



**ELF** EUROPEAN  
LOCATION  
FRAMEWORK

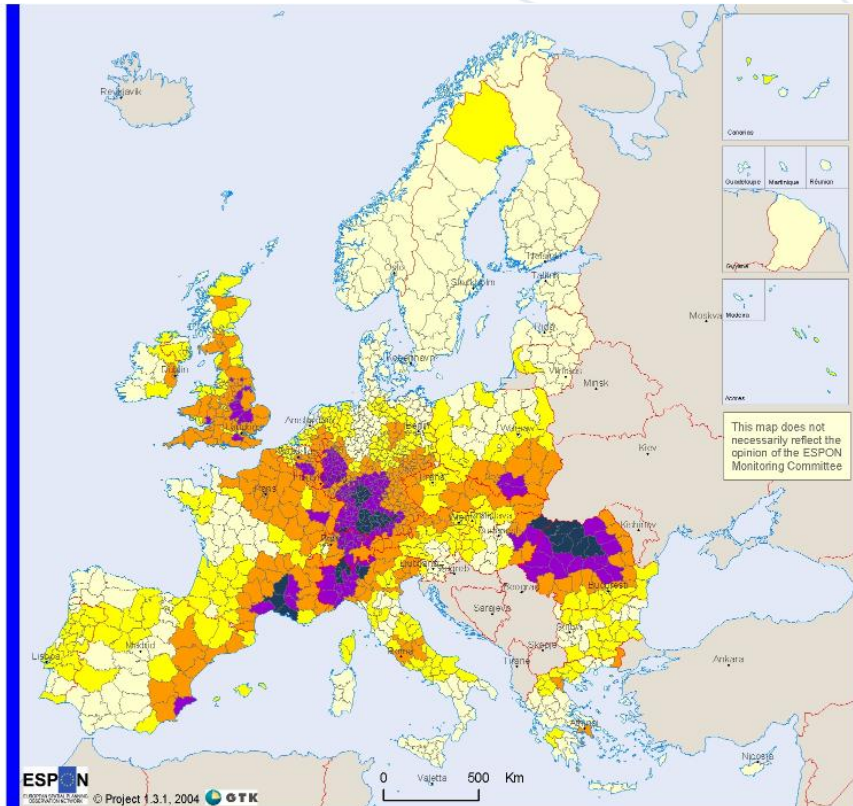
# ELF and national SDIs/e- government/INSPIRE

**Presentation to:** National SDIs/INSPIRE

**By:** Antti Jakobsson

**Date:** 25.11.2015

# Flood recurrence in Europe

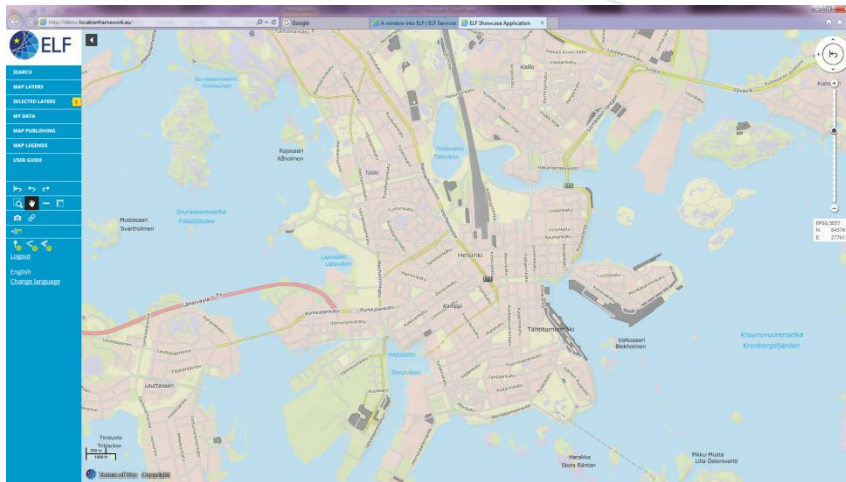


Origin of the data: © EuroGeographics Association for the administrative boundaries  
 Large flood areas © Dartmouth Flood Observatory  
 Flood areas © ESA - Earth observation - Earth online  
 Rhine Atlas 2001 IKRS-CIPR-ICBR  
 Source: ESPON Data Base

This map displays the hazard recurrence based on average number of large flood events on NUTS3 regions 1987-2002. The first class "Very low hazard intensity" includes the regions without large flood events.

