

ELF – unlocking the power of authoritative geographic information



Presentation to: EuroGeographics General Assembly 2016

By: Olaf Østensen, Project Coordinator

Date: 4th of October, 2016 – Budapest, Hungary

The European Location Framework ...

- ★ a response to the ever growing demands and expectations for highly detailed, authoritative, harmonised, cross-border geospatial information for evidence-based decisions;
- ★ a foundation for new and innovative solutions and applications;
- ★ enabled by, and based on, INSPIRE;
- ★ contributing the Digital Agenda and Digital Single Market in Europe;
- ★ contributing to a European geospatial vision and strategy!



... the window of opportunity is *now* ...

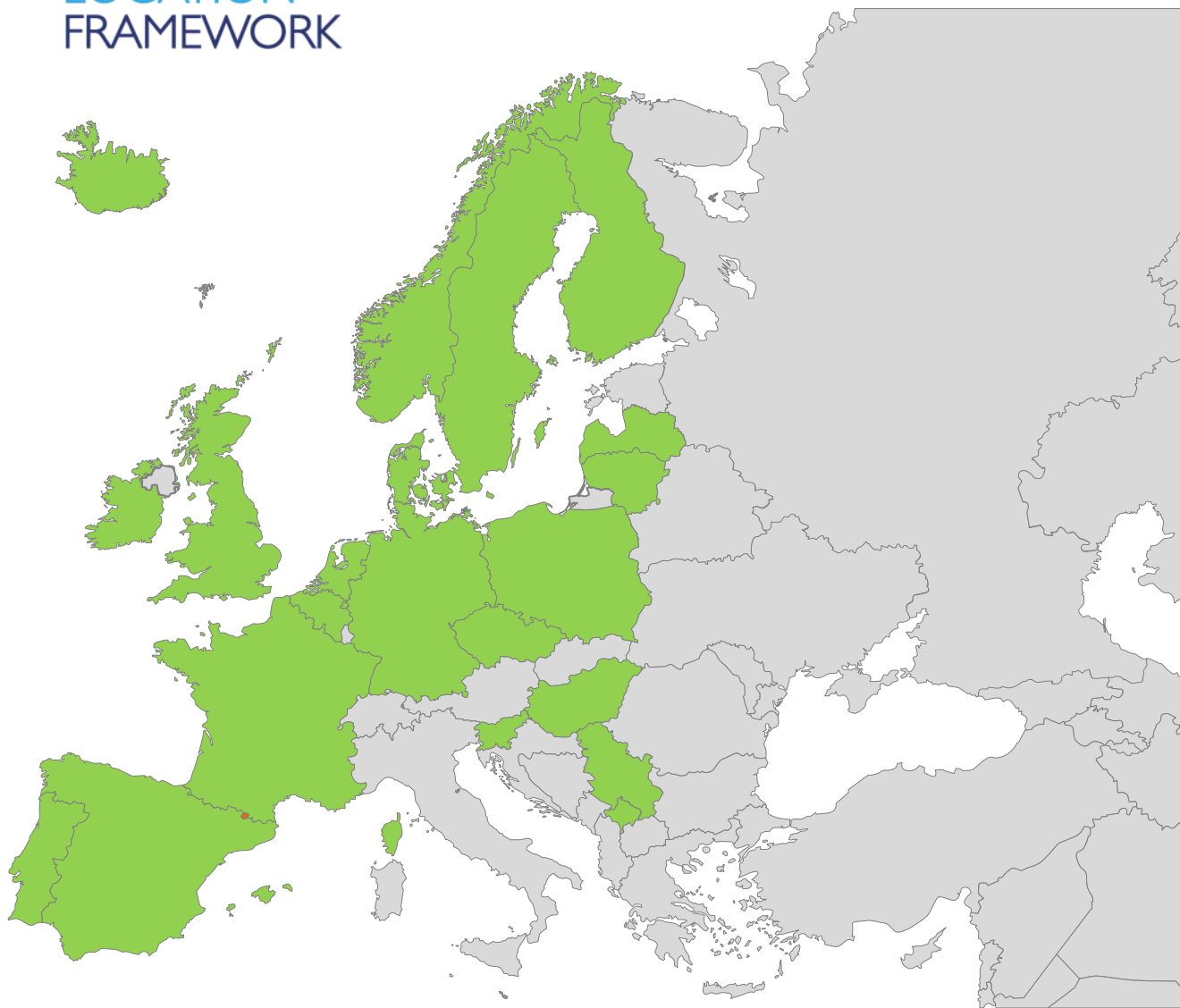


- ★ This is our opportunity to increase and broaden the use of authoritative reference data from the European NMCAs and other authorities – otherwise, the opportunity can be lost or at least delayed considerably.
- ★ Otherwise, EC users and programs will need to acquire data and services that meets their requirements from someone else, probably from a contractor, resulting in European taxpayers having to pay twice. This is not a sustainable situation and it may affect the willingness of national governments to finance NMCA activities in the long run.
