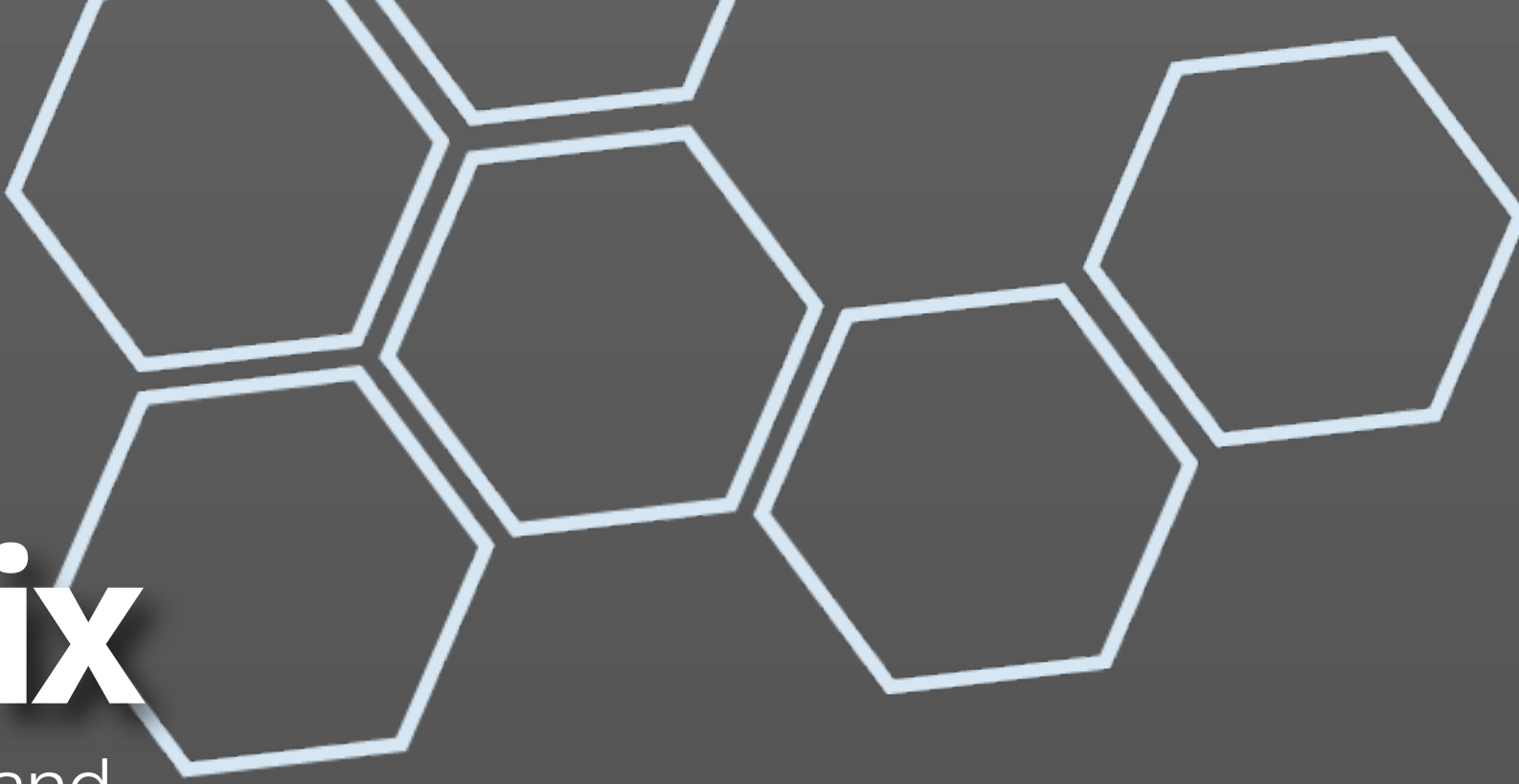




OSMatrix

Grid-based Analysis and
Visualization of OpenStreetMap

Oliver Roick
Julian Hagenauer
Alexander Zipf

What is OSMatrix?

