

WebGIS and Geoservices



Creation of an interactive map with umap



uMap let you create maps with OpenStreetMap layers in a minute and embed them in your site.



- ✓ Choose the layers of your map
- ✓ Add POIs: markers, lines, polygons...
- ✓ Manage POIs colours and icons
- ✓ Manage map options: display a minimap, locate user on load...
- ✓ Batch import geostructured data (geojson, gpx, kml, osm...)
- ✓ Choose the license for your data
- ✓ Embed and share your map



And it's open source!

[Create a map](#)[Play with the demo](#)

umap an OpenStreetMap project (version 0.7.6)

<https://umap.openstreetmap.fr/en/>

- Built using Django (Python) and Leaflet (JavaScript)
- The repository is available on GitHub <https://github.com/umap-project/umap>

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Search maps



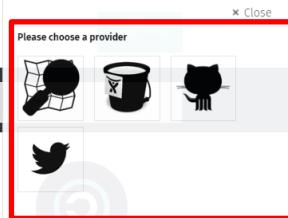
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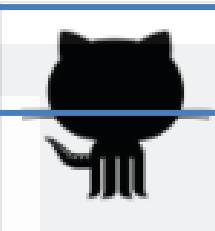
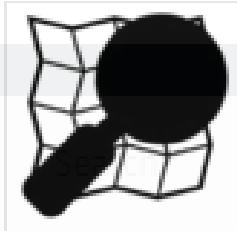
[Create a map](#)[Play with the demo](#)

MAP OF THE UMAPS



To log-in you have to be registered to
one of the following providers:

Please choose a provider



OpenStreetMap

Bitbucket

GitHub

Twitter



Migrations by aimarti



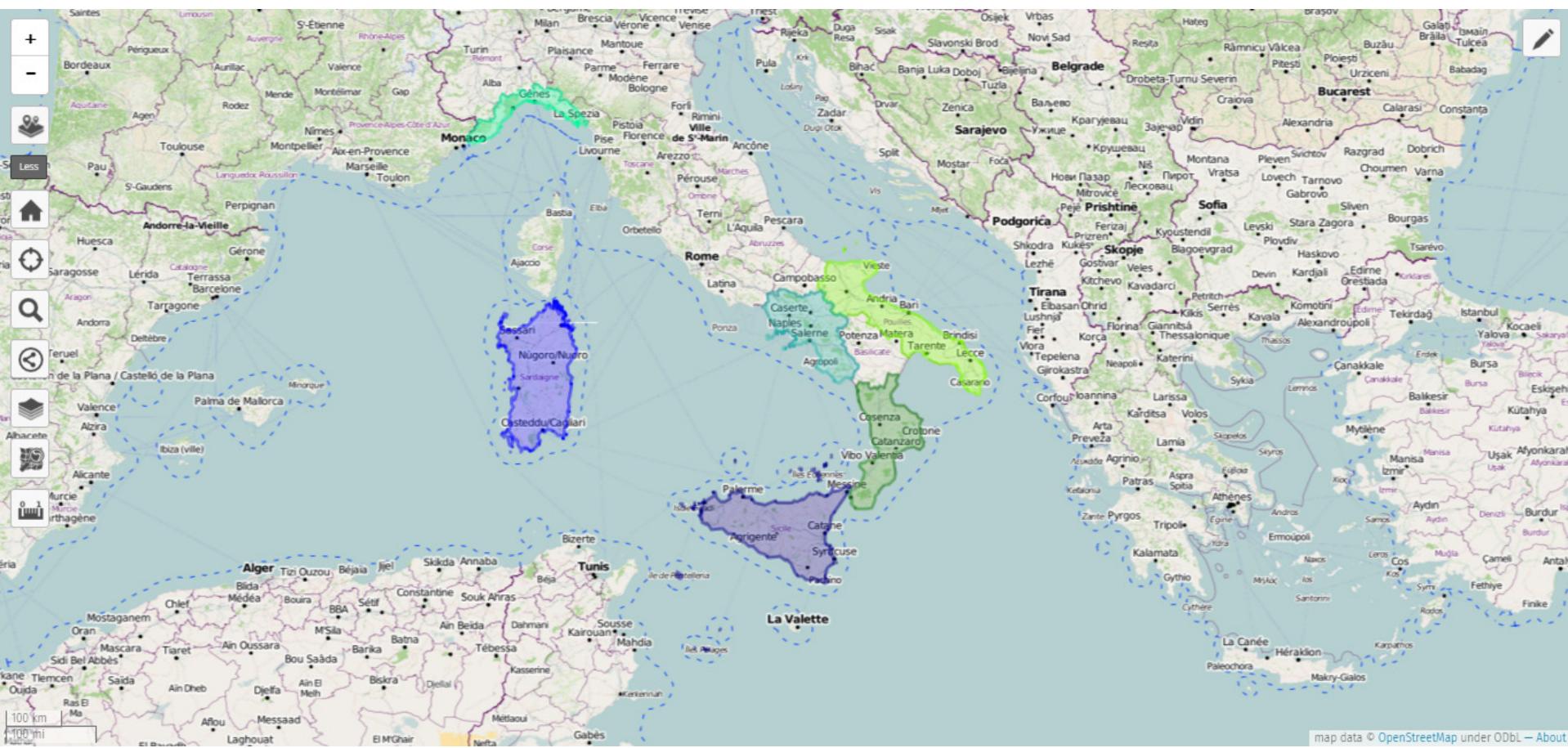
umap an OpenStreetMap project (version 0.7.6)

In each map it is possible to:

- choose the layers of the map;
- add Points of Interest (markers, lines, polygons) and edit them (position, icons, colors);
- import geostructured data in different formats (geojson, csv, jpx, kml, osm, georss);
- embed and share the map.



Migrants' arrivals to Italy by region

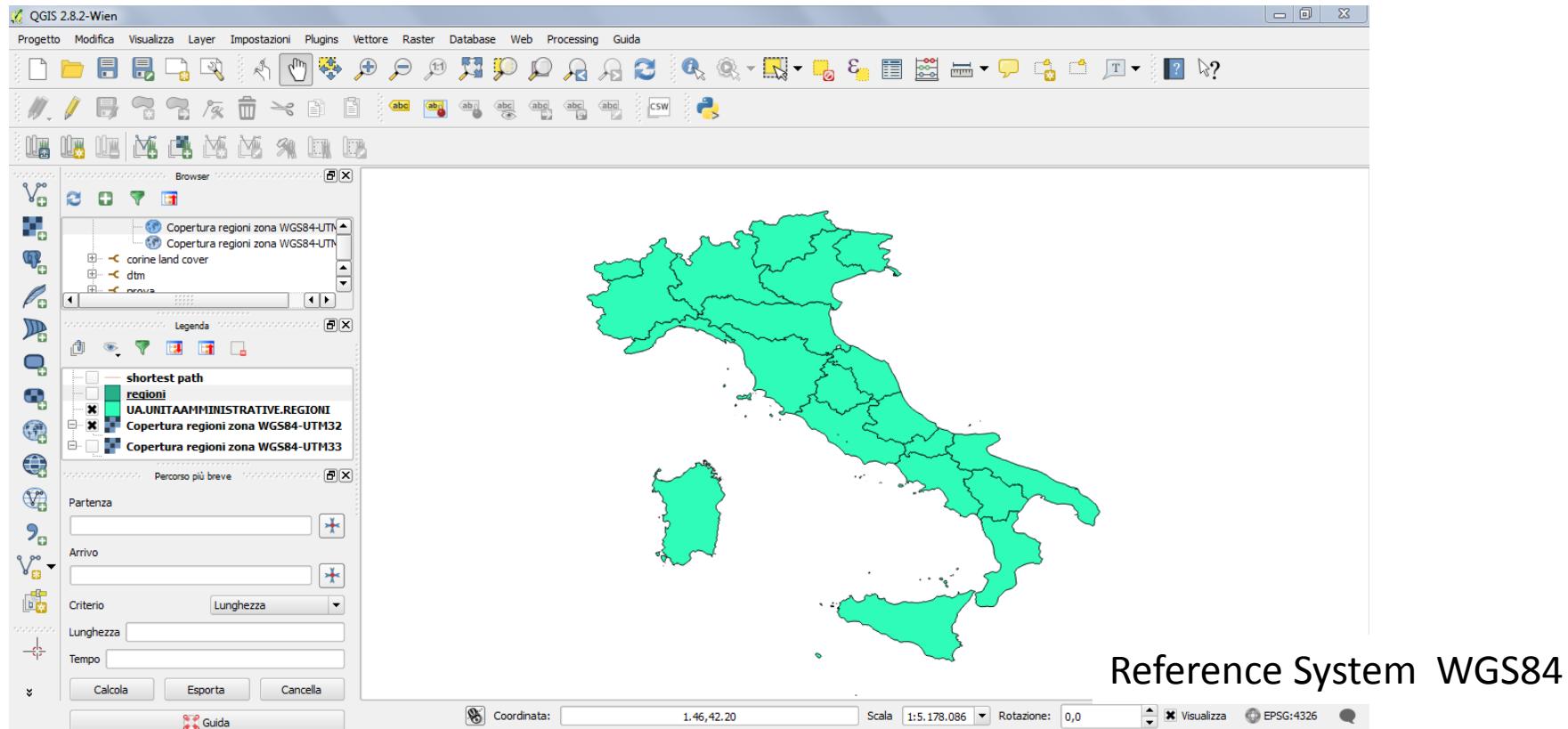


Basemap from OpenStreetMap

Migrants' arrivals to Italy by region

Italian regions shapefiles have been downloaded from WFS services of Italian National Geoportal <http://www.pcn.minambiente.it/GN/>

The WFS URL has been imported in QGIS and then saved in a shapefile





Migrants' arrivals to Italy by region

QGIS 2.8.2-Wien

Progetto Modifica Visualizza Layer Impostazioni Plugins Vettore Raster Database Web Processing Guida

Browser

Connessioni server

regioni italia

Connetti

Filtro:

Title

Dettagli connessione

Nome: Italian Regions

URL: s.pcn.minambiente.it/ogc?map=/ms_ogc/wfs/LimitiAmministrativi_2011.map

Se il servizio richiede un'autenticazione semplice, inserisci un nome utente e una password opzionale

Username: _____

Password: _____

OK Cancel Help

Usa il titolo come nome del layer

Sistema di Riferimento

Cambia ...

