

Understanding who OpenStreetMap users are.















# Improved design starts with listening to the user.

This study was conducted by a research group from the Department of Design at the University of Brasília (UnB) with the goal of better understanding who the OpenStreetMap users are and what their perspectives are.

Knowing and understanding users is essential for developing a service that better aligns with their needs and strengthens the community. We believe that user-centered design can address the current challenges of OSM, fostering a new generation of collaborative mapping that welcomes and engages all types of users.







Who are the users of OpenStreetMap?





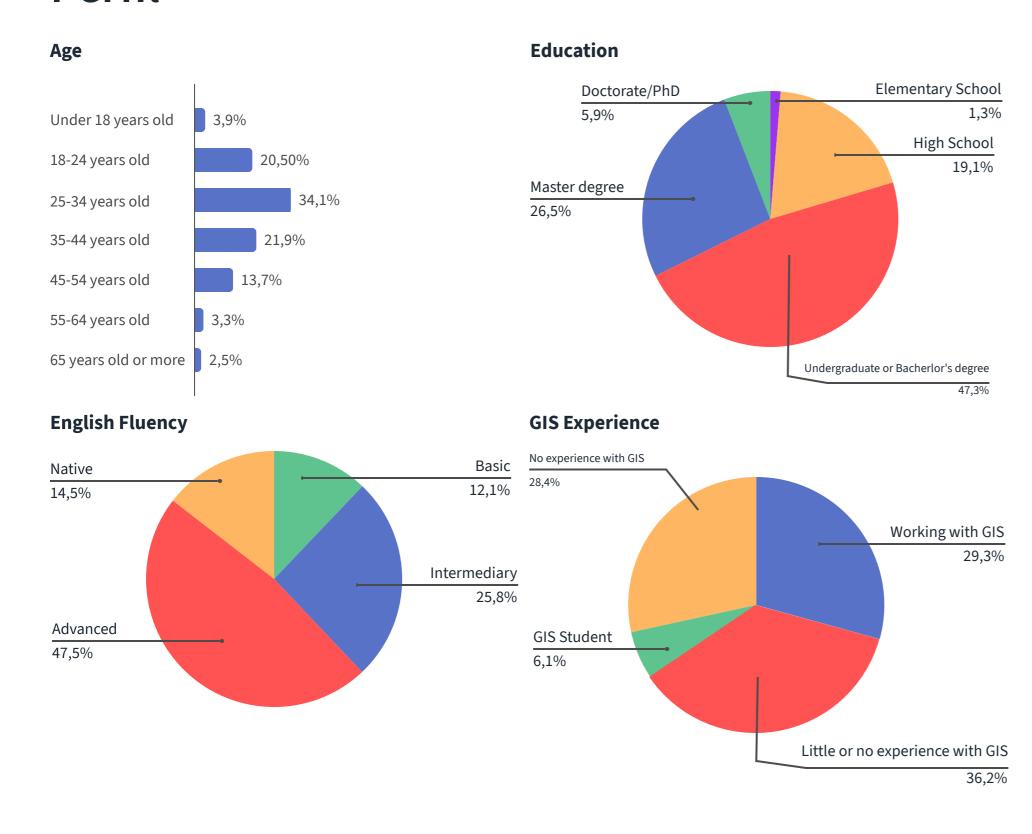








## Perfil



# Who are the users of OpenStreetMap?

It is noted that most OpenStreetMap users are between 18 and 44 years old, with the largest group concentrated in the 25 to 34 age range. A large portion of these users have a high level of education; nearly half have completed at least an undergraduate degree, and many hold a master's degree. Regarding English fluency, with the exception of native speakers, a significant number of users demonstrate some proficiency in the language. As for Geographic Information System (GIS) experience, only one-third of users have experience and work in this field. From this data, it can be deduced that users tend to be people with greater financial stability who have had the opportunity to dedicate a significant part of their lives to education.

