



Federal Agency for
Cartography and Geodesy



An Open Regional Gazetteer for Europe – Challenges and opportunities

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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



Country names

Language	Short name	Formal name
German	Deutschland	Bundesrepublik Deutschland (die)

United Nations languages

Language	Short name	Formal name
Arabic	ألمانيا	جمهورية ألمانيا الاتحادية
Chinese	德国	德意志联邦共和国
English	Germany	the Federal Republic of Germany
French	Allemagne ('l') [fém.]	la République fédérale d'Allemagne
Russian	Германия	Федеративная Республика Германия
Spanish	Alemania	la República Federal de Alemania

Capital and other major cities

Capital city

Lat: 52.47 | Long: 13.62 **Berlin**

Language	City name	Source
German	Berlin ↗	UNGEGN

United Nations Languages

Language	City name	Source
Arabic	برلين	UN terms
Chinese	柏林	UN terms
English	Berlin	UN terms
French	Berlin	UN terms
Russian	Берлин	UN terms
Spanish	Berlin	UN terms



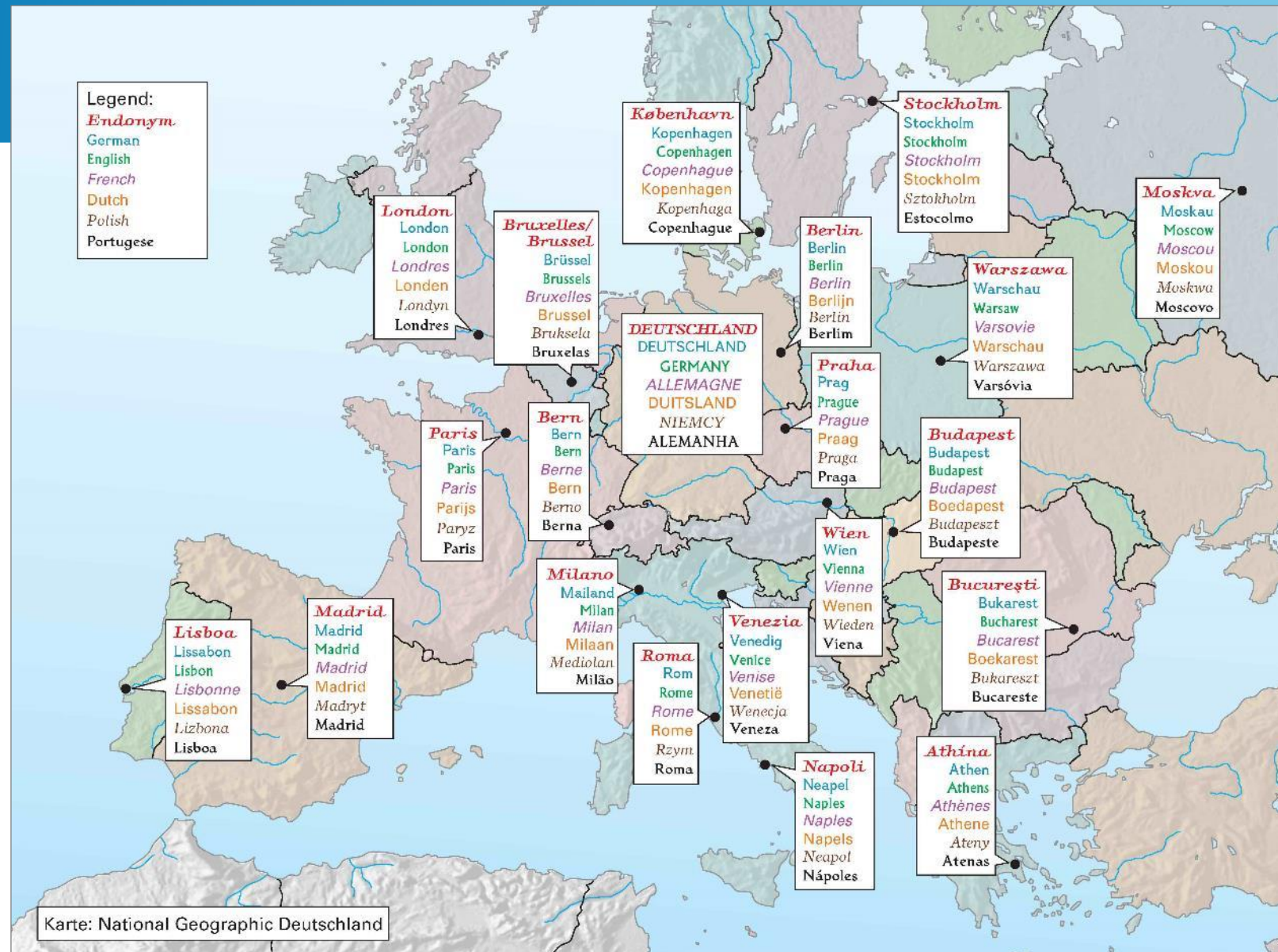
BKG's motivation for a pan-European gazetteer



