotokaart?> several
orthophoto issues layers

<http://kaart.maaamet.ee/wms/ajalooline?> historical maps
layers



Web Map Services



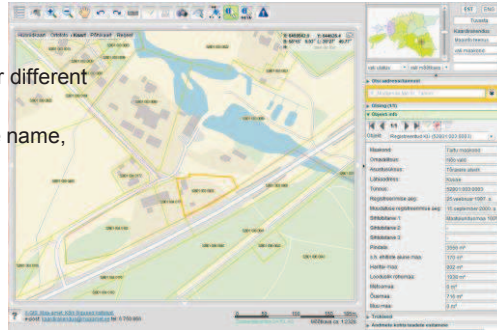
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Cadastral data services

Estonian Land Board's Geoportal <http://geoportaal.maaamet.ee/eng/>

There are several Map Applications

- ✓ The user can choose between four different types of background maps
- ✓ Queries by parcel identifier, village name, land register unit number...

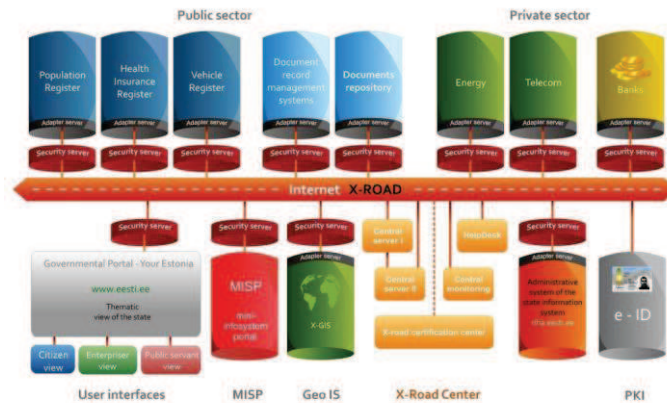


Provided web map applications



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Estonian data exchange layer



X-ROAD: <https://www.ria.ee/en/x-road.html>



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e-Cadastre software development

- ✓ In **October 2012** public procurement was declared to buy software development for electronic land cadaster and digital cadaster archive
- ✓ The public procurement won by Estonian IT company **Datel** www.datel.ee
- ✓ At the **beginning of 2013** the development process started

€ 670'000.-

Objective: paper-free proceedings and cadastral data integration to other state GIS



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e-Cadastre functional specifications

- ✓ Managing cadastral data must be used **open-sourced expandable software** based on baseline security system (Estonian ISKE standard)
- ✓ Identifying clients based on **ID-card** or **Mobile-ID** and able to store digital signatures
- ✓ All cadastral procedures are **paper-free** and based on digital files
- ✓ Ready for **3D** spatial data storing and representation
- ✓ Digital archive are able to store full cycles digital life of **electronic documents**

User friendly and customizable settings



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e-Cadastre workbench

- ✓ **Virtual office**, created for surveyors to manage their surveying files and submit a data to the cadaster
- ✓ **Procedure module**, created for cadastral registrar to controlling received data and register cadastral proceedings
- ✓ **Map**, created for surveyors and cadastral registrar map proceedings
- ✓ **Digital archive**, created for managing all cadastral digital files
- ✓ **Statistical module**, created for managing cadastral data statistics and observing proceedings
- ✓ **Administration module**, created for managing user rights and software settings

All in one interface solution



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Virtual office for surveyors

Surveyor can do the following procedures:

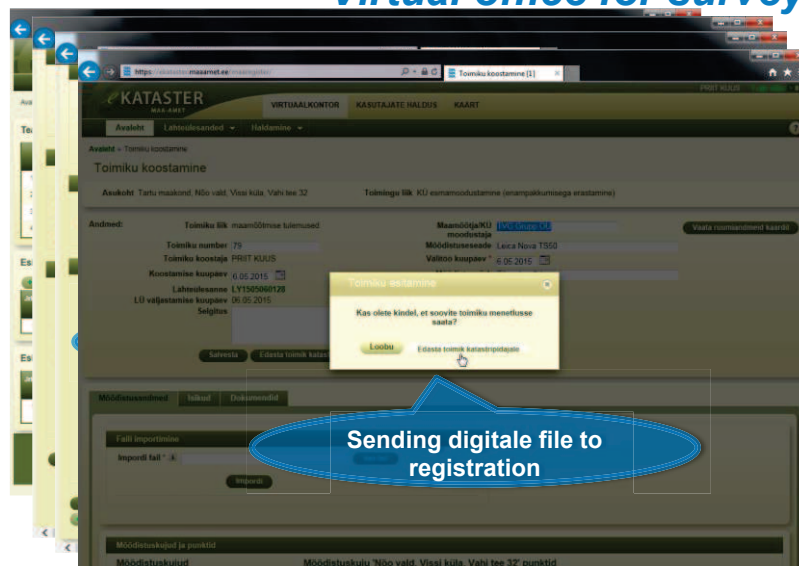
- ✓ Submit an application for the initial task of cadastral survey
- ✓ Keep in order the approved initial tasks and manage cadastral notifications
- ✓ Downloading cadastral data and cadastral file documents for survey
- ✓ Preparing cadastral file for cadastral parcel registration

Paper-free communication with the Cadastre



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Virtual office for surveyors



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Thank you!

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