

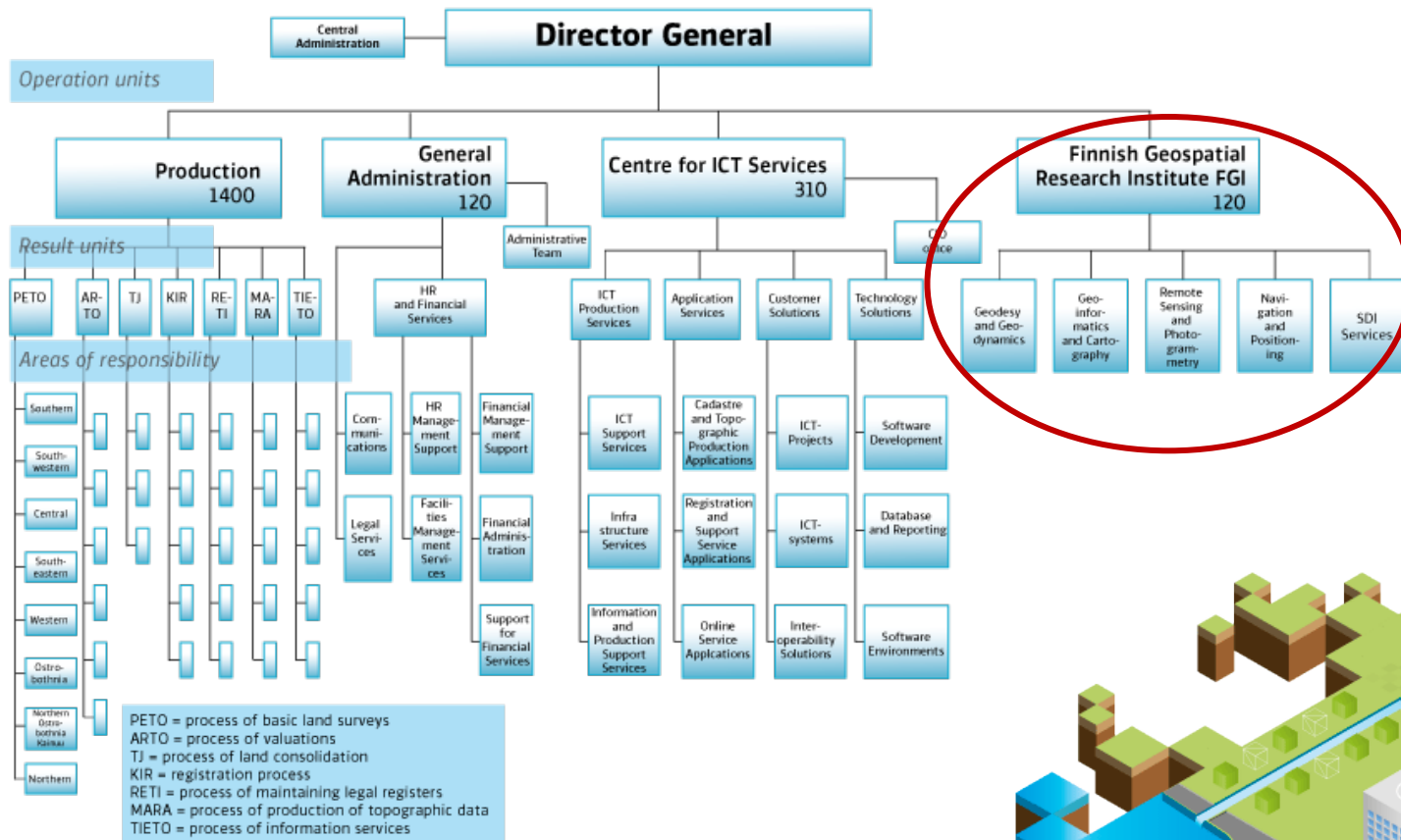
Needs for automatic generalisation in the forthcoming National Topographic Database of Finland