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

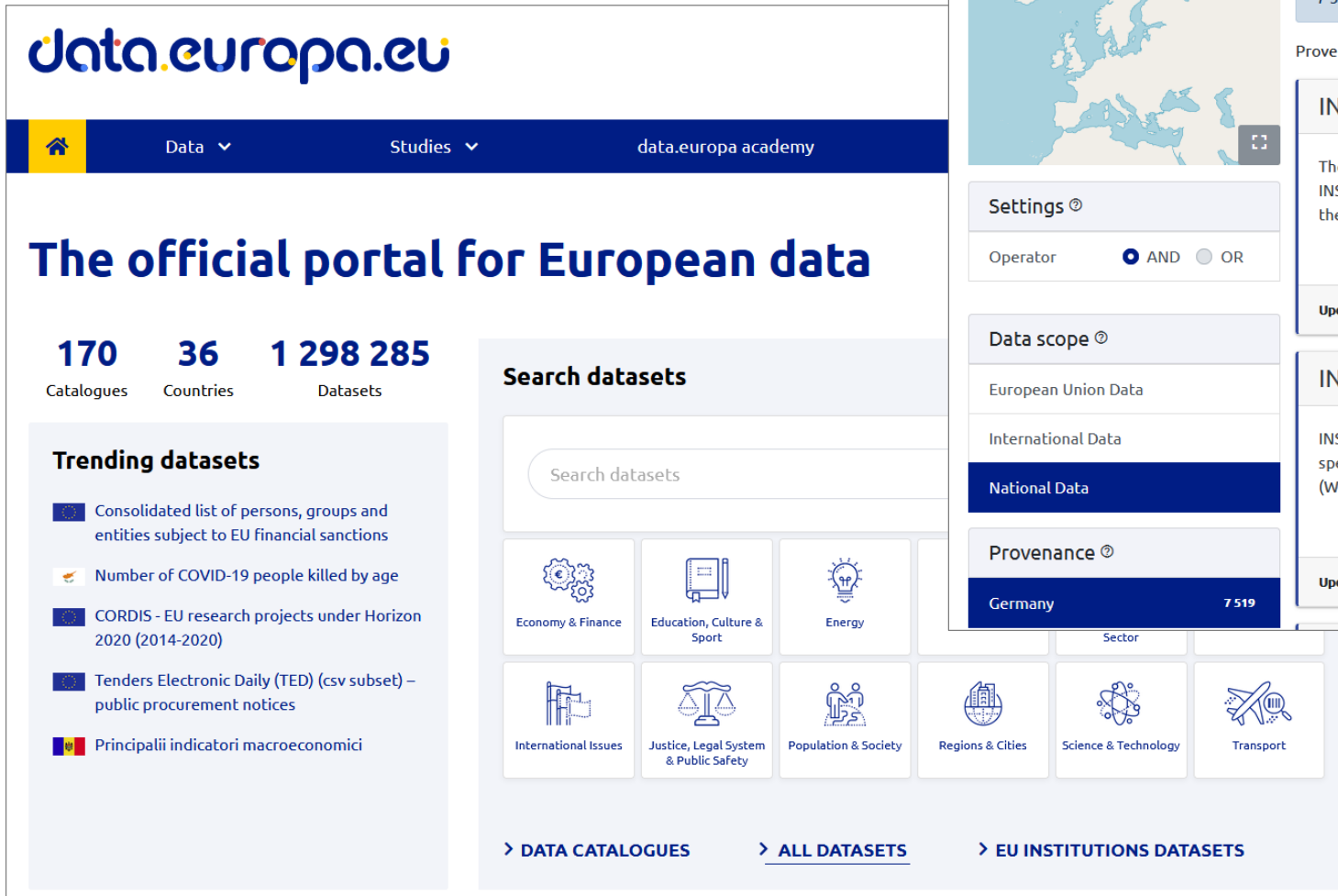
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- ‚Open Regional Gazetteer‘ – Challenges and opportunities



