eurogeographics

Annual Review 2025

Connecting you to maps, geospatial and land information for Europe

EuroGeographics is the not-for-profit membership association representing Europe's National Mapping, Cadastral and Land Registry Authorities.

Today, our members provide much more than traditional maps. They use cutting-edge technologies to collect, maintain and deliver high-quality, official geospatial data – critical infrastructure essential to economic growth, environmental sustainability, public safety and national resilience.

We bring together our members' collective expertise and data to provide solutions for global challenges including climate change, security and cross-border planning, by:

- Integrating national data into harmonised pan-European data – creating a valuable and trusted sovereign asset for Europe.
- Advocating for its integration into critical infrastructure – ensuring that member capabilities, roles, and concerns are recognised and understood.
- Enabling knowledge exchange and partnerships – collaborating with those who share our goal of using geospatial data for the public good.

VISIT OUR WEBSITE
https://eurogeographics.org

List of **Members**

Albania
- State Authority for Geospatial Information
- State Cadastral Agency

Armenia
- Cadastre Committee of the Republic of Armenia

Austria
- Federal Office of Metrology and Surveying

Azerbaijan
- The State Cadastre and Registry of Real Estate

Belarus
- State Committee on Property of the Republic of Belarus

Belgium
- General Administration of Patrimonial Documentation
- National Geographic Institute

Bosnia & Herzegovina
- Federal Administration for Geodetic and Real Property Affairs

Bosnia & Herzegovina Rep.Srpska
- Republic Authority for Geodetic and Property Affairs of Republic of Srpska

Bulgaria
- Geodesy, Cartography and Cadastre Agency

Croatia
- State Geodetic Administration of the Republic of Croatia

Cyprus
- Cyprus Department of Lands and Surveys

Czech Rep
- Czech Office for Surveying, Mapping and Cadastre

Denmark
- Agency for Climate Data
- Danish Geodata Agency
- Faroese Environment Agency

Estonia
- Estonian Land and Spatial Development Board

Finland
- National Land Survey of Finland

France
- General Directorate Cadastral Bureau
- National Institute of Geographic and Forest Information

Georgia
- National Agency of Public Registry

Germany
- Federal Agency for Cartography and Geodesy
- Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany

Great Britain
- HM Land Registry
- Ordnance Survey
- Registers of Scotland

Greece
- Hellenic Cadastre
- Hellenic Military Geographical Service

Hungary
- Lechner Non-Profit Ltd.

Iceland
- Natural Science Institute of Iceland

Ireland
- Tailte Éireann

Italy
- Italian Geographic Military Institute
- Revenue Agency

Kosovo*
- Kosovo Cadastral Agency

Latvia
- Latvian Geospatial Information Agency
- The State Land Service

Lithuania
- National Land Service under the Ministry of Environment
- State Enterprise Centre of Registers

Luxembourg
- Administration of the Cadastre and Topography

Malta
- Malta Land Registry
- Malta Planning Authority

Moldova
- Agency for Geodesy, Cartography and Cadastre of the Republic of Moldova

Montenegro
- Real Estate Administration

North Macedonia
- Agency for Real Estate Cadastre

Northern Ireland
- Land and Property Services

Norway
- Norwegian Mapping Authority

Poland
- Head Office of Geodesy and Cartography

Portugal
- Directorate General for Territory

Romania
- National Agency for Cadastre and Land Registration of Romania

Serbia
- Republic Geodetic Authority

Slovak Republic
- Geodesy, Cartography and Cadastre Authority of the Slovak Republic

Slovenia
- Surveying and Mapping Authority of the Republic of Slovenia

Spain
- General Directorate for the Cadastre
- National Geographic Institute of Spain
- Territorial Commission of the Geographic High Council

Sweden
- The Swedish Mapping, Cadastral and Land Registration Authority

Switzerland
- Federal Office of Topography swisstopo

The Netherlands
- Cadastre, Land Registry and Mapping Agency

Turkey
- General Directorate of Mapping

Ukraine
- State Service of Ukraine for Geodesy, Cartography and Cadastre

* This designation is without prejudice to positions on status, and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

President's Report

As we mark EuroGeographics' 25th anniversary, I am immensely proud to reflect on a year that not only celebrated our history but also set a clear course for our future.

The Association marking its silver jubilee is very different to the one established at the turn of the Millennium. Over the past quarter century, membership has grown, countless projects and datasets have been delivered, and a huge amount of knowledge has been exchanged. Yet, at the heart of it all, one thing has stayed the same: the spirit of cooperation.

In 2025, this was exemplified through the successful completion of the Open Maps for Europe 2 (OME2)* project. Built on our unique harmonisation and edge-matching process, OME2 showcased the collective technical expertise of our members in creating usable, trusted and sovereign pan-European data – a complex challenge achieved through genuine international collaboration.

The project delivered a prototype large-scale dataset covering 10 countries, enhanced five existing Open Maps for Europe datasets, including the pilot Open Cadastral Map, and provided tools and processes to ensure long-term sustainability.

By the end of 2025, more than 18,000 users had downloaded around 15,500 datasets and made 96.4 million web service transactions, clearly demonstrating the growing demand for authoritative European geospatial information.

These achievements highlight the added value our members bring by making pan-European information easier to access and use. They also respond directly to long-standing stakeholder needs for streamlined access to official geospatial information and support national providers across Europe in applying OME2 methods and sharing best practice. By bridging policy and practice, OME2 proved that EU requirements can be transformed into a seamless cross-border solution, unlocking one of Europe's most valuable assets.

As we look ahead, collaboration remains key. The decision by members to progress from the OME2 prototype to the production of EuroCoreReferenceMap reflects a shared ambition to strengthen Europe's geospatial framework.

Led by a self-funded consortium comprising BKG Germany, IGN France, Kadaster Netherlands and EuroGeographics, this three-year initiative lays the foundation for a European Geospatial Data Infrastructure. It is the only high-value, large-scale authoritative dataset created by official geospatial information providers specifically to meet EU needs.

Its evolution comes at a pivotal moment. Recognition of the strategic importance of trusted, sovereign European geospatial data has never been higher. Stakeholders – including the Cabinets of EU Commissioners and the Director Generals of the European Commission – are emphasising the need for information whose origin and stewardship lie firmly in Europe.

The European Commission's study on core geospatial data further positions EuroGeographics and our members as key contributors to shaping Europe's digital future. This gives us a powerful platform to champion the essential contribution that authoritative geospatial information makes to Europe's strength, security and prosperity — and reinforces its integral role within national, European and global critical infrastructure.

As EuroGeographics enters its next 25 years, we do so with confidence. This past year highlights not only what we have achieved together, but what we are ready to deliver in the years ahead. By continuing to align our data and expertise with user needs, EuroGeographics and its members are well positioned to meet the challenges and opportunities of the next quarter century – stronger together and committed to delivering geospatial data for the public good.

Tomaž Petek
President, EuroGeographics

* OME2 was co-funded by the European Union and delivered by a strong consortium of partners: EuroGeographics; the National Geographic Institute of Belgium; the National Institute of Geographic and Forest Information of France (IGN France); Hellenic Cadastre; the General Directorate for the Cadastre of Spain; and the Cadastre, Land Registry and Mapping Agency of the Netherlands (Kadaster Netherlands).

Secretary General and Executive Director's Report

Expertise across our membership and the authoritative national data they deliver are driving an ambitious vision for Europe's geospatial future – one built on trust, collaboration and shared impact.

In 2025, EuroGeographics further strengthened its position as the trusted voice for Europe's National Mapping, Cadastral and Land Registration Authorities, clearly demonstrating how much can be achieved through a community united in purpose and ambition.

At the heart of our achievements is the successful completion of the Open Maps for Europe 2 (OME2) project. This work represents a major step forward in providing seamless, harmonised, high-value large-scale geospatial datasets across national borders. OME2 not only met long-standing EU requirements but also demonstrated the value of collaboration. User demand was strong with almost 21,500 unique visitors to the Open Maps for Europe interface and growing interest in large-scale authoritative data for European and global applications.

Forty-five data producers across the EuroGeographics membership continue to contribute to our wider suite of pan-European datasets, with IGN France, BKG Germany and Kadaster Netherlands leading in production, quality management and generalisation.

This authoritative information is relied upon by Eurostat, the Copernicus In Situ Component, the UN SALB* initiative, NATO, SMEs, academia and many others. In addition, the expansion of national datasets accessible through CORDA** has provided European institutions with unprecedented access to trusted geospatial information, and the renewal of the CORDA contract to 2027 underscores the reliability and the value we bring to the EU data ecosystem.

This collective commitment to working as one community is matched by members' willingness to exchange knowledge openly. The spirit of collaboration was evident in the number of participants who join our webinars, workshops and other events – more than 1,000 in 2025. It is also reflected in our continued partnerships, including those with the European Environment Agency (EEA), EuroSDR, Eurostat and UN-GGIM. These connections enrich our programme and create shared value across the wider geospatial community.

Internationally, EuroGeographics continued to demonstrate its strong commitment to global cooperation. At the 15th Session of the UN GGIM Committee of Experts, we outlined how our Framework Licence Agreement with the EEA has helped overcome legal barriers to accessing data for climate action and resilience.

We also welcomed the policy brief highlighting geodesy's vital contribution to climate science and reaffirmed our readiness to work with the UN GGCE to reinforce the message that robust geospatial and geodetic capabilities are essential to Europe's strategic priorities. Our participation in the Cambridge Conference helped further spotlight the crucial role of National Mapping, Cadastral and Land Registration Authorities in responding to an evolving global landscape.

In this context, ensuring that members' role is recognised within European policymaking remains a strategic priority for the Association. Throughout the year, we engaged widely with decision makers across the European Commission, European Parliament, and Permanent Representations, emphasising the critical importance of harmonised, expert-led data integration. A major highlight of the year was our flagship OME2 event, which brought together policymakers from across the EU institutions. In addition, our contributions to consultations on the next Multiannual Financial Framework (MFF) the Green Data for All Initiative, the Digital Omnibus, and the European Data Union Strategy continued to highlight the importance of legal coherence and sustainable funding models for authoritative data to ensure Europe remains competitive and resilient.

Finally, we celebrated one of the largest gatherings in our history at the Silver Jubilee General Assembly in Latvia. More than 120 participants from 46 organisations reaffirmed our shared vision and made the collective decision to take the outcomes of OME2 to the next level through a new pan European data initiative – EuroCoreReferenceMap – which was announced in early 2026.

Our achievements in 2025 demonstrate that through collaboration, expertise, and shared commitment, we can shape a stronger and more secure Europe. As we look ahead, EuroGeographics and its members stand united in their mission: to deliver authoritative, high-value data that strengthens Europe's resilience, competitiveness, and capacity to act.

Sallie Payne Snell
Secretary General and Executive Director, EuroGeographics

* UN SALB: United Nations Second Administrative Level Boundaries
** CORDA: Copernicus Reference Data Access Portal

Highlights
2025

Enabling access to members' data and expertise

Connecting users to official national geospatial information

Facilitating access to high-value geospatial datasets

Providing expertise in data production

EuroGeographics is committed to working with its members to provide access to their data, helping to address global challenges through its integration into European and international infrastructures.

Pan-European datasets

- Relied upon by Eurostat, Copernicus In-Situ Component, UN Second Administrative Level Boundaries (SALB) initiative, NATO, SMEs, academia and many others.
- Almost 21,500 unique users of the Open Maps For Europe interface.
- Updated and quality continuously improved through our unique data integration process in collaboration with: **45 Data Producers**

National Institute of Geographic and Forest Information (IGN France)

Coordinates production of EuroGlobalMap, 1:1 million scale multi-themed topographic open data.

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

Provides quality management and generalisation tools.

Federal Agency for Cartography and Geodesy, Germany (BKG)

Manages production of:

- **EuroBoundaryMap**, which enables the exact matching of administrative units with statistical data using a European-wide unique identifier.
- **EuroRegionalMap,** multi-themed topographic data at 1:250 000 scale.
- **Open datasets** available through www.mapsforeurope.org
  - **Open data version of EuroRegionalMap.**
  - **Open Gazetteer,** a service providing authoritative multilingual geographical names.
  - **EuroDEM,** 1:100 000 scale digital open data elevation model providing height data.

Enabling the European Institutions to access official pan-European data

Agreement with Eurostat

- Provides EuroBoundaryMap to European Commission and its Agencies, including all EU National Statistical Institutes.

Cooperation with the European Environment Agency (EEA)

- The Copernicus Framework Agreement between EuroGeographics and its members is a practical solution for overcoming legal barriers to accessing authoritative data for the Copernicus In-Situ Component.

COP-IDEA consortium

- EuroGeographics is a subcontractor for this Consortium and is leading a data provider engagement work-package in phase one. The aim is to identify synergies and support the EEA by increasing access to data.

CORDA Contract – January to October 2025

EuroGeographics is a subcontractor and successfully completed its deliverables on time and to budget.

- Continues to increase number of national datasets available via CORDA, a centralised gateway for authorised users to access geospatial reference data from European countries participating in the Copernicus component of the EU Space programme.
- More than 100 new datasets, including seven targeting the update of the EU-Hydro product, are now available to Copernicus Services.
- Currently, 33 National Mapping, Cadastral and Land Registration Authorities are either making their open data easily accessible or have signed the agreement which covers the Copernicus Emergency Mapping Service (CEMS); the Copernicus Land Monitoring Service (CLMS); and the Copernicus Security Service (CSS).
- Demonstrating synergies between the Open Maps For Europe 2 (OME2) project results and Copernicus requirements.
- Supporting CORDA's engagement with National Mapping, Cadastral and Land Registration Authorities, including organising webinars, and a hydro data campaign.
- Creating guidance materials to assist members in providing their data to CORDA,
- Delivering communications to promote the partnership.

CORDA Contract – November 2025 to January 2027

- A new 15-month contract has been negotiated with CORDA. EuroGeographics will continue to be a subcontractor and deliver activities to support the increase of access to members official data for the Copernicus Services.

Open Maps For Europe 2 (OME2)

Foundation for future pan-European high-value datasets

Production process and prototype for harmonised large-scale data

Aligned to EU Policy objectives and UN core geospatial data recommendations

Open Maps For Europe 2 (OME2) unlocks one of Europe's most valuable assets by turning EU rules for high-value data into a seamless cross-border solution for governments, businesses, and citizens.

Supporting cross-border analyses of healthcare and education services

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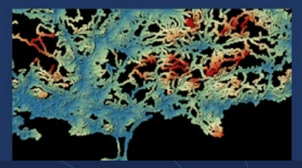
"We used the road transport network theme from the OME2 pan-European dataset prototype for testing and comparison with other data sources which enabled us to compute cross-border accessibility analyses with an excellent level of detail."

Julien Gaffuri, GIS and Cartography Engineer, Eurostat



Providing a geological base map for the new Digital Structural Model of Italy

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"We chose EuroRegionalMap because it was free to use and provides continuous, consistent coverage across country borders. Without it, the final DiSMI geological maps would not have a topographic base map which would have been a serious shortcoming."

Paolo Conti, Associate Professor of Structural Geology, University of Siena .

Outcomes

OME2 high-value, large-scale pan-European prototype

1: 10 000 scale authoritative administrative boundary, transport and hydrographic data for Austria, Belgium, Czech Republic, Denmark, Finland, France, Luxembourg, Spain, Switzerland and The Netherlands.

- Fulfils a long-standing EU requirement for streamlined access to an authoritative cross-border dataset without navigating multiple national portals or complex data integration.
- User numbers prove demand for large-scale edge-matched data aligned to EU Policy objectives and UN core geospatial data recommendations.
- Delivers data as Geopackage download by theme, country or administrative area or WFS, WMS or WMTS via the Open Maps For Europe portal.
- Demonstrates how demand for geospatial information in all common data spaces of the European Strategy for Data can be met.

OME2 has showcased both technical excellence and true collaboration to meet European and global policy objectives.

- Delivers a new production process and technical specification underpinned by national expertise in integration of core geospatial data.
- Solves complex challenge of delivering usable sovereign pan-European data through collective action.
- Harmonises and edge-matches official geospatial data from national mapping, land registration and cadastral agencies into a single dataset: the OME2 high-value, large-scale pan-European prototype.
- Advances the data sharing tools needed to deliver free-flowing, interoperable data for the single market.
- Saves users time, effort and resources by providing harmonised data from multiple countries through one portal under one easy-to-understand licence.
- Supports implementation of the Open Data and reuse of Public Sector Information Directive by enabling EuroGeographics' members to re-use OME2 techniques nationally and share good practice.

Bringing boundaries into the open with a simple solution for delivering data

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"Without the OME2 project, it would not have been possible to create our Boundaries-API ... we would have to revert to petitioning each country individually, or make use of global datasets that can be unreliable for local situations."

Ann Crabbé, Product Owner, boundaries-api.io, Nazka Mapps

Enhanced Open Maps For Europe datasets

- **Open Cadastral Map: the prototype map service for European cadastral data**
- Data service now includes all 15 planned countries
  - Metadata now available for all datasets.
  - Machine-readable metadata now available on the European Data Portal.
  - Basemap included to aid the user experience.
- Delivery of a pan-European Cadastral Data Strategy.
- **EuroRegionalMap:** open data version updated
- **EuroGlobalMap:** updated annually
- **Open Gazetteer:** updated

OME2 ran from 2023 to the end of 2025. It was co-funded by the European Union with matched investment from EuroGeographics and its members.

The three-year project was delivered by EuroGeographics; National Geographic Institute, Belgium; National Institute of Geographic and Forest Information, France; Hellenic Cadastre; General Directorate for the Cadastre, Spain; and Cadastre, Land Registry and Mapping Agency, The Netherlands.

OME2 **Co-funded by the European Union**

Taking the outcomes of OME2 to the next level: A broader pan-European Spatial Data Infrastructure

To ensure the continuity and expansion of the OME2 outcomes, members of EuroGeographics have thrown their support behind an exciting new data project to be publicly launched in early 2026 and run until 2028.

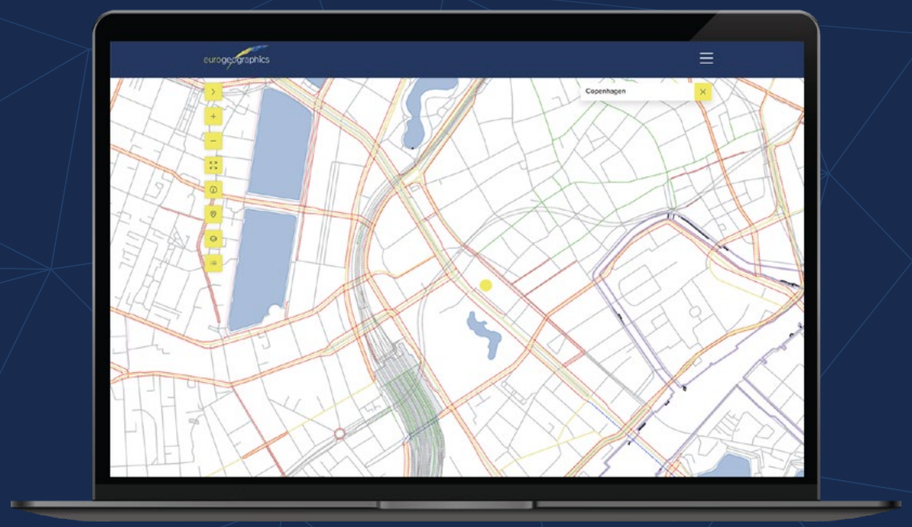
The consortium: Committed to providing the expertise and initial investment

- EuroGeographics
- Federal Agency for Cartography and Geodesy Germany (BKG)
- National Institute of Geographic and Forest Information (IGN France)
- The Netherlands' Kadaster, Land Registry and Mapping Agency (Kadaster Netherlands)

The solution: A one-of-kind dataset with a unique proposition

- Builds on the OME2 technical and organisational framework.
- Delivery of high-value, large-scale geospatial data with the most comprehensive coverage of geographical Europe possible.
- Harmonised and edge-matched to deliver the data that users have said they need and want: administrative boundary, transport network, hydrography.

