Item 10 of the provisional agenda

Activities relating to the Working Group on Toponymic Data Files and Gazetters

Estonian Place Names in the National Information System and the Place Names Register*

* Prepared by Mall Kivisalu (Estonia), Land Board of Estonia, in collaboration with Aule Kikas (Estonia), Ministry of the Interior and Peeter Päll (Estonia), Institute of the Estonian Language
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- Estonian national information system
- ADS – support system for maintenance of databases
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Since July 1st, 2008 the Land Board of Estonia (Maa-amet) is responsible for maintaining the National Place Names Register. The Land Board has integrated the Place Names Register into its other systems dealing with address data, cadastral information, etc. The Place Names Register has been redesigned on a new basis and in January 2009 the new version became available also on the web, with bilingual interface (Estonian, English). Use of the data is encouraged in every way, there is no charge for using the database. Web addresses are given at the end of the document.

Estonian national information system
The following picture indicates some of the most essential elements of the system.

![Diagram of the Estonian national information system](image-url)
The main elements are:

1) systems and registers of the public sector. Only a few of them are shown. Place Names Register, ADS and the Estonian National Topographic Database (ENTD) belong into this category;
2) databases of the private sector (e.g. banks, enterprises of infrastructure);
3) government information portal – Your Estonia - with all services, meant for people;
4) local government information systems;
5) national register of databases, X-road certification center;
6) ID-card certification center.

X-road is an environment designed to facilitate the exchange of data between various databases. More information is available (in English) at http://www.ria.ee/indexp?d=27309.

Registers

The following scheme indicates the position of the Address Data System (ADS) and the Place Names Register with regard to other databases that are important for the establishment and use of place names.

ADS is not responsible for creating data itself but collects address data from different information systems, so that there would be no need for users to make data requests from several databases.

Spatial data is created for the most part in the Estonian National Topographic Database (ENTD); other information systems can use their data.
**ADS** is a support system for the maintenance of databases, consisting of (in the context of place names):

- a **central technological solution** (ADS administration system):
  - including interfaces for processing address data and providing address services, and databases processing address data;
- **requirements** for:
  - the form of addresses,
  - the establishment of geographical addresses,
  - officials processing the address data,
  - the official processing the ADS administration system,
  - address services,
  - the processing of addresses.

The ADS includes, among others, the following data:

- place names,
- geographical addresses,
- coordinates of address points,
- the dates of commencement and termination of the validity of the address data,
- information on the status of address objects,
- spatial addresses.

**National Place Names Register**

Official place names are entered in the National Place Names Register. Also the set of data concerning place names in the national cartographic database constitutes the National Place Names Register. A guiding principle in designing the new register has been the cross-usage of information between various databases. The data must always come from its originator, i.e. the authority responsible for creating or collecting the information; other systems, as much as possible, must not duplicate the data but use the X-Road environment to update their data from its originators.

**Data exchange**

The exchange of data between the Address Data System, the Estonian Topographic Database and the National Place Names Register at present is realized in the way shown on the following scheme. In January 2009 development for a new software of the Place Names Register was completed simultaneously with the public service of the register.
New public service of the Place names register

Public service interface is available both in Estonian and in English. The following is the opening form of the service.
The service allows to search place names by:

- a name or a part of the name,
- status,
- language,
- the type of named feature,
- administrative affiliation (county, municipality, populated place),
- using the Space filter.

**Query results**
The first 1,000 results of the query will be displayed as a table:

<table>
<thead>
<tr>
<th>Language</th>
<th>Place name status</th>
<th>Place name procedure status</th>
<th>Type of named feature</th>
<th>Additional information</th>
<th>County</th>
<th>Municipality</th>
<th>Settlement unit</th>
<th>X</th>
<th>Y</th>
<th>Identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>eesti</td>
<td>ametik põhinimi</td>
<td>kehtiv</td>
<td>lõiduspind</td>
<td></td>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Linnasea</td>
<td>6589784.2</td>
<td>548590</td>
<td>Identifier</td>
</tr>
<tr>
<td>eesti</td>
<td>ametik põhinimi</td>
<td>kehtiv</td>
<td>lõiduspind</td>
<td></td>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Keskinna linnosea</td>
<td>6687103.3</td>
<td>542751.8</td>
<td>Identifier</td>
</tr>
<tr>
<td>eesti</td>
<td>ametik põhinimi</td>
<td>kehtiv</td>
<td>lõiduspind</td>
<td></td>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Keskinna linnosea</td>
<td>659268.8</td>
<td>542875.5</td>
<td>Identifier</td>
</tr>
</tbody>
</table>
**Query results can be exported**