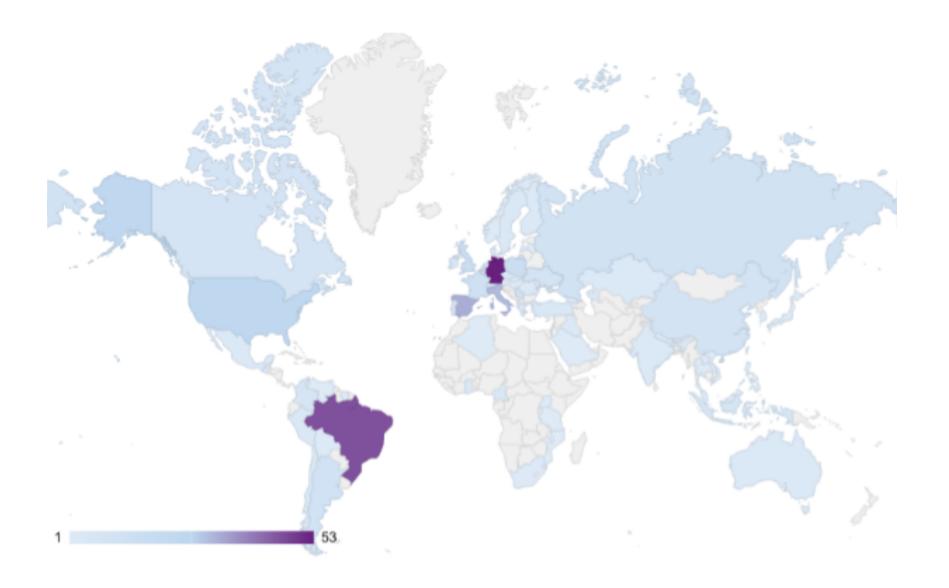


## Countries

Germany 53 Brazil 46 Spain 33 Italy 31 United States 25 Belgium 20 Poland 16 UK 16 Erance 14	Country	Freq.
Spain 33 Italy 31 United States 25 Belgium 20 Poland 16 UK 16	Germany	53
Italy 31 United States 25 Belgium 20 Poland 16 UK 16	Brazil	46
United States 25 Belgium 20 Poland 16 UK 16	Spain	33
Belgium 20 Poland 16 UK 16	Italy	31
Poland 16 UK 16	United States	25
UK 16	Belgium	20
	Poland	16
France 1/	UK	16
Traile 14	France	14
Argentina 12	Argentina	12
Russia 11	Russia	11
Serbia 11	Serbia	11
China 10	China	10
Ukraine 10	Ukraine	10
Canada 9	Canada	9
Indonesia 8	Indonesia	8
Colombia 7	Colombia	7
Portugal 7	Portugal	7
Austria 5	Austria	5
Cameroon 5	Cameroon	5
Isarael 5	Isarael	5
Ireland 5	Ireland	5
Netherlands 5	Netherlands	5

Country	Freq.
Taiwan	5
Chile	4
Czech Republic	4
Ghana	4
Greece	4
Peru	4
Sweden	4
Turkey	4
Australia	3
Finland	3
Guatemala	3
India	3
Iraq	3
Kazakhstan	3
Mexico	3
Romania	3
Switzerland	3
Bolivia	2
Georgia	2
Malaysia	2
Nepal	2
Norway	2
Slovakia	2

Country	Freq.
South Africa	2
Thailand	2
Albania	1
Algeria	1
Andorra	1
Denmark	1
Hungary	1
Japan	1
South Korea	1
Kosovo	1
Laos	1
Latvia	1
Luxembourg	1
Moldova	1
Mozambique	1
Philippines	1
Saudi Arabia	1
Singapore	1
Suriname	1
Tanzania	1
Uganda	1
Venezuela	1
Vietnam	1









How do OSM users interact with and view the platform?