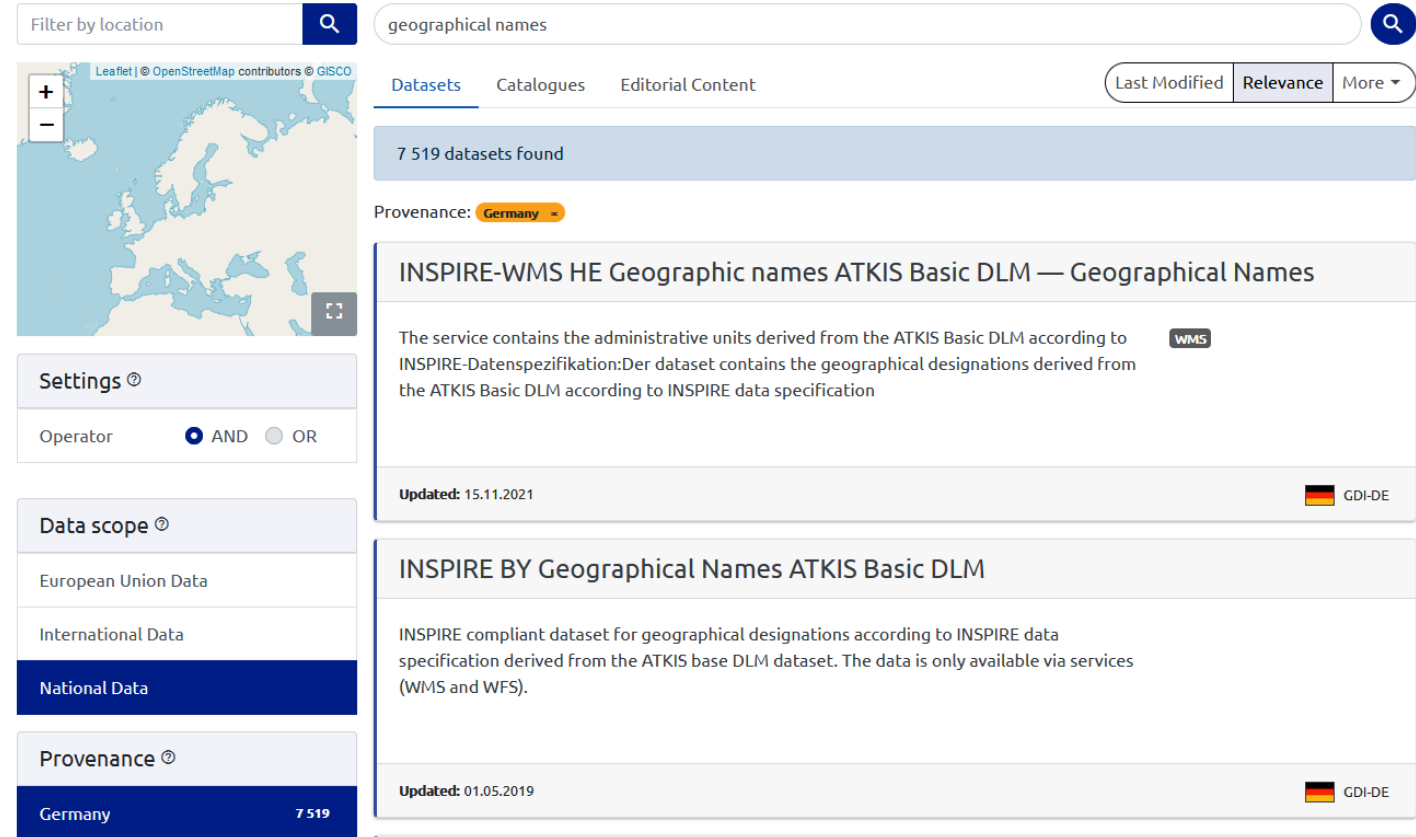
Geographical names in Europe

- Integration of national services in the EU-Data Portal



The screenshot shows the homepage of data.europa.eu. At the top, the logo 'data.europa.eu' is displayed. Below it, a navigation bar includes 'Data', 'Studies', and 'data.europa academy'. The main heading reads 'The official portal for European data'. Statistics show 170 Catalogues, 36 Countries, and 1 298 285 Datasets. A 'Trending datasets' section lists four items: '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 (2014-2020)', and 'Tenders Electronic Daily (TED) (csv subset) - public procurement notices'. A 'Search datasets' section features a search bar and a grid of icons for various sectors: Economy & Finance, Education, Culture & Sport, Energy, International Issues, Justice, Legal System & Public Safety, Population & Society, Regions & Cities, Science & Technology, and Transport. At the bottom, there are links for 'DATA CATALOGUES', 'ALL DATASETS', and 'EU INSTITUTIONS DATASETS'.

Datasets



The screenshot shows the search results for 'geographical names' in the Datasets section. The search bar contains 'geographical names' and a search icon. Below the search bar, there are tabs for 'Datasets', 'Catalogues', and 'Editorial Content'. A summary bar indicates '7 519 datasets found'. The 'Provenance' is set to 'Germany'. The first result is 'INSPIRE-WMS HE Geographic names ATKIS Basic DLM — Geographical Names', which is a WMS service containing administrative units derived from the ATKIS Basic DLM. It was updated on 15.11.2021 and is provided by GDI-DE. The second result is 'INSPIRE BY Geographical Names ATKIS Basic DLM', an INSPIRE compliant dataset for geographical designations, updated on 01.05.2019, also provided by GDI-DE. On the left side of the search results, there are filters for 'Settings' (Operator: AND/OR), 'Data scope' (European Union Data, International Data, National Data), and 'Provenance' (Germany, 7 519 datasets).

