Open European Location Services

Open ELS, ELS, Core Reference Dataset (CRD) – what contributions are needed and how those are interrelated

Saulius Urbanas, EuroGeographics

Webinar, 26th September 2018

Agenda of today's presentations

9:00 – 9:30 ELS, Open ELS, Core Reference Dataset (CRD) – to what contributions are needed and how those are interrelated (Saulius Urbanas)

9:30 – 10:40 Instructions and best practice in arranging data and services to the priority Open ELS products:

    9:30 – 10:10 WFS of Addresses, Buildings, TN-Roads, TN-Rails (Marcin Grudzien)

    10:10 – 10:30 Cadastral Index Map (Amalia Velasco),

    10:30 – 10:40 GeoLocator and Regional Gazetteer (Saulius Urbanas)

10:40 – 11:00 ELS metadata requirements (Dorus Kruse)

11:00 – 11:20 ELS / Prospects prototyping the new Open ELS / ELS infrastructure (Jari Reini)

11:20 – 11:30 ELS Data Provider Agreement (Angela Baker)

11:30 – 11:40 Capacity strengthening opportunities for NMCAs arranging national data / services (Torsten Svard)

11:40 – 12:00 Questions and discussions

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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.

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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

ELF Project Consortium — **EuroGeographics**

2013 — 2015 — 2016 — 2018 — European Location Services

Open ELS project
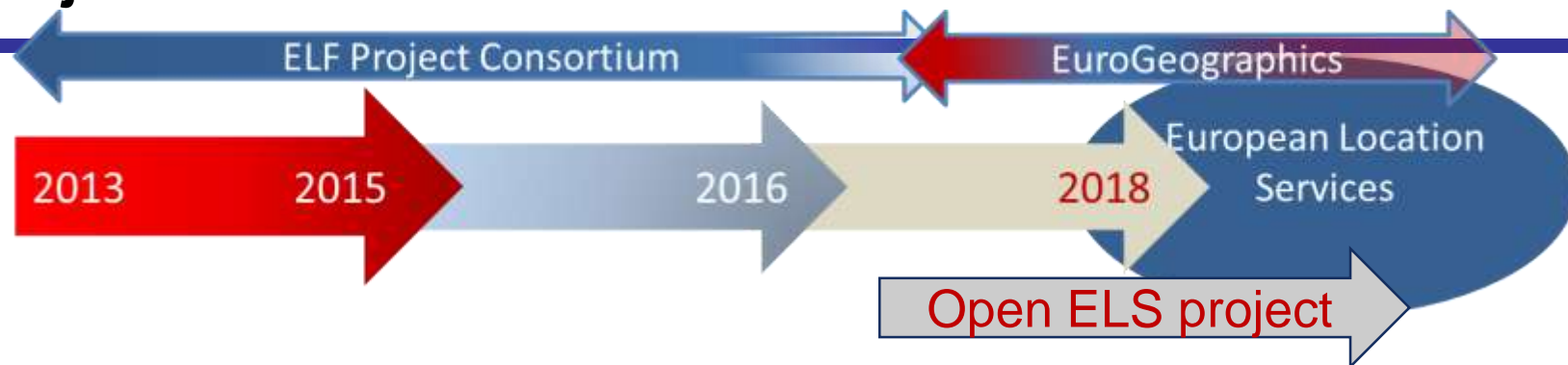
European Location Framework project

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

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 autorities)
ELF Master Level 1 (LoD1): 1:5 000 - > 1:25 000		
ELF Master Level 0 (LoD0): 1:5 000 and larger		

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ELF/ELS showcase application

https://demo.locationframework.eu

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Open European Location Services (Open ELS) project

Open ELS

- Strong user demand for "open and free" services

- Continuation of our approach to provide access to authoritative data – open and not open

- Developing a strategy and positioning of open data and the relationship with ELS and existing products