- ★ Otherwise, European value-added industry will suffer from not having access to authoritative reference data which would hamper their development of new and innovative services and applications, thus affecting the entire economic development in Europe. In particular this is true for themes only available from the NMCAs, e.g. cadastral information.



ELF EUROPEAN
LOCATION
FRAMEWORK

NMCA
coverage



As you all know, ELF builds on INSPIRE ...

	Cadastral Parcels	CP
	Addresses	AD
	Administrative Units	AU
	Hydrography	HY – phys & network
	Sea regions	SR
	Transport Networks	TN – road, rail, air, cable, water
	Geographical Names	GN
	Elevation	EL – grid & vector
	Land Cover	LC
	Buildings	BU – 2D & 2D extended
	Protected Sites	PS
	Geology	GE



ELF highlights

- ★ The ELF Basemap – administrative and topographic
- ★ The Cadastral Index Map – including parcels, addresses and buildings
- ★ The ELF national download services
- ★ The Cascaded Download Services
- ★ The GeoLocator
- ★ The Geo Product Finder
- ★ The GeoTools

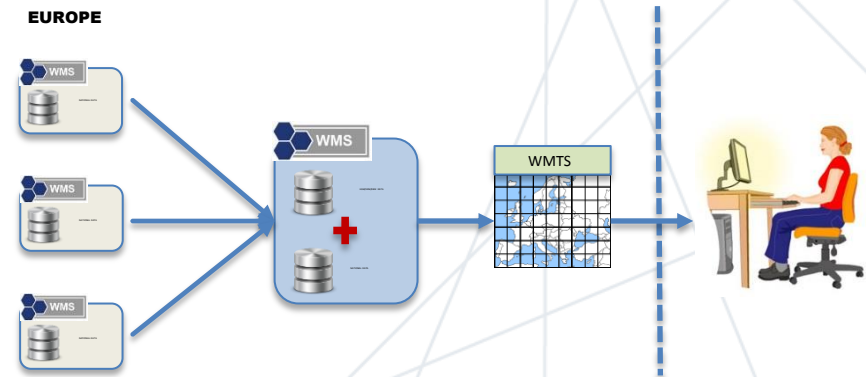
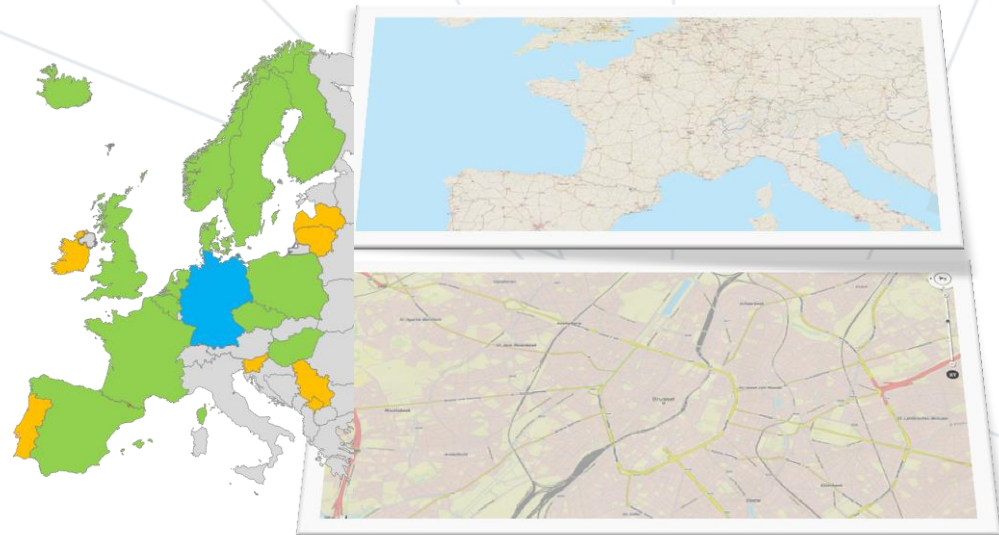