<https://data.europa.eu/en>

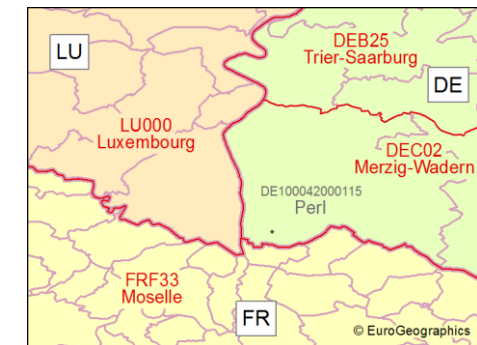
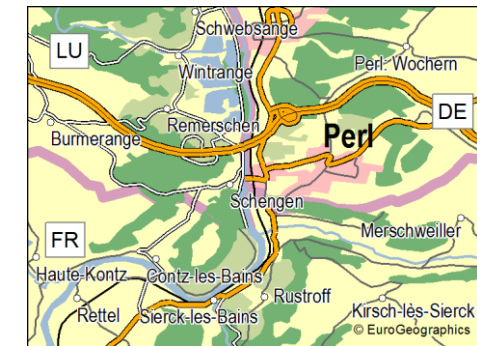
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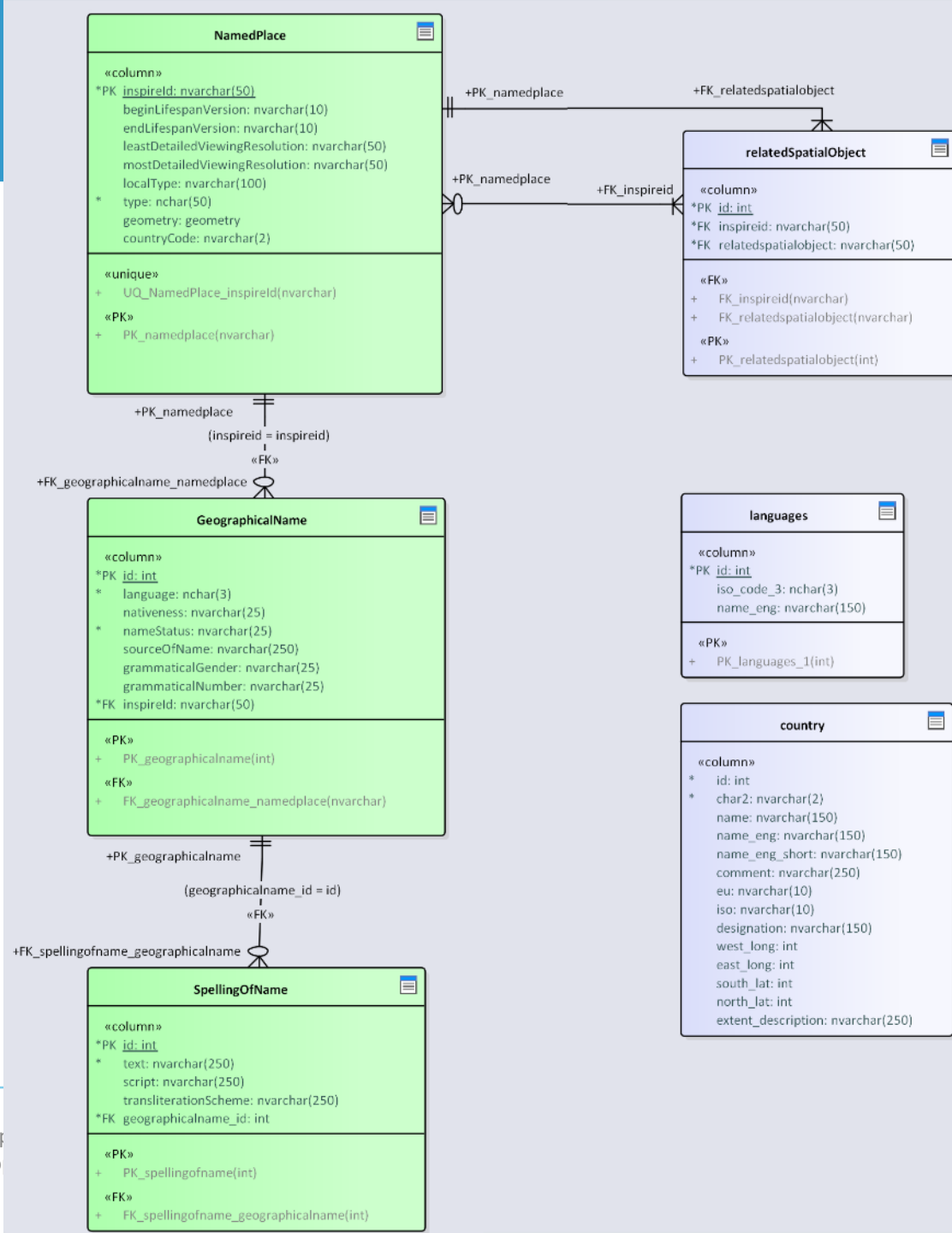
‘Open Regional Gazetteer’ – Challenges and opportunities

