Open European Location Services

What Open European Location Services will offer Users

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About European Location Services

Vision

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.

- A single source (gateway) of official, quality-assured data from Europe's National Mapping, Cadastral & Land Registry Authorities (NMCAs)

- Provide authoritative, pan-European data content

- Provide services that complement - but do not compete with - national services developed to meet INSPIRE Directive requirements

Benefits

- Accessed from a **single source** – no need to approach multiple countries, negotiate multiple licenses or pay multiple fees

- Delivered to **common & consistent specifications** – no need for further harmonisation

- Encourages reuse of public sector information (PSI)

Overview
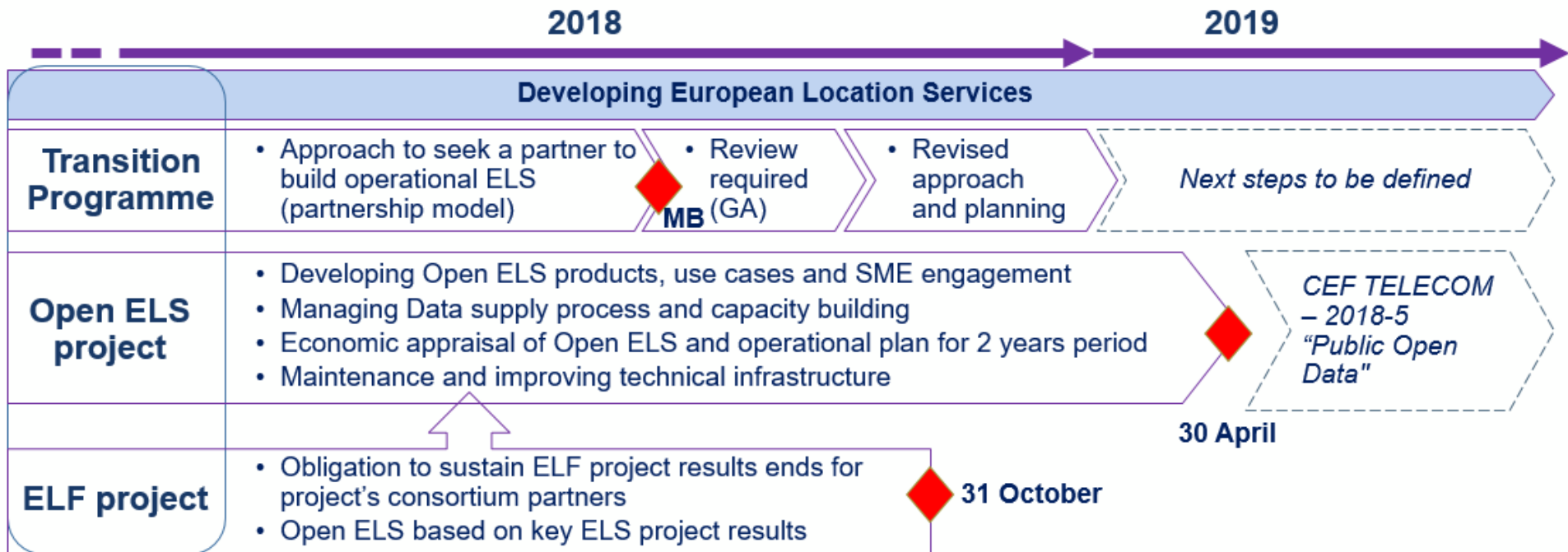
Aim of the OpenELS Project

Open ELS aims to provide European open data services to maximise the:

- Use of authoritative geospatial information by providing certainty about what is free, what is charged for and under what terms and conditions.
- Benefits of open geospatial information from official national sources by making it easy to find, access and re-use.
- Contribution of public authorities responsible for mapping, cadastre and land registries in delivering user-focused open data for European Location Services.

What will OpenELS deliver…?