**Emergency  
 does not  
 respect  
 borders**

Helsinki



**Business on the  
web assumes data  
availability**



Copenhagen

# ELF project in a nutshell

- 30 partners, 13 National Mapping Authorities + 10 more joining
- 20 countries
- Part funded by the ICT-PSP budget , 13 million euro
- Runs between 2/2013-2/2016 (10/2016 under negotiation)
- To deliver the European Location Framework (ELF) required to provide up-to-date, authoritative, interoperable, cross-border, reference geo-information for use by the European public and private sectors



[www.elfproject.eu](http://www.elfproject.eu)

# The ELF vision –The ELF White Paper

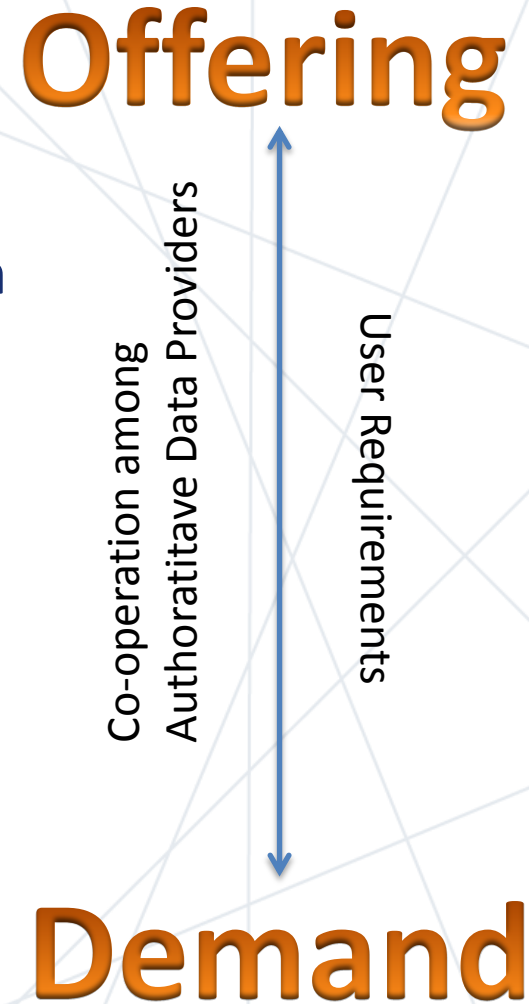
## A geospatial reference infrastructure

- ★ Interoperable data and services
- ★ Full coverage of Europe
- ★ Support international standards and INSPIRE
- ★ Quality and metadata
- ★ Management of national data