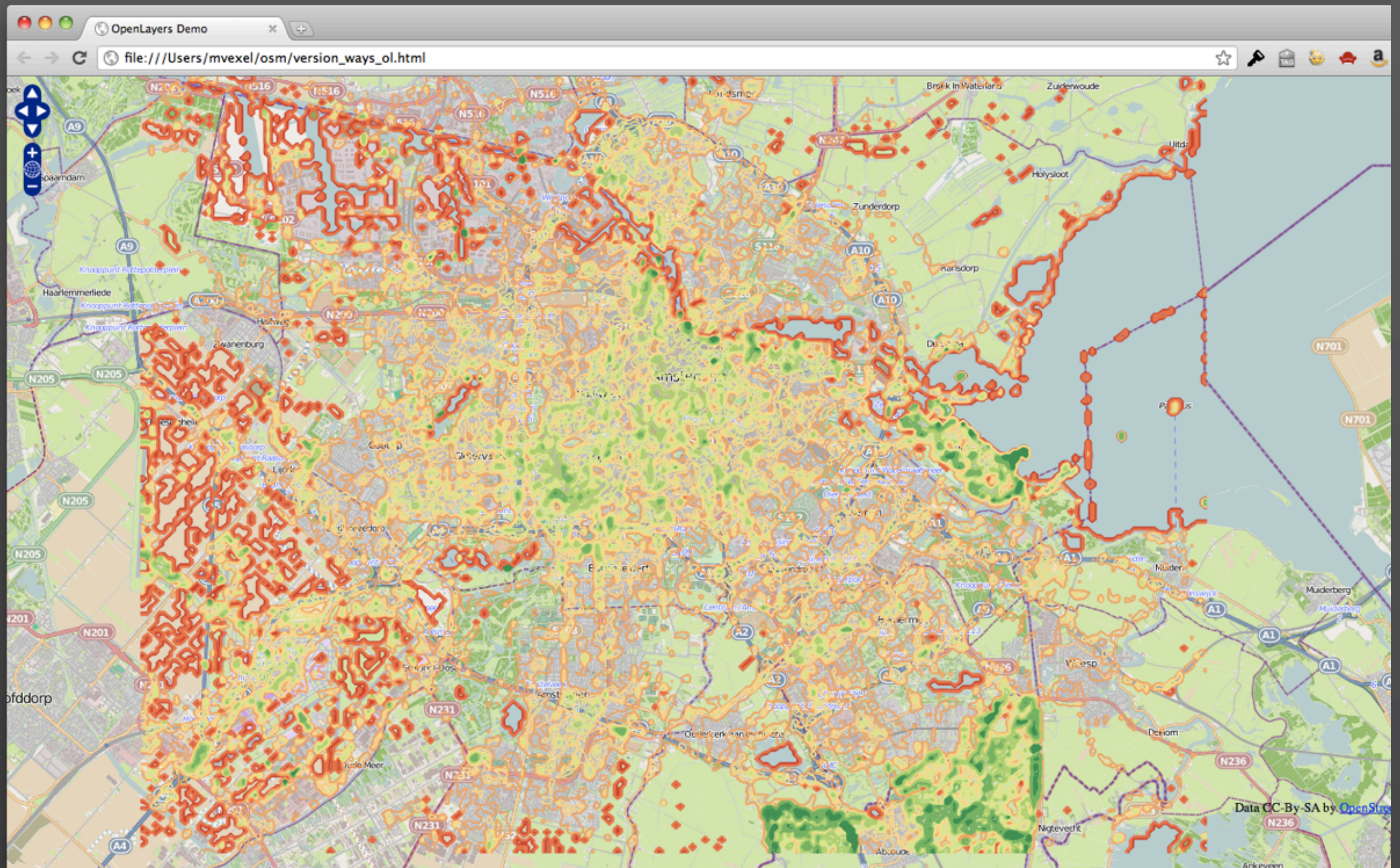


MATRIX

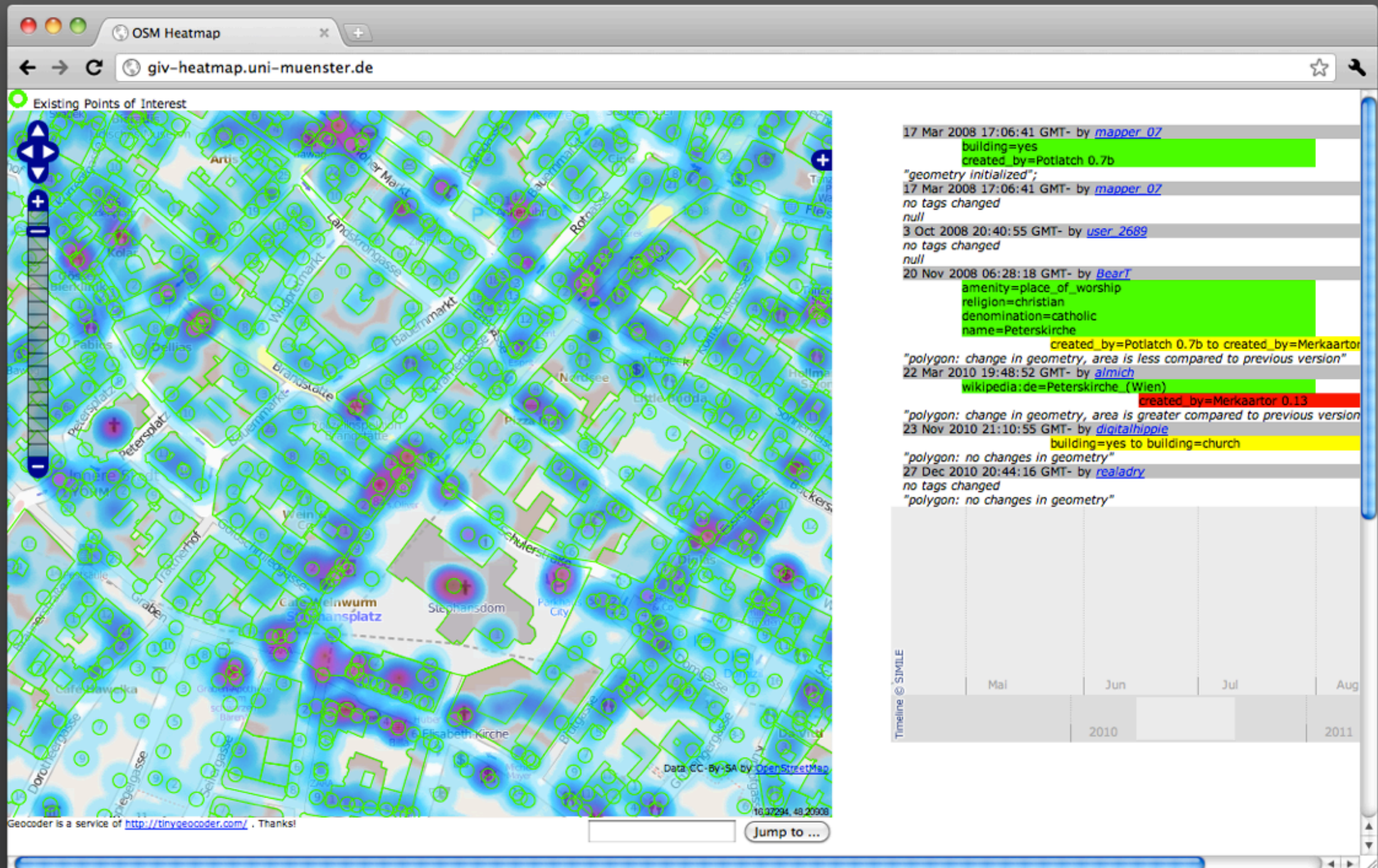
What is OSMatrix?



Martijn van Exel | wp.me/pcUHq-5f



Johannes Trame & Carsten Keßler | giv-heatmap.uni-muenster.de



Min/Max/Avg:

- Version number
- Number of Contributions per User
- Number of attributes

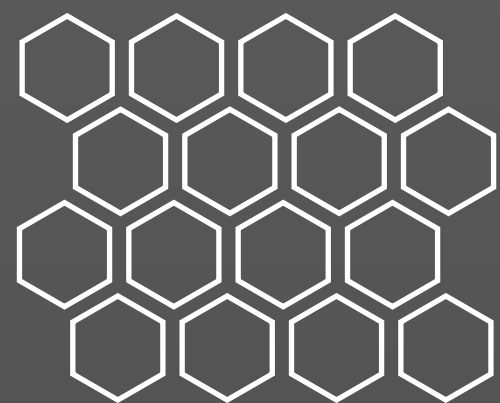
Sum:

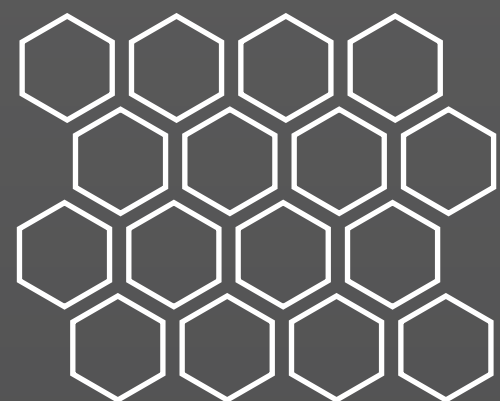
- Attributes
- Features
- Contributing users

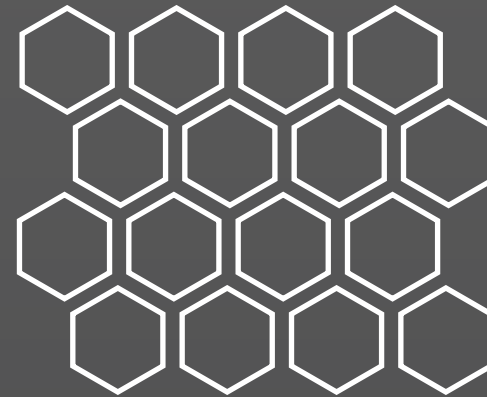
Area:

- Buildings
- Landuse

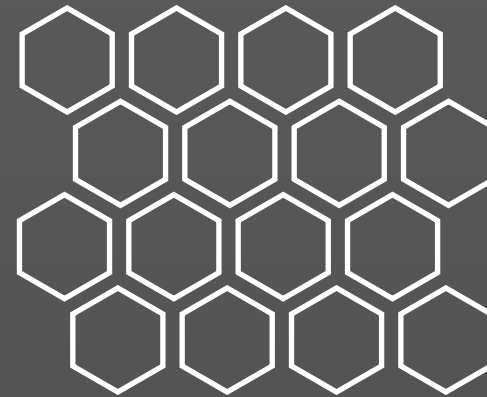
...







