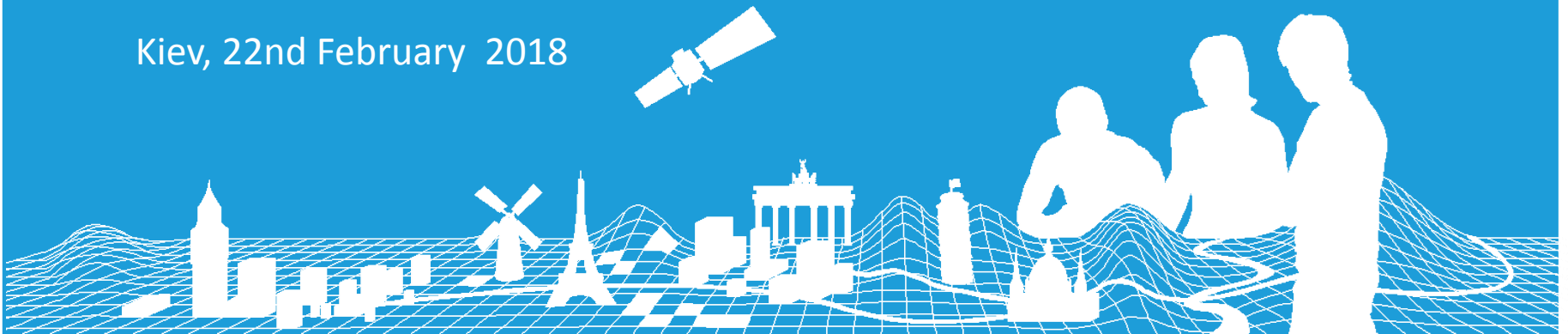


Development of European Location Services

Saulius Urbanas, EuroGeographics

Kiev, 22nd February 2018



Drivers for European Location Services



Global Drivers



European Drivers



Support National Obligations



**Fulfil need for Pan-European,
authoritative data**



**Market need:
New methods of consumption**

European Location Services – a fundamental resource for Europe

A cleaner, safer, more efficient transport system



Evidence-based policies



Emergency response



Attracting skills for sustainable growth



EuroGeographics' vision for future European Location Services



To provide the single access point for international users of harmonised, pan-European, authoritative geospatial information and services.

For National mapping, cadastral and land registry authorities to be recognised in our International effort to contribute to the wider public good.

EuroGeographics' Programme aims to ...

- Develop a sustainable, operational service
- Build on the ELF project
- Develop and implement Open European Location Services (Open ELS)
- Deliver Pan-European authoritative geospatial data content



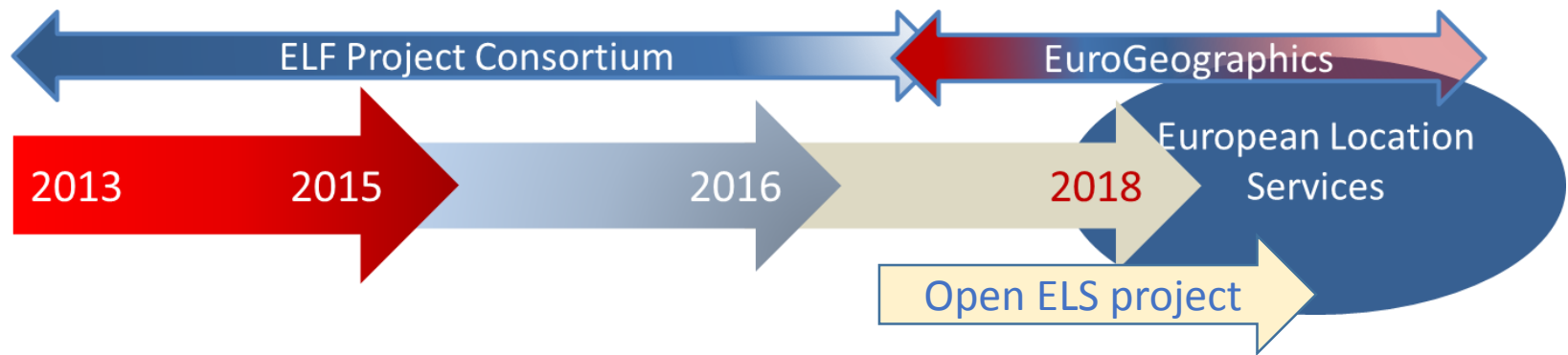
And

- European Location Services as practical implementation of the INSPIRE Directive,
- bringing INSPIRE data and services together onto one platform as evidence of the rationale for INSPIRE.



