OME2: 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

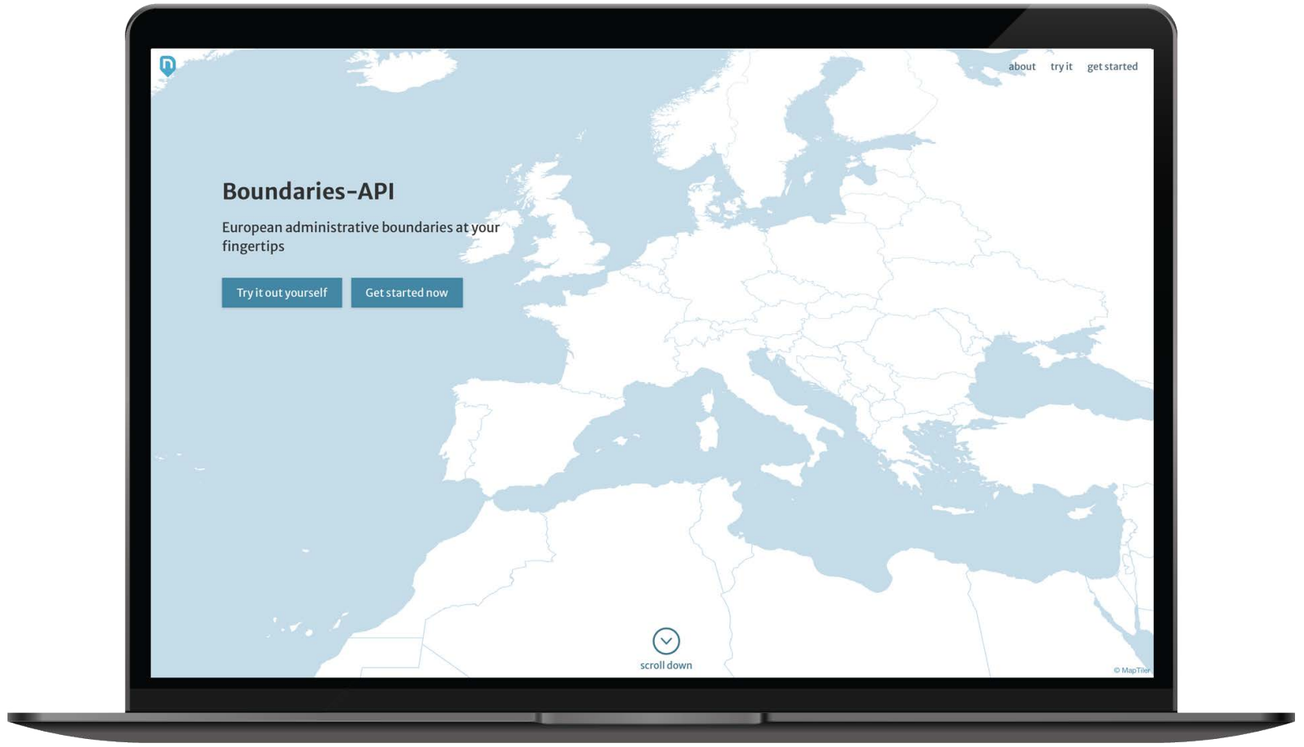
Introduction

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.



Benefit

- 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."

Try out some examples of the Boundaries-API

Want to know how our Boundaries-API works? Use the drop downs to change your request and visualize the result as a map, as GeoJSON or attribute json. We selected a few easy examples for you.

Belgium API | find by name | Vlaams-Brabant


```
{
  "type" : "FeatureCollection"
  "features" : [
    0 : {
      "type" : "Feature"
      "geometry" : {
        "type" : "Polygon"
        "coordinates" : [...]
      }
      "properties" : {
        "id" : "BE20001"
        "level" : 2
      }
    }
  ]
}
```

```
"id" : "BE20001"
"name" : {
  "default" : "Vlaams-Brabant"
  "dut" : "Vlaams-Brabant"
  "fre" : "Brabant flamand"
  "ger" : "Flämisch-Brabant"
  "eng" : "Flemish Brabant"
}
"parent" : {
  "0" : "BE"
  "1" : "BE02000"
}
"child" : {
  "3" : [...]
}
"level" : 2
"levelName" : {
  "dut" : "Provincie"
  "fre" : "Province"
```

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.