European Location Services

- Uniqueness in harmonising and licensing pan-European data

- Developing objectives and pricing strategy for each individual product proposition
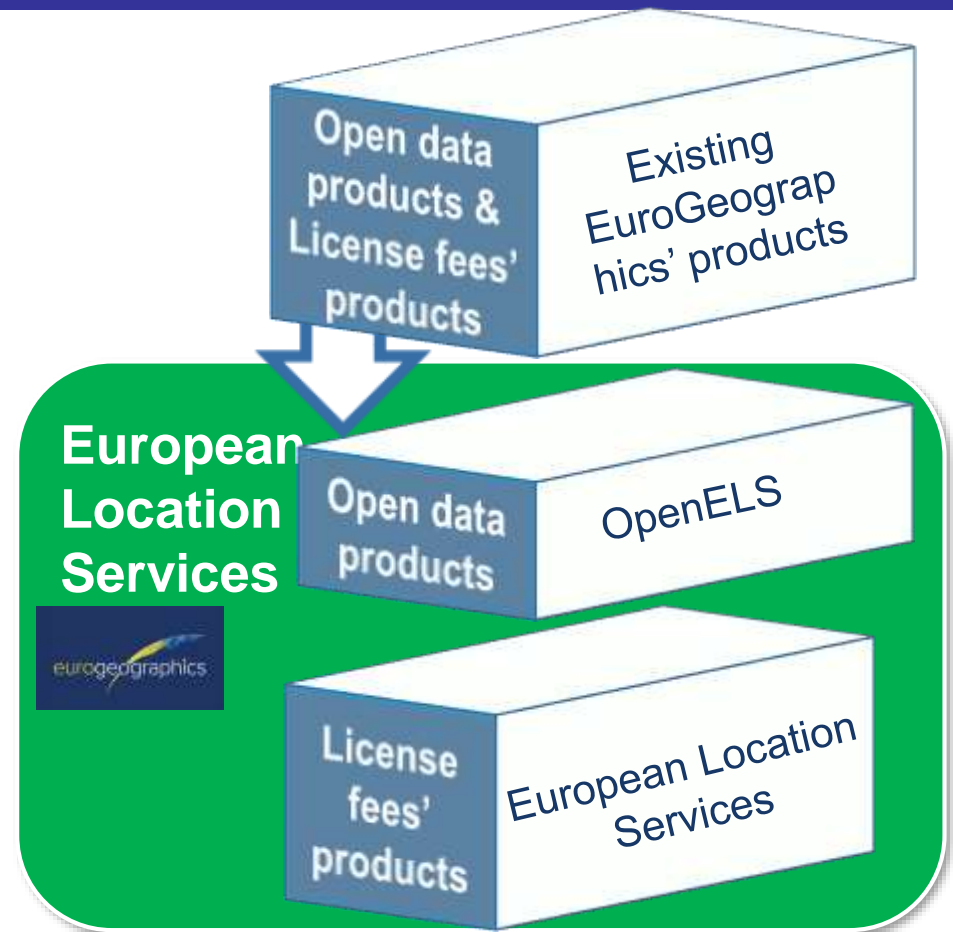
#OpenELS

Priority Open ELS products

- WFS:
  - Addresses,
  - Buildings,
  - Transport Network Rail,
  - Transport Road
- Cadastral Index Map
- Pan European Regional Gazetteer (GN)

- Prospect coverage / Data Providers:
  - Czech Republic, Denmark, Finland, Norway, Spain (CNIG), Spain (SDGC), The Netherlands, Belgium

- All are encouraged to join!