By making the collective decision to take forward a practical solution, EuroGeographics members will meet user needs and maintain their relevance in the wider data ecosystem. This is a collaboration that will continue to unlock the power of geospatial information to benefit people and planet, and in doing so it will provide a more certain future for authoritative data at pan-European level.



Representing members interests

Demonstrating value of trusted geospatial services from official national sources

Establishing partnerships to support the public good

Promoting integration of authoritative data within the European and International systems

EuroGeographics engages users and decision-makers to showcase the value of members' authoritative location data in connecting cross-border information and enabling coordinated action.

Connecting members to European and global policy

- Weekly policy news summary
- Policy pages in regular members' newsletter
- Tracking Records
- Briefing papers, meetings and webinars

Promoting the value of authoritative data within Europe

Briefings on vital role of EuroGeographics members in achieving European priorities:

- Directorate-General for Defence Industry and Space
- Military Capability Board by invitation of the External Action Service.
- Head of Eurostat, Mariana Kotzeva.
- Cabinet of European Commission President, Ursula von der Leyen – Better Regulation
- Cabinet of Commissioner Valdis Dombrovskis, Economy and Productivity; Implementation and Simplification
- Representative for Commissioner Apostolos Tzitzikostas, Sustainable Transport and Tourism
- Directorate-General for Maritime Affairs and Fisheries
- Directorate-General for Mobility and Transport – Sustainable and Intelligent Transport
- Directorate-General for Agriculture and Rural Development Data – Governance Unit
- Local Assistant of President of the European Parliament, Roberta Metsola

EuroGeographics accepted invitations from the Directorate-General for Communications Networks, Content and Technology to contribute to discussion fora on:

- **Public Sector Information Reuse:** Sallie Payne Snell, EuroGeographics' Secretary General and Executive Director highlighted that sustainable funding is essential to realising the Open Data Directive's full value and ensuring Europe is both competitive and self-sufficient.
- **DG CNECT's Dialogue on Data Policy** with Commissioner and Executive Vice President, Henna Virkkunen: EuroGeographics intervention focused on the potential of the re-use of public sector and the ways in which members are already overcoming barriers and bottlenecks
- **Expert Focus Group:** EuroGeographics represented members in discussions around the interplay between personal data protection and data provision under the Open Data Directive and Data Governance Act.

EuroGeographics responded to:

- **Public Consultation as part of the Green Data for All impact assessment:** EuroGeographics believes that aligning the INSPIRE Directive with European Union horizontal legislation is highly valuable but stressed that investments already made in the Directive's implementation must be respected.
- **Commission Call for Evidence for a European Data Union Strategy:** EuroGeographics strongly suggested that the forthcoming European Data Union Strategy includes a maintained, sustainably funded pan-European geospatial high-value large-scale dataset as a part of the investment in data infrastructure.
- **Commission Call for Evidence on Digital Omnibus (Digital Package on Simplification):** EuroGeographics stated that prioritising legal coherence is the best path towards simplification, highlighting that the fragmentation of geospatial policy and information prevents the Union and its business and citizens from maximising the benefits from this high-value data collected from official sources.
- **Public Consultation on the next Multiannual Financial Framework (MFF).**
- **EuroGeographics' position:** EU funding for civil protection, preparedness and response to crises where investment in data infrastructure is critical.

  EU funding for the single market, and cooperation between national authorities, specifically the need for high value data to be harmonised by experts. This is a delicate, sector specific process and in case of doubt, only they can assess and explain the details and the origins of the discrepancy.
- Joint Permanent Committee on Cadastre (PCC) and EuroGeographics Cadastre and Land Registry Knowledge Exchange Network (KEN) Conferences and Plenary in Denmark.
- Joint PCC – EuroGeographics Cadastre and Land Registry KEN Conferences and Plenary in Poland.
- Participation in 2025 GISCO Working Group meeting on integration of statistical and geospatial information.

Participation in 12th Plenary Meeting of UN-GGIM Europe:
Sallie Payne Snell, EuroGeographics Secretary General and Executive Director presented on trusted data.

OME2: A showcase in turning EU rules for high-value data into practical solutions

An event for policymakers to explore how high-value, large-scale geospatial data can support their priorities and strengthen evidence-based decision-making across the European Union.

Attended by representatives from Eurostat, EU Defence and Security, EU Environment and Climate and EU Digital and Technology, the European Parliament and Permanent Representations at the EU, as well as members of the Cabinet of Commissioner Hadja Lahbib.

"The real value lies in making data usable across Europe. Through collective action, we're transforming trusted national information into ready-to-use, interoperable pan-European datasets."

Sallie Payne Snell,
Secretary General and Executive Director,
EuroGeographics

Global activities

15th Session of UN-GGIM Committee of Experts

Interventions demonstrated EuroGeographics participation, collaboration and contribution to the Committee's activities as observers, globally and in Europe.

- Confirmed our continuing commitment to providing the UN-GGIM: Europe Secretariat through the Service Level Agreement with The Netherlands.
- Reiterated our willingness to share our network, which links different players within wider data ecosystem, and communications infrastructure, for the benefit of the broader UN-GGIM community.
- Highlighted the OME2 project successes:

  Implementation of the 14 core data themes proposed by the UN-GGIM: Europe Working Group on Core Data.

  Delivery of the Open Cadastral Map prototype service and development of the pan-European Cadastral Data Strategy

  Planned next steps which will be part of the future geospatial information ecosystem.
- Demonstrated our approach to overcoming the legal barriers to data access for climate and resilience using with Framework Licence Agreement with the EEA.
- Welcomed the policy briefs released by the UN-GGCE, especially the focus on geodesy's critical role in climate science, and stressed that we are ready to collaborate with the UN-GGCE to amplify the critical message that geospatial and geodetic capabilities are essential to achieving Europe's strategic priorities.

Participation in the 2025 Cambridge Conference, hosted by Ordnance Survey, where Sallie Payne Snell, EuroGeographics Secretary General and Executive Director presented on National Mapping, Cadastral and Land Registration Authorities responses to the changing global context.

Providing opportunities for knowledge exchange

Maintaining an extensive knowledge exchange network

Delivering webinars that enable maximum participation by members

Organising a comprehensive calendar of events, including with partners

EuroGeographics is committed to supporting members' ambitions through knowledge sharing and partnerships with those who share our goal of using geospatial data to benefit society.

- More than 1,000 participants in knowledge exchange programme.
- 24 dedicated knowledge exchange events.
- Members-only webinar series.
- Wide range of events held by Cadastre and Land Registry KEN, Policy KEN, Quality KEN and Technical Data KEN.
- Cadastre and Land Registry KEN held a physical meeting as Joint PCC-CLRKEN conference and plenary in May 2025 in Warsaw and a hybrid Joint PCC-CLRKEN conference in November 2025 in Aalborg
- Quality KEN held a virtual spring Plenary meeting and an in-person autumn Plenary in Athens.
- European Policy Update webinar.
- Technical Meeting of the EuroGeographics Data Producers 2025
- Permanent Correspondents Exchange annual webinar was held as a virtual and in-person meeting.
- Joint webinars with the EEA on Copernicus Services Framework Agreement and associated annexes.
- Joint workshops with EuroSDR on geodata discovery, and sustainable business models for NMCAs.
- Joint 5th Spatial Data Quality Conference with EuroSDR.
- Continued collaboration with UN-GGIM, including providing a platform for UN-GGIM: Europe webinar series.

Silver Jubilee General Assembly 2025

More than 120 participants representing 46 member organisations from 40 countries: one of the biggest gatherings of geospatial experts in EuroGeographics' 25-year history.

Hosted by the Latvian Geospatial Information Agency with support from the State Land Service.

Celebrating 25 years of cooperation: Committing to the future of high-value data

- United by a common vision to use members' expertise and information for the public good.
- Working together to ensure that members' data is recognised as an essential component of European and global infrastructures.
- Making the collective decision to deliver the only high-value large-scale authoritative dataset for Europe based on UN-GGIM core geospatial data recommendations.

Welcoming us to Latvia, Andris Sprūds, Minister of Defence said: "National Mapping, Cadastral and Land Registration Authorities have long been trusted sources of geospatial information. Today, a modern mapping agency must be able to operate under conditions of uncertainty."

At one of the biggest gatherings in EuroGeographics' history, members' demonstrated that they accept this challenge.

Members
Case Studies

Armenia

Cadastre Committee of the Republic of Armenia

Transforming Armenia’s spatial data for a digital era

“Reliable geospatial data is a key pillar of modern governance. Without accurate spatial information, effective planning, transparent land administration, and evidence-based policymaking become impossible. In this regard, EuroGeographics plays a vital role in strengthening European cooperation, ensuring interoperability, and promoting trusted authoritative data that supports sustainable development and cross-border decision-making.”

Suren Tovmasyan
Head of the Cadastre Committee of the Republic of Armenia

Armenia is strengthening its national approach to modern geographic information management, establishing a stronger foundation for digital governance and decision-making.

With the aim of ensuring the spatial data continuous development, The Government of the Republic of Armenia has approved 2026–2031 five-year programme to ensure the continuous development of spatial data. The initiative focuses on systematic governance and effective development in line with the requirements of the modern digital economy.

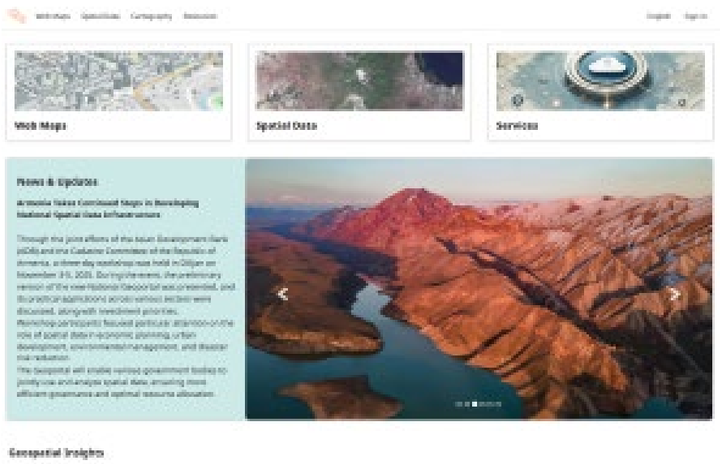
The programme was developed by the Cadastre Committee and includes both the strategic directions for the spatial data development and an action plan ensuring its implementation, defining the implementation mechanisms, the competencies of responsible authorities, and the periods, in accordance with the Spatial Data and Geodetic and Cartographic Activities laws.

Within the framework of the previous strategy, continuous and targeted work has been carried out on the creation, digitisation, standardisation of base cartographic layers, and integration of the National Spatial Data Infrastructure into the geospatial portal. Multi-scale base cartographic layers of Yerevan — including hydrography, road network, and relief — have been digitised, standardised, and uploaded to the national geoportal. Additionally, in areas covered by orthophoto, base cartographic layers of the regions of the Republic of Armenia (hydrography and multi-scale road network, relief) have been digitised and integrated in accordance with the requirements of Government Decision No. 1569-N, 6 October 2022 ‘On Approval of the List of Base and Thematic Spatial Data and their Standardisation Guidelines in the National Spatial Data Infrastructure of the Republic of Armenia’.

The programme also provides for the periodic updating, quality enhancement, and further development of the base cartographic layers, ensuring their compliance with modern technological solutions, the evolving needs of the sphere, and the functional capabilities of the national geoportal.

In collaboration with the Asian Development Bank and Italian partners, work is being carried out on the creation of the new national geoportal and the integration of existing spatial layers. Implementation is in its final phase and is scheduled for commissioning in 2026. The geoportal will operate on modern technological solutions, providing enhanced functional capabilities, new toolkits, and efficient, centralised, and manageable use of spatial data.

The established base cartographic layers will constitute a foundational framework for the development of thematic spatial layers and the further development of the sphere.



More information:
https://cadastre.am/en

Belgium

National Geographic Institute of Belgium

A trusted geobroker strengthening national resilience

"As climate pressures, geopolitical uncertainty and infrastructure interdependencies increase across Europe, the role of authoritative geospatial information is evolving. In 2025, the National Geographic Institute of Belgium (NGI) further strengthened its role as a geobroker, connecting data producers, public authorities and emergency actors to enable informed, coordinated and resilient decision-making."

Ingrid Vanden Berghe
Administrator General, National Geographic Institute of Belgium

Over five decades, National Geographic Institute (NGI) Belgium has evolved from a national data producer to an integrator of authoritative reference data and a geobroker, facilitating coherent and trusted use of geospatial information across institutional boundaries.

In this role, rather than acting solely as a data producer, NGI acts as a trusted and reliable intermediary, ensuring that high-quality geospatial data can be discovered, aligned and effectively used in support of public policy, security and resilience.

From data provider to geobroker

Belgium's complex institutional landscape requires strong coordination between federal and regional authorities. NGI's geobroker role focuses on:

- Providing authoritative national reference data as a common geospatial foundation and further developing the national geoinformation infrastructure to unlock geospatial data across the federal government.
- Supporting federal public services by providing the geodata and geospatial solutions they need and enhancing NGI's innovation capacity through partnerships.
- Supporting defence through a strategic partnership addressing broader geospatial needs.
- Supporting crisis management with harmonised base mapping and thematic overlays, contributing directly to national resilience in domains such as climate risk assessment, critical infrastructure protection, emergency preparedness and cross-border cooperation.
- Acting as a facilitator of national geospatial data exchange platforms, such as transportdata.be, enabling structured data sharing in line with European obligations.
- Enabling interoperability aligned with European standards and initiatives

This brokerage function proved particularly valuable in resilience-related domains, enabling coordinated, resilient decision-making and reinforcing national capacities.

Geospatial intelligence for resilience

In 2025, NGI enhanced its contribution to national resilience by:

- Strengthening partnerships with crisis coordination structures.
- Ensuring that trusted geospatial information is available to actors responsible for resilience and preparedness.
- Promoting coherent use of official geospatial data across policy domains.
- Supporting alignment with European geospatial infrastructures.
- Launching efforts to promote geo-innovation within the defence sector to actively strengthen national capabilities.

As a neutral, trusted broker, NGI ensures that geospatial intelligence becomes actionable knowledge during times of disruption.

Building on 50 years of trust

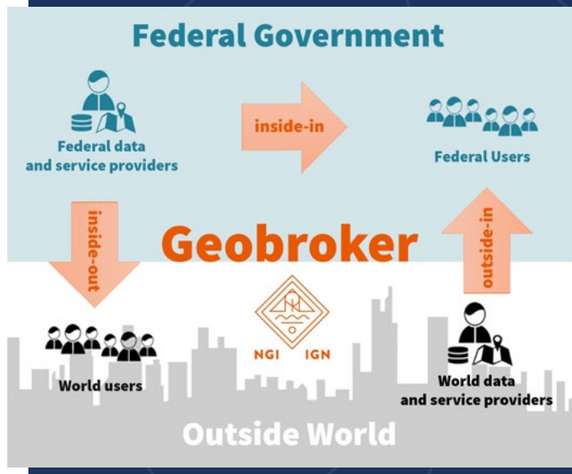
In 2026, NGI will celebrate its 50th anniversary. Over five decades, it has evolved from a traditional national mapping agency into a modern geospatial authority at the centre of Belgium's institutional and digital landscape.

Deeply rooted in history, younger than ever, and ready for the future, NGI continues to adapt its role to emerging societal and security challenges.

The geobroker role reflects this evolution: from map production to platform governance, from data delivery to data orchestration, from information provision to resilience enablement. As Europe strengthens its focus on strategic autonomy and societal resilience, Belgium's NGI demonstrates how NMCA's can act as connectors, coordinators and confidence builders within national and European geospatial frameworks.

Benefits

- Strengthens informed decision-making across government through trusted and authoritative geospatial information.
- Enhances national preparedness and response capacity in times of crisis and security challenges.
- Ensures reliable geospatial data supporting public services, infrastructure management and climate resilience.
- Enables efficient and structured data sharing in line with European standards and obligations.



Croatia

State Geodetic Administration

Croatia launches a new era for official state cartography

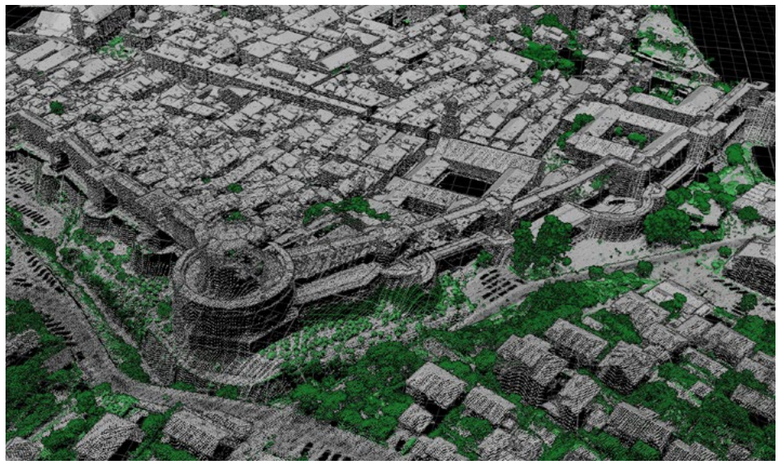
"Official state cartography is a fundamental tool for understanding, managing and planning space. Reliable, accurate and up-to-date state maps serve as the basis for spatial planning, environmental protection, infrastructure development, security, risk assessment and crisis management, as well as for the everyday needs of citizens, science and the economy. Official state maps must meet the highest standards and as such are the only relevant ones."

Antonio Šustić
State Geodetic Administration
Director-General,
Croatia

Croatia has launched a long-term strategic programme designed to enhance the accuracy and accessibility of its official mapping resources.

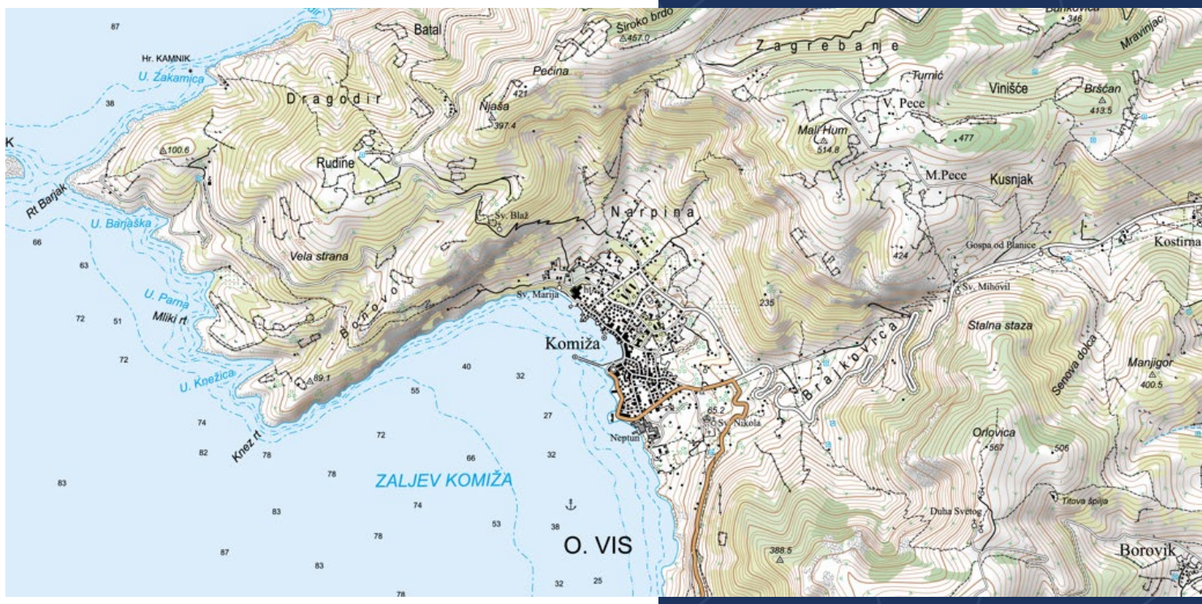
Between 2025 and 2034, the State Geodetic Administration (SGA) is implementing an Official State Cartography Multi-Annual Programme to create, renew and update official state maps, as well as corresponding topographic and cartographic databases for the entire Republic of Croatia at scales of 1:25,000, 1:50,000, 1:100,000 and 1:250,000. The Multi-Annual Programme was adopted by the Croatian Parliament in 2025 at the proposal of the Croatian Government, with a planned investment of €36,825,000.00.

