





# **Overview**

- History
- Success
- Challenges





# **The Story Begins**

2019 in Brussels

Members data consolidated and licensed to users for a fee



# **The Story Begins**

## Change to open data

- Market change
- Analysis to enable informed decisions
- CEF Project



# **The Story Begins**

## Objectives

- Open data licence for ERM and EuroDEM
- Improve and extend products
- Enhanced user interface



# **The Story Begins**

## **Objectives**

- New delivery methods
- Integration with the European Data Portal (EDP)
- Dissemination

#### Access Data

Please select the datasets you want, and then review and accept the licence terms and enter your e-mail address. We will send you a download link and/or instructions for connecting to the service.

If you have any queries, please go to our FAQ's









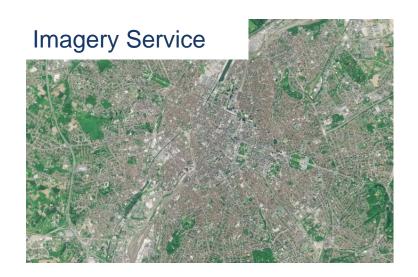


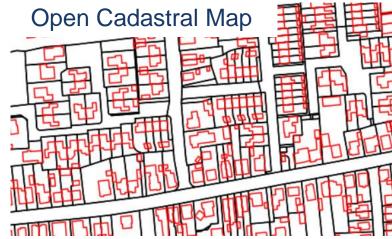












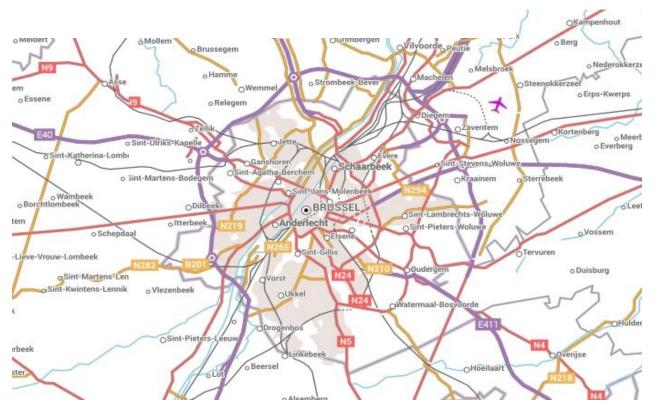




- 1:250 000
- Layers:
  - Boundaries
  - Population
  - Transportation Networks
  - Hydrography
  - Geographical names
  - Vegetation
- Updated every year
  - Boundaries and Population every year
  - Transport & Hydro every 2 years
  - Names & Vegetation every 4 years