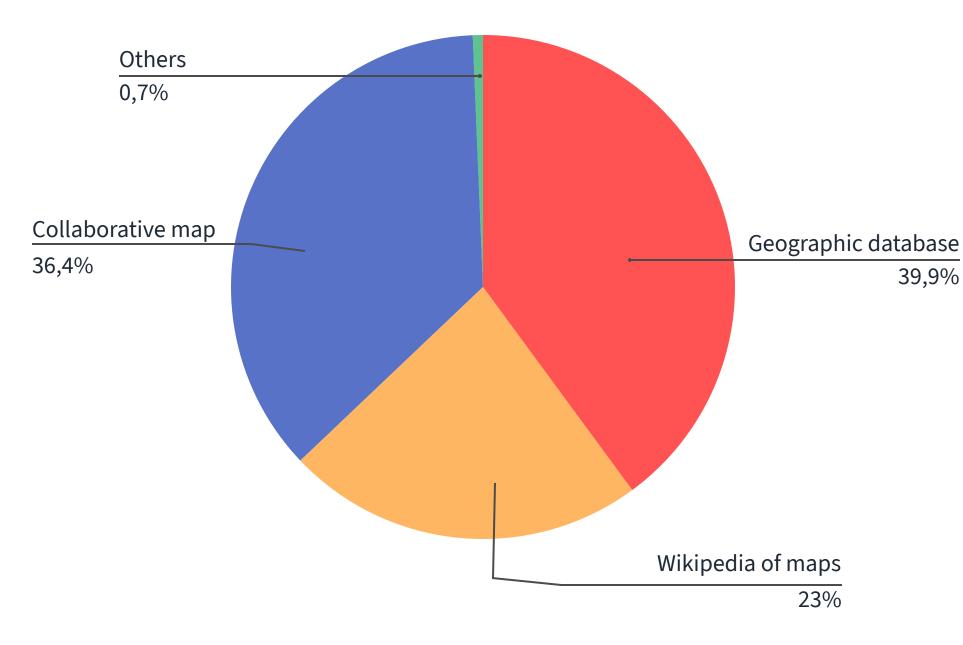








## **OSM** definitions



# Which of these definitions do you think best describes OSM?

It can be inferred that users who define OpenStreetMap as a "geographic database" use the site as research material, given that its data is open and free. These are more technical users, so this definition is not the most welcoming for general users.

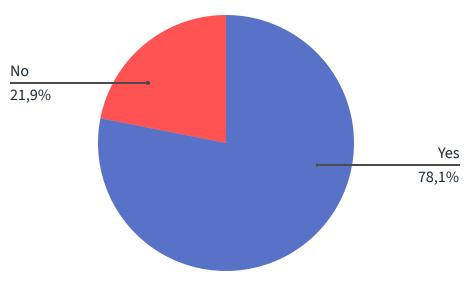
On the other hand, the definition "collaborative map" is more intuitive and better represents the community spirit of OSM users. This definition is therefore more inclusive and "user-friendly," and it expresses the essence of the project.

As for the definition "Wikipedia of maps," it can be deduced that older users tend to describe it this way, as Wikipedia was at its peak in the 2000s. However, today, Wikipedia is not as widely used, and this term is falling out of use.

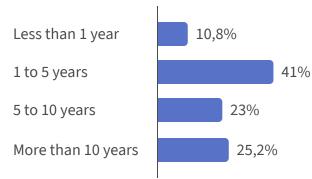


## **Mappers**

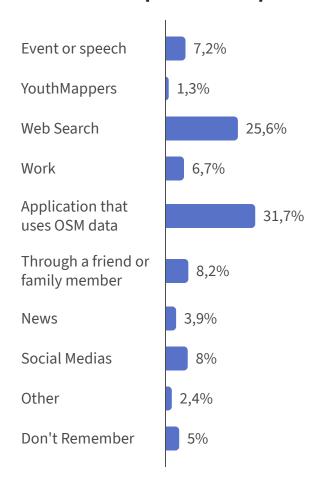
### **Active Mappers**



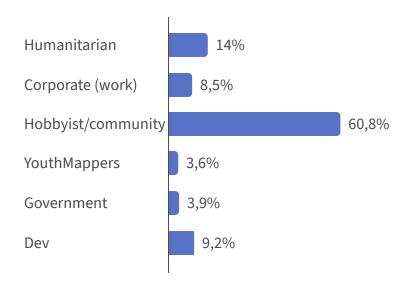
#### **Years on OSM**



#### **Learn about OpenStreetMap:**



### Main involvement with OpenStreetMap



# Who is mapping?

Regarding this data, it is noted that most OSM users are currently active. It can be inferred that, in recent years, the increase in users discovering OSM through applications is largely due to apps that use OSM as a database, such as the game Pokémon GO.