The Open ELS Project will deliver the following:
- Open ELS data policy
- Open ELS Standard Licence and terms of use
- Open ELS help desk
- Open ELS business model and operational plan
- Open ELS Data Provider agreement
- Three prototyped use cases
- Report on compliance with the MQA applied by the European Data Portal
- Open ELS linked to European Data Portal
- Implementation of eTranslation
- Final Open ELS platform

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Grant Agreement Milestones

Milestones achieved

- Open ELS data policy available ✓

- Open ELS licence available ✓

- Compliance with the MQA (European Data Portal Metadata Quality Assurance) ✓

- Open ELS support desk available ✓

- Signed Open ELS Data Provider Agreements (ongoing task) ✓

Milestones in progress

- Economic appraisal and Business plan for Open ELS (December 2018)

- Final Open ELS platform (April 2019)

- Availability of 3 prototyped use cases (January 2019)

- Implementation of eTranslation (April 2019)

Customer Focus – an opportunity and a challenge
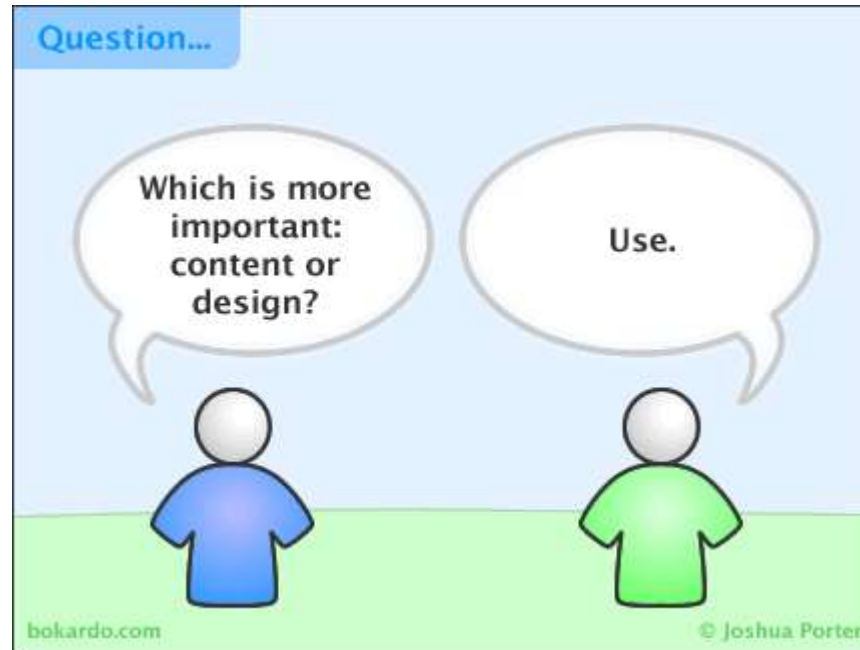
- We must prioritise. European Location Services must be valued.
- Customers will influence the development of European Location Services.

Open ELS User Process

Conduct interviews

Write up of interviews

Analysis to extract user stories

Collating user stories to write a summary (incorporating other data sources)

