



ELF EUROPEAN
LOCATION
FRAMEWORK

ELF Platform – Demo

Presentation to: EG Technical Producer Meeting 2015, Warsaw

Author: Anja Hopfstock (BKG), WP2 leader

Date: 01 April 2015

Status of work: ELF Services and Data Content

WP3 ELF Services and Data Content

- Main objectives

Provide content to the ELF platform

- ★ 11 themes
- ★ Download and View services

Software development

ELF Download services – Access points

★ ELF Cascaded Download service

- ★ A service cascade of National thematic WFS's
- ★ Implements WFS – the INSPIRE direct access download (with some limitations)
- ★ ELF Deliverable due mid March 2015



ELF Download services – Access points

★ ELF GeoLocator service

- ★ ELF Deliverable, running since Feb 2014
- ★ Centralised datastore, esp. for exonyms
- ★ Gazetteer and geocoding service: multilingual,
- ★ WFS-G, INSPIRE/ELF GN (GML), CLV, JSON and KML output



Content

- ★ GN from Eurogeonames and ELF National services
- ★ AD and AU from ELF National services

Custom operators

- ★ GetFeatureinAU, FuzzyNameSearch, ReverseGeocode

ELF National Download Services Status



- ★ National download services for Master data
 - ★ WFS Direct access download
 - ★ Currently reported 38 national services - a total of 79 feature types

Demo

 **ELF**

SEARCH

MAP LAYERS




SELECTED LAYERS **2**



MY DATA


MAP PUBLISHING



MAP LEGENDS





USER GUIDE














[Logout](#)

English



[Change language](#)




EPSG:3857
 N: 7374725
 E: 1286978

200 km
200 mi

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 [Copyright](#)


ELF

SEARCH

MAP LAYERS


SELECTED LAYERS 2




MY DATA

MAP PUBLISHING

MAP LEGENDS

USER GUIDE



Logout

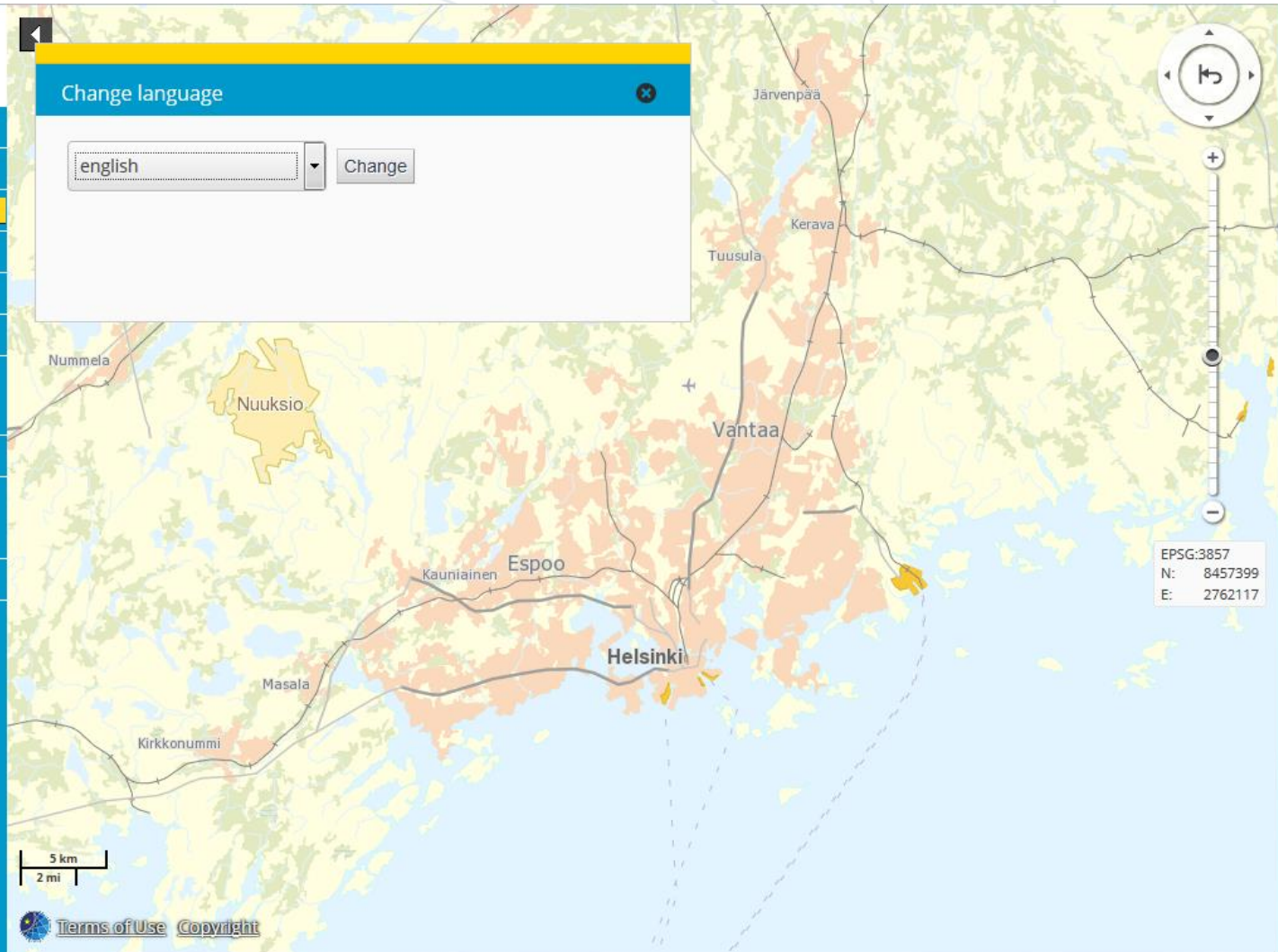
English

[Change language](#)

Change language



▼

Change

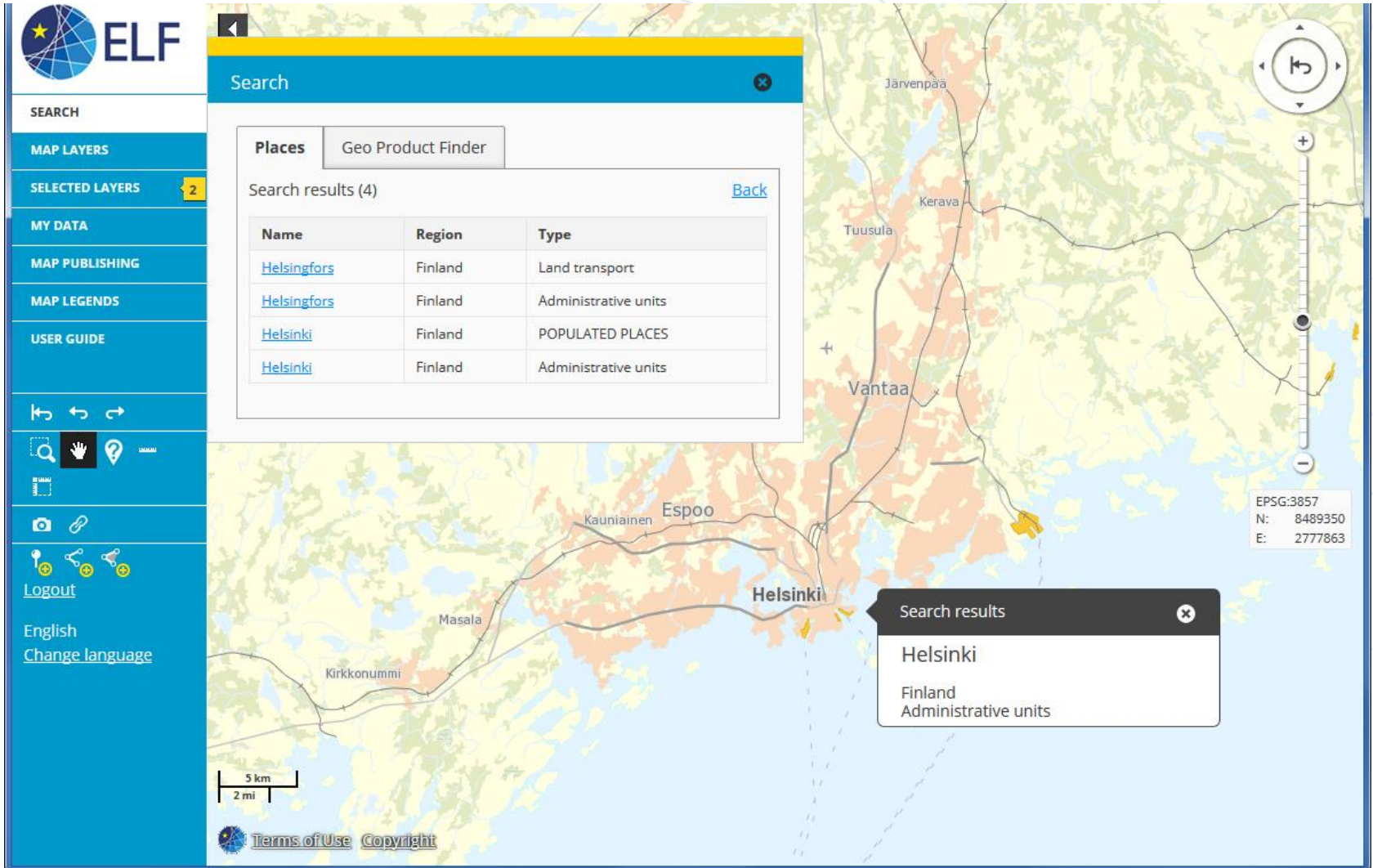


Järvenpää
 Kerava
 Tuusula
 Vantaa
 Espoo
 Helsinki
 Kauniainen
 Masala
 Kirkkonummi
 Nuksio
 Nummela

5 km
 2 mi


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[Copyright](#)