The Basemap

(topographic)

- ★ The first pan-European basemap with authoritative content
- ★ High level details for 14 countries – more on its way!
- ★ Harvested from national basemap services





The Cadastral Index Map



The first ever pan-European map showing cadastral parcels, addresses and buildings



Currently includes 8 countries, more to come ...



This service can only be provided by the NMCAs!



Fragment from Madrid, Madrid Atocha station area





The Geolocator



European gazetteer++
service including place
names, addresses and
administrative units

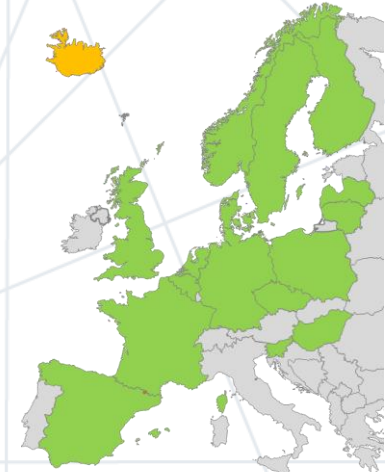
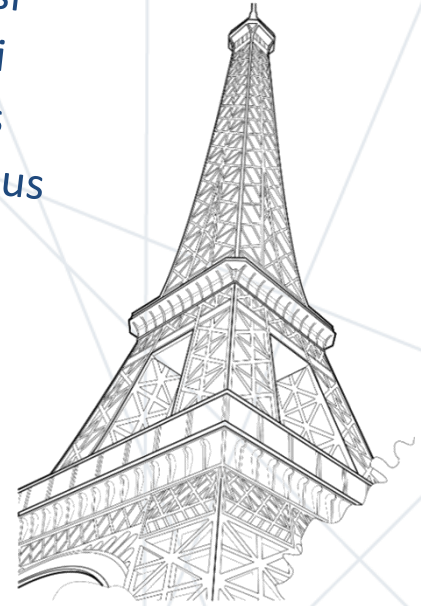


Exonym database included



Candidate for the common
EU Gazetteer proposed in
ELISE (ISA²–action)

Pariisi
Parísi
Párizs
Paryžius
Parīze
Paríž
Pariz
Parigi
Παρίσι
Paříž
París
París
Parijs
Pariis
Parys
Pariz
Pariz