The implementation includes aerial photogrammetric imaging and creating digital orthophoto maps in three-year cycles, as well as LiDAR aerial imaging for the entire territory of the Republic of Croatia (approximately 56,500 km^2), which is being conducted for the second time. As part of programme, network services for distributing data to the public will also be developed. All data and network services that the SGA develops will be available to interested users, thus ensuring broad application, transparency and openness of data.



By implementing these activities, citizens, and the public and private sectors, will be provided with updated geospatial data of the Republic of Croatia, which are key for:

- Space management and spatial planning.
- Planning and designing infrastructure facilities.
- Environmental protection and waste management.
- Planning and utilisation of renewable energy sources.
- Assessment of the impact of disaster risks, and prevention and determination of priority activities in terms of strengthening capacity and infrastructure for risk response.
- Data distribution through network services will enable access to data in real time, which will facilitate the development of enterprise and public administration.



More information:
https://gov.hr/en

Denmark

Agency for Climate Data

AI-assisted building footprint change detection – strengthening GeoDanmark basic data

"Accurate and up-to-date building footprint information is essential for planning, climate adaptation, emergency preparedness, taxation, and a wide range of other public services. Using AI-supported computer-vision methods, we can make our core task of maintaining Denmark's authoritative national basic data both easier and more effective. We combine aerial photos with existing building data using an AI model to highlight locations where new construction, demolition, or major changes are likely to have occurred. By identifying changes of building footprints systematically and in a more targeted way, we believe we can achieve up-to-date and consistent data, while freeing up time and resources."

Rikke Hougaard Zeberg
Director General,
Agency for Climate Data,
Denmark

A collaboration between Denmark's Agency for Climate Data and municipalities has enabled a faster path from real-world changes to updated national core geodata.

The GeoDanmark cooperation has developed and tested an AI-based method to identify potential building footprint changes, enabling the yearly update of authoritative building footprint data to be carried out more efficiently and with higher quality.

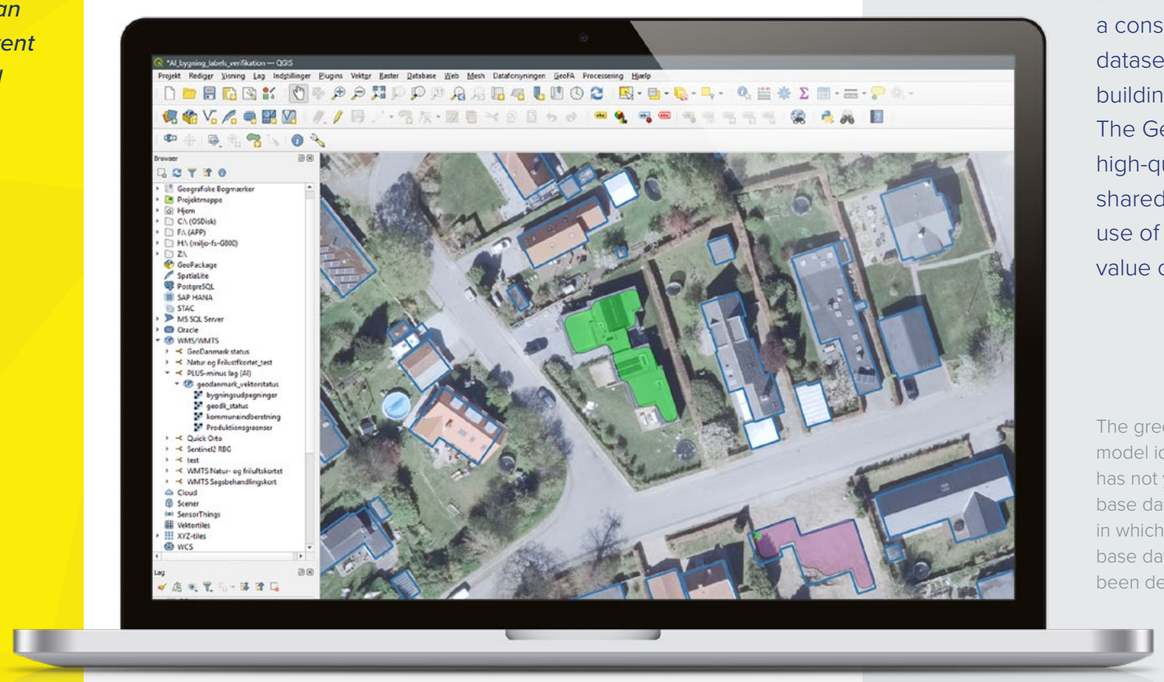
It combines aerial photos with existing building data and uses an AI model to highlight locations where new construction, demolition, or major changes are likely to have occurred. This allows the delivery of potential candidates for changes of building footprints that feeds directly into workflows for maintaining GeoDanmark basic data, enabling a reduction in manual reviews of data. This results in a more consistent dataset, with a faster path from real-world changes to updated national core geodata.

The AI-model is planned to be gradually improved through multiple rounds of testing, where the municipalities are involved in the verification process. The project is a part of a strategic initiative aimed at increasing the automation of the production and maintenance of core geospatial data.

Better building footprint data is believed to improve downstream analyses and decision-making and it is crucial for a more resilient and efficient geodata infrastructure, to support planning, climate adaptation, and a wide range of public services.

Collaboration with GeoDanmark

GeoDanmark is a collaboration between the Danish Agency for Climate Data and all Danish municipalities (98 in total). It provides a consistent, up-to-date geographic basic dataset covering approx. 70 features such as buildings, roads, watercourses and lakes. The GeoDanmark AI-model ensures practical, high-quality updates, which strengthens the shared data foundation and supports efficient use of resources across the entire geodata value chain.



The green polygon marks the area in which the AI model identifies a newly constructed building that has not yet been recorded in the GeoDanmark base dataset. The purple polygon marks an area in which a building is recorded in the GeoDanmark base dataset, but the AI model identifies that it has been demolished.

Benefits

- AI-supported building footprint change detection helps identify more building updates than traditional approaches, improving completeness and reducing blind spots in the national dataset.
- Identified potential candidates for changes of building footprints, replace broad manual scanning process, saving time and resources.
- More systematic identification of changes shortens the time to update authoritative data.
- Continuous feedback from verification during production enables the model to improve over time.
- The AI-approach establishes a clear pathway toward higher levels of automation, enabling better maintenance of building data.

Denmark

Danish Geodata Agency

Bridging the map gap: Visualising coastal hazards in Greenland's nearshore waters

"Official geospatial data is a sovereign asset—trusted because it is governed and developed in partnership with those who rely on it. Through close cooperation with Greenlandic authorities and local partners, the Danish Geodata Agency showed a method to deliver reliable coastal information for Greenlandic waters, supporting safer planning and operations where traditional surveys are limited."

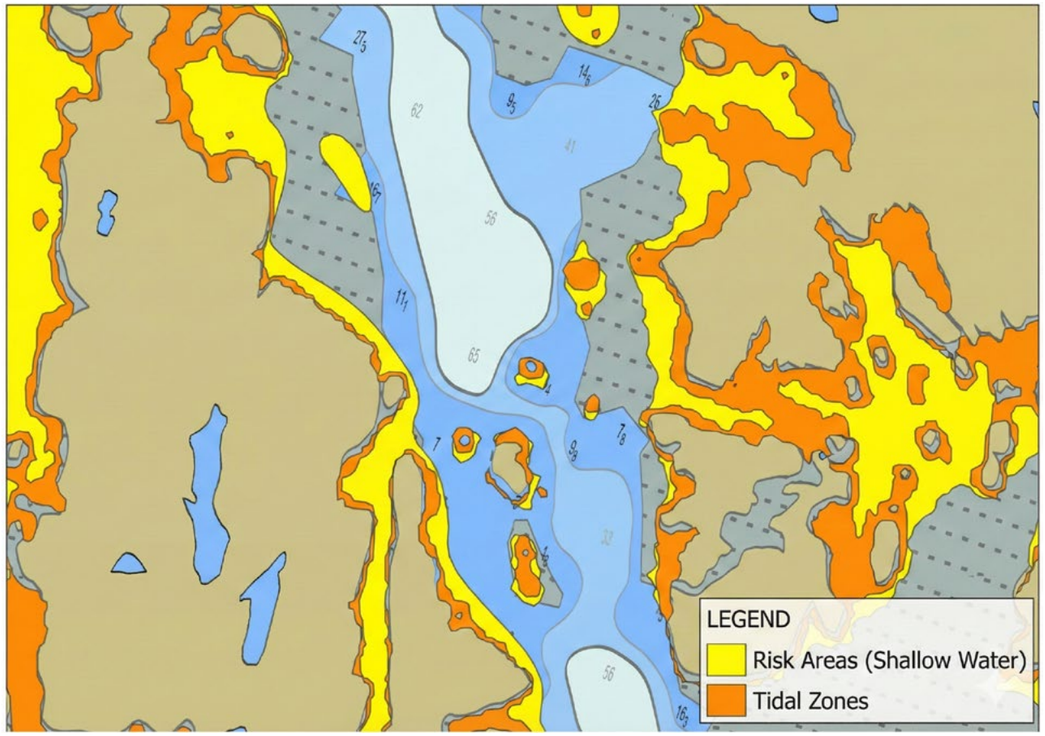
Pia Dahl Højgaard
Director General,
Danish Geodata Agency

Mariners now have a better picture of nearshore hazards thanks to a collaboration between the Danish Geodata Agency and Greenlandic partners. The project fills critical information gaps to provide a more complete basis for planning and operations in previously data-sparse areas.

The pilot project produced and published official, open satellite-derived coastal data to improve authoritative situational awareness of nearshore hazards where conventional charting coverage is sparse.

The Danish Geodata Agency partnered closely with Greenlandic authorities and local stakeholders to align priorities, validate usability and ensure local anchoring of outputs. A production-oriented 'learning-by-doing' approach combines external specialist support (software and training) with internal governance, documentation and quality review within the national hydrographic authority.

Repeatable workflows were established for processing, classification, verification, and export of coastal products suitable for public dissemination. The outputs were released as open data through official channels, preserving provenance and accountability while enabling broad reuse.



Bridging the gap in Arctic maritime safety. This map panel demonstrates the added value of satellite-derived data (SDB) compared to existing official charts. While traditional hydrographic charts (blue areas) are limited in nearshore waters, the new **Shallow-Water Risk Areas** (yellow) and **Tidal Zones** (orange) extend significantly further toward the coastline.

Benefits

- Strengthened trusted data for Europe's Arctic region through joint ownership and local anchoring with Greenlandic authorities and partners.
- Delivered open government data enabling reuse without access barriers by Greenlandic and European authorities, industry and research.
- Improved maritime risk awareness by identifying shallow-risk zones and hazard features in poorly surveyed nearshore areas.
- Supported SAR and emergency preparedness through better authoritative situational awareness in data-sparse coastal waters.
- Increased data sovereignty and resilience, reducing reliance on ad hoc or non-authoritative sources.
- Enabled better prioritisation of future conventional surveys by highlighting high-risk areas with greatest safety impact.
- Built institutional capability (processes, documentation, competence) for sustained official production using satellite methods.
- Provided a replicable governance model for integrating novel technology into the official domain in partnership with local authorities.

Finland

National Land Survey of Finland

New research and roadmap strengthens GNSS security in Finland

"GNSS interference has become a considerable impediment in Finland. Interference hampers airborne image and lidar missions and causes therefore considerable economic loss. GNSS resilience and preparedness must be strengthened due to the increasing amount of GNSS interference and the security and financial risks it causes for societies and business. This challenging task requires more scientific research and continuous international cooperation."*

Pasi Patrikainen
Director General,
National Land Survey of Finland

*Global Navigation Satellite System

Finland is taking a proactive, research-driven approach to strengthening GNSS security by assessing current vulnerabilities and outlining practical steps to improve signal resilience across both manned and unmanned air operations.

The National Land Survey of Finland (NLS) has prepared a comprehensive report – GNSS security and resilience in Eastern Finland – presenting methods to improve the safety and resilience of satellite navigation along with alternative positioning methods. The report also examines the perspectives of both manned and unmanned air traffic in the development of tolerance and remedies for GNSS jamming. It emphasises the need to improve the situational awareness on the availability and quality of GNSS signal and further research.

The safe and reliable use of positioning is one of the research themes of the Finnish Geospatial Research Institute (FGI) of the NLS, which has numerous ongoing national and international projects focusing on GNSS resilience, including a postdoc position focused on the subject.

Researchers are also developing and testing the detection of GNSS interference and how to mitigate the harm it causes. The project was featured in Inside GNSS. In spite of advances in positioning technologies, existing aviation navigation aids will remain critical for operational continuity.

More information:
https://helda.helsinki.fi/items/af07934a-e939-4f92-ba55-9ff4dcc1d7f6

Finnref GNSS base station in Joensuu, Finland. A total of roughly 50 base stations for satellite positioning have been placed across the country. Together, they form the FinnRef network, which forms the basis of Finnish reference systems and provides accurate geospatial data for daily needs in society.

Benefits

- Sets out next steps using up-to-date insights on the status of GNSS security.
- Strengthens GNSS preparedness with latest research.
- Raises awareness of GNSS security among policy makers.

France

National Institute of Geographic and Forest Information

Using geospatial expertise to turn biomass policy ambition into action

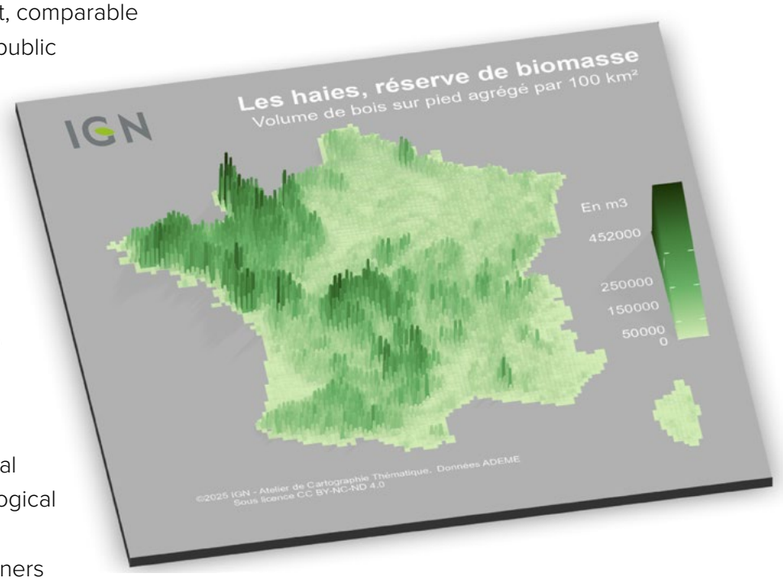
"To make better decisions, we must territorialise our European biomass policies and treat the interoperability of information systems as a strategic priority. By leveraging IGN's geospatial expertise, shared standards and harmonised methodologies, we can produce robust, comparable and shareable data that connect forest and agricultural biomass across the entire value chain."

Sébastien Soriano
Director-General,
National Institute of Geographic and Forest Information, France (IGN-F)

Specialised knowledge in woody biomass provided by the National Institute of Geographic and Forest Information (IGN-France) is simplifying complex data, making it easier for policymakers to use in planning and managing resources.

Within the GIS Biomasse (Biomass Scientific Interest Group), IGN-F contributes its expertise in woody biomass by strengthening information system interoperability, analysing resources and biomass flows, modelling future harvesting dynamics, and enhancing geodata through a dedicated geoportal, thereby providing robust, comparable and shareable evidence to support informed public policymaking.

IGN-F achieved its objectives by mobilising long-term National Forest Inventory data to quantify woody biomass stocks, flows, and harvesting dynamics. It complemented this work with targeted studies using Earth-observation data and digital-elevation models to refine spatial analyses and improve the assessment of hedgerow biomass.



In parallel, IGN-F reviewed existing tools and conducted interviews with users within regional biomass units to identify data gaps, methodological discrepancies and operational requirements. Through multidisciplinary workshops with partners such as ADEME (French Agency for Ecological Transition), INRAE (French National Research Institute for Agriculture, Food and Environment) and FranceAgriMer (French Agricultural and Seafood Products Board), it fostered semantic harmonisation and technical interoperability, enabling information systems to interact effectively in support of national biomass-mobilisation policies.

GIS Biomasse

Benefits

- Provides robust, interoperable reference data that strengthen public decision-making and support the design and implementation of national policies for sustainable biomass mobilisation.
- By enriching tools such as Cartofob and contributing to harmonised methodologies, IGN-F facilitates the work of Regional Biomass Cells, enabling them to validate projects (such as heating-plant installations) based on reliable assessments of local supply basins.
- Through its modelling capacities and its contribution to national indicators, IGN-F helps prioritise biomass uses according to regional and national resource pressures, thereby reducing potential conflicts between competing sectors.
- Reinforces national sovereignty by improving visibility on domestic biomass availability, reducing dependence on imported raw materials and supporting long-term strategic planning for bio-based industries.
- By integrating environmental, agronomic, and forest information, IGN-F promotes ecosystem services and supports sustainable management of agricultural, forest, hedgerow, and aquatic biomass resources.
- Improves transparency and accessibility of biomass information through portals, maps and open resources, making data understandable and usable for researchers, students, journalists, citizens, and local authorities.
- As a national operator for environmental data, IGN-F ensures coherence, interoperability and long-term maintenance of biomass information systems, enabling stakeholders to rely on shared and consistent datasets.
- By co-organising national events and supporting the animation of the biomass community, IGN-F fosters dialogue between scientists, policymakers and practitioners, strengthening collective capacity to plan the ecological transition.

Georgia

National Agency of Public Registry

Providing a gateway to data, decisions, and innovation – Georgia's National Geoportal

"The National Spatial Data Infrastructure (NSDI) is one of the key pillars of the e-governance agenda in Georgia. Launching the NSDI geoportal has laid the foundation for a unified and transparent ecosystem aligned with international standards. More than a technical platform, it serves as a strategic tool for valid, up-to-date, and harmonised spatial data sharing through a single point of access, informed decision-making, and fostering collaboration among public authorities, private stakeholders, and the wider community."