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ELS, Open ELS, CRD – content's interrelation

ELS - services

- **GeoLocator (application, DB)**
  - Geographical Names, Admin Units, Addresses
- **Cadastral Index Map (WMS)**
  - Cadastral Parcels, Buildings, Addresses
- **TopoBaseMap (WMTS)**
- **Download services (**WFS)
  - Administrative Units
  - Geographical Names
  - Buildings
  - Transport Networks (Road, Rail)
  - Hydrography (Physical Water)
  - Cadastral Parcels
  - Addresses
  - Elevation
  - Land Cover
  - Hydrography (Network)
  - Transport Networks (Water, Air, Cable)
  - Protected Sites
  - Sea regions
  - Statistical Units

Open ELS - services

- **GeoLocator – Regional Gazzetter**
  - Geographical Names, Admin Units, Addresses
- **Cadastral Index Map (WMS)**
  - Cadastral Parcels, Buildings, Addresses
- **TopoBaseMap (WMTS)**
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  - Statistical Units

CRD - data

- **GeoLocator – Regional Gazzetter**
  - Geographical Names, Admin Units, Addresses
- **Cadastral Index Map (WMS)**
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  - Sea regions
  - Statistical Units

Link between ELS / Open ELS and CRD

- CRD is the channel to a broader ELS content.
- Simplified INSPIRE data delivery. The CRD composition is based on the INSPIRE requirements – flatten INSPIRE data model
- CRD v.1 due to the urgent demand of CLC-Backbone (Copernicus) will be compiled by manual data processing
  - TN and HY are priority themes, but more themes considered for the future
- No overlap between CRD and ELS/Open ELS
- CRD developments towards ELS / Open ELS
  - National (INSPIRE) services for maintenance / updates
  - Centralised offering to users – WFS, geopackaging

What resources are required

- **Data** corresponding to the ELS (INSPIRE) data themes
  12 data themes: Administrative Units, Geographical Names, Buildings, Transport Networks (Road, Rail, Water, Air, Cable), Hydrography, Elevation, Land Cover, Cadastral Parcels, Addresses, others

- **Hardware and software** for
  - Data processing (transforming) to ELS products specifications
  - Edge-matching
  - Arranging and hosting web-services (WMS, WFS, ATOM)
  - Quality test and validation

- Competent **staff members or contractors**
  - Ability to analyze the INSPIRE (ELS) requirements
  - Data modelling skills - data transformation to ELS spec and ELS data model
  - Data harmonization and edge-matching
  - Validation of data content
  - Composition of web-services

Capacity building, training, consultation and support from Open ELS

What resources are required

- Initial investment
    - Hardware: 1-2 PC for data processing; 1 server
    - Software: GIS desktop (ArcGIS Desktop or QGIS…), ETL software (FME, Hale Studio or Snowflake...), web-service hosting software (GeoServer, MapServer, Degree, ArcGIS for INSPIRE...)
    - Time: 1-4 weeks per product

- Ongoing maintenance
    - 1-3 hours / week for monitoring the web-services
    - 2 days / month for solving issues

- Staff skills
    - 1-2 GI operators - basic GIS data production skills
    - 1 data analyst - data modelling and transformation skills
    - 1 administrator - skills to arrange and host spatial web-services, manage security settings (authentication)

Loop of Data Supply processes

Service information spreadsheets

2. Test and evaluation

Test results, decision

1. Data provider

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3. Add to infrastr.