Validate the summary and user stories with customers

Gather feedback

Amend user stories

Write proposals
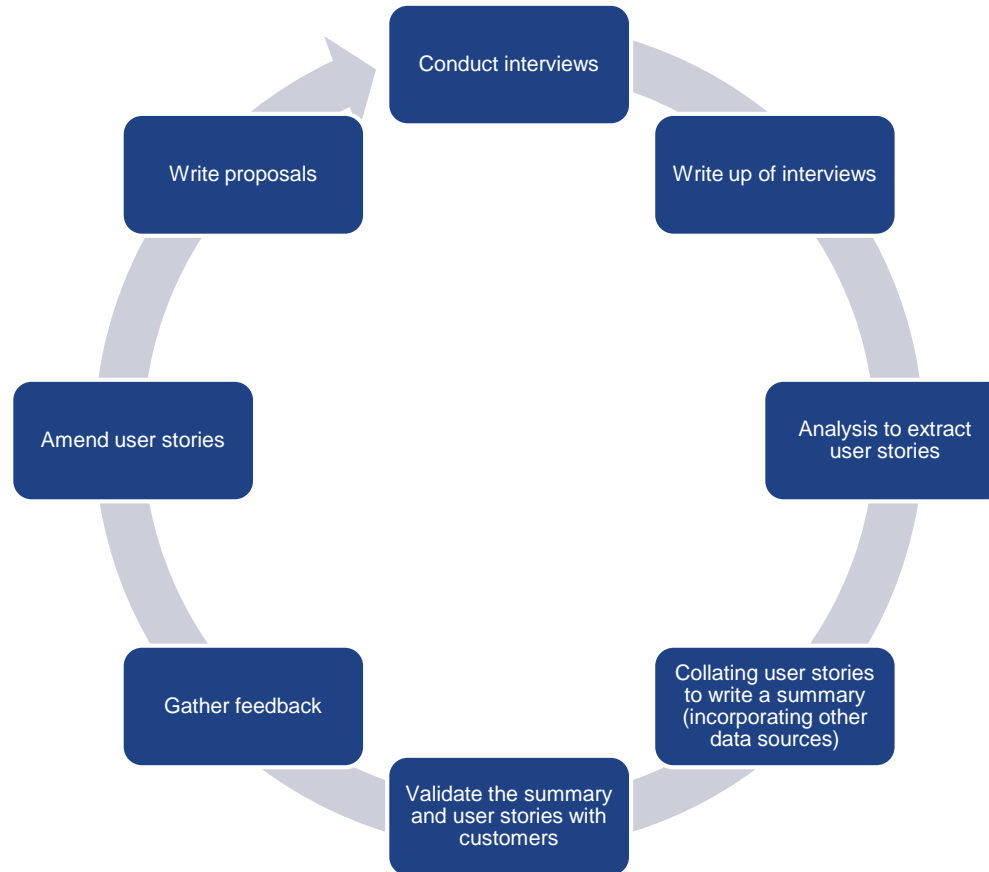
Objectives of User Centred Approach in OpenELS

- Using information already gathered during ELF project

- Needed more detail information = Discovery programme

- An established methodology to facilitate User-Centred Design

- Focus on highest priority problem spaces

- To understand fundamental content and access needs, not talk about current products

- Understand the policy objective, geospatial data needs, how it is done, and what would improve it?

- Iteratively use Discovery to understand evolving customer needs

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Discovery Interviews

PURPOSE – To capture the key customer problems and the tasks and content needs to address those issues

What is the problem you are trying to address?

What geospatial data do you need to carry out the task?

What policy or outcome does this relate too?

Who is involved? What tools do they use?

What steps do you take to complete this task?

What might affect this task in future?

Interview Template

Introduction
- Intros
- Thanks very much for agreeing to meet with us and to talk to us about your task
- We would like to understand your task in more detail, particularly the data requirements of your task to inform future product development
- This is a 1 hour session using set questions to guide the conversation (a bit intense!)
- We will be taking notes throughout

Complete this section before the interview

Scenario		Describe the high-level reason for the task as you understand it – verify with the user if necessary
Task Name		
Task Type		High level category
Interviewee role & organisation		
Interview date and interviewer		
Interview ID		e.g. InterviewRecord000***