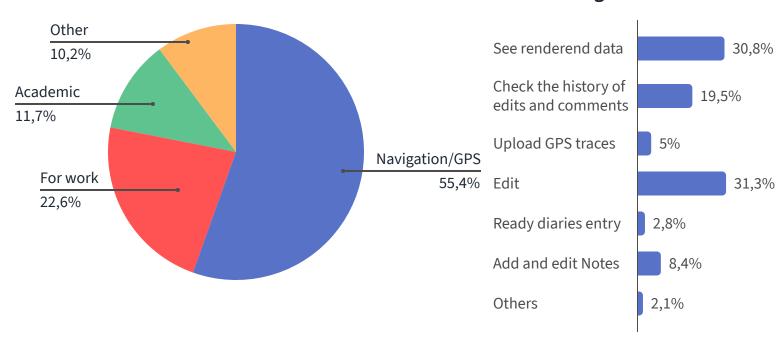
As for the type of involvement users have with OSM, most engage with it in a hobbyist manner, highlighting the altruistic and community-oriented profile of the users.

It is also evident that the marketing and promotion of the site are lacking, as very few users became aware of it through these channels. There is a need to improve communication efforts.



## Use OSM for...

#### Use OSM data for...



Use OSM.org...

#### Frequency



## Use OSM for...

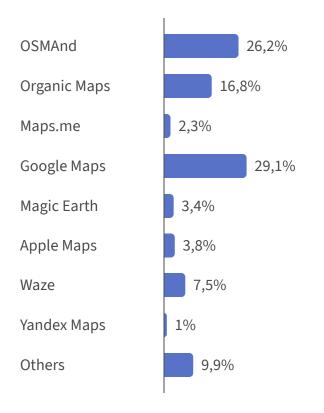
It is noted that more than half of users use OSM for GPS and navigation. Over one-fifth of these users use the site for work, which may be related to those working in GIS, as the percentages are quite similar.

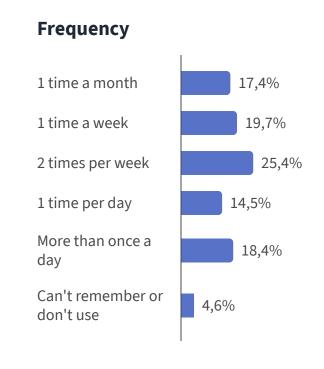
The most used feature by users is editing, highlighting the community-driven nature of the users. Additionally, the second most used feature is map rendering.

It can also be observed that a large portion of active users visit the site at least once a day.



## **GPS APPS**





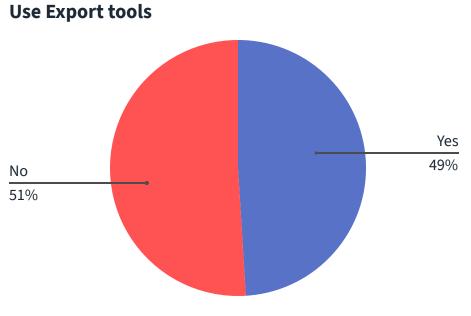
# What do mappers use to navigate?

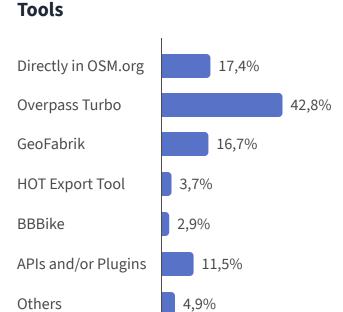
These data indicate that Google Maps is the preferred application among users, followed by the OSM app. It can be assumed that the preference for Google Maps is largely due to its user-friendly layout and the credibility built over years of reliable data.

