



EUROGEONAMES – A PROTOTYPE INSPIRE SERVICE

PROVIDING A PILOT SYSTEM TO ACCESS
OFFICIAL GEOGRAPHICAL PLACE NAMES
ACROSS EUROPE WAS THE FOCUS OF THE
EU-FUNDED EUROGEONAMES PROJECT

The EuroGeoNames (EGN) project funded by the eContentplus programme of the European Commission (EC) started on 1 September 2006 and the funded period lasted until 28 February 2009 with a project budget of 1.8 million euro. During the funded period a European geographical names infrastructure has been established by connecting existing national official data sources of the participating National Mapping and Cadastral Agencies (NMCAs). By that the geographical names data is updated in a consistent way and maintained at the source level by the responsible organizations.

EGN has been recognized as a very successful project by the European Commission and the project partners. EGN is, probably, the first INSPIRE compliant service in Europe and provides excellent opportunities for EuroGeographics and its members to meet future requirements in their role as reference information providers for national and European spatial data infrastructures.

An implementation plan for the period 2009 – 2012 ensures the continuation of the EGN infrastructure and services. In this period the first priority will be achieving at least EU27 coverage. Additionally a business plan for sustainability from commercial income will be prepared, bridge-funding opportunities sought and a test service with pilot customers developed.

Background

The increasing use of public domain geographical information, especially geographical names data raises an interesting question given the pedigree of such data - who decides where (for the

general population) European places are and how they are spelled?

Considering the multilingualism and cultural richness in Europe, the people use different spellings and languages when talking about the same location and even within a country more than one spelling may be used. This is the European situation that should be considered as a prestige value and not as an obstacle! Thus, full richness, completeness and high quality of European data seem only to be guaranteed if the data providers are the European countries – creating and maintaining the source data – themselves.

According to existing popular web services using public domain data sources the answer would appear to be that by default and in lieu of an European alternative, it is not the respective National Mapping and Cadastral Agency (NMCA) – or another national institution – that decides where e.g. Bruxelles/Brussels is located and how it is spelled.

Objectives & achievements

Within the EU-funded period (1 September 2006 to 28 February 2009) the EuroGeoNames (EGN) Consortium implemented a web gazetteer service infrastructure for providing official geographical names data in Europe, working with about 20 European NMCAs to help users to find the official spelling of a name, together with its spelling in other languages, its geographical location, its pronunciation, etc.

The official geographical names data is kept decentralised in individual EU countries, linked to and searchable via Web Feature Services (WFS). An “EGN Central (WFS) Service” accesses the distributed “EGN Local (WFS) Services” at each data provider (NMCAs) to query the EGN data network and return standardized result sets (in XML) to the inquirer. The data maintenance and updating process remain in the responsibility of the countries, which have collected and maintained them. An exonyms and other variant names database (EVN-DB) comprises important names used in a specific language for a geographical feature situated outside the area where that language is spoken, and differing in its form from the name used in an official or well-established language of that area where the geographical feature is located. These names are not part of the databases of the participating NMCAs of the EGN project. The EVN-DB is a supplement database to the EGN Central Service and each (standardized) exonym and other variant name is linked unambiguously with the appropriate official endonym(s) provided by the NMCAs. An online-editing service serves to maintain the EVN-DB in future. Single requests (currently limited to 50 requests / day for anonymous users) for geographical names by using the EGN Central Service are free of charge.

Generally, the EGN Consortium aimed at being as much compliant as possible with findings of the INSPIRE initiative. The major strength is that the EGN gazetteer model is compliant with the current version of the INSPIRE gazetteer model (INSPIRE D2.5 Generic Conceptual Model, v3.1). As for the current version of the INSPIRE data specification for geographical names (v2.0) it can be stated that the output of the EGN Central Service can be mapped to the INSPIRE data specification and that EGN currently conforms to all content mandatorily required by INSPIRE.

The INSPIRE Directive

Directive 2007/2/EC of the European Parliament and of the Council adopted on 14 March 2007 aims at establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) for environmental policies, or policies and activities that have an impact on the environment. INSPIRE will be based on the infrastructures for spatial information that are created and maintained by the Member States. To ensure that the spatial data infrastructures of the Member States are compatible and usable in a Community and trans-boundary context, the Directive requires that common Implementing Rules (IR) are adopted in a number of specific areas,