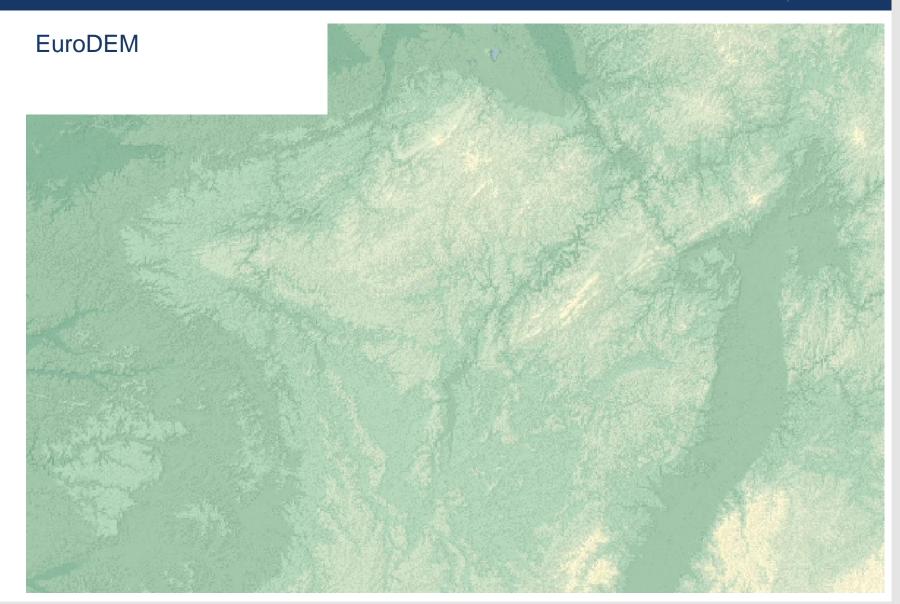


#### EuroGlobalMap

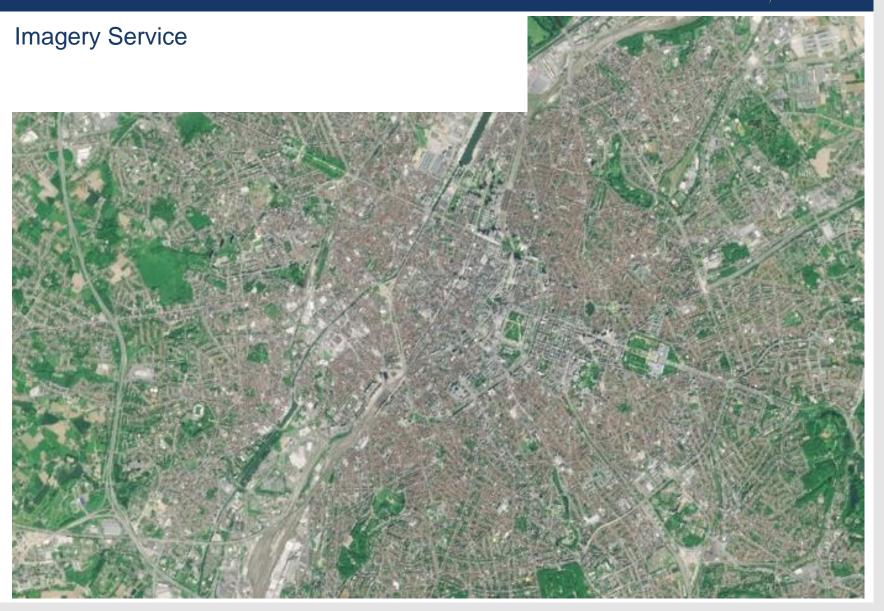


- 1:1 million
- Layers:
  - Boundaries
  - Population
  - Transportation Networks
  - Hydrography
- Updated every year
- Created from ERM and EBM