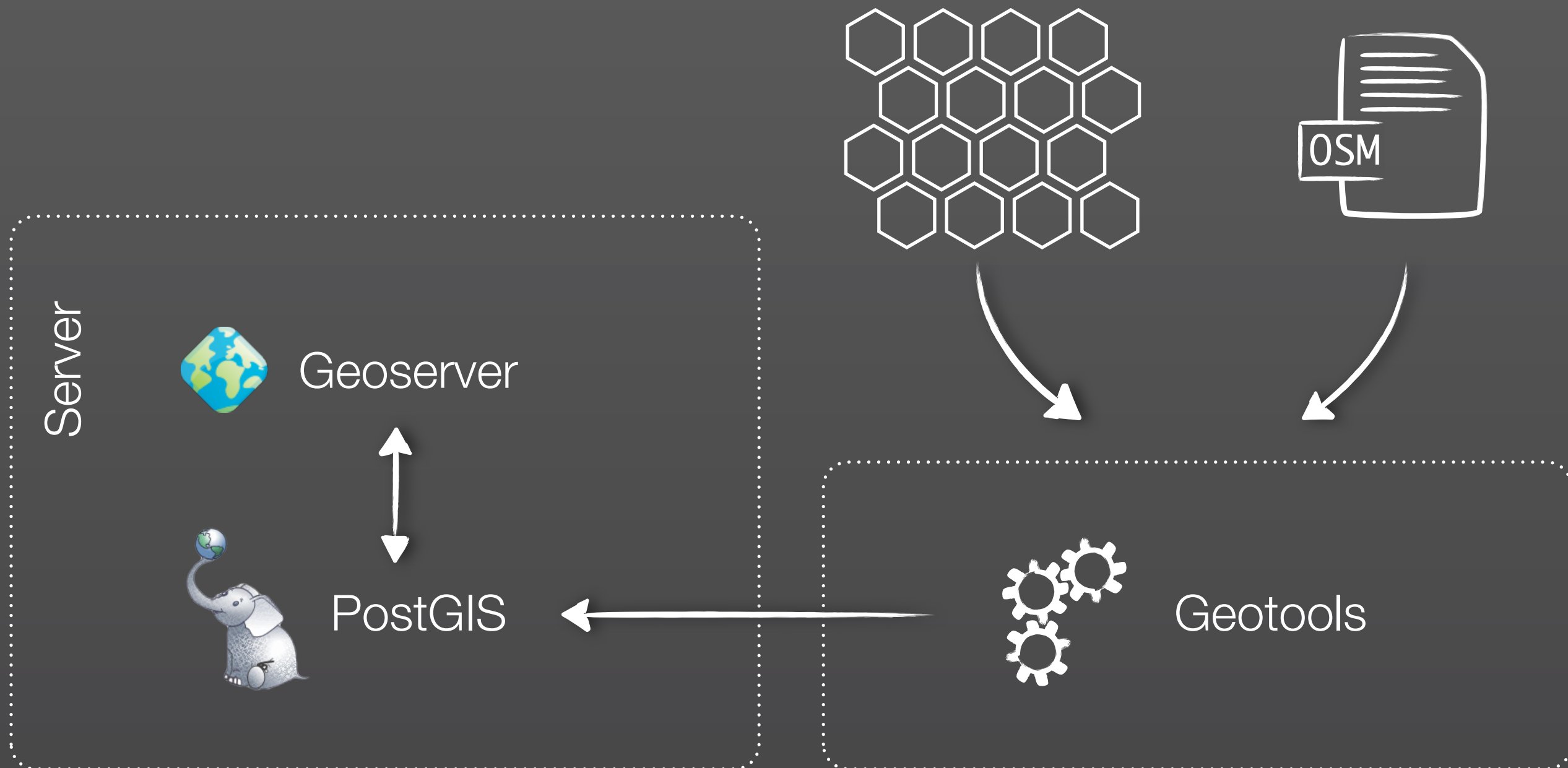
Geotools

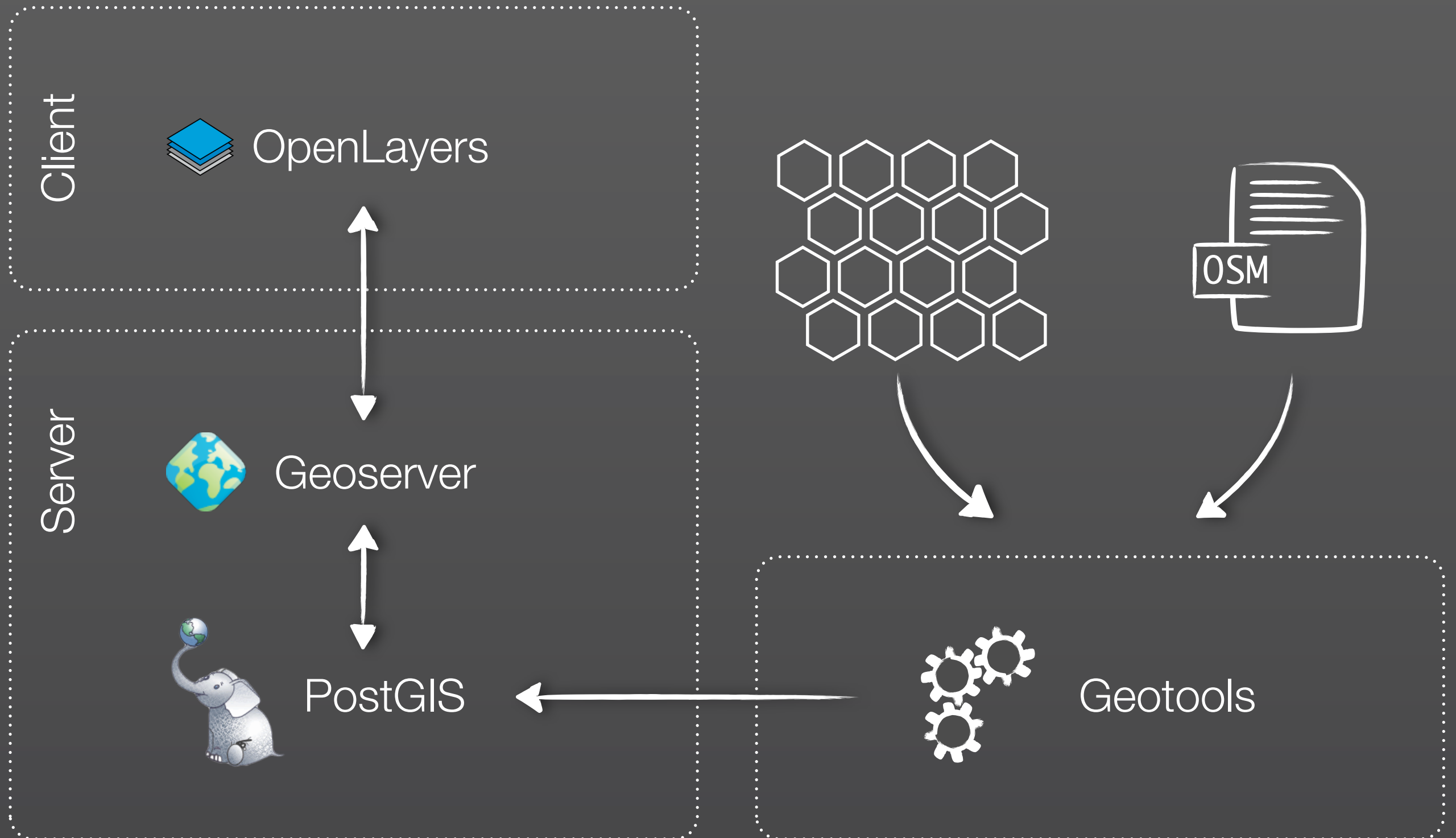


PostGIS



Geotools







Switch background layer Choose attribute

Number of contributing users

Overall number of users that modified an object within the given cell.

