An Open Regional Gazetteer for Europe – Challenges and opportunities

EuroGeographics INSPIRE KEN, 03.03.2022

Pier-Giorgio Zaccheddu, Jörgen Spradau
Federal Agency for Cartography and Geodesy (BKG)
Content

- BKG’s motivation for a pan-European gazetteer
- Geographical names in Europe
- ‘Open Regional Gazetteer‘ – Challenges and opportunities
BKG’s motivation for a pan-European gazetteer

- Globally no gazetteer service currently exists providing comprehensive authoritative names data → geonames.org is currently the best option
- In Europe only „cross-border“ patchwork through prototypes or national names services exist
- All previous approaches failed at relying on available INSPIRE compliant services → Harmonisation of content still needed!
- BKG supports global (UNGEGN) and European (EuroGeographics, INSPIRE et al.) names data activities
BKG’s motivation for a pan-European gazetteer

- The „EuroGeoNames (EGN) approach“...
- EU-funded project
- 2006-2009
- Prototype implementation of an INSPIRE-compliant Web Feature Service
Content

- BKG’s motivation for a pan-European gazetteer
- Geographical names in Europe
- ‘Open Regional Gazetteer’ – Challenges and opportunities
Geographical names in Europe

- Integration of national services in the EU-Data Portal

[Image of the official portal for European data]

Datasets

The official portal for European data

170 36 1 298 285
Catalogues Countries Datasets

Trending datasets
- Consolidated list of persons, groups and entities subject to EU financial sanctions
- Number of COVID-19 people killed by age
- CORDIS - EU research projects under Horizon 2020 (2010-2020)
- Tenders Electronic Daily (TED) (csv subset) – public procurement notices
- Principali indicatori macroeconomici

Search datasets

Datasets Catalogues Editorial Content

7519 datasets found

Provenance: Germany

INSPIRE-WMS HE Geographic names ATKIS Basic DLM — Geographical Names

The service contains the administrative units derived from the ATKIS Basic DLM according to INSPIRE-Datspezifikation.Der dataset contains the geographical designations derived from the ATKIS Basic DLM according to INSPIRE data specification.

Updated: 15.11.2021

INSPIRE BY Geographical Names ATKIS Basic DLM

INSPIRE compliant dataset for geographical designations according to INSPIRE data specification derived from the ATKIS base DLM dataset. The data is only available via services (WPS and WFS).

Updated: 04.05.2019

https://data.europa.eu/en
Content

- BKG’s motivation for a pan-European gazetteer
- Geographical names in Europe
- ‘Open Regional Gazetteer‘ – Challenges and opportunities
EuroGeographics products as backbone for the gazetteer

EuroRegionalMap (ERM) → Topographic dataset, 1 : 250.000
- 51 countries and territories from 36 data producers
- Provides e.g. administrative units, hydrographic, transport, settlement, land cover, physiographic region et al. features
- 32 Feature Classes with geographical names
- Feature Classes comprise about 930.000 primary and 12.700 secondary names for ERM 2021

EuroBoundaryMap (EBM) → Administrative boundaries, 1 : 100.000
- 55 countries and territories from 39 data producers
- Provides geometry, names and unique identifiers
- 7 Feature Classes with about 218.000 geographical names for EBM 2021
Data model = INSPIRE GN data model

- Points
- InspireID as identifier
- Tables with information to
  - Geographical names
  - Nativness: endonym / exonym
  - Status: Official, standardized, historical, other
  - NamePlaceType: administrativeUnit, building, hydrography, landcover, landform, populatedPlace, protectedSite, transportNetwork, other
- LocalType: ERM feature type
- Language code and name: ISO 639-3
- Transliteration scheme
- Source: ERM 2021, EBM 2021
Implementation

- Source data
  - EBM 2021: AdministrativeUnit_x
  - ERM 2021:
- Work by geographical name expert

AdministrativeUnit_1
inspireId = _EG.EBM:AU1.SI000000.1
ICC = SI
SHN = SI000000
ISN = 2801
NAMN = Slovenija
DESN = Država
TAA = Land area

BuiltupP
FC subtype = Populated Place
inspireId = _EG.ERM:EG.bc24f270-95cc-4ad8-a01b-d4897a59a9d9
F_CODE = AL022
ICC = SI
NAMN1 = Ljubljana
NAMA1 = Ljubljana
NLN1 = SLV
PPL = 280310
USE = International
PopulatedPlaceID = N.SI.BUILTUP.10110084
Implementation

- Only reference points are used as geometry
  → All EBM/ERM features with line or area geometry are generalised to points

<table>
<thead>
<tr>
<th>inspireID</th>
<th>text</th>
<th>nativeness</th>
<th>language</th>
<th>namestatus</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>_EG.EBM:AU1.SI000000.1</td>
<td>Slovenija</td>
<td>exonym</td>
<td>slv</td>
<td>official</td>
<td></td>
</tr>
<tr>
<td>_EG.EBM:AU1.SI000000.1</td>
<td>Slovenia</td>
<td>exonym</td>
<td>eng</td>
<td>standardised</td>
<td></td>
</tr>
<tr>
<td>EG.EBM:AU1.SI000000.1</td>
<td>Словения</td>
<td>exonym</td>
<td>bul</td>
<td>standardised</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EG.ERM:EG.bc24f270-95cc-4ad8-a01b-d4897a59a9d9</td>
<td>Ljubljana</td>
<td>exonym</td>
<td>slv</td>
<td>official</td>
<td></td>
</tr>
<tr>
<td>EG.ERM:EG.bc24f270-95cc-4ad8-a01b-d4897a59a9d9</td>
<td>Љубљана</td>
<td>exonym</td>
<td>srp</td>
<td>other</td>
<td></td>
</tr>
<tr>
<td>EG.ERM:EG.bc24f270-95cc-4ad8-a01b-d4897a59a9d9</td>
<td>Liubliana</td>
<td>exonym</td>
<td>spa</td>
<td>standardised</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Implementation

- River Rhine
  - Endonyms included in ERM:
    - *Ijssel*
    - *Neder-Rijn*
    - *Waal*
    - *Rijn*
    - *Rhein*
    - *Le Rhin*
    - ...
  - Exonyms for “Rhein” from name expert
    - *Rhine*
    - ...

- Open Maps for Europe
- Coverage = 54 countries according to ISO 3166 country codes plus Kosovo and Northern Ireland
- Current version includes about 17,000 variant names and exonyms
- Specification
- List of References (Geographical name expert)

https://www.mapsforeurope.org/datasets/open-gazetteer
\begin{itemize}
  \item Licensing
    \begin{itemize}
    \item Utilisation of data from existing EuroGeographics’ Pan European products, published as an Open service
    \end{itemize}
  \item Published as OGC Web Feature Service (WFS)
  \item Published as database (GeoPackage)
\end{itemize}
‘Open Regional Gazetteer’ – Challenges and opportunities

- Open Maps for Europe Portal
- Search for “Brüssel”
- Result
Questions...

Contact
Bundesamt für Kartographie und Geodäsie
Richard-Strauss-Allee 11
60598 Frankfurt

Contact details
Pier-Giorgio Zaccheddu
pier-giorgio.zaccheddu@bkg.bund.de
Phone +49 (0) 69 6333-305

Jörgen Spradau
Joergen.spradau@bkg.bund.de
Phone +49 (0) 69 6333-410

It remains exciting...
References

- Open Regional Gazetteer: https://www.mapsgforeurope.org/datasets/open-gazetteer
- Specification and Technical Guidance
- Attribution Guide
- List of References