# **Products**

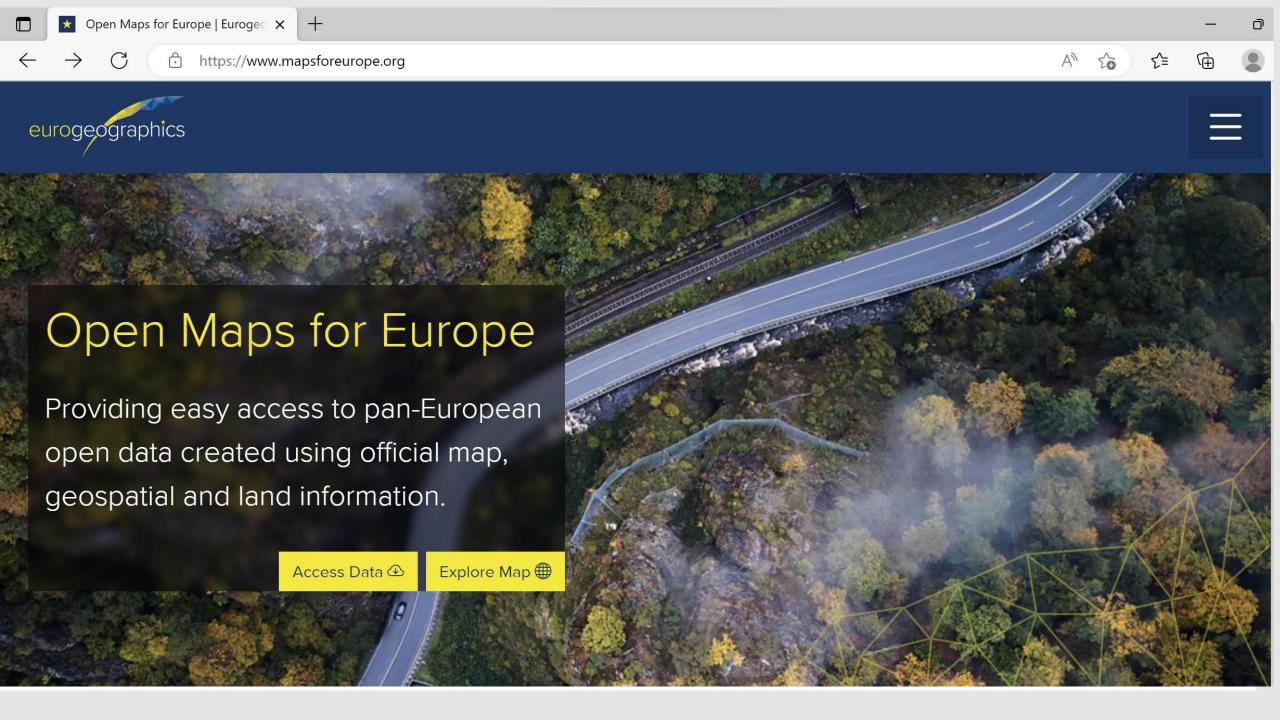
Open Cadastral Map

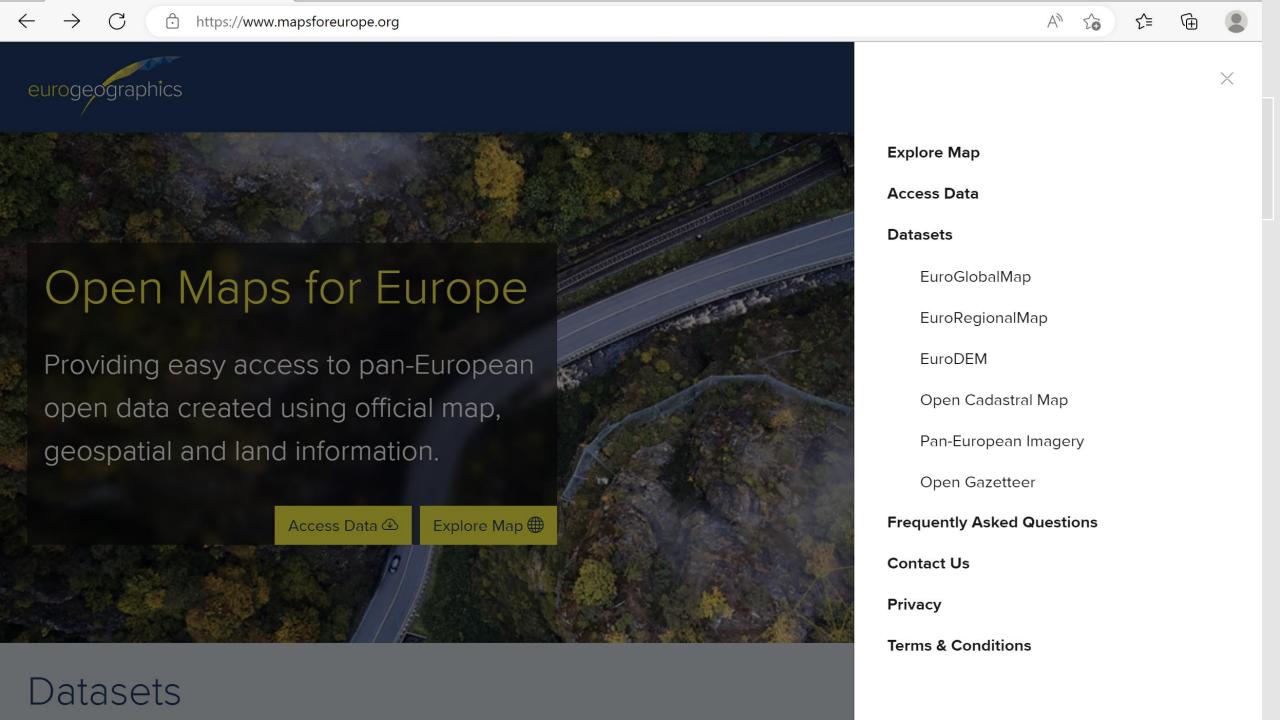


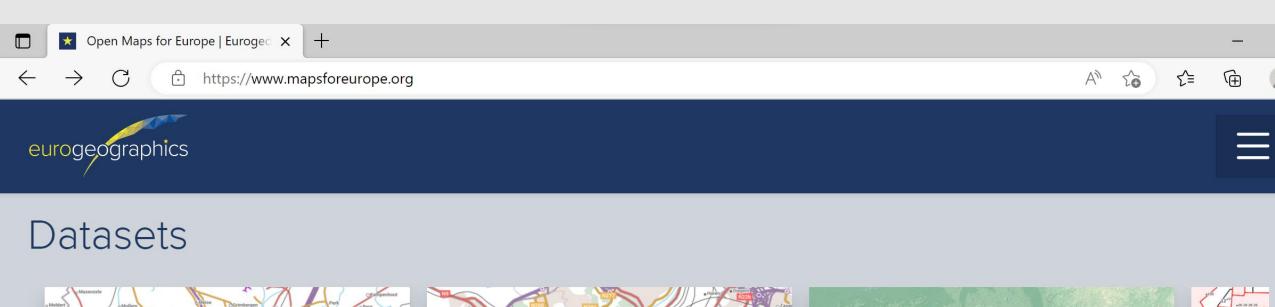


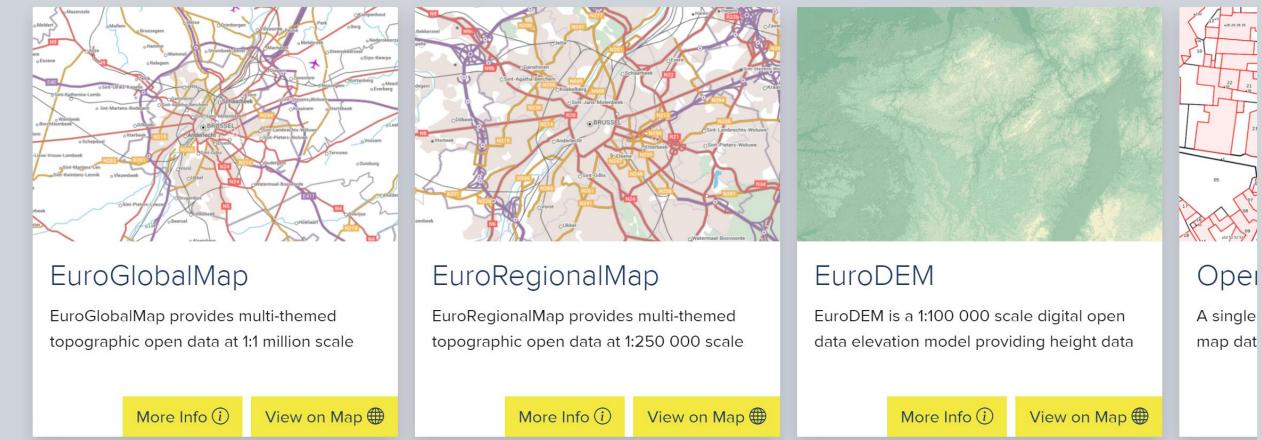
# LIVE DEMO

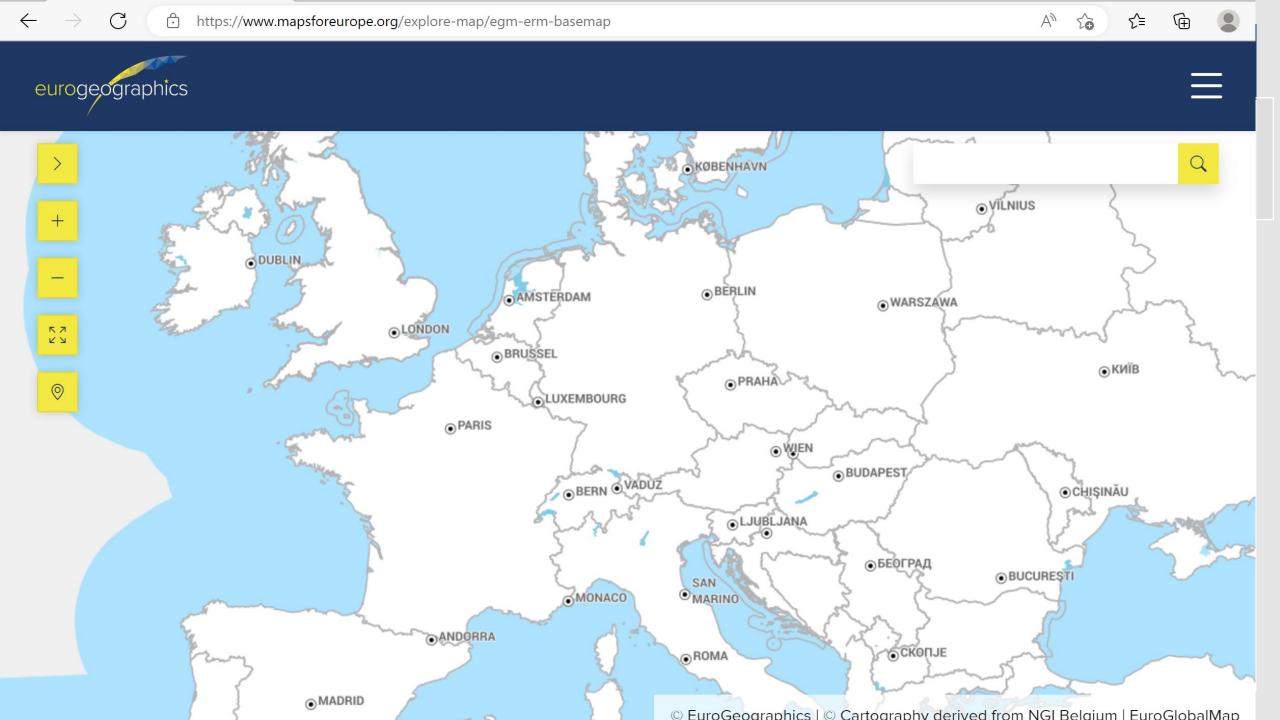