Developing the capability and capacity to meet potential commercial use of pan-European or Cross-border national data and services

European Location Services Transition Programme objectives



European Location Framework project

Established standards, tools, technical infrastructure and pilot services – the ELF Platform

Pilot products & services to defined standards (INSPIRE-compliant spatial reference data, harmonised at a cross-border and pan-European level)

Transition Programme (Oct 2016 – Oct 2018)

Build on ELF Platform and hand-over ownership of the ELF platform from ELF Consortium to EuroGeographics

Design and build operational and customer focused services with key partners (Kartverket, Kadaster, OSGB, NLSFI, BKG)

Establish the organisational model for operations

Operational European Location Services

Provide reliable and efficient products/services for pan-European users

Single point of access for licensing official data on European level




Business model and business case in place

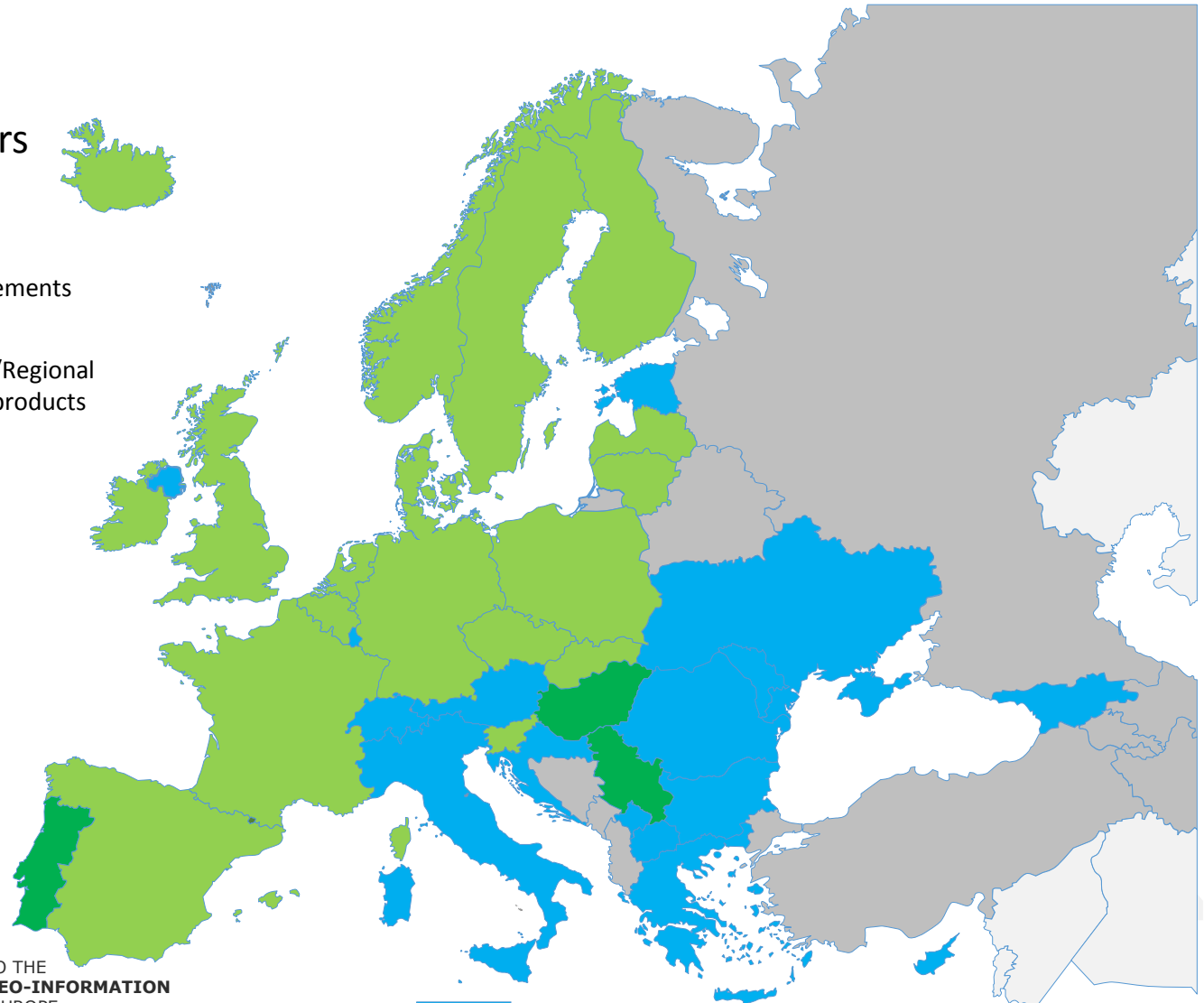
Delivery organisation decided

Operational model implemented

Coverage of current ELS data providers

Data content providers

-  Data service providers
-  Services are under improvements (not ready yet)
-  Contributors to ELF Global/Regional through EuroGeographics products ERM,EGM,EBM