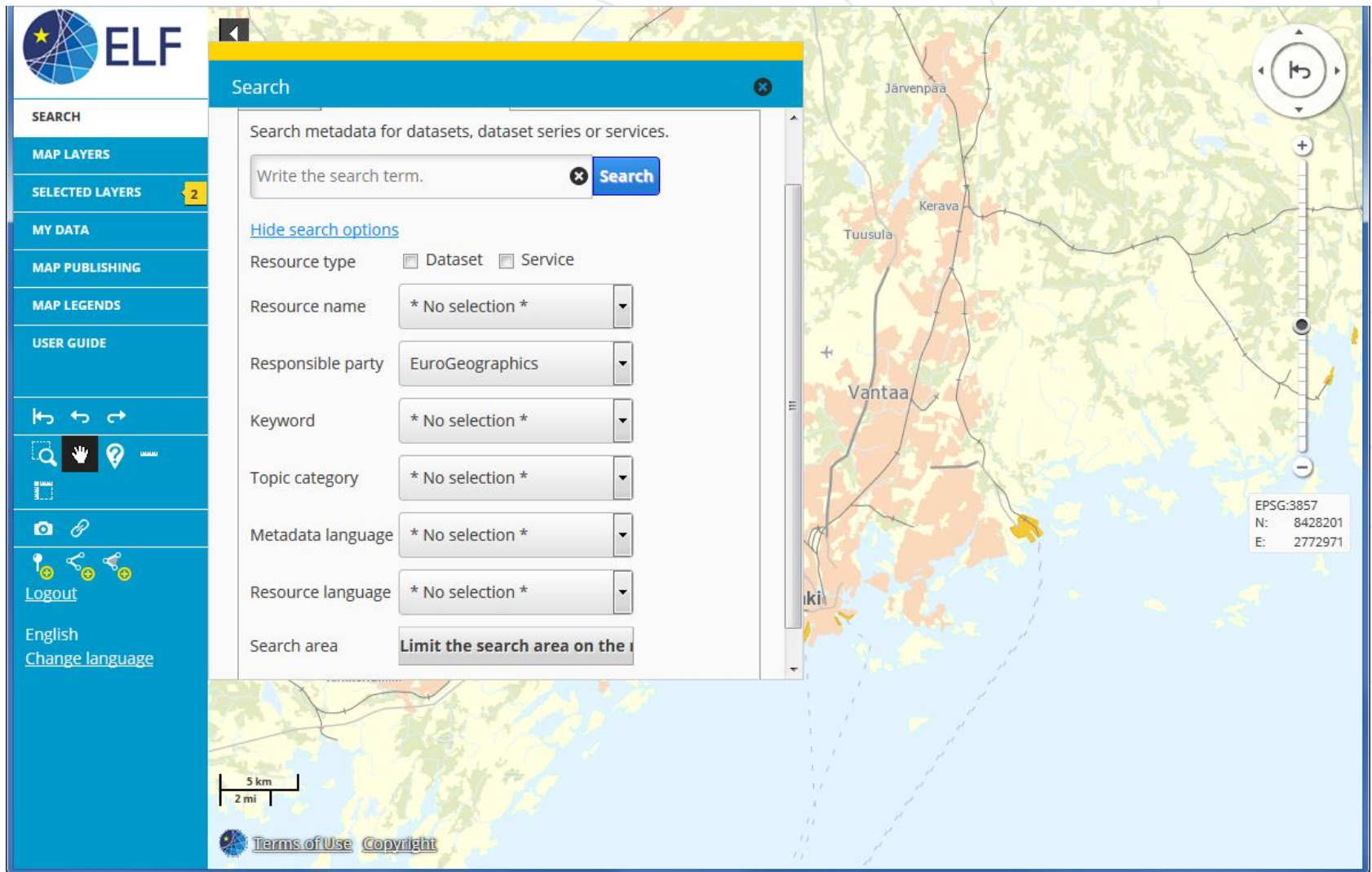
EPSG:3857
 N: 8457399
 E: 2762117




The screenshot displays the ELF Geo Product Finder web application. On the left is a navigation menu with options: SEARCH, MAP LAYERS, SELECTED LAYERS (2), MY DATA, MAP PUBLISHING, MAP LEGENDS, and USER GUIDE. Below the menu are icons for map navigation and a 'Logout' button. The main content area features a 'Search' panel with a 'Places' tab and a 'Geo Product Finder' button. The search results are displayed in a table with 4 entries:

Name	Region	Type
Helsingfors	Finland	Land transport
Helsingfors	Finland	Administrative units
Helsinki	Finland	POPULATED PLACES
Helsinki	Finland	Administrative units

A map of the Helsinki region is shown in the background, with labels for Järvenpää, Kerava, Tuusula, Vantaa, Espoo, Kauniainen, Masala, and Kirkkonummi. A scale bar indicates 5 km and 2 mi. A coordinate box in the bottom right corner shows EPSG:3857, N: 8489350, and E: 2777863. A 'Search results' popup is visible over the map, showing 'Helsinki' as 'Finland Administrative units'.



The screenshot shows the ELF Search interface. On the left is a sidebar with navigation links: SEARCH, MAP LAYERS, SELECTED LAYERS (2), MY DATA, MAP PUBLISHING, MAP LEGENDS, and USER GUIDE. Below these are icons for various map functions and a 'Logout' link. The main area is titled 'Search' and contains a search bar with the placeholder 'Write the search term.' and a 'Search' button. Below the search bar is a link 'Hide search options'. The search filters include: Resource type (Dataset, Service), Resource name (* No selection *), Responsible party (EuroGeographics), Keyword (* No selection *), Topic category (* No selection *), Metadata language (* No selection *), Resource language (* No selection *), and Search area (Limit the search area on the map). The background is a map of the Vantaa area in Finland, showing cities like Järvenpää, Kerava, Tuusula, and Vantaa. A scale bar indicates 5 km and 2 mi. A coordinate box in the bottom right corner shows EPSG:3857, N: 8428201, and E: 2772971. At the bottom left of the map area are links for 'Terms of Use' and 'Copyright'.



ELF

SEARCH

MAP LAYERS

SELECTED LAYERS 2

MY DATA

MAP PUBLISHING

MAP LEGENDS

USER GUIDE

Navigation icons: Home, Previous, Next, Search, Hand, Location, Scale bar, Print, Share, Logout

Logout

English

[Change language](#)

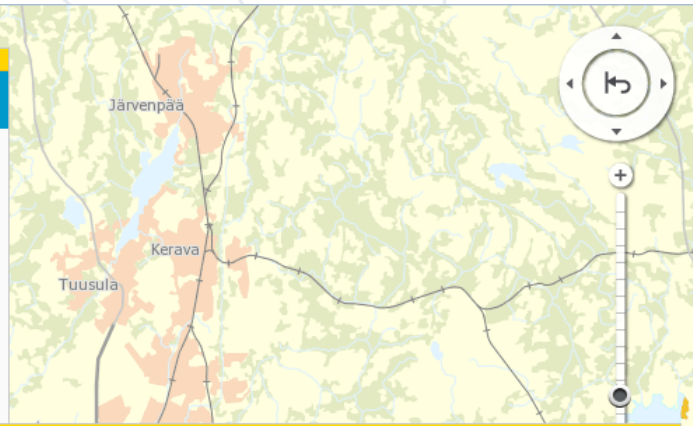
Search

Places Geo Product Finder

Search Results [Edit search options](#)

Name

ELF Regional, EuroGeographics



Metadata

ELF Regional

Basic information ISO 19115 metadata Inspire metadata Data quality [ISO 19139 XML file](#) [Printout](#)


ELF REGIONAL

ABSTRACT TEXT (DATA)

ELF Regional is created from EuroRegionalMap, a Pan-European topographic vector dataset at scale 1: 250000, that is seamless and harmonized across boundaries. It is produced in cooperation by the National Mapping Agencies of the participating countries using official national databases. Thematic layers: Administrative Boundaries, Hydrography, Transport , Geographical Names, Land Cover, Utilities and Governmental Services, Protected Sites, Buildings.

METADATA DATE

nullTnullZ



ELF

SEARCH

MAP LAYERS




SELECTED LAYERS **2**





MY DATA



MAP PUBLISHING





MAP LEGENDS

USER GUIDE

[Logout](#)

English

[Change language](#)

Map Layers


By Theme By Data Provider

Search map layers.


Search map layers by the name of the map layer, the name of the data producer or the keyword describing the map layer. [?](#)

- Addresses (2)
- Administrative units (7)
- Basemaps (2)
- Buildings (1)
- Elevation (1)
- Environmental monitoring facilities (1)
- Geographical names (6)
- Hydrography (6)
- Land use (1)

5 km
2 mi


[Terms of Use](#)
[Copyright](#)

EPSG:3857
 N: 8426519
 E: 2771748



ELF

SEARCH

MAP LAYERS

SELECTED LAYERS **2**

MY DATA

MAP PUBLISHING

MAP LEGENDS

USER GUIDE

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📷 🔗

🔒 🔑 🔑

[Logout](#)

English

[Change language](#)

Map Layers

By Theme By Data Provider

Search map layers.

Search map layers by the name of the map layer, the name of the data producer or the keyword describing the map layer. [i](#)

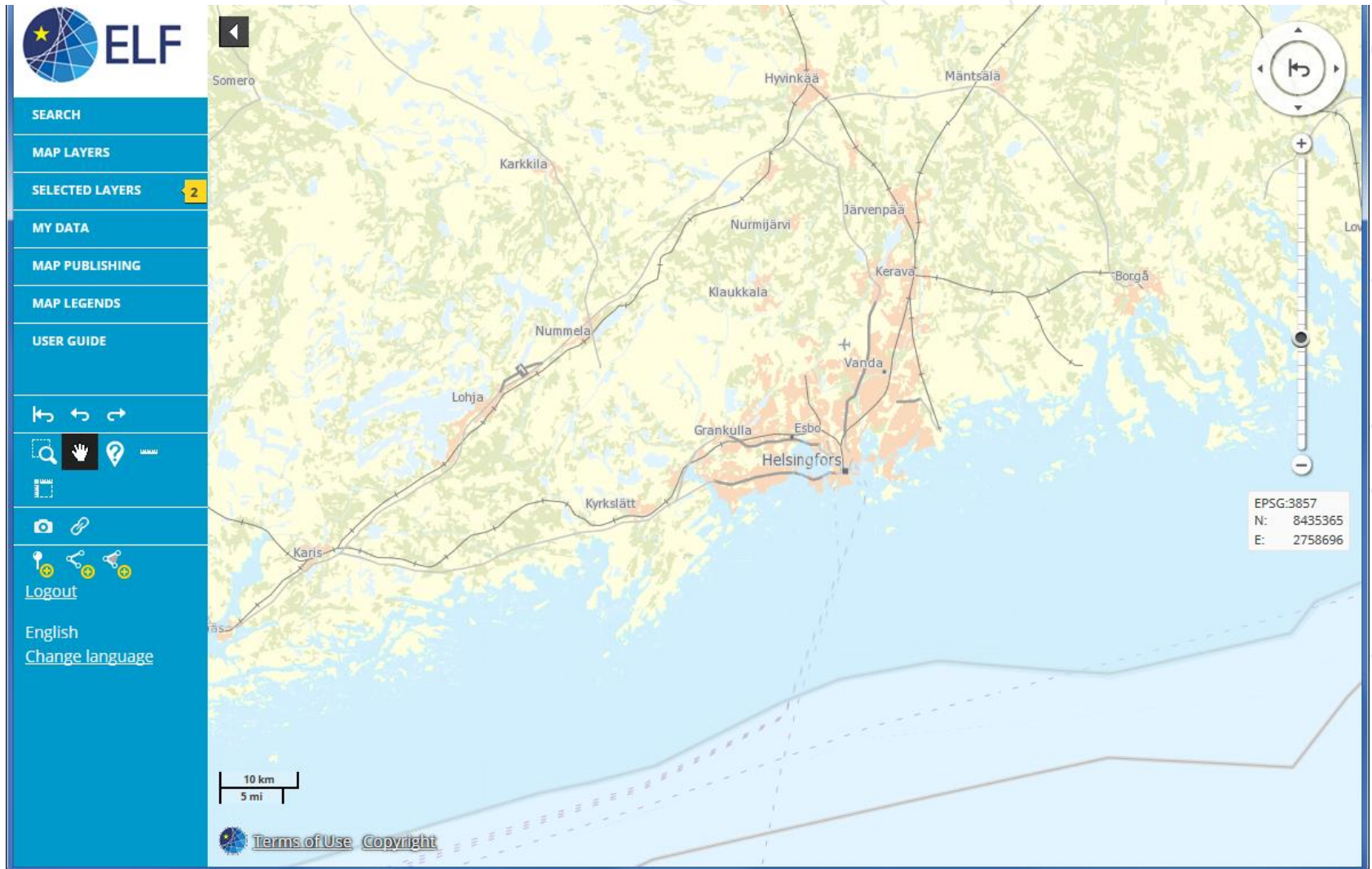
- ▶ **Addresses (2)**
- ▶ **Administrative units (7)**
- ▼ **Basemaps (2)**
 - ☒ ELF Pilot Basemap (NLSFI)
 - ☒ ELF Topographic Basemap
- ▶ **Buildings (1)**
- ▶ **Elevation (1)**
- ▶ **Environmental monitoring facilities (1)**
- ▶ **Geographical names (6)**
- ▶ **Hydrography (6)**