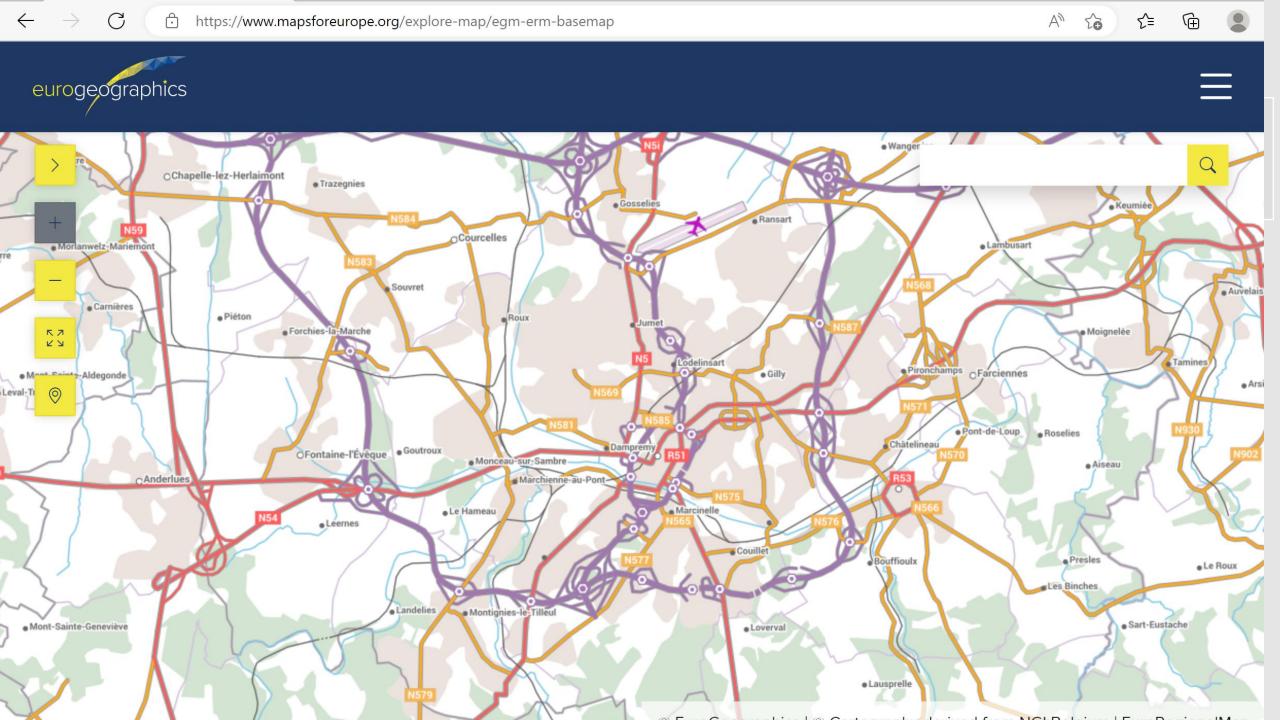




















#### Available Datasets



Filter by theme or country



Showing 6 of 6 datasets



#### EuroGlobalMap

EuroGlobalMap provides multithemed topographic open data at 1:1 million scale

More Info (i)

