Finland

Data APIs are key to location-based knowledge in Finland

"Questions of 'what', 'where' and 'when' cannot be answered in different ecosystem's digital services without the use of geospatial data, positioning, and geospatial technologies. Geospatial and positioning data are the base of location-based knowledge which feed different technologies merged into the ecosystem's digital services. Rapid climate change and the challenge to save the diversity of nature requires changes to the geospatial knowledge infrastructure. In the future, we must answer the question "what is going to happen, when, where, how and why"?"

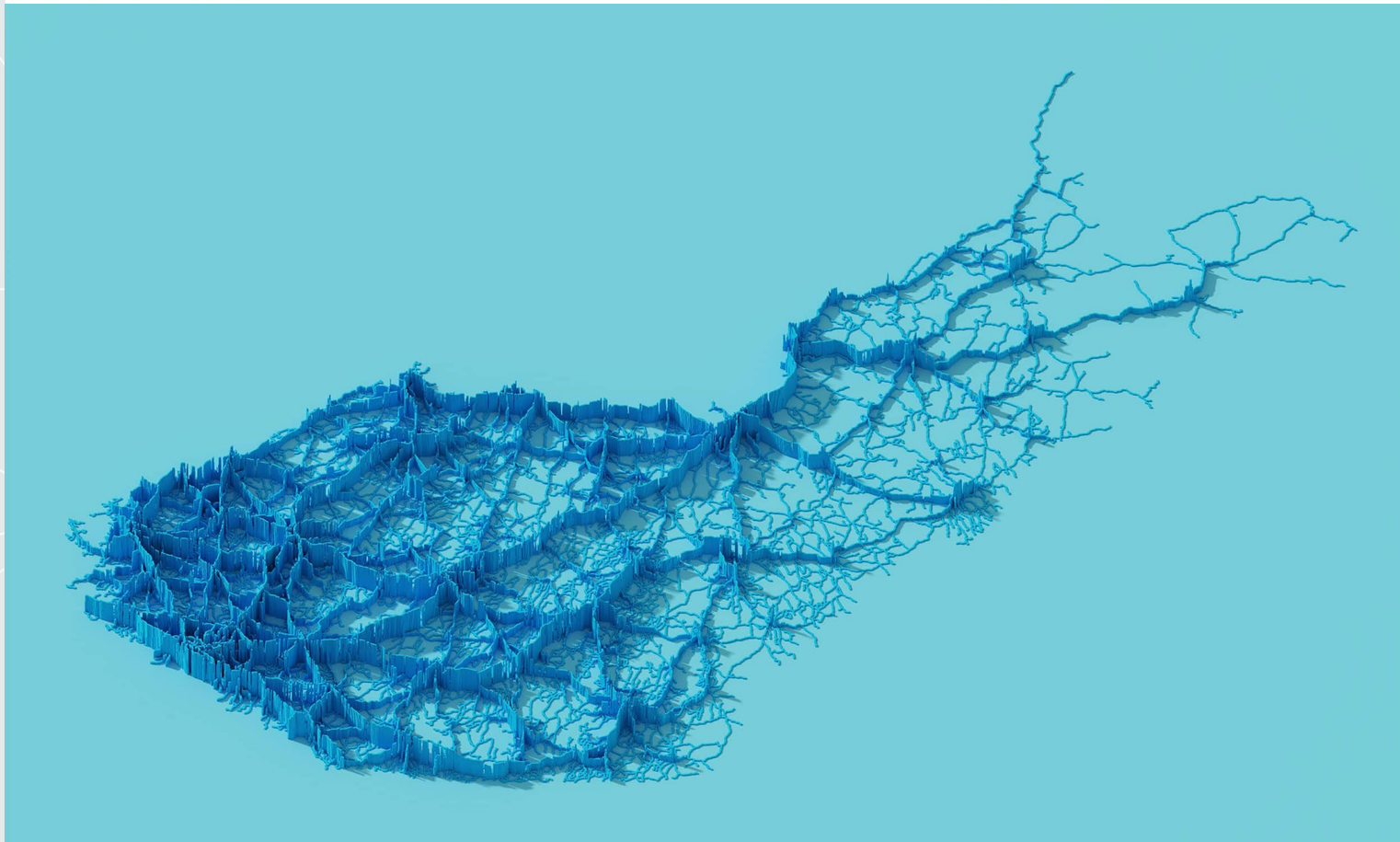
Arvo Kokkonen
Director General,
National Land Survey of Finland

By embracing data Application Programming Interfaces (APIs), Finland is delivering fast, effective and interoperable ways for using geospatial data in different geospatial technologies and methods.

Since implementation started in 2004, the National Land Survey of Finland (NLS) has delivered 39 different Data API-services through 33 development projects. There are three categories – Public Data APIs, Companion Data APIs, and Internal Data APIs – that comprise:

- 22 Data API-services, including 123 products for geospatial data which are mostly Open Data Services.
- 17 Data API-services including 174 products for Land Register and Cadastral Data, which are chargeable except for the cadastral index map.

In 2020, the most popular Geospatial Data API, Raster Map Data API-service (WMTS), transmitted 17 billion raster map tiles (256x256 raster map tile pieces) to customer map service applications (535 raster map tiles/seconds 365/24/7/24).



Benefits

- Enables customers to directly access the most updated data in their own production applications and information services and create new customer experiences, products, services, and business models,
- Removes need for customers to store huge amounts of geospatial data into their own datastores, when data expires regularly.
- Fits perfectly into all kinds of services in mobile devices.
- Provides an effective and economic way to share geospatial data 24/7.
- Forms an important part of an organisation's data architecture when the same Geospatial Data APIs, which are implemented for customers, are also used in the organisation's internal production applications and information services.
- Provides solution that is supplier and technology independent
- Increases speed and efficiency, and enables interoperability, in implementing digital service chains with other ecosystem actors.
- Supports technical interoperability through OGC-standards.