Aggiungi Crea interrogazione Close Help

Partenza

Arrivo

Criterio Lunghezza

Lunghezza

Tempo

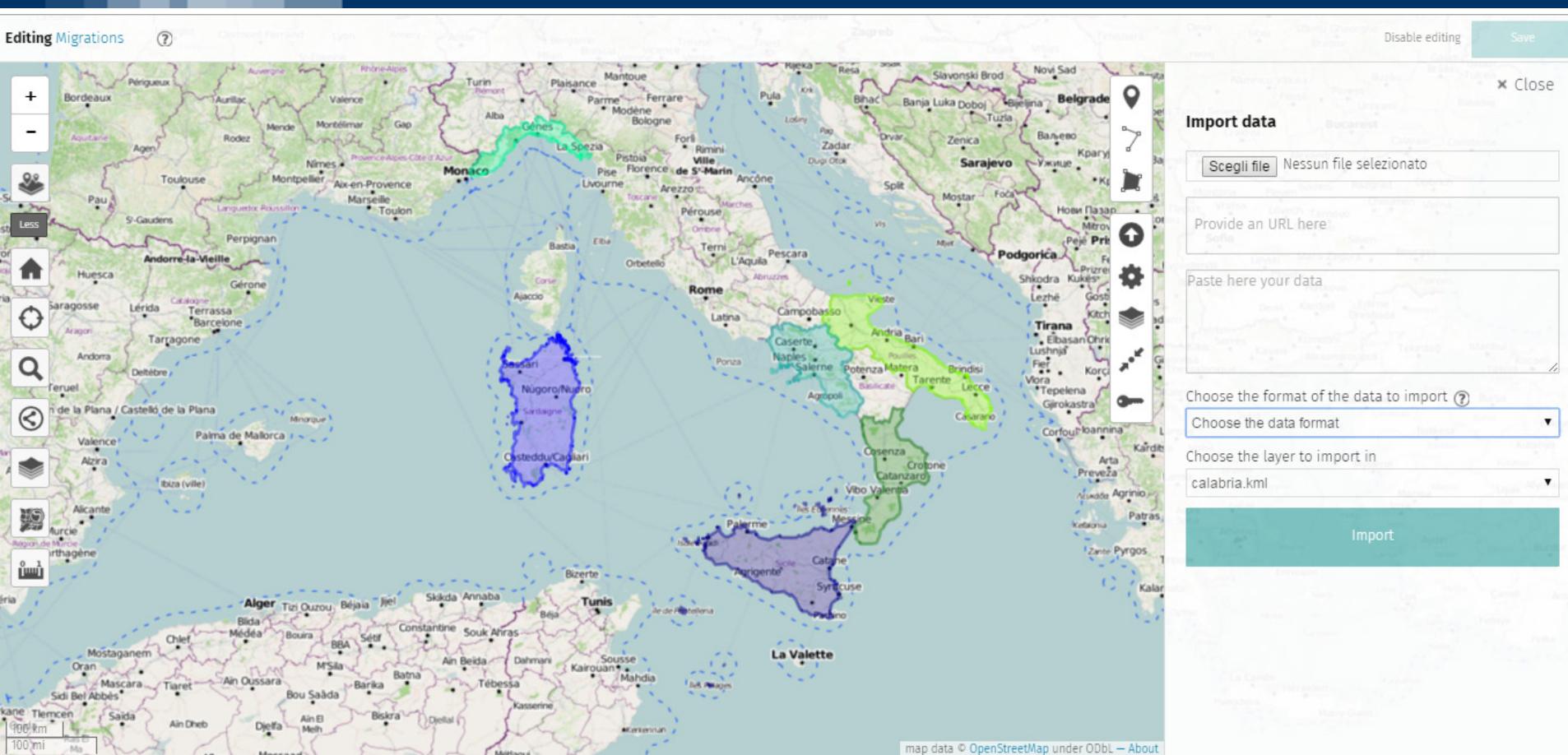
Calcola Esporta Cancella Guida

Coordinate: 1.46, 42.20 Scala 1:5.178.086 Rotazione: 0,0 Visualizza EPSG:4326

The screenshot shows the QGIS 2.8.2-Wien interface. A dialog box titled 'Aggiungi vettore WFS dal server' (Add vector WFS from server) is open, prompting for a new WFS connection. The 'Nome' field is set to 'Italian Regions'. The 'URL' field contains the OGC WFS endpoint: 's.pcn.minambiente.it/ogc?map=/ms_ogc/wfs/LimitiAmministrativi_2011.map'. Below the URL, there's a note about simple authentication. The background map shows the outline of Italy with regions highlighted in green. On the left, the 'Browser' panel displays various layers, including 'Copertura regioni zona WGS84-UTM' and 'UA.UNITAAMMINISTRATIVE.REGIONI'. The bottom status bar shows coordinates (1.46, 42.20), scale (1:5.178.086), rotation (0,0), and projection (EPSG:4326).



Migrants' arrivals to Italy by region

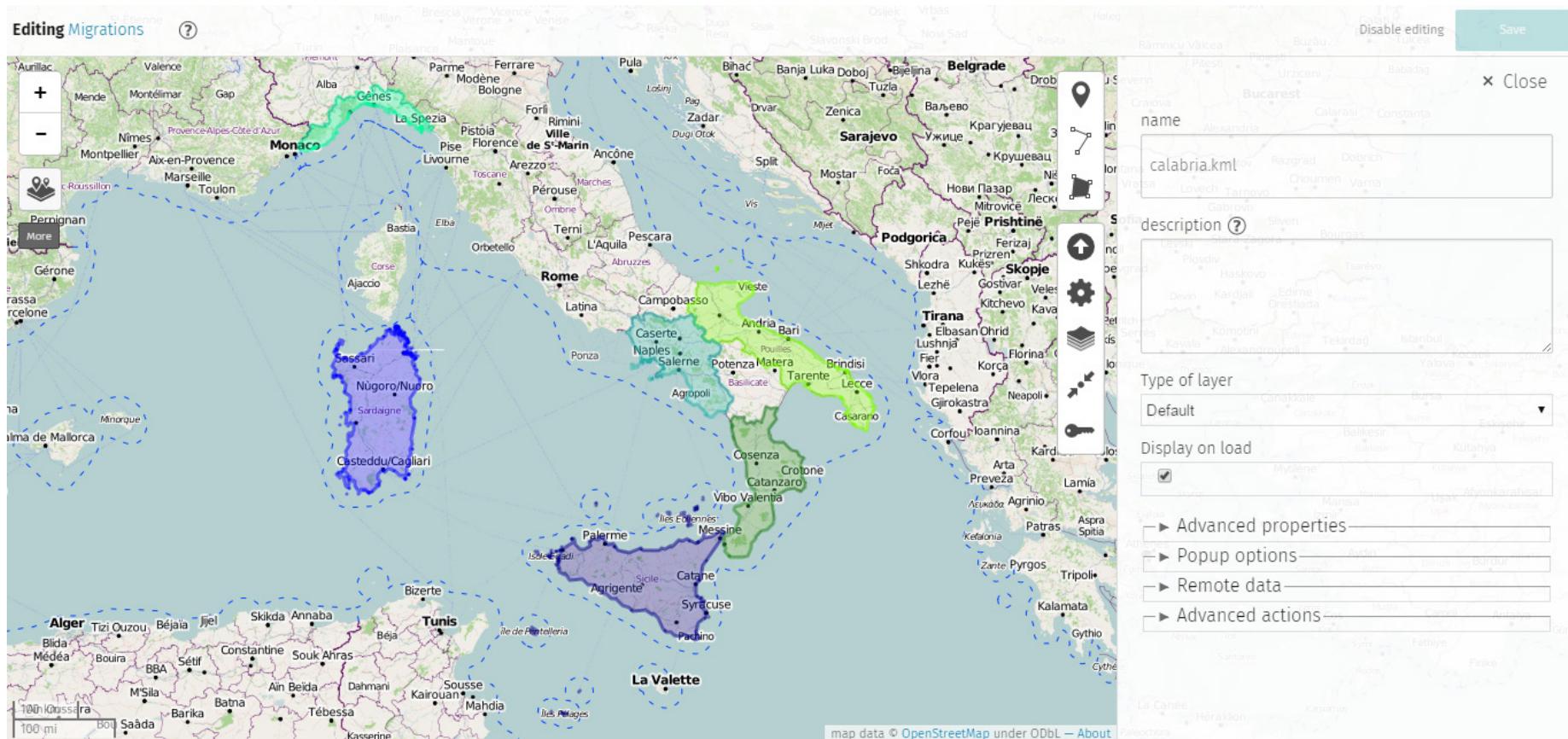


Region polygons have been converted from shp to kmz (and then to kml), so imported in umap in a single layer.

Migrants' arrivals to Italy by region

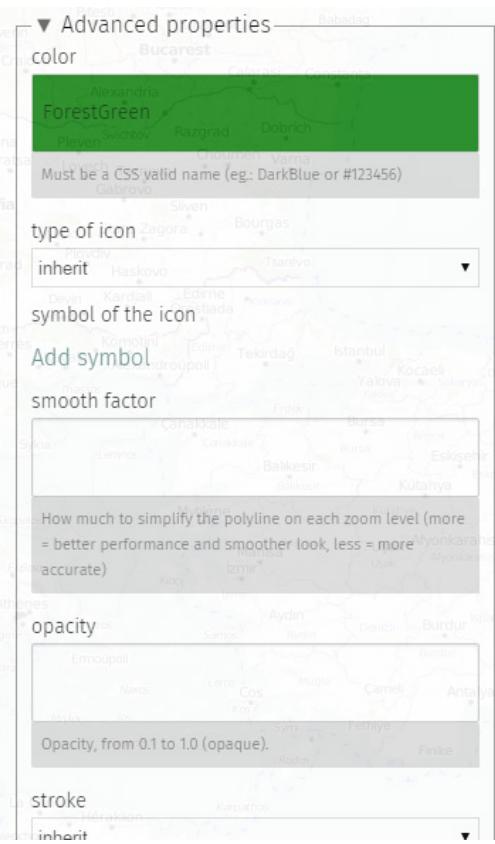
Outside of an editing session it is possible to see the elements of the map.

Moving the mouse over the regions, graphs and informations about migrants' arrival appear.



In an editing session it is possible to modify the name of the element and add a description.

Migrants' arrivals to Italy by region



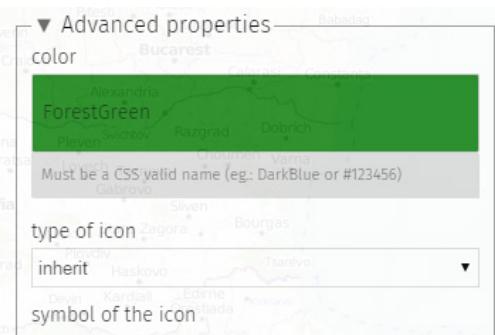
The advanced properties allow to modify the appearance of the element (color, size of the polyline, add a permanent label, etc...).



The Popup options window allows to insert images and text which are visible outside of the editing text.

Images have been uploaded in postimage.org, a free image posting website.

Migrants' arrivals to Italy by region



Dynamic properties

Use placeholders with feature properties between brackets, eg. {name}, they will be dynamically replaced by the corresponding values.

Text formatting

simple star for italic
double star for bold
one hash for main heading
two hashes for second heading
three hashes for third heading

Simple link: [[http://example.com]]

Link with text: [[http://example.com|text of the link]]

Image: {{http://image.url.com}}

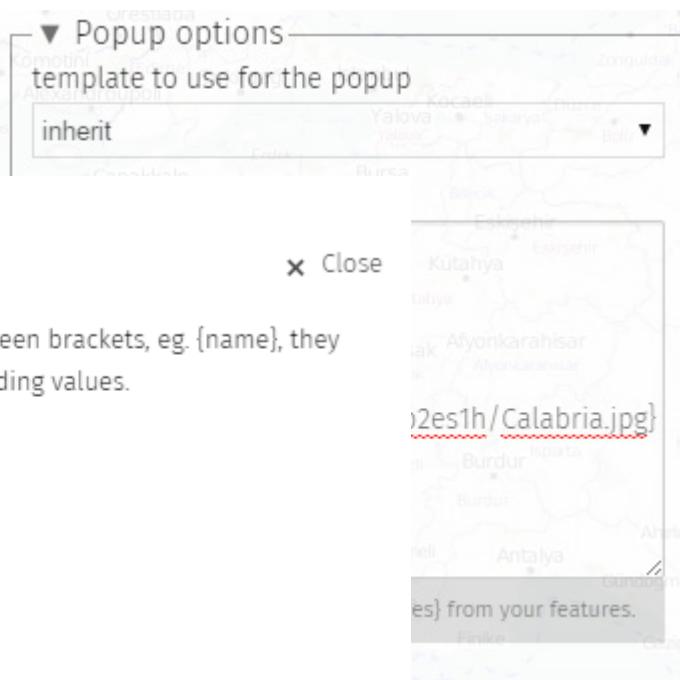
Image with custom width (in px): {{http://image.url.com|width}}

Iframe: {{{http://iframe.url.com}}}

Iframe with custom height (in px): {{{http://iframe.url.com|height}}}

--- for an horizontal rule

The advanced properties allow to modify the appearance of the element (color, size of the polyline, add a permanent label, etc...).