View on Map

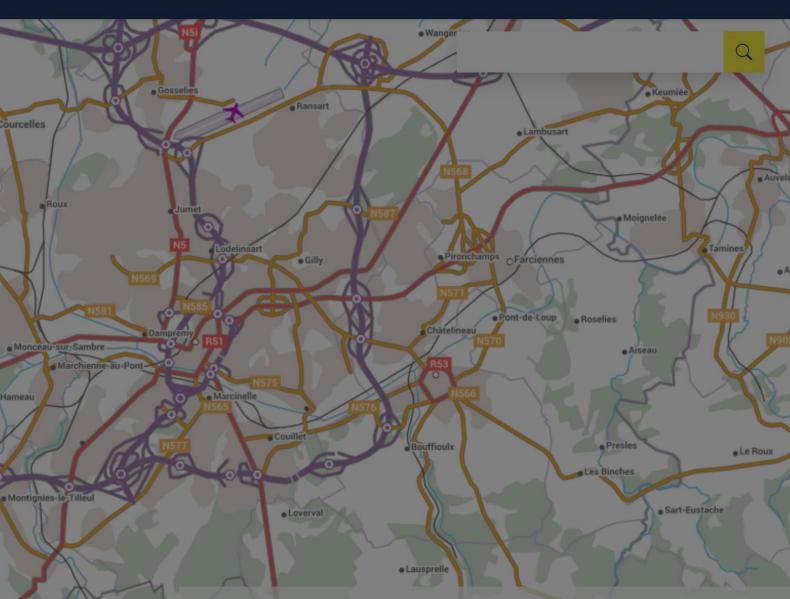


#### EuroRegionalMap

EuroRegionalMap provides multi-

Access Data ◆

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## EuroGlobalMap

Access Data ◆

View on Map

EuroGlobalMap is a 1:1 million scale topographic dataset covering 55 countries and territories in the European region. EuroGlobalMap is perfect for cartographic visualisation across Europe and can enable a wide range of applications from planning, monitoring and network analysis to presenting environmental policies.

#### Last Update

02/2022

#### Themes

Administrative Boundaries, Hydrography, Named Location, Settlement, Transportation

## Coordinate System















## EuroGlobalMap

Access Data ◆



## Coordinate System

Decimal degrees ETRS89-WGS84

#### **Available Formats**

Web Services

WFS, WMS, WMTS

#### Download

GeoPackage - 237.1Mb zip Shapefile - 205.7Mb zip

#### **Dataset Documentation**

User Guide

**Technical Specification** 

Lineage

**Attribution Document** 

Lladataa



Albania Lithuania

Andorra Luxembourg

Austria Malta

Belgium Martinique

Bosnia and Herzegovina Mayotte
Bulgaria Moldova

Croatia Monaco

Cyprus Montenegro

Czechia Netherlands

Denmark North Macedonia

Estonia Northern Ireland

Faroe Islands Norway

Finland Poland

France Portugal

French Guiana Romania









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#### EuroGlobalMap

GeoPackage - 237.1Mb zip Shapefile - 205.7Mb zip WFS, WMS, WMTS Last Update: 02/2022