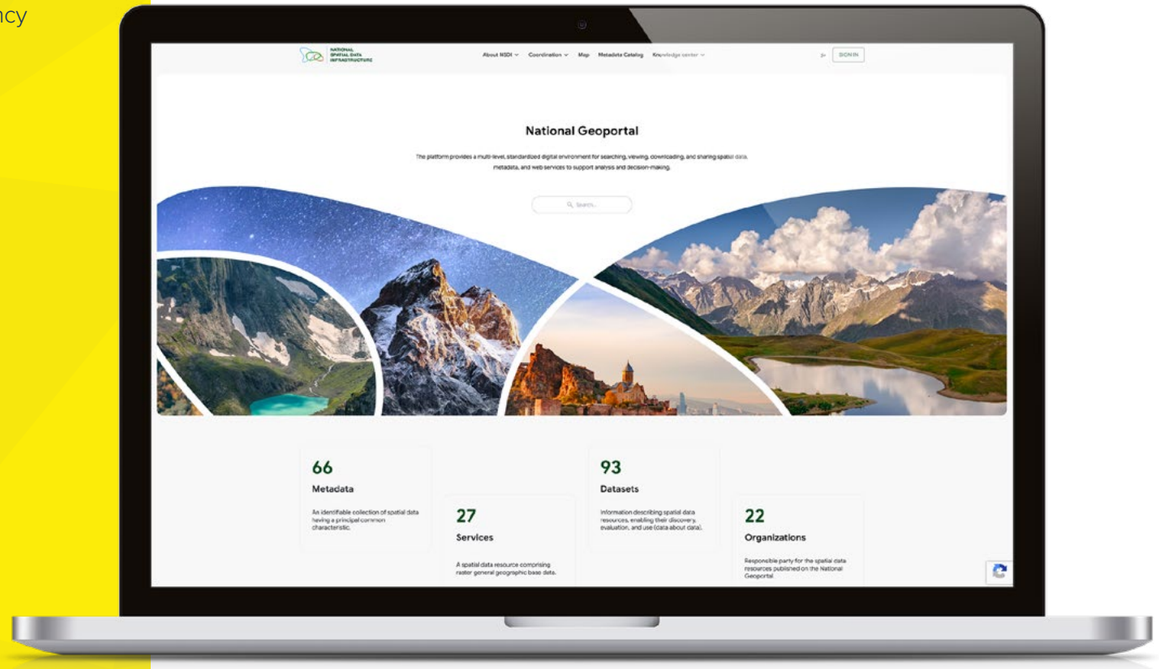
Davit Devidze
Chairman of National Agency of Public Registry (NAPR), Georgia

A major milestone in Georgia's digital transformation has been reached with the creation of a coordinated national framework for sharing and managing geospatial data.

The National Geoportal of Georgia was launched in July 2025 by the National Spatial Data Infrastructure (NSDI) Coordinator, the National Agency of Public Registry (NAPR). This unified digital platform for spatial data ensures standardised data description and improved accessibility, while aligning with the EU INSPIRE Directive.

The National Geoportal of Georgia was introduced through a phased and coordinated approach, combining institutional cooperation, legal alignment with the NSDI Law, and the technical development of core system components. All system components were developed in-house by the IT Department of NAPR, ensuring flexibility for future enhancements and facilitating the seamless integration of additional modules and services. The process involved close collaboration with data-producing agencies and international consultants, standardisation of metadata and services, gradual integration of existing spatial datasets into a unified national platform, and targeted capacity-building activities.

The National Geoportal integrates information resources, a map interface, and related applications, including the National Metadata Catalogue, the Metadata Editor, and the Validator. Developed in line with the EU INSPIRE Directive, the National Geoportal is fully operational at https://nsdi.gov.ge/en and provides access to standardised OGC services, enabling efficient discovery, visualisation, sharing, and downloading of harmonised spatial data.



Visit the geoportal:
https://nsdi.gov.ge/en

Benefits

- Simplified, standardised, and harmonised interagency data exchange.
- Improved decision-making processes based on reliable spatial data.
- Alignment with international standards and integration with the European spatial information infrastructure.
- Increased transparency and accessibility of data for citizens and businesses.
- More efficient planning of infrastructure and urban development projects.
- Support for environmental protection and risk management measures.
- Promotion of innovative services, geospatial businesses, and location-based services (LBS).

Germany

Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV)

Modernising Germany’s land cover mapping system

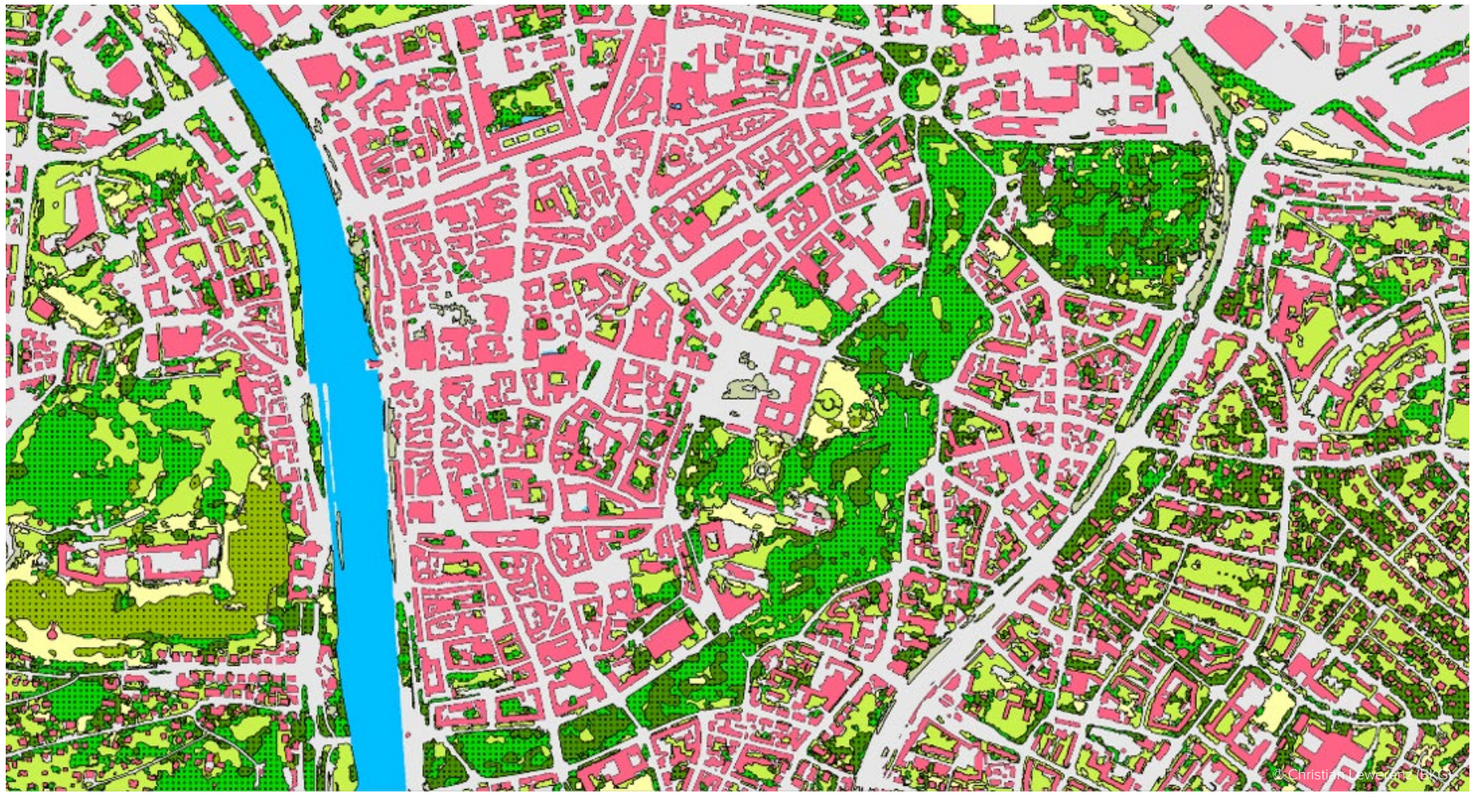
“Accurate, timely land cover information is fundamental to numerous geospatial applications including urban planning, environmental monitoring, agricultural management, and climate change adaptation. Land cover for Germany is a joint project of the federal government and the federal states that delivers annual, unform, automated data and I have great confidence that this ongoing, high-quality collaboration will continue to deliver benefits for users of this critical information.”

Kerstin Will
Deputy Chair, Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV)

Germany is improving consistency, reproducibility, and timeliness of nationwide land-cover updates by adopting a standardised, automated mapping method.

In Germany, the standardised Landbedeckung Deutschland (LB – Land cover Germany) product, aligned with the specifications of the Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV), serves as a critical reference dataset for land monitoring and statistical purposes. Traditional manual derivation methods face significant challenges in scalability, consistency, and cost-effectiveness, particularly for nationwide coverage amid rapid landscape changes driven by urbanisation, renewable energy expansion and vegetation shifts.

The LB project, coordinated by Geobasis NRW and the Federal Agency for Cartography and Geodesy (BKG), introduces a transformative AI-based remote sensing product, which aims to assist in fulfilling these requirements. The approach integrates Sentinel-2 spectral information, orthophotos, and Digital Surface Model heights to achieve automated, reproducible classification across Germany’s heterogeneous landscapes.



Benefits

- Modernises Germany’s land cover mapping system.
- Provides a uniform methodology to deliver nationwide coverage for Germany.
- Meets requirements of rapidly changing landscapes, such as renewable energy sites, with a minimum mapping unit of 100 m^2 (buildings 10 m^2).
- Enables annual updates.

Germany

Federal Agency for Cartography and Geodesy (BKG)

GeoAI: The modern measurement of the world

"If you want to understand how AI is changing our world, you should not just look at texts and images - but at maps. GeoAI makes decisions more informed because it opens up large amounts of data. And we need that more urgently than ever."

Professor Paul Becker
President, Federal Agency for Cartography and Geodesy, Germany

Germany's Federal Agency for Cartography and Geodesy (BKG) is pioneering the use of GeoAI as a key technology that enhances collaboration, improves data quality, and strengthens insights for evidence-based decision-making.

Artificial intelligence (AI) extends far beyond applications such as text generation, image creation or autonomous driving. An area of particular relevance that has long received too little attention is the intelligent analysis of geospatial data, known as GeoAI. Public administration employees who work daily with complex geospatial, building and environmental data can benefit significantly from these technologies.

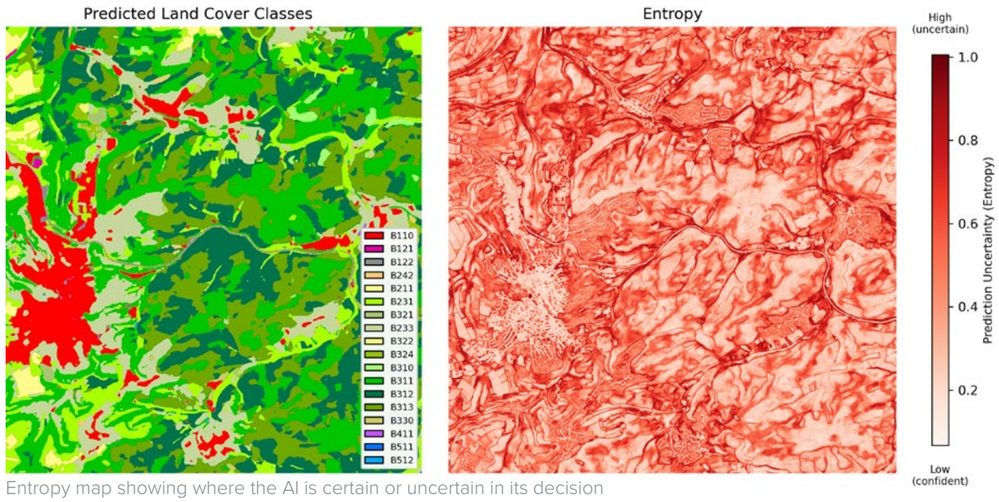
The fields of application for GeoAI are diverse. They range from analysing changes in forest structures and parking space utilisation to identifying damaged buildings after extreme weather events such as flooding. In many cases, the required information is incomplete or outdated. AI-based analyses using satellite, aircraft and drone data help to close these data gaps efficiently.

One prominent example of how such methods are already being put into practice is the Land Cover Model Germany (LBM-DE) maintained by BKG. It provides nationwide information on land cover and land use. Until now, updating this dataset has involved considerable manual effort. In the future, AI will increasingly support this process. A model developed by the German Aerospace Centre (DLR) automatically identifies land cover directly from high-resolution satellite imagery, while uncertain areas can be selectively reviewed by experts.

Beyond land cover mapping, GeoAI also plays an important role in ensuring safety-critical operations. For the management of air traffic, German Air Traffic Control (DFS) requires reliable information on obstacles in the vicinity of airports. AI-based systems automatically detect and classify objects such as vegetation, buildings or infrastructure elements that exceed critical heights. The necessary high-resolution 3D data are currently being collected by BKG as part of the 'Digital Twin Germany' (DigiZ-DE) project.

Successful implementations of GeoAI not only depend on powerful algorithms and data, but also on strong collaboration across sectors. To fully exploit the potential of GeoAI, close cooperation between public administration, science and industry is essential. The 'Forum GEO.KI' organised by BKG, together with the Federal Environment Agency's AI Lab, clearly demonstrated that GeoAI is not a niche topic, but a key technology connecting multiple disciplines and institutions.

Marking of flight obstacles



Entropy map showing where the AI is certain or uncertain in its decision

Benefits

- Reveals patterns in large geospatial datasets to make developments visible for evidence-based decisions.
- Relieves experts, enabling faster and more frequent dataset updates.
- Improves data precision, compliance, and reliability.
- Meets growing demand for up-to-date information in administration, politics, and business.
- Supports digital transformation in environmental monitoring, urban planning, and crisis management.
- Lays the foundation for more efficient processes and a modern, data-driven public administration.

Great Britain

Ordnance Survey

Mapping out buried infrastructure with an authoritative digital platform

"Ordnance Survey GB is proud to have been entrusted by the UK Government with operating the National Underground Asset Register (NUAR). By consolidating underground asset data within a single trusted and authoritative digital platform, we're not only showcasing our enduring strength as Great Britain's national mapping service but also forging new partnerships across the public and private sectors and unlocking significant economic value for the country."

Nick Bolton
Chief Executive,
Ordnance Survey GB,
Great Britain

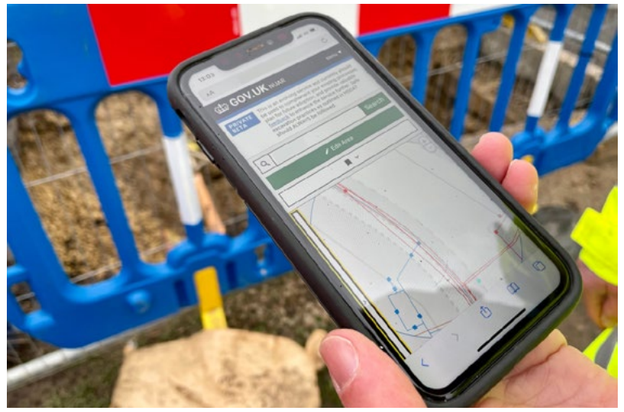
Ordnance Survey has taken on operational responsibility for the National Underground Asset Register (NUAR), establishing a single authoritative digital service for sharing a map of underground asset data.

The NUAR covers England, Wales, and Northern Ireland (Scotland has its own underground asset register) with data currently supplied from more than 350 asset owners, resulting in over 3.2 million kms of pipes and cables published – more than 80% of known underground assets.

A working group. including data scientists from the Open Geospatial Consortium, an international panel of experts, and members of Ordnance Survey, formed to create a concept – the Model for Underground Data Definition and Integration. Known as MUDDI for short, it creates an international standard for mapping geospatial data underground. The MUDDI model was used to enable the standardised data view of the underground asset data in the NUAR, transforming and harmonising the source data from asset owners which comes in different shapes and sizes.

Ordnance Survey GB works with underground asset owners to bring their data into NUAR and enable instant access to a centralised secure and standardised map. As a result, the government digital service covers underground pipes and cables in England, Wales, and Northern Ireland for Telecommunication, Energy, Pipeline, Water, Transport, Local Authority, and Highways Authority assets, to improve the efficiency and safety of buried infrastructure installation, maintenance, operation, and repair.

Being entrusted with the operation of a critical national asset reflects Ordnance Survey GB's central role in NUAR's conception and development. It reinforces confidence in the national mapping service's long standing capabilities and highlights its strength in bringing together partners across both the public and private sectors.



Benefits

- Delivers major economic gains. There are around 60,000 accidental strikes on underground assets every year, costing the UK economy £2.4 billion per annum and putting workers' safety and lives at risk. NUAR is envisaged to deliver over £400 million per year of economic growth through increased efficiency, reduced asset strikes and reduced disruptions for the public and businesses.
- Improving safety and reducing strikes through providing excavators with access to more data to help prevent accidental strikes and improve their safety.
- Standardises data in a single secure service by replacing inconsistent formats with one authoritative, harmonised view.
- Improves planning and coordination by simplifying the previously complex process of aligning varied formats and scales from each asset owner.
- Increases efficiency across infrastructure works, Before NUAR, workers had to contact multiple organisations to get information, waiting on average over six days. Now they have instant access to a consolidated map, reducing this time to 60 seconds.
- Provides a trusted and continuously updated national dataset ensuring that utilities, government, and contractors work with the most accurate view of underground networks.
- Enhances security and protects sensitive data through strong, nationally recognised safeguards recognising the value of this asset.
- Strengthens government decision making and regulatory compliance through the supply of standardised, updated and auditable data to a centralised nationally recognised register.
- Offers a flexible service that can grow and adapt to reflect future user needs and emerging government priorities.

Hungary

Lechner Knowledge Centre

Hungary launches key digital initiatives to improve spatial data and public services

"We are modernising Hungary's spatial data infrastructure to create more efficient, user-friendly public services. By digitising simpler processes, we are reducing waiting times for citizens and allowing staff to focus on more complex tasks. These initiatives collectively demonstrate Hungary's commitment to making spatial data more accessible and interoperable for everyone."

Attila Hülber
Executive Director,
Lechner Knowledge Centre,
Hungary

Digital transformation initiatives underway at the Lechner Knowledge Centre in Hungary are improving public administration and access to spatial data.

Lechner Knowledge Centre is collaborating with GIS, IT, remote sensing, and public administration experts to establish a spatial data strategy that further improves integration with both domestic and European Union spatial data ecosystems. This provides guidance on leveraging spatial data (maps, addresses, land coverage, satellite images), encourages innovation, and support cooperation between data owners, government institutions and private companies.

The long-term goal is to establish a common viewpoint and guarantee compliance with rules and regulations defined by the European Union, the Hungarian government, professional partner organisations, and clients. The strategy is expected to be released in phases by spring of 2026. After this, Lechner Knowledge Centre will invite national spatial data stakeholders to create common positions and a unified national strategy.

Datacity – A spatial data decision support platform

The Datacity project will support urban development and municipal operations through a new data visualisation and analysis platform. This allows users to examine complex spatial data by using simple, spoken language questions. Whether a municipal decision-maker, an office worker, or a resident, users are not required to write an SQL query but can ask their questions in natural language.

The platform collects, integrates and analyses diverse datasets (demographics, infrastructure, traffic, buildings, services) to generate maps, charts, and reports that simplify complex spatial data. Its aim is to bring together data from national, local, and community-generated sources, and incorporate successful local solutions.

Land Registry Number Search Application

An innovative application from the Lechner Knowledge Centre is helping citizens easily find a land registry number and view properties on an interactive map. It offers a simple, login-free user experience and was developed using user research and weekly live interviews to validate improvements.

The tool has applications for commercial companies (shipping and pick-up addresses), insurance companies, spatial data processing companies, and local governments to identify brownfield properties. The application can be expanded with different data for different target groups, for example additional map layers or real estate data.