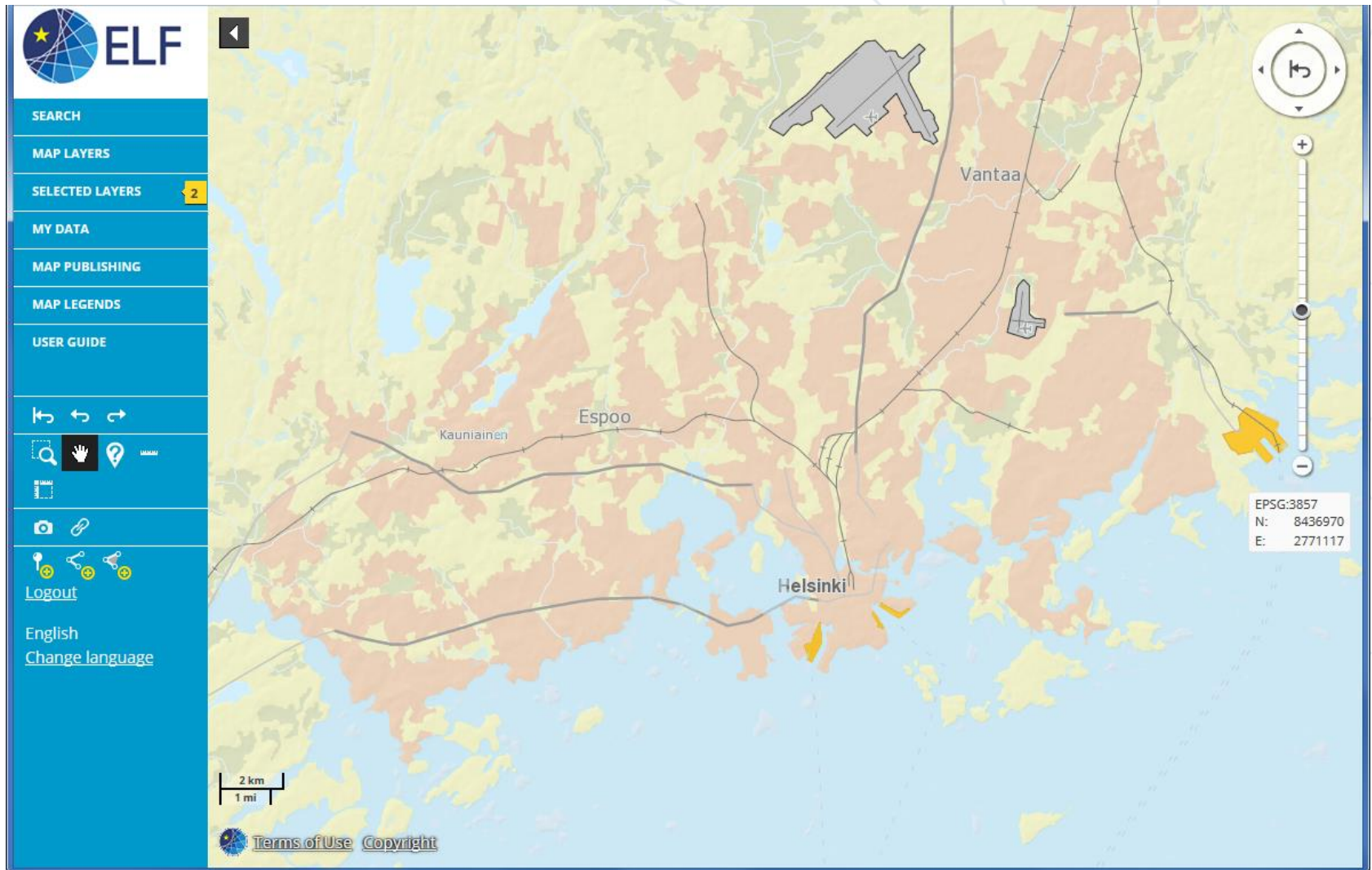
5 km
2 mi

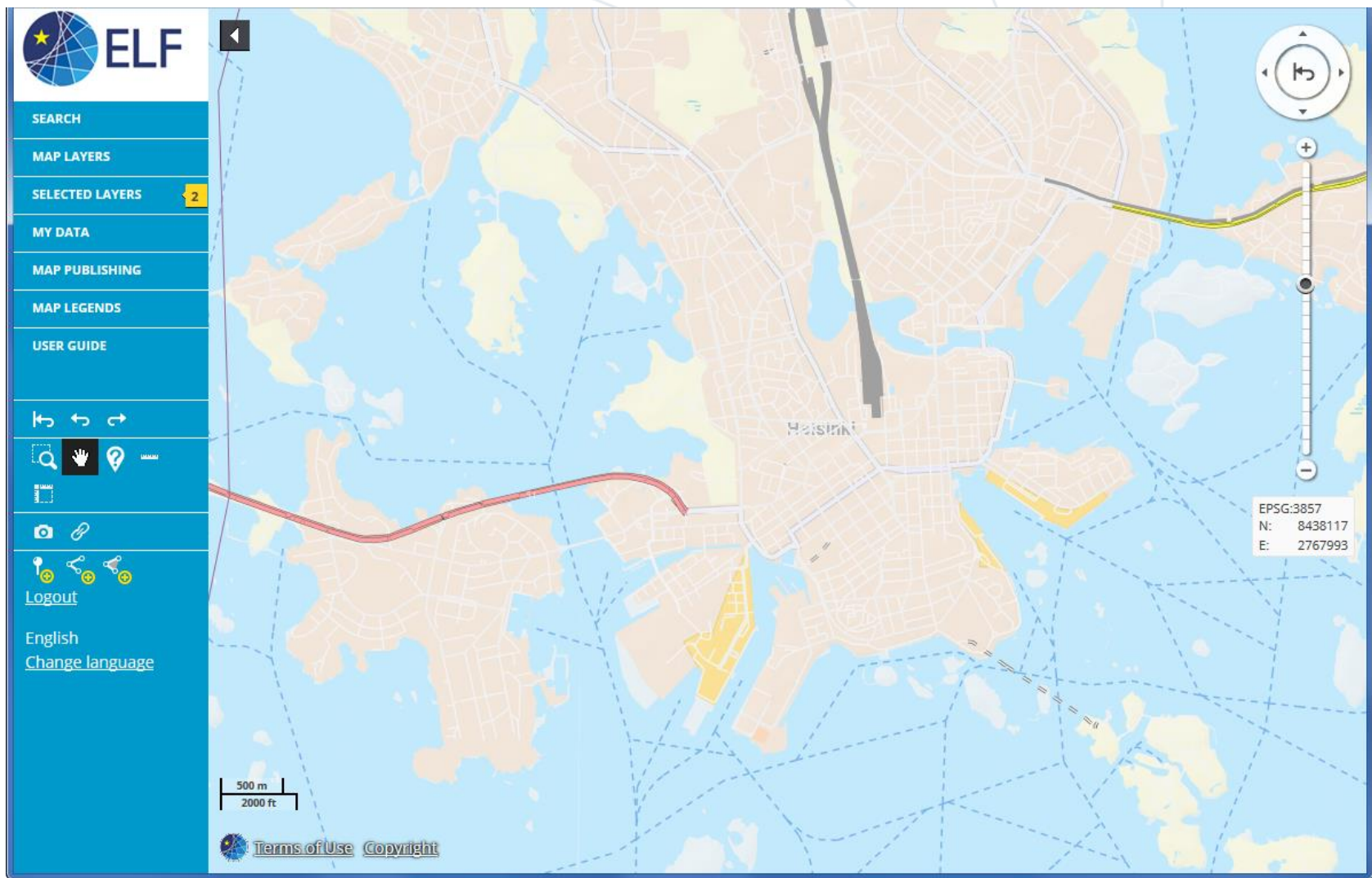
[Terms of Use](#) [Copyright](#)