Download

Web Service



#### EuroRegionalMap

GeoPackage - 3.1Gb zip File GDB - 1.2Gb zip Shapefile - 2.8Gb zip

WFS, WMS, WMTS

Last Update: 11/2022

Download

Web Service



#### EuroDEM

Tiff - 2.5Gb zip WMS, WMTS

Last Update: 04/2022

Download

Web Service



#### Open Cadastral Map

WMS, WMTS



#### Pan-European Imagery

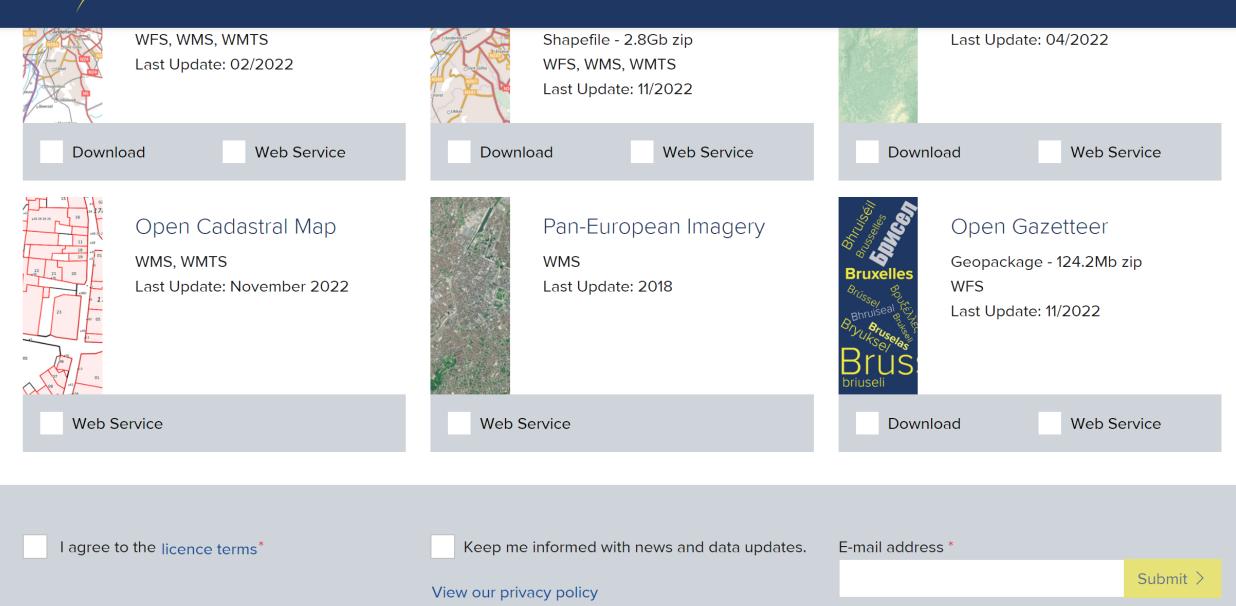
WMS



#### Open Gazetteer

Geopackage - 124.2Mb zip





#### Your Token

ImV1cm9nZW9ncmFwaGljc19yZWdpc3RlcmVkXzMwOTUi.FiXQZQ.eo3XVA9oF\_6 plNXwQ\_oadK6NXwE

#### Cadastral Address - WMS

https://www.mapsforeurope.org/maps/wms?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities&token=ImV1cm9nZW9ncmFwaGljc19yZWdpc3RlcmVkXzMwOTUi.FiXQZQ.eo3XVA9oF 6pINXwQ oadK6NXwE

#### Cadastral Address - WMTS

https://www.mapsforeurope.org/maps/wmts?SERVICE=WMTS&VERSION=1.0.0& REQUEST=GetCapabilities&token=ImV1cm9nZW9ncmFwaGljc19yZWdpc3RlcmVk XzMwOTUi.FiXQZQ.eo3XVA9oF 6pINXwQ oadK6NXwE

#### Cadastral AdministrativeUnit - WMS

https://www.mapsforeurope.org/maps/wms?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities&token=ImV1cm9nZW9ncmFwaGljc19yZWdpc3RlcmVkXzMwOTUi.FiXQZQ.eo3XVA9oF 6pINXwQ oadK6NXwE



# The Success

- Availability
- Quality
- A better Europe





# The Success

## Availability

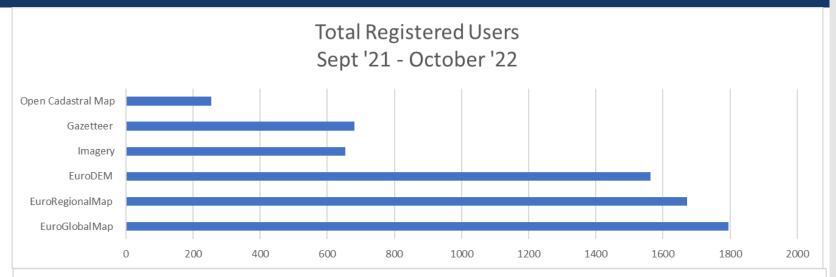
- User Interface
- Licensing
- Communication

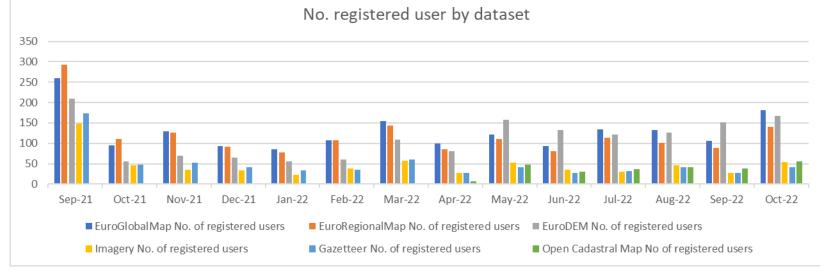


# The Success

## Availability

User numbers









# The Success

## Quality

- Visualization
- QA tool for ERM: Kadaster Netherlands
- Collaborative space for EGM: IGN France

|   | Validation<br>code | Check  | Implemented in ERM Validator 2021 tool? |
|---|--------------------|--|---|
| General Data Delivery   | T001               | feature classes AIRFLDA, AIRFLDC, AIRFLDP, EXITC, FERRYC, FERRYL, HARBORA,<br>HARBORC, HARBORL, HARBORP, HELIP, INTERCC, LEVELCC, MISAEROP, RAILRDC,<br>RAILRDL, RESTC, ROADL, RUNWAYL | V                                       |
|   | T003               | coordinate system (GEOGRAPHIC, decimal degrees)  | <b>V</b>                                |
|   | T004               | map extent ( -25° < Lambda < 40° and 30° < Phi < 80° )   | V                                       |
|   | T005               | AIRFLDA, AIRFLDC, AIRFLDP, FERRYC, FERRYL, HARBORA, HARBORC, HARBORP, INTERCC, LEVELCC, RAILRDC, RAILRDL, RESTC, ROADL, RUNWAYL must have features                                     | V                                       |
| Geometric resolution<br>(Tested in projection<br>ETRS89 LAEA) | T006               | Valid Geometry   | <b>V</b>                                |
|   | T007               | minimum allowed area size: 60 000m²  | <b>V</b>                                |
|   | T008               | minimum allowed distance between vertices of line and area features: 5m  | <b>V</b>                                |
|   | T009               | minimum allowed length of a line segment: 50m  | V                                       |
|   | T010               | statistics of average distance between vertices  |   |
| Geometric resolution<br>(Tested in projection<br>ETRS89 LAEA) | T011               | The number of HARBORA areas less than 400 000m <sup>2</sup>  | V                                       |
|   | T012               | The number of AIRFLDA areas less than 400 000m <sup>2</sup>  | <b></b> ✓                               |
|   | T013               | The number of RAILRDL features less than 1600m   | <b>V</b>                                |
|   | T014               | The number of FERRYL features less than 125m   | <b></b> ✓                               |
| Data Model and attributes structure                           | T015               | geometrical definitions (polygon, polyline, point)   | <b>V</b>                                |
|   | T016               | attributes: complete list, ordering, definition  | <b></b> ✓                               |
|   | T017               | attributes: have valid values (FCSubtype, F_CODE)  | <b>V</b>                                |
|   | T080               | attributes: no NULL values   |   |
|   | T018               | correct value of ICC (all FCs)   | <b>V</b>                                |
|   | T019               | Name attribute: no special character in NAMA1 or NAMA2 (only ASCII)  | V                                       |
|   | T081               | Name attribute: only Unicode character in NAMN1 or NAMN2 (UTF-8)   |   |
|   | T021               | allowed attribute values for AIRFLDA (IKO)   | V                                       |
|   | T022               | allowed attribute values for AIRFLDP (CAA, EXS, FUC, IKO, TEN, TUC, USE, ZV3)  | <b>V</b>                                |