- 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



,Open Regional Gazetteer' – Challenges and oppo

- 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



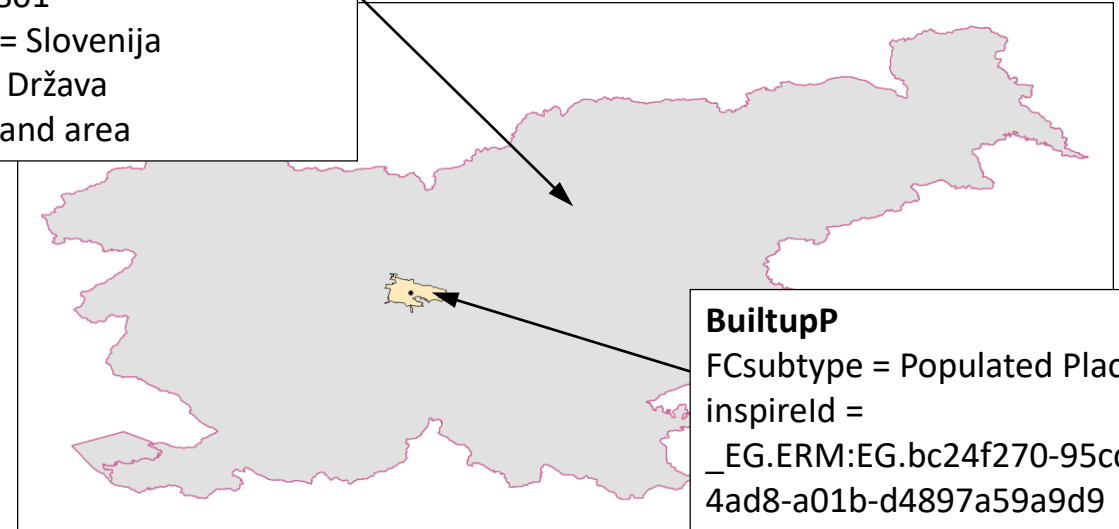
‘Open Regional Gazetteer’ – Challenges and opportunities

Implementation

- Source data
 - EBM 2021: AdministrativeUnit_x
 - ERM 2021: BuiltupP, UrbanP, RailrdC, AirfldP/C, FerryC, HarborP/C, ExitC, LakeresA, IslandA, WatercrsA, WatercrsL
 - 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