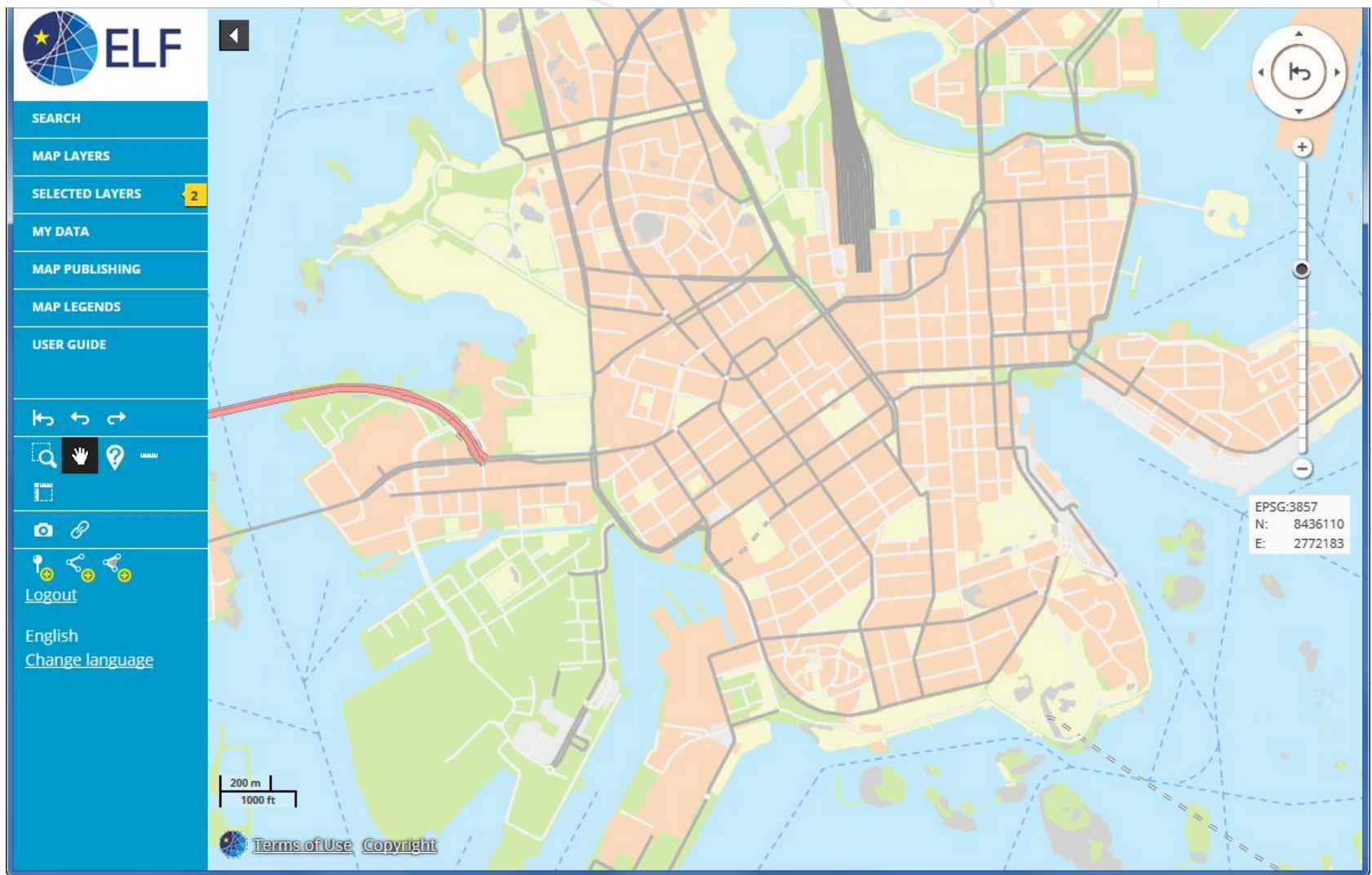
EPSG:3857
N: 8433093
E: 2724969

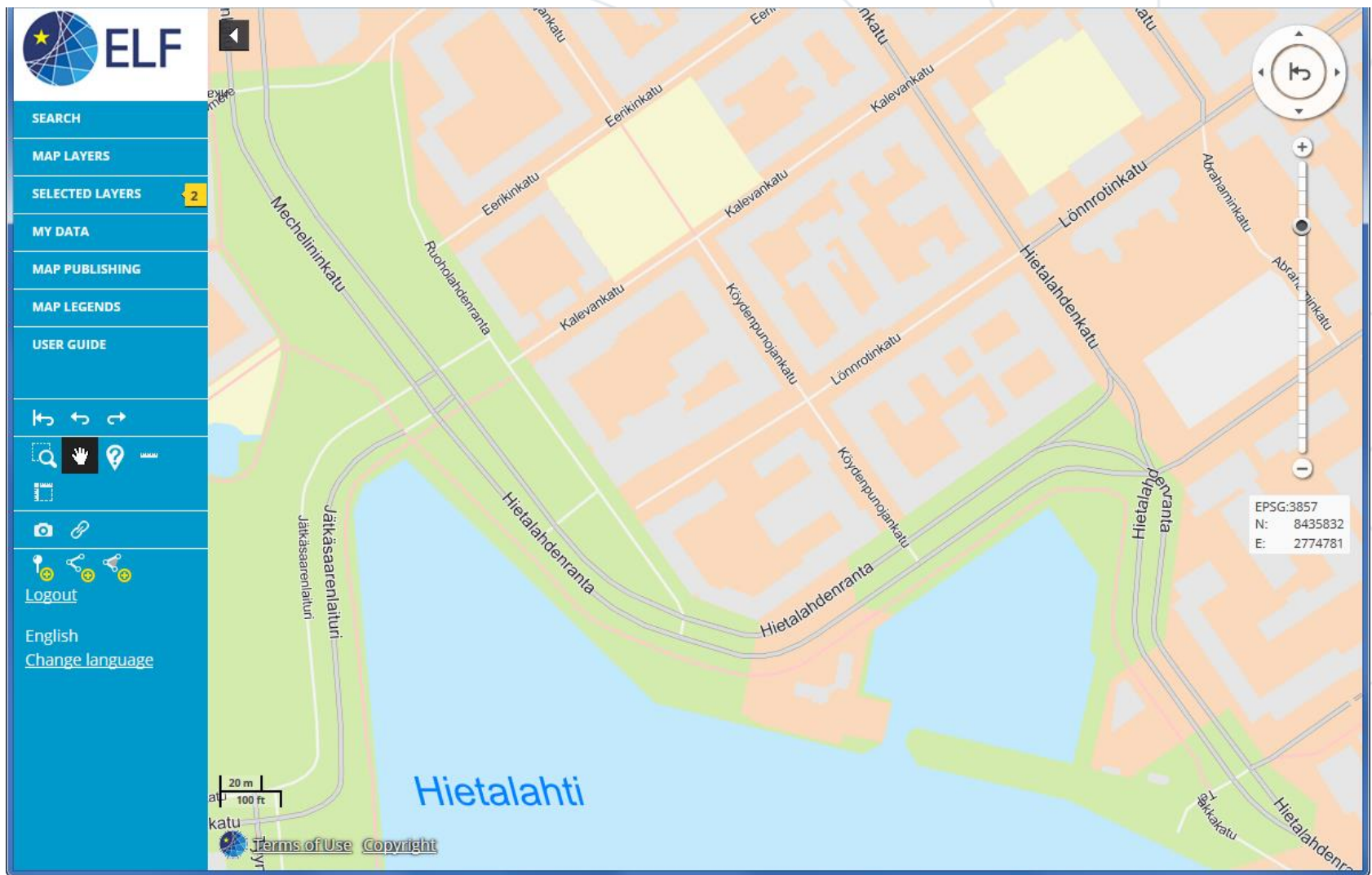




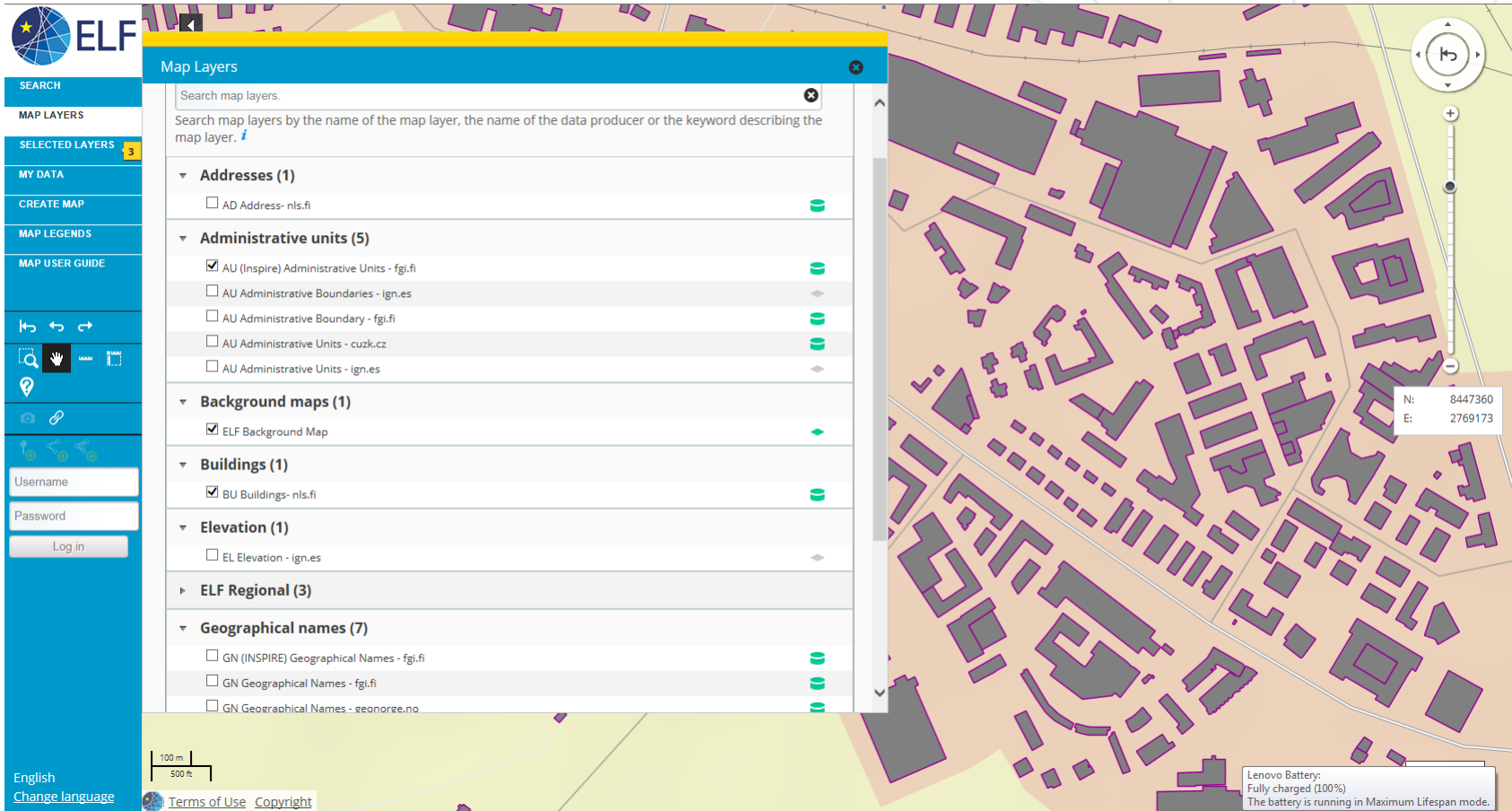








ELF WFS



Map Layers

Search map layers.

Search map layers by the name of the map layer, the name of the data producer or the keyword describing the map layer.