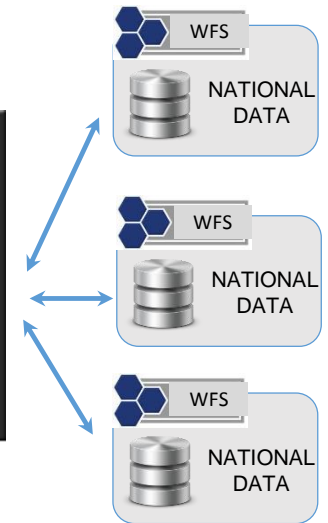
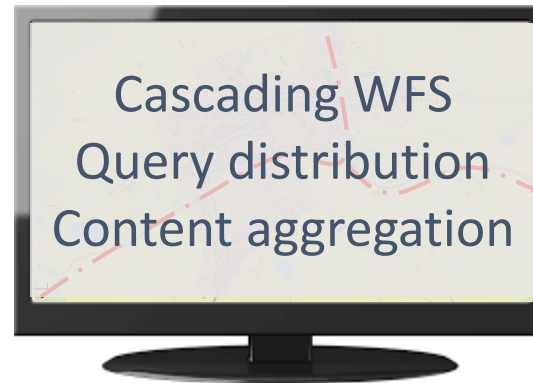
Malta

Level of Details

LoD	Source data	Responsible to transform data and set up download service
ELF Global: 1:500 000 and smaller	European product (EGM)	Done centrally
ELF Regional: 1:100 000 - >1:500 000	European products (ERM - EBM)	Done centrally
ELF Master Level 2 (LoD2): 1:25 000 - >1:100 000	National data	Data providers (NMCA and other public authorities)
ELF Master Level 1 (LoD1): 1:5 000 - >1:25 000		
ELF Master Level 0 (LoD0): 1:5 000 and larger		

What is available: WFS download services

1. Administrative Units,
2. Addresses,
3. Geographical Names,
4. Hydrography (Physical waters, Network),
5. Land Cover,
6. Transport Networks (Air, Roads, Rail, Cable, Water)
7. Elevation,
8. Buildings (2D, 2D Extended),
9. Cadastral parcels,
10. Protected Sites,
11. Sea Regions,
12. Geology.



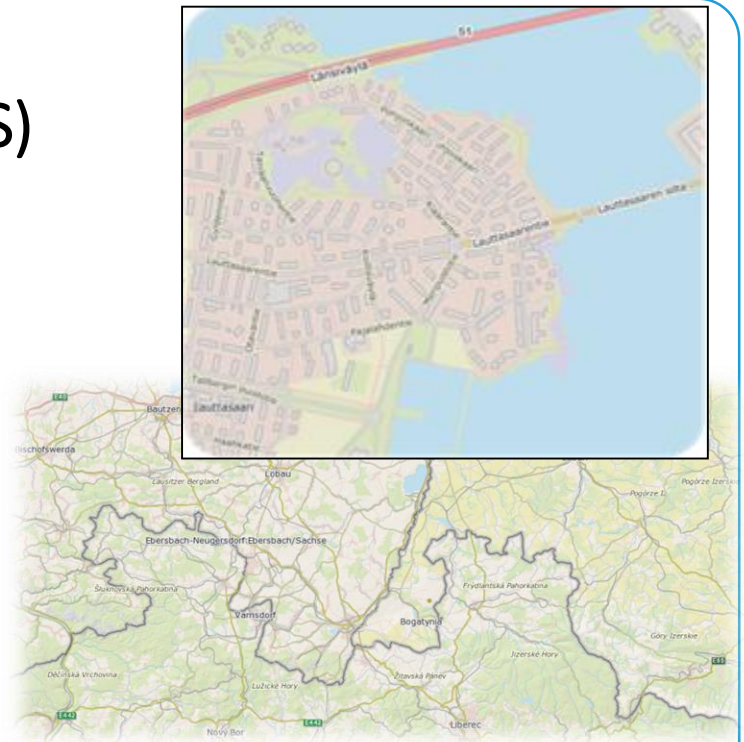
What is available: view services (WMTS)