# The Success

#### A better Europe





- Member cooperation
- Supporting the European Union (EU) Space Strategy and Open Data Directive
- Supporting the work of the United Nations (UN)



Co-financed by the European Union

Connecting Europe Facility

# The Success

## Case Study

- The United Nations (UN)
- Crisis response
  - Geo-hub one-stop-shop for geospatial information for the crisis in Ukraine
- 2030 Agenda for Sustainable Development
- Decision making

#### Open Maps for Europe Providing common and consistent geographies **Benefits** to support the United Nations System Provides a consistent representation of the world based on common geographies. Promotes confidence in the Challenge data provided by the UN Geospatial Information Section "Open data created using The Geospatial Information Section of the With the Security Council, the office of the Secretaryto colleagues within the UN official information from General and the wider UN system among the users relying United Nations, also Co-Secretariat of the System and enables it to be Europe's National Mapping, on its services, the Geospatial Information Section must be Committee of Experts on Global Geospatial easily compared and shared. Cadastral and Land Registration confident that it provides a consistent representation of the Information Management (UN-GGIM) provides world based on common geographies. This is crucial in the Provides a common operational data, analysis and visualisation for decisioncontext of international crises and monitoring the Sustainable picture for users across the the United Nations System. making and data action. Its vision is the universal Development Goals. To do this, it needs access to official UN System. We know that we can rely on data from the national authorities responsible for geospatial, use of geospatial information to underpin and these Open Maps For Europe cadastral and land registration information and standardised support all roles, mandates and operations of Delivers official data for analysis and, that in turn, our colleagues them against a global method and model. and visualisation to support the United Nations for a better world. can trust the information we decision making and planning. provide to them to support decision-making and data action." Supports political and peace building affairs, and provides Kyoung-Soo Eom geospatial guidance which Chief UN Geospatial includes provision of names. Information Section terms of use and disclaimers. Provides a geographic base for monitoring and measuring progress towards the UN Sustainable Development Goals Open Maps for Europe



# The Success

## Case Study

- The European Environment Agency (EEA)
- Feature visibility for the European Ground Motion Service (EGMS)

#### Open Maps for Europe

# **Providing a web map service** for investigating European Ground Motion

"The use of EuroRegionalMap open data in the European Ground Motion Service data viewer not only demonstrates the value of information available from National Mapping, Cadastra and Land Registration Authorities, but also highlights the benefits of our cooperation. We fully support the ambition to include map data from all Copernicus Participating States in future releases of Open Maps For Europe."

Henrik Steen Andersen Contract Manager, Copernicus In Situ Data The European Environment Agency (EEA) is using multi-themed topographic open data from official sources as a selectable background map in its European Ground Motion Service (EGMS). Provided through the Open Maps For Europe interface, EuroRegionalMap provides an option for users of the EGMS data viewer who prefer to use maps rather than satellite images.

#### Challenge

Measurement points provided by the EGMS usually coincide with buildings, artificial structures, and non-vegetated areas, such as cities, roads, or bridges. As users can often more easily identify these features on a map rather than a satellite image, the data viewer needed a background option based on a trusted topographic dataset. With no web map service available, the EGMS needed to find an existing open data solution which also ensured content and quality.

# European Ground Motion Service | Compared Comment of the Comment

#### Benefits of using Open Maps For Europe

- Allows the EGMS to easily provide a web map service created using authoritative data available from National Mapping, Cadastral and Land Registration
- Enables users to select the most relevant background layer for their needs in the EGMS.
- Demonstrates value of cooperation between EEA and European National Mapping, Cadastral and Land Registration Authorities.





# The Success

## Case Study

- The Netherlands Cadastre, Land Registry and Mapping Agency (Kadaster)
- Tactile mapping

#### Open Maps for Europe

#### Using the power of touch to bring tactile maps to life

"Our aim is to make all geodata from Kadaster available and accessible to everyone. For blind and visually impaired people, the best way is to create tactile maps. Open Maps For Europe provided an easy way to access official topographic data from different countries and apply the production process we have developed for The Netherlands to other parts of Europe.'

Daan Rijnberk The Netherlands The Netherlands Cadastre, Land Registry and Mapping Agency (Kadaster) is committed to making its information easily accessible to everyone. To enable blind and visually impaired people to benefit from its data, it is developing a series of tactile maps for navigating by touch.