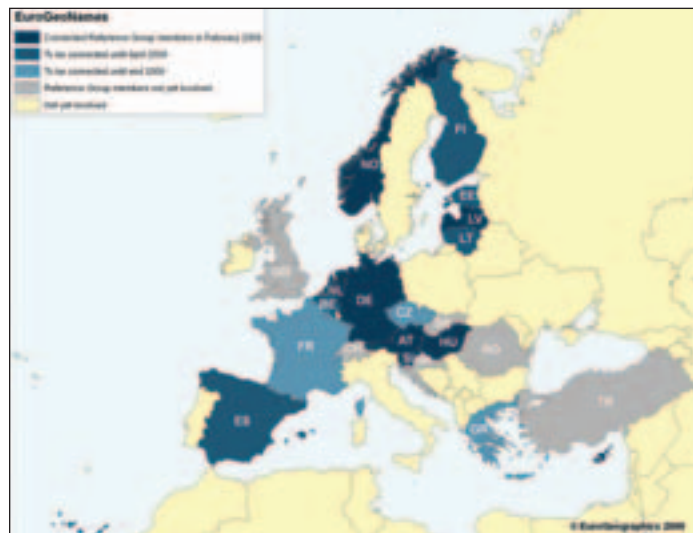


FIGURE 1. Participating and associated National Mapping and Cadastral Agencies (NMCAs)

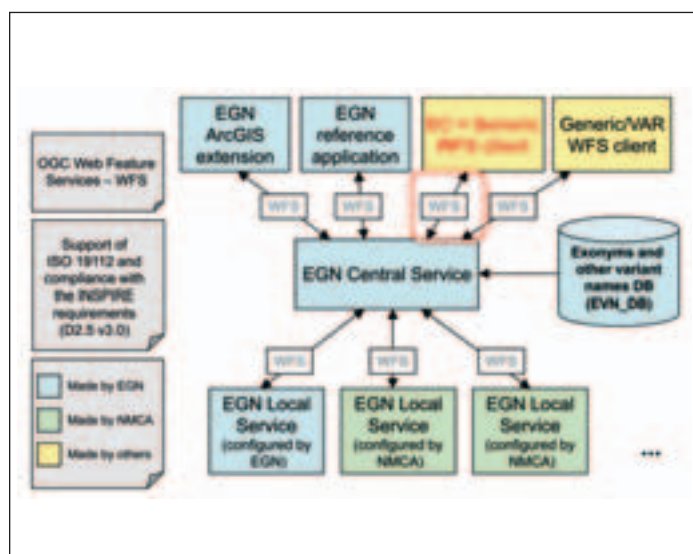


FIGURE 2. EuroGeoNames Services' architecture

amongst others, for the topic geographical names.

EGN is targeted primarily at value added resellers (VARs) and service providers to develop specific applications for their customers and deploy value-added GIS products by using the EGN Central Service. The end user has access to this information either through the gazetteer service interface (URL to be published soon) or through the applications (end-user interfaces). Two applications have been developed within the funded period. The first is the EGN Reference Application, which enables searching for geographical names in all official European languages, including officially recognized minority languages, showing the full functionality of the EGN infrastructure (www.eurogeonames.com/RefApp/). The second is the EGN ArcGIS extension developed by ESRI. This extension enables ArcMap to perform name searches based on several query criteria and to analyze, visualize and save the results in a standard GIS software environment. The EGN ArcGIS extension is available as a free download through ESRI ArcScripts (arcscripsts.esri.com). Other applications, developed by third parties, will be encouraged.

Status of the EuroGeoNames infrastructure

The main task of the EGN consortium until February 2009 was to connect as many countries as possible to the EGN infrastructure. The “critical mass of content aggregated”, as requested by the eContentplus programme, was fulfilled by aggregating data for eight countries: Slovenia, Latvia, The Netherlands, Austria, Norway,

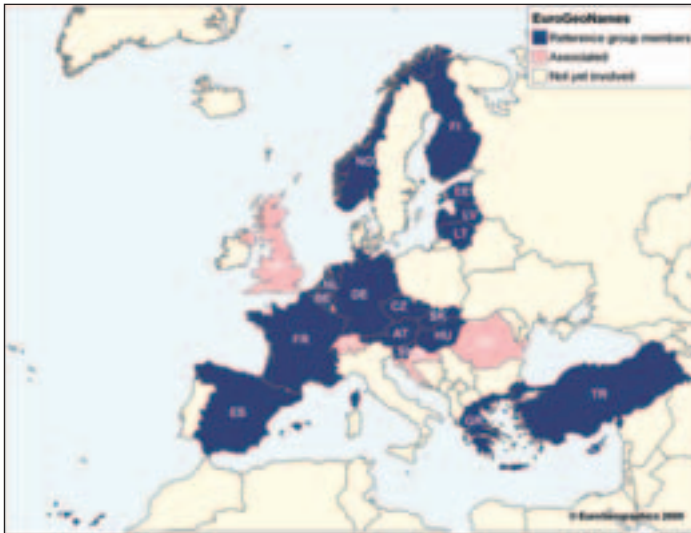


FIGURE 3. Overview of connected National Mapping and Cadastral Agencies (NMCAs)

Hungary, Cyprus, and Germany. Additional countries like Belgium, Lithuania, Estonia, Finland, Czech Republic, Spain, Greece and France will finish their implementation either before the end of May 2009 or until the end of 2009 at the latest.