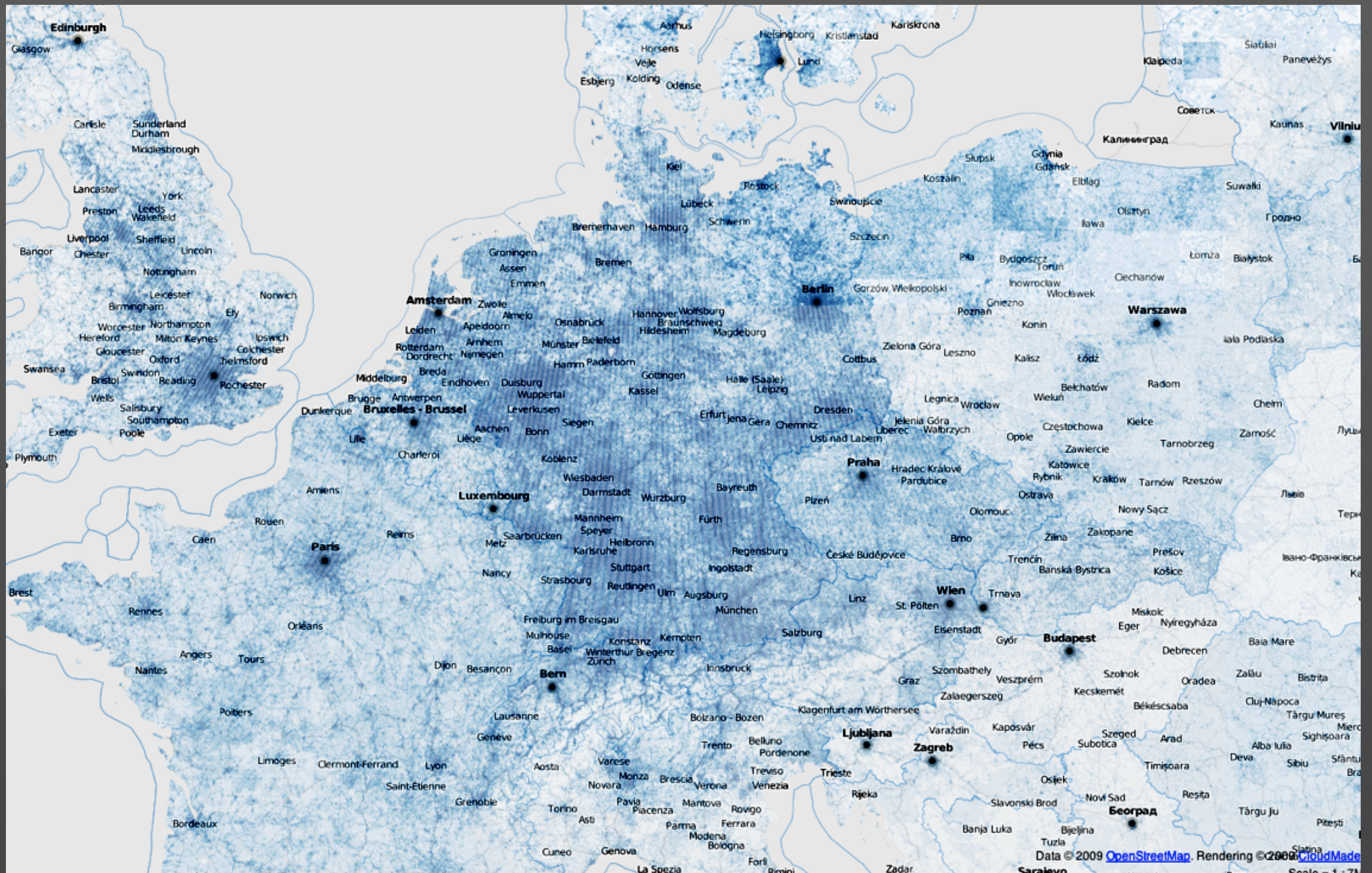


Feature Info

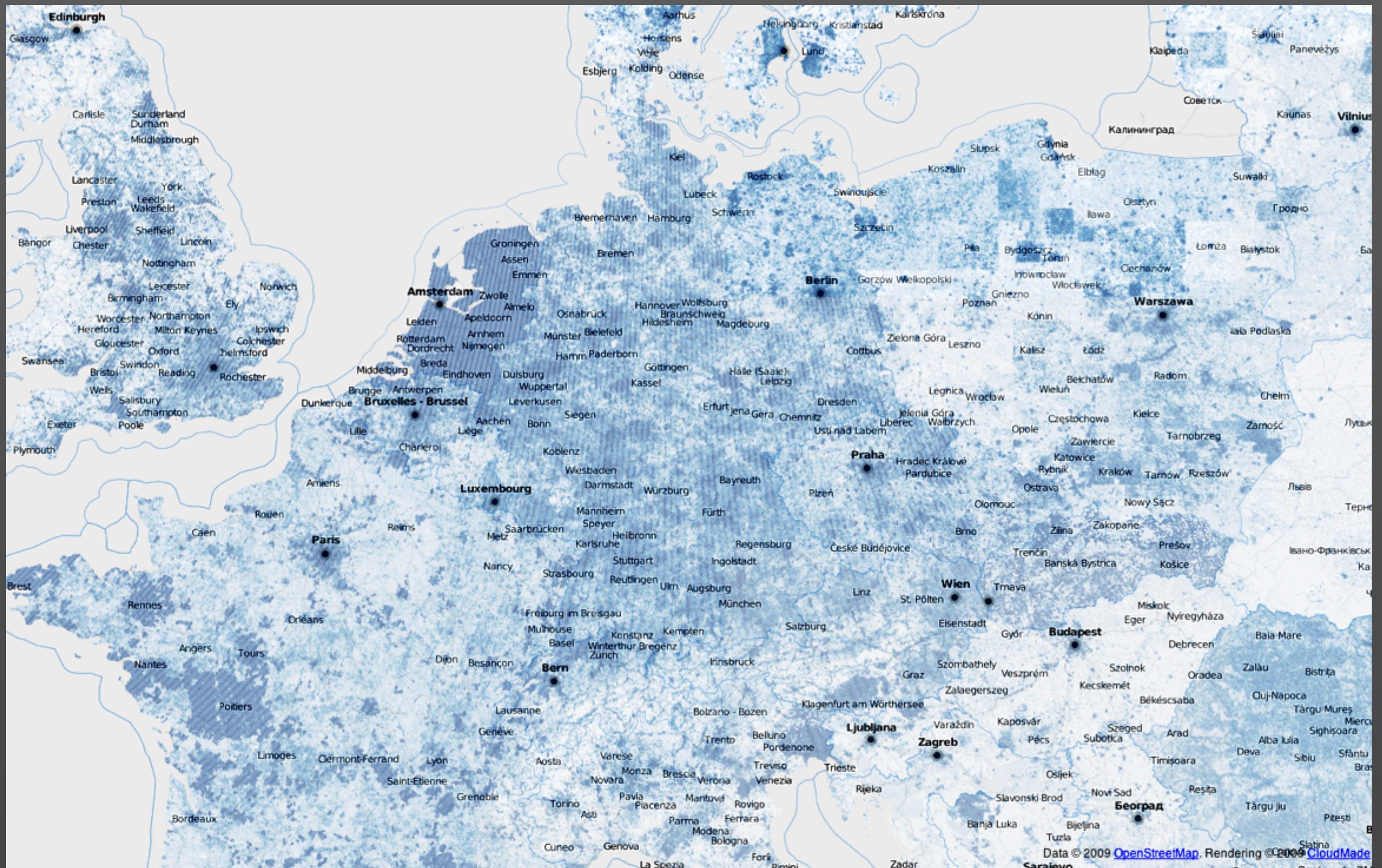
Cell ID	Value
576487	82.0
575122	46.0
575123	80.0