- Addresses (1)**
 - ☐ AD Address - nls.fi
- Administrative units (5)**
 - ☒ AU (Inspire) Administrative Units - fgi.fi
 - ☐ AU Administrative Boundaries - ign.es
 - ☐ AU Administrative Boundary - fgi.fi
 - ☐ AU Administrative Units - cuzk.cz
 - ☐ AU Administrative Units - ign.es
- Background maps (1)**
 - ☒ ELF Background Map
- Buildings (1)**
 - ☒ BU Buildings - nls.fi
- Elevation (1)**
 - ☐ EL Elevation - ign.es
- ELF Regional (3)**
- Geographical names (7)**
 - ☐ GN (INSPIRE) Geographical Names - fgi.fi
 - ☐ GN Geographical Names - fgi.fi
 - ☐ GN Geographical Names - geonorge.no

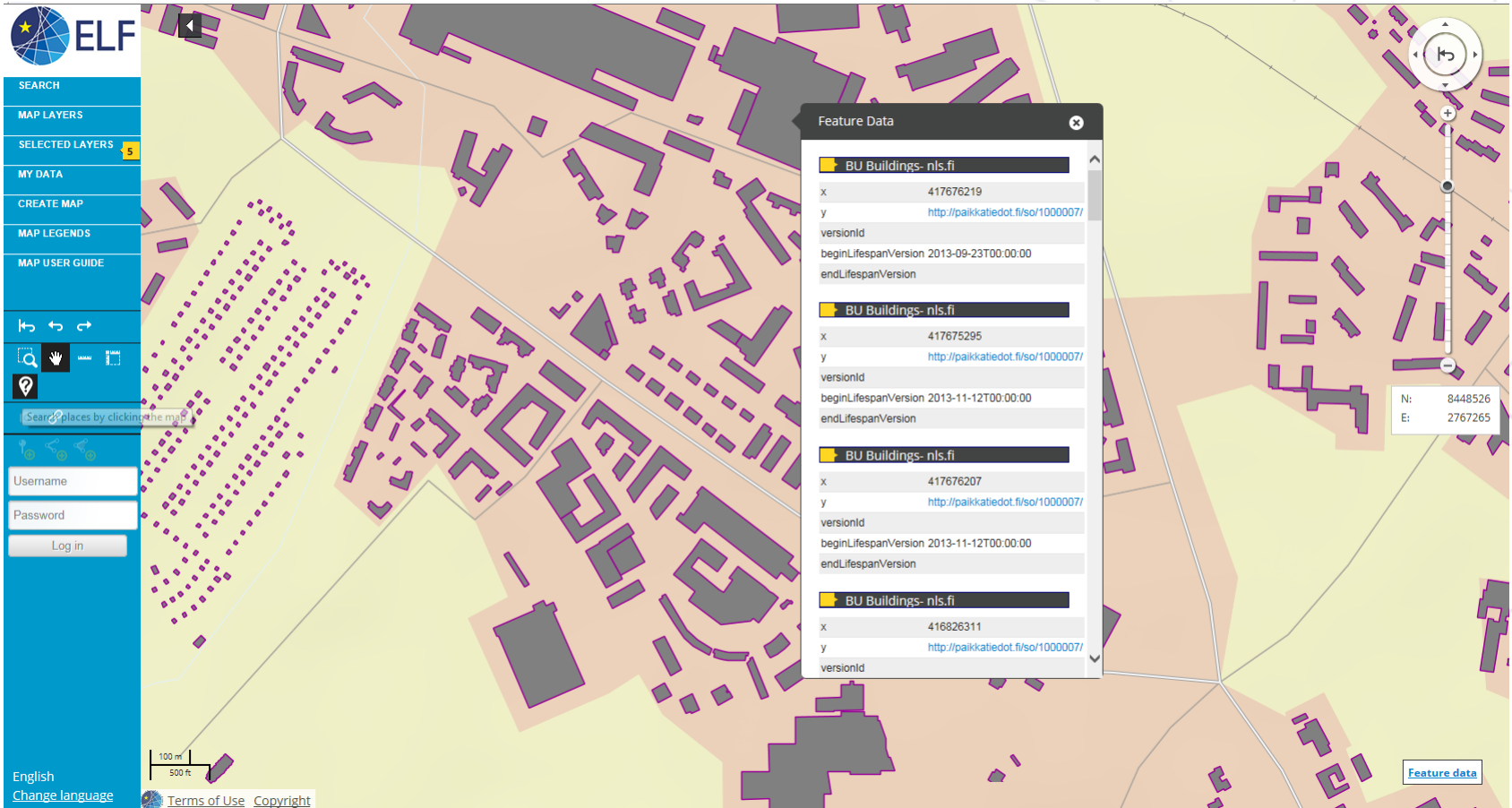
English
[Change language](#)

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N: 8447360
E: 2769173

Lenovo Battery:
Fully charged (100%)
The battery is running in Maximum Lifespan mode.

ELF WFS



The screenshot displays the ELF WFS web application interface. On the left is a blue sidebar with navigation links: SEARCH, MAP LAYERS, SELECTED LAYERS (5), MY DATA, CREATE MAP, MAP LEGENDS, and MAP USER GUIDE. Below these are search tools, a login section with fields for Username and Password, and a 'Log in' button. At the bottom of the sidebar are links for 'English' and 'Change language', and 'Terms of Use' and 'Copyright' links. The main area shows a map of a residential area with buildings outlined in purple. A 'Feature Data' popup window is open, displaying data for four selected buildings. Each entry includes a yellow building icon, the layer name 'BU Buildings- nls.fi', and fields for x, y, versionId, beginLifespanVersion, and endLifespanVersion. A scale bar (100 m / 500 ft) and a 'Feature data' button are at the bottom left. A coordinate display (N: 8448526, E: 2767265) is on the right.

Feature Data	
BU Buildings- nls.fi	
x	417676219
y	http://paikkatiedot.fi/so/1000007/
versionId	
beginLifespanVersion	2013-09-23T00:00:00
endLifespanVersion	
BU Buildings- nls.fi	
x	417675295
y	http://paikkatiedot.fi/so/1000007/
versionId	
beginLifespanVersion	2013-11-12T00:00:00
endLifespanVersion	
BU Buildings- nls.fi	
x	417676207
y	http://paikkatiedot.fi/so/1000007/
versionId	
beginLifespanVersion	2013-11-12T00:00:00
endLifespanVersion	
BU Buildings- nls.fi	
x	416826311
y	http://paikkatiedot.fi/so/1000007/
versionId	

ELF in ArcGIS Online

<http://elf.maps.arcgis.com/>

[HOME](#) [GALLERY](#) [MAP](#) [GROUPS](#) [MY CONTENT](#) [MY ORGANIZATION](#) Clemens

 **ELF** EUROPEAN
LOCATION
FRAMEWORK


Population density


**ELF demo application with
elevation points, airports and**


**ELF map.apps demo:
administrative and statistical**

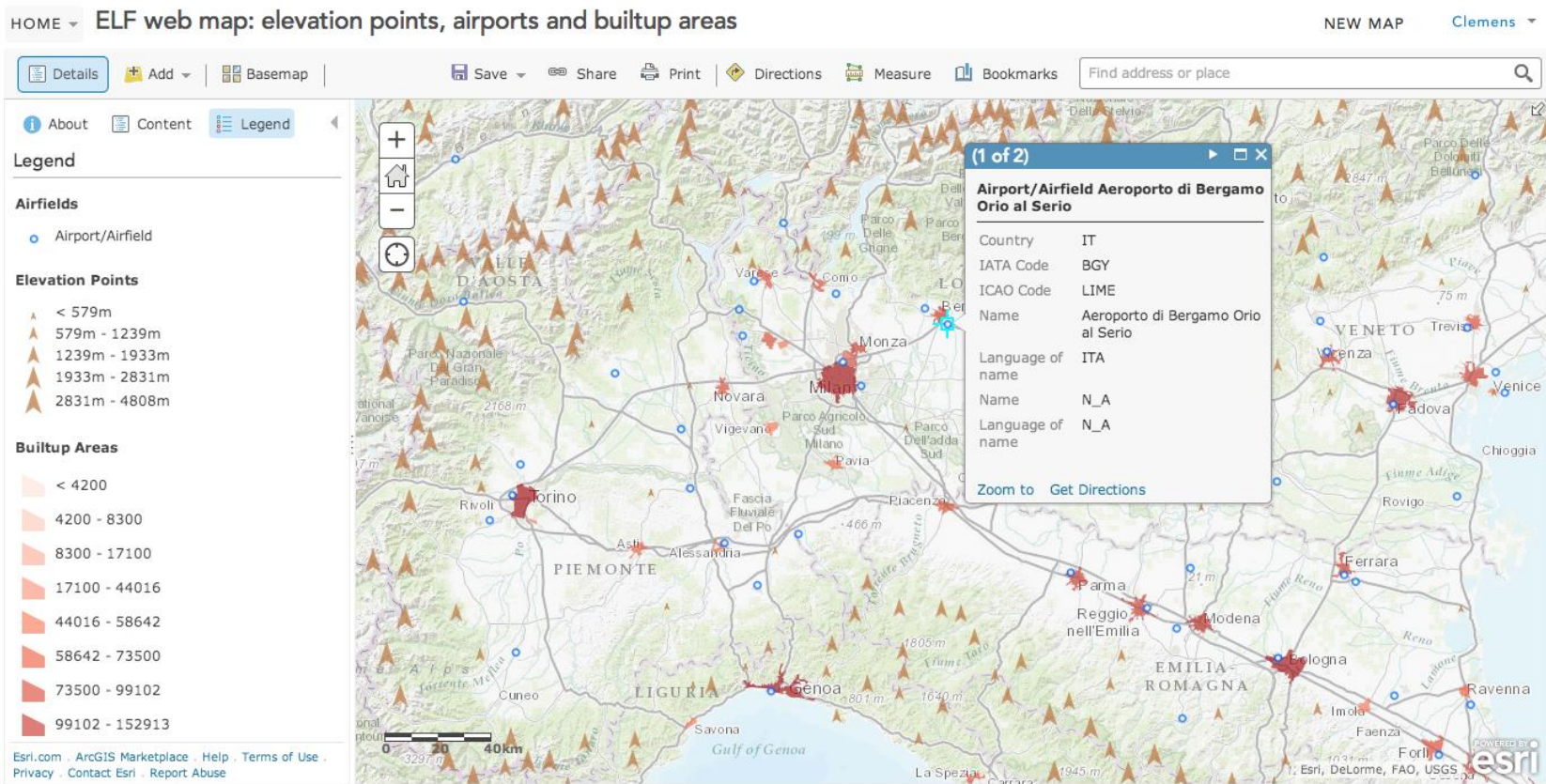

**ELF web map: administrative
and statistical units**

Welcome to the European Location Framework (ELF) in ArcGIS Online - a single point of access for harmonised reference data from National Mapping, Cadastre and Land Registry Authorities for users of the ArcGIS platform. The European Location Framework aims at fostering the wider use of geo-information in Europe and enable the creation of innovative value-added services.