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

About the OME2 Project and Open Maps For Europe Portal

Open Maps For Europe 2 (OME2) is developing a new production process and technical specification for free-to-use, edge-matched data under a single open licence. Authoritative 1:10 000 scale data for 10 countries will be delivered via the user interface built by the award-winning Open Maps For Europe Project. OME2 is also enhancing the five existing Open Maps For Europe datasets, including the pilot Open Cadastral Map.

The OME2 project is co-funded by the European Union and being delivered by a consortium comprising: 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.

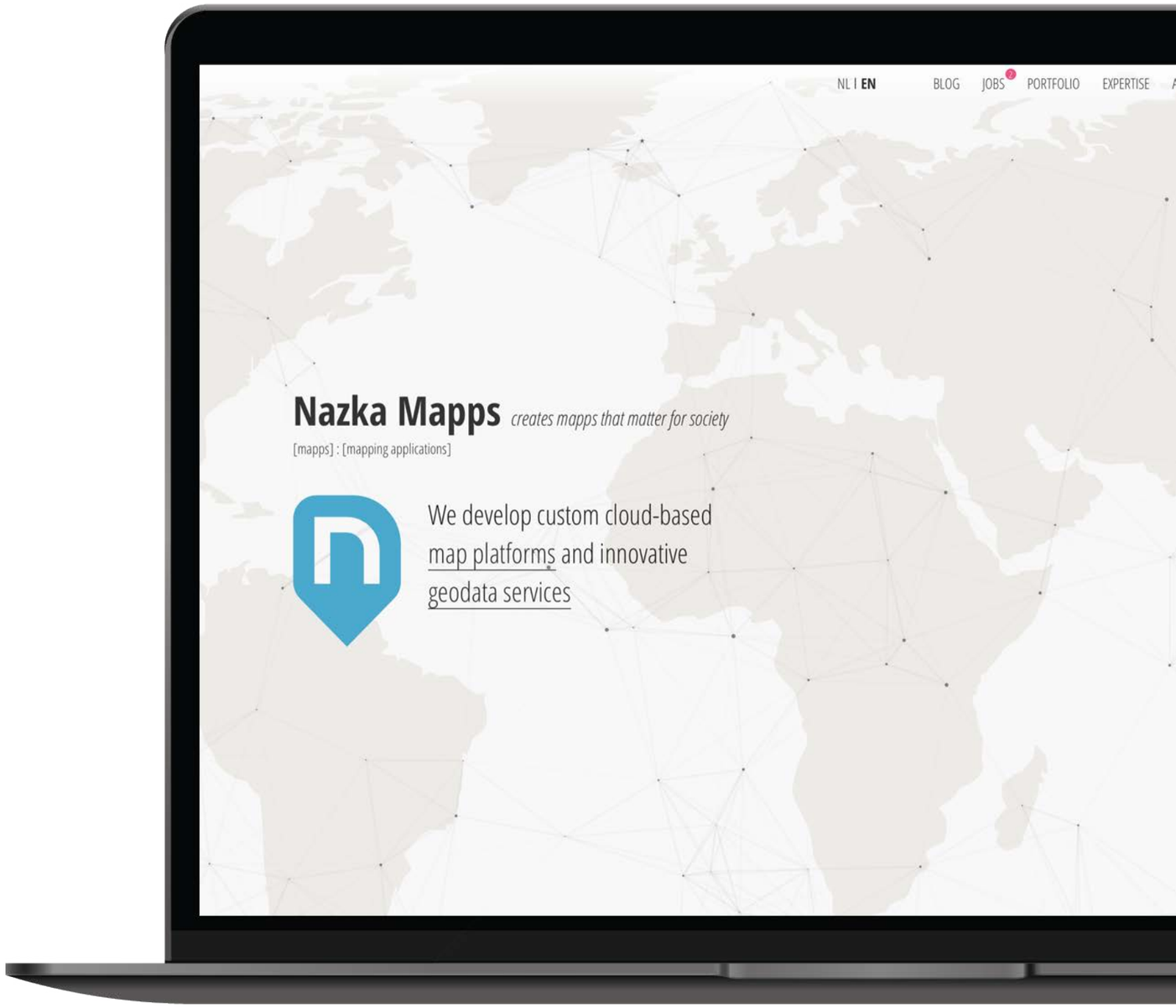
The project corresponds with Member States' obligations to implement high-value data and will be completed at the end of 2025.

VISIT WEBSITE
https://eurogeographics.org/open-maps-for-europe/ome2-progress

About Nazka Mapps

Nazka Mapps 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



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