Results

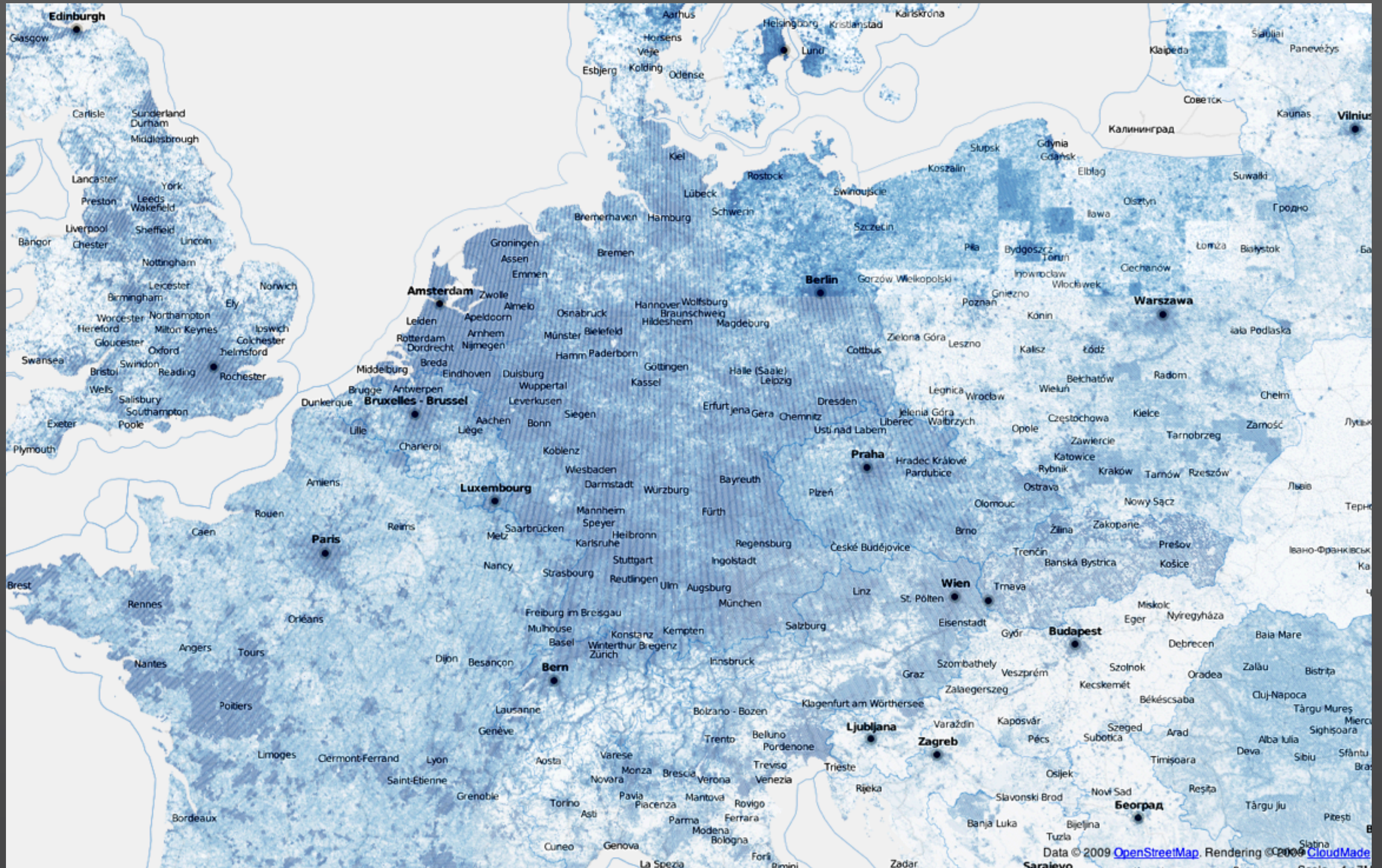
Number of contributing users



Average number of contributions per user



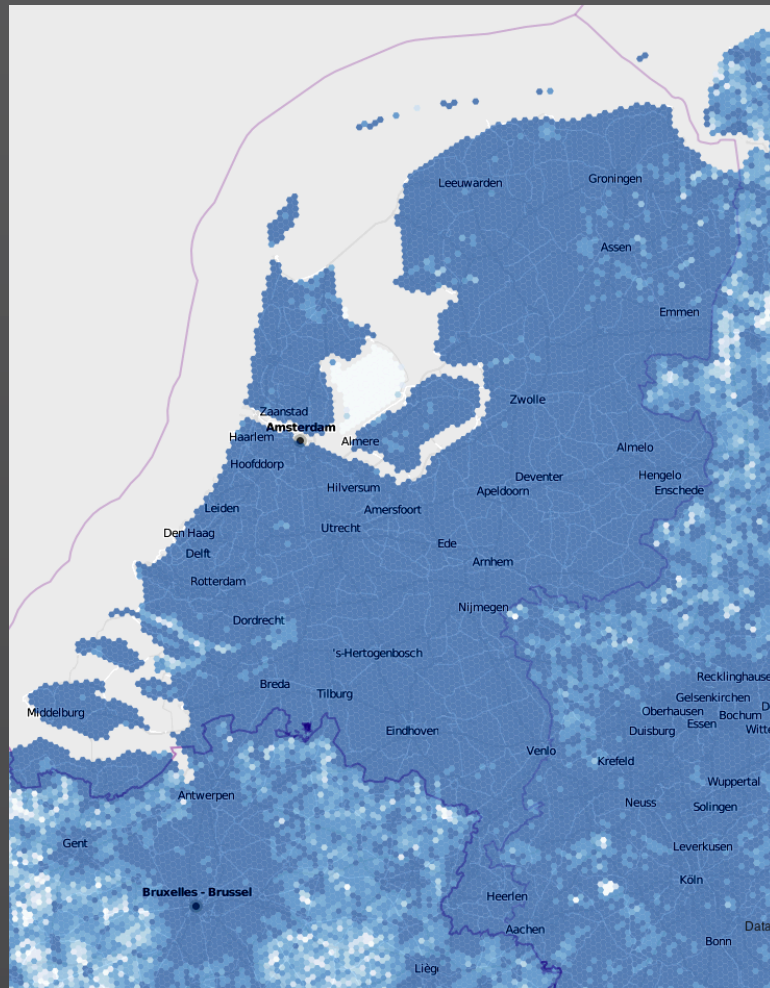
Total number of features



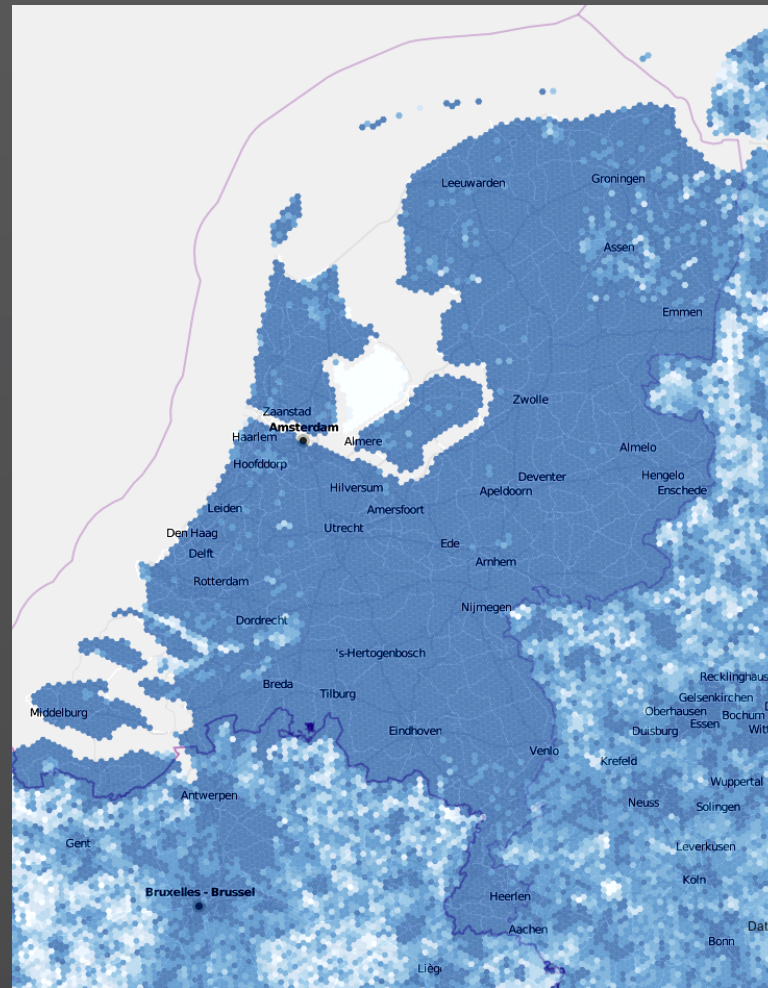
This is a detailed map of Europe, showing major cities, rivers, and borders. The map is rendered in a blue and white color scheme. Major cities like London, Paris, Berlin, and Moscow are clearly marked. The map also shows the English Channel, the North Sea, and the Baltic Sea. The text "Data © 2009 OpenStreetMap. Rendering © 2009 CloudMade" is visible in the bottom right corner.

The Netherlands

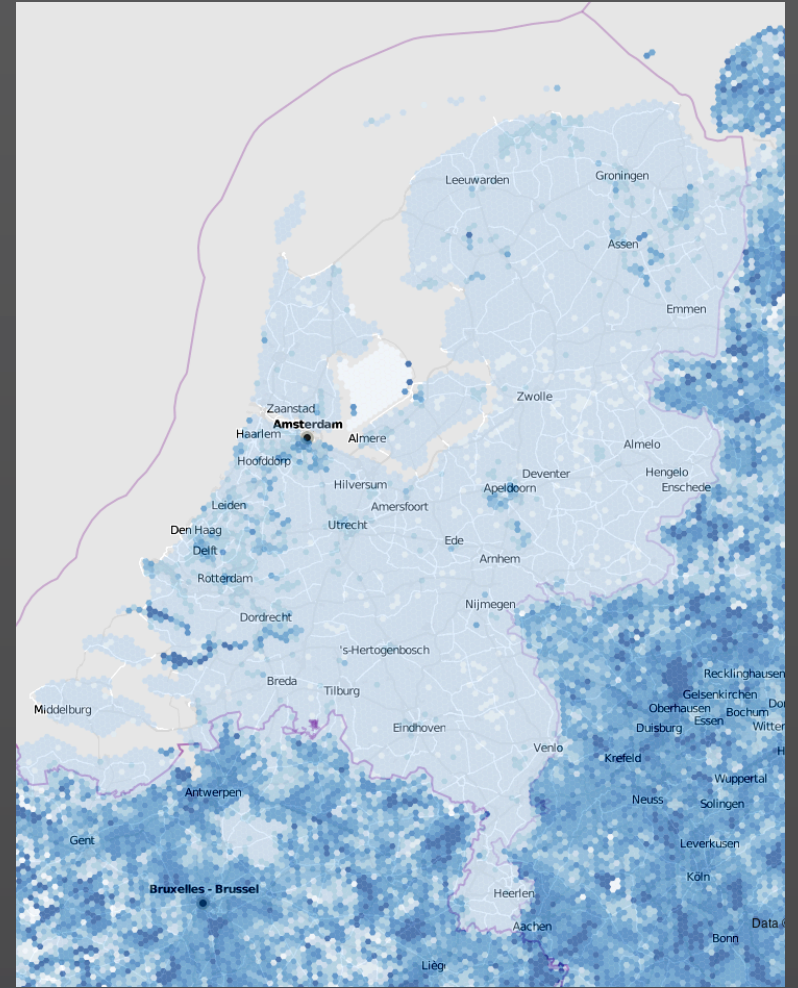
Number of features



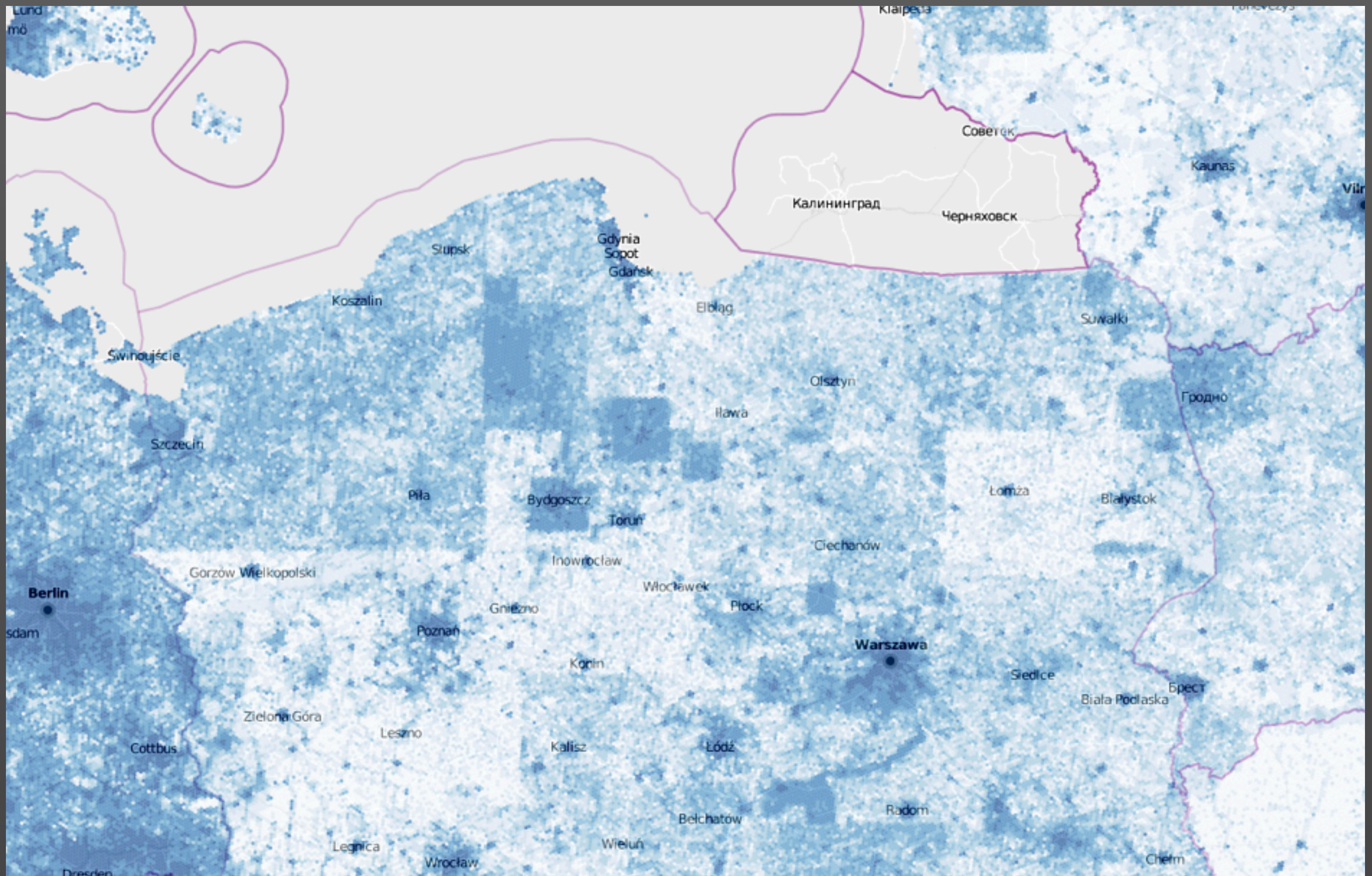
Average number of contributions per user