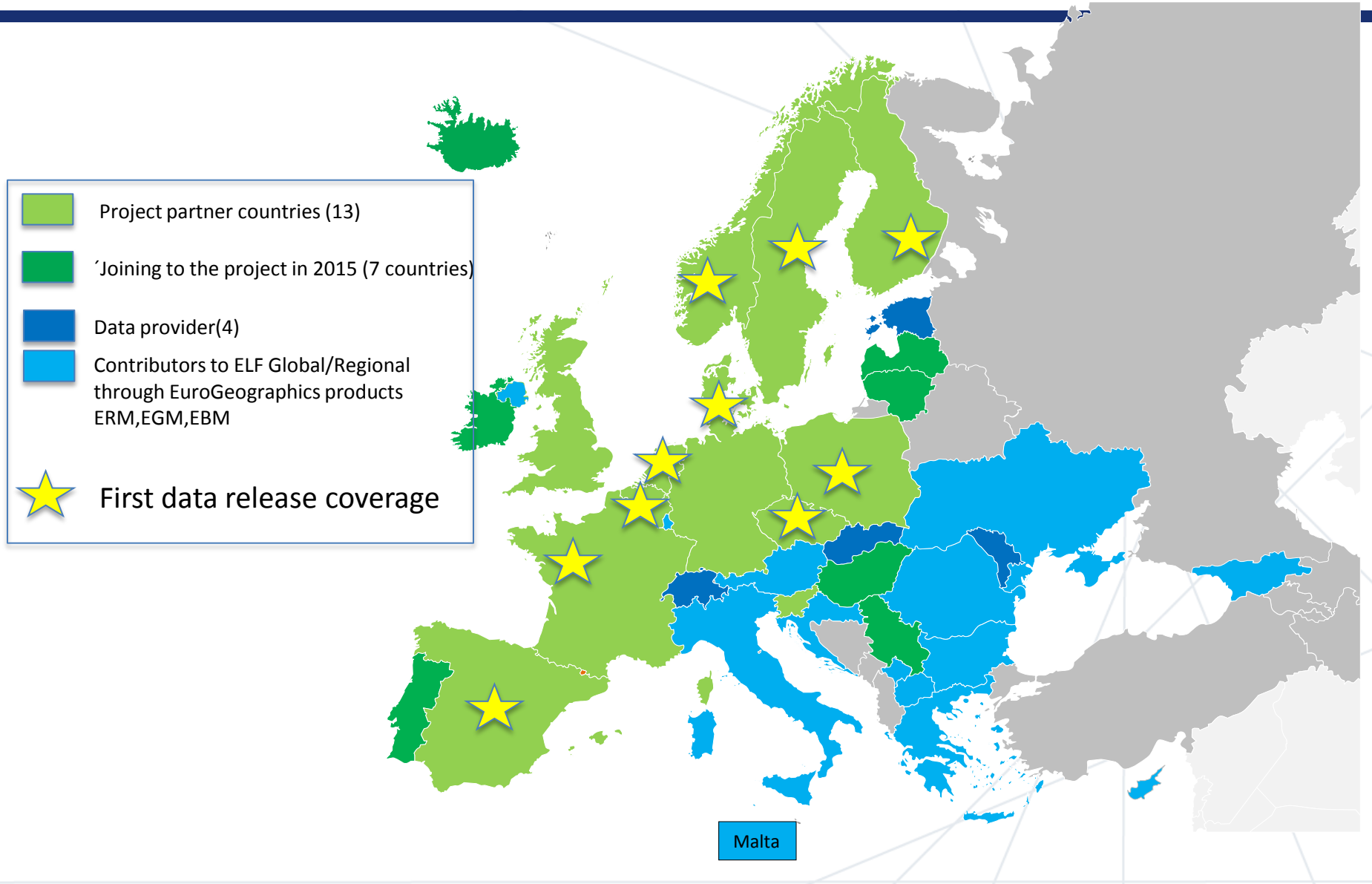


## Key concepts in ELF

- **One source for reference geo-information**
  - ★ **Harmonisation**
  - ★ **Cross-border management**
  - ★ **License management**
- **Focus on use of services**
- **Georeferencing**
- **Multiple interfaces**
- **Quality**



# ELF Data in 2017



## EuroGeographics EBM/ERM and EGM

MASTER LoD0	Master LoD1/2	REGIONAL	GLOBAL
Cadastral Parcels (CP)	Administrative Units (AU)	Administrative Units (AU): AU & NUTS	Administrative Units (AU)
Addresses (AD)	Hydrography (HY)	Hydrography (HY): HY & SR	Hydrography (HY): HY & SR
	Sea Regions (SR)		
	Transport Networks (TN)	Transport Networks (TN)	Transport Networks (TN)
Geographical Names (GN)	Geographical Names (GN)	Geographical Names (GN): GN & POP	Geographical Names (GN): GN & POP
Elevation (EL)	Elevation (EL)	Elevation (EL)	Elevation (EL)
	Land Cover (LC)	Land Cover (LC): POP & VEG	Land Cover (LC): POP
Buildings (BU)	Buildings (BU)	Buildings (BU)	
	Protected Sites (PS)	Protected Sites (PS)	
		Miscellaneous (MISC)	



# GeoLocator – gazetteer service and address service

The screenshot displays the GeoLocator web application interface. The browser address bar shows the URL <http://54.195.254.125/>. The application title is "ELF Showcase Application". The interface includes a sidebar with navigation options: SEARCH, MAP LAYERS, SELECTED LAYERS, MY DATA, MAP PUBLISHING, MAP LEGENDS, and USER GUIDE. The main content area is titled "Search" and contains a "Places" tab and a "Metadata Search" tab. The search results are displayed in a table with 4 results:

Name	Region	Type
<a href="#">Helsinki</a>	Helsinki (fin)	Administrative units
<ul style="list-style-type: none"><li>• Elsinki</li><li>• Eäöivä</li><li>• Helsingui</li><li>• Helsinkiy</li><li>• Helsingis</li><li>• Helset</li><li>• Helsingi</li><li>• Helsinki</li><li>• Helsinki</li><li>• Helsinki</li></ul>		
<a href="#">Helsinki</a>	Uusimaa (fin)	Administrative units
<ul style="list-style-type: none"><li>• Helsinki</li><li>• Helsingfors</li></ul>		
<a href="#">Helsinki</a>	Taivassalo (fin)	POPULATED PLACES
<a href="#">Helsinki</a>	Helsinki (fin)	Land transport

The map shows the Helsinki region with several yellow markers. A pop-up window titled "Search results" is open over one of the markers, displaying the following information:

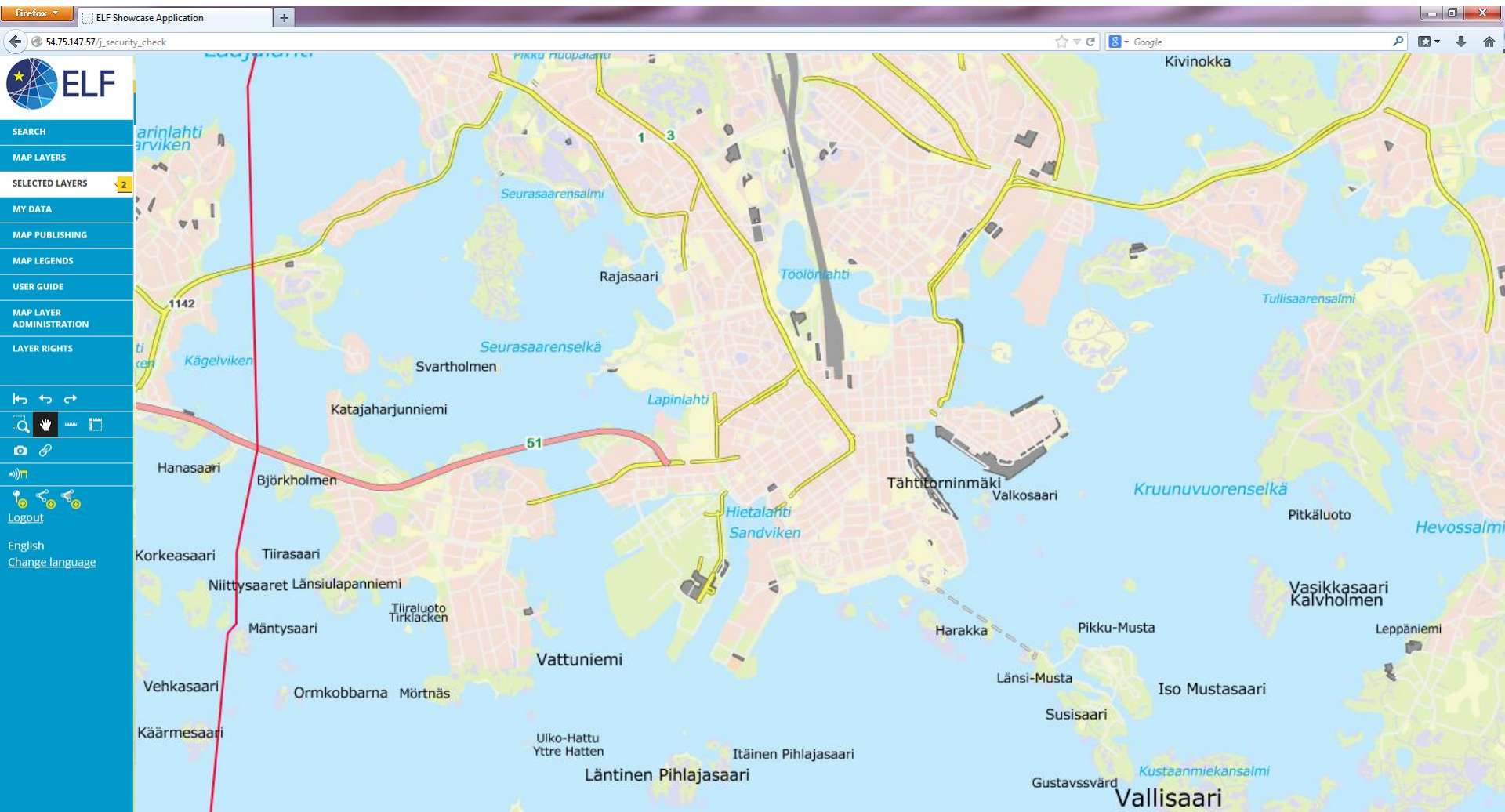
**Search results**

Helsinki  
Helsinki (fin)  
Administrative units

The map also shows labels for Vantaa, Espoo, and Helsinki. A scale bar indicates 2 km and 1 mi. The bottom left corner contains links for "Terms of Use" and "Copyright". The bottom right corner shows coordinates: EPSG:3857, N: 8449145, E: 2766551.