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Developing User Stories

As a…
I want…
So that…
Success…

	A	F	G	H	I
1	ID	Doing (task)	I want	So that	Success Criteria
2	GISCO1	Validating address data for NUTS classification	Standardised address data from across EU member states	Less time is spent processing address data to standard classificatio	Postcodes are submitted in the same format as outlined by standards
3	GISCO2	Validating address data for NUTS classification	A method to validate address data	I can ensure the primary source of data is correct	Ground truth is available to validate address data, which can be used instead of TomTom
4	GISCO3	Validating address data for NUTS classification	All data to be delivered in one coordinate system	There is less errors and it is easier to validate	All member states use same co-ord system
5	GISCO4	Validating address data for NUTS classification	A list of all national (member state) postcode contacts	I can source the postcode data	Contact details are available for authority/person in charge of postcode in ALL member states
6	GISCO5	Creating a routable transport network	Train stations across Europe	I can create one routable railway network for Europe	Train stations are assigned the correct code
7	GISCO6	Creating a routable transport network	Railway routes across Europe	I can create one routable railway network for Europe	Railway lines are correct between stations
8	GISCO7	Creating a routable transport network	European Road network	I can create one routable Road network for Europe	Roads across EU member states are correct and integrated into a transport network
9	GISCO8	Creating a routable transport network	European shipping network	I can create one routable Shipping network for Europe	Shipping lanes across Europe are integrated into a transport network
10	GISCO9	Creating a routable transport network	Automatics information system	The location of ships is understood with a 6-second currency	AIS data can be linked/integrated into the transport network
11	GISCO10	Creating a routable transport network	Consistent quality of data across the EU member states	Data is to a consistent standard across the EU network	The level of detail and metadata provided by all EU member states is equal
12	GISCO11	Creating a routable transport network	Definitive attributions of features	Data is recorded in a consistent format across the EU	Attributions for key transport features (i.e. railway stations) is consistent across Europe
13	GISCO12	Creating a routable transport network	One definitive model of transport across Europe	Journeys can be modelled completely from start to finish, across dif	Rail, road and water networks all combined into one routable transport network
14	GISCO13	Census on farm statistics across Europe	INSPIRE grids	Can be used for the gridded collection of statistical data	1km INSPIRE grids used as reporting base unit across Europe
15	GISCO14	Census on farm statistics across Europe	Farm typology	Can collect statistics needed for census	Attributes on type of holding (crop surfaces, animals, labour force, facilities) submitted with farm addr
16	GISCO15	Census on farm statistics across Europe	Address of farm building	Have accurate location of all farm buildings	Address of farm, and not farmers address, is submitted
17	GISCO16	Census on farm statistics across Europe	Shape/size of the farm	Can collect statistics needed for census	Extent of farm submitted
18	GISCO17	Census on farm statistics across Europe	Consistent quality of data across the EU member states	Easier to collate and QA data submitted	All EU members states submit data in consistent format
19	GISCO18	Census on farm statistics across Europe	Aerial imagery	I can check the feature submitted is a farm	Easy access to aerial imagery
20	GISCO19	Census on farm statistics across Europe	Economic size	Can collect statistics needed for census	Attribute for economic size of farm submitted
21	GISCO20	Census on farm statistics across Europe	More accurate geocoding	Get right location of farms	Geocoding based on both methods, DB and GPS, is accurate
22	GISCO21	Census on farm statistics across Europe	Cadastral units	Data validation of farm against large city	Cadastral parcels for EU states accessible and can be compared to location of submitted farms
23	GISCO22	Census on farm statistics across Europe	A better location map	Easier and more accurate location of farms	Provide a service to support the improvement of location map
24	Ten-Tec23	Promoting transport interconnectivity between countries	Destinations and terminals for the TEN-T network serves	I can assess the connections and nature of the destinations the net	Names, types and locations identified consistently and snapped to network - Urban Centres, docks, a
25	Ten-Tec24	Promoting transport interconnectivity between countries	TEN-T destinations to be compatible with other Euro Regional M	I can share data across the commission unambiguously	Identifiers or cross references to iterations in other datasets
26	Ten-Tec25	Promoting transport interconnectivity between countries	Road network connecting TEN-T destinations	Can monitor improvement initiatives and statistics along network	Network at detailed and generalised level with classification attribution
27	Ten-Tec26	Promoting transport interconnectivity between countries	Rail network connecting TEN-T destinations	Can monitor improvement initiatives and statistics along network	Network at detailed and generalised level with classification attribution
28	Ten-Tec27	Promoting transport interconnectivity between countries	Inland Waterway network connecting TEN-T destinations	Can monitor improvement initiatives and statistics along network	Network at detailed and generalised level with classification attribution

Consolidation

Transport

Customer Task
- Creating a routable transport network
- Promoting transport interconnectivity between countries for subsidies
- Collating traffic accident statistics

Policy drivers
- TEN-T policy – Treaty on the Functioning of the EU
  - European Union guidelines
- Requirement Connecting Europe Facility
- Standardised spec and metadata, including UID
- Connectivity for all transport modes and multi-mod
- Transport hubs
- Planned and under construction roads
- Generalisation tools
- Traffic accident data aligned to road segments

#OpenELS

Addressing

Customer Task
- Validating address data for NUTS classification
- Geocoding
- Census for farms

Policy drivers
- Common Agricultural Policy
  - Economic support for investment and salary
  - Rural development
- JRC
- European Food Safety Authority