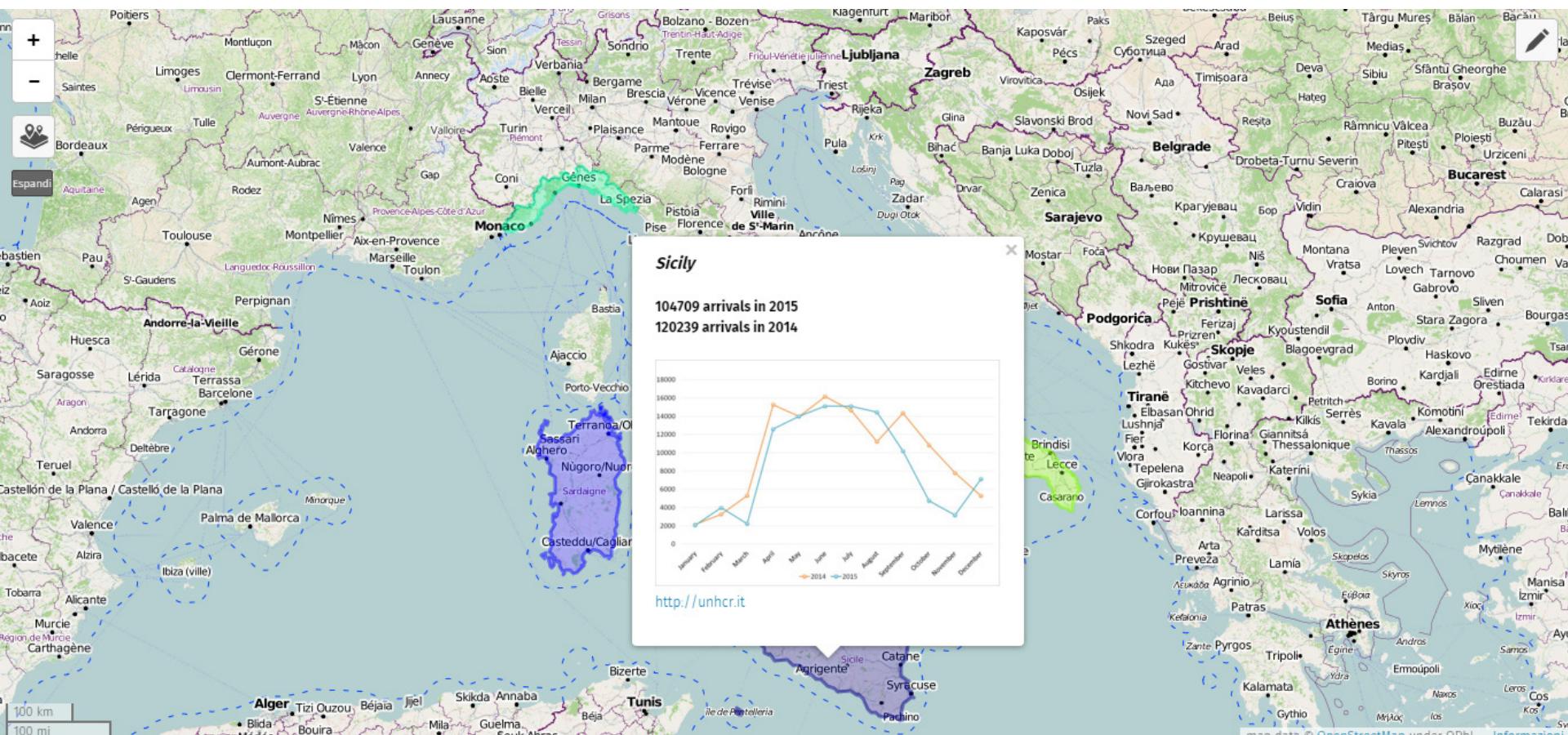


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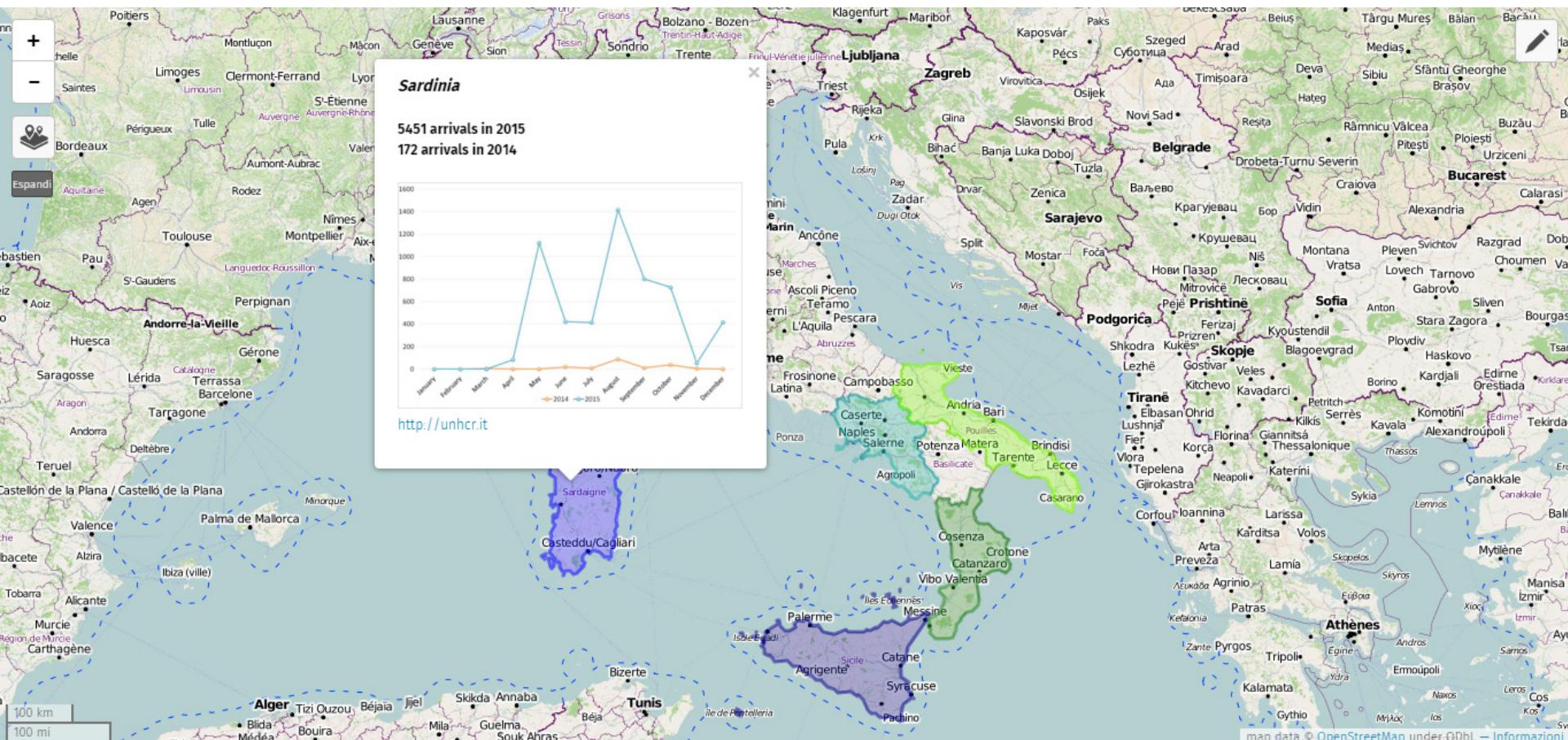


Migrants' arrivals to Italy by region



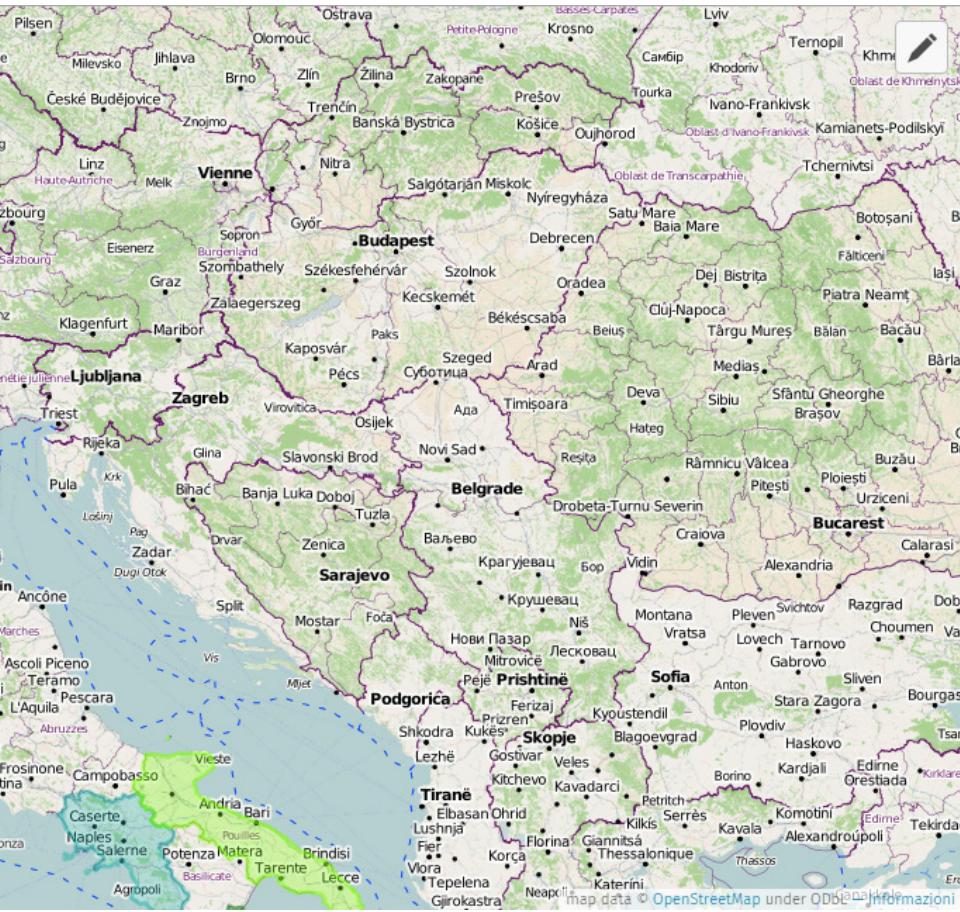
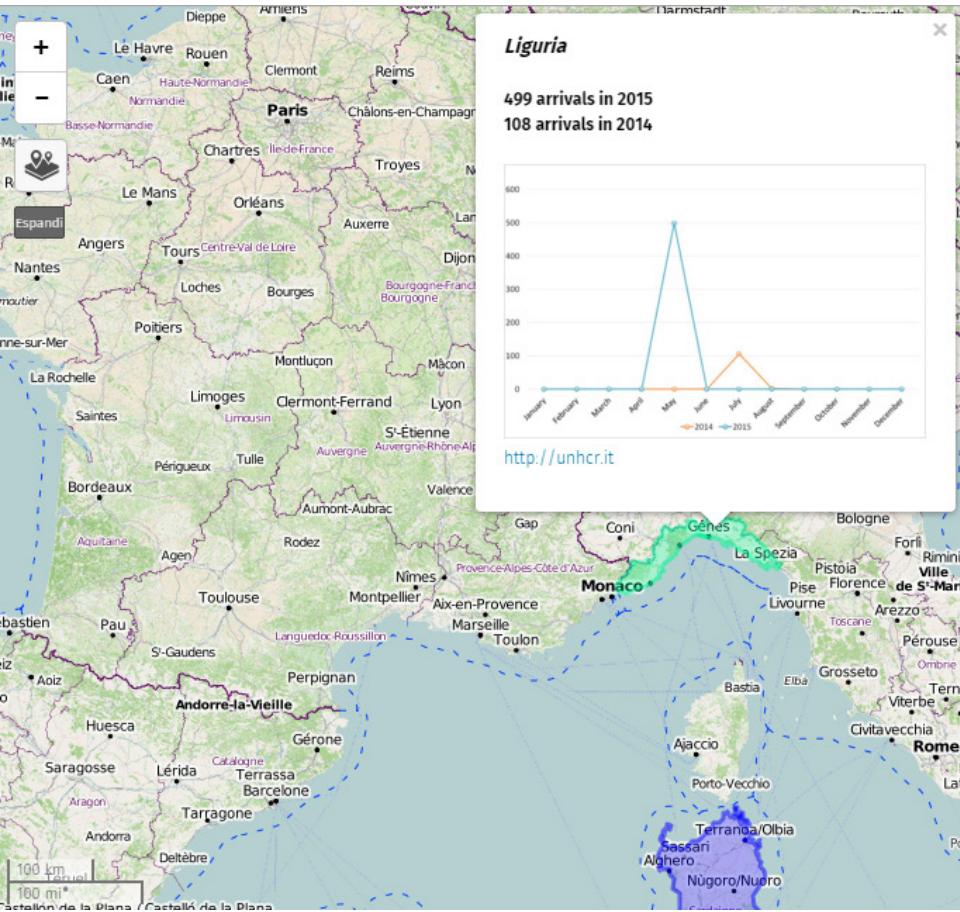