Security Manager, Showcase app

Issues Capacity, support

5. Quality test

4. Products and user test

Part of Product
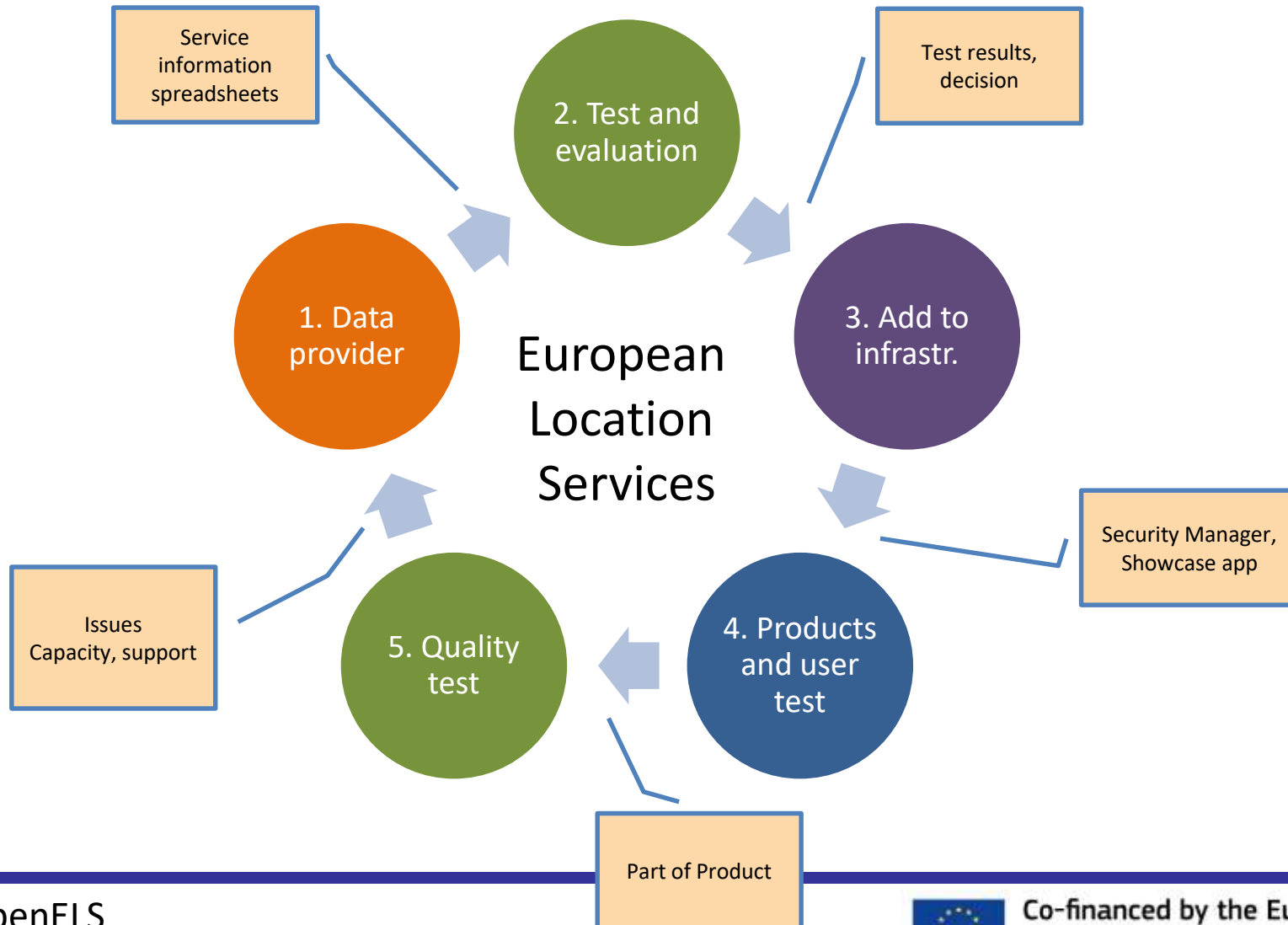
How to contribute to ELS / Open ELS – steps forward

1. Join the ELS Service Supply basecamp

2. Sign the ELS / Open ELS Data provider agreement

3. Arrange your data and services according to the ELS requirements

Specifications, guidance, documentation: http://elfproject.eu/documentation

4. Agree (edge-match) the connecting features along borders

Guidance on implementation of cross-border harmonization (to be published soon)