Requirement
- Authoritative, standardised and accurate addresses including postcodes and cadastral parcels

JOINT RESEARCH CENTRE

efsa
European Food Safety Authority

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Product Proposals

OpenELS GeoNames Gazetteer

SUMMARY	Develop a pan-European Gazetteer solution, based on the content in existing EuroGeographics products (EBM, ERM). This has potential for immediate pan-European coverage (dependent on licence, but overcomes supply issues in comparison to reliance on INSPIRE NMCA services)

1. USER
2. PROJECT BENEFITS

PROBLEM – USER NEEDS	IMPACT	BENEFIT/OUTCOMES
Problem faced by target customers? Insight and customer needs	What difference does it make?	

AUDIENCE/Persona	MARKET SUMMARY
Who is the target customer?	

3. DELIVERY

RISKS/ ASSUMPTIONS / ISSUES / DEPENDENCIES	Resources/SKILLS NEEDED	COMPLEXITY

KEY ACTIVITES / NEXT STEPS

- User Need
- Data availability
- Resource availability
- Impact (for user & project)

User Centred Design is a Continuous Process

Common User Testing Techniques:

- Survey   SME Survey in progress

- Focus Groups   Potential (webinars?) by theme/ user type

- In-depth Interviews   Could extend to SMEs/ more users

- "Beta" tests   Evaluation with EEA – Copernicus EMS

- *Usability Testing*   *Interested! Future stage*

- *A/B Tests*   *Challenging for INSPIRE…?*

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Services in Development (1/2)

EuroGlobalMap as a Service – making existing EuroGeographics open data available through Open ELS as a web feature service, will allow improved access for users. It will allow the project team to offer a pan-European open data topographical product as part of the suite of Open ELS services, including future enhancements planned such as generalised NUTS3 boundaries which will enable connections to statistical data.

Regional Geographical Names – There is significant interest in availability of maintained pan-European gazetteers based on authoritative data to enable geocoding and a range of applications. Using content from existing EuroGeographics products, EuroRegionalMap and EuroBoundaryMap in a new way, this service will provide a pan-European gazetteer of Geographical Names at a regional level, which can be further developed into more detailed gazetteer services in future.

Services in Development (2/2)

Open Cadastral Index Map – This web map service will offer a unique pan-European index of authority property level information. Users can also link (through the cadastral reference) with other useful data from cadastral registers. It will enable applications which need access to cross-border authoritative cadastral base mapping, such as for the land and property sector.

Addresses – Based on INSPIRE services from Member States, this service will allow a single access point to addresses through a web feature service. It will support users in a diverse range of sectors who require addresses for applications, such as geocoding and data validation, in addition to supporting address search functions in applications or providing data for emergency planning.

Buildings – Based on INSPIRE services from Member States, this service will allow a single access point to building footprints through a web feature service. The service will enable applications such as location of urban extents (e.g. for planning, emergency management or statistical purposes) in addition to supporting land and property applications.

Transport Network (Road & Rail) – Based on INSPIRE services from Member States, this service will allow a single access point to transportation network themes through a web feature service. It will be helpful for users who are interested in route optimisation, statistical analysis to support policy making and a range of applications requiring detailed transportation data.

Open Data Policy & Licence

LICENCE

In preparation for the first Open ELS product releases, the Project has delivered an Open ELS standard licensing framework.

Key Features

You are free to:

- copy, publish, distribute, re-use and share the Open ELS Data
- adapt the Open ELS Data & Services
- exploit the Open ELS Data commercially and non-commercially, for example by combining it with other information or inclusion within your own product or service

We ask you:

- Attribution – you must acknowledge the source of the OpenELS Data by linking to any attribution statement specified by the Licensor/s and where possible a link to this licence.

https://openels.eu/licence/

Conclusion

Results from User Centred Approach –
- Brought focus and greater understanding
- Validated existing work
- New ideas and potential discovered
- Evidence base for investment of resources
- Collaborative and stronger relationships with users

Challenges -
- Identification of users
- Availability of Users – remote working environment, B2B/ B2G
- Ensuring broad representation of potential users
- Constrained by what's actually possible (e.g data availability!)

Contact Details

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