Migrants' arrivals to Italy by region



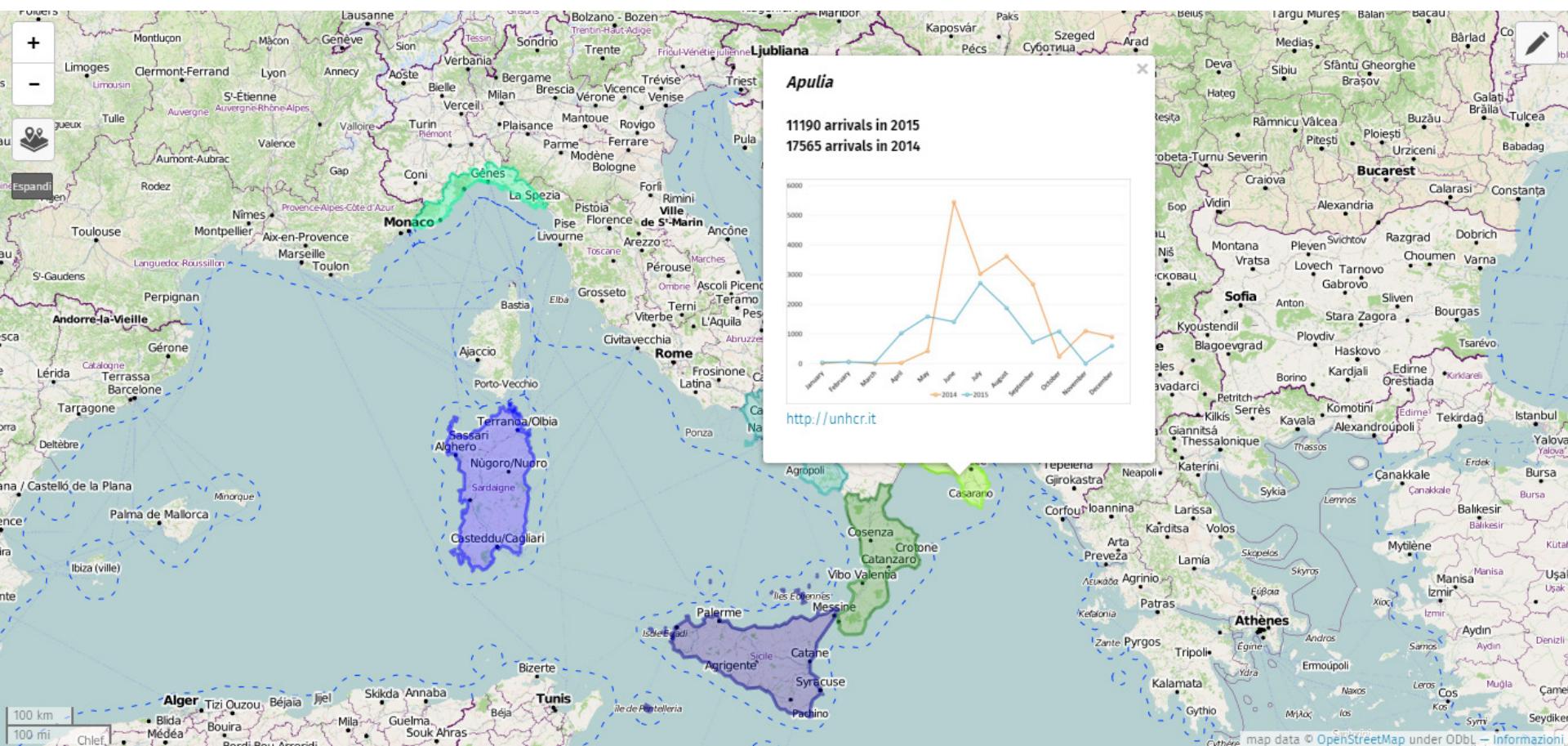


Migrants' arrivals to Italy by region



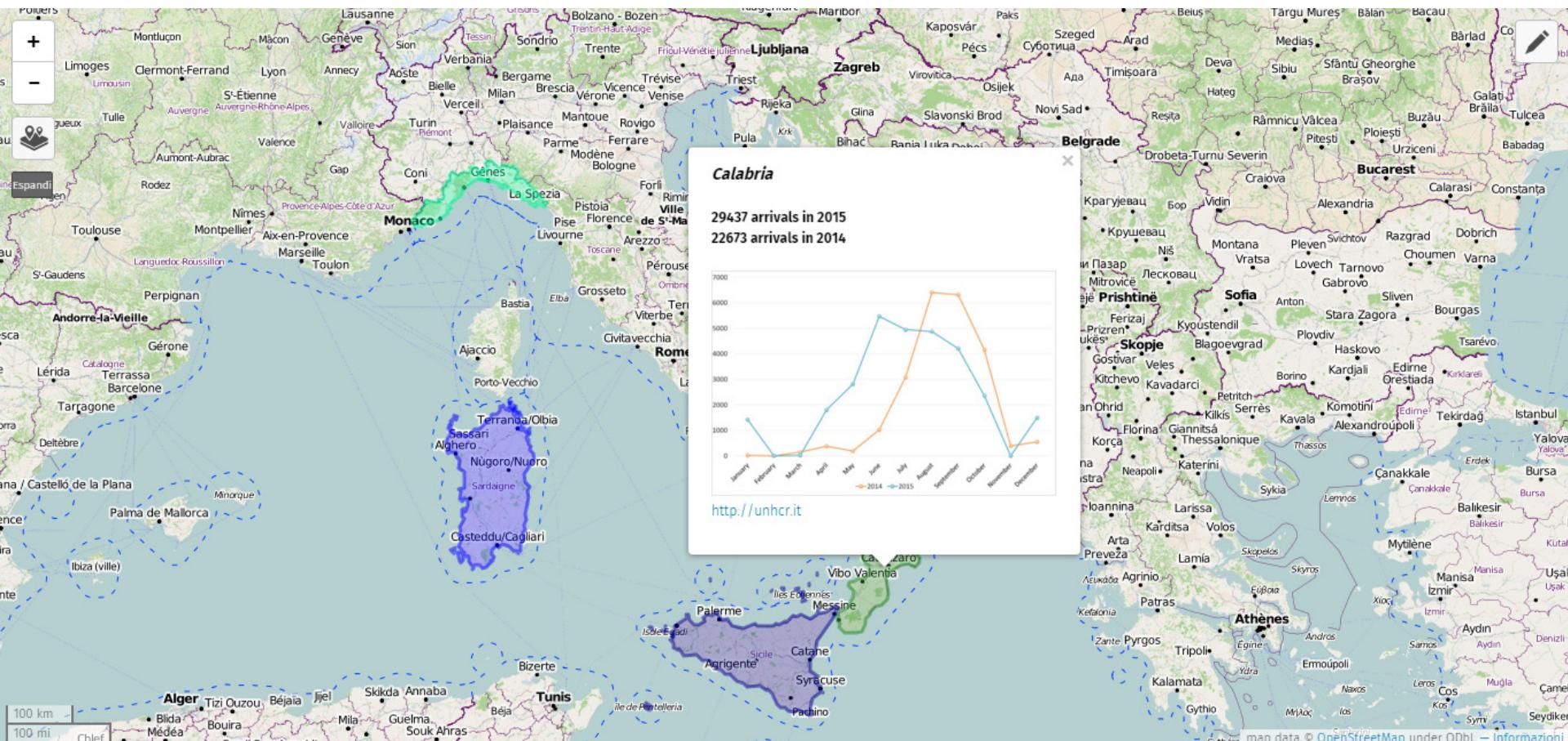


Migrants' arrivals to Italy by region



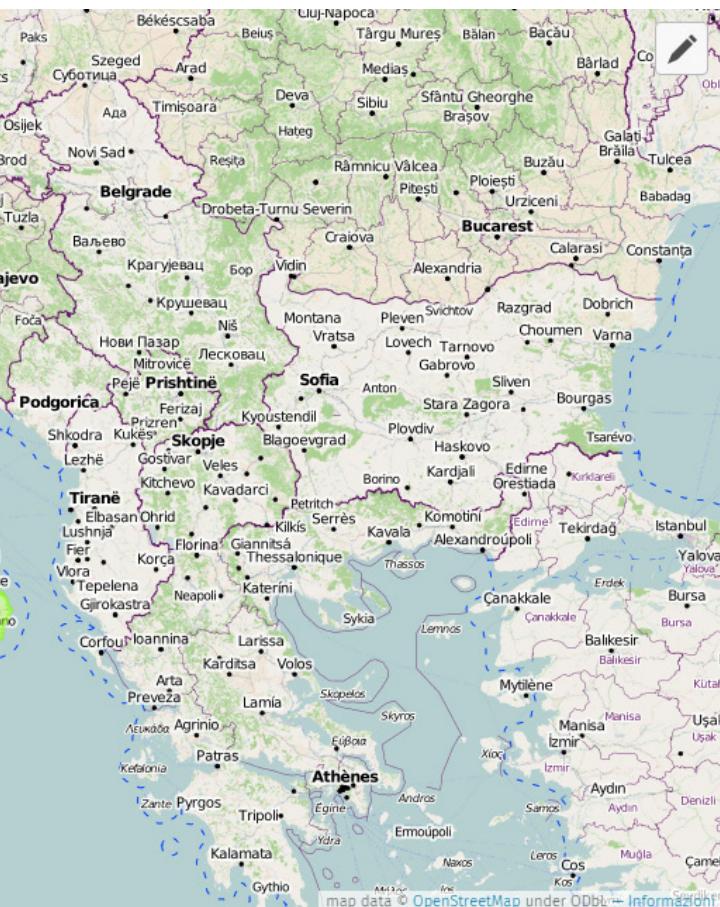
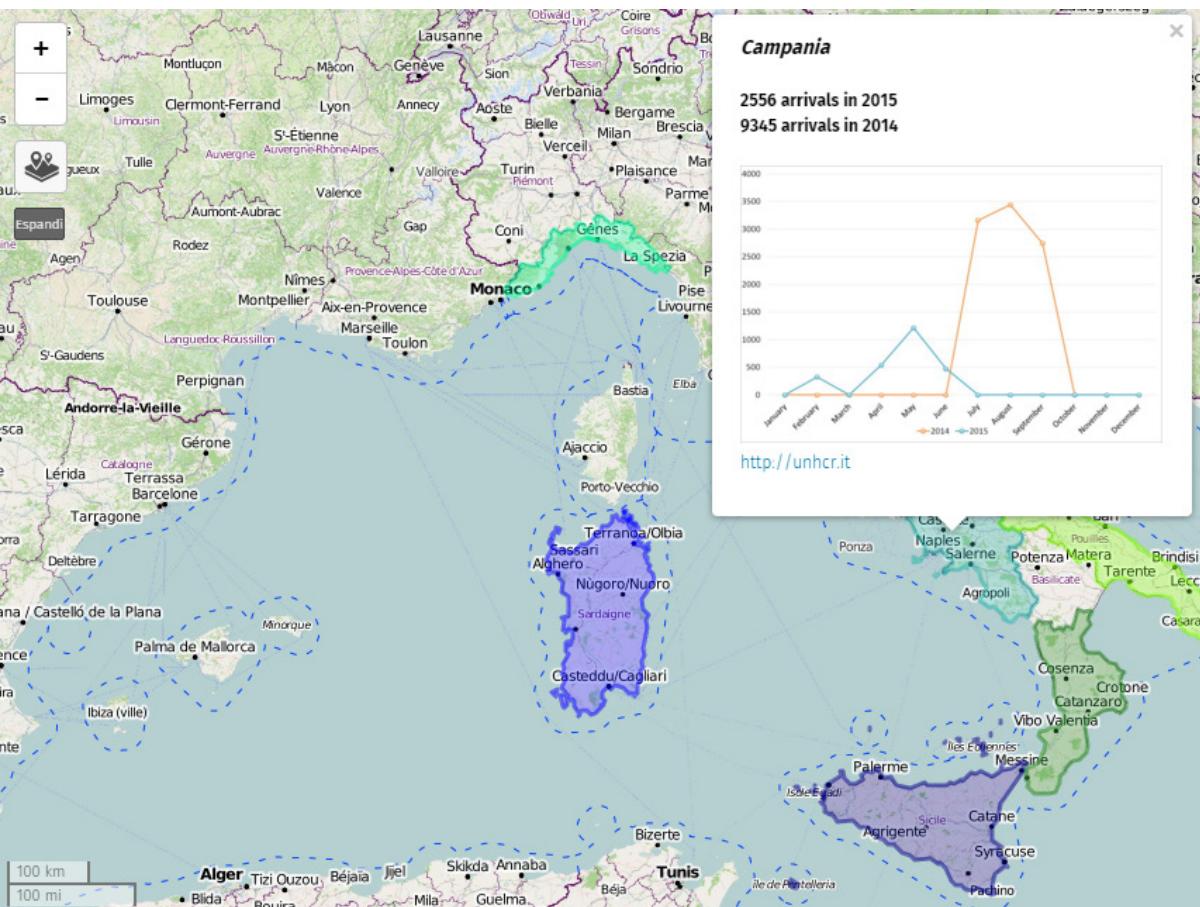


Migrants' arrivals to Italy by region





Migrants' arrivals to Italy by region





Migrants' arrivals to Europe

	2014	2015	2016
Italy	170100	153842	9482
Greece	45954	856723	138977
Total	216054	1010565	148459
Dead/missing	3500	2921	440

Update 10/3/2016

Defining clusters: migrants' origin