The Cascaded Services

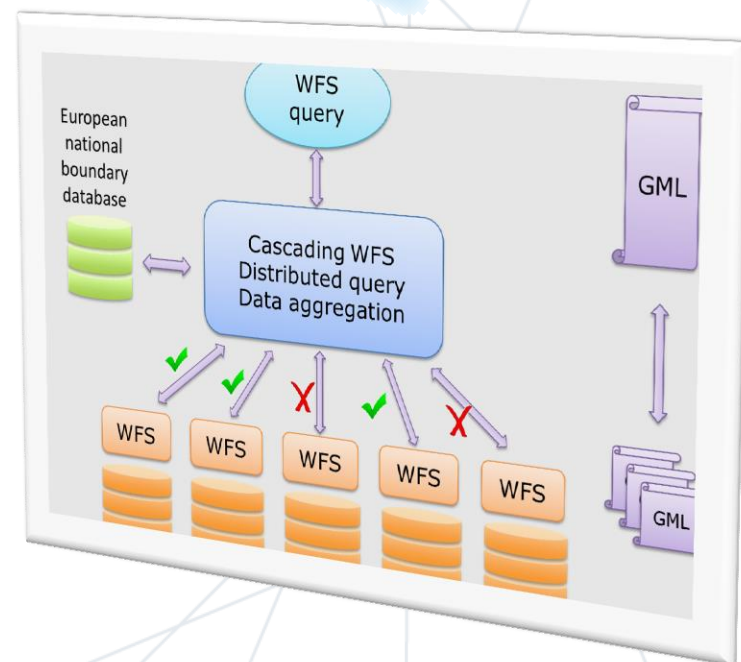
★ Download structured data
across national boundaries

★ Single point of access –
single query – transparent
access

★ Uses national services in
real time

... they said it couldn't be done ...

... ELF did it!



ELF services summary



	BE	CZ	DK	FI	FR	GE	HU	IS	EI	LV	LT	NL	NO	PL	PT	RS	SL	ES	SE	GB	
	Belgium	Czech Rep.	Denmark	Finland	France	Germany	Hungary	Iceland	Ireland	Latvia	Lithuania	Netherlands	Norway	Poland	Portugal	Serbia	Slovenia	Spain	Sweden	GB	
ELF Basemap - regional/global																					+
ELF Basemap - master																					
ELF Cadastral Index Map																					
Geolocator																					+
ELF Regional Themes																					+
Addresses																					
Administrative Units																					
Buildings																					
Cadastral Parcels																					
Elevation																					
Geographical Names																					
Geology																					
Hydrography																					
Land Cover																					
Protected Sites																					
Sea regions																					
Transport Networks																					

= available

= will be implemented by project end

= implemented, but restricted for consortium use only



A Single Point of Access to ...

Unique
Selling
Points



- ★ pan-European data
- ★ authoritative public national sources
- ★ web services for flexibility and optimal currency
- ★ national services in real time
- ★ quality assured and documented
- ★ edge-matched across national boundaries (some themes)
- ★ a foundation for evidence-based decisions
- ★ a foundation for innovative applications

ELF platform



ELF cloud platform





... and it's much more ...



GeoTools

Transformation, Data Quality Validation,
Generalisation, Edge Matching, Visualisation,
Change Detection, Table Joining Service



Affiliated platform



Security and License Manager



Testing environment

... and



Innovative applications!



High level summary at the end of the project

- ★ A lot has been achieved – all objectives largely met
- ★ Without ELF, there would be very few advanced INSPIRE services over reference data around!
- ★ The only large-scale cross-border integration and harmonisation activity!
- ★ But – still not a ‘product’ that meets European public sector expectations, or can be marketed in the private sector



What should still be improved?

- ★ Original data harmonisation and quality is not what is expected (issue related to edge-matching, classification and data quality)
- ★ INSPIRE specifications and delivery methods may not suit all use cases
- ★ Missing data and coverage for some use cases; e.g. European Union
- ★ ELF national services quality should be improved
- ★ Data license terms and conditions do not meet user demands
- ★ Change only updates required, but not yet available



... this is not the end, but the end of the beginning ...

... please forgive my twisting of Churchill's famous words!



EuroGeographics

Project
2013-2016

Transition to an operational
service
1 November 2016

European Location Services

Now it is only up to us ...



*... a full European
coverage contributing to
a sustainable world ...*



Thank you!



ELF EUROPEAN
LOCATION
FRAMEWORK