#### Challenge

Tactile maps are expensive to produce as they require special paper and ink as well as the Braille used to 'read' them. Whilst Kadaster wanted to improve the style and coverage it offered, it also needed to assess if there was sufficient demand to justify developing a production process, and if so, how best to apply it to other countries in Europe.



**Benefits** 

· Provides access to European maps based on official geospatial data for blind and visually impaired people.

Demonstrates demand and need

Reduces production costs as

based on open data that is easy

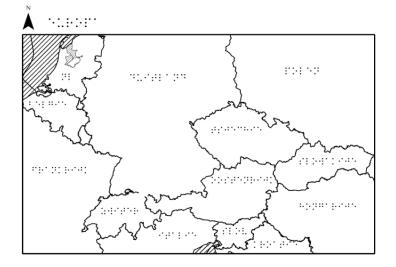
Ruilds on user needs to ensure

and visually impaired people.

maps meet requirements of blind

for tactile mapping.

 Pioneers new standards for tactile mapping based on





# The Success

## Case Study

- The External Action Service (EAS)
- Planning of military mobility and investment programmes

#### Open Maps for Europe

#### Delivering data to promote peace, prosperity and security

"We need a coherent database, and we need data that we can trust and rely on. We need authoritative geospatial information, quality controlled, preferably from governmental sources with borders and boundaries that should reflect the EU view. We also need a common place where we can do mobility and investment programmes.

Lieutenant-Colonel Soenke Fischhoefer Senior Geospatial Officer EUMS, EU External Action Service

planning. So, the 1:250 000 scale

seamless open data is crucial for us in determining, for example,

where we reinforce our bridges so

that heavy trucks can cross them

without breaking or planning our routing systems."

The European External Action Service (EEAS) is the European Union's (EU) diplomatic service, and since 2011 has carried out the EU's Common Foreign and Security Policy to promote peace, prosperity, security, and the interests of Europeans across the globe. It uses EuroRegionalMap, a pan-European dataset available through the Open Maps For Europe project, for planning military

Security is a priority in the EU's Global Strategy. In a rapidly changing world however, security challenges have become more complex requiring Member States to collaborate more closely, particularly in delivering trusted and reliable information for planning and field operations

#### Challenge

information. · Avoids misinterpretation of data by reflecting the EU view of international borders and

> · Supports the EU's Global Strategy, in which security is a priority, and the EU's Common Foreign and Security Policy,

Benefits

boundaries.

· Provides access to a coherent database of trusted, quality controlled, reliable geospatial information for defence planning

and situational awareness that can be used to be designated for

legally binding use of geospatial

 Provides a common operational picture for planning and field operations.







# The Cliff Hanger

## Remaining Challenges

- Licensing
- Quality
- User information



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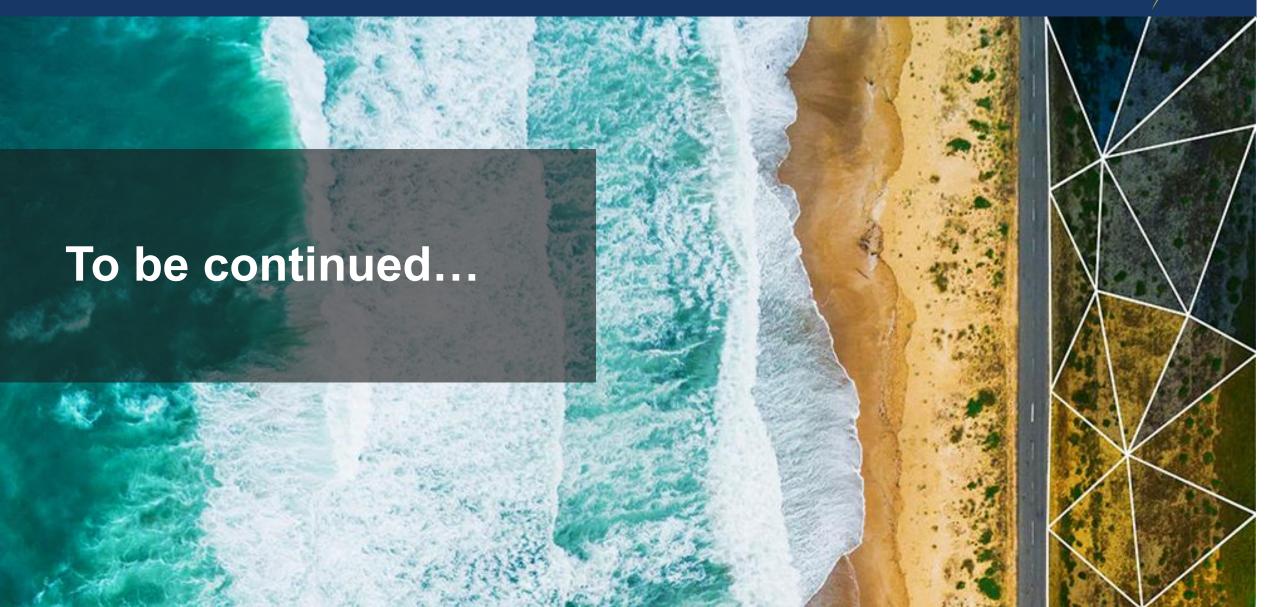
# The Happy Ending

OME =

User friendly
high quality
means to a
better Europe









# Thank you!

victoria.persson@eurogeographics.org