• Topographic Base Map

- Pan-European Web Map Tile Service (WMTS)
- Pre-styled contextual data, suitable as reference data for a wide range of applications
- Data from Existing EG Products (small scale) and NMCA National Services (large scale)

• Cadastral Index Map

- Pan-European Web Map Service (WMS)
- Pre-styled Administrative Boundaries, Cadastral Parcels, Buildings, Addresses
- An index for land & property information



What is available: GeoLocator – the application (service) for searching by geographical names

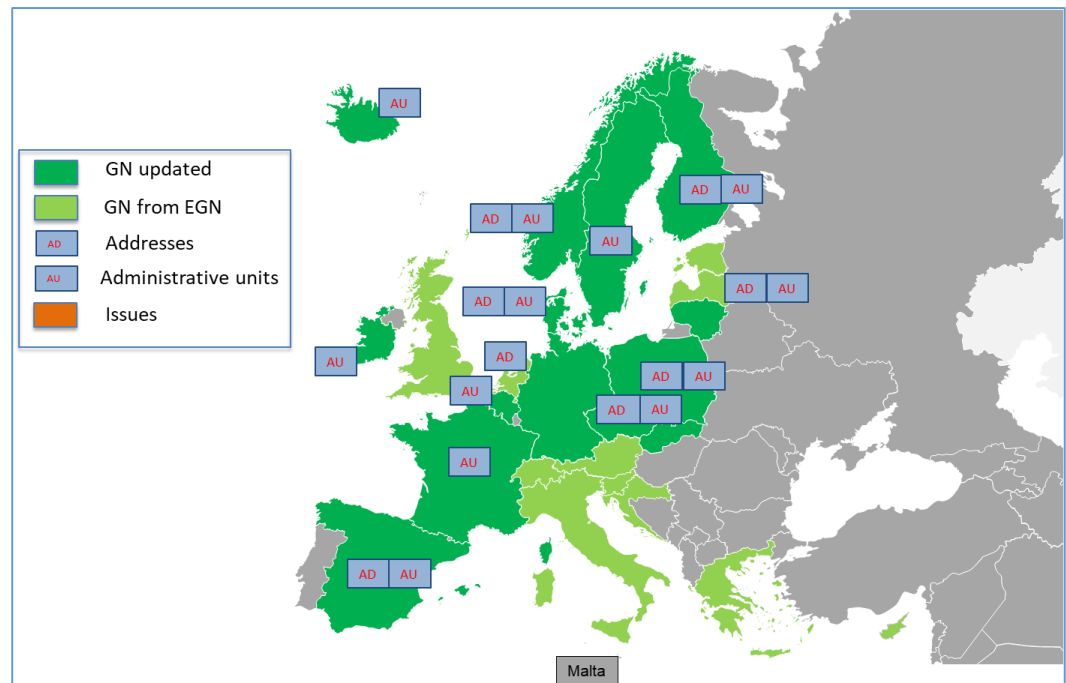
The screenshot shows the GeoLocator search interface. At the top, there is a search bar with the text 'Search'. Below it, a dropdown menu is open, showing 'Places' and 'Geo Product Finder'. The search results are displayed in a table with the following data:

Name	Region	Type
Barcelona	Spain	Administrative capitals
<ul style="list-style-type: none">• Bartzelona• Barcellona• Barcelone• Barcelono• Barkelóni• Barselona• Βαρκελώνη		
Barcelona	Spain	Administrative units
<ul style="list-style-type: none">• Bartzelona		

Below the table, there is a map of the Barcelona region in Spain. A search results popup is visible over the map, showing the following information:

Search results
Barcelona
Spain
Administrative capitals

- Geographical Names, Administrative Units, Addresses
- Multilingual
- Exonyms and variant names
- Geocoding and reverse coding



ELF/ELS showcase application

<https://demo.locationframework.eu>

Most Visited Getting Started Viršelio nuotrauka From Internet Explorer

ELF

SEARCH

MAP LAYERS

SELECTED LAYERS 4

MY DATA

CREATE EMBEDDED MAP

MAP LEGENDS

USER GUIDE

Map Layers

- ▶ Addresses (6)
- ▶ Administrative units (20)
- ▶ Basemaps (1)
- ▶ Buildings (7)
- ▶ Cadastral parcels (14)
- ▶ Elevation (9)
- ▶ Geographical names (10)
- ▶ Geology (4)
- ▶ Hydrography (61)
- ▶ Land cover (9)
- ▶ Protected sites (4)
- ▶ Sea regions (7)
- ▶ Transport networks (66)