OSM is at a disadvantage in this regard, as the site lacks sufficient address information and detailed data about many locations.

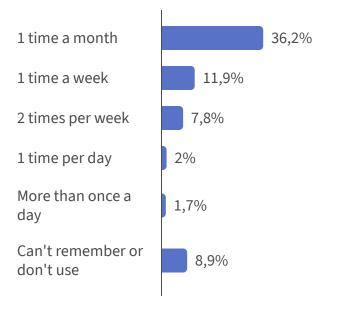


## **Export Tools**

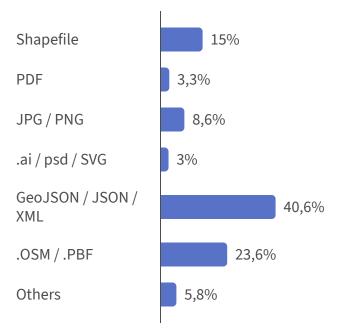




### Frequency



#### **Formats**



# Export the data

It is noted that although half of the respondents claim to use the export tool, the frequency of use is low, and the main formats are GeoJSON, .OSM, and .PBF. It can also be seen that Overpass Turbo is the most widely used tool, significantly ahead of the second most popular option, which is direct export from the OSM site.

The direct export function on the site can be considered a secondary feature for platform use, and it could be improved by incorporating Overpass-like functions, such as queries to filter and export data in additional formats like GeoJSON, Shapefile, and SVG.





**SPECIFIC** 

What can we improve?







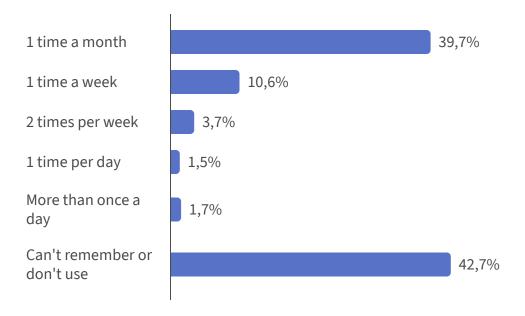




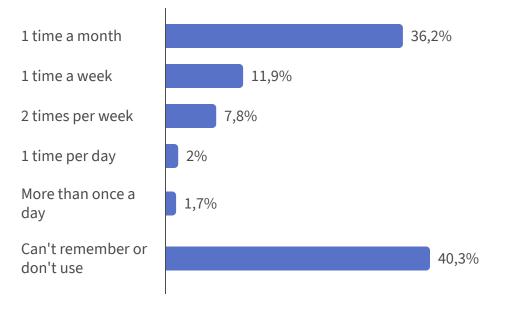


## **Notes**

#### Write a note



### Close a note or use to maping



# Leaving a note

The Notes tool is rarely used. Most users either can't remember the last time they used it or use it very infrequently, such as once a month. Notes are essential for feedback from external users, but the format does not clearly indicate what information should be provided. This can also affect mappers who encounter notes with incomplete information.



## Rating





- 2. Carto

  ★ ★ ★ ☆ ☆ ₃,8
- Settings

  ★ ★ ★ ☆ ☆ 3,8
- 4. Profile
   ★ ★ ★ ☆ ☆ 3,8
- 5. Notes

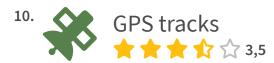
  ★ ★ ★ ☆ ☆ 3,7
- 6. History and changset 

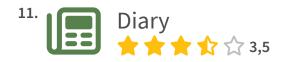
  ↑ ↑ ↑ ↑ ↑ 3,6
- 7. About tab

  ★★★☆☆ 3,6















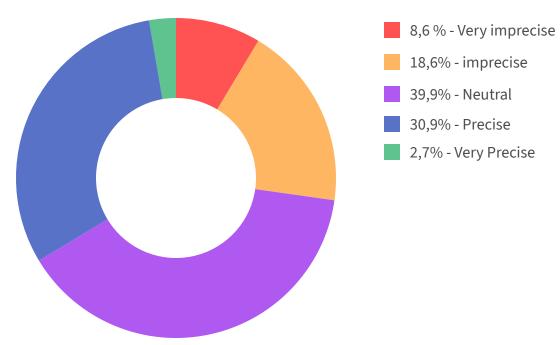
# Rating the functions of OSM

The overall rating for the tools averages 3.5, indicating that users consider the performance to be adequate but not excellent. Some tools are difficult to locate, and their functionality is not easily understood. Based on user feedback, it is possible to identify which priorities should be addressed for improvement.