5. Run compliancy and performance test:
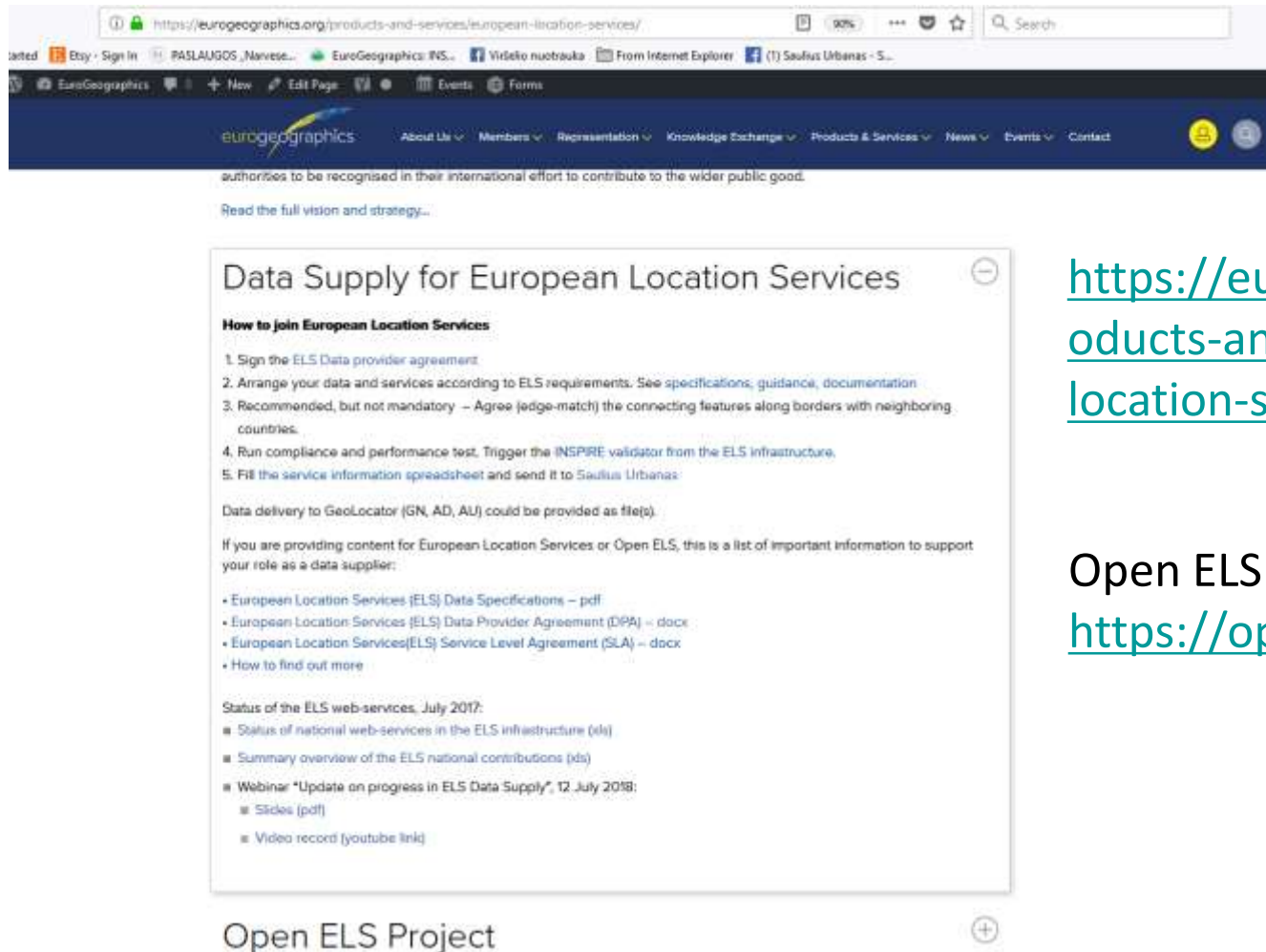
Trigger the INSPIRE validator from the ELS infrastructure
http://validator.locationframework.eu/etf-webapp/

6. Fill the service information spreadsheet, attach the compliancy test reports and send to Saulius Urbanas (saulius.urbanas@eurogeographics.org)

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ELS in the EuroGeographics website