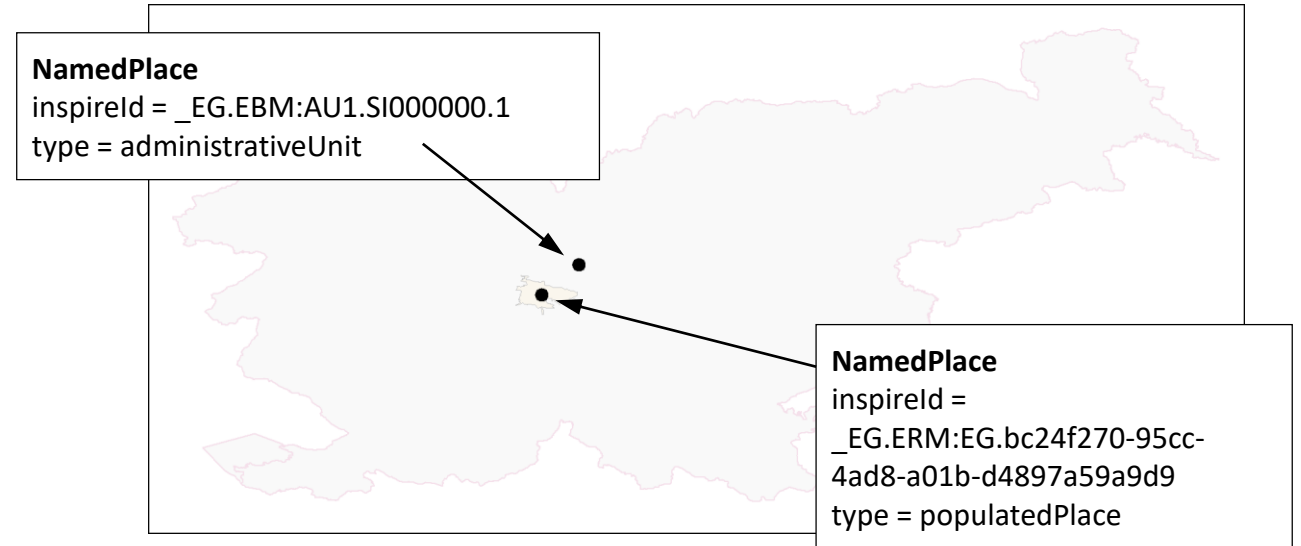
BuiltupP

FCsubtype = 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

‘Open Regional Gazetteer’ – Challenges and opportunities

Implementation

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

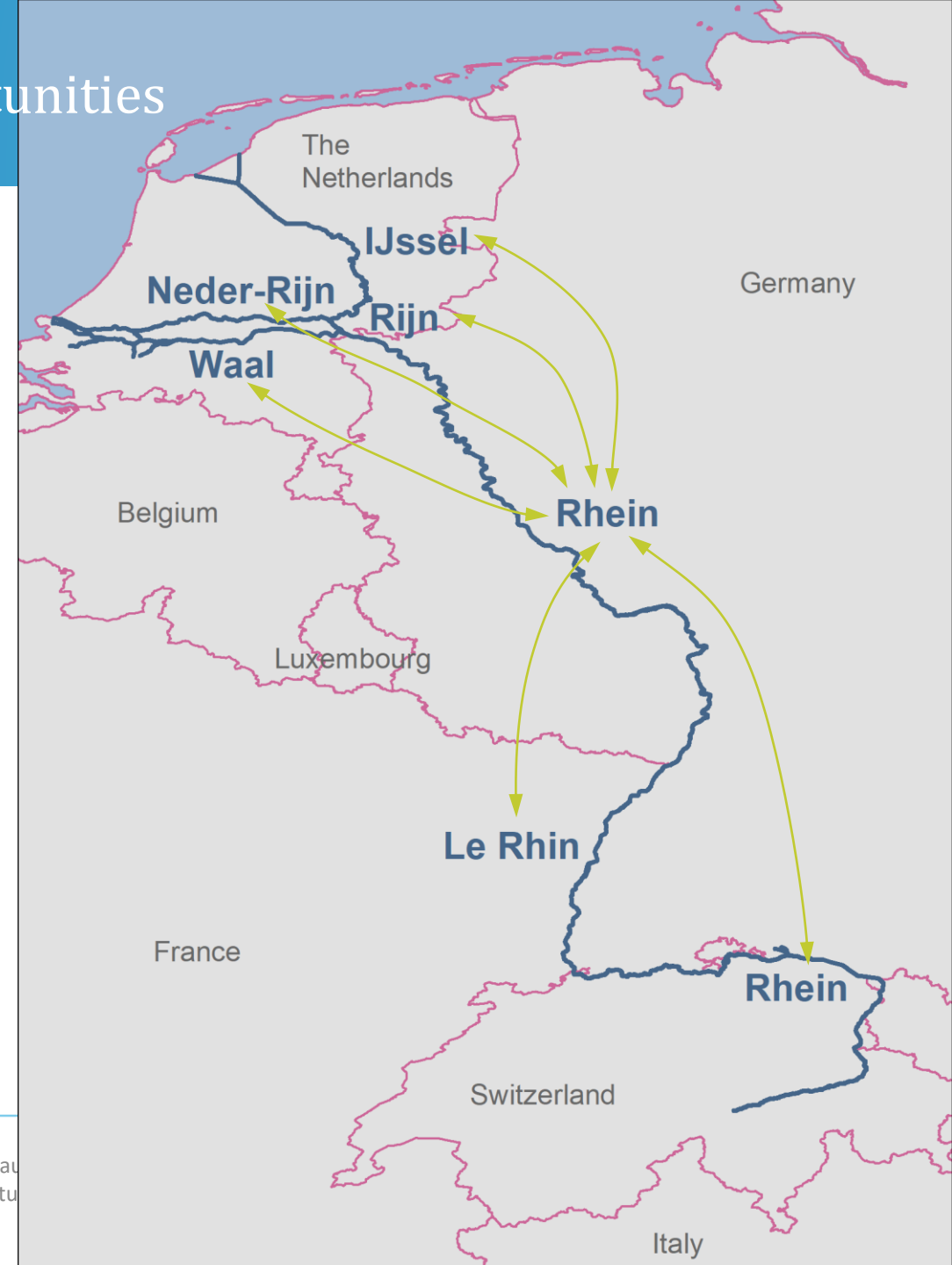


<u>inspireID</u>	text	nativeness	language	namestatus	...
_EG.EBM:AU1.SI000000.1	Slovenija	endonym	slv	official	
_EG.EBM:AU1.SI000000.1	Slovenia	exonym	eng	standardised	
_EG.EBM:AU1.SI000000.1	Словения	exonym	bul	standardised	
...					
_EG.ERM:EG.bc24f270-95cc-4ad8-a01b-d4897a59a9d9	Ljubljana	endonym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

‘Open Regional Gazetteer’ – Challenges and opportunities

Implementation

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



„Open Regional Gazetteer“ – Challenges and opportunities

- 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)

eurogeographics

Open Gazetteer

Access Data Search on Map

The Open Gazetteer provides authoritative geographical names as maintained in the source data of the NMCAs. It can be used for any reference or information purpose.