The whole list of search results can be exported to *.csv* file. There are no restrictions for capacity, if needed, the entire register can be exported:

<table>
<thead>
<tr>
<th>maakond</th>
<th>linnaosa</th>
<th>figure</th>
<th>Identifier</th>
<th>Spatial figure</th>
<th>EKI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Pirta linnaosa</td>
<td>6594668.18</td>
<td>549412.73</td>
<td>Identifier</td>
</tr>
<tr>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Lasnamäe linnaosa</td>
<td>6588087.1</td>
<td>545239</td>
<td>Identifier</td>
</tr>
<tr>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Pirta linnaosa</td>
<td>6595003.48</td>
<td>549687.99</td>
<td>Identifier</td>
</tr>
<tr>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Lasnamäe linnaosa</td>
<td>6587931.96</td>
<td>547340.62</td>
<td>Identifier</td>
</tr>
<tr>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Kristine linnaosa</td>
<td>6586974.82</td>
<td>540167.95</td>
<td>Identifier</td>
</tr>
<tr>
<td>Harju maakond</td>
<td>Tallinna linn</td>
<td>Mustamäe linnaosa</td>
<td>6585020.2</td>
<td>537417.58</td>
<td>Identifier</td>
</tr>
</tbody>
</table>

**Map application and additional information**

The user will be able to move to the location of the object on the map (by clicking ‘Identifier’ or ‘Spatial figure’) and to see the full record of the place name (title of the document establishing the name, etc. in Estonian):

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>Identity Number of a Place Name</th>
<th>ADS_OID (to map)</th>
<th>EKI</th>
<th>Place name in full record</th>
</tr>
</thead>
<tbody>
<tr>
<td>6588978.2</td>
<td>5498690</td>
<td>Identifier</td>
<td>Spatial figure</td>
<td>EKI</td>
<td><img src="..." alt="Record" /></td>
</tr>
<tr>
<td>6587103.3</td>
<td>542751.8</td>
<td>Identifier</td>
<td>Spatial figure</td>
<td>EKI</td>
<td><img src="..." alt="Record" /></td>
</tr>
<tr>
<td>6589263.8</td>
<td>542875.5</td>
<td>Identifier</td>
<td>Spatial figure</td>
<td>EKI</td>
<td><img src="..." alt="Record" /></td>
</tr>
<tr>
<td>6589263.5</td>
<td>542930.6</td>
<td>Identifier</td>
<td>Spatial figure</td>
<td>EKI</td>
<td><img src="..." alt="Record" /></td>
</tr>
</tbody>
</table>
Use of official place names in ADS

The following screenshots will give an idea of the map interface of the register.

*Road’s name in the Place Names Register, address point x/y and road’s geometry in ENTD*

*Cadastral parcel geometry and geographical addresses in Land Cadastre*
More information is available on the web:

- Place Names Act:
- The Place Names Board of Estonia http://www.eki.ee/knn/index2.htm
- Government of the Republic Regulation No. 251 of 20 December 2007 “Address Data System”:
- The Place Names Register is available at: http://xgis.maaamet.ee/knravalik/.
- National Place Names Register in English: http://xgis.maaamet.ee/knravalik/knr?LANG=EN
- Estonian Land Board: http://www.maaamet.ee/
- Web Map Server: http://xgis.maaamet.ee/
- Address Data System (ADS) :
- The original presentation document: http://www.maaamet.ee/docs/ADS/UNEGEGEN.ppt