Top-10 nationalities of Mediterranean sea arrivals (to Italy)



www.unhcr.it

Defining clusters: migrants' origin

Top-10 nationalities of Mediterranean sea arrivals (to Italy)



African countries shapefile have been downloaded in .shp from arcGIS online

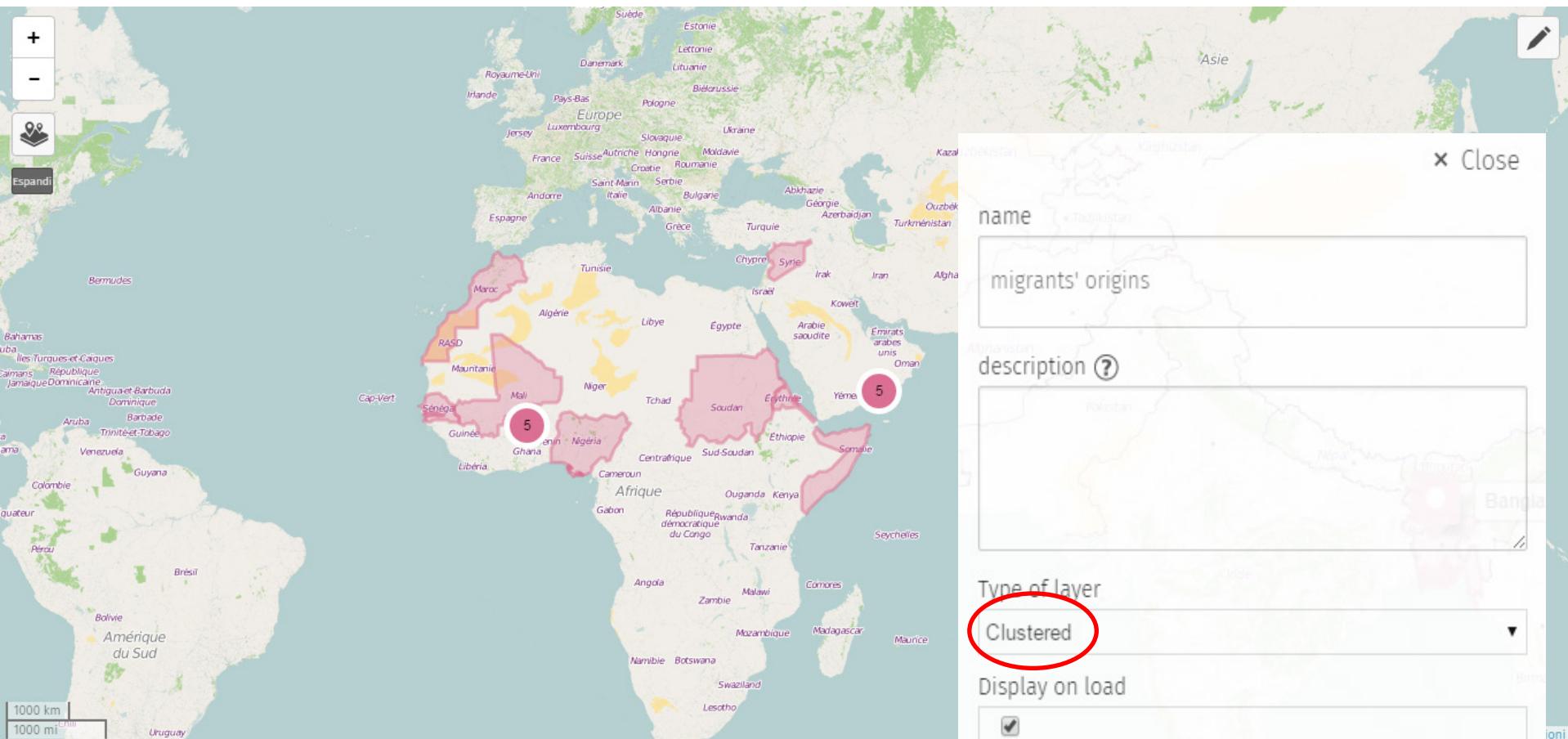
<http://www.arcgis.com/home/item.html?id=16da193d9bcd4ae0b74febe39730658a>

Bangladesh and Syrian Arab Republic in .shp from Global Administrative Areas

<http://www.gadm.org/download>



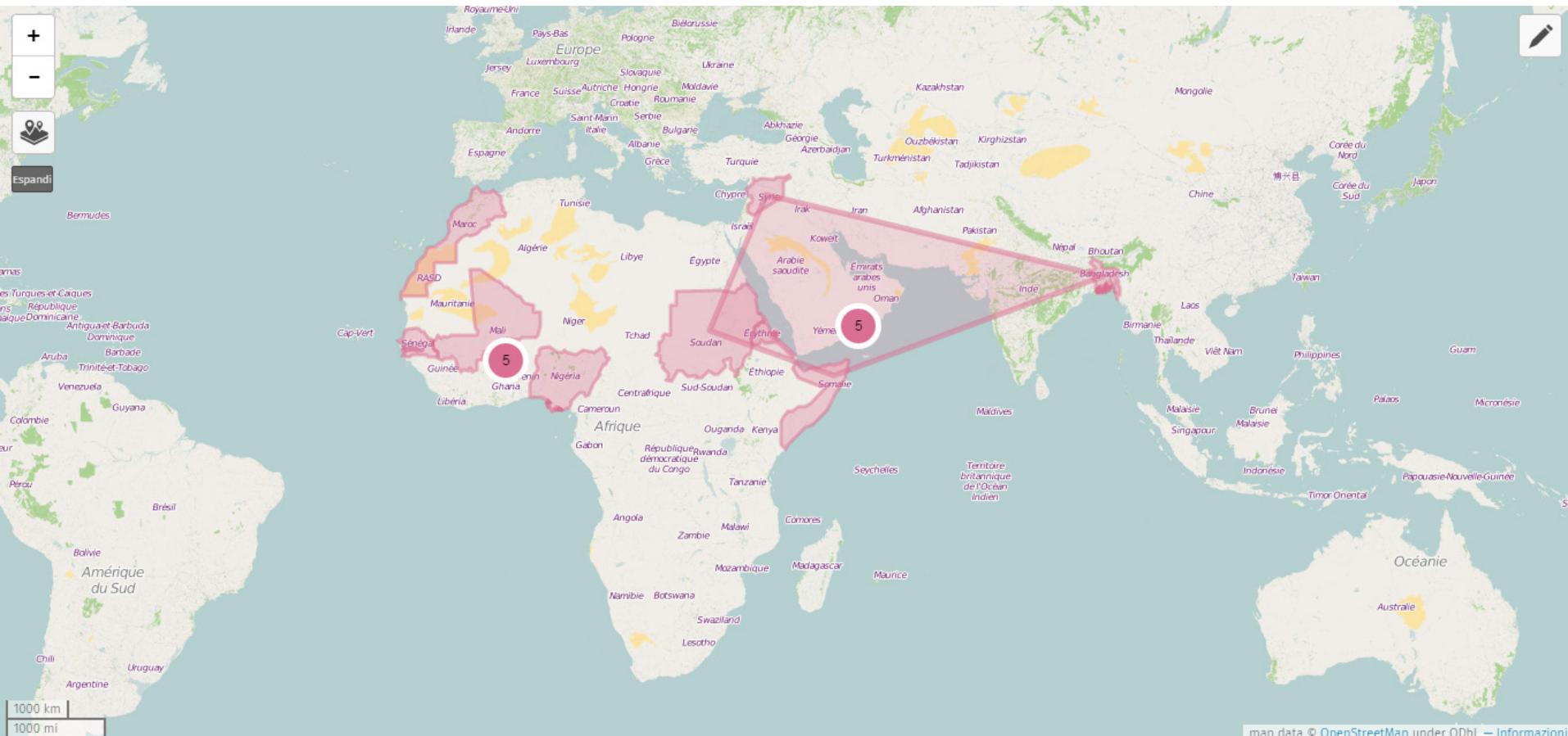
Defining clusters: migrants' origin



Advanced properties allow to set the “override clustering radius”