The quantity of the geographical names data in the respective countries is quite different and depends on the general shape of the country, the map scales used as the basis for data acquisition as well as on the level of information detail required in the countries themselves. It varies between 1:5000 (e.g. Cyprus), 1:10000 (e.g. The Netherlands) and 1:200000 (e.g. Germany). Within the initiation phase of EGN remarkable time was required for analyzing the data to be aggregated during the project. As for a gazetteer service the scale information is not relevant. It is of more importance that e.g. all geographical names of 'administrative units' are available.

Currently, the connected German service provides about 90 000 entries, the Finnish one about 808 000 entries. Thus, assuming that about 16 countries mentioned above will be connected to EGN in 2009, the quantity of geographical names may lie in between 2,8 million and 3.5 million entries (endonyms). In addition, about 5 500 exonyms and other variant names will be linked to the national databases.

Target user and their needs

Within the EGN project, the market in terms of potential applications and related business actors and stakeholders from both public and private sectors was analyzed as well as user and business requirements based on the outcome of the market analyses described.

As for the target user groups the following ones can be distinguished:

- emergency services; health and safety,
- cross border market analysis & asset management,
- border crossing routing; transport and delivery service networks,
- hotel reservation services, tourism,
- private sector map and atlas producers,
- educational establishments, libraries,
- mass media (broadcast, TV),
- location based services (LBS).

Generally, the JRC INSPIRE geoportal is potentially a user for EGN as well as agencies of the European Commission, such as Eurostat and also commercial actors like Google, Microsoft, Tele Atlas, Nokia, etc.

The so-called 'EGN Group of Interest' comprising 26 organizations (standardization bodies, private GI companies, cartographic publishing houses, GI interest groups, etc) potentially interested in using the EGN infrastructure and services too, was invited to join,

comment and shape the EGN project activities from the beginning in 2006 and to provide 'customer feedback' by participating in workshops.

The unique selling points (USP) of the EGN infrastructure and services for Europe and its quality are that:

- the names data provided are from a primary source,
- it is continuously updated,
- it is more detailed than other names data,
- it is closer to the experts that collect the names,
- there is a better quality control through official cooperation,
- it is based on European standards,
- the data is generated by trustworthy institutions providing unbiased products.

Impact and sustainability

The agreed understanding for the EuroGeoNames project is to be supported and extended by EuroGeographics together with the German Federal Agency for Cartography and Geodesy (BKG) beyond the end of the project.

In spring 2009 the EGN project coordination will be transferred to EuroGeographics. BKG will continue to function as the "Service Center" for hosting the EGN Central Service, the Reference Application and the Exonyms and other variant names database as well as for providing technical support to NMCAs and pilot customers.

EGN sets a milestone in the process of changing EuroGeographics from a focus on products to a service delivery organisation. EGN is, probably, the first INSPIRE compliant service in Europe and provides excellent opportunities for EuroGeographics and its members to meet future requirements in their role as reference information providers for national and European spatial data infrastructures.

The implementation plan recommends that in the period 2009 – 2012 the first priority will be achieving at least EU27 coverage. Additionally a business plan for sustainability from commercial income will be prepared, bridge-funding opportunities sought and a test service with pilot customers developed.

After 2012 the ambition is for EGN to become a component in EuroGeographics services infrastructure.

References

The outcomes and all other public deliverables are available through the EGN website at www.eurogeonames.com, where the following documents are most relevant:

- EGN Deliverable D1.7, Final Report D1.7, 2009
- EGN Deliverable D3.3, EGN Metadata profile, 2008
- EGN Deliverable D4.2e, Data model conceptual schema & documentation, 2008
- EGN Deliverable D6.5, EGN Web Services profile - specifications for implementation, 2008
- EGN Deliverable D7.4, Documentation EGN Web GIS Reference Application, 2009
- EGN Deliverable D8.2, EGN ArcGIS Extension Documentation, 2009
- EGN Deliverable D11.2, Implementation Plan, 2009

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THE BIG CHALLENGE IS COMING!

GeoConnexion UK will monitor closely the technology supporting the event in London which may well serve as a model for ongoing development nationally. Among the topics under the umbrella of future GEOlympics issues, we propose to cover (but not limited to) the following:

Planning and development:

The new era of architectural visualisation, geodemographics

Utility industries:

Water, gas, electricity, telecoms

SatNav systems:

Surveying, tracking

Security:

Blue light services

Logistics:

Transport, Environment Eco-transport, refuse collection, river and soil decontamination

Return on investment and case studies:

Case studies, lessons learned, legacy



Cover of the first GEOlympics Supplement

GeoConnexion UK is devoted to the UK's Geographical Information industry. Its special focuses are on E-Government, Health, Public Safety, Retail, Environmental, Utilities, Surveying, Location-Based Services, Transport/Logistics and Telecommunications.

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Editorial Deadline:

29 May '09 – mariapellegrini@geoconnexion.com

Advert Booking Deadline:

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