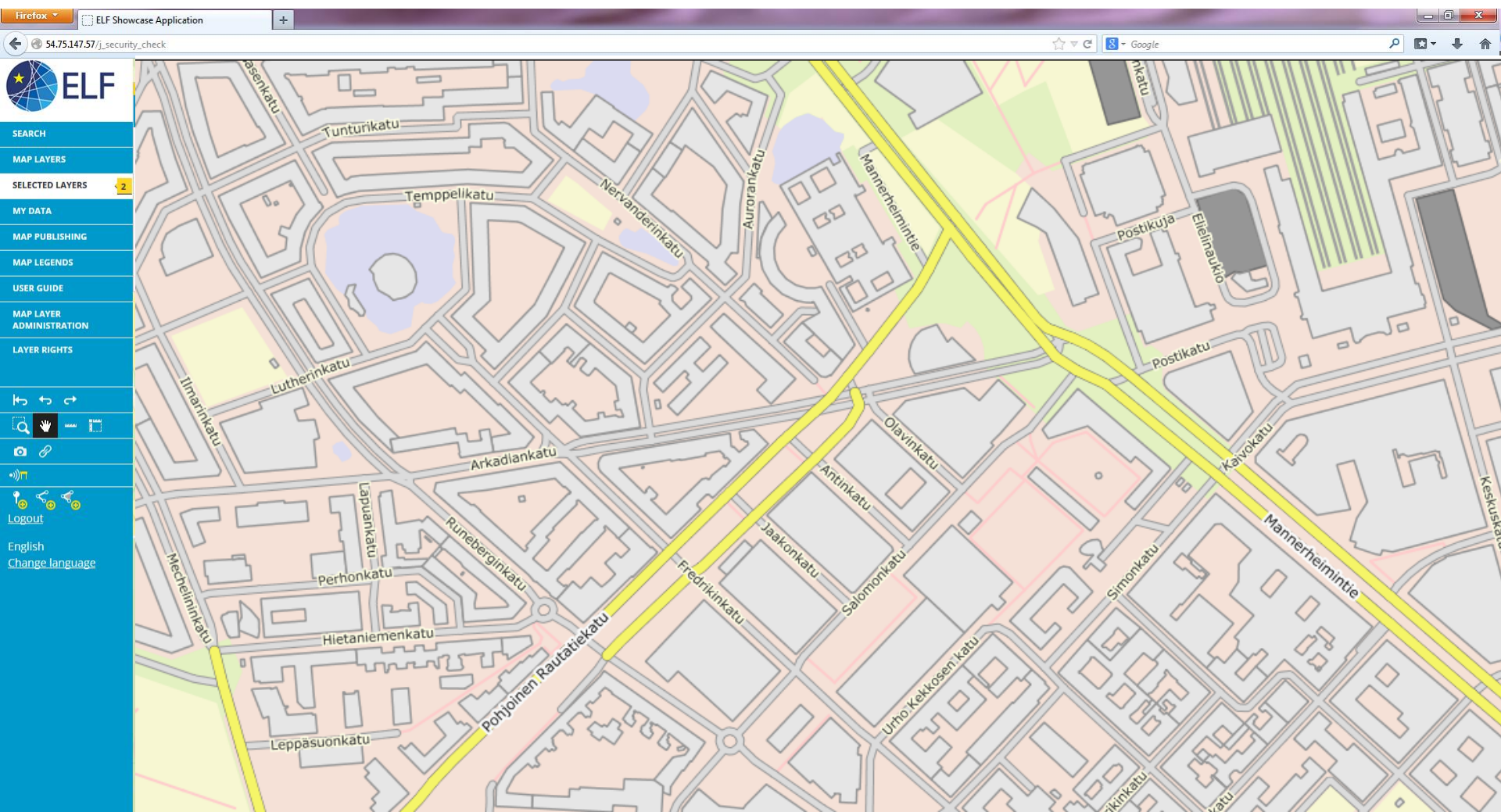
Exonym database of Europe

# Basemap – a WMTS service populated from national WMS services



Helsinki

# Basemap – a WMTS service populated from national WMS services



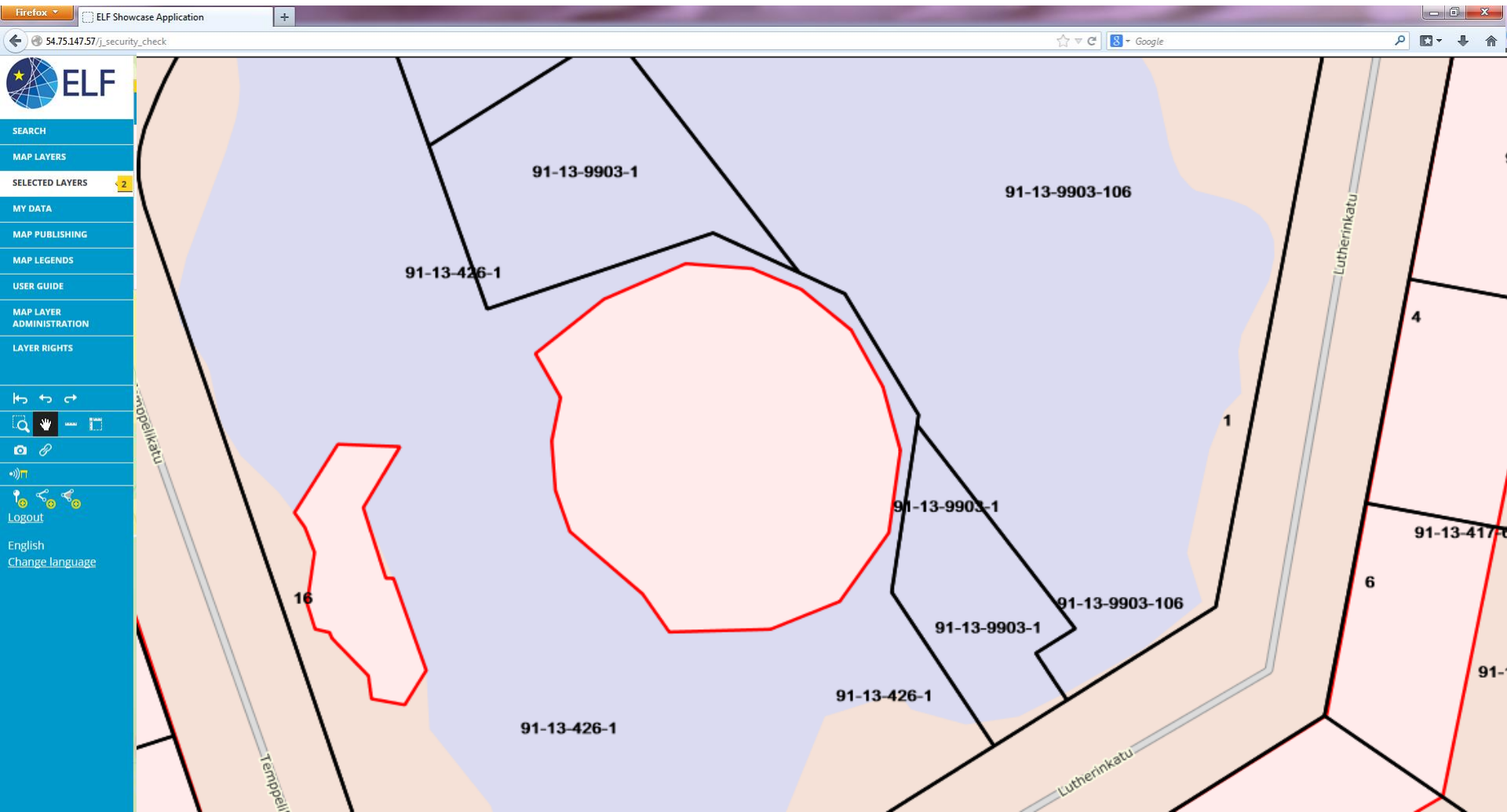
Helsinki



the Competitiveness and Innovation framework Programme (CIP)  
ICT Policy Support Programme (PSP) Call 6 Grant 325140

EUROPEAN LOCATION FRAMEWORK

# Cadastral Index Map – a cascading WMS service



Helsinki

Get Feature Info (CP, AD) + BU,AU

# What is ELF in connection to INSPIRE

- Arrangements within NMCAs in Europe to co-operate and provide access point to INSPIRE based services for European/cross-border use -> we are connecting ELF/INSPIRE national services for real use
- EuroGeographics provides European Location Services for users
- NMCAs National broker role: to see that INSPIRE data services can be provided when multiple organizations are responsible
- ELF 1.0 specification is fully INSPIRE compatible
- ELF interoperability: At least INSPIRE schema and ELF schema compliance will be met, edgematching and Pan-European features are important goals
- In future ELF schemas should be considered when updating INSPIRE schemas
- ELF service = INSPIRE national service ideally!

# National vision on ELF?

- **ELF provides key INSPIRE services for cross-border/Europe use**
- **Used in reporting and other governmental duties when trusted maps needed -> for example EEA**
- **Co-funded by the Commission and the Member States**
- **Adaptation of ELF specs for some national datasets like small scale data (Global, Regional) but also Master**
- **Utilization of ELF at some national services (like emergency)**
- **Strong linkage with national e-government activities**



European Commission



European Cross-Border Users

European Data Providers



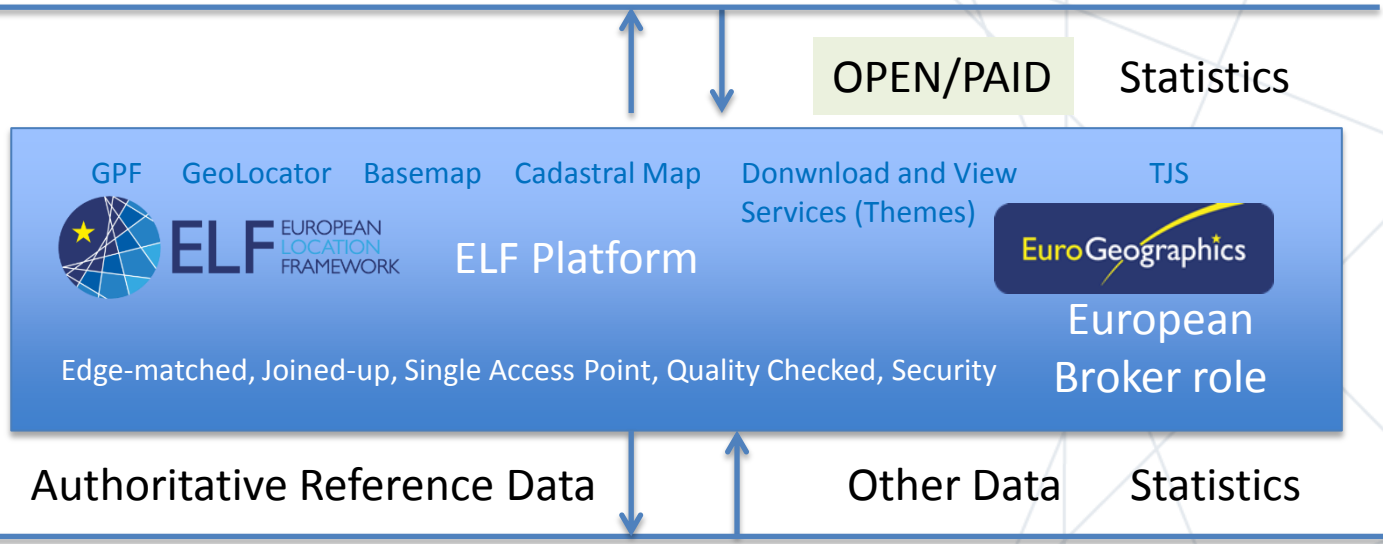
Other Directives



ISA

MS

Enablers



NMCAS (National Broker Role)

National Users

National Data Providers

# ELF builds on INSPIRE