Last Update

04/2021

Coordinate System

- Datum: European Terrestrial Reference System 1989 (ETRS89),
- Coordinate reference system: two-dimensional geodetic coordinates (latitude and longitude) based on ETRS89 and using the parameters of the GRS80 ellipsoid (EPSG code 4258).

Available Formats

Web Services

WFS

Download

Geopackage - 115.1Mb zip

Dataset Documentation

- Technical Specification
- Attribution Document
- List of References

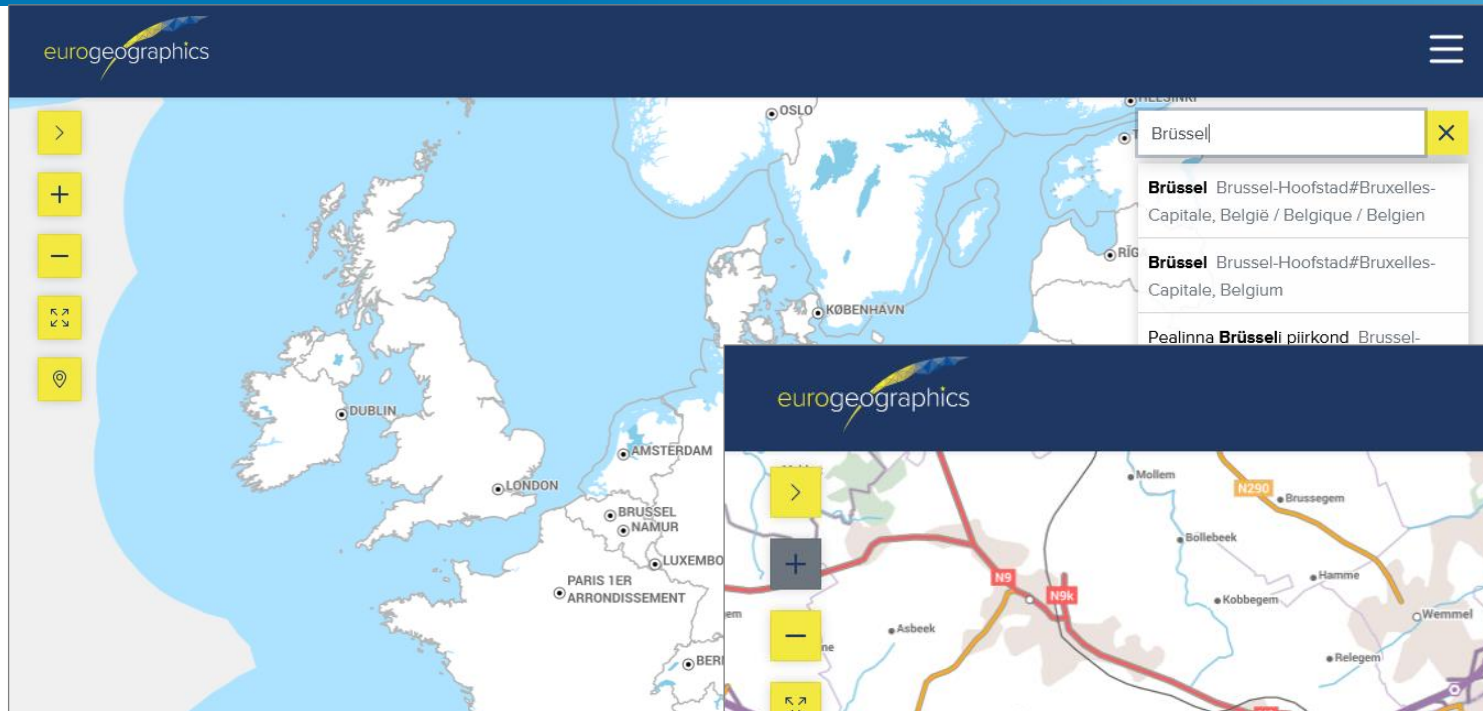
Coverage

Andorra
Austria
Belgium
Bulgaria
Croatia
Cyprus
Czech Republic

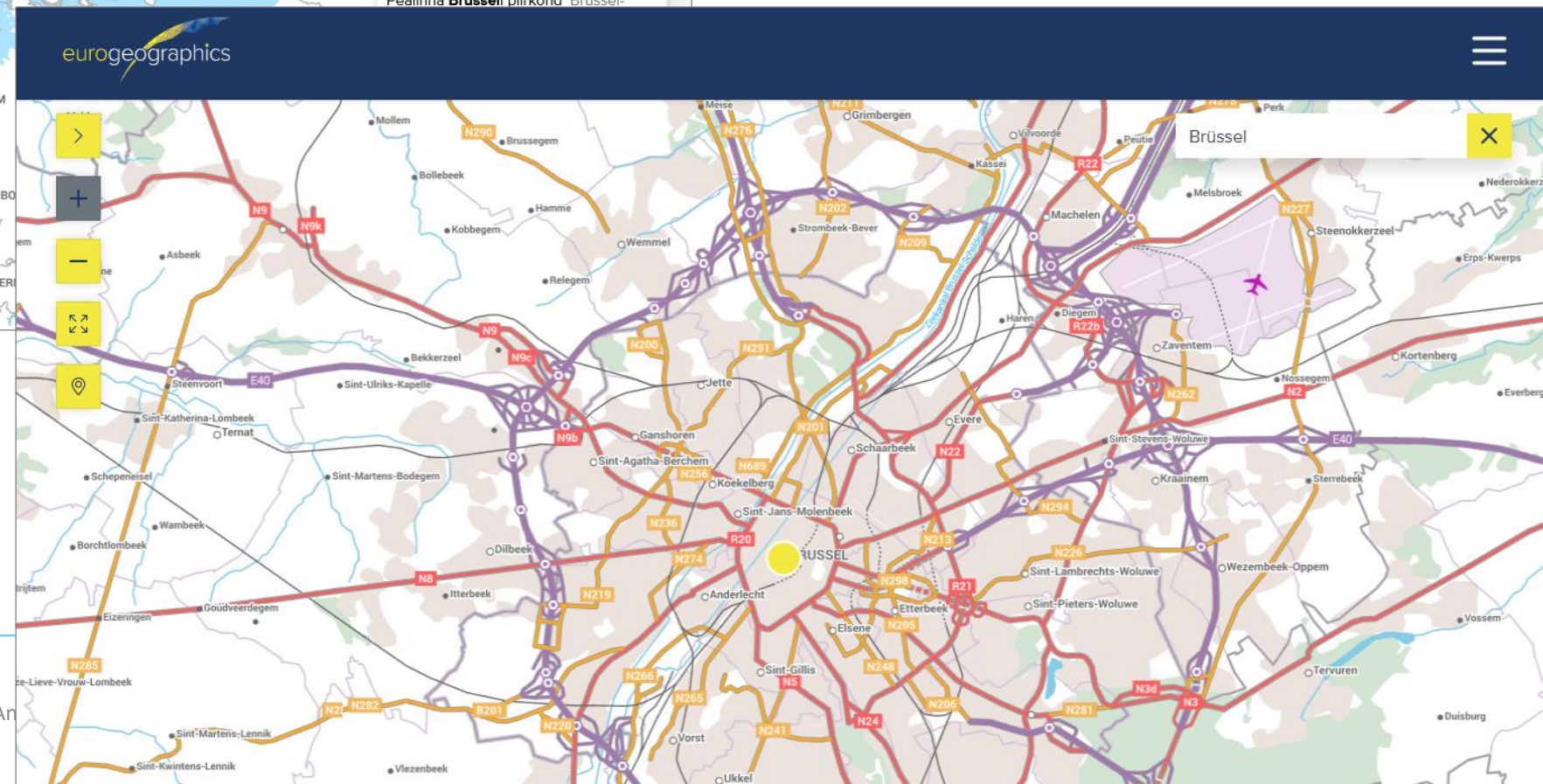
Kosovo*
Latvia
Liechtenstein
Lithuania
Luxembourg
Malta
Martinique

<https://www.mapsforeurope.org/datasets/open-gazetteer>

,Open Regional Gazetteer' – Challenges and opportunities



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





Federal Agency for
Cartography and Geodesy



Questions...?

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References

- Open Regional Gazetteer: <https://www.mapsforeurope.org/datasets/open-gazetteer>
 - [Specification and Technical Guidance](#)
 - [Attribution Guide](#)
 - [List of References](#)
- Status report on gazetteer developments under European Location Services, UNGEGN, 3-7 May 2021, (GEGN.2/2021/48/CRP.48):
https://unstats.un.org/unsd/ungegn/sessions/2nd_session_2021/documents/GEGN.2_2021_48_CRP48_14_Open_European_Regional_Gazetteer.pdf
- INSPIRE Data Specification on Geographical Names – Technical Guidelines
<https://inspire.ec.europa.eu/id/document/tg/gn>