Pyry Kettunen, Christian Koski, Juha Oksanen



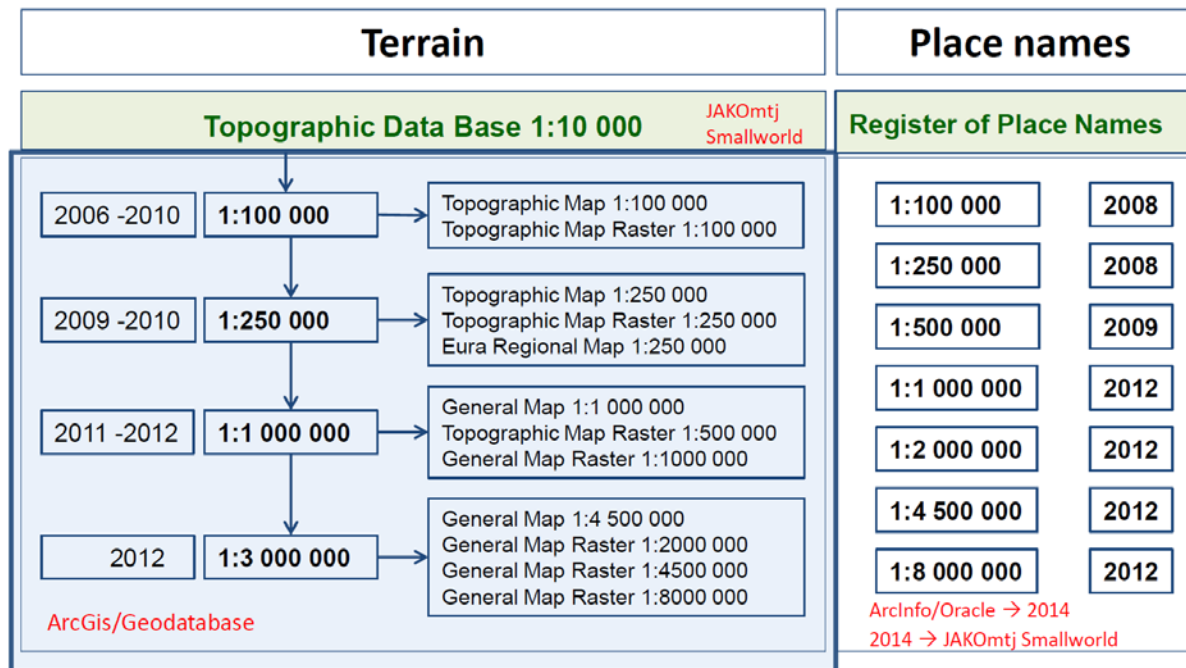
FGI – Finnish Geospatial Research Institute

National Land Survey of Finland 1.1.2015 (NLS)



Automatic generalisation at the NLS

- Piekka development project 2002-
- Production system for small scale databases
- TDB 10k => 100k => 250k => 1M => 3M



Sairinen R & Pätynen V (2013). Production of small scale data bases of the NLS of Finland. EuroSDR/ICA workshop on Automated generalisation and NMAs. March 21-22 2013.



National Topographic Database: Vision

The joint National Topographic Database (NTDB) provides **multi-scale** basic information about physical environment including objects, such as...

- buildings and other constructions
- roads
- water
- elevation
- land cover
- place names