More information:
https://lechnerkozpont.hu

Iceland

The Natural Science Institute of Iceland

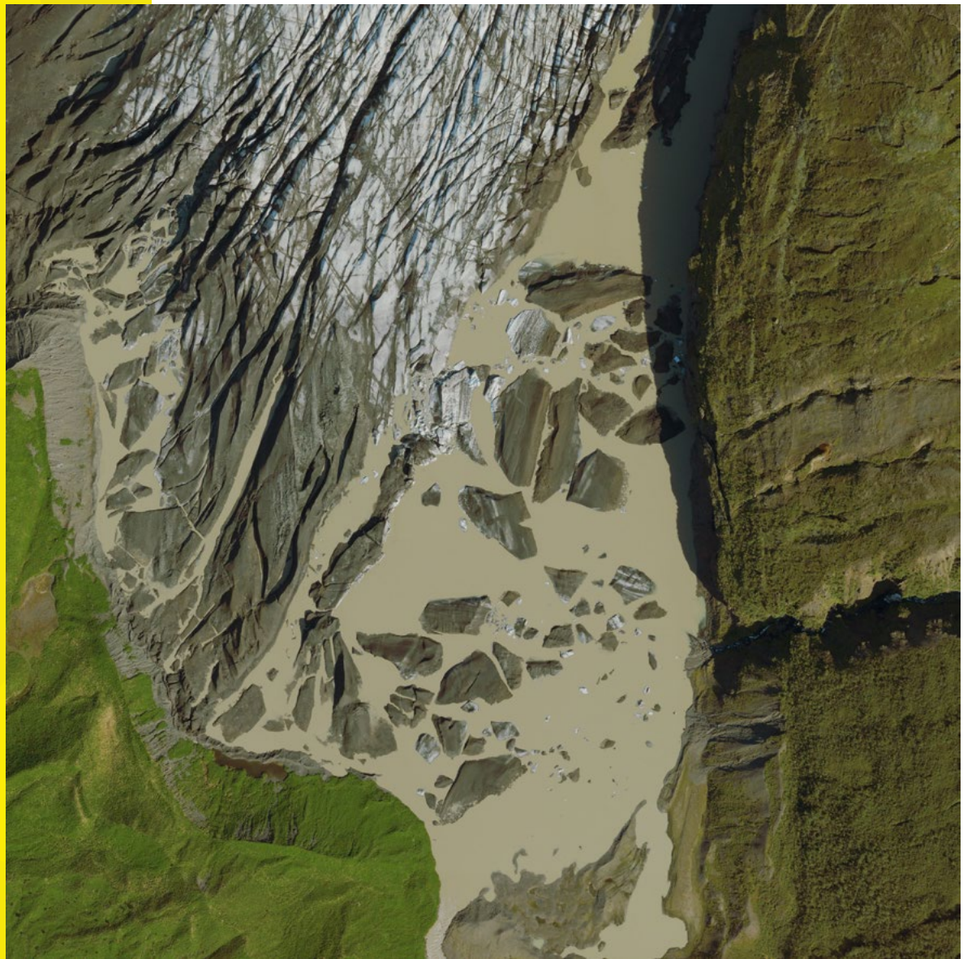
Monitoring Iceland's Ice: New data from the 2025 Glacier Mapping Initiative

"Monitoring Iceland's glaciers is not only about science — it is about safety, preparedness, and responsibility. Accurate geospatial data allow us to understand change, reduce risk, and support society with trusted information."

Eydís Líndal Finnbogadóttir
Director General of The Natural Science Institute of Iceland

Accurate glacier observations have never been more critical, and Iceland's 2025 mapping programme delivers vital insights for climate science, public safety, and safeguarding the natural environmental.

In the past year, the Natural Science Institute of Iceland (NSII) has focused its geospatial monitoring activities on glaciers, using satellite and aerial imagery to document changes in their extent and volume. A total of 3,000 km^2 of glacier surfaces were mapped, supporting climate research, hazard assessment, and long-term environmental monitoring.



The glacier mapping programme is carried out in close collaboration with the Icelandic Meteorological Office, the Institute of Earth Sciences at the University of Iceland, and several international partners, including the World Glacier Monitoring Service (WGMS) and the research laboratory Laboratoire d'Etudes en Géophysique et Océanographie Spatiale (LEGOS) in Toulouse.

Satellite-based monitoring relies on a series of targeted acquisitions using Pléiades satellites. During the summer season, repeated tasking focused on ice-covered volcanoes prone to jökulhlaups (glacier floods) to provide timely and consistent observations of rapidly changing conditions.

Aerial mapping campaigns conducted in summer 2025 covered Öræfajökull, an ice-covered volcano located in the southern part of Vatnajökull, Iceland's largest ice cap. The acquired data were processed into high-resolution Digital Elevation Models (DEMs), which are used to calculate glacier volume change. In addition, the imagery supports the digitisation of crevasses, improving safety information for travellers and researchers operating on the glacier.

Benefits

- Quantifies glacier volume change linked to climate impacts.
- Supports monitoring of jökulhlaup-prone volcanoes.
- Enhances safety for glacier travel through crevasse mapping.
- Provides authoritative data for scientific and policy use.
- Strengthens national and international research collaboration.
- Establishes a robust baseline for long-term glacier monitoring.

Italy

Revenue Agency

Embracing modern aerial technologies to enhance accuracy in Italy

"The experimental use of innovative technologies in the cadastral field can enable us to improve the quality and the completeness of cartography. And, looking ahead, to offer an increasingly accurate and up-to-date service for experts and the wider community."

Vincenzo Carbone
Italian Revenue Agency
General Director

Italy is elevating its national geospatial capabilities with a forward-thinking initiative harnessing modern airborne tools to advance spatial analysis.

Launched by the Central Directorate of Cadastral, Cartographic and Land Registration Services of the Revenue Agency, the experimental project carries out surveys from aerial photogrammetric products obtained by flights of Unmanned Aircraft Systems – drones. The aim is to investigate how these can be used to guarantee greater efficiency and high quality of data in cadastral applications on limited territorial areas

A preliminary process was initiated to acquire a fleet of drones and train several technicians from the Revenue Agency's Cartographic Services Sector to pilot drones in 'open' and 'specific' scenarios, which present lower and higher operational risks respectively.

Test flights were then conducted to produce orthophotos, 3D models, Digital Terrain Models (DTMs), and Digital Elevation Models (DEMs).

The products obtained demonstrated the possibility of deriving cadastral surveys from aerial photogrammetry which guarantee centimetric positioning accuracy.

Benefits

Compared to the use of traditional surveying methods (Total Station or GNSS systems), surveys obtained through drone aerial photogrammetry can offer undeniable advantages in terms of efficiency and cost-effectiveness, particularly for applications in limited territorial areas for:

- Professional users (chartered cadastral surveyors) who, after updating the procedures and normative documents in force concerning the geometric updating of the cadastre, might prefer to use this innovative method for drafting updating documents, particularly for complex operations.
- Office-based activities, particularly in areas such as special verifications, cadastral assessments of specific situations, massive cadastral map updates for limited territorial areas, and verification of complex updating documents submitted to the Agency by professional users.
- Activities aimed at improving the quality and completeness of cadastral cartography.
- Possible uses for ancillary and instrumental activities to the institutional mission of the Agency for the surveying and governance of the territory.

Lithuania

Centre of Registers

New automated process transforms creation and registration of servitude boundaries in Lithuania

"By implementing a unified process for preparing and checking servitude plans as well as marking the servitude boundaries on the cadastre map, we have enhanced the accuracy, transparency and interoperability of data within the national geodata infrastructure."

Adrijus Jusas
Director General
of the Centre of Registers,
Lithuania.

Lithuania now benefits from faster, more reliable land information thanks to a new system streamlining the creation of servitude layouts and the definition of their boundaries.

The State Enterprise Centre of Registers has developed and implemented the fully automated process which prepares, checks and registers servitude plans. It also marks their boundaries on the Real Property Cadastre map, a requirement which became mandatory on 1 January 2025.

The 'GeoMatininkas' subsystem within Real Property Register now includes a function enabling surveyors and planners to automatically generate a standard servitude plan based on the spatial data provided. The system performs automated boundary overlap checks and immediately provides error messages to the user to ensure data quality. In addition, an information interface has been created allowing other national systems to directly access servitude plans and their data.

After registration of the servitude, its boundaries are automatically marked on the cadastre map.

Benefits

- Ensures clarity for both landowners and infrastructure planners by showing servitude boundaries on the cadastre map.
- Reduces the risk of errors and improves the quality of spatial data through automatic boundary overlapping checks.
- Accelerates data exchange between authorities and reduces administrative burden.
- Reduces the risk of land use disputes as a result of accurately defined servitude boundaries.
- Increases the reliability of digital land information.
- Contributes to smart spatial planning with reliable and precise information.

The Netherlands

Cadastre, Land Registry and Mapping Agency

Applying GeoAI to detect forest trails for Dutch topographic data production

"By applying GeoAI carefully and responsibly, we strengthen the quality and continuity of our topographic work."

Cora Smelik
Member of the Executive Board,
the Netherlands' Cadastre,
Land Registry and Mapping Agency

The Netherlands' Cadastre, Land Registry and Mapping Agency, Kadaster has assessed how GeoAI can be applied to detect forest trails and improve the efficiency and accuracy of topographic data production.

High-resolution LiDAR-based Digital Elevation Model (DEM) was used to uncover what lies beneath the forest canopy. By filtering the LiDAR points, Kadaster digitally removed the vegetation points and exposed the underlying ground surface, including the forest trails running through it.

These newly uncovered paths – from historical tracks to long forgotten routes – served as training data for GeoAI models to automatically detect similar features nationwide. The results are being manually validated and refined to ensure that they reflect real, accessible paths, and Kadaster is now evaluating how they could be applied to its official topographic data.

Forest trails on the Veluwe in the Dutch Key Registry TOP10NL

Benefits

- Improves the quality and completeness of topographic maps by uncovering forest trails that remain invisible when just using aerial imagery.
- Reduces time and resources spent on manual interpretation, allowing specialists to focus on expert validation.
- Establishes a flexible workflow that can easily adapt to automatically detect other features, such as storage tanks, greenhouses, and solar fields.
- Strengthens Kadaster's ability to meet future demands, including more frequent updates and rising data complexity.
- Creates opportunities to share knowledge, methods, and lessons learned with other National Mapping and Cadastral Agencies (NMCAs).

Poland

Head Office of Geodesy and Cartography

From cyber-resilient infrastructure to smart e-services

"Today, the most important political, economic and social decisions are made based on spatial data and analysis. Accurate and up-to-date spatial information about our surroundings, provided by geodesy and cartography is indispensable for defence, crisis management, economic development and daily administrative and business activities. The development of geoinformation systems and the maintenance of consistent spatial data resources are key elements of the national security strategy."

Andrzej Żylis
General Surveyor of Poland,
Head Office of Geodesy
and Cartography

Poland continues to strengthen its national digital resilience and modernise spatial information services to enhance cybersecurity and public-sector efficiency.

Under the Cybersecure Government programme, the Head Office of Geodesy and Cartography (GUGiK) has reinforced its infrastructure resilience while also piloting a GNSS signal-interference monitoring system to enhance the quality of spatial information e-services.

The pilot is part of a European Space Agency (ESA) programme project carried out in cooperation with the National Institute of Telecommunications). As a result, GUGiK implemented a system comprising selected stations of the ASG-EUPOS network along with data-centre infrastructure that provides analysis results via a dedicated web portal for users. The service is publicly available at https://rtgms.pl.

GUGiK has also modernised its server infrastructure and threat monitoring systems, ensuring full alignment with rigorous data protection standards. This overhaul enhanced its resilience against hybrid attacks, automated incident detection and developed staff digital security competencies. In addition, the organisation has introduced advanced validators (as a QGIS plugin) for key registers: the Land and Building Register (EGiB), the Real Estate Price Register (RCN) and the Database of Topographic Objects (BDOT10k). These IT tools automatically verify the consistency of data transmitted from county (powiat) to central levels, eliminating errors at the source and ensuring strict adherence to GML application schemas. Through automated testing, GUGiK maintains total spatial data consistency across all administrative levels.

More information:
https://rtgms.pl/

Benefits

- Sovereignty and security: The "Cybersecure Government" programme guarantees the uninterrupted continuity of state e-services in the face of increasing digital threats.
- Data reliability: The WMS/WFS compliance validator for the Land and Building Register (EGiB) eliminates errors in registers and builds investor trust.
- High-quality e-services: Automated verification of the EGiB database ensures that citizens and offices have access to high-quality data.
- Transparency and market support: Making validators available in open-source software (QGIS) allows surveying contractors to provide top-quality data during the creation phase.
- Economic efficiency: Automated data control reduces administrative costs and shortens the duration of official proceedings.
- Openness and interoperability: Modern GML control tools facilitate information exchange between different systems.
- Support for UN goals: Better access to precise spatial data supports sustainable spatial planning and environmental protection.

Portugal

Directorate General for the Territory

Portugal reaches major milestone with complete national LiDAR coverage

"Remote sensing is a key method for acquiring geospatial data worldwide. Among the available technologies, LiDAR stands out as a reliable solution for generating highly accurate spatial datasets through a rapid acquisition process, providing users with up-to-date information and supporting a better understanding of the territory. In 2025, full LiDAR coverage of mainland Portugal was achieved, enabling the development of a wide range of derived products for numerous public and private sector applications, including thematic and topographic mapping, spatial planning, cadastre, forestry, water resource management, land-use analysis, and other related activities."

Fernanda do Carmo
General Director,
Directorate General for the Territory,
Portugal

A major milestone in remote sensing data acquisition was achieved in Portugal in 2025 with the completion of full LiDAR (Light Detection and Ranging) the coverage of the mainland, carried out by the Directorate-General for Territory (DGT).

The initiative to provide comprehensive LiDAR data dates back to 2021 when a decision was made to diversify remote sensing datasets and generate derived products using different types of sensors. The administrative process, including funding arrangements and public procurement procedures, began in 2023.

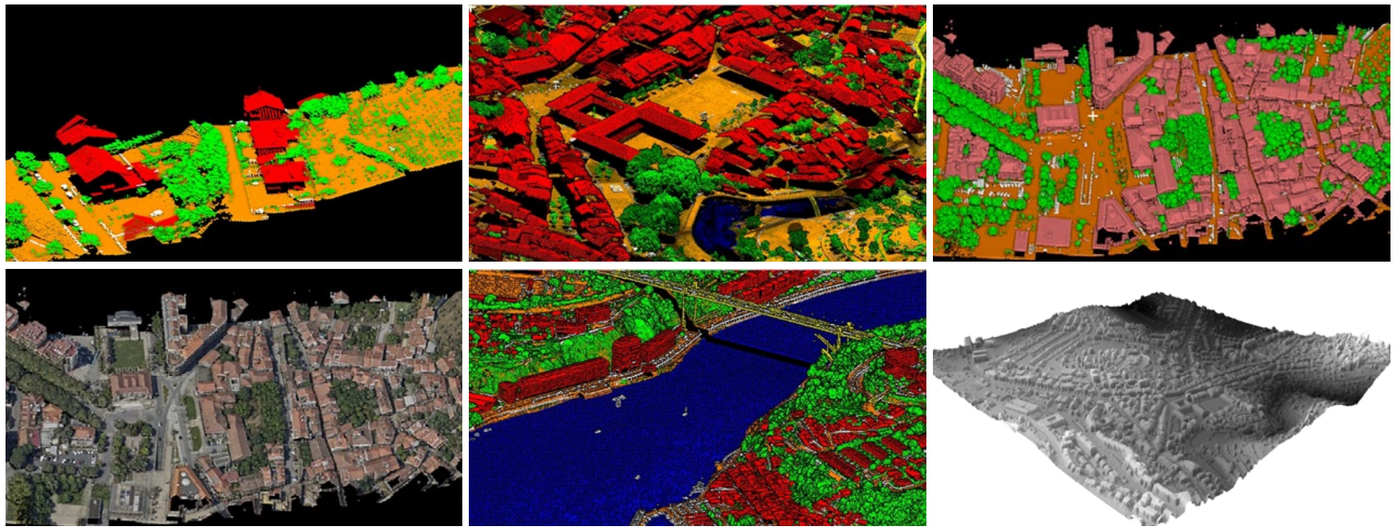
Technical activities related to data acquisition, processing, management, quality control, and the development of a public data access service were conducted throughout most of 2025. These efforts involved DGT, two consortia of private companies responsible for data acquisition, and an additional company in charge of quality control.

For data dissemination, DGT established a partnership with the National Centre for Advanced Computing to develop a dedicated Data Centre. Through this, users can download LAZ point cloud files, as well as Digital Terrain Models (DTM) and Digital Surface Models (DSM) at two spatial resolutions: 50 cm and 2 m. All data are available as open data. In addition, a QGIS plugin developed by the open-source community allows users to download these datasets through a user-friendly graphical interface.

This project was funded by the Portuguese Recovery and Resilience Plan (RRP), within Component 8 - Forests.

LiDAR coverage main specifications:

- Full territorial coverage of mainland Portugal.
- Point Density: 10 points per m^2.
- Vertical accuracy: better than 10 cm
- Data classification - LiDAR Main classes:
  - Ground
  - Buildings
  - Vegetation (Low, Medium and High)
  - Bridges
  - Additional 25 cm resolution aerial photography (4 bands – RGB and NIR) obtained simultaneously.



Visit the DGT Data Centre:
https://cdd.dgterritorio.gov.pt/dgt-fe?language=en

Romania

National Agency for Cadastre and Land Registration

Redefining urban insight with cutting-edge spatial technologies in Romania

"The reality we live in is transforming at an accelerated pace, under the influence of profound and interconnected changes - geopolitical, technological, climatic, and demographic - that directly impact our way of life and our day-to-day decisions. We therefore advocate for the broader integration of geospatial data, recognising its vital role in effective strategic planning, informed and accountable decision-making, and ongoing monitoring. Without a spatial dimension, statistical data often remain abstract and challenging to convert into practical measures that reflect realities on the ground.

In this context, I would like to acknowledge the commitment and professionalism of my colleagues in developing and implementing projects that harness modern technologies whose results provide tangible support to central and local administration as well as to key economic stakeholders and civil society. Through our collective efforts, we contribute to more robust public policies, more efficient services, and ultimately to fostering a safer, more balanced, and more prosperous environment for our citizens."

Laurențiu Alexandru Blaga
Director General, National Agency for Cadastre and Land Registration, Romania

Romania is enhancing urban knowledge, strengthening territorial insight, and supporting evidence-driven management across diverse communities using modern surveying and analytical techniques.

In 2025, The National Agency for Cadastre and Land Registration, through the National Mapping Centre, successfully completed the 'Creation of True Orthophotos for 150 Administrative-Territorial Units in Urban Areas' project. This delivered a range of products for Bucharest and 149 other cities and county-seat municipalities). Data included dense point clouds, a 3D mesh for Bucharest, Digital Surface Models (DSM), and true orthophotos. The geometric quality of the DSM and true orthophotos was evaluated using root mean square error – altimetric for the DSM and planimetric for the orthophotos – leveraging advanced photogrammetry and digital cartography techniques.

The project has expanded the coverage of orthophotos at the urban level and enabled the implementation of automated workflows for the reception, validation, and dissemination of geospatial data, resulting in highly precise cartographic products.

The city of Bucharest was aerially photographed in 2023 using the UltraCam Osprey 4.1 oblique photogrammetric camera. The oblique imaging technology provides several significant advantages for cadastral work, such as excellent visibility of rooftops and façades, the generation of multiple viewpoints, and easier interpretation of buildings (number of floors, ground footprint, etc.). The 3D mesh product obtained for Bucharest enables a wide range of applications, including:

- Estimating the impact of solar radiation on buildings.
- Assessing urban areas at risk of flooding.
- Conducting visibility analyses in the urban environment.
- Estimating noise propagation.

The products generated for the other 149 localities provide accurate information that can be used by local administrations and civil society for:

- Efficient energy management by estimating the photovoltaic potential of building rooftops and monitoring heat loss.
- Urban planning by updating maps, identifying unauthorised buildings or constructions, and conducting visibility analysis in urban environments.
- Environmental monitoring and prevention via risk analysis, temporal change analysis, and assessment of natural hazards.