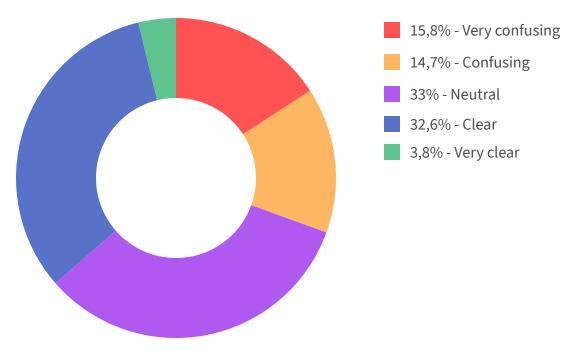


## Search

#### **Search results (Nominatim):**



#### **Viewing the search results:**



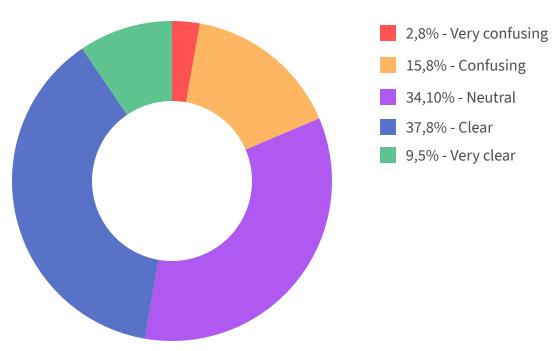
# Searching is complicated

The search feature is one of the most essential tools for map use, yet results indicate a certain level of dissatisfaction. About 8.6% of users find the results very inaccurate, 18.6% rate them as inaccurate, and 39.1% are neutral. Regarding the presentation of search results, a large portion of users find it very confusing (15.8%) or confusing (14.7%). It was also one of the most frequently mentioned tools in comments and received the lowest rating, with an average of 3.2.

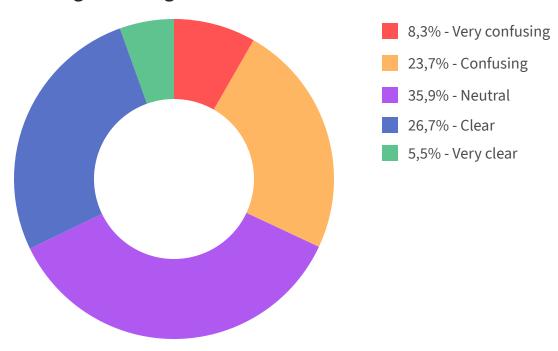


## Historic

#### Historic



## Viewing the changset:



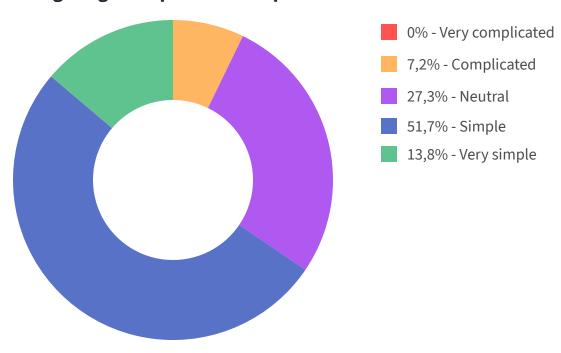
## Historic too...

As in the case of the survey, a part of users showed that they have difficulty seeing the data, about 2.8% and 15.8% said they find the history very confusing and confusing respectively. Regarding the changeset view about 32% of users consider it between confusing and very confusing.