Feature Data

ELF Cadastral Index Map (Cadastral Parcel)

FEATUREINFOCOLLECTION - LAYER NAME: 'CP.CADASTRALPARCEL.ELFCADASTRE'

UniqueidentifierareaValuebeginLifespanVersioninspireId_localId	inspire_XY_name
1361707	6089 Null 280306_2.0017.25/4_PL.ZIPRLN.0.LI

Username

Password

Login

English

Change language

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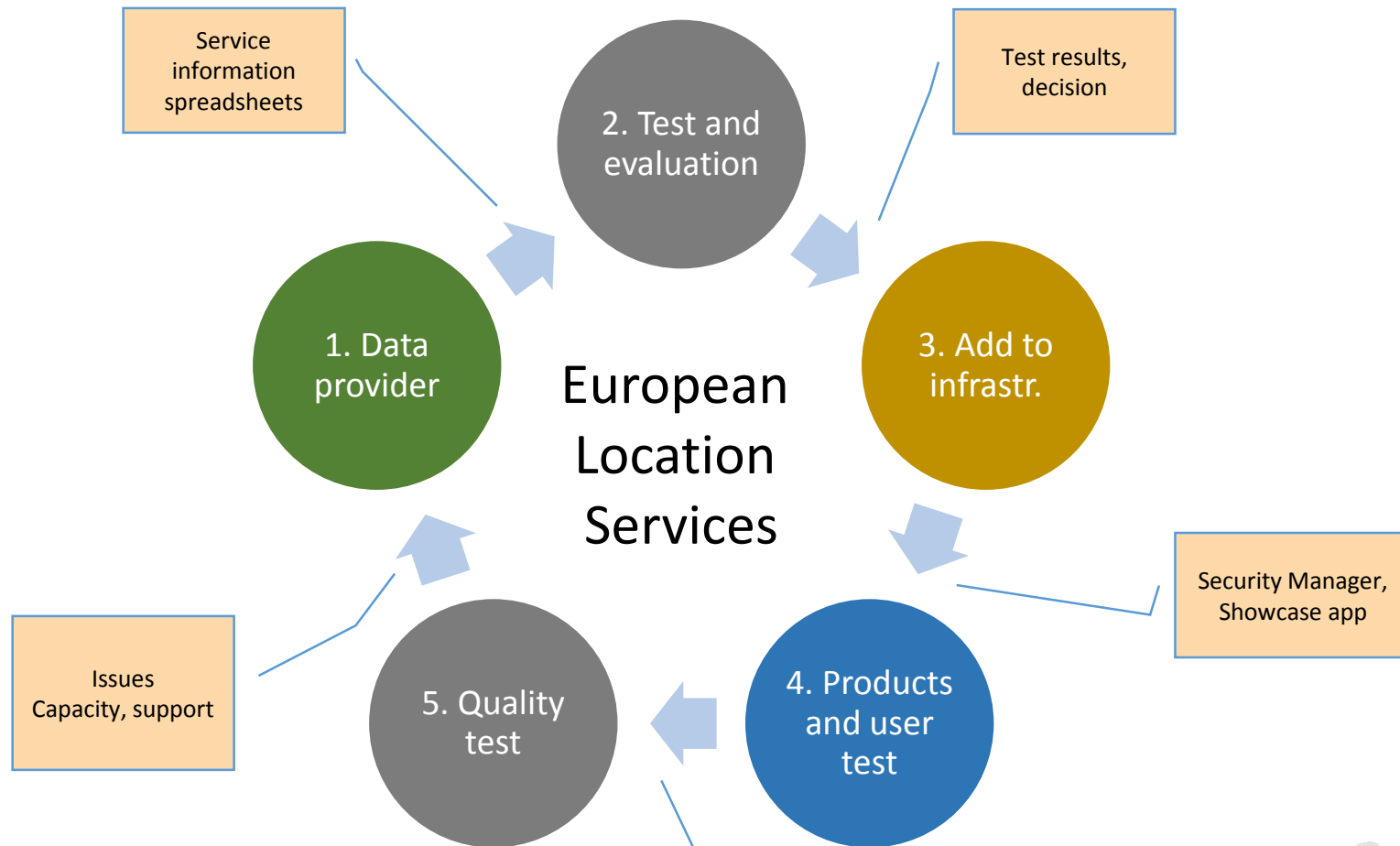
Terms of Use Copyright