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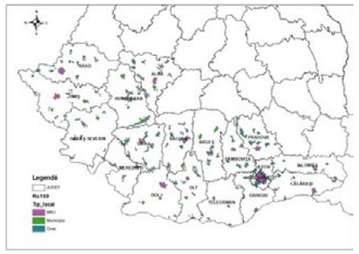

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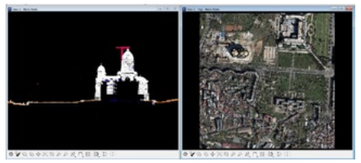

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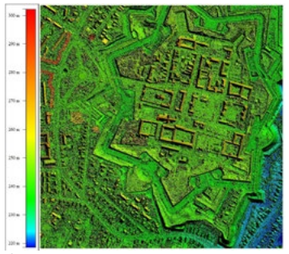


4.

5.

1. The project area
2. Cross-section of the People's Salvation Cathedral – Bucharest
3. Example of detail in 3D mesh
4. Calculating exposure to open sky in urban areas
5. 3D identification of flood-prone areas

Benefits

- Providing precise analysis and planning tools for local and central authorities.
- Supplying the tools needed to generate spatial and temporal analyses of climatic factors and to monitor resources.
- Assessing the impacts of natural hazards.
- Identifying unauthorised constructions and ensuring their taxation, monitoring urban development, reducing tax evasion, and enforcing urban planning regulations.
- Producing highly accurate cartographic products.

Slovakia

Geodesy, Cartography and Cadastre Authority of the Slovak Republic

A new era of digital services for Slovakia's surveyors

"The priority for 2025 was to restore electronic services for citizens and land surveyors, which had become inoperable after the cyberattack in January 2025. In doing so, we have significantly simplified access to cadastral data for all registered land surveyors."

Lucia Gocníková
Chairwoman, Geodesy, Cartography and Cadastre Authority of the Slovak Republic

Professional surveyors in Slovakia are benefiting from streamlined solutions that reinforce the precision and efficiency of cadastral work.

The restoration and enhancement of electronic services by the Geodesy, Cartography and Cadastre Authority of the Slovak Republic is not only improving access to data but also enabling easier and error-free data entry to the real estate cadastre for those preparing survey sketches.

There are three main services. The first allows downloading data from the cadastral documentation – descriptive data, geodetic data, submitted vector geodetic materials and XML files for individual cadastral districts.

The second and most widely used service is the verification of geodetic materials which are submitted during the creation of a survey sketch and are used to automate the updating process of the cadastral documentation.

The third service is an experimental function for calculating the parcel area quality code. This involves comparing the areas of cadastral parcels recorded in the descriptive data file with the geodetic data file and generating the relevant parcel area quality code.

Benefits

- Services are available free of charge for all registered land surveyors.
- Real estate cadastre data is updated daily.
- Quick online access to documents.
- Speeding up of the survey sketch verification process.
- Data on the parcel area quality is important information leading to the improvement of cadastral documentation.

Slovenia

Surveying and Mapping Authority of the Republic of Slovenia

mBonitete: A new mobile app to improve Slovenia's land quality rating data

"The mBonitete mobile application represents an important step towards more accurate, fair, and modern recording of land quality rating (Boniteta) – to the benefit of landowners, professionals, and society as a whole."

Tomaž Petek
Director General,
Surveying and Mapping Authority
of the Republic of Slovenia

mBonitete is a new mobile app that enables landowners in Slovenia to submit precise field data to improve the accuracy of land quality rating records.

The initiative, developed by the Surveying and Mapping Authority, is delivering benefits for users of the land quality rating (boniteta) dataset whilst also increasing transparency, and ensuring greater involvement of landowners.

The land quality rating of agricultural and forest land dataset expresses production capacity and is maintained by the Surveying and Mapping Authority. The rating is independent of land cover and determined on the basis of soil properties, climate, relief, and specific influences. Specific influences are factors that are often locally limited and can be reliably identified mainly through field inspections and supporting evidence. These influences include rockiness, flood risk, drought, exposure, openness or closedness of space, and shading. The land quality rating is recorded in the real estate cadastre and is used in various procedures carried out by different state authorities.

Now proposals for recording specific influences on land can be submitted via mBonitete, a modern digital tool that enables property owners to directly and systematically provide field data.. The project was implemented within the 'Recovery and Resilience Plan' co funded by the European Union. It supports cartographic display, drawing of areas, adding photographs and descriptions, and electronic submission of spatially precise data to the information system of the Surveying and Mapping Authority.

The submitted proposals are analysed and reviewed by experts in land quality assessment in connection with existing spatial data (digital terrain models, soil maps, flood risk maps, meteorological data, etc.) and, if needed, through field inspections. In cases of valid proposals, the Surveying and Mapping Authority ensures that the updated data are entered into the real estate cadastre. The mobile application does not replace expert assessment but complements and supports it with up to date and spatially accurate information provided by users.

Information about the application itself, video presentations, instructions, FAQs, and download links are available at Kataster nepremičnin - E-prostor

More information:
mBonitete – nova mobilna aplikacija za evidentiranje posebnih vplivov za boniteto zemljišč | GOV.SI

Spain

Directorate General for Cadastre

Historic Orthophoto Mosaic Service reveals decades of territorial change in Spain

"The Historical Cadastral Orthophoto Mosaic Viewing Service gives fast, free access to decades of territorial change. By preserving and making this archive easily available online, we're improving efficiency while also providing citizens, technicians, and public authorities with a valuable resource for research, planning, and understanding the evolution of the landscape."

Fernando de Aragón Amunárriz
General Director
of the Cadastre of Spain

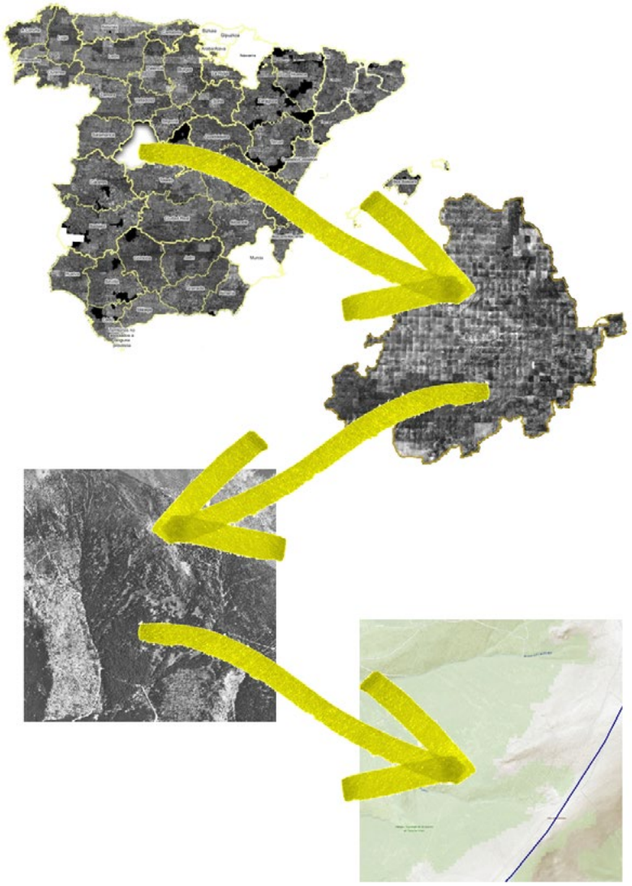
The Spanish Directorate General for Cadastre (SDGC) has developed a Historical Cadastral Orthophoto Mosaic Viewing Service featuring digitised orthophotos from the 1980s and 1990s. The provincial mosaic, delivered in Cloud Optimised GeoTIFF (COG) format, allows users to easily view historical imagery through the Cadastre Electronic Office's Thematic Viewer.

After the creation of the Spanish Cadastre in 1987, one of the key modernisation projects was to establish a precise geometric base for the rural Cadastre. A strict technical specification was developed to produce 1:5 000 scale orthophotos for most of Spain, generated from 1:15 000 photogrammetric flights and delivered with a 0.5 metre resolution in the ED50/UTM system.

Between 1987 and 1999, several cartographic companies produced around 60,000 orthophotos, delivered in paper, diapositive, and negative formats. In 2005, all orthophotos were digitised and georeferenced to preserve this historical archive and enable digital use. The images were processed using Optimal Character Recognition (OCR) to automatically extract essential flight date attribution. Cropped versions were also created to remove marginal content.

With the orthophotos cropped and georeferenced, and the month and year of the flights recorded in a file, a multi-step workflow was implemented to construct the mosaic.

1. Generation of orthophoto footprints in shapefile format which are then grouped into 1:50,000 scale National Topographic Map (MTN50) sheets.
2. The mosaic is created using the corresponding cropped and georeferenced orthophotos.
3. Quality control is carried out to detect uncovered gaps, incorrect dates, etc.
4. Imagery is converted from the ED50 reference system to the official ETRS89 reference system and MTN50 sheets are merged by province.
5. A COG file is generated for each province and integrated into a web viewing service that enables consultation in the Cadastral Thematic Viewer of the Cadastre Electronic Office.



Benefits

- Provides a unique and valuable record of land and parcel evolution.
- Contributes to the preservation of cadastral historical heritage.
- Enhances efficiency of public service offices by enabling online access and allowing other enquiries to be dealt with.
- Delivers the service completely free of charge to all users.
- Supports researchers, professionals, and public administrations to develop new projects.

Switzerland

Federal Office of Topography swisstopo

Georegisters for a digital Switzerland

"Through the 'Georegisters' project, Swiss authorities collaborate to establish and deliver high-quality fundamental geodata in a sustainable fashion. Georeference data provides data for themes which are a fundamental requirement in supporting administrative tasks and meeting the evolving needs of an increasingly digital society."

Fridolin Wicki
Director, Federal Office of Topography swisstopo.

Switzerland is developing a national system of high-quality, authoritative georeference data to support a fully digital, efficient, and interoperable public administration.

The '*Georegisters*' project is a collaboration between Swiss authorities at different federal levels. In addition to drafting the future georeference data, they have defined the necessary organisational and legal provisions to support the production and distribution that creates added value.

Inspired by the EU High-Value Datasets and the UN-GGIM standard, swisstopo together with representatives of various national, cantonal and municipal administrative bodies drew up an in-depth concept study based on UN-GGIM's 14 Global Fundamental Geospatial Data Themes.

The goal was to identify gaps in the current provision of authoritative geodata to define the required characteristics of the future georeference data and draft appropriate structure and governance mechanisms.

The concept study was finalised with feedback and insights from numerous stakeholders collected in a broad specialist consultation of the geoinformation sector.

Starting with the initial concept, an expert working group drafted amendments to the relevant legal provisions to the Swiss Geospatial Information Act, which are currently being finalised and will be incorporated into the Swiss legislative process in the near future.

Benefits

- Full national coverage –
  The future georeference datasets will be complete for Swiss territory with no gaps in authoritative data on crucial themes.
- Always up to date –
  The future georeference datasets will always contain the latest data available to authorities so there will be no uncertainty about where the latest data is located.
- Defined and uniform quality –
  The quality of the future georeference datasets will be verified and documented in uniform quality, particularly regarding semantics, geometry, topology, and currency. This will provide certainty about the quality of the data and no need for downstream data quality checks.
- One easy point of entry –
  The future georeference datasets will be accessible from one central portal for both humans and machines, regardless of where the data is sourced from and hosted so there will be no confusion about where to obtain the data and no inefficient searching.
- Identifiers and linkability –
  The future georeference datasets will feature object-level nationally unique and stable identifiers enabling data linkage providing traceability at the object level for reliable combination of datasets.
- Usage and user-orientation –
  The future georeference datasets will adhere to data models defined involving broad user groups. These will follow best practice and will be designed to optimise the cost-to-benefit ratio for maximum added value for authorities and society.
- Leadership of Confederation and cantons –
  The future georeference datasets will be authoritative data produced by the Swiss Confederation and/or cantons (or their respective mandated parties) which are trusted and competent entities.

Open Maps for Europe 2 (OME2) **Case Studies**

Supporting cross-border analyses of healthcare and education services

"The quality of geographical data has an impact on the result of spatial analysis; therefore, we need up-to-date, multi-scale, comparable, edge-matched geospatial data covering the European territories. The Open Maps for Europe 2 (OME2) high-value, large-scale, pan-European prototype is an excellent contribution to meet these requirements. Our objective is to show how vector topographic datasets from National Mapping, Cadastral and Land Registration Authorities and GIS methodologies can be used to produce statistical indicators for policymakers."

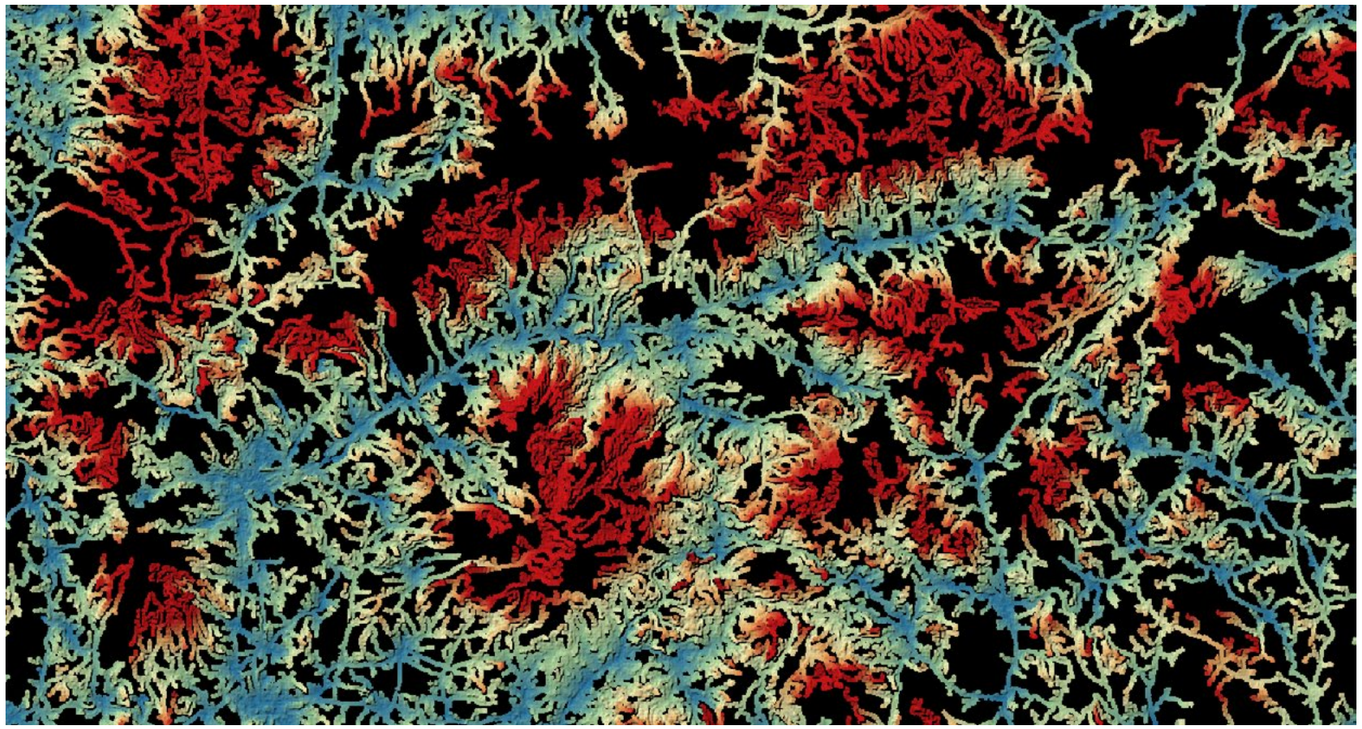
Julien Gaffuri
GIS and Cartography Engineer, Eurostat

Introduction

Geospatial data provides context to information about people and places, enabling insights and answers to some of the key issues facing society. In the European Union, official statistics are provided by Eurostat, which uses reliable geographic information to ensure accurate spatial analysis of data for policymakers.

Challenge

Education and healthcare are two of the most important basic services but are irregularly distributed across Europe. This means some people are 'left behind' because their nearest services are either too far away or too difficult to reach and access by road. Knowing which populations are disenfranchised is crucial for delivering EU-wide and regional policies, such as the EU4Health programme for stronger, more resilient and more accessible health systems, as well as for monitoring the UN Sustainable Development Goals.



Benefits

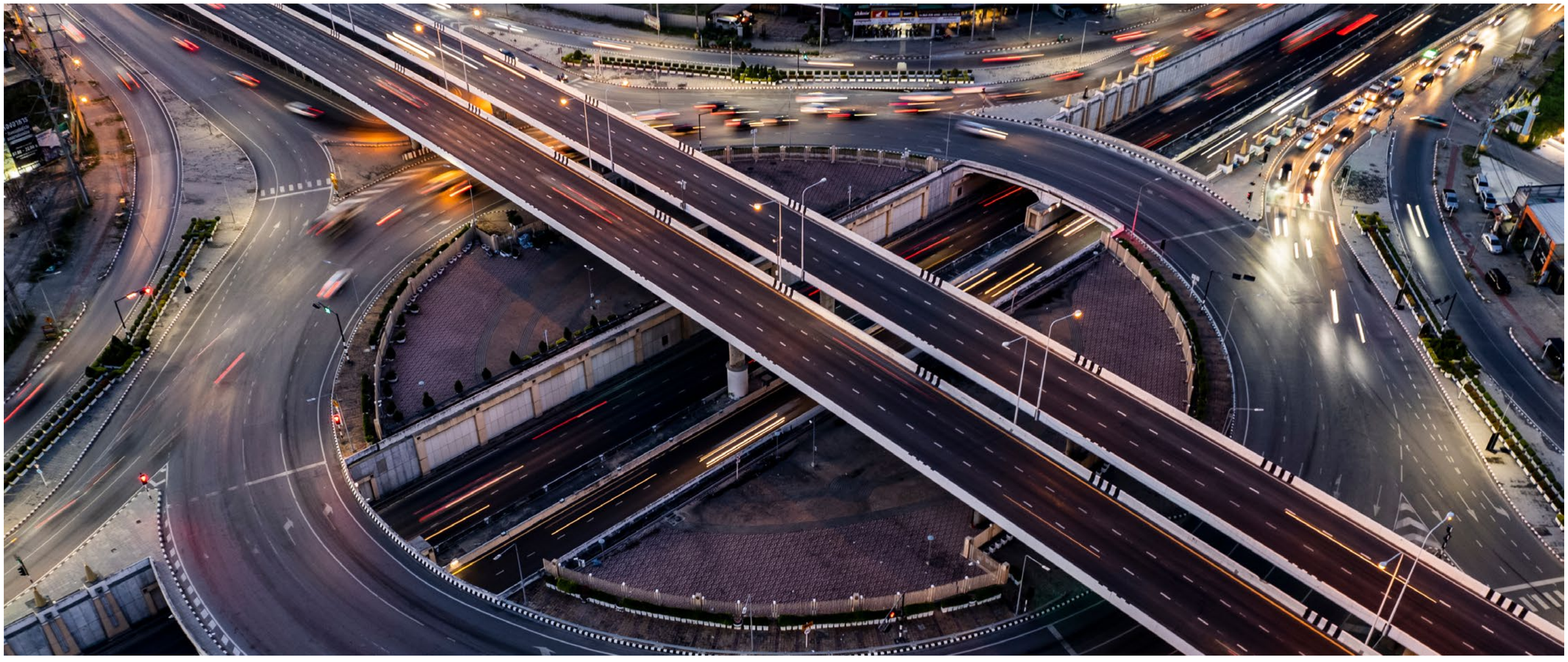
- Enables accurate spatial analysis of data using reliable geographic information from official national sources – the European National Mapping, cadastral and Land Registration Authorities.
- Provides geographical context to official statistical information about people and places to highlight key issues and potential solutions.
- Meets the data quality specifications required by Eurostat to produce official statistics for the European Union.
- Addresses the challenge of finding, easily accessing and licensing authoritative pan-European harmonised, edge-matched boundary data.
- Saves time, effort and resources by providing harmonised data from multiple countries through one central portal under one easy-to-understand open data licence.