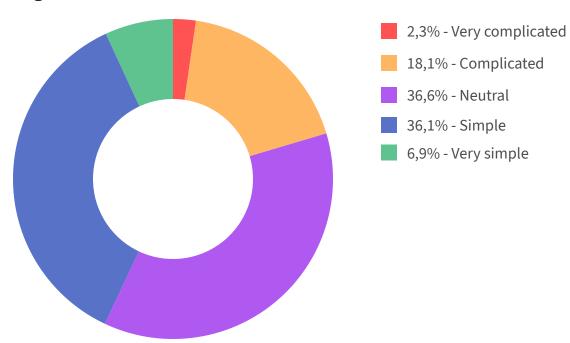


## OpenStreetMap

#### **Navigating the OpenStreetMap website:**



#### Tags:



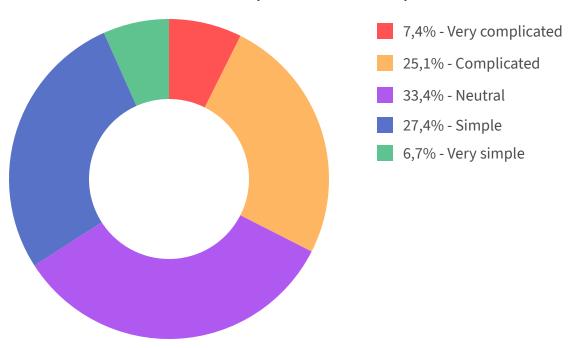
# What can we improve?

Here are some collected insights from the platform. Most users find the site navigation very simple, which can be interpreted both as ease of use and as a lack of features, leading to an overly simplified experience. Regarding tags, 20% of users report difficulties, possibly due to the tags being in English or the challenge of remembering all requirements, resulting in a lack of consistency in tagging.

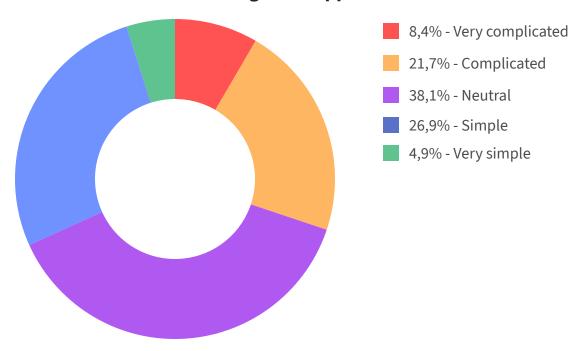


## OpenStreetMap

#### **Get information about POIs (Point of Interest):**



#### **Communication and finding the mappers on the website:**



## What can we improve?

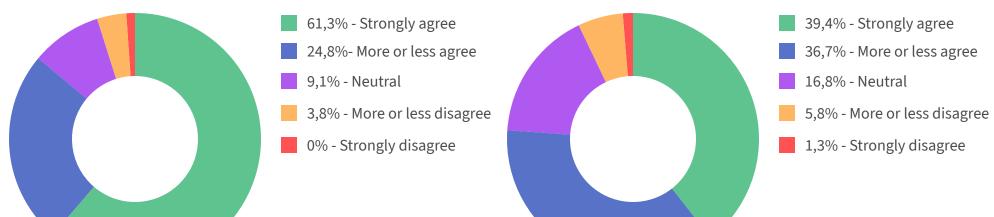
Approximately 32.5% of users find it difficult to locate information about a POI (Point of Interest) on OSM.org. This may point to challenges in how the information is presented as well as an opportunity to enhance the experience by leveraging \*vector tiles\*.

Additionally, 30.1% of users report difficulties in communicating and connecting with other mappers. Since OpenStreetMap is a social platform built by communities, facilitating user communication is crucial to engaging new participants, creating welcoming spaces where they can ask questions and feel part of the project.



## OpenStreetMap

#### Corporate and bot profiles should be easy to recognize: Statistics on profile



# What can we improve?

Some questions were asked with suggestions for improving the site to assess mapper acceptance. A high level of acceptance was observed from the audience. The integration of open address data could significantly improve the search tools.

### Other open address data sources integration on nominatim