Cloud GIS platforms like ArcGIS Online are hubs of the ELF infrastructure. They integrate feature data and

Sample layers from EuroGlobalMap - open data

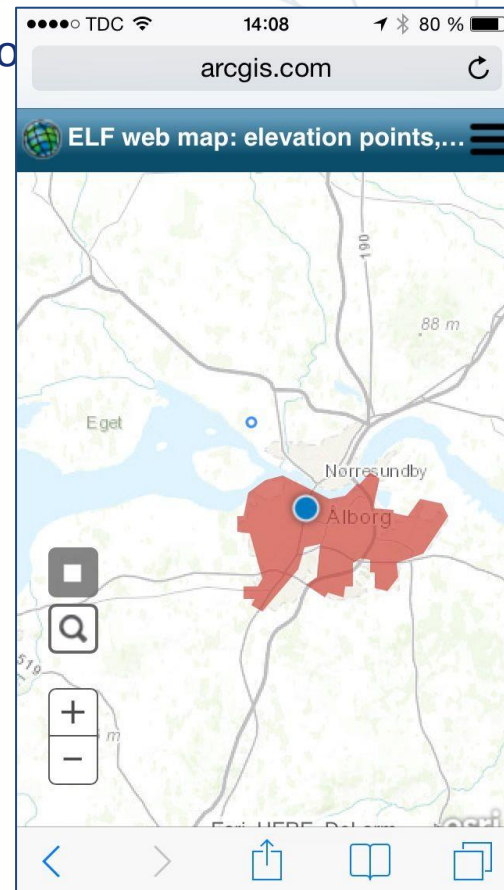
(Scale level: Global)



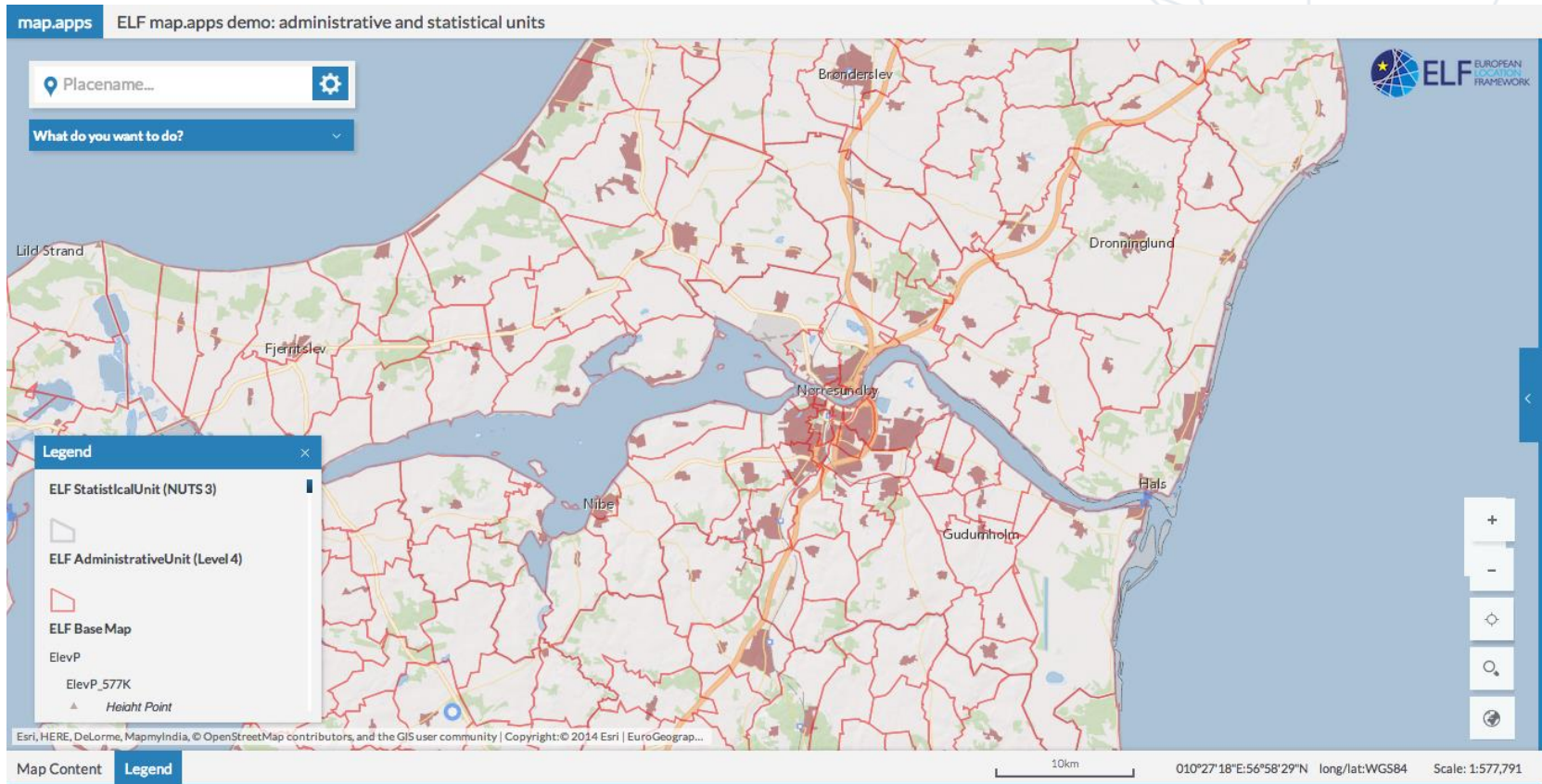
Sample layers from EuroGlobalMap - open data

(Scale level: Global)

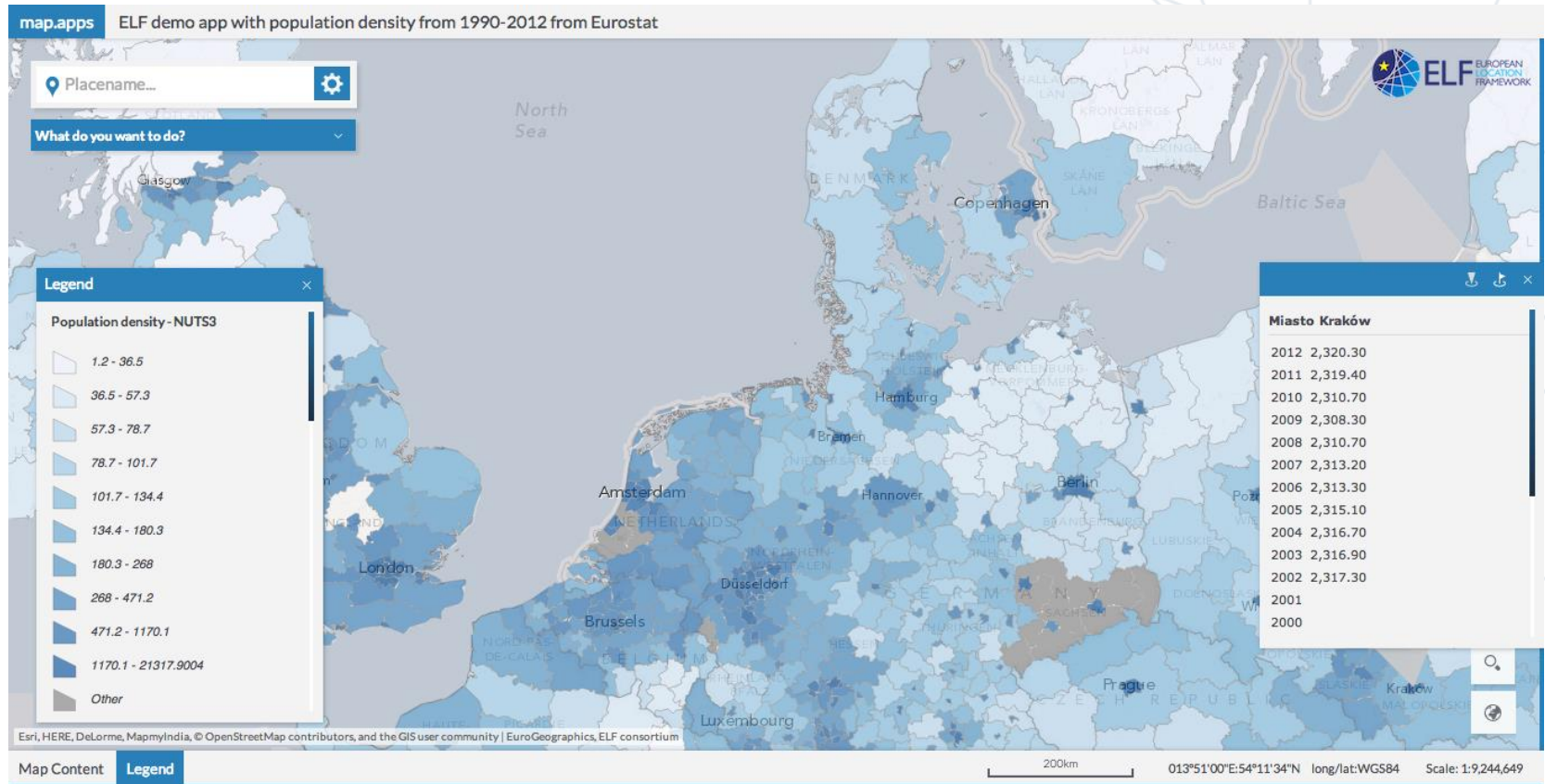
- ★ In your browser on your smartphone, tablet or laptop, visit <http://bit.ly/1qUQdrd>