Solution

Eurostat used the transportation theme of the Open Maps for Europe 2 (OME2) high-value, large-scale, pan-European prototype to produce its new dataset on the localisation of health and education provision. Released in January 2025, the dataset describes accessibility in terms of driving time to the nearest main healthcare and primary education service for each Census 2021 population 1 km grid. It also shows the average driving time to the three nearest providers.

The OME2 road data, which aggregates, harmonises and edge-matches national information, provided key information for the analysis and identification of potential population clusters with low or limited access.

Julien Gaffuri explains: *"We used the road transport network theme from the OME2 pan-European dataset prototype for testing and comparison with other data sources which enabled us to compute cross-border accessibility analyses with an excellent level of detail (100m resolution) across the available countries (France, Belgium and The Netherlands). Without it, we would have had to use alternative data sources which have some strong limitations."*



Enabling spatial analysis
to understand housing demand and supply

"To deliver the statistics required to support European policies, we need reliable geographical information – including building data – for the European territories. By compiling and harmonising NMCA data on buildings, the Open Maps for Europe 2 (OME2) Open Cadastral Map provides us with an overview of the information available from official national sources."

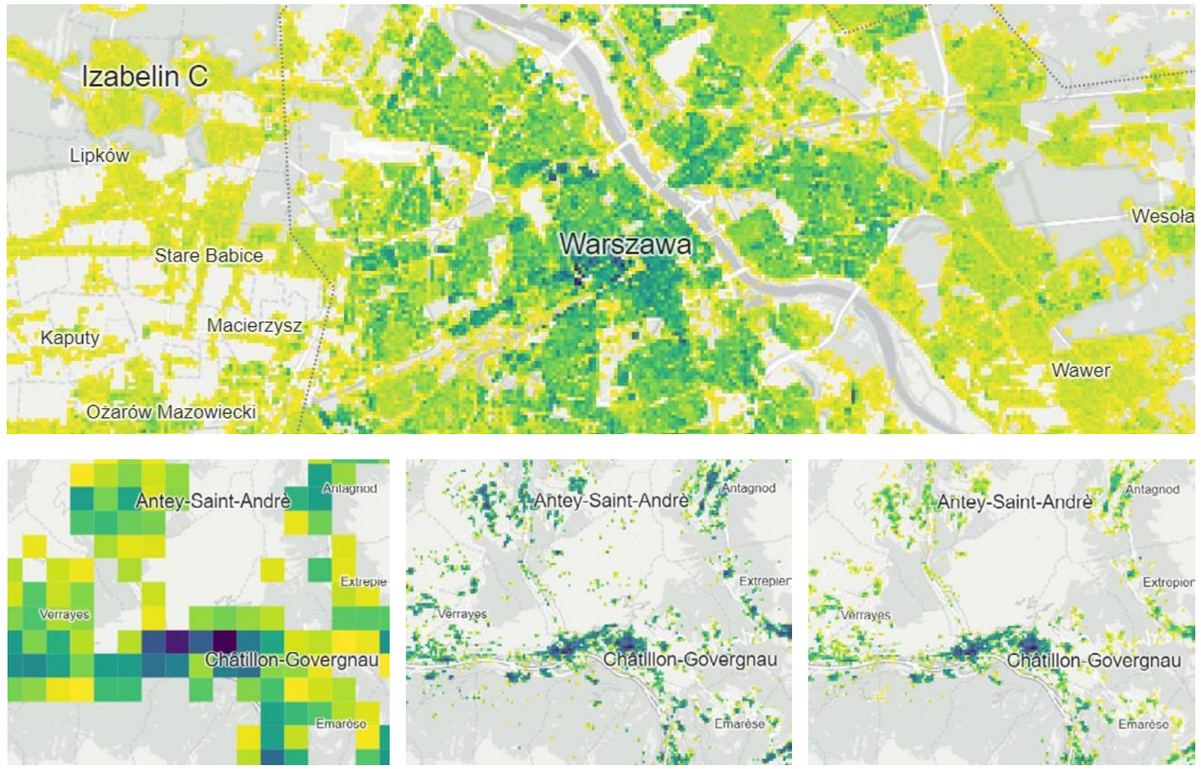
Julien Gaffuri
GIS and Cartography Engineer, Eurostat

Introduction

Geospatial data provides context to information about people and places, enabling insights and answers to some of the key issues facing society. In the European Union, official statistics are provided by Eurostat, which uses reliable geographic information to ensure accurate spatial analysis of data for policymakers.

Challenge

Lack of adequate and affordable housing is a concern across the whole of the EU. Information about the availability of residential spaces is therefore essential for European Commission initiatives such as the European Affordable Housing Plan and European Strategy for Housing Construction. Knowing where and how to access authoritative cadastral data from official national sources is crucial for compiling the accurate statistics required to understand housing demand and supply.



Benefits

- Enables accurate spatial analysis of data using reliable geographic information from official national sources – the European National Mapping, Cadastral and Land Registration Authorities.
- Addresses the challenge of finding and easily accessing authoritative pan-European high-value cadastral data.
- Provides geographical context to official statistical information about people and places to highlight key issues and potential solutions.
- Meets the data quality specifications required by Eurostat to produce official statistics for the European Union.
- Saves time, effort and resources by providing a single access point.

Solution

To determine building density and enable spatial analysis of the status of Europe's residential space, Eurostat uses the Open Cadastral Map to gain an overview of the information available. It then follows the link to the national geoportal to download the vector data, which includes the geometry and attribute of each single building.

The data, provided by Europe's National Mapping, Cadastral and Land Registration Authorities, allows Eurostat's GIS experts to distinguish between residential and non-residential properties using 2D geometry, height and number of floors, as well as property type. This provides insights for a range of analysis, such as residential buildings in relation to demographic pressures which can be assessed by simply calculating the number of residential square metres available per inhabitant. It is also used to detect areas where buildings have potential cultural value, for example by assessing the density of pre-1945 buildings with specific building types: castles, churches etc.

Julien Gaffuri explains: *"We download the vector data we need for spatial analysis directly from the data providers' geoportal using the links provided and, because the Open Cadastral Map is developed by National Mapping, Cadastral and Land Registration Authorities, we can be confident that the data is reliable and as up to date as possible."*

Open Maps For Europe Datasets used

Open Cadastral Map:

- Comprises four data types: Administrative Units, Cadastral Parcels (and Cadastral Zones), Buildings (and Building Parts) and Addresses.
- Download is available directly from data providers.
- Current coverage: Belgium; Croatia; Czech Republic; Denmark; Estonia; Greece; Ireland; Latvia; Luxembourg; Netherlands; Poland; Slovakia; Slovenia; Spain; and Switzerland.

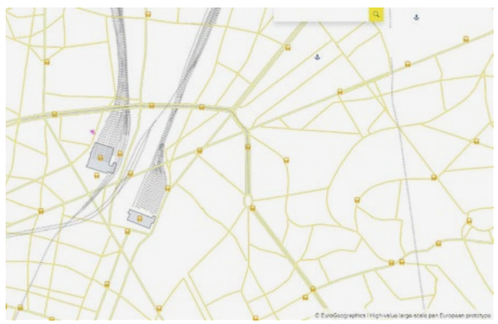
VISIT WEBSITE
https://www.mapsforeurope.org/datasets/cadastral-all

Open Maps For Europe Datasets used

High-value large-scale pan European prototype transportation theme:

- Multi-themed high-value topographic dataset at the scale 1:10 000 aligned to key EU Policy objectives and UN core geospatial data recommendations.
- Seamless, harmonised authoritative data produced by the OME2 project using EuroGeographics' members' national databases.

VISIT WEBSITE
https://www.mapsforeurope.org/datasets/hvlsp



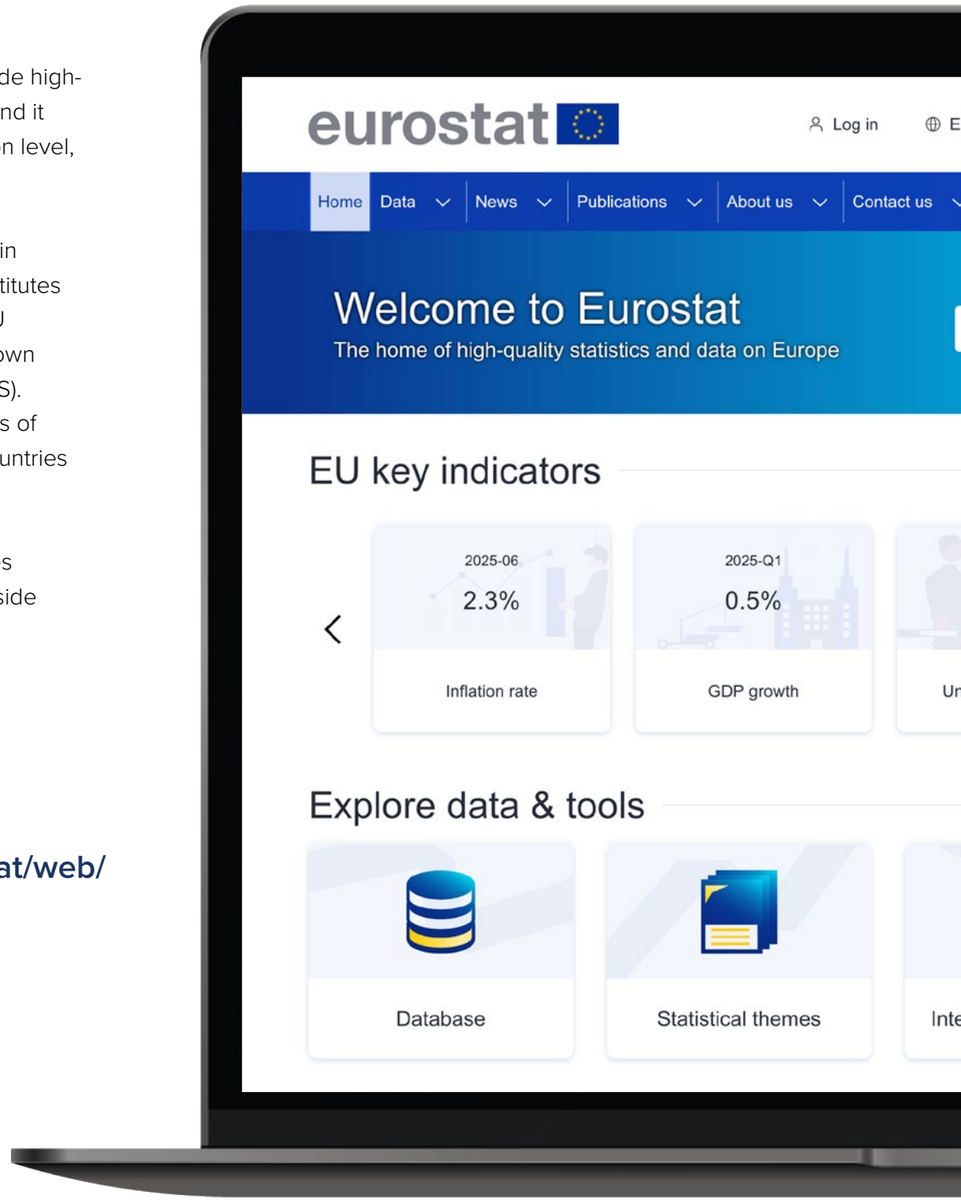
About Eurostat

Eurostat is the statistical office of the European Union. Its mission is to provide high-quality statistics and data on Europe, and it coordinates statistical activities at Union level, particularly inside the Commission.

Eurostat produces European statistics in partnership with National Statistical Institutes and other national authorities in the EU Member States. This partnership is known as the European Statistical System (ESS). It also includes the statistical authorities of the European Economic Area (EEA) countries and Switzerland.

Eurostat coordinates statistical activities at Union level and more particularly inside the Commission.

VISIT WEBSITE
https://ec.europa.eu/eurostat/web/main/home



OME2 Co-funded by the European Union
Digital Europe Programme
Grant Agreement No 101100625

Providing a geological base map for the new Digital Structural Model of Italy

"The Digital Structural Model of Italy (DiSMI) we are developing also covers the Alps and adjacent areas, we therefore need a topographic base map, ideally based on vector data, that is continuous across national borders. The free pan-European datasets that have been enhanced by the Open Maps For Europe 2 (OME2) Project provide the coverage we require at the resolution we want."

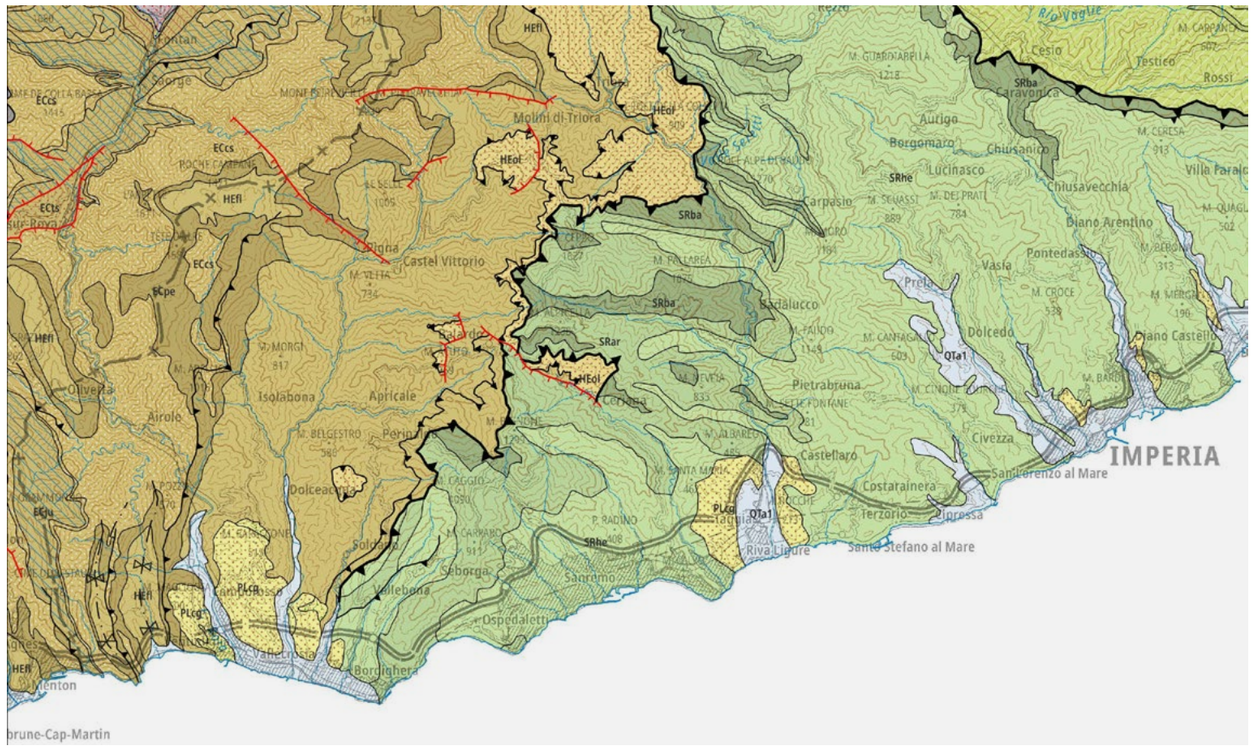
Paolo Conti
Associate Professor of Structural Geology, University of Siena, Italy

Introduction

Geological maps provide vital information about the Earth's subsurface, natural resources and potential hazards for a wide range of research, planning and engineering activities. With features such as mountain ranges crossing multiple borders, national data must be edge-matched and harmonised to ensure accuracy and completeness.

Challenge

Currently, the 1:500 000 scale Structural Model of Italy is the most detailed geological map to completely cover the Italian territory and the entire Alps. Published in 1990-1992, it has never been updated. To enable compatibility with the latest technology, including integration with geospatial information systems (GIS), and meet the demands of today's data users, the University of Siena is coordinating an international project to produce a 1:250 000 scale vector geological map of Italy, the whole of the Alps and neighbouring areas. The project is funded by Istituto Nazionale di Geofisica e Vulcanologia (INGV).



Benefits

- Enables the production of a topographic base map to underpin the geological map.
- Meets requirements for GIS vector data for natural and human features at the desired resolution.
- Provides continuous, consistent coverage across national boundaries.
- Saves time, effort and resources by providing harmonised data from multiple countries.
- Freely available through one central portal under one easy-to-understand open data licence.

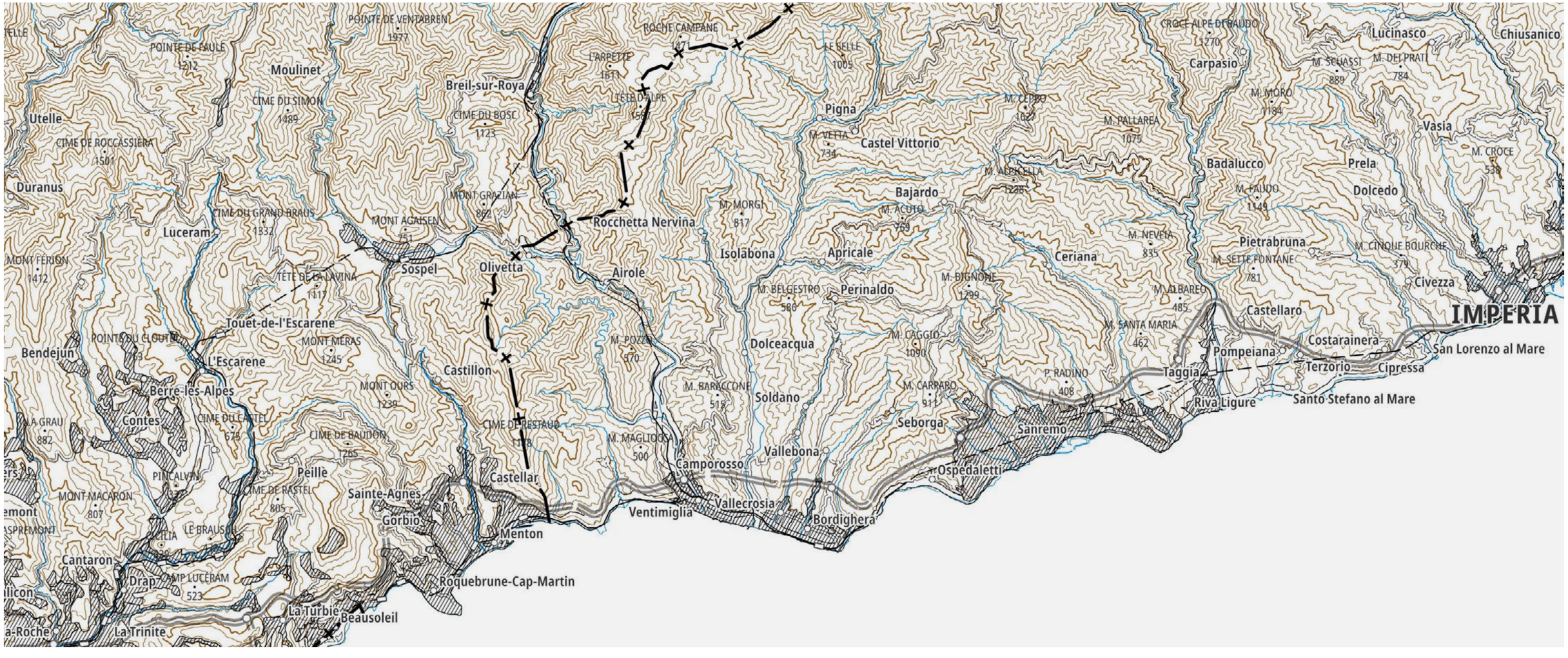
Solution

The University of Siena uses EuroRegionalMap, multi-themed topographic open data, as a base map for the geological cartography the new Digital Structural Model of Italy (DiSMI),. As a result, the 1:250,000 scale vector geological map will cover not just Italy but also the whole of the Alps as well as the neighbouring areas of France, Switzerland, Austria, Slovenia and Croatia – more than 700,000 km2 in total.