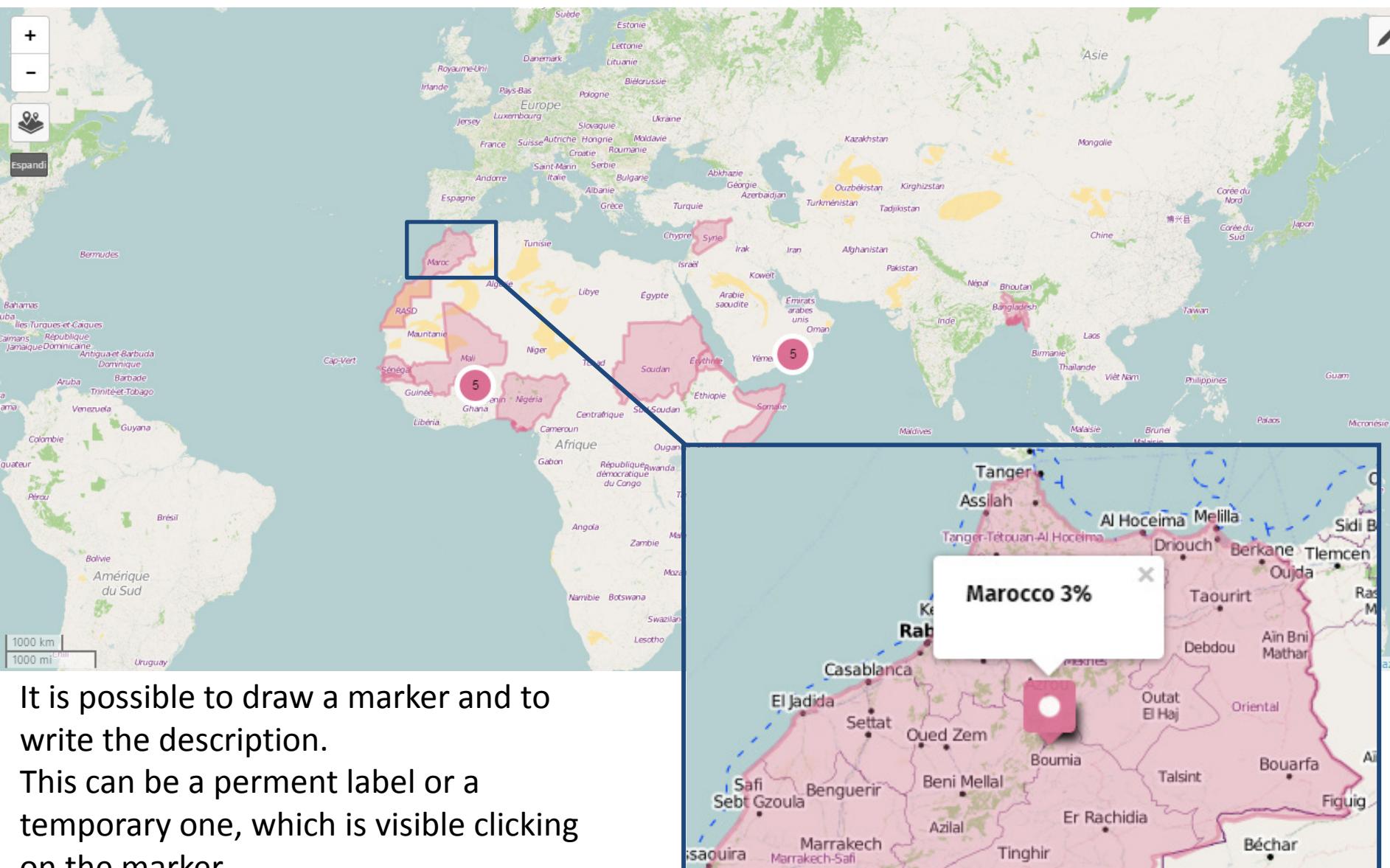
Zooming in it is possible to see clustering of the states where migrants come from.

Defining clusters: migrants' origin



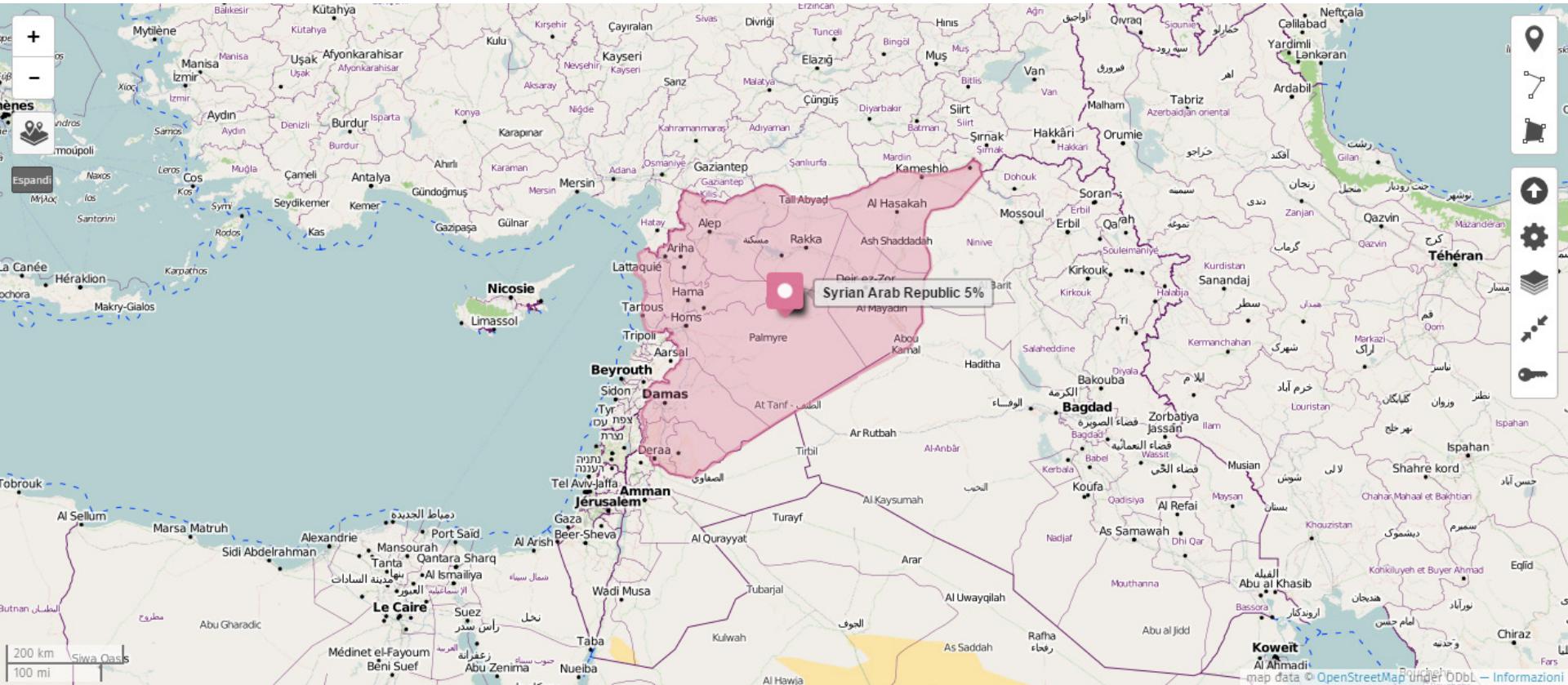
Moving the mouse on circles allows to see states of the cluster connected through a polygon.

Defining clusters: migrants' origin



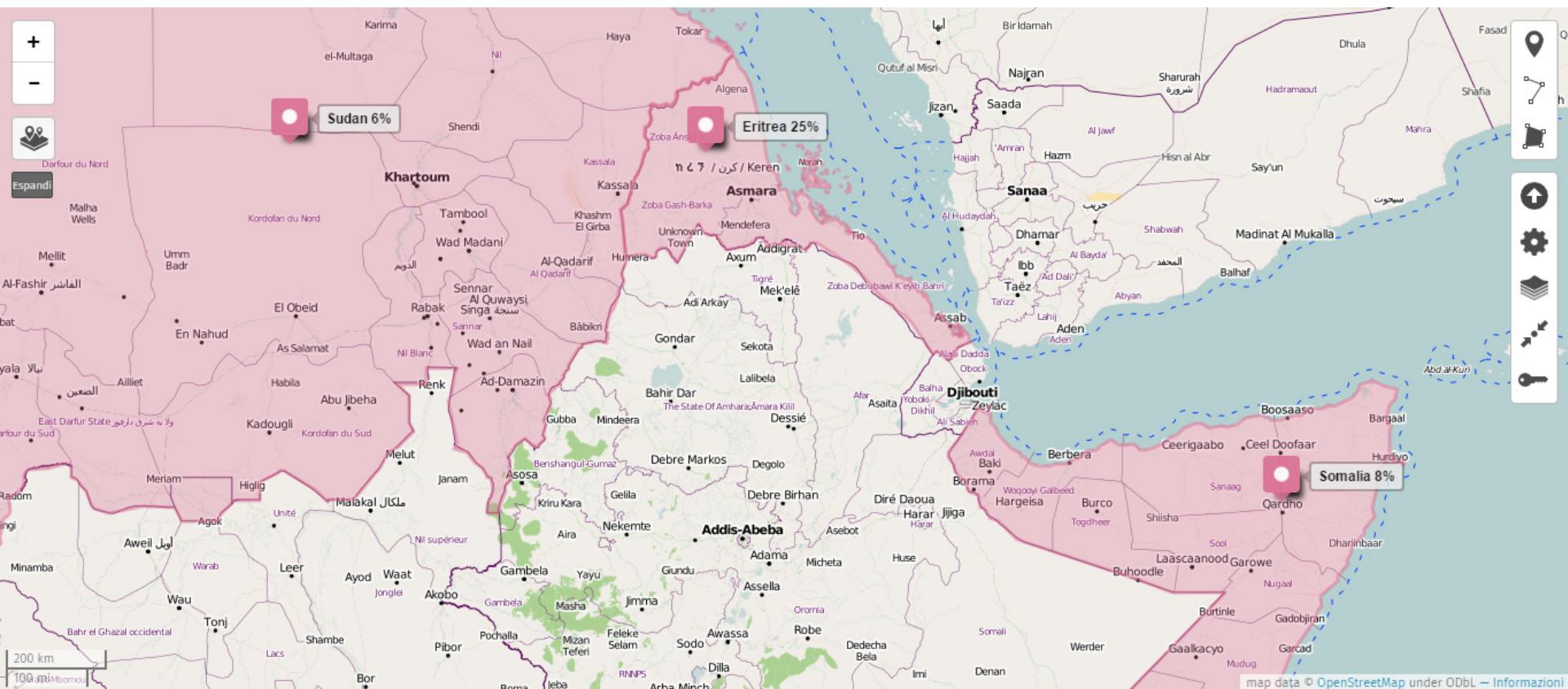
It is possible to draw a marker and to write the description.
This can be a permanent label or a temporary one, which is visible clicking on the marker.