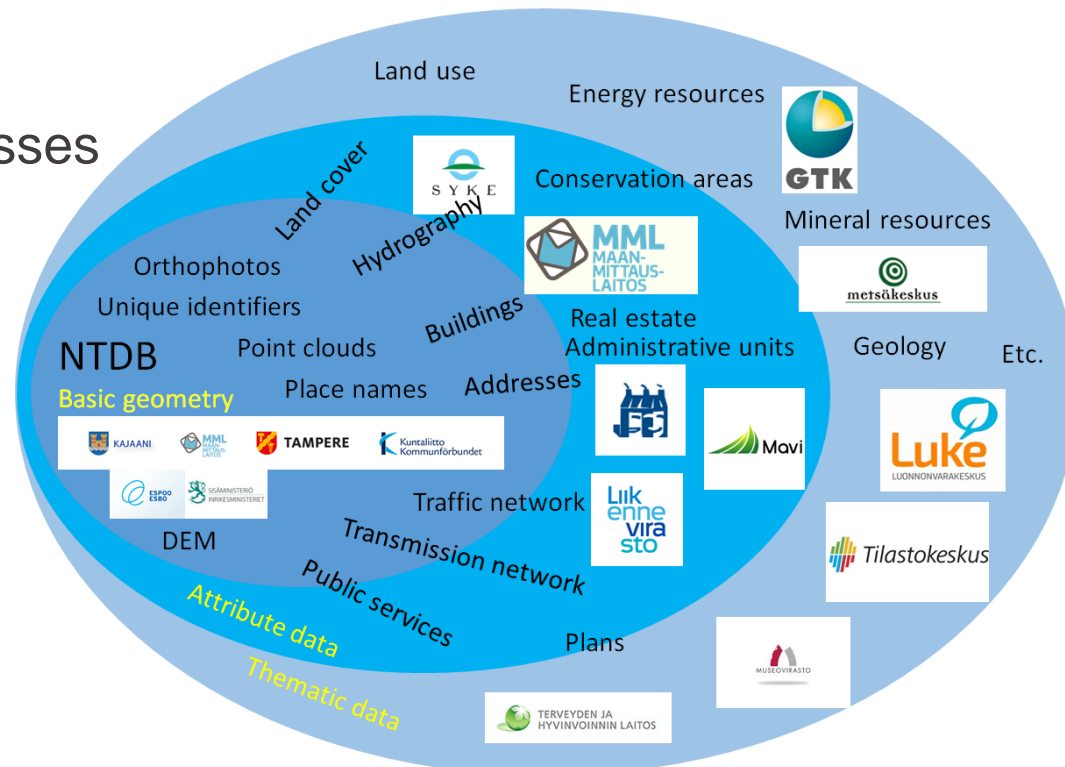
NTDB: Vision

- Basis is on the
 - Topographic Database by the NLS Finland
 - orthoimages
 - laser scanning data, DEM
 - **large scale planning data from municipalities**
- As being a part of the basic register infrastructure, it is fully interoperable with other registers via unique identifiers (UIDs)
- Unified data model and database, distributed maintenance by host organisations (NLS + municipalities + other) – Data transfer between systems is fluent



Drivers towards the NTDB

- User requirements – provide data that is really needed
- Connections specified
- Maintenance is linked to the data producing processes
- From 2D to 3D-4D
- Quality
- Collaboration
- Linking the present processes
- Openness and use by the administration
- Economic efficiency and other benefits
- Services provided by administration



New project: NTDB generalisation and multi-scale processes

- Aims:

- Automatic generalisation between NTDB Level 0 and NTDB Level 1

- Process definition
 - Tool selection: ESRI/1Spatial/ something else?

- Automatic generation of multi-scale contours and cliff symbols

- Process definition
 - Tool selection

- Digital Landscape Model / Digital Cartographic Model discussion on-going

NTDB Level 4 etc...