Once completed, in addition to the new topography basemap, the DiSMI will comprise: geological cartography at a scale of 1:250 000; full vector maps produced in a GIS environment; a single and continuous geological database and legend for the entire area; PDFs with portions of the geological map with traditional print layout; and explanatory notes. All will be made freely available.

EuroRegionalMap is created using a unique data integration process that harmonises official national geospatial information to standard specifications so users can be confident that it is consistent, comparable and easily shared. Available via the Maps For Europe portal as a web service or download, it has been updated and improved by the OME2 project.

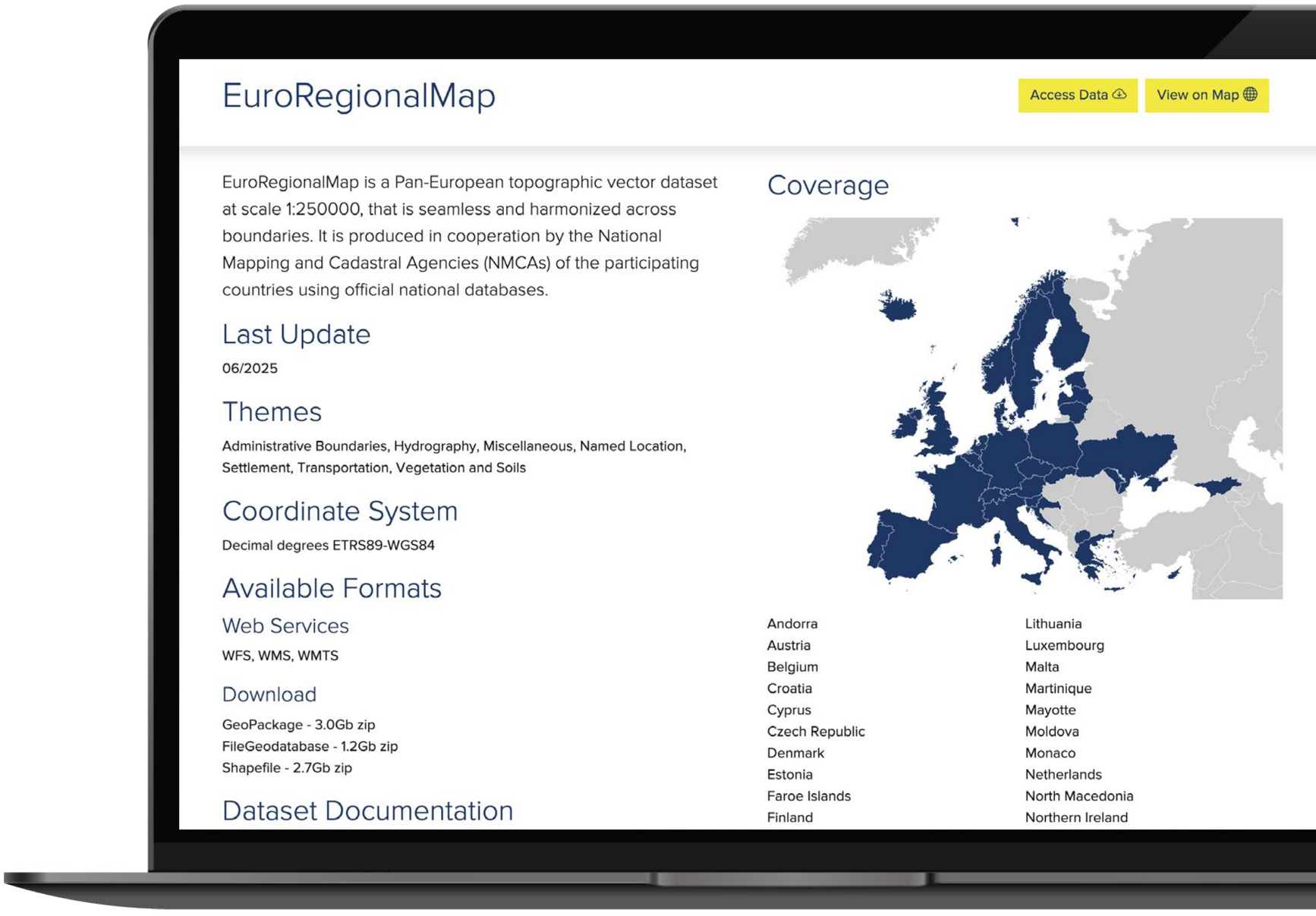
Paolo Conti explains: *"Classically a geological map must have a topographic base. However, the topographic maps available from national authorities are not suitable as they stop at the national border and are developed with different content. We chose EuroRegionalMap because it was free to use and provides continuous, consistent coverage across country borders. Without it, the final DiSMI geological maps would not have a topographic base map which would have been a serious shortcoming."*



Open Maps For Europe Datasets used

EuroRegionalMap: Multi-themed topographic open data at 1:250 000 scale

VISIT WEBSITE
https://www.mapsforeurope.org/datasets/euro-regional-map



OME2 Co-funded by the European Union
Digital Europe Programme
Grant Agreement No 101100625

Bringing boundaries into the open
with a simple solution for delivering data

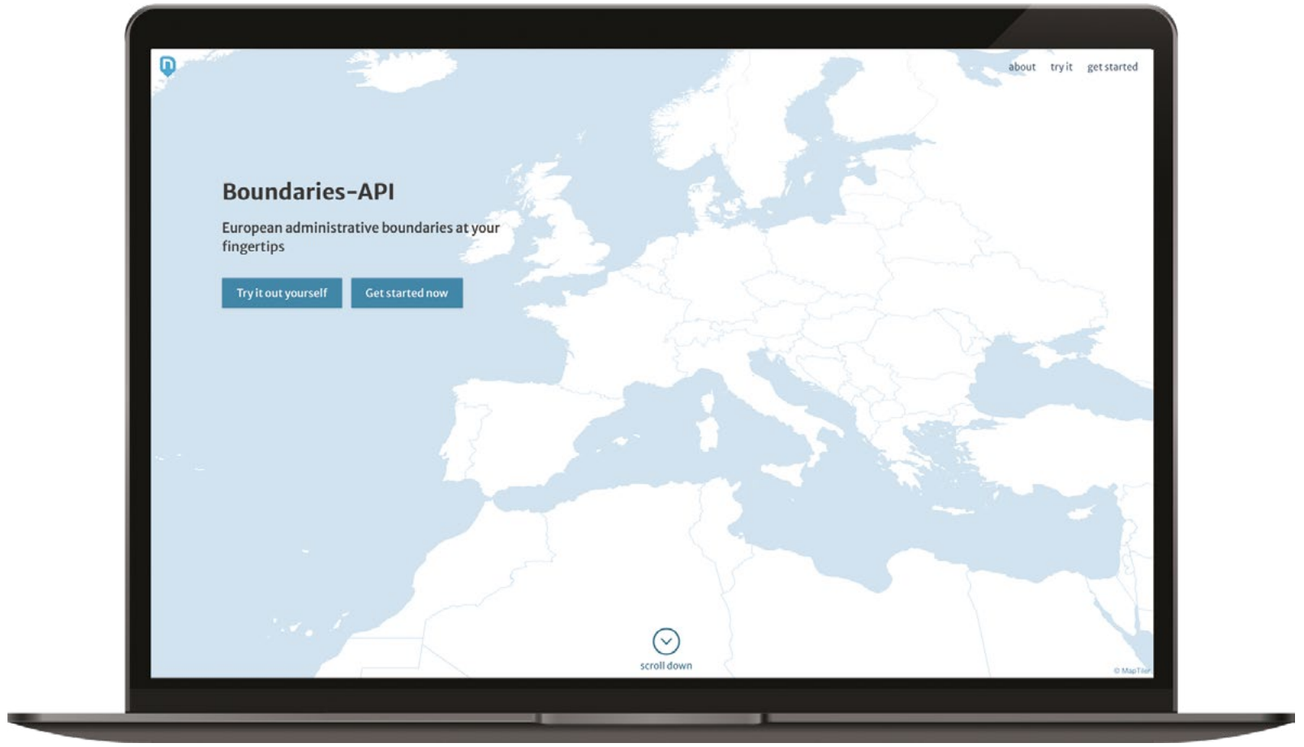
"Without the Open Maps For Europe 2 (OME2) project, it would not have been possible to create our Boundaries-API, which is designed for application builders that do not want to worry about collecting, harmonising, storing and updating data on administrative boundaries. If this data was not available, we would have to revert to petitioning each country individually, or make use of global datasets that can be unreliable for local situations."

Ann Crabbé
Product Owner,
boundaries-api.io,
Nazka Mapps

Introduction

Administrative boundaries are essential for the cloud-based mapping platforms delivered by Nazka Mapps to simplify complex data, provide insights and drive positive social and environmental change.

Initially created by the Belgium-based company for its internal development process, the open solution boundaries-api.io is underpinned by data from Open Maps For Europe and is now available to the wider public.



Challenge

Nazka Mapps needed an easy, quick and straightforward means of accessing and licensing the national boundary data required for the European dataset in its Boundaries-API. With coverage extending across multiple countries, the data also needed to be harmonised whist maintaining accuracy and detail.

Benefits

- Addresses the challenge of finding, easily accessing and licensing authoritative pan-European harmonised, edge-matched boundary data.
- Saves time, effort and resources by providing harmonised data from multiple countries through one central portal under one easy-to-understand open data licence.
- Provides quick access to boundaries in GeoJSON format that can be searched in different ways including id, name, administrative level, or geometry.
- Enables users to understand hierarchical relationships –from municipalities to countries.
- Ensures efficient data retrieval as the dataset can be split by either geometry or attributes.
- Allows users needing only the centre of a boundary to obtain the geometrical centroid.
- Enables multilingual support with names available in alternative languages where applicable.

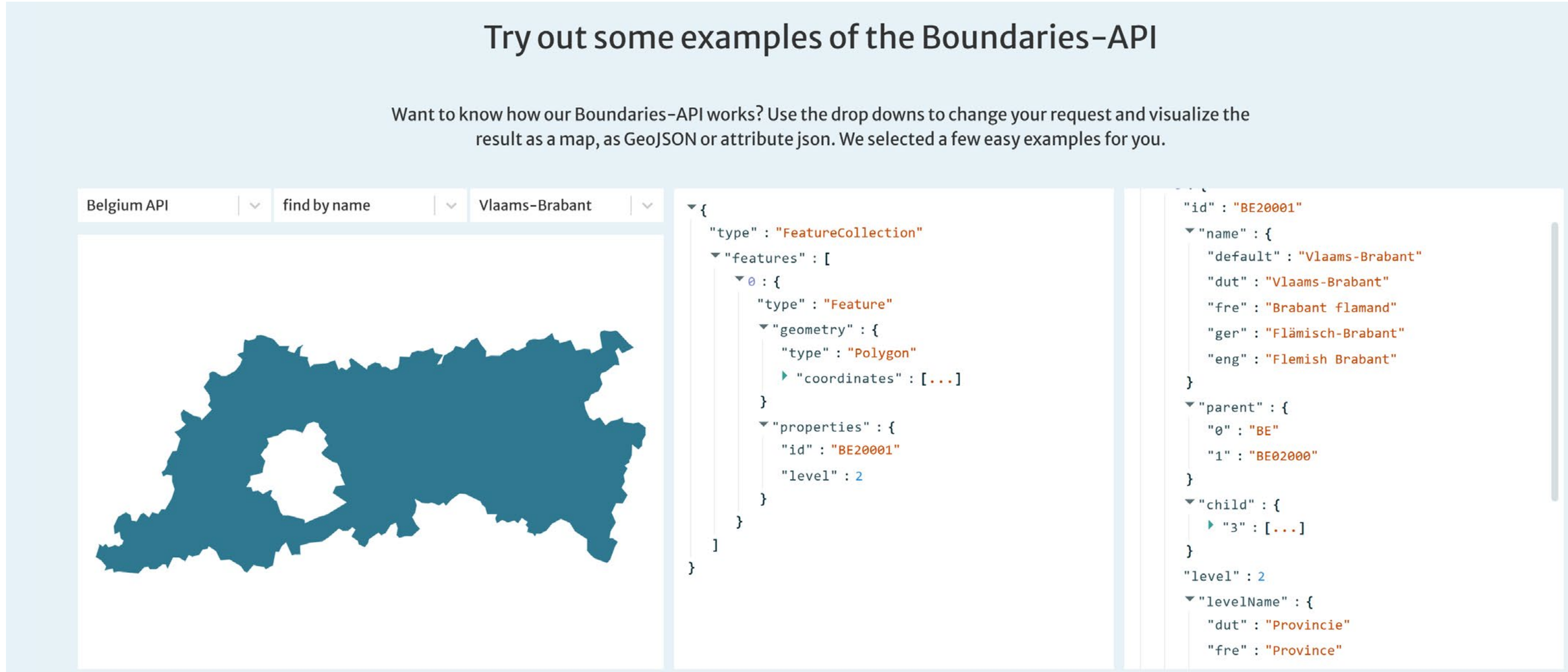
Solution

To deal with the technical complexity of the boundary data needed for its geodata services, Nazka Mapps created a REST API. This practical solution enables the boundary information to be used in interactive applications, for example to place new data on the map, for filtering or to conduct statistical analysis. It can also be used for visualisation purposes.

The API was originally designed for internal use but has now been released as an open solution for map application builders who need reliable boundary information and that do not want to worry about data collection, harmonisation, storage and updates.

Ann Crabbé, Product Owner, boundaries-api.io, Nazka Mapps explains: *"The Open Maps For Europe datasets are the best we have found for doing this, especially as they offer at municipality level for many countries. The data is only available as a dataset so some geo-expertise is required to handle it correctly and keep it up to date."*

"We can of course also rely on other data sources but with Open Maps For Europe we gather information from the source – the national geographical agencies – so we know that we can trust this data. And, as Open Maps For Europe datasets are open, we then decided to make our solution open to give other map application builders access to accurate and up-to-date boundary information without the hassle of data collection and maintenance."



EuroRegionalMap:

Multi-themed topographic open data at 1:250 000 scale

- Municipalities, countries, and recent population numbers.

EUROREGIONALMAP

www.mapsforeurope.org/datasets/euro-regional-map

EuroGlobalMap:

Multi-themed topographic open data at 1:1 million scale

- Additional countries with slightly different borders and NUTS3 regions

EUROGLOBALMAP

www.mapsforeurope.org/datasets/euro-global-map

Layers used:

- PolbndA, PolbndA_optionRS and PolbndA_optionKS for the administrative units on the lowest level and parent info.
- LandmaskA for the country info.
- EBM_NAM, EBM_ISN and CountryCodes for the metadata.

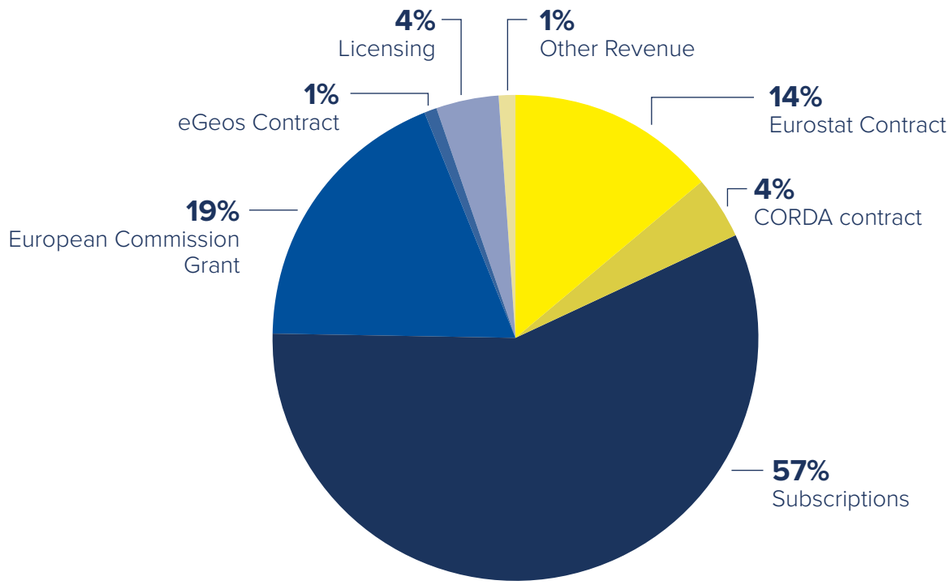
About Nazka Maps

Nazka Maps innovative solutions seamlessly integrate the geo- and earth observation ecosystem with web development, all in the cloud. Its mission is to make geo-information easily accessible and highly valuable, providing insights that improve environment, enhance mobility, promote better health, and tackle climate challenges effectively.

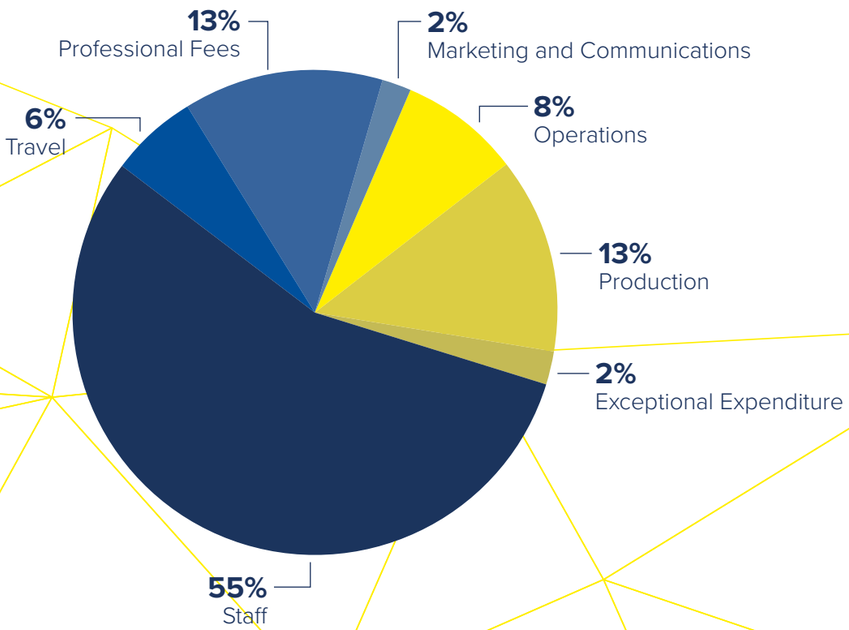
VISIT WEBSITE
https://www.nazka.be/en

Finances

Income



Expenditure



2025 annual accounts

Income	
Eurostat Contract	213 460 €
CORDA contract	54 942 €
Subscriptions	869 307 €
European Commission Grant	281 609 €
eGeos Contract	18 095 €
Licensing	66 691 €
Other revenue	16 914 €
Total Income	**1 521 018 €**

Expenditure	
Staff	808 974 €
Travel	85 280 €
Professional Fees	193 977 €
Marketing and Communications	34 181 €
Operations	116 979 €
Production	185 755 €
Exceptional Expenditure	25 248 €
Total Costs	**1 450 394 €**
Final Result	**70 624 €**

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Surveying and Mapping Authority of the Republic of Slovenia

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Public Relations Consultant

eurogeographics

EuroGeographics Head Office
Rue du Nord 76/Noordstraat 76
1000 Brussels
BELGIUM

www.eurogeographics.org
contact@eurogeographics.org
phone +32 (0) 2 888 71 93
fax +32 (0) 2 888 71 94