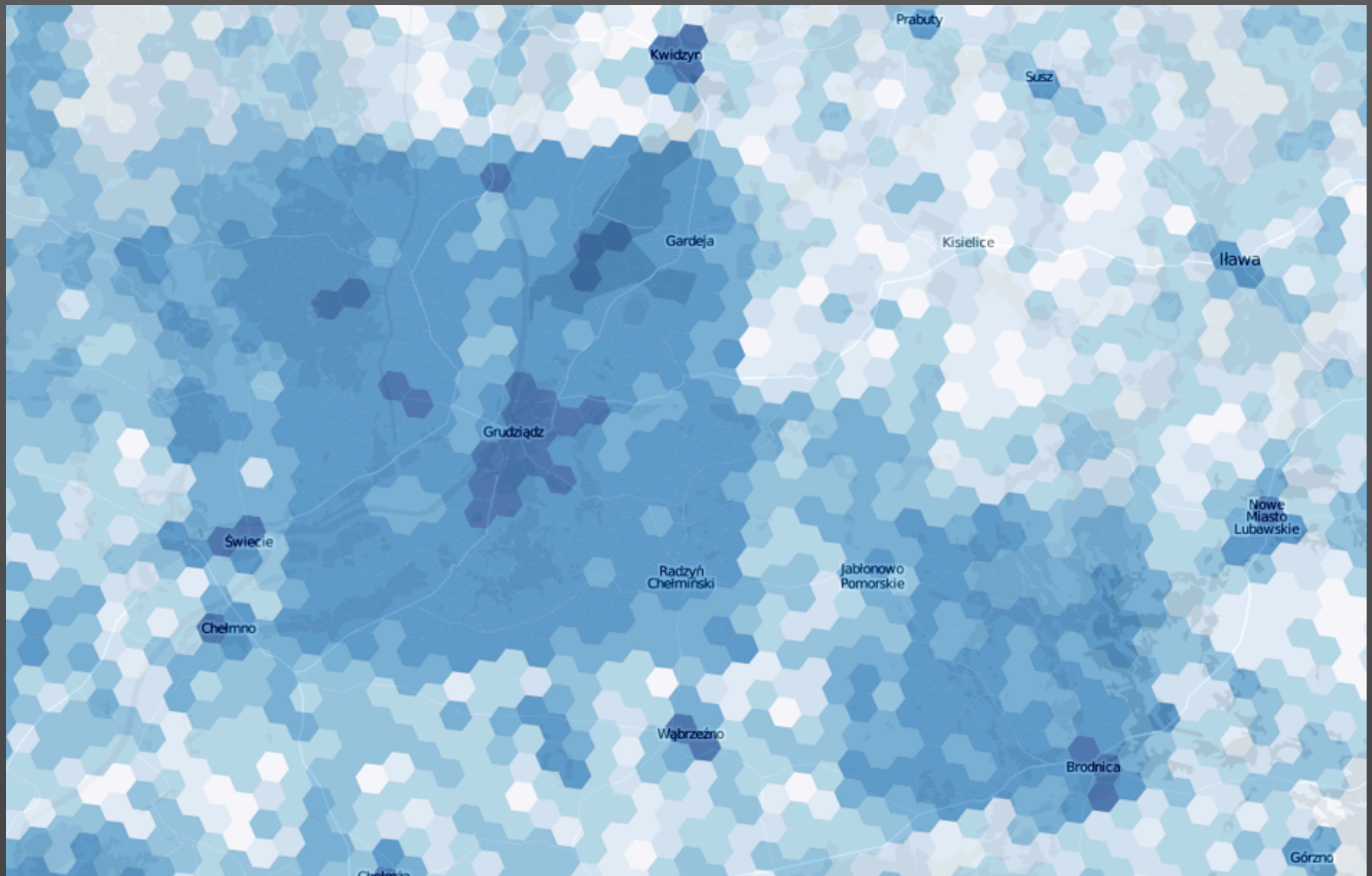
Average version number



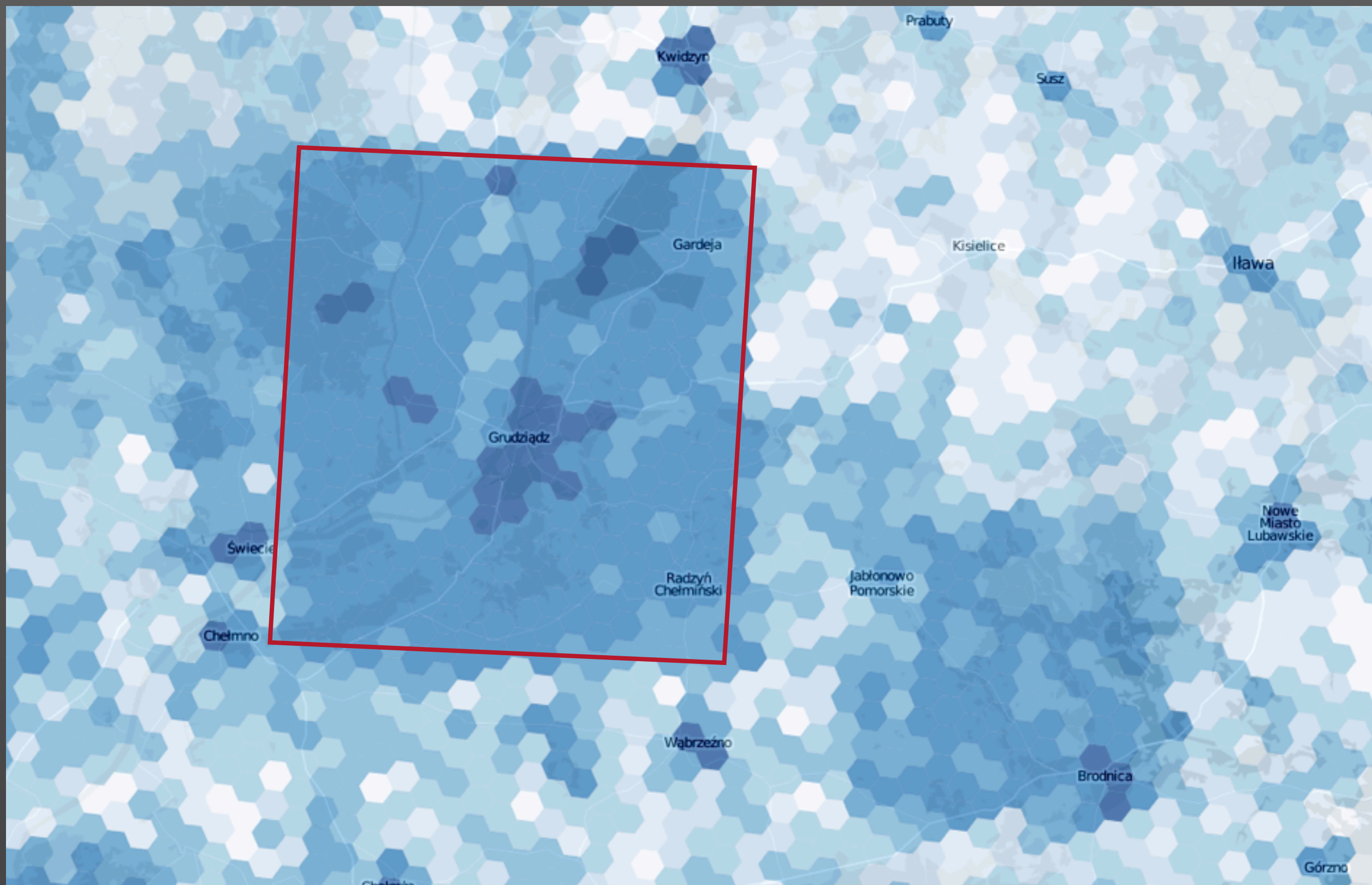
Poland | Total number of features



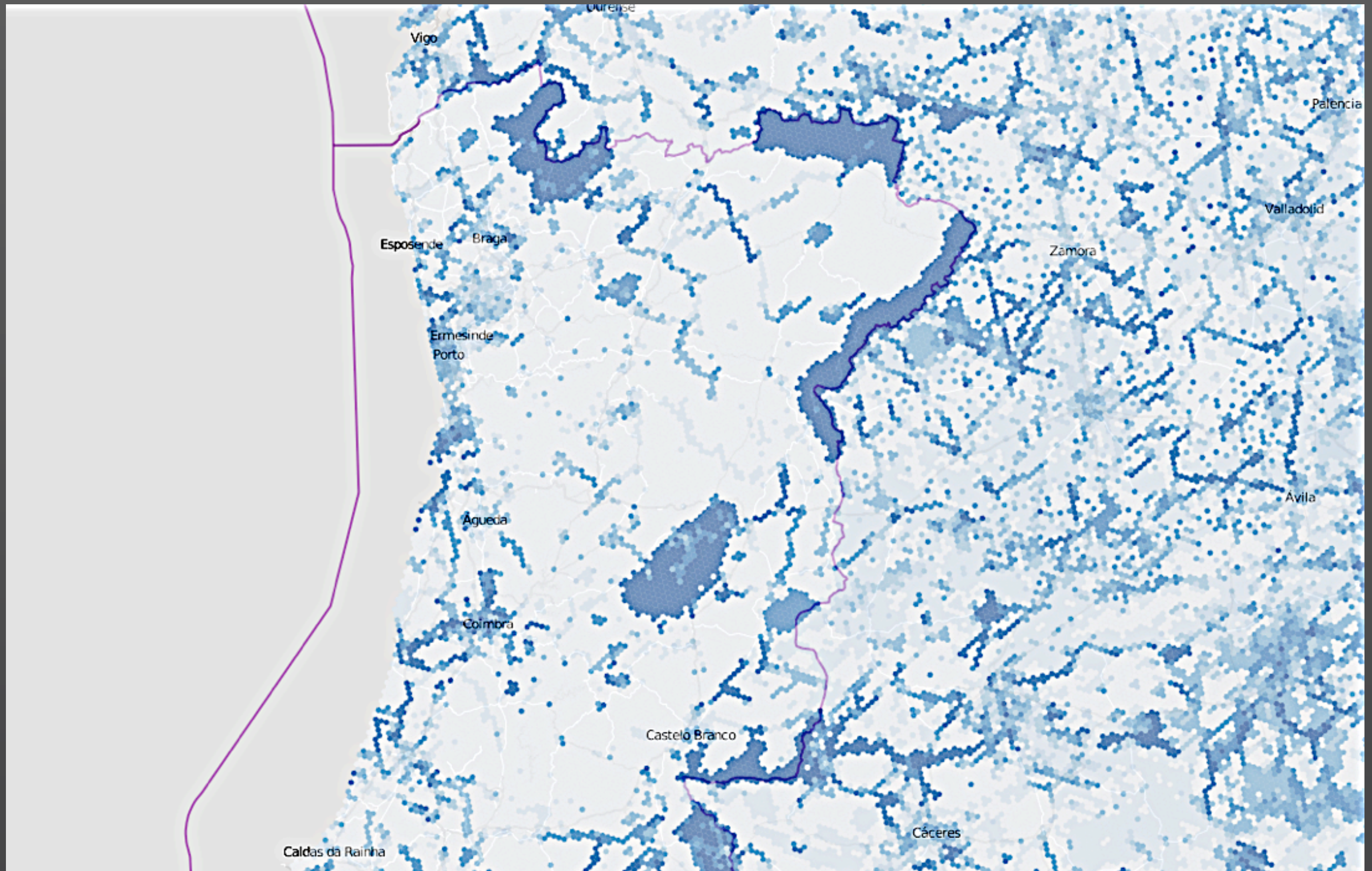
Poland | Total number of features



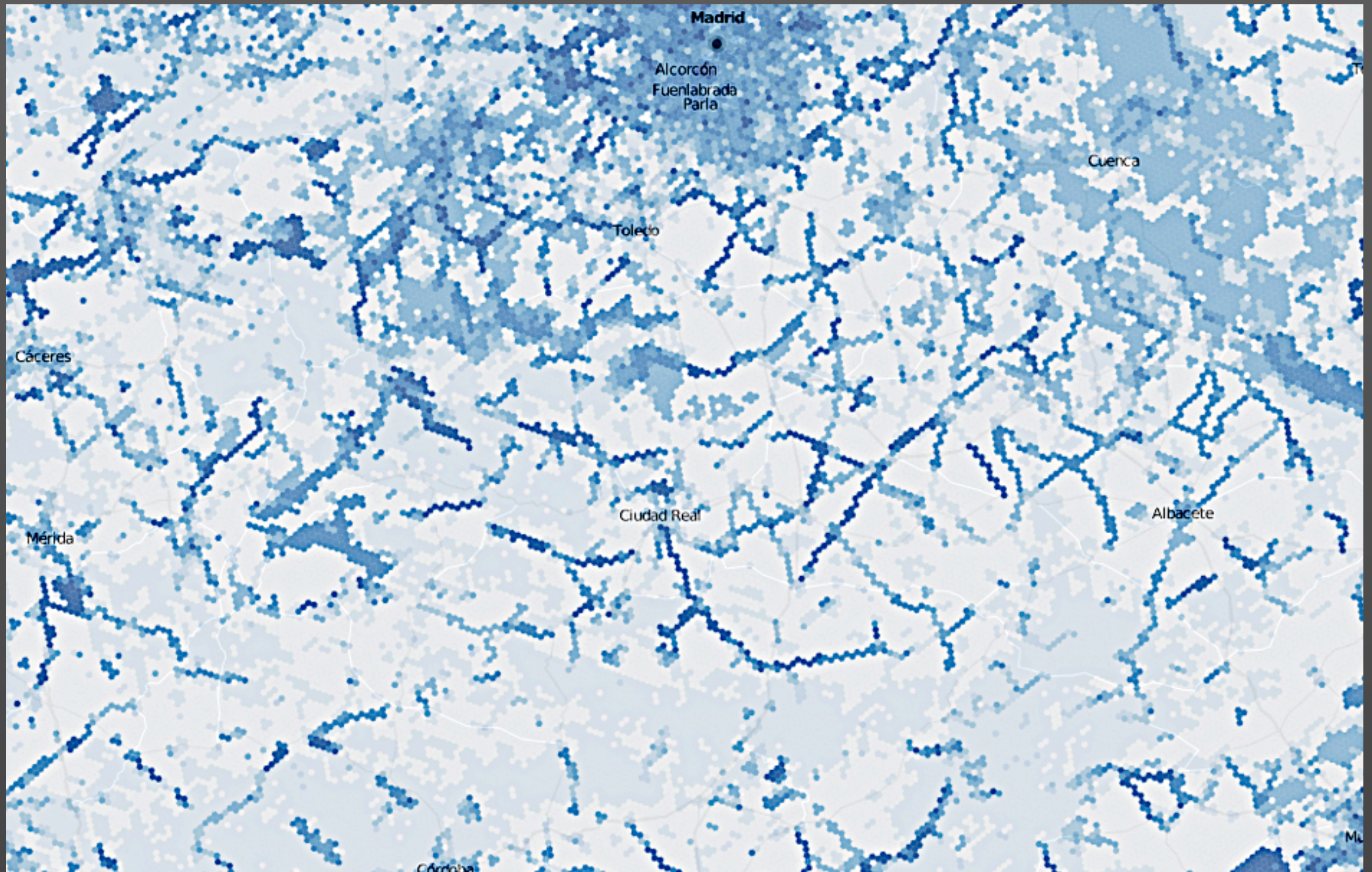
Poland | Total number of features



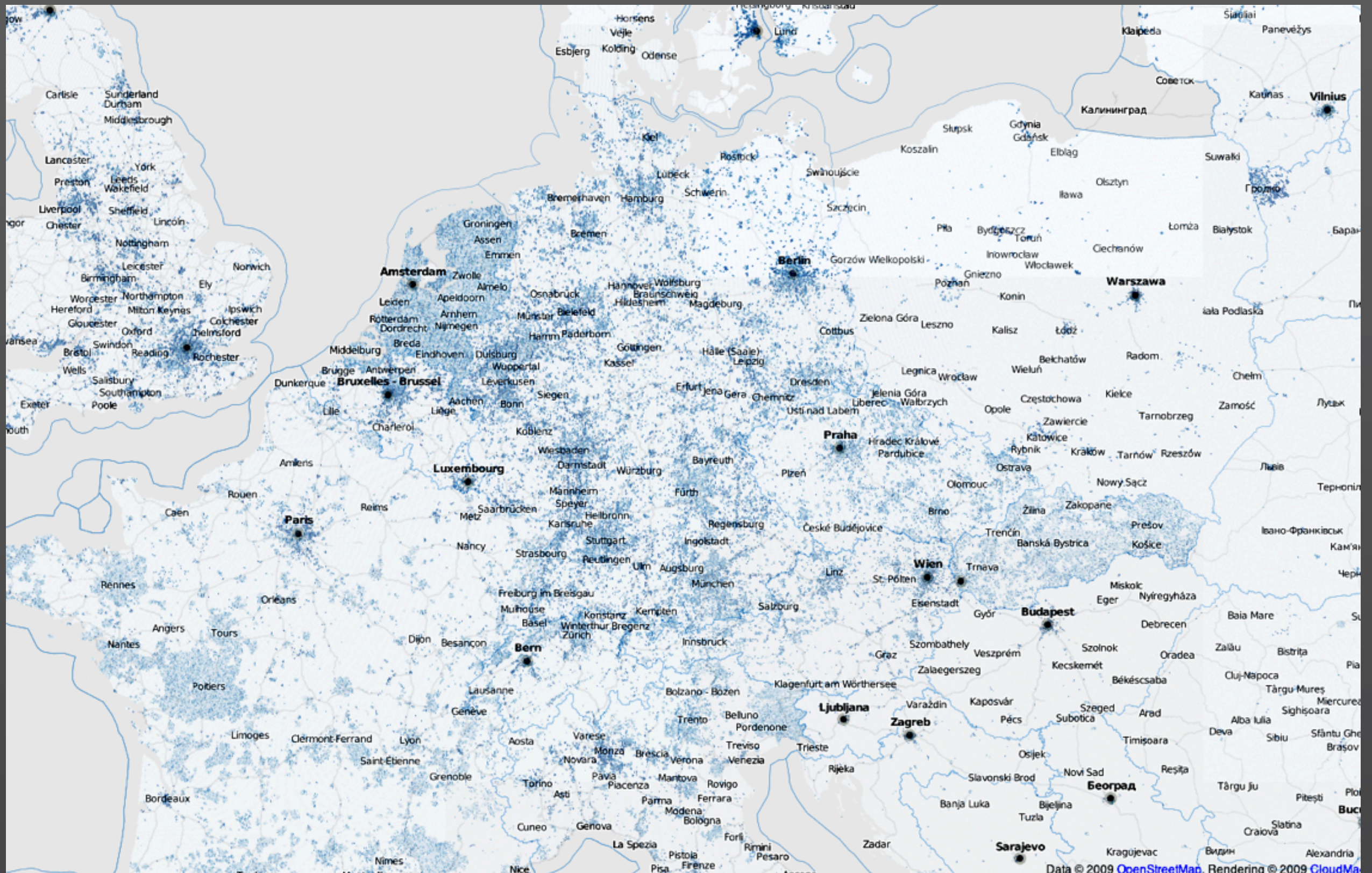
Portugal | Average version number



Spain | Average version number



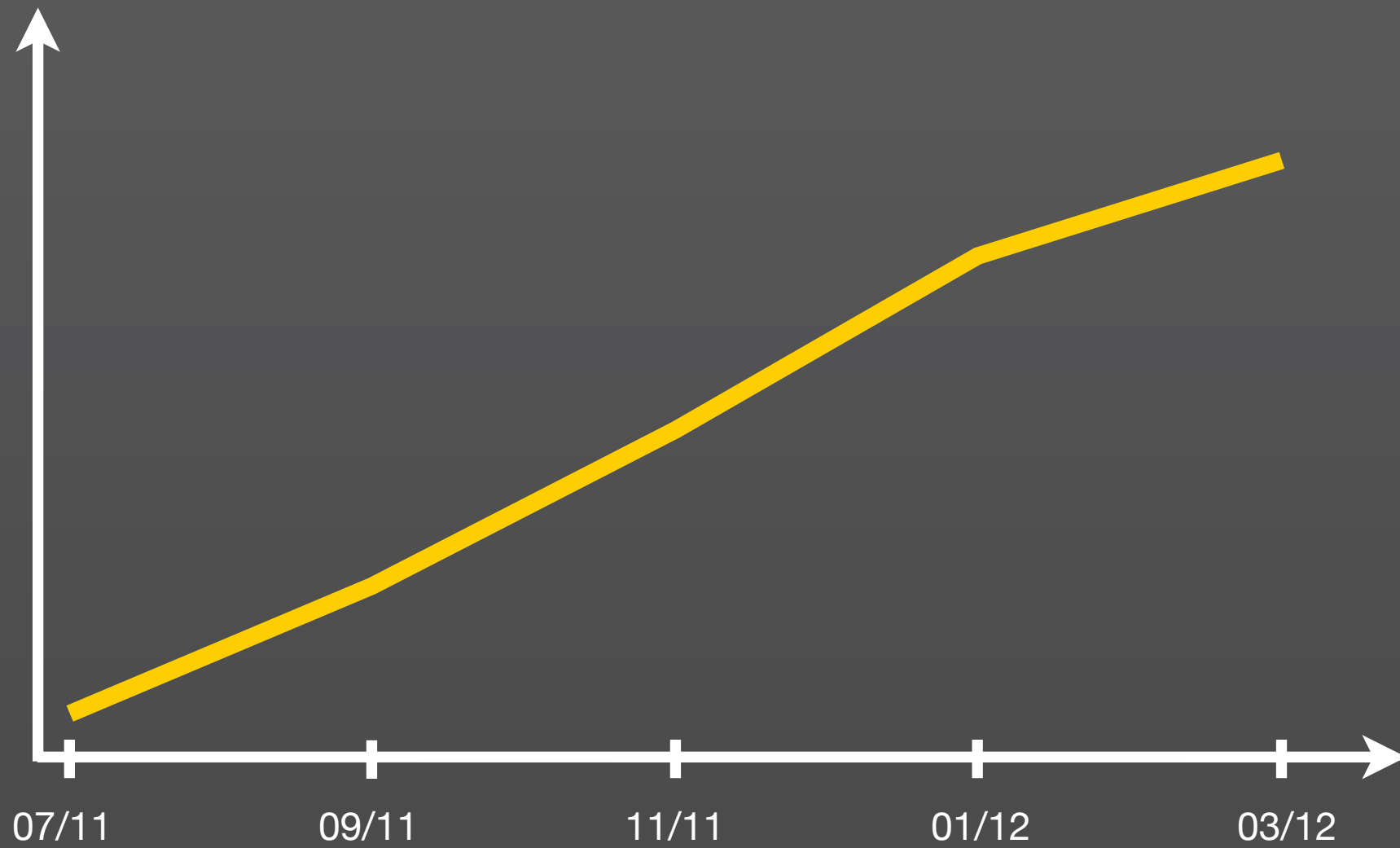
Area covered by buildings



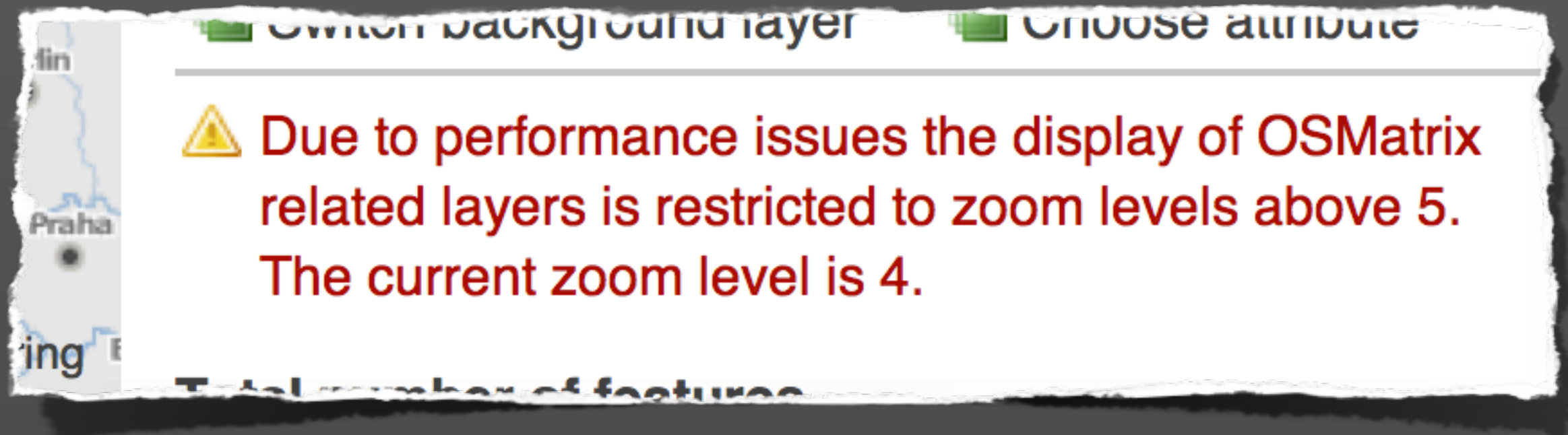