NTDB Level 3 – Generalised L2

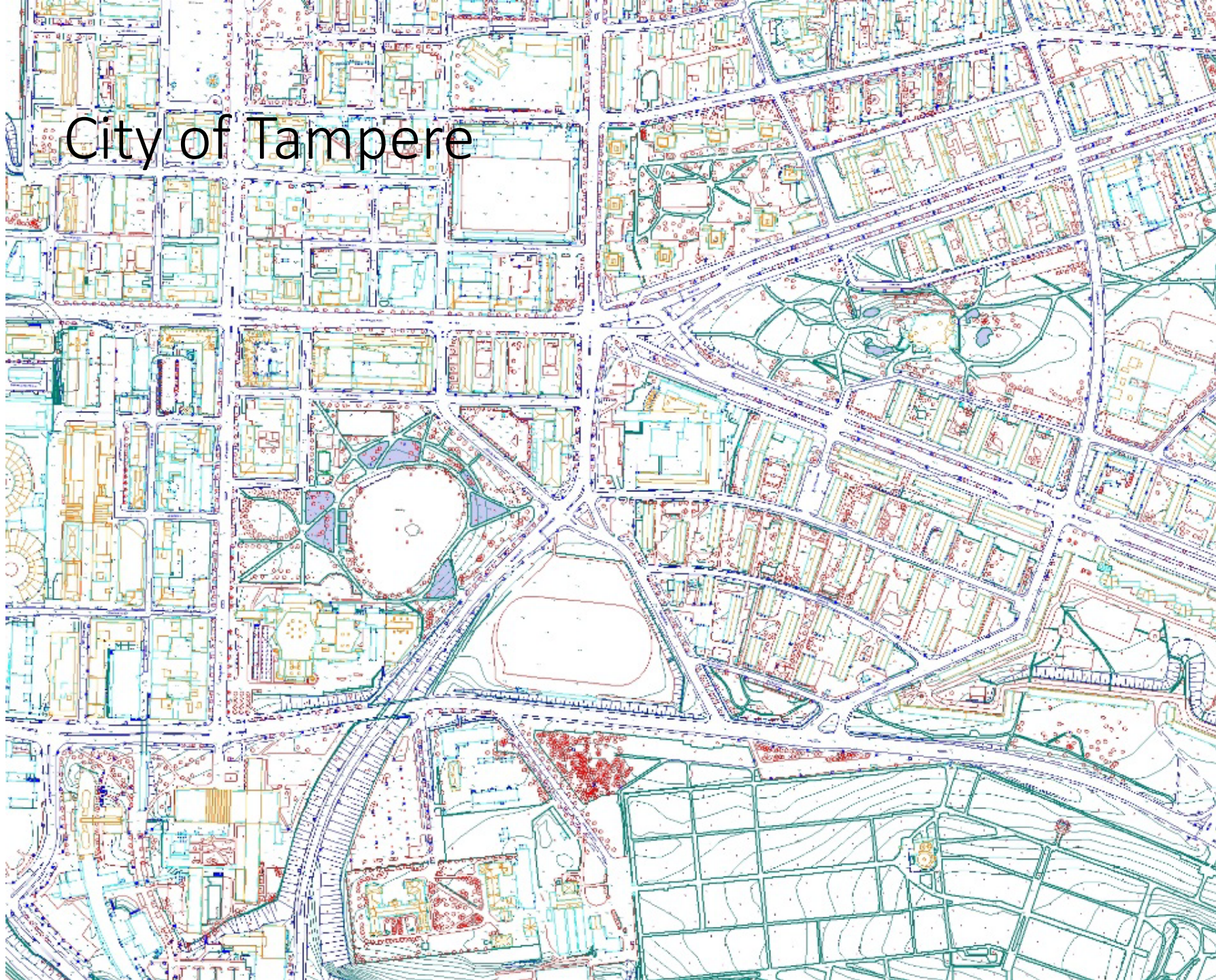
NTDB Level 2 – Generalised L1

NTDB Level 1 – TDB + Generalised L0

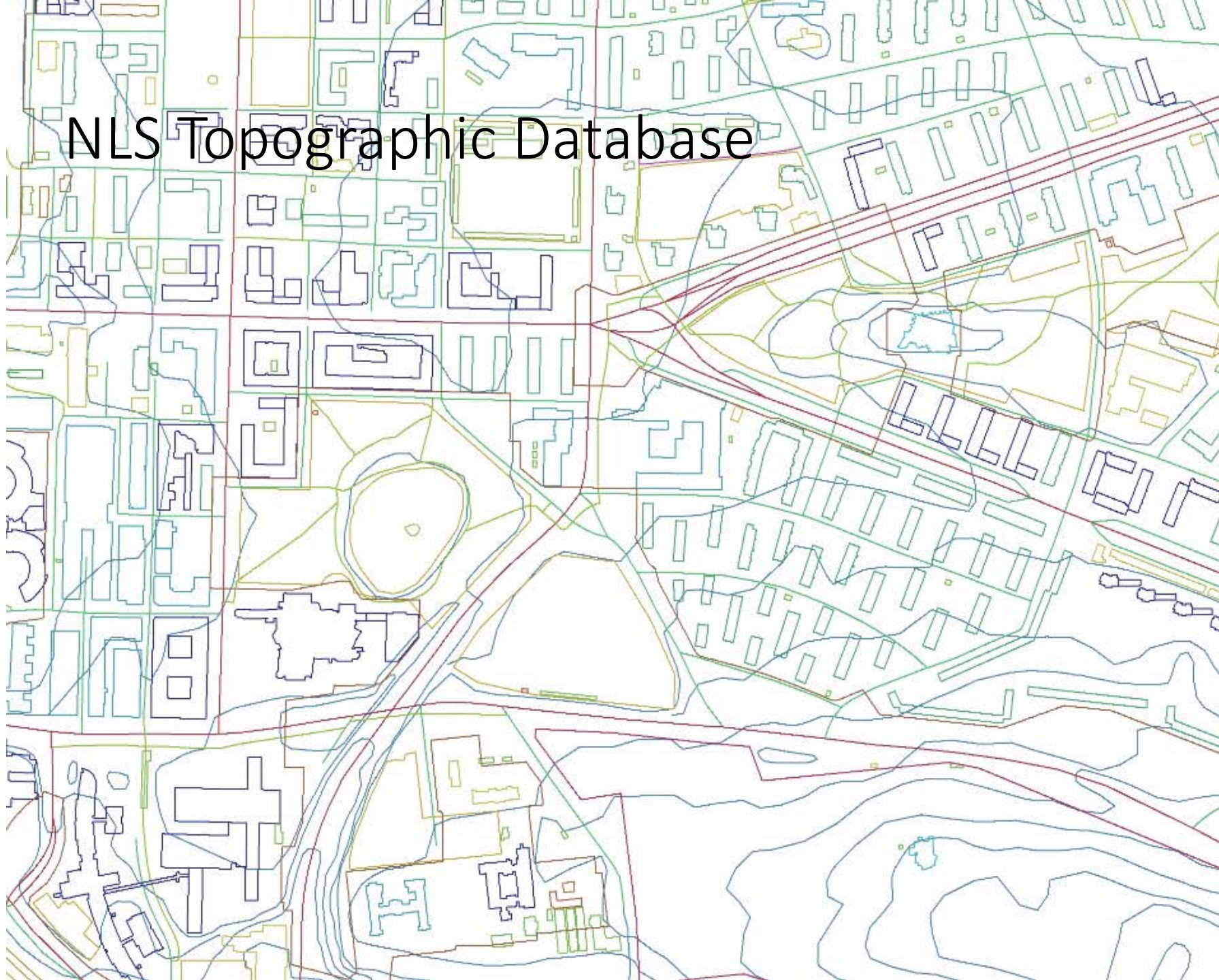
NTDB Level 0 – Cities/Municipalities



City of Tampere



NLS Topographic Database



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KAJAANI



TAMPERE



Kuntaliitto
Kommunförbundet

