

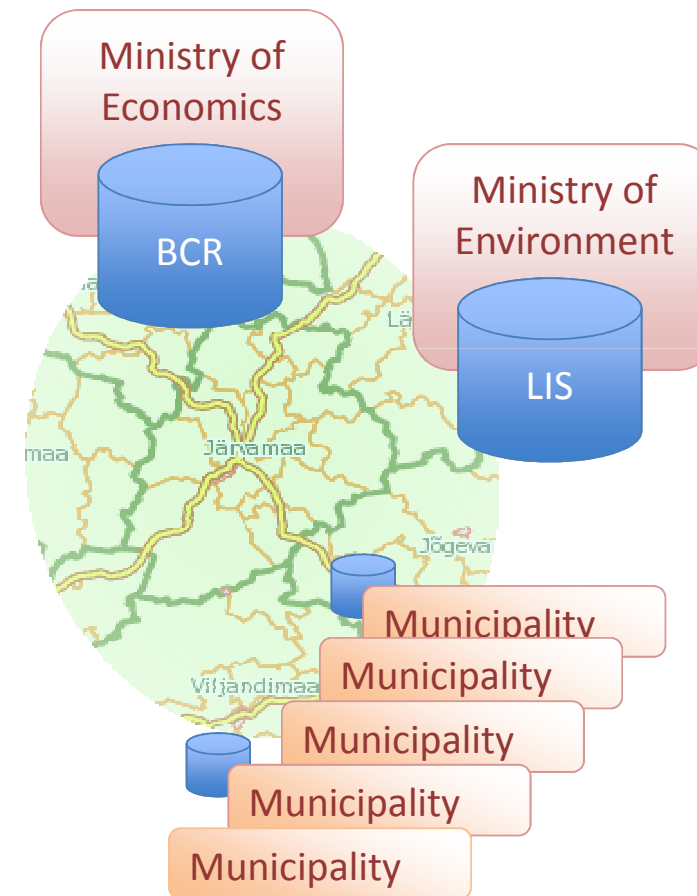
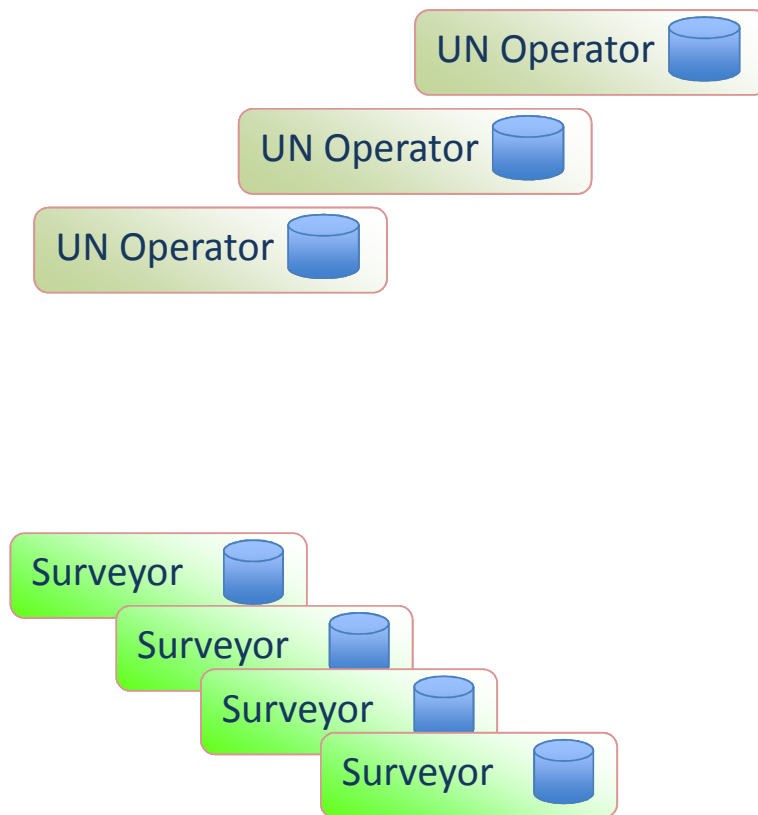
Data Management of Utility Networks in Estonia

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Utility Networks /Estonia

Playground



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THE BAD

Data Obscurity

Unreliability

Lack of Openness



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Seeds & Fruits



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The Good Things

evolving **Partnership**

useable **Technologies**

more **Openness**

fresh **Initiatives**



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GIS/CAD integration

The screenshot displays a web-based GIS application interface. The browser address bar shows `xgis.maaamet.ee/xGIS/XGis`. The interface includes a toolbar with various navigation and editing tools, a map application selector set to "Land Information W", and a language dropdown menu with "EST" and "ENG" options. The main map area is split into two panels: the left panel shows a "Hybrid" map view with satellite imagery and overlaid yellow boundary lines, and the right panel shows a CAD drawing overlaid on the same geographic area. The CAD drawing features a network of lines and nodes, with labels such as "E.Vilde tee 75a", "E.Vilde tee 100", and "H Projekt". Coordinate information is visible, including X=6585250, Y=5389000, B: 59°24'11.42", L: 24°41'13.11", and X=6585200, Y=5390000. A small inset map of Estonia is located in the top right corner. At the bottom left, there is a copyright notice: "X-GIS, Estonian Land Board. All Rights Reserved. e-mail: kaardirakendus@maaamet.ee phone: 6 750 866".

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Processing of CAD files

- Data Analysis, Rules Verification
- GIS Objects Generation
- Image Composing
- Binding to GIS Context
- Metadata Management

... fully automatic

```
File "TJ-8646.dwg" contains 1048 objects:
...
Layer "HOONE" ***          contains 9 objects
  Type: "Polyline"        3
  Type: "Text"            6
Layer "TEE" ***           contains 1 object
  Type: "Text"            1
Layer "KOORDPUNKT" ***    contains 24 objects
  Type: "BlockReference"  24
Range of the drawing (L-EST):
  Min X 538705.3    Min Y 6585119.7
  Max X 539100.6    Max Y 6585419.9
*** Means that the layer complies with Requirements
19 layers complying, 2 not complying
```

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Virtual Geo-Warehouse

To provide new level of Data Reuseability
by joining resources of Independent Providers
via rich variety of
Data Querying and Serving Models

Open Standards & Cloud Compliant

Supporting various Business Models

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Initiatives

Municipalities	drawings & plans repositories, workflow management systems
Ministry of Environment, National Land Board	Harmonization, INSPIRE, (web)services, virtual office
Ministry of Economy	Geodetic Surveys Regulation; reserch projects
Union of IT Companies, Techno-Structures Data Management Group	new partnership patterns
Cross-boarder cooperation	we'll achieve more

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Thank you!

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