Defining clusters: migrants' origin





Defining clusters: migrants' origin



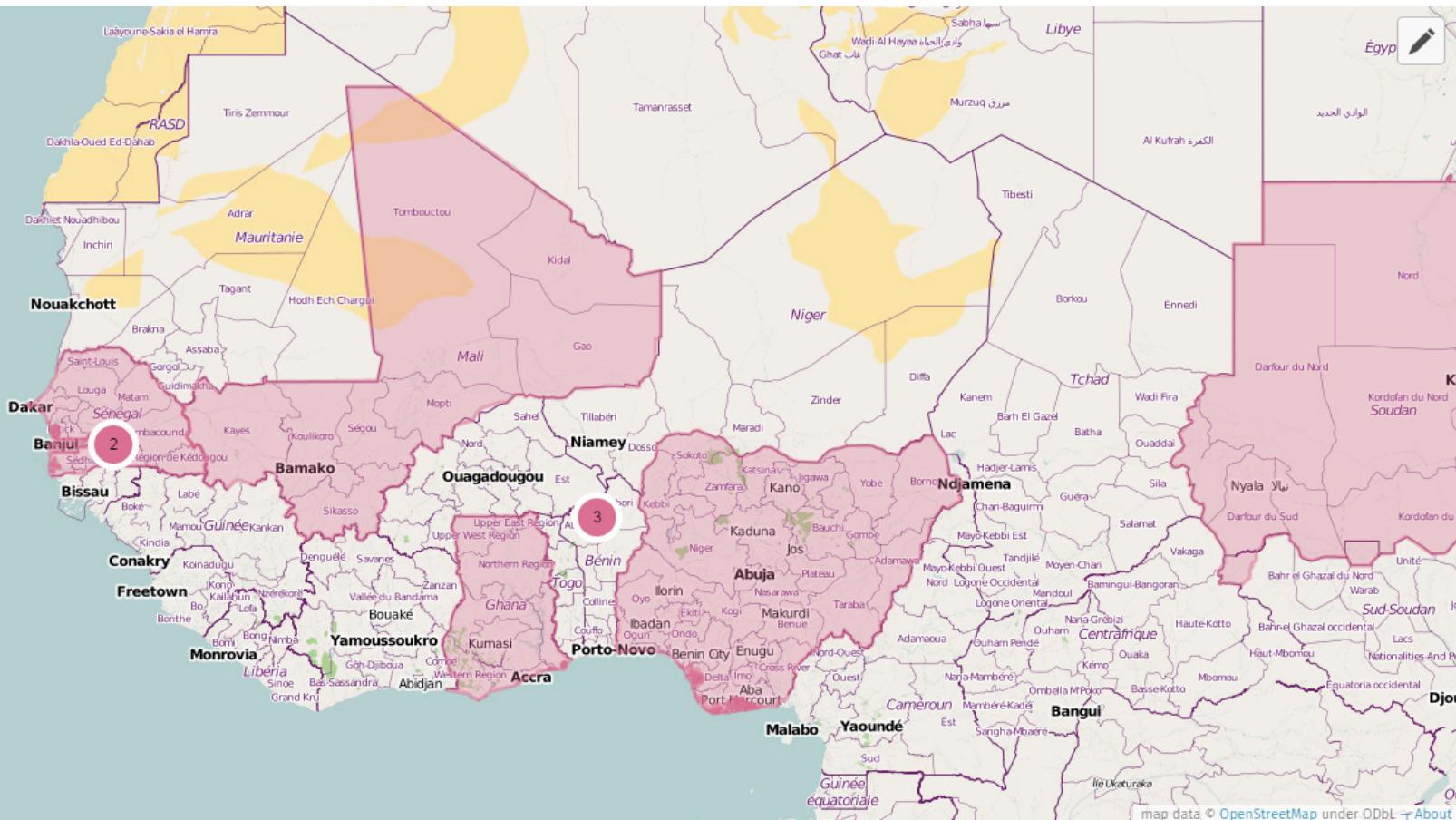
Defining clusters: migrants' origin



Ilhas de Barlavento

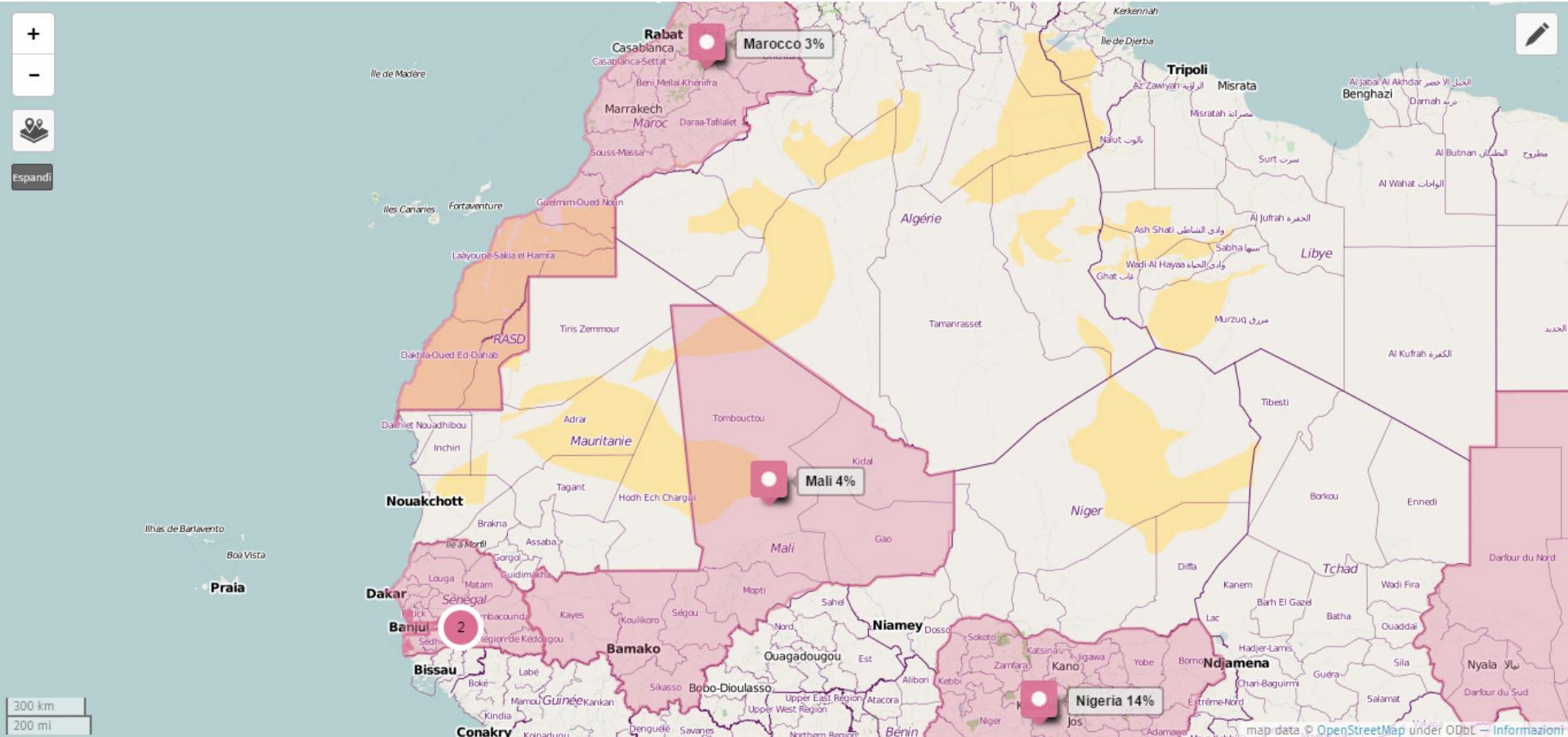
Boa Vista

Praia

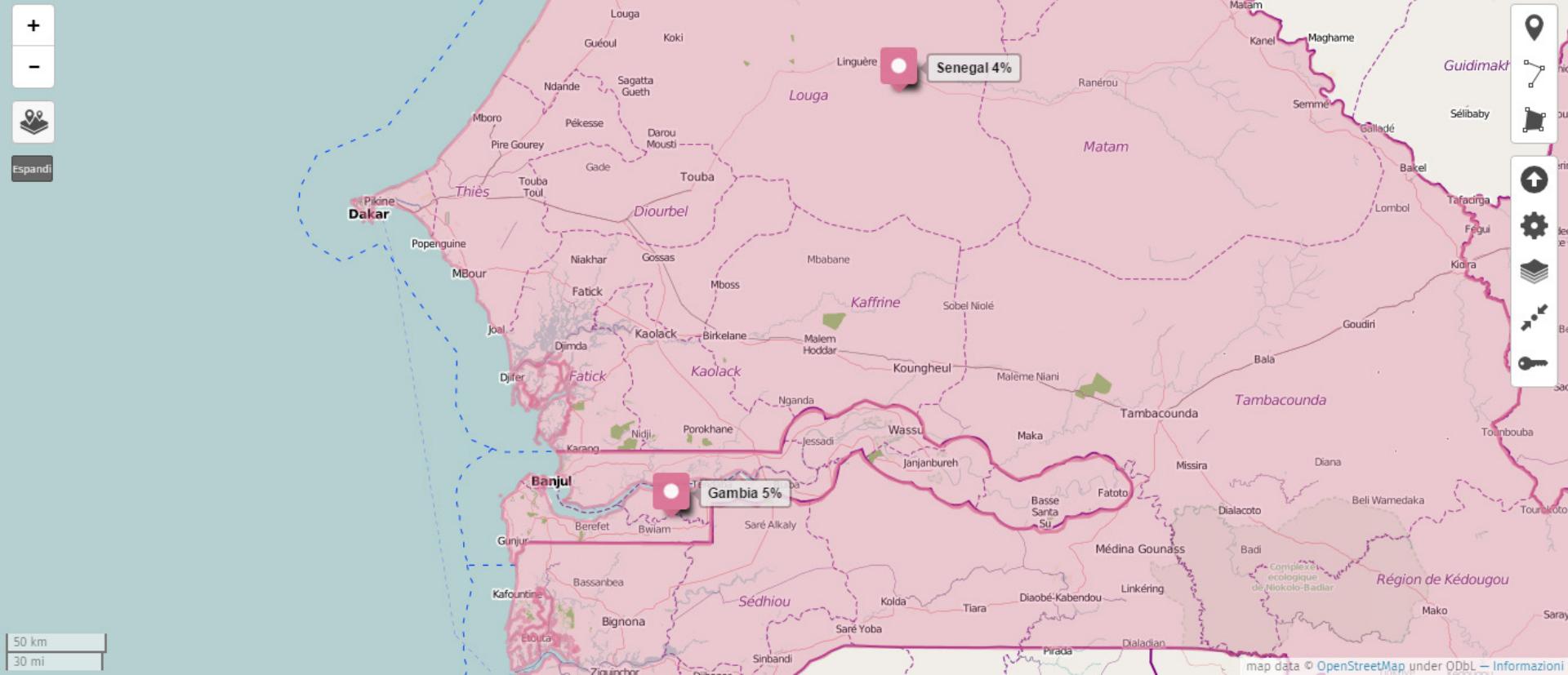


map data © OpenStreetMap under ODbL [About](#)