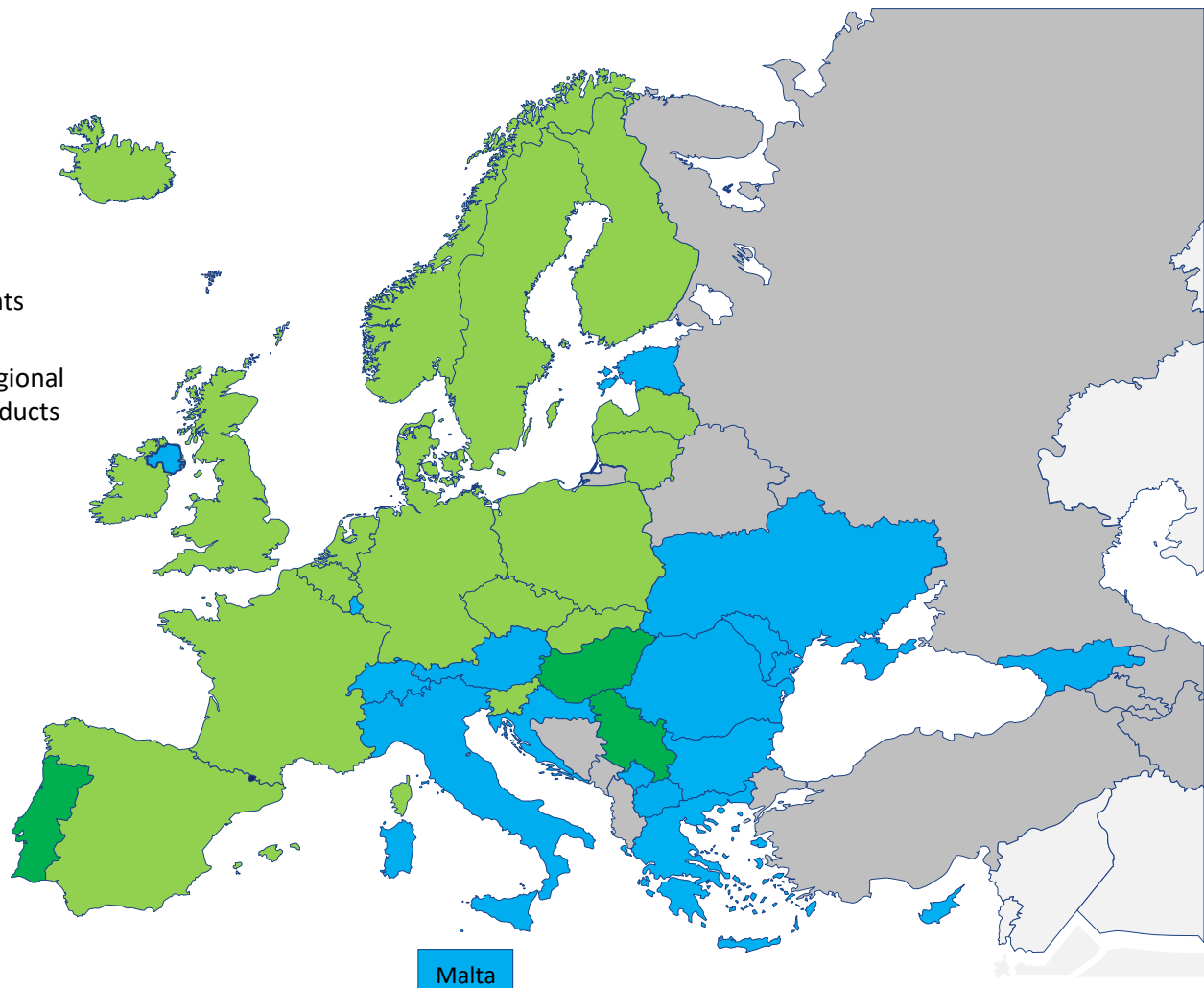https://eurogeographics.org/products-and-services/european-location-services/
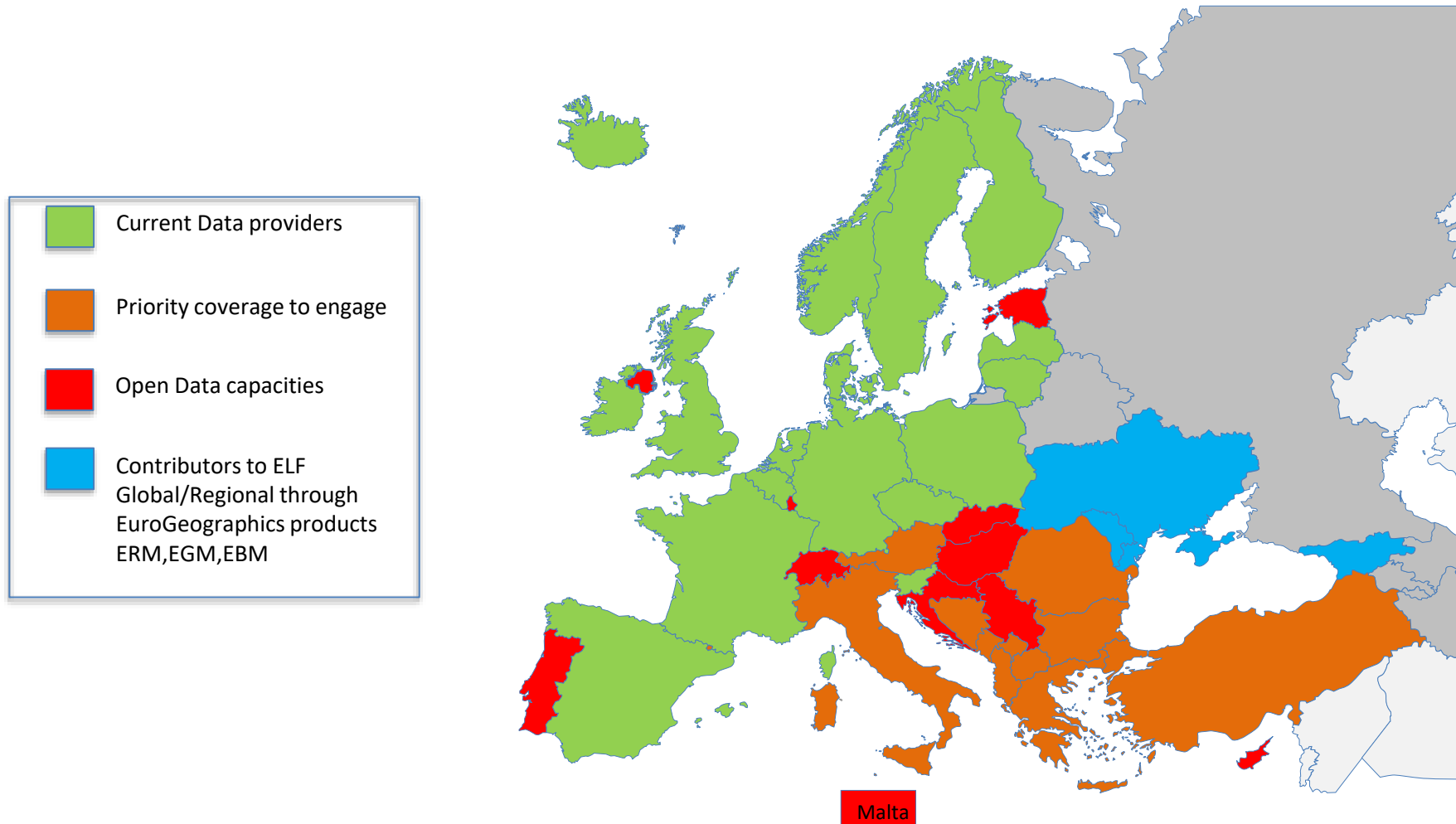
Open ELS website:
https://openels.eu/

Coverage of current ELS data providers

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

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Priority to engage for Data providers contributions

Legend:
- Current Data providers
- Priority coverage to engage
- Open Data capacities
- Contributors to ELF Global/Regional through EuroGeographics products ERM,EGM,EBM

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ELS Data Supply: Help Desk at Open ELS website
http://openels.eu/help-desk/

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