[illegible]

What's next?

Temporal information



Improve performance



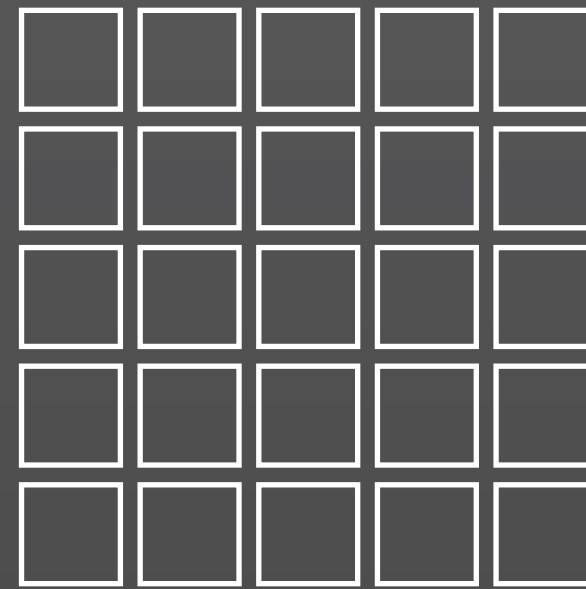
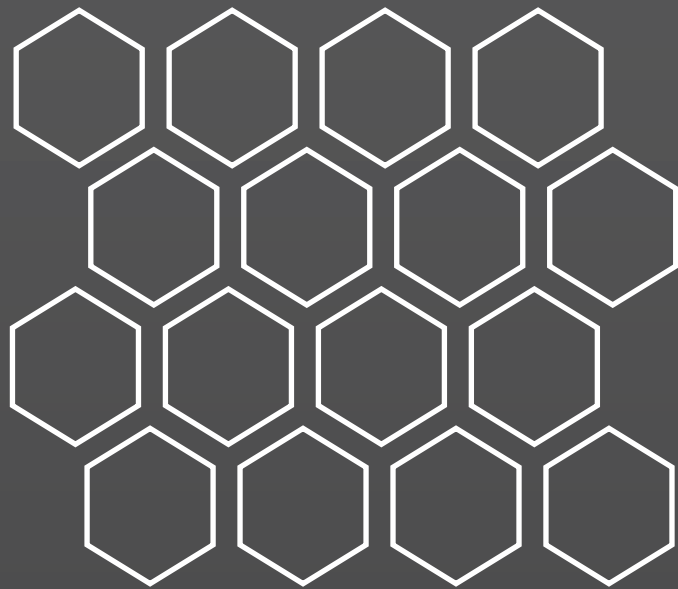
The screenshot shows a map application interface. On the left, a map of the Czech Republic is visible with labels for 'lin', 'Praha', and 'ing'. The main area is a white panel with a header bar containing two buttons: 'Switch background layer' and 'Choose attribute'. Below the header, a yellow warning triangle icon is followed by the text: 'Due to performance issues the display of OSMatrix related layers is restricted to zoom levels above 5. The current zoom level is 4.' At the bottom of the panel, the text 'Total number of features' is partially visible.

Switch background layer Choose attribute

⚠ Due to performance issues the display of OSMatrix related layers is restricted to zoom levels above 5. The current zoom level is 4.

Total number of features

Influence of cell size and shape



Thank you.
Questions?

<http://osmatrix.uni-hd.de>

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