Administrative and statistical units

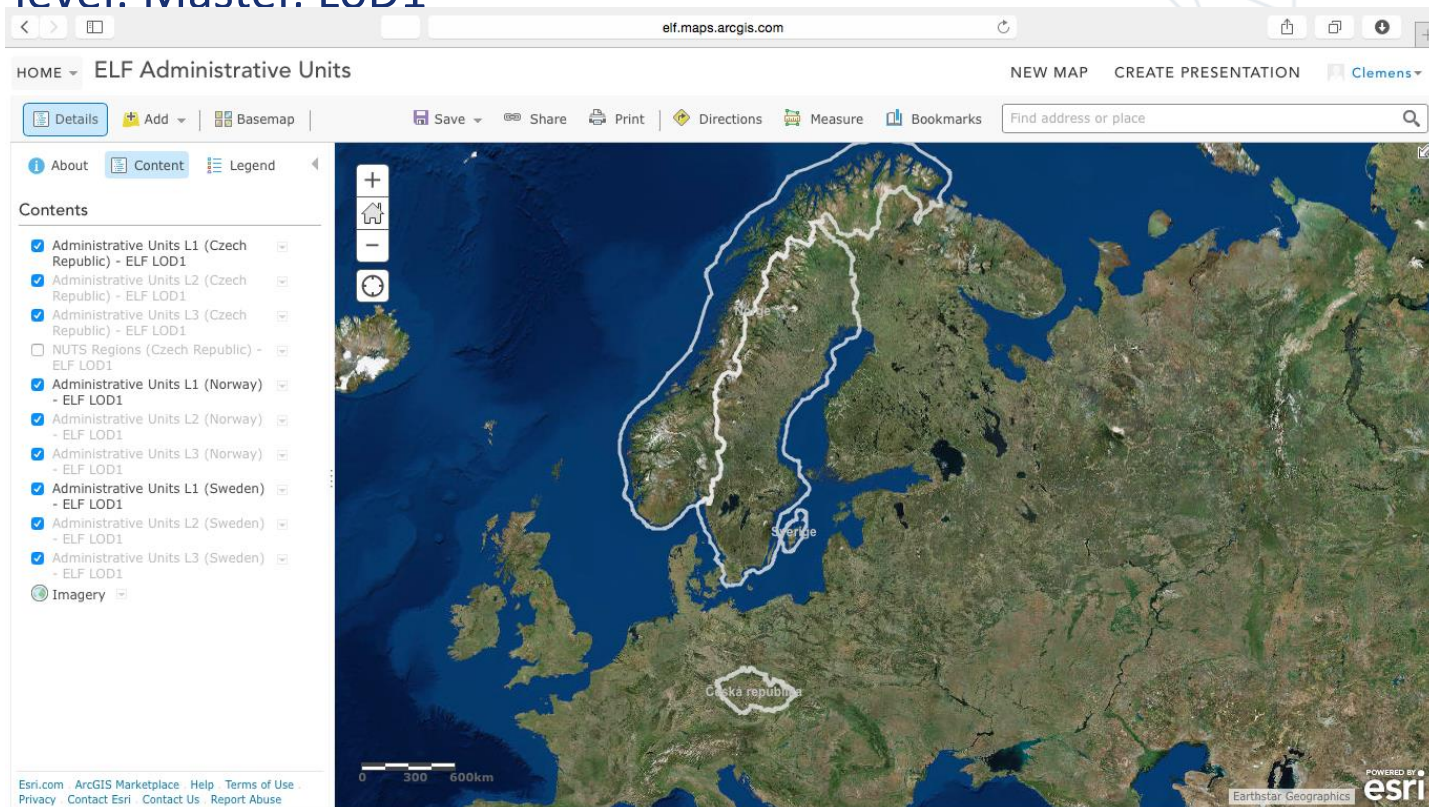


Population density

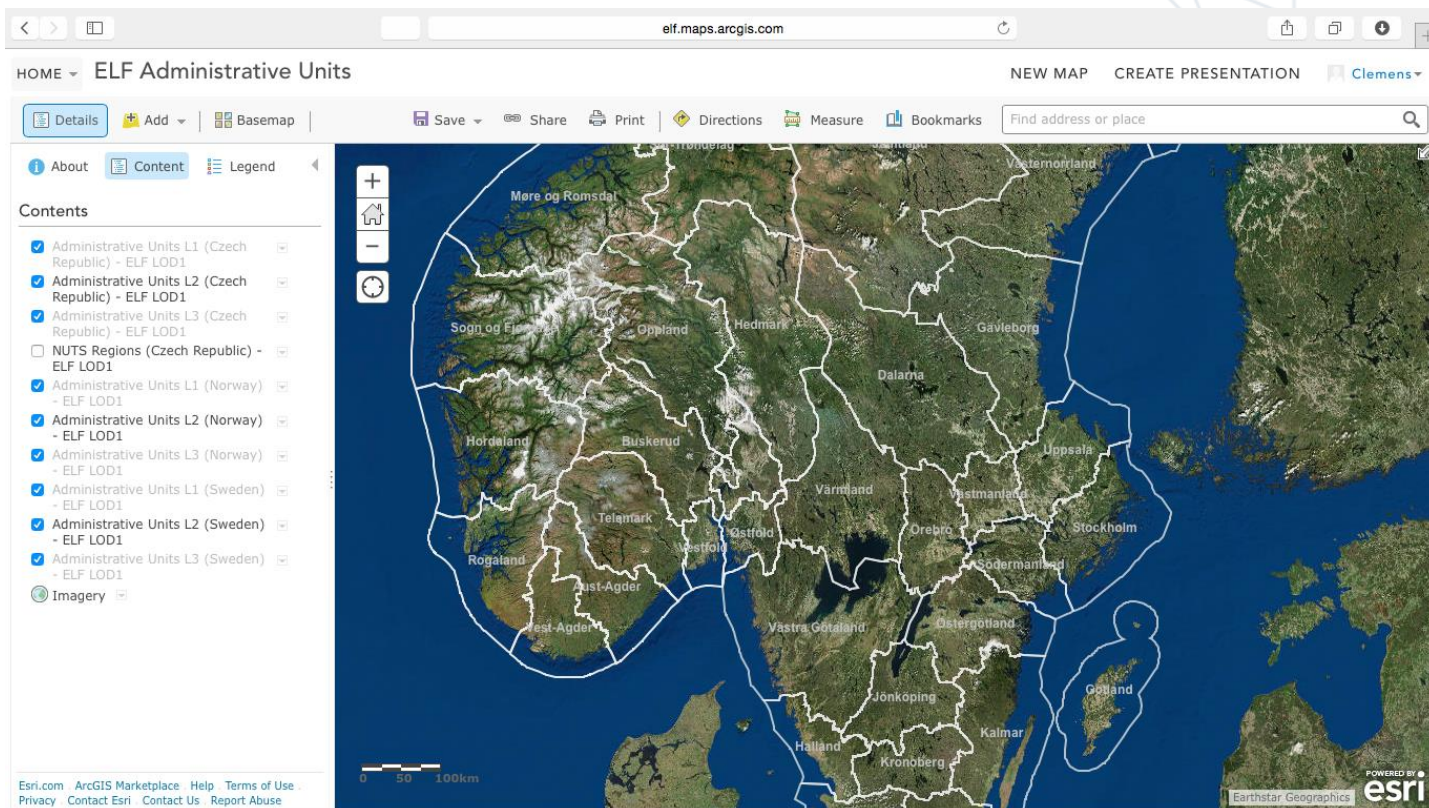


ELF Administrative Units (NO, SE, CZ)