How to contribute to ELS

1. Sign the ELS Data provider agreement
2. Arrange your data according to ELS requirements
 - Specifications, guidance, documentation:
<http://elfproject.eu/documentation>
 - Workshops, presentations, video records:
<http://www.eurogeographics.org/content/european-location-framework-0>
3. Perform the test triggering the INSPIRE validator
 - <http://inspire-geoportal.ec.europa.eu/validator2/>
4. Fill the service information spreadsheet and send to Saulius Urbanas
 - Available in the ELS Data Supply basecamp of contact Saulius Urbanas (saulius.urbanas@eurogeographics.org)



Loop of Data supply processes in ELS



Help Desk at Open ELS website

<http://openels.eu/help-desk/>

Home | OpenELS

openels.eu

OpenELS European Location Services

HOME ABOUT PRODUCTS EVENTS LATEST HELP DESK

Need to open a support ticket?

Please complete and submit this form...

Name

Organisation (optional)

Email address

Type of Enquiry

- Type of Enquiry
- I have a general question about the Open ELS Project
- I'm interested in evaluating or using services
- I need assistance with existing evaluation
- I'm an NMCA interested in contributing data or other services
- I'm an NMCA already providing services and need help
- Other (please explain clearly below)

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Message (500 chars)

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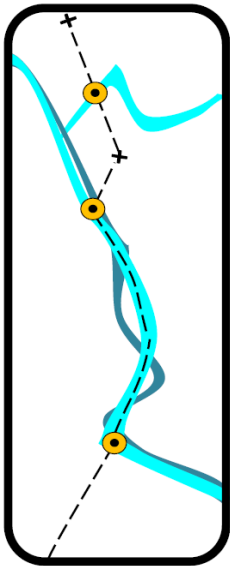
OPEN EUROPEAN LOCATION SERVICES

European open geosp
national sources

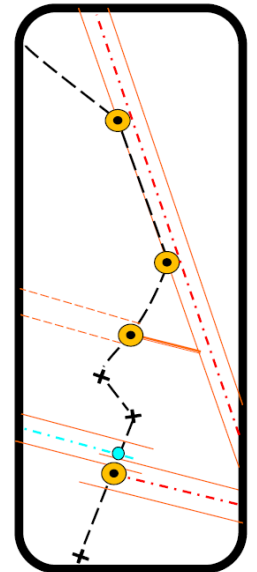
EuroGeographics CONNECTING YOU TO THE
**AUTHORITATIVE GEO-INFORMATION
FRAMEWORK** FOR EUROPE

Work on solution for improving data quality

- How to assure the cross-border harmonization and an improvement of data quality (homogeneity, content, portray) ?



- Manual edge-matching: agreement between neighboring NMCAs on the cross-border feature's nodes
 - Guidance, best practice from State Boundaries of Europe KEN
 - Actions to setup multi NMCAs working groups / experts
- Tools for cross-border visualisation
 - Continue collecting state border lines/points
 - Investigation on visualisation policy (approaches), algorithms
- Assurance of the common data quality and portray – user defined visualisation
 - Standardised data content – evaluation, improvements
 - Apply SLD editor by all
 - View services based on the vector features



The initiative in producing of the Core Reference Dataset

- Produce a Core Reference Dataset harvesting INSPIRE compliant national data/services or other data sources from NMCAs
 - Scale: 1:25 000 - 1:50 000
 - MMU – 50 sq. m (0.5 ha), MMW - 10 m
 - Features (basic geometry, core attributes):
 - Watercourses (rivers, springs, canals), standing water (lakes, ponds, reservoirs), bridges,
 - Road network,
 - Rail network,
 - Settlements, build-up areas,
 - Elevation (optional),
 - Addresses (optional).
 - Delivery formats: ESRI Geodatabase and/or SHP, GML (AtomFeed service)
 - Time frame – by the end of 2018
- Webinar for Technical experts: 10:00 CET, 26th February 2018
- Webinar for Licensing experts: 10:00 CET, 5th March 2018.

In summary: Aims and challenges in ELS development



- Arrange ELS products according to users demands
- Update ELS technical infrastructure for operational performance
- Extend a coverage of Data providers
- Strength capacities in NMCAs for better service/data provision (consultations, trainings, on-side visits and workshops)
- Assure cross-border harmonization and improve data quality
- Maintain the common pricing and licensing terms
- Launch open ELS services
- Assure the integration of ELS requirements to national production frameworks
- Convince the major European users on ELS benefits