Defining clusters: migrants' origin

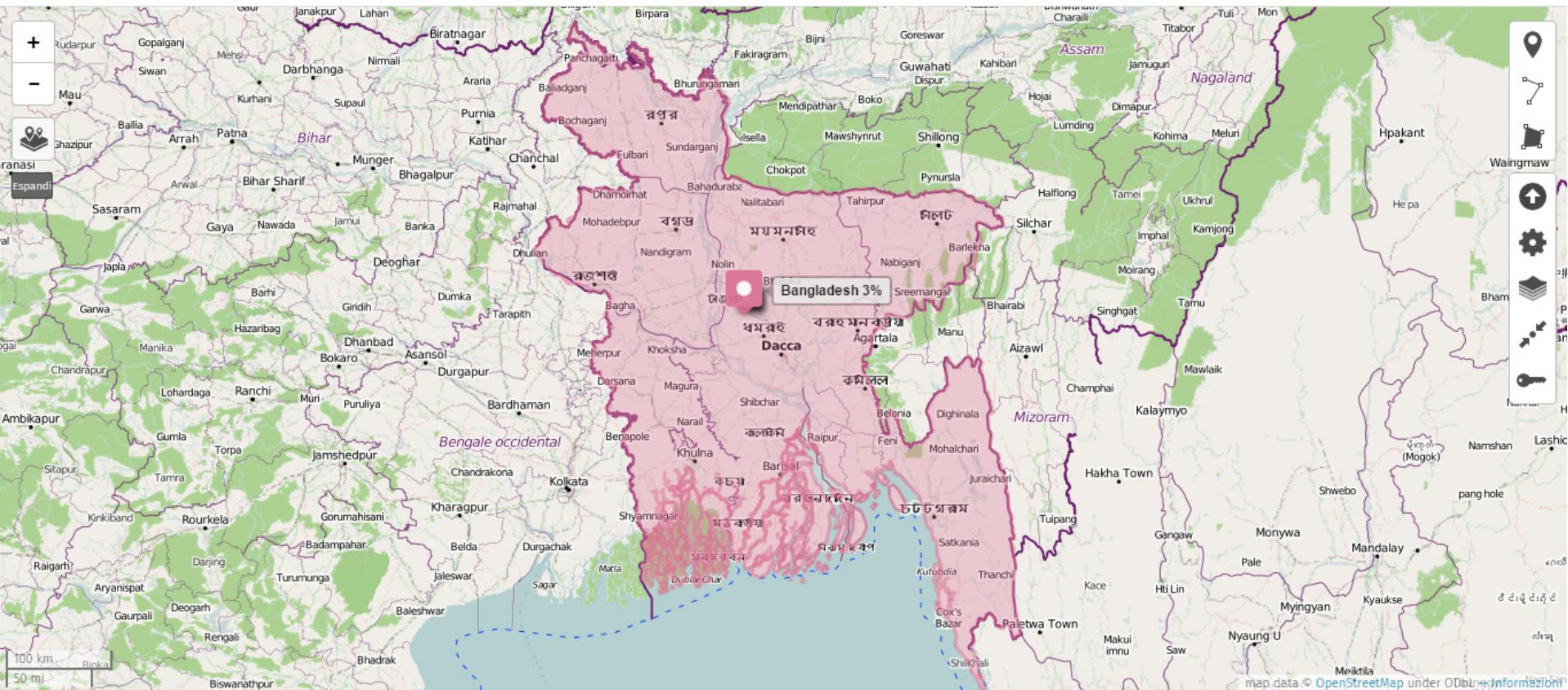


Defining clusters: migrants' origin



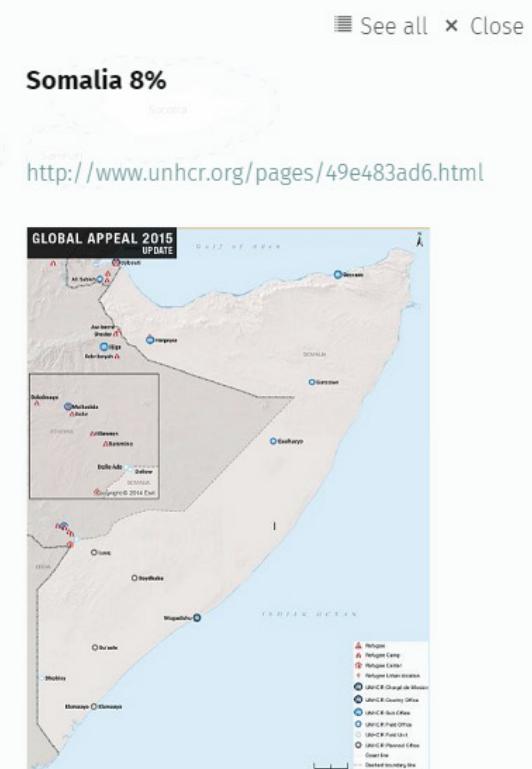
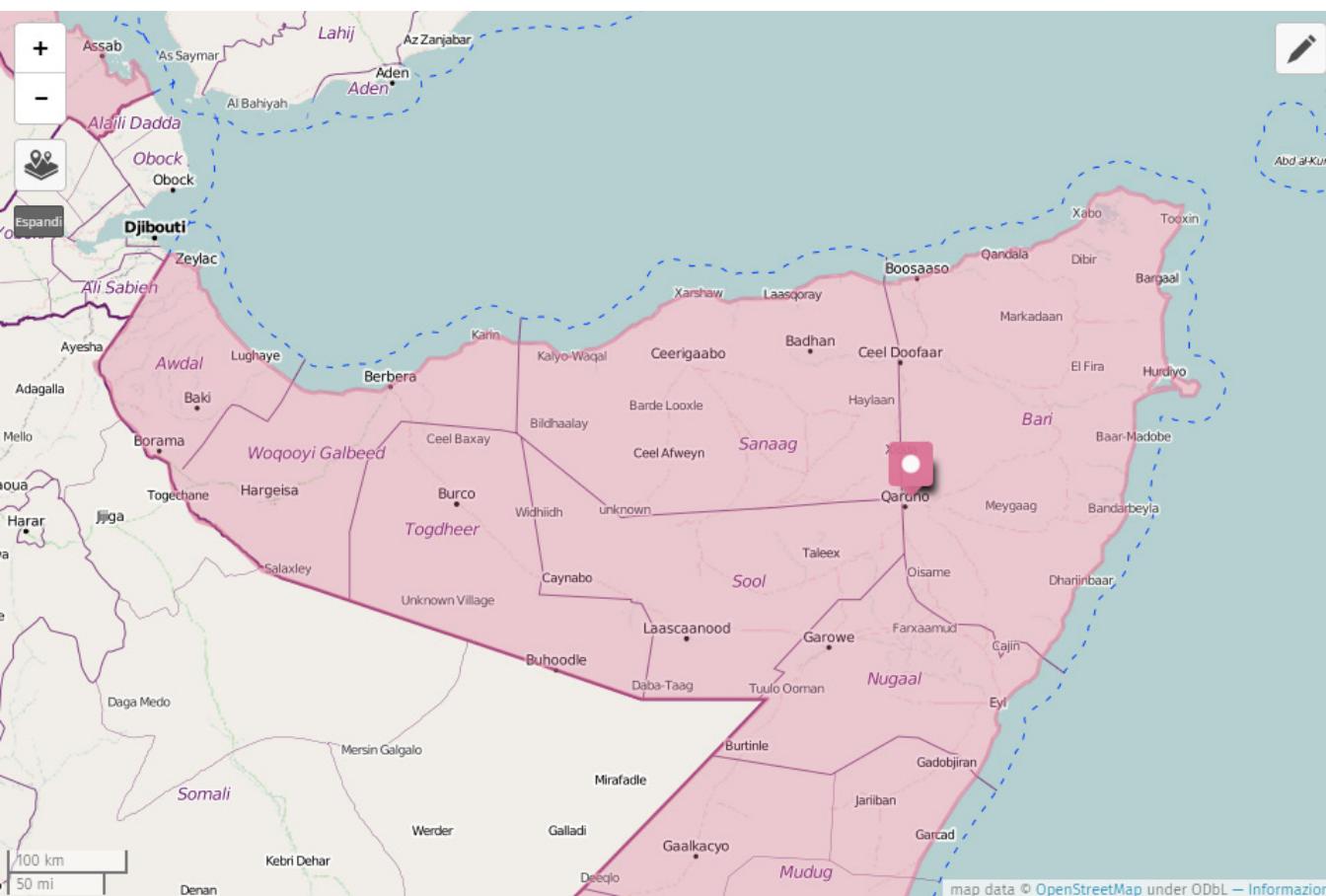


Defining clusters: migrants' origin

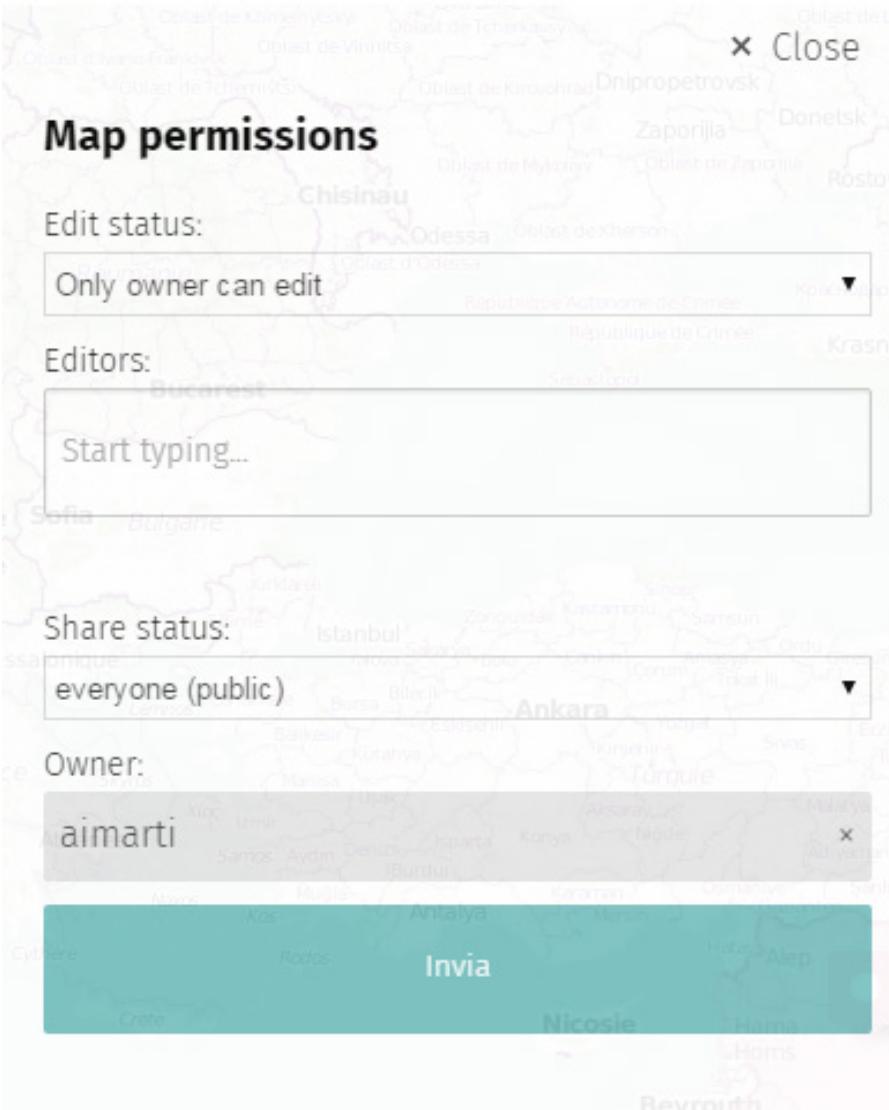




Defining clusters: migrants' origin



Final steps



Finally it is possible to edit Map permissions →

- only owner can edit
- only editors can edit
- everyone can edit

And then it is possible to share it through the share status:

- public
- anyone with link
- editor only

Final steps

The screenshot shows the final steps for managing a map on the u.osmfr.org platform:

- Embed the map:** A code editor window displays the HTML code for embedding the map:

```
<iframe width="100%" height="300px"
frameBorder="0"
src="https://umap.openstreetmap.fr/en/map/migrations_52844?
controlControl=true&minZoom=true&scrollWheelZoom=false">

```

A button labeled "Iframe export options" is visible below the code.
- Short URL:** A text field contains the generated short URL:<http://u.osmfr.org/m/52844/>
- Download raw data:** A dropdown menu shows "kml" selected. Below it, a note says "Only visible features will be downloaded." A large green button at the bottom is labeled "Download data".

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