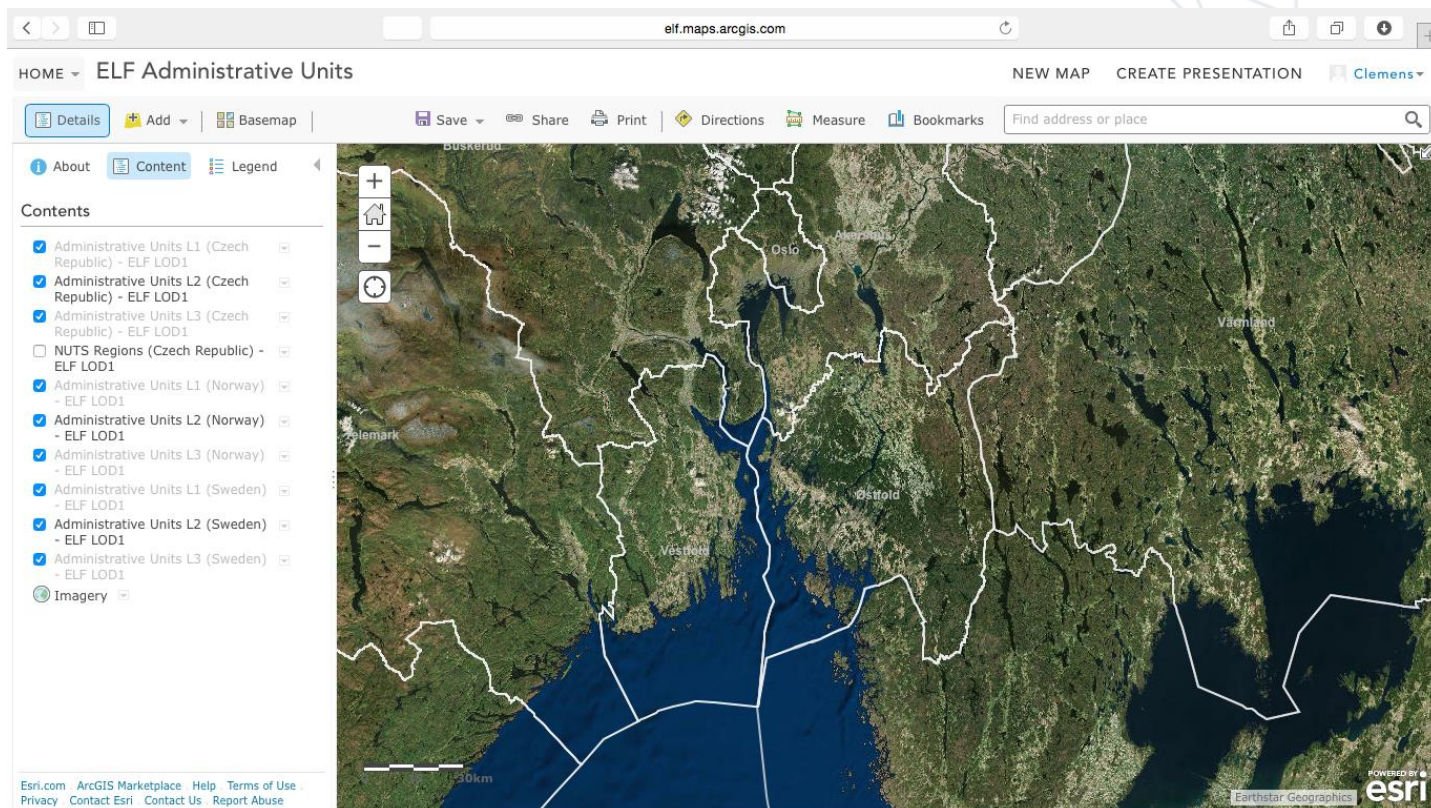
Scale level: Master. LoD1



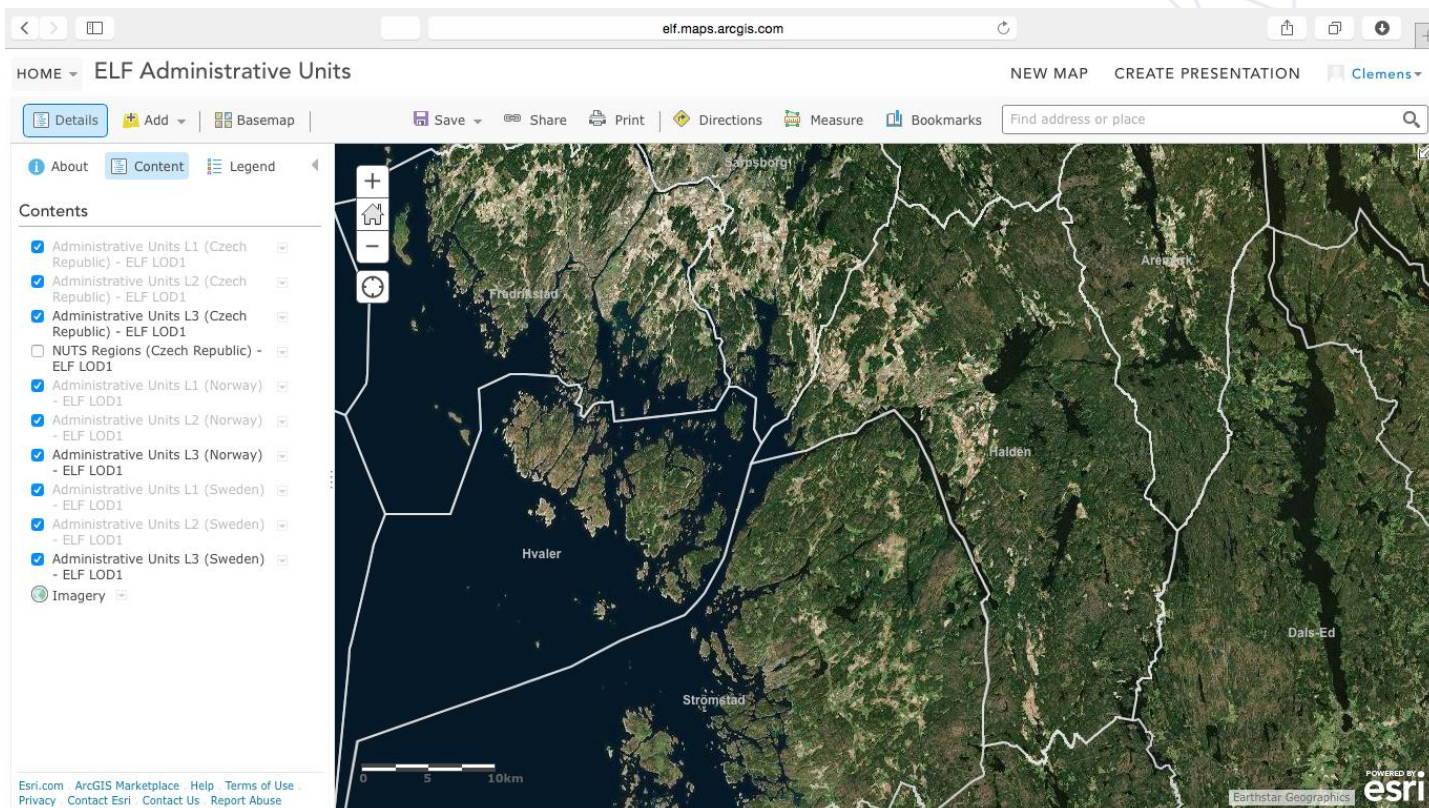
... edge matched at borders



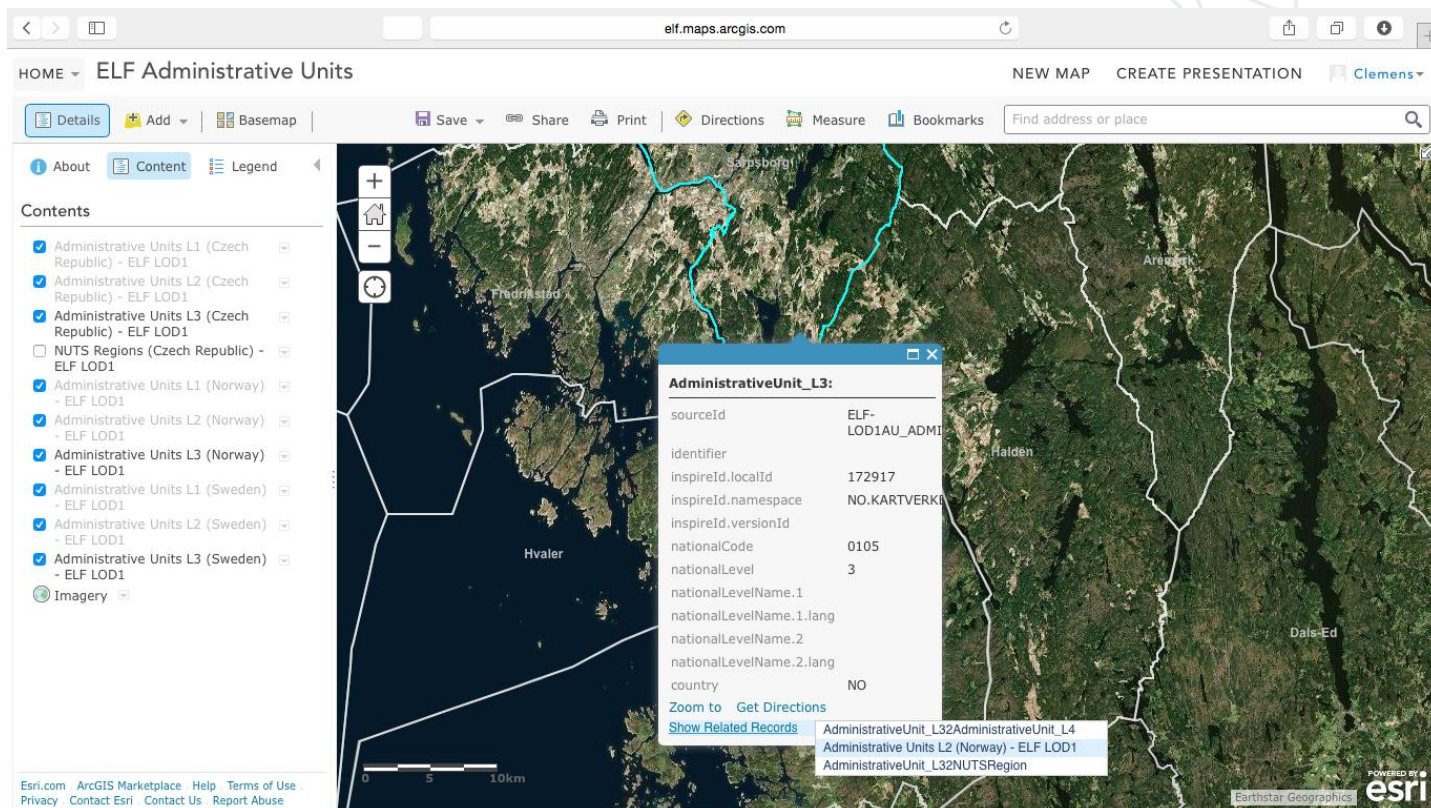
... edge matched at borders



... edge matched at borders



... supporting the attributes and relationships specified by ELF and INSPIRE



The screenshot shows the 'ELF Administrative Units' web application. The interface includes a top navigation bar with 'HOME', 'NEW MAP', and 'CREATE PRESENTATION'. A search bar is present with the text 'Find address or place'. The left sidebar contains a 'Contents' panel with a list of administrative units for various countries (Czech Republic, Norway, Sweden) at different levels (L1, L2, L3) and LOD1. The main map area displays a satellite view of a region in Norway, with administrative boundaries overlaid. A pop-up window titled 'AdministrativeUnit_L3:' is open, displaying the following attributes:

Attribute	Value
sourceId	ELF-LOD1AU_ADM1
identifier	
inspireId.localId	172917
inspireId.namespace	NO.KARTVERK
inspireId.versionId	
nationalCode	0105
nationalLevel	3
nationalLevelName.1	
nationalLevelName.1.lang	
nationalLevelName.2	
nationalLevelName.2.lang	
country	NO

Below the table, there are links for 'Zoom to', 'Get Directions', and 'Show Related Records'. The 'Show Related Records' link is highlighted, showing a list of related units: 'AdministrativeUnit_L32AdministrativeUnit_L4', 'Administrative Units L2 (Norway) - ELF LOD1', and 'AdministrativeUnit_L32NUTSRegion'.

ELF Addresses (CZ, LoD1)

HOME ▾ ELF web map: addresses (Master Level) NEW MAP CREATE PRESENTATION  Clemens ▾

 Details  Add ▾  Basemap |  Save ▾  Share  Print |  Directions  Measure  Bookmarks Find address or place 

 About  Content  Legend ▾

Legend

Addresses (Czech Republic) - ELF LOD1

- ☒ thoroughfare
- ☒ locator
- ☐ exact
- ☒ unknown



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DigitalGlobe, GeoEye, Microsoft 

ELF Cadastral Parcels (CZ, LoD1)


HOME ▾ ELF web map: cadastral parcels (Master Level) NEW MAP CREATE PRESENTATION Clemens ▾

[Details](#)
[Add ▾](#)
[Basemap](#)
[Save ▾](#)
[Share](#)
[Print](#)
[Directions](#)
[Measure](#)
[Bookmarks](#)

[About](#)
[Content](#)
[Legend](#)

Contents

- ☒ Cadastral Parcels (Czech Republic) - ELF LOD1
- ☐ Imagery



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[Privacy](#)
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[Contact Us](#)
[Report Abuse](#)

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 DigitalGlobe, GeoEye, Microsoft

WP3 Upcoming work

★ Regional and Global data

- ★ Schema transformation and setup of Download services (WFS 2.0)
- ★ Improvement of ELF Basemap

★ National services

- ★ Development of ELF Basemap National services
- ★ Development of National Download services (WFS 2.0)
- ★ Service testing

★ Software development

- ★ Testing and improvements of GeoLocator service and ELF Cascaded Download service
- ★ Finish development of ELF Open Source Cloud platform

We are setting
the European
Location
Framework – it is
an infrastructure
that develops
continuously



The screenshot shows the homepage of the European Location Framework (ELF) website. The browser address bar displays 'LOCATIONFRAMEWORK.EU'. The website header includes the ELF logo, navigation links (Showcase Application, Demos, Terms of Use, Links, Contact, ELF Project), and a row of European Union member state flags. A blue banner contains a welcome message: 'Welcome to the European Location Framework (ELF) service - a single point of access for harmonised reference data from National Mapping, Cadastre and Land Registry Authorities. This website is being developed as part of the ELF Project to create the technical infrastructure for delivering authoritative, interoperable, cross-border geospatial reference data. Global and regional level reference data is currently available along with a showcase application demonstrating search and selection options. You can also access the ELF ArcGIS online platform. More functionality and content will be added in the coming months. The service is jointly funded by the European Commission's Competitiveness and Innovation Framework Programme and the Project Partners. For more information about the ELF Project, please visit www.elfproject.eu.' Below this is a section titled 'A window into ELF' featuring a map of Europe with numerous city names labeled. To the right of the map is a sidebar with links: 'See the power of ELF', 'Showcase Applications', 'ELF in ArcGIS Online', 'Documentation', 'Application Developers', and 'Twitter Feeds'. The Twitter feed shows a tweet from @rmdt_its Doc @ARE3NA_EU@INSPIRE_EU su #RDF, #PID e DCAT-AP, with a link to a national competition deadline. At the bottom right, there is a logo for the European Commission's Competitiveness & Innovation Framework Programme. The footer of the website includes links for 'Accessibility | Terms and Conditions | Copyright'.

More Information on ELF project

★ European Location Framework
<https://youtu.be/U9JcwW76eXs> (6:50)

★ ELF affiliated platform
ArcGIS Online (5:30)
<https://youtu.be/